

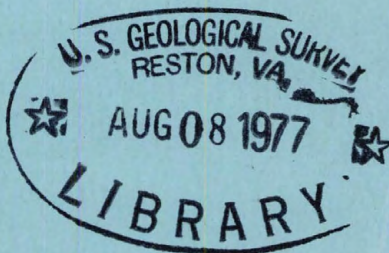
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Massachusetts & Rhode Island

1976

Water Resources Data for Massachusetts and Rhode Island Water Year 1976



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MA-RI-76-1

Prepared in cooperation with the States of Massachusetts
and Rhode Island and with other agencies

CALENDAR FOR WATER YEAR 1976

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Water Resources Data for Massachusetts and Rhode Island Water Year 1976



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MA-RI-76-1

**Prepared in cooperation with the States of Massachusetts
and Rhode Island and with other agencies**

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

V. E. McKelvey, Director

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District Chief, Water Resources Division
U.S. Geological Survey
150 Causeway Street
Boston, MA 02114

1977

PREFACE

This report was prepared by personnel of the New England District of the Water Resources Division of the U. S. Geological Survey under the supervision of J. A. Baker, District Chief, and J. T. Callahan, Regional Hydrologist, Northeast Region. It was done in cooperation with the States of Massachusetts and Rhode Island, and with other agencies.

This report is one of a series issued by State. The general direction for the series is by J. S. Cragwall, Jr., Chief Hydrologist, and by G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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16. Abstracts Water-resources data for the 1976 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 109 gaging stations, monthend contents for 15 lakes and reservoirs, water quality for 23 gaging stations, and water levels for 44 observation wells. Also included are data for 22 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. 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.			
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FOR WHICH RECORDS ARE PUBLISHED

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

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INTRODUCTION

Water-resources data for the 1976 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 109 gaging stations, monthend contents for 15 lakes and reservoirs, water quality for 23 gaging stations, and water levels for 44 observation wells. Also included are data for 22 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. Locations of gaging stations, partial-record stations, and observation wells are shown in figures 1, 2, and 3, respectively. 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.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface water supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of surface waters of the United States." Records of ground-water levels were published from 1939 to 1974 in a series of water-supply papers entitled, "Ground-water levels in the United States." Water-supply papers may be consulted in libraries of the principal cities of the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey water-data report MA-RI-76-1." Water-data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

COOPERATION

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

Massachusetts: State Water Resources Commission, Bette Woody and David B. Standley, co-chairmen, C. F. Kennedy, director and chief engineer of Division of Water Resources, and T. C. McMahon, director of Division of Water Pollution Control; State Department of Public Works, John J. Carroll, commissioner, F. W. Holden, research and materials engineer, and Robert T. Tierney, chief engineer of Division of Highways; Metropolitan District Commission, John F. Snedeker, commissioner, James J. Matera, director of Water Division and chief water-supply engineer, and F. T. Bergin, chief engineer of Construction Division.

Rhode Island: State Department of Natural Resources, Dennis J. Murphy, director, C. B. Dunwoody, chief of Division of Planning and Development; State Water Resources Board, A. A. DiMartino, chairman, city of Providence, Department of Public Works, L. P. McGarry, director.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 18 gaging stations published in this report.

Organizations supplying data are acknowledged in the station descriptions.

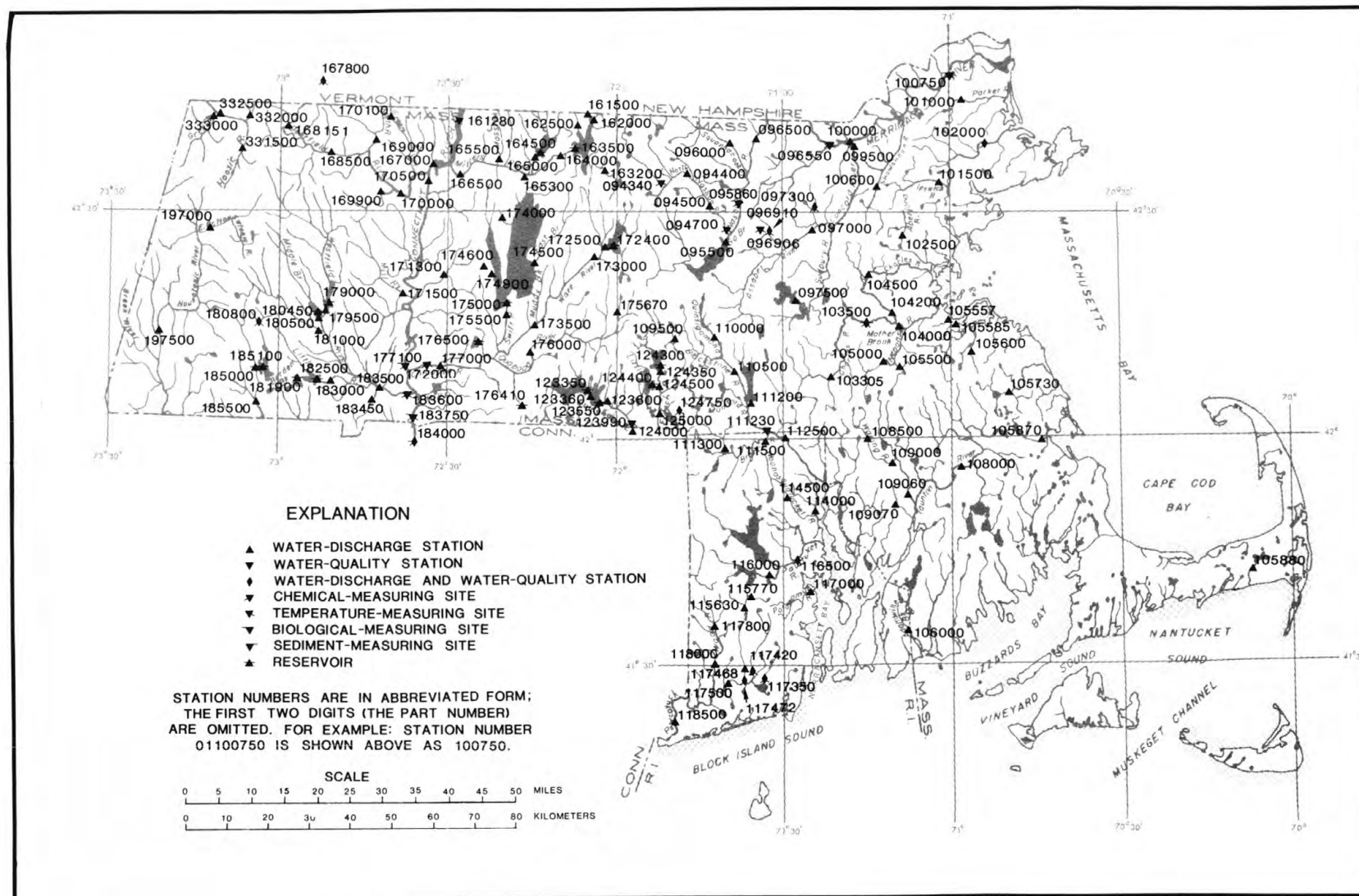


FIGURE 1. LOCATION OF GAGING STATIONS

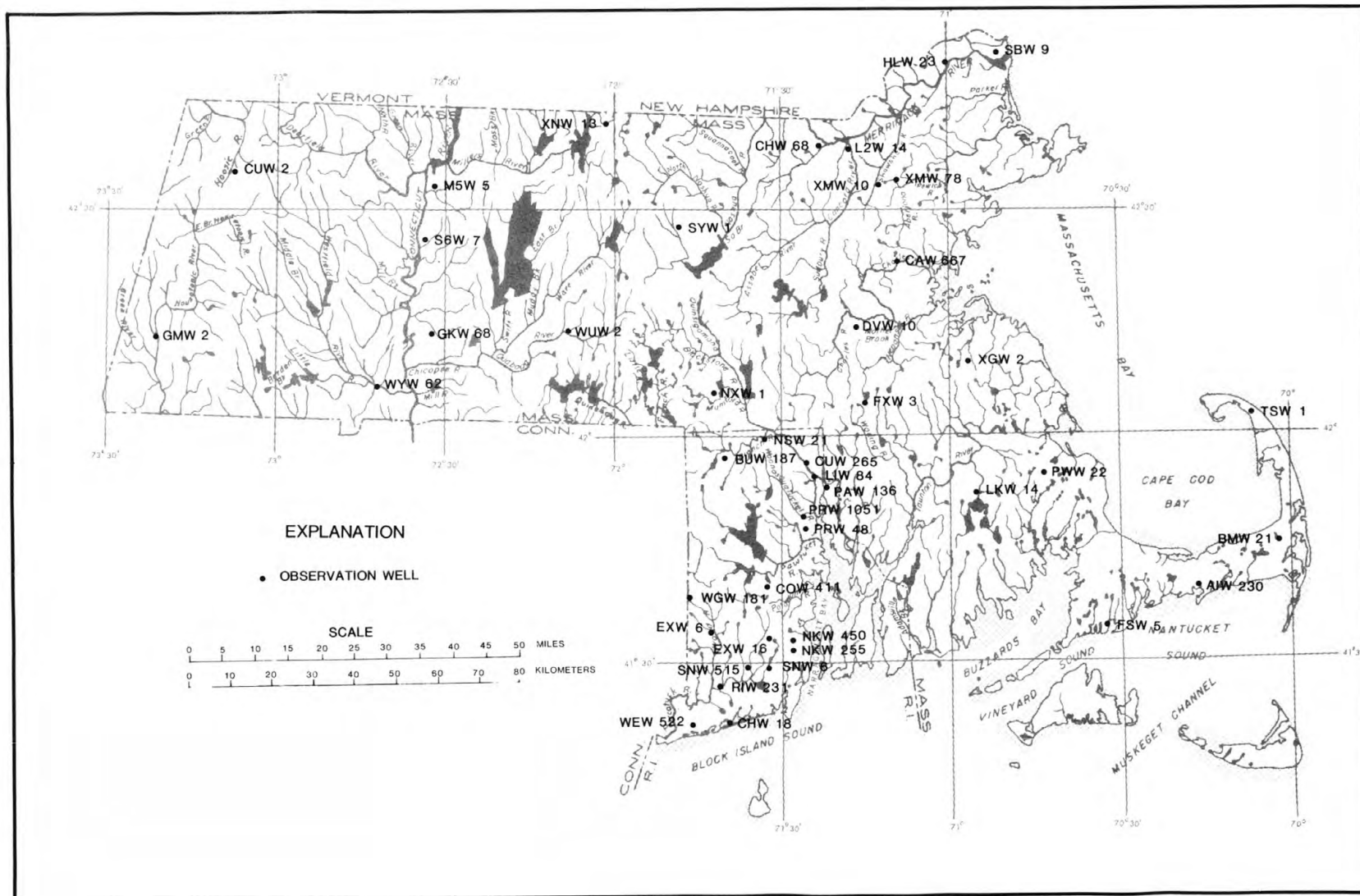


FIGURE 3. LOCATION OF OBSERVATION WELLS

HYDROLOGIC CONDITIONS

At the beginning of the water year, streamflow was excessive (in the upper quartile of record) throughout Massachusetts and Rhode Island.

Cumulative runoff for October to March was excessive throughout Massachusetts and Rhode Island. The highest January runoff for period of record occurred at the index gaging station, Branch River at Forestdale, RI (January 1940-), and a new maximum daily discharge for January occurred Jan. 28 at this station and, also, at West Branch Westfield River at Huntington, MA (September 1935-). The highest February runoff for period of record occurred at West Branch Westfield River at Huntington, MA, and Ware River at Coldbrook, MA (January 1928-). Spring peak discharges were generally moderate and only the usual lowland flooding occurred.

Cumulative runoff for April to September was in the normal range except in north-central and northeastern Massachusetts, where it was deficient.

On June 30, the second highest instantaneous discharge for period of record (exceeded only by the peak of Dec. 21, 1973) occurred at Green River at Williamstown, MA (September 1949-). Heavy rains associated with Hurricane Belle falling on ground already soaked by previous generally heavy rains produced flooding in parts of northwestern Massachusetts on Aug. 10, 11. The maximum instantaneous discharge for period of record occurred Aug. 10 at Walker Brook at Becket Center, MA (November 1962-), surpassing the previous maximum which occurred Dec. 21, 1973. The second highest instantaneous discharge for period of record and the highest since Dec. 31, 1948 occurred Aug. 10 at Hoosic River near Williamstown, MA (July 1940-). Also on Aug. 10, the second highest instantaneous discharge for period of record and the highest since Sept. 21, 1938 occurred at North Branch Hoosic River at North Adams, MA (June 1931-).

Cumulative runoff for the water year was excessive throughout Massachusetts and Rhode Island.

At the end of the water year, streamflow was in the normal range throughout Massachusetts and Rhode Island.

Figure 4 on page 6, for which records of three long-term index gaging stations were used, shows a comparison of the monthly and yearly mean discharge for the 1976 water year with the median discharge for the period 1941-70.

At the beginning of the water year, ground-water levels in most observations wells in Massachusetts and Rhode Island were above average.

The water table began to rise at the end of October and continued to the end of February. New highs for the end of February occurred in 45 percent of the wells in Massachusetts and in 25 percent of the wells in Rhode Island. These high water levels were attributed to above-freezing temperatures and early snowmelt.

Seasonal decline of ground-water levels began at the end of February and continued through the growing season. In August, precipitation from Hurricane Belle caused above-normal ground-water recharge, which, in turn, resulted in above-normal water levels at the end of the water year.

DEFINITION OF TERMS

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

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

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

Bacteria are microscopic unicellular organisms, spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies.

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

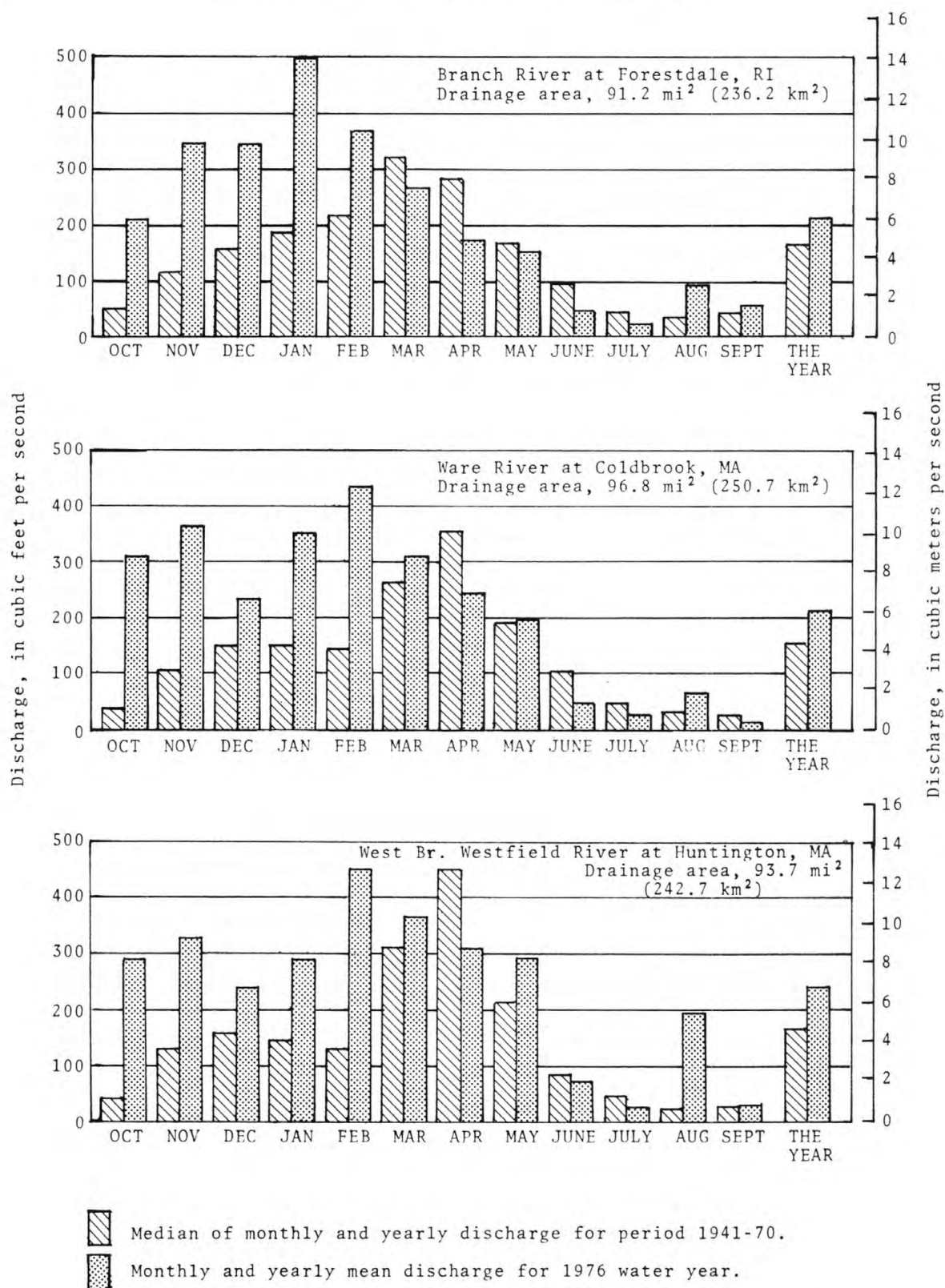


Figure 4.--Comparison of discharge at three long-term index gaging stations during 1976 water year with median discharge for period 1941-70.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warmblooded animals. They are often used as indicators of the sanitary quality of water. These bacteria are defined as all organisms which produce blue colonies within 24 hours when incubated at $44.5^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$ on M-FC medium (nutrient medium for bacterial growth). Concentrations are expressed as number of colonies per 100 mL of sample.

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

Bed material is the unconsolidated material of which a stream, 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, used for the decomposition of organic matter by microorganisms, such as bacteria.

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

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

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

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

Bottom material: See Bed material.

Cfs/day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, about 646,000 gallons, or 2,447 cubic meters.

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

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

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

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

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

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

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

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

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

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

Dissolved refers to the amount of substance present in true chemical solution. In practice, however, the term includes all forms of substance that will pass through a 0.45-micrometer membrane filter, and, thus, may include some very small (colloidal) suspended particles. Analyses reported as dissolved (with the exception of gases) are performed on filtered samples.

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

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

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

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO_3).

Hydrologic unit is a geographic area representing part of all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

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

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

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical constituent as the weight (micrograms) of the constituent per unit weight (gram) of sediment.

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

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

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

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

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

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

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation.
Silt.....	.004 - .062	Sedimentation.
Sand.....	.062 - 2	Sedimentation or sieve.
Gravel.....	2.0 - 64.0	Sieve.

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

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

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

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

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

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

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

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

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

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or by volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

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

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

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

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

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

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

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emerged or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

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

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

Total (as used in tables of chemical analysis) refers to the amount of a substance that is present both in solution and in suspension.

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

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

DOWNSTREAM ORDER AND STATION NUMBER

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

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

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 5 below.

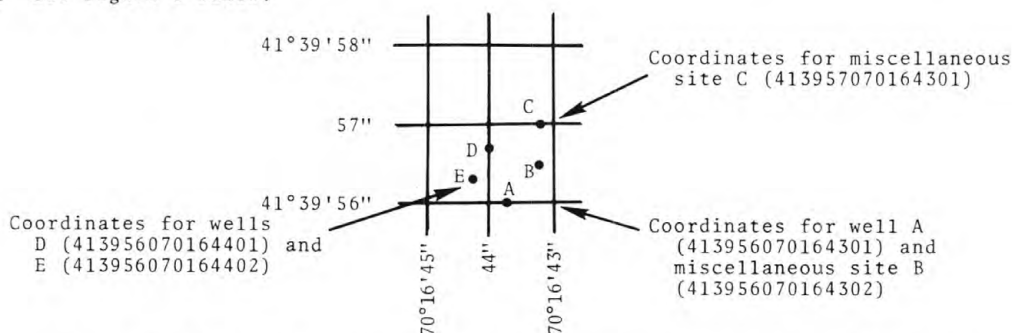


Figure 5.--System for numbering wells and miscellaneous sites (latitude and longitude)

A local well-numbering system is also used in this report. The local well number consists of a 2-letter code for the town in which the well is located followed by a "W" signifying that it is a well, and a sequential number. The local number is used to identify the location of observation wells on figure 3.

SPECIAL NETWORKS AND PROGRAMS

National stream-quality accounting network (NASQAN) is a collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network

design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and Computation of Data

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

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables; then the monthly and yearly mean discharges are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors, based on individual discharge measurements and notes by hydrologists and observers, are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by ice during the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by hydrologists and observers, and comparable records of discharge for other stations in the same or nearby basins.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of contents is given. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge and stage. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information obtained later. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are effected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified.

Information pertaining to the accuracy of the discharge records and to conditions that affect the natural flow at the gaging station is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance.

Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder, a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge, it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations, peak discharges are listed with "EXTREMES FOR THE CURRENT YEAR;" if they are, all independent peaks, including the maximum for the year above the selected base with the time of occurrence and corresponding gage height are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

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

Footnotes to the table of daily discharges are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

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

Accuracy of Field Data and Computed Results

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

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent of true value; "good," within 10 percent; and "fair," within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft³/s; to tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures above 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

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

Other Data Available

Information of a more detailed nature than that published for most gaging stations, such as observations of water temperatures, discharge measurements, gage-height records, and rating tables, is on file in the district office. Also, most gaging-station records are available in computer-usable form, and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

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

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

Water Analysis

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

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

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

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

Water Temperature

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

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

Sediment

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

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the Data

Only ground-water-level data from a basic network of 44 observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

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

Measurements are made in many types of wells, under varying conditions of access, and at different temperatures; hence, neither the method of measurement nor the equipment are standardized. At each observation well, however, the equipment and techniques used are those that will insure that measurements at each well are of consistent accuracy and reliability.

Water-level measurements are reported to the nearest hundredth of a foot with reference to land-surface datum (lsd), which is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below the land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom); and water levels in wells not equipped with recording gages are reported for the end of each month.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U. S. Geological Survey have been published to date in the series on techniques describing the procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U. S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please refer to "U. S. Geological Survey Techniques of Water-Resources Investigations" and give the title, book number, and chapter number.

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. \$1.60.

Guidelines for collection and field analysis of ground-water samples for selected unstable constituents, by W.S. Wood: Book 1, Chap. D2. 1976. 24 p. \$0.85.

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. \$1.90.

Application of borehole geophysics to water-resources investigations, by W. S. Keys and L.M. MacCary: Book 2, Chap. E1. 1971. 126 p. \$1.75.

General field and office procedures for indirect discharge measurements, by M. A. Benson and Tate Dalrymple: Book 3, Chap. A1. 1967. 30 p. \$1.00.

Measurement of peak discharge by the slope-area method, by Tate Dalrymple and M.A. Benson: Book 3, Chap. A2. 1967. 12 p., \$0.20.

Measurement of peak discharge at culverts by indirect methods, by G. L. Bodhaine: Book 3, Chap. A3. 1968. 60 p. \$0.40.

- Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: Book 3, Chap. A4. 1967. 44 p. \$1.00.
- Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: Book 3, Chap. A5. 1967. 29 p. \$0.30.
- General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: Book 3, Chap. A6, 1968. 13 p. \$0.20.
- Stage measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: Book 3, Chap. A7. 1968. 28 p. \$0.45.
- Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: Book 3, Chap. A8. 1969. 65 p. \$1.25.
- Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: Book 3, Chap. A11. 1969. 22 p. \$0.40.
- Fluorometric procedures for dye tracing*, by J. F. Wilson, Jr.: Book 3, Chap. A12. 1968. 31 p. \$0.35. Not currently available.
- Aquifer-test design, observation, and data analysis*, by R. W. Stallman: Book 3, Chap. B1. 1971. 26 p. \$0.70.
- Introduction to ground-water hydraulics -- a programed text for self-instruction*, by D.S. Bennett: Book 3, Chap. B2. 1976. 172 p. \$2.50.
- Fluvial sediment concepts*, by H. P. Guy: Book 3, Chap. C1. 1970. 55 p. \$0.65.
- Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: Book 3, Chap. C2. 1970. 59 p. \$2.50.
- Computation of fluvial-sediment discharge*, by George Porterfield: Book 3, Chap. C3. 1972. 66 p. \$1.15.
- Some statistical tools in hydrology*, by H. C. Riggs: Book 4, Chap. A1. 1968. 39 p. \$0.30.
- Frequency curves*, by H. C. Riggs: Book 4, Chap. A2. 1968. 15 p. \$0.20.
- Low-flow investigations*, by H. C. Riggs: Book 4, Chap. B1. 1972, 18 p. \$0.65.
- Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: Book 4, Chap. B2. 1973. 20 p. \$0.75.
- Regional analyses of streamflow characteristics*, by H. C. Riggs: Book 4, Chap. B3. 1973. 15 p. \$0.65.
- Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: Book 4, Chap. D1. 1970. 17 p. \$0.65.
- Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: Book 5, Chap. A1. 1970. 160 p. \$2.40.
- 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. \$0.80.
- Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: Book 5, Chap. A3. 1972. 40 p. \$0.90.
- Methods for collection and analysis of aquatic biological and microbiological samples*, by K.V. Slack, R.C. Averett, P.E. Greeson, and R.G. Lipscomb: Book 5, Chap. A4. 1973. 165 p. \$2.85.
- 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. \$16.00. (Looseleaf format. Available only by subscription. Additional supplements will be issued to subscribers at no extra cost.)
- Laboratory theory and methods for sediment analysis*, by H.P. Guy: Book 5, Chap. C1. 1969. 58 p. \$0.65.
- 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. \$2.30.
- Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: Book 8, Chap. A1. 1968. 23 p. \$0.70.
- Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: Book 8, Chap. B2. 1968. 15 p. \$0.40.

GAGING STATION RECORDS

17

NORTH ATLANTIC SLOPE BASINS

MERRIMACK RIVER BASIN

01094340 WHITMAN RIVER NEAR WESTMINSTER, MA

LOCATION.--Lat 42°33'35", long 71°52'02", Worcester County, Hydrologic Unit 01070004, on upstream side of bridge on State Highway 2A, 1.3 mi (2.1 km) downstream from Crocker Pond, and 2.5 mi (4.0 km) northeast of Westminster, MA.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	COD IN BOTTOM MATERIAL (MG/KG)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREP-TOCOCCLUS (COLONIES PER 100 ML)
OCT 07...	1115	80	6.7	14.0	12.5	2	9.6	26	--	300	80	84
NOV 04...	1300	71	7.4	18.0	10.0	2	11.1	16	--	210	56	816
DEC 08...	1400	77	7.8	4.0	1.5	1	12.1	16	150000	819	80	80
APR 07...	1300	82	7.5	12.0	7.5	1	7.5	12	12000	330	840	84
MAY 13...	1300	76	7.1	15.5	14.0	1	12.4	10	--	130	84	80
JUN 03...	1300	104	6.8	18.0	17.0	1	10.3	11	--	140	87	85
JUL 07...	1230	87	6.7	30.0	20.0	2	8.0	12	--	140	89	180
AUG 10...	1300	85	6.8	17.0	19.0	6	8.3	12	--	90	70	62
SEP 02...	1400	87	7.0	18.0	18.0	2	6.6	<10	--	3800	81400	830

DATE	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	TOTAL RESIDUE (MG/L)	LOSS ON IGNITION IN BOTTOM MATERIAL (MG/KG)	TOTAL NITRATE (N) (MG/L)
OCT 07...	--	--	--	--	--	--	--	--	1	66	--	.04
NOV 04...	--	--	--	--	--	--	--	--	4	53	--	.05
DEC 08...	8.7	.8	14	0	11	.3	11	11	7	54	9700	.13
APR 07...	--	--	4	0	3	.2	7.8	10	1	71	8900	.09
MAY 13...	--	--	--	--	--	--	--	--	1	48	--	.20
JUN 03...	--	--	--	--	--	--	--	--	7	54	--	.04
JUL 07...	--	--	--	--	--	--	--	--	3	57	--	.09
AUG 10...	--	--	--	--	--	--	--	--	9	52	--	.05
SEP 02...	--	--	--	--	--	--	--	--	3	27	--	.04

B NON-IDEAL COLONY COUNT.

MERRIMACK RIVER BASIN

01094340 WHITMAN RIVER NEAR WESTMINSTER, MA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	PHENOLS (UG/L)	OIL AND GREASE (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)
OCT 07...	.01	.05	.01	.33	.34	.39	.03	--	1	.000	.000
NOV 04...	.01	.06	.01	.30	.31	.37	.03	--	0	.000	.000
DEC 08...	.01	.14	.01	.20	.21	.35	.03	--	--	.000	.000
APR 07...	.01	.10	.04	.29	.33	.43	.03	1	1	.000	.000
MAY 13...	.01	.21	.15	.60	.75	.96	.12	--	--	.000	.000
JUN 03...	.01	.05	.00	.40	.40	.45	.02	--	0	1.65	.000
JUL 07...	.01	.10	.01	.32	.33	.43	.03	--	1	.000	.000
AUG 10...	.01	.06	.04	.26	.30	.36	.05	--	--	4.53	.000
SEP 02...	.01	.05	.01	.29	.30	.35	.04	--	0	.000	.000

DATE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL ALUMI- NUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL BARIUM (BA) (UG/L)	TOTAL BARIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL BERYL- LIUM (BE) (UG/L)	TOTAL BERYL- LIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL BISMUTH (BI) (UG/L)	TOTAL BORON (B) (UG/L)	TOTAL BORON IN BOTTOM MA- TERIAL (UG/G)	TOTAL CADMIUM IN BOTTOM MA- TERIAL (UG/G)
DEC 08...	--	1300	--	19	--	<2	--	--	3	--
APR 07...	100	1200	10	12	<0	0	<1	10	1	0

DATE	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL CHRO- MIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL COBALT (CO) (UG/L)	TOTAL COBALT IN BOTTOM MA- TERIAL (UG/G)	TOTAL COPPER (CU) (UG/L)	TOTAL COPPER IN BOTTOM MA- TERIAL (UG/G)	TOTAL GALLIUM (GA) (UG/L)	TOTAL GER- MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL IRON IN BOTTOM MA- TERIAL (UG/G)	TOTAL LEAD (PB) (UG/L)
DEC 08...	--	2	--	2	--	6	--	--	--	3700	--
APR 07...	<1	2	<1	2	4	4	<0	<1	230	1700	<1

DATE	TOTAL LEAD IN BOTTOM MA- TERIAL (UG/G)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MANGA- NESE IN BOTTOM MA- TERIAL (UG/G)	TOTAL MOLYB- DENUM (MO) (UG/L)	TOTAL MOLYB- DENUM IN BOT- TOM MA- TERIAL (UG/G)	TOTAL NICKEL (NI) (UG/L)	TOTAL NICKEL IN BOTTOM MA- TERIAL (UG/G)	TOTAL SILVER (AG) (UG/L)	TOTAL SILVER IN BOTTOM MA- TERIAL (UG/G)
DEC 08...	17	--	--	210	--	1	--	3	--	<0
APR 07...	10	0	50	140	<0	<0	2	2	<0	<0

MERRIMACK RIVER BASIN

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01094340 WHITMAN RIVER NEAR WESTMINSTER, MA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL STRON- TIUM (SR) (UG/L)	TOTAL STRON- TIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL TIN (SN) (UG/L)	TOTAL TI- TANIUM (TI) (UG/L)	TOTAL TITA- NIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL VANA- DIUM (V) (UG/L)	TOTAL VANA- DIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL ZINC (ZN) (UG/L)	TOTAL ZINC IN BOTTOM MA- TERIAL (UG/G)	TOTAL ZIR- CONIUM (ZR) (UG/L)
DEC 08...	--	2	--	--	100	--	3.0	--	16	--
APR 07...	40	2	<1	2	66	<.7	3.0	0	--	<2

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL PCB (UG/L)	POLY- CHLO- RINATED NAPH- THA- LENES (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)
DEC 08...	.0	--	.00	.0	.00	.00	.00
APR 07...	.0	.00	.00	.0	.00	.00	.00
MAY 13...	.0	.00	.00	.0	.00	.00	.00

DATE	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL TOX- APHENE (UG/L)
DEC 08...	.00	.00	.00	.00	.00	0
APR 07...	.00	.00	.00	.00	.00	0
MAY 13...	.00	.00	.00	.00	.00	0

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDED GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS- PENDED GROSS BETA AS SR90 /Y90 (PC/L)
NOV 04...	<1.0	<.4	3.7	.6	2.9	.6
DEC 08...	<.5	<.4	3.3	.9	2.7	.8
APR 07...	3.5	<.4	2.8	<.4	2.3	<.4

MERRIMACK RIVER BASIN

01094400 NORTH NASHUA RIVER AT FITCHBURG, MA

LOCATION.--Lat 42°34'34", long 71°47'19", Worcester County, Hydrologic Unit 01070004, on right bank 400 ft (100 m) upstream from Fifth Street Bridge at Fitchburg and 1.8 mi (2.9 km) upstream from Baker Brook.

DRAINAGE AREA.--63.6 mi² (164.7 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 400 ft (122 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow regulated by mills and reservoirs upstream. Flow affected by diversions for municipal use. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,080 ft³/s (58.9 m³/s) Dec. 21, 1973, gage height, 6.22 ft (1.896 m); minimum, 16 ft³/s (0.45 m³/s) Sept. 2, 1974; minimum daily, 18 ft³/s (0.51 m³/s) July 11, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 18	1745	828 23.4	4.40 1.341	Jan. 28	0815	*1,450 41.1	*5.37 1.637
Nov. 14	0345	721 20.4	4.22 1.286	Feb. 22	1845	901 25.5	4.52 1.378

Minimum discharge, 17 ft³/s (0.48 m³/s) July 11, 12; minimum daily, 18 ft³/s (0.51 m³/s) July 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	99	203	149	248	273	388	117	53	50	39	33
2	99	93	185	120	490	250	505	324	70	38	35	40
3	83	89	161	118	360	226	330	249	65	30	32	34
4	76	90	139	125	282	216	254	208	55	22	29	35
5	70	86	124	103	219	293	217	161	52	23	29	35
6	65	81	123	91	192	356	181	139	49	26	30	33
7	60	78	119	99	160	272	161	125	49	55	103	33
8	56	139	104	154	156	223	140	140	49	27	82	33
9	55	145	119	128	146	185	136	129	46	23	118	33
10	55	137	382	107	134	177	128	114	43	21	262	35
11	109	163	276	91	142	172	127	102	42	18	123	43
12	346	162	201	105	140	159	118	118	37	45	89	36
13	268	652	163	96	139	251	108	112	36	39	64	32
14	199	643	153	264	150	267	106	96	34	38	63	32
15	148	386	151	216	138	218	105	98	35	37	73	31
16	119	270	139	165	199	191	103	84	38	35	128	30
17	99	214	123	146	278	185	99	89	36	30	70	37
18	494	183	119	117	274	167	94	96	33	22	53	39
19	517	161	96	107	376	164	91	144	33	21	45	38
20	563	148	82	105	341	241	85	157	33	23	43	33
21	412	249	96	102	258	353	76	139	33	25	40	35
22	286	447	110	103	631	320	77	122	33	26	36	33
23	218	273	111	82	594	245	95	99	33	26	33	34
24	177	214	94	87	360	213	83	83	32	45	31	33
25	163	192	93	89	303	196	118	75	32	26	31	29
26	169	171	141	89	311	183	277	72	31	23	29	36
27	143	283	248	415	337	172	207	69	28	23	34	44
28	127	304	194	1240	336	216	162	64	29	24	47	44
29	118	226	153	729	290	192	132	58	29	32	58	39
30	121	190	130	447	---	166	113	54	30	40	47	35
31	108	---	166	301	---	154	---	53	---	33	36	---
TOTAL	5643	6568	4698	6290	7984	6896	4816	3690	1198	946	1932	1057
MEAN	182	219	152	203	275	222	161	119	39.9	30.5	62.3	35.2
MAX	563	652	382	1240	631	356	505	324	70	55	262	44
MIN	55	78	82	82	134	154	76	53	28	18	29	29

CAL YR 1975 TOTAL 49374 MEAN 135 MAX 920 MIN 30
WTR YR 1976 TOTAL 51718 MEAN 141 MAX 1240 MIN 18

NOTE.--No gage-height record June 27 to July 27.

MERRIMACK RIVER BASIN

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01094500 NORTH NASHUA RIVER NEAR LEOMINSTER, MA

LOCATION.--Lat 42°30'06", long 71°43'23", Worcester County, Hydrologic Unit 01070004, on right bank 1.3 mi (2.1 km) upstream from Wekepeke Brook, 2.5 mi (4.0 km) southeast of Leominster, and 6.1 mi (9.8 km) upstream from confluence with South Branch Nashua River.

DRAINAGE AREA.--110 mi² (285 km²), includes 2.1 mi² (5.4 km²) above outlet of Ashby (Fitchburg) Reservoir.

PERIOD OF RECORD.--September 1935 to current year.

Chemical analyses: Water years 1955, 1958 (partial-record station).

Water temperatures: Water year 1958 (partial-record station).

REVISED RECORDS.--MA, NH, RI, VT, 1973: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 270.04 ft (82.308 m) above mean sea level.

REMARKS.--Records good. 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 the Southeast Well Field since 1958. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 193 ft³/s (5.466 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 ft³/s (462 m³/s) Mar. 18, 1936, gage height, 20.53 ft (6.258 m), from floodmarks, by computation of flow over dam; minimum, 11 ft³/s (0.31 m³/s) Aug. 29, 1948; minimum daily, 22 ft³/s (0.62 m³/s) Sept. 27, 1936, Sept. 2, 1957.
Maximum discharge since at least 1850, that of Mar. 18, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft³/s (31.2 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 13	2200	1,140 32.3	4.52 1.378	Feb. 22	2345	1,320 37.4	4.87 1.484
Jan. 28	-	*1,800 51	-				

Minimum, 34 ft³/s (0.96 m³/s) July 11; minimum daily, 36 ft³/s (1.02 m³/s) July 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	182	338	261	409	402	495	172	89	87	74	60
2	175	170	320	225	731	371	746	468	120	64	60	76
3	150	167	286	212	669	332	481	356	105	54	58	62
4	130	165	250	223	454	317	371	303	95	44	55	61
5	120	154	223	197	365	393	317	244	86	44	53	54
6	110	144	220	175	315	540	275	212	78	53	53	52
7	105	140	215	172	278	412	244	192	84	98	165	52
8	100	212	194	255	258	338	225	228	82	47	156	54
9	96	247	200	228	247	284	215	192	76	44	187	53
10	95	233	651	194	231	272	202	170	71	39	402	55
11	150	289	485	170	258	264	194	158	70	36	199	76
12	560	239	347	172	247	252	187	192	69	81	137	53
13	480	962	286	177	241	371	177	172	60	71	86	51
14	350	994	269	471	261	415	172	149	60	70	122	51
15	250	640	261	383	231	329	167	147	63	67	120	51
16	202	451	241	289	353	295	160	131	61	65	225	51
17	170	362	217	258	495	289	154	147	65	60	128	57
18	700	312	210	215	475	267	142	147	59	42	95	68
19	850	281	177	190	636	261	140	221	55	40	80	56
20	900	258	151	190	615	350	135	244	52	45	75	50
21	640	312	167	170	448	526	124	215	54	48	69	55
22	450	727	194	160	793	478	128	187	59	48	63	53
23	250	464	192	150	999	365	151	158	56	47	60	51
24	306	362	170	150	577	312	131	137	57	75	61	50
25	286	329	158	150	464	286	184	126	56	47	60	48
26	300	300	233	167	461	269	415	120	54	42	58	47
27	261	428	428	540	481	252	300	115	55	46	66	68
28	231	557	338	1600	498	300	233	105	53	47	84	68
29	212	393	269	1040	435	278	200	93	54	51	125	60
30	223	338	231	658	---	247	177	87	58	80	89	56
31	197	---	286	492	---	231	---	87	---	58	66	---
TOTAL	9269	10812	8207	9934	12925	10298	7242	5675	2056	1740	3331	1699
MEAN	299	360	265	320	446	332	241	183	68.5	56.1	107	56.6
MAX	900	994	651	1600	999	540	746	468	120	98	402	76
MIN	95	140	151	150	231	231	124	87	52	36	53	47

CAL YR 1975 TOTAL 81089 MEAN 222 MAX 1520 MIN 49
WTR YR 1976 TOTAL 83188 MEAN 227 MAX 1600 MIN 36

NOTE.--No gage-height record Jan. 28.

01094700 NORTH NASHUA RIVER AT LANCASTER, MA

LOCATION.--Lat 42°28'47", long 71°41'04", Worcester County, Hydrologic Unit 01070004, on right bank 600 ft (200 m) downstream from bridge at Ponakin Mill, 0.6 mi (1.0 km) upstream from Ponakin Brook, 1.7 mi (2.7 km) north of Lancaster, and 5 mi (8 km) downstream from gaging station near Leominster.

DRAINAGE AREA.--128 mi² (332 km²), includes 2.1 mi² (5.4 km²) above outlet of Ashby (Fitchburg) Reservoir.

PERIOD OF RECORD.--Water years 1969-74, April to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1968 to September 1974 (no winter records in water years 1973, 1974), June to September 1976.

pH: October 1968 to September 1974 (no winter records in water years 1973, 1974).

DISSOLVED OXYGEN: October 1968 to September 1974 (no winter records in water years 1973, 1974).

WATER TEMPERATURES: October 1968 to September 1974 (no winter records in water years 1973, 1974), June to September 1976.

INSTRUMENTATION.--Water-quality monitor since October 1968.

REMARKS.--Records are considered to be only fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 857 micromhos Jan. 29, 1970; minimum, 70 micromhos Apr. 23, 1969.

pH: Maximum, 8.4 units May 4, 1974; minimum, 4.8 units Aug. 28, 1972.

DISSOLVED OXYGEN: Maximum, 14.8 mg/L Mar. 6, 1971; minimum, 0.0 mg/L July 26, 30, 1970, June 22, 1971.

WATER TEMPERATURES: Maximum, 32.5°C Aug. 13, 1976; minimum, 0.0°C on several days during winter period.

EXTREMES FOR CURRENT YEAR.--Maximums and minimums during period June to September.

SPECIFIC CONDUCTANCE: Maximum, 683 micromhos Sept. 6; minimum, 200 micromhos July 12.

WATER TEMPERATURES: Maximum, 32.5°C Aug. 13; minimum recorded, 11°C Sept. 28, but may have been less during period of no record.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG)
APR 07...	275	7.5	12.0	7.5	15	6.8	13	230	870	7.5	1.1

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL RESIDUE (MG/L)	CHLORO-PHYLL A (UG/L)	CHLORO-PHYLL B (UG/L)	TOTAL PCB (UG/L)	POLY-CHLORINATED NAPHTHALENES (UG/L)
APR 07...	14	0	11	.6	14	22	103	.000	.000	.0	.00

DATE	TOTAL ALDRIN (UG/L)	TOTAL CHLORDANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DIELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL HEPTACHLOR (UG/L)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL TOXAPHENE (UG/L)
APR 07...	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00	0

B NON-IDEAL COLONY COUNT.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), JUNE TO SEPTEMBER 1976

[illegible]

TEMPERATURE (DEG C) OF WATER, JUNE TO SEPTEMBER 1976

[illegible]

MERRIMACK RIVER BASIN

01095500 SOUTH BRANCH NASHUA RIVER AT CLINTON, MA

LOCATION.--Lat 42°24'12", long 71°41'19", Worcester County, Hydrologic Unit 01070004, at Wachusett Dam 1 mi (1.6 km) south of Clinton.

DRAINAGE AREA.--107.69 mi² (278.92 km²), since July 1937.

PERIOD OF RECORD.--Discharge: July 1896 to current year.
 Chemical analyses: Water year 1957 (partial-record station).
 Water temperatures: Water year 1957 (partial-record station).

REVISED RECORDS.--WSP 1051: 1928.

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

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

AVERAGE DISCHARGE.--80 years, 188 ft³/s (5.324 m³/s), 23.71 in/yr (602 mm/yr), adjusted to present drainage area.

MONTHLY DISCHARGE IN CUBIC FEET PER SECOND, AND RAINFALL, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	Mean	Per square mile	Runoff in inches	Rainfall in inches
October.....	372	2.90	3.34	5.94
November.....	376	3.49	3.90	5.77
December.....	255	2.37	2.74	5.06
Calendar year 1975.....	220	2.04	27.71	56.72
January.....	370	3.44	3.96	6.22
February.....	489	4.54	4.90	3.14
March.....	336	3.12	3.60	3.30
April.....	214	1.99	2.22	2.73
May.....	114	1.06	1.22	3.04
June.....	46.0	.43	.48	2.21
July.....	11.3	.10	.12	2.67
August.....	41.2	.38	.44	4.97
September.....	-1.48	-.01	-.02	1.90
Water year 1976.....	213	1.98	26.90	46.95

NOTE.--Negative figures indicate that evaporation, seepage, and other water transfer losses exceeded inflow.

MERRIMACK RIVER BASIN

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01095860 NASHUA RIVER AT FORT DEVENS, MA

LOCATION.--Lat 42°33'10", long 71°37'11", Worcester County, Hydrologic Unit 01070004, 500 ft (152 m) downstream from bridge on Ayer Road, 0.6 mi (0.97 km) downstream from Trout Brook, and at Fort Devens, MA.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	COD IN BOTTOM MATERIAL (MG/KG)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)
OCT 07...	0800	144	6.4	12.0	13.5	9	3.8	22	--	2500	1300	660
NOV 04...	0930	151	6.6	17.5	10.5	2	7.5	18	--	6000	410	860
DEC 08...	0900	137	7.4	4.0	2.5	7	9.9	18	120000	1400	810	830
MAY 13...	0900	176	7.0	15.0	16.0	4	7.2	14	--	16000	1900	8140
JUN 03...	0400	185	6.9	15.0	18.0	3	4.7	19	--	2800	940	200
JUL 07...	0930	245	6.6	27.5	24.0	6	4.2	27	--	3800	1300	350
AUG 10...	0900	162	6.9	17.5	18.5	--	4.9	19	--	2500	350	8140
SEP 02...	0930	174	6.9	18.5	18.0	6	2.4	14	--	1500	380	30

DATE	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	TOTAL RESIDUE (MG/L)	LOSS ON IGNITION IN BOTTOM MATERIAL (MG/KG)	TOTAL NITRATE (N) (MG/L)
OCT 07...	--	--	--	--	--	--	--	--	31	100	--	.48
NOV 04...	--	--	--	--	--	--	--	--	5	101	--	.43
DEC 08...	12	1.6	22	0	18	1.2	16	18	10	87	270000	.42
MAY 13...	--	--	--	--	--	--	--	--	4	98	--	.31
JUN 03...	--	--	--	--	--	--	--	--	8	101	--	.34
JUL 07...	--	--	--	--	--	--	--	--	1	151	--	.66
AUG 10...	--	--	--	--	--	--	--	--	14	102	--	--
SEP 02...	--	--	--	--	--	--	--	--	2	117	--	.26

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	PHENOLS (UG/L)	OIL AND GREASE (MG/L)	CHLORO-PHYLL A (UG/L)	CHLORO-PHYLL B (UG/L)
OCT 07...	.04	.52	1.0	.70	1.7	2.2	.73	--	0	.000	.000
NOV 04...	.02	.45	.66	.54	1.2	1.7	.34	--	0	.000	.000
DEC 08...	.01	.43	.61	.37	.98	1.4	.26	2	0	.000	.000
MAY 13...	.04	.35	.85	1.3	2.1	2.5	.57	--	--	.000	.000
JUN 03...	.10	.44	1.1	.90	2.0	2.4	.55	--	0	.000	.000
JUL 07...	.19	.85	1.8	.80	2.6	3.5	.75	--	1	.000	.000
AUG 10...	--	--	--	--	--	--	.54	--	--	.000	.000
SEP 02...	.07	.33	.71	.49	1.2	1.5	.43	--	0	1.20	.302

B NON-IDEAL COLONY COUNT.

MERRIMACK RIVER BASIN

01095860 NASHUA RIVER AT FORT DEVENS, MA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ALUMINUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL BARIUM (BA) (UG/L)	TOTAL BARIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL BERYLLIUM (BE) (UG/L)	TOTAL BERYLLIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL BISMUTH (BI) (UG/L)	TOTAL BORON (B) (UG/L)	TOTAL BORON IN BOTTOM MA-TERIAL (UG/G)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CADMIUM IN BOTTOM MA-TERIAL (UG/G)
DEC 08...	440	18000	30	670	<10	<15	--	30	12	3	730
APR 07...	--	13000	--	400	--	1	--	--	6	--	--
MAY 13...	1200	--	40	--	<0	--	<2	50	--	0	--

DATE	TOTAL CHROMIUM (CR) (UG/L)	TOTAL CHROMIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL COBALT (CO) (UG/L)	TOTAL COBALT IN BOTTOM MA-TERIAL (UG/G)	TOTAL COPPER (CU) (UG/L)	TOTAL COPPER IN BOTTOM MA-TERIAL (UG/G)	TOTAL GALLIUM (GA) (UG/L)	TOTAL GERMANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL IRON IN BOTTOM MA-TERIAL (UG/G)	TOTAL LEAD (PB) (UG/L)
DEC 08...	11	460	<2	8	9	560	<1	<10	760	15000	31
APR 07...	--	470	--	5	--	520	--	--	--	7000	--
MAY 13...	13	--	<2	--	15	--	<1	<3	820	--	15

DATE	TOTAL LEAD IN BOTTOM MA-TERIAL (UG/G)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL MANGANESE IN BOTTOM MA-TERIAL (UG/G)	TOTAL MOLYBDENUM (MO) (UG/L)	TOTAL MOLYBDENUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL NICKEL (NI) (UG/L)	TOTAL NICKEL IN BOTTOM MA-TERIAL (UG/G)	TOTAL SILVER (AG) (UG/L)	TOTAL SILVER IN BOTTOM MA-TERIAL (UG/G)
DEC 08...	1300	1	80	220	1	11	15	71	<0	20
APR 07...	1000	--	--	200	--	10	--	90	--	30
MAY 13...	--	0	70	--	<1	--	15	--	1	--

DATE	TOTAL STRONTIUM (SR) (UG/L)	TOTAL STRONTIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL TIN (SN) (UG/L)	TOTAL TITANIUM (TI) (UG/L)	TOTAL TITANIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL VANADIUM (V) (UG/L)	TOTAL VANADIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL ZINC (ZN) (UG/L)	TOTAL ZINC IN BOTTOM MA-TERIAL (UG/G)	TOTAL ZIRCONIUM (ZR) (UG/L)
DEC 08...	50	20	<10	110	480	<2.0	30	30	620	--
APR 07...	--	15	--	--	50	--	20	--	--	--
MAY 13...	70	--	4	260	--	2.0	--	0	--	4

MERRIMACK RIVER BASIN

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01095860 NASHUA RIVER AT FORT DEVENS, MA--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL PCR (UG/L)	POLY- CHLO- RINATED THA- LENES (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDU (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)
DEC 08...	.0	--	.00	.0	.00	.00	.00
MAY 13...	1.0	.00	.00	.0	.00	.00	.00

DATE	TOTAL DI- FLDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL TOX- APHENE (UG/L)
DEC 08...	.00	.00	.00	.00	.00	0
MAY 13...	.00	.00	.00	.00	.00	0

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDED GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED GROSS BETA AS SK90 /Y90 (PC/L)	SUS- PENDED GROSS BETA AS SK90 /Y90 (PC/L)
OCT 07...	<.8	<.8	4.6	1.3	3.6	1.2
NOV 04...	1.7	<.4	5.1	<.4	4.1	<.4
DEC 08...	<.4	.4	1.5	<.4	1.2	<.4
MAY 13...	<1.8	<.4	3.5	<.4	2.9	<.4

MERRIMACK RIVER BASIN

01096000 SQUANNACOOK RIVER NEAR WEST GROTON, MA

LOCATION.--Lat 42°38'03", long 71°39'30", Middlesex County, Hydrologic Unit 01070004, on left bank 0.7 mi (1.1 km) downstream from Trout Brook and 2.7 mi (4.3 km) northwest of West Groton.

DRAINAGE AREA.--62.8 mi² (162.7 km²), excludes 2.10 mi² (5.44 km²) above outlet of Ashby Reservoir.

PERIOD OF RECORD.--Discharge: October 1949 to current year.
Chemical analyses: Water year 1957 (partial-record station).
Water temperatures: Water year 1957 (partial-record station).

GAGE.--Water-stage recorder. Datum of gage is 244.27 (74.453 m) above mean sea level.

REMARKS.--Records excellent. Occasional regulation at low flow by mill upstream; regulation greater prior to 1961. Entire flow from 2.10 mi² (5.44 km²) upstream from outlet of Ashby Reservoir diverted for municipal supply of Fitchburg except during water years 1964, 1967-76. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 109 ft³/s (3.087 m³/s), 23.57 in/yr (599 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,010 ft³/s (114 m³/s) Oct. 16, 1955, gage height, 8.04 ft (2.451 m), from rating curve extended above 2,200 ft³/s (62.3 m³/s); minimum daily, 2.0 ft³/s (0.057 m³/s) Sept. 7, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Nov. 14	1230	730	20.7	4.94	1.506	Feb. 23	1200	849	24.0	5.16	1.573
Jan. 29	0630	*924	26.2	*5.29	1.612						

Minimum daily discharge, 13 ft³/s (0.37 m³/s) Sept. 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	109	206	158	250	306	196	109	45	37	26	20
2	74	103	201	143	284	285	505	219	51	50	29	20
3	63	98	178	143	375	239	356	275	53	34	26	21
4	55	94	159	149	303	226	246	209	45	26	22	20
5	51	90	141	125	235	244	208	168	42	22	20	19
6	47	83	138	110	197	425	182	142	38	20	19	19
7	44	79	138	112	170	372	165	127	42	18	41	18
8	44	93	123	138	160	272	153	133	44	19	97	17
9	37	140	118	145	155	216	145	129	40	17	91	17
10	38	125	259	124	144	200	139	111	38	17	160	16
11	41	162	418	105	151	190	135	101	34	17	178	20
12	243	159	271	107	161	181	127	102	30	90	88	18
13	350	367	199	105	149	195	119	111	26	85	58	17
14	227	699	174	145	167	279	115	96	24	47	51	16
15	164	501	170	219	145	235	105	88	23	33	45	16
16	125	296	163	197	181	201	104	79	22	28	58	16
17	100	223	145	163	249	155	102	76	22	26	54	16
18	187	192	135	136	249	170	97	79	23	23	40	17
19	573	169	119	120	272	169	91	102	21	21	33	17
20	498	155	95	115	352	184	86	140	21	19	29	16
21	522	154	93	111	271	331	81	121	21	19	27	15
22	326	343	106	105	344	375	79	101	20	18	25	15
23	230	323	115	100	749	273	92	86	19	17	24	15
24	183	221	115	98	434	219	89	76	18	26	22	14
25	158	192	105	94	315	204	92	69	18	22	22	13
26	166	178	111	94	309	196	202	66	17	19	20	13
27	157	194	177	131	330	183	257	61	16	18	20	15
28	136	380	238	478	390	190	177	58	16	17	20	18
29	124	304	199	836	350	199	142	53	17	17	20	23
30	122	229	160	510	---	172	122	48	17	21	21	21
31	121	---	155	321	---	158	---	48	---	23	20	---
TOTAL	5296	6455	5124	5637	7841	7244	4709	3383	863	866	1406	518
MEAN	171	215	165	182	270	234	157	109	28.8	27.9	45.4	17.3
MAX	573	699	418	836	749	425	505	275	53	90	178	23
MIN	37	79	93	94	144	155	79	48	16	17	19	13
CFSM	2.72	3.42	2.63	2.90	4.30	3.73	2.50	1.74	.46	.44	.72	.28
IN.	3.14	3.82	3.04	3.34	4.64	4.29	2.79	2.00	.51	.51	.83	.31

CAL YR 1975	TOTAL	50264	MEAN 138	MAX	1130	MIN 14	CFSM 2.20	IN 29.77
WTR YR 1976	TOTAL	49342	MEAN 135	MAX	836	MIN 13	CFSM 2.15	IN 29.23

01096500 NASHUA RIVER AT EAST PEPPERELL, MA

LOCATION.--Lat 42°40'03", long 71°34'32", Middlesex County, Hydrologic Unit 01070004, on right bank 200 ft (60 m) downstream from powerplant of Pepperell Paper Co. at East Pepperell and 0.8 mi (1.3 km) upstream from Nissitissit River.

DRAINAGE AREA.--Total above gage, 433 mi² (1,121 km²); net above gage, 316 mi² (818 km²), flow diverted from 117 mi² (303 km²) for use of Boston metropolitan district and city of Worcester.

PERIOD OF RECORD.--Discharge: October 1935 to current year.

Chemical analyses: Water years 1952-53, 1973-74 (partial-record station).

Water temperatures: Water years 1952, 1973-74 (partial-record station).

REVISED RECORDS.--WSP 801: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 169.04 ft (51.523 m) above mean sea level.

REMARKS.--Records good. Extremes and daily discharge include water released while diverting flow of South Branch Nashua River for use of Boston metropolitan district, water diverted into basin from Ware River basin since 1955 for municipal use of Fitchburg, and water diverted around station through plant of Pepperell Paper Co. (see table below for figures of diversion and released water). Flow regulated by powerplant immediately upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 560 ft³/s (15.86 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,900 ft³/s (592 m³/s) Mar. 20, 1936, gage height, 19.1 ft (5.82 m), from floodmarks, from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of velocity-area studies; minimum daily, 1.1 ft³/s (0.031 m³/s) Aug. 13, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,760 ft³/s (106 m³/s) Jan. 30, gage height, 7.15 ft (2.179 m); minimum daily, 5.0 ft³/s (0.14 m³/s) Sept. 24.

CORRECTIONS.--Corrected figures of observed annual discharge, in cubic feet per second, for calendar year 1971 and water year 1972, superseding those published in WRD MA, NH, RI, VT, 1972, are given herein:

CAL YR 1971	TOTAL	164512.2	MEAN	451	MAX	2550	MIN	7.2
WTR YR 1972	TOTAL	244892.2	MEAN	669	MAX	3740	MIN	7.2

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	789	505	1140	756	2170	1490	870	462	378	229	9.7	186
2	400	510	1030	850	1900	1380	1440	657	354	145	185	186
3	409	602	940	744	2070	1280	1700	1130	349	10	266	186
4	275	542	843	524	2060	1230	1230	963	344	13	202	60
5	293	502	769	739	1710	1290	1070	802	258	38	175	11
6	399	452	597	651	1200	1630	902	715	221	206	59	12
7	345	423	630	618	986	1800	787	465	270	323	9.5	134
8	331	328	763	583	853	1560	727	522	288	297	12	190
9	321	479	735	687	849	1340	554	555	278	162	482	188
10	269	611	846	426	760	1230	550	541	241	7.6	634	186
11	68	595	1570	468	769	1090	562	606	207	7.7	545	59
12	458	631	1470	485	837	1010	723	692	61	210	623	9.1
13	1190	1110	959	559	807	1030	715	633	13	272	369	129
14	1100	2230	838	615	865	1270	699	376	92	219	86	179
15	862	2330	926	1130	832	1260	647	313	225	199	13	60
16	683	1850	814	957	890	1120	384	397	224	69	475	160
17	494	1440	756	828	1280	1040	326	607	201	12	613	226
18	694	1100	736	695	1570	986	436	596	189	12	321	65
19	1600	930	727	725	1630	964	615	386	62	209	204	5.4
20	2270	826	398	656	1960	988	632	583	8.0	217	204	8.6
21	2260	800	328	614	1940	1310	412	473	190	167	67	154
22	1920	1020	670	616	1830	1620	310	475	269	160	10	217
23	1390	1390	728	613	2410	1500	314	445	241	54	135	72
24	1060	1330	247	346	2750	1250	398	569	197	7.7	193	5.0
25	761	1120	394	308	2230	1080	450	635	178	7.9	187	5.1
26	769	989	592	675	1830	1040	876	514	58	127	184	5.4
27	863	975	739	685	1690	896	1120	301	7.4	184	66	169
28	739	1240	968	1300	1750	806	933	284	7.8	180	13	228
29	663	1410	1030	2780	1690	825	747	123	8.3	104	13	224
30	648	1140	836	3570	---	773	463	28	140	8.6	134	64
31	627	---	651	3120	---	712	---	190	---	9.0	189	---
TOTAL	24950	29410	24670	28323	44118	36800	21592	16038	5559.5	3866.5	6678.2	3383.6
MEAN	805	980	796	914	1521	1187	720	517	185	125	215	113
MAX	2270	2330	1570	3570	2750	1800	1700	1130	378	323	634	228
MIN	68	328	247	308	760	712	310	28	7.4	7.6	9.5	5.0
(†)	-12.9	-16.3	-18.4	-58.6	-175	-231	-38.1	-35.6	-18.4	-8.33	-7.86	-7.20

CAL YR 1975	TOTAL	224997.9	MEAN	616	MAX	3280	MIN	6.1
WTR YR 1976	TOTAL	245388.8	MEAN	670	MAX	3570	MIN	5.0

† Diversion and released water, in cubic feet per second: diversion into basin from Ware River for municipal supply of Fitchburg, and water released while diverting flow of South Branch Nashua River for use of Boston metropolitan district. Records of diversion furnished by city of Fitchburg, and records of released water furnished by Water Division of Metropolitan District Commission.

MERRIMACK RIVER BASIN

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

LOCATION.--Lat 42°38'20", long 71°22'17", Middlesex County, Hydrologic Unit 01070002, on left bank at intake of Lowell water treatment plant, 2.7 mi (4.3 km) upstream from Pawtucket Dam, and 6 mi (10 km) 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, OCTOBER 1975 TO AUGUST 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	COD IN BOTTOM MATERIAL (MG/KG)	IMF-DIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
OCT												
08...	1000	4450	91	6.5	9.0	13.0	2	8.5	26	--	32000	4200
NOV												
05...	0800	6440	85	7.2	16.0	9.0	1	10.8	15	--	4100	2700
DEC												
09...	1400	9380	97	7.8	.0	.5	1	12.1	10	--	6400	2300
29...	1030	8700	--	--	--	--	--	--	--	--	--	--
JAN												
06...	0900	5500	91	7.4	-10.0	.0	1	12.9	16	4800	580	88
FEB												
09...	1000	11200	81	6.4	-.5	.0	--	13.4	--	--	440	416
MAR												
15...	0900	12700	93	6.4	14.0	5.0	--	12.0	--	--	310	416
APR												
06...	1000	31300	54	7.8	12.5	5.5	3	8.1	11	--	390	4200
MAY												
11...	1230	9220	75	7.7	18.5	15.5	1	9.8	11	--	6600	450
JUN												
04...	1000	5610	100	6.8	21.0	19.0	4	8.0	12	--	840	460
JUL												
06...	0900	3400	102	7.6	30.5	24.5	2	7.0	19	--	1000	710
AUG												
11...	1000	16800	111	6.9	18.5	21.0	--	6.9	24	--	270000	4100
31...	0930	6780	115	6.8	17.0	22.5	2	5.9	20	--	48000	11000

DATE	STREPTOCOCCI (COLONIES PER 100 ML)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT											
08...	350	--	--	--	--	--	--	--	--	--	--
NOV											
05...	630	--	--	--	--	--	--	--	--	--	--
DEC											
09...	490	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
JAN											
06...	824	15	2	5.0	.7	8.6	.9	16	0	13	1.0
FEB											
09...	810	--	--	--	--	--	--	--	--	--	--
MAR											
15...	84	--	--	--	--	--	--	--	--	--	--
APR											
06...	8180	11	5	3.0	.8	4.9	.8	7	0	6	.2
MAY											
11...	820	--	--	--	--	--	--	--	--	--	--
JUN											
04...	8750	--	--	--	--	--	--	--	--	--	--
JUL											
06...	130	--	--	--	--	--	--	--	--	--	--
AUG											
11...	620	--	--	--	--	--	--	--	--	--	--
31...	400	--	--	--	--	--	--	--	--	--	--

B NON-IDEAL COLONY COUNT.

01096550 MERRIMACK RIVER ABOVE LOWELL, MA--Continued

WATER QUALITY DATA, OCTOBER 1975 TO AUGUST 1976

DATE	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILT- HABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	LOSS ON IGNI- TION IN BOTTOM MA- TERIAL (MG/KG)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT 08...	--	--	--	--	--	--	5	72	--	.22	.02
NOV 05...	--	--	--	--	--	--	7	56	--	.20	.01
DEC 09...	--	--	--	--	--	--	5	53	--	.22	.01
29...	--	--	--	--	--	--	--	--	--	--	--
JAN 06...	5.5	12	.1	6.6	64	48	3	73	4400	.26	.01
FEB 09...	--	--	--	--	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--	--	--	--	--
APR 06...	6.1	7.8	.1	4.7	36	32	6	74	--	.16	.01
MAY 11...	--	--	--	--	--	--	6	55	--	.18	.01
JUN 04...	--	--	--	--	--	--	20	72	--	.10	.01
JUL 06...	--	--	--	--	--	--	10	70	--	.35	.02
AUG 11...	--	--	--	--	--	--	8	71	--	--	--
31...	--	--	--	--	--	--	7	68	--	.23	.03

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	PHENOLS (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)
OCT 08...	.24	.29	.56	.85	1.1	.12	--	--	0	.000	.000
NOV 05...	.21	.28	.41	.69	.90	.11	--	--	2	.000	.000
DEC 09...	.23	.20	.28	.48	.71	.06	--	5.6	0	.000	.000
29...	--	--	--	--	--	--	--	--	--	--	--
JAN 06...	.27	.21	.30	.51	.78	.08	1	--	1	.000	.000
FEB 09...	.29	--	--	.49	.78	.07	--	--	--	--	--
MAR 15...	.30	--	--	.90	1.2	.07	--	--	--	--	--
APR 06...	.17	.07	.26	.33	.50	.09	0	3.2	0	.000	.000
MAY 11...	.19	.18	.32	.50	.69	.07	--	--	--	.000	.000
JUN 04...	.11	.20	.63	.83	.94	.12	--	--	0	.000	.000
JUL 06...	.37	.27	.33	.60	.97	.10	--	--	6	18.8	.000
AUG 11...	--	--	--	--	--	.15	--	--	--	6.92	.588
31...	.26	.51	.42	.93	1.2	.13	--	--	0	.000	.000

DATE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDE D ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL BERYL- LIUM (BE) (UG/L)	TOTAL BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	SUS- PENDE D CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	SUS- PENDE D CHRO- MIUM (CR) (UG/L)
DEC 09...	160	--	--	--	10	<6	20	<1	--	--	5	--
JAN 06...	--	1	0	1	--	--	--	1	0	1	<10	0
APR 06...	--	0	0	0	--	--	--	0	0	0	20	10

MERRIMACK RIVER BASIN

01096550 MERRIMACK RIVER ABOVE LOWELL, MA--Continued

WATER-QUALITY DATA, DECEMBER 1975 TO APRIL 1976

DATE	DIS- SOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUS- PENDED COBALT (CO) (UG/L)	DIS- SOLVED COHALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS- PENDED COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL GALLIUM (GA) (UG/L)	TOTAL GER- MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)
DEC 09...	--	<1	--	--	14	--	--	<1	<6	330	--	5
JAN 06...	<10	0	0	0	10	0	10	--	--	300	150	5
APR 06...	10	0	0	0	0	0	0	--	--	1700	650	8

DATE	SUS- PENDED LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	SUS- PENDED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS- PENDED MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB- DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)
DEC 09...	--	--	1	50	--	--	--	--	--	<1	2
JAN 06...	1	4	--	50	0	50	<.5	.0	<.5	--	--
APR 06...	6	2	--	60	30	30	<.5	.0	<.5	--	--

DATE	TOTAL SELE- NIUM (SE) (UG/L)	SUS- PENDED SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL STRON- TIUM (SR) (UG/L)	TOTAL TIN (SN) (UG/L)	TOTAL TI- TANIUM (TI) (UG/L)	TOTAL VANA- DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS- PENDED ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
DEC 09...	--	--	--	<0	30	<6	10	<2.0	10	--	--
JAN 06...	0	0	0	--	--	--	--	--	10	0	20
APR 06...	0	0	0	--	--	--	--	--	30	10	20

PESTICIDE ANALYSES, DECEMBER 1975 TO AUGUST 1976

DATE	TOTAL PCB (UG/L)	POLY- CHLO- RINATED NAPH- THA- LENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ATRA- ZINE (UG/L)	TOTAL CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DUT (UG/L)
DEC 09...	.0	--	.00	ND	--	.0	ND	.00	--	.00	ND	.00
29...	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 06...	.0	.00	.00	--	--	.0	--	.00	--	.00	--	.00
MAY 11...	.0	.00	.00	--	--	.0	--	.00	--	.00	--	.00
AUG 18...	--	--	ND	--	--	ND	--	ND	--	ND	--	ND

ND. NOT DETECTED.

01096550 MERRIMACK RIVER ABOVE LOWELL, MA--Continued

PESTICIDE ANALYSES, DECEMBER 1975 TO AUGUST 1976--Continued

DATE	DDT IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DI- AZINON (UG/L)	DI- AZINON IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ETHION (UG/L)	ETHION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)
DEC 09...	2.7	--	ND	.00	ND	.00	ND	--	ND	.00	ND
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 06...	--	--	--	.00	--	.00	--	--	--	.00	--
MAY 11...	--	--	--	.00	--	.00	--	--	--	.00	--
AUG 18...	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL MALA- THION (UG/L)	MALA- THION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL METH- OXY- CHLOR (UG/L)	METHOX- YCHLOR IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL METHYL PARA- THION (UG/L)	METHYL PARA- THION IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL METHYL TRI- THION (UG/L)
DEC 09...	.00	ND	.00	ND	--	ND	--	ND	--	ND	--
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 06...	.00	--	.00	--	--	--	--	--	--	--	--
MAY 11...	.00	--	.00	--	--	--	--	--	--	--	--
AUG 18...	ND	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	METHYL TRI- THION IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL PARA- THION (UG/L)	PARA- THION IN BOTTOM MA- TERIAL (UG/KG)	P.P.P. DDD IN BOTTOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	TRI- THION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
DEC 09...	ND	--	ND	2.9	--	ND	0	ND	--	--	--
29...	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND
APR 06...	--	--	--	--	--	--	0	--	--	--	--
MAY 11...	--	--	--	--	--	--	0	--	--	--	--
AUG 18...	--	ND	--	--	ND	--	ND	--	--	--	--

ND NOT DETECTED.

RADIOCHEMICAL ANALYSES, OCTOBER 1975 TO JANUARY 1976

DATE	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDED GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED GROSS BETA AS AS SR90 /Y90 (PC/L)	SUS- PENDED GROSS BETA AS AS SR90 /Y90 (PC/L)
OCT 08...	1.3	.4	2.9	.4	2.3	.4
NOV 05...	<1.0	<.4	4.0	<.4	3.2	<.4
DEC 09...	<.5	<.4	1.9	.5	1.5	.5
JAN 06...	1.9	<.4	3.5	<.4	2.8	<.4

MERRIMACK RIVER BASIN

01096550 MERRIMACK RIVER ABOVE LOWELL, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976

OCT. 8, 1975
1000 HOURS

IDENTIFICATION OF PHYTOPLANKTON

3,600 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...CHARACIACEAE			
...SCHROEDERIA			
...OCYSTACEAE			
...ANKISTRODESMUS		28	1
...SCENEDESMACEAE			
...ACTINASTRUM		230	6
...CRUCIGENIA		340	10
...SCENEDSMUS		230	6
...VOLVOCALES			
...CHLAMYDOMONADACEAE			
...CHLAMYDOMONAS		28	1
...ZYGNEMATALES			
...DESMIDIACEAE	PLACODERM DESMIDS		
...STAUSTRUM		28	1
CHRYSTOPHYTA			
..RACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCAEAE			
...CYCLOTELLA		200	6
...MELOSIRA		170	5
..PENNALES	PENNATE		
...FRAGILARIACEAE			
...ASTERIONELLA		490	13
...FRAGILARIA		110	3
...NAVICULACEAE	NAVICULOID		
...NAVICULA		110	3
...NITZSCHIAEAE			
...NITZSCHIA		57	2
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..CHRONOCOCCALES	COCCOID		
...CHRONOCOCCACEAE			
...ANACYSTIS		1,500	43
EUGLENOPHYTA	EUGLENOIDS		
..EUGLENOPHYCEAE			
...EUGLENALES			
...EUGLENACEAE			
...TRACHELOMONAS		28	1

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%
 L - LESS THEN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
 PHYL/DIV 1.603
 CLASS 1.603
 ORDER 1.992
 FAMILY 2.249
 GENERA 2.815
 USED DEPTH INTEGRATED SAMPLING METHOD.

01096550 MERRIMACK RIVER ABOVE LOWELL, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

STATION 5. 1-75
 0400 HOURS

IDENTIFICATION OF PHYTOPLANKTON

2400 CELLS/ML

ORGANISM NAME	ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTES	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
..COCCYTAACEAE			
IDICTYOSPHAERIUM			
....SCENESACACEAE			
....SCENESACACEAE		200	7
....ZYGNEMATALES			
....DESIDIACEAE	BLISSIDACEAE (DESMIDS)		
....SPINOVIOSIDA		1,600	60
CHRYSOPHYTES			
..HACILLARIOPHYCEAE	DIAZONIA		
..CENTRALES	CENTRICA		
..COSCINODISCAACEAE			
ICYCLOTELLA			
....MELUSINA		610	22
....PENNACEAE	PERIDINACEAE		
LEUPHOTIA			
....FRAGILLARIACEAE			
....ASTERIONELLACEAE		50	2
....GOMPHONEMACEAE			
LGOMPHONEMACEAE			
....NAVICULACEAE	NAVICULID		
....NAVICULA		50	2
....NITZSCHACEAE			
....NITZSCHIA		50	2
..CHRYSOPHYCEAE	YELLOW-RED ALGAE		
..CHRYSIOMONADALES			
....OCHROVOMONADACEAE			
....DINOBRYON		150	5

NOTE: D = DOMINANT ORGANISM: GREATER OR EQUAL TO 15%
 L = LESS THAN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYTOPL 0.412
 CLASS 1.125
 ORDER 1.654
 FAMILY 1.741
 GENERA 1.741

USED DEPTH INTEGRATED SAMPLING METHOD.

MERRIMACK RIVER BASIN

01096550 MERRIMACK RIVER ABOVE LOWELL, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

DEC. 9, 1975

1400 HOURS

IDENTIFICATION OF PHYTOPLANKTON

920 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
..OCCYSTACEAE			
LANKISTRODESMUS			0
..SCENEDESMACEAE			
LSCENEDESMUS			0
..ULOTRICHACEAE			
LULOTRICHACEAE			0
..ULOTHRIX			
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
..COSCINOIDISACEAE			
LMELOSIRA			0
..PENNALES	PENNATE		
..ACHNANTHACEAE			
LACHNANTHES			0
..FRAGILARIACEAE			
0ASTERIONELLA		890	97
..NAVICULACEAE	NAVICULOID		
..NAVICULA		32	3
..NITZSCHACEAE			
LNITZSCHIA			0
..TAHELLACEAE			
LTAHELLARIA			0

NOTE: 0 - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%

L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED

ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE

DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

FAMILY 0.216

GENERA 0.216

USED DEPTH INTEGRATED SAMPLING METHOD.

JAN. 6, 1976

0900 HOURS

6,700 CELLS/ML

CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
..OCCYSTACEAE			
LANKISTRODESMUS			0
..ZYGNEMATALES			
..DESMIDIACEAE	PLACODERM DESMIDS		
LSPONDYLUSIUM			0
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
..EUNOTIACEAE			
LEUNOTIA			0
..FRAGILARIACEAE			
..ASTERIONELLA		410	6
LSYNEDRA			0
..GOMPHONEMATACEAE			
LGOMPHONEMA			0
..CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
..CHRYSONOMADALES			
..OCHROMONADACEAE			
LDINOBRYON			0
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
..OSCILLATORIACEAE			
DLYNGBYA		2,600	39
DOSCILLATORIA		3,700	54

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%

L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED

ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE

DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.366

CLASS 0.385

ORDER 0.385

FAMILY 0.395

GENERA 1.309

USED DEPTH INTEGRATED SAMPLING METHOD.

01096550 MERRIMACK RIVER ABOVE LOWELL, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

FEB. 9, 1976
1000 HOURS

IDENTIFICATION OF PHYTOPLANKTON

1,500 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCUCCALES			
...MIRACTINIACEAE			
....GOLENKINIA		11	1
...OCCYSTACEAE			
LANKISTHODESMUS			0
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		33	2
LCOCCONEIS			0
...CYMBELLACEAE			
LCYMBELLA			0
...EUNOTIACEAE			
LEUNOTIA			0
...FRAGILARIACEAE			
....ASTERIONELLA		60	4
....SYNEDRA		66	4
...GOMPHONEMACEAE			
LGOMPHONEMA			0
...NAVICULACEAE	NAVICULOID		
LNAVICULA			0
...NITZSCHIACEAE			
....NITZSCHIA		11	1
...TARELLARIACEAE			
LTARELLARIA			0
..CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
...CHRYSONOMADACEAE			
LDINOBYRON			0
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORIACEAE			
DLYNGRYA		1,300	85
PYRRHOPHYTA			
..DINOPHYCEAE	DINOFLAGELLATES		
...PERIDINIALES			
...GLENODINIACEAE			
LGLENODINIUM			0

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.691
 CLASS 0.715
 ORDER 0.715
 FAMILY 0.965
 GENERA 1.062

USED DEPTH INTEGRATED SAMPLING METHOD.

MERRIMACK RIVER BASIN

01096550 MERRIMACK RIVER ABOVE LOWELL, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

APR. 6, 1976
1000 HOURS

IDENTIFICATION OF PHYTOPLANKTON

740 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCACEAE			
...MICRACINIAEAE			
...GOLENKINIA		11	1
...OCCYSTACEAE			
...ANKISTODESMUS		11	1
CHYXOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...FRAGILARIACEAE			
D ...ASTERIONELLA		290	39
...SYNEDRA		64	9
...GOMPHONEMACEAE			
...GOMPHONEMA		11	1
...NAVICULACEAE	NAVICULOID		
...NAVICULA		32	4
...NITZSCHIAEAE			
...NITZSCHIA		11	1
...TABELLARIAEAE			
...TABELLARIA		11	1
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORIAEAE			
DLYNGBYA		300	41

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER • 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 1.141

CLASS 1.141

ORDER 1.141

FAMILY 1.676

GENERA 2.003

USED DEPTH INTEGRATED SAMPLING METHOD.

01096550 MERRIMACK RIVER ABOVE LOWELL, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

MAY 11, 1976
1230 HOURS

IDENTIFICATION OF PHYTOPLANKTON

1,100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCALES			
...OCCYSTACEAE			
....ANKISTHODESMUS		81	7
...SCENEDESMACEAE			
....SCENEDESMUS		65	6
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCAEAE			
...CYCLOTELLA		16	1
...MELOSIRA		16	1
..PENNALES	PENNATE		
...FRAGILARIACEAE			
...ASTERIONELLA		97	8
...SYNEDRA		65	6
...NAVICULACEAE	NAVICULOID		
...NAVICULA		110	10
...NITZSCHIAEAE			
...NITZSCHIA		110	10
...TARCELLARIACEAE			
...TARELLARIA		97	8
..CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
..CHRYSOMONADALES			
...CHROMONADACEAE			
...DINOBRYON		49	4
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORIACEAE			
DOSCILLATORIA		440	38

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 1.411

CLASS 1.619

ORDER 1.771

FAMILY 2.730

GENERA 2.895

USED DEPTH INTEGRATED SAMPLING METHOD.

MERRIMACK RIVER BASIN

01096550 MERRIMACK RIVER ABOVE LOWELL, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

JUNE 4, 1976
1000 HOURS

IDENTIFICATION OF PHYTOPLANKTON

450 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
..COELENTERACEAE			
U ..COELENTERUM		67	15
..OCCYSTACEAE			
..ANKISTRODESMUS		17	4
..KRIEHNIELLA		4	1
..SCENEDESMACEAE			
..SCENEDESMUS		33	7
CHRYSOPHYTA			
..HACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
..COSCINOIDISCEAE			
U ..CYCLOTELLA		71	16
..RHIZOSOLENACEAE			
..RHIZOSOLENIA		8	2
..PENNATES	PENNATE		
..ACHNANTHACEAE			
..ACHNANTHES		4	1
..COCCONEIS		4	1
..FRAGILARIACEAE			
U ..ASTEROIDELLA		120	26
..NAVICULACEAE	NAVICULOID		
..NAVICULA		25	6
..NITZSCHACEAE			
..NITZSCHIA		29	6
..TARELLARIACEAE			
..TARELLARIA		25	6
..CHRYSOHYCEAE	YELLOW-BROWN ALGAE		
..CHRYSOMONADALES			
..OCHROMONADALES			
..DINORRYON		29	6
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..CHROOCOCCALES	COCCOID		
..CHROOCOCCACEAE			
..ANACYSTIS		17	4

NOTE: U - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 ANALYSIS METHOD: SEDGWICK-HAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
 PHYL/DIV 1.051
 CLASS 1.362
 ORDER 1.900
 FAMILY 3.181
 GENERA 3.233
 USED DEPTH INTEGRATED SAMPLING METHOD.

01096550 MERRIMACK RIVER ABOVE LOWELL, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

JULY 6, 1976

0900 HOURS

IDENTIFICATION OF PHYTOPLANKTON

14,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOPHYCEAE			
...CHLOPCCOCCALFS			
...OCCYSTACEAE			
....ANKISTRODESMUS		430	3
...SCENEDESMACEAE			
....SCENEDESMUS		320	2
CHRYSPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNAE		
...FRAGILARIACEAE			
...ASTEROIDELLA		860	6
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..CHROOCOCCALES	COLLOID		
...CHROOCOCCACEAE			
....AGMENELLUM		860	6
....ANACYSTIS		4,700	34
...OSCILLATORIACEAE	FILAMENTOUS		
...NOSTOCACEAE			
....ANABAEANA		6,500	47
PHYCOPHYTA			
..DINOPHYCEAE	DINOFLAGELLATES		
..GYMNODINIALES			
...GYMNODINIACEAE			
....GYMNODINIUM		110	1

NOTE: D = DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 ANALYSIS METHOD: SFDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.699

CLASS 0.699

ORDER 1.571

FAMILY 1.624

GENERA 1.874

USED DEPTH INTEGRATED SAMPLING METHOD.

MERRIMACK RIVER BASIN

01096550 MERRIMACK RIVER ABOVE LOWELL, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

AUG. 11, 1976
1000 HOURS

IDENTIFICATION OF PHYTOPLANKTON

2,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCALES			
...COELASTRACEAE			
...COELASTRUM		130	5
...MYRORHODICTYACEAE			
...PFIASSTRUM		290	11
...OCCYSTACEAE			
...ANKISTRODESMUS		83	3
...DICTYOSPHAERIUM		130	5
L ...TETRAEDRON			0
...SCENEDESMACEAE			
...ACTINASTRUM		140	5
...CHLORIGENIA		37	1
U ...SCENEDESMUS		750	28
...TETRASTRUM		37	1
...TETRASPOALES			
...PALMELLACEAE			
...SPHAEROCYSTIS		130	5
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINOIDISCEAE			
...CYCLOTELLA		18	1
...MELUSINA		92	3
...PENNATES	PENNATE		
...ACHMANTHACEAE			
L ...COCCONEIS			0
...FRAGILARIACEAE			
...FRAGILARIA		110	4
...SYNEDRA		64	2
...NAVICULACEAE	NAVICULOID		
...NAVICULA		28	1
...NITZSCHACEAE			
...NITZSCHIA		55	2
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..CHROCOCCALES	COCCOID		
...CHROCOCCACEAE			
...AGMENELLUM		220	8
...GOMPHOSPHERIA		74	3
..OSCILLATORIALES	FILAMENTOUS		
...NOSTOCACEAE			
...ANABAENA		110	4
...OSCILLATORIA			
...OSCILLATORIA		28	1
EUGLENOPHYTA	EUGLENOIDS		
..EUGLENOPHYCEAE			
...EUGLENALES			
...EUGLENACEAE			
...TRACHELOMONAS		100	4

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEGWICK-RAFTER CHAMBER • 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 1.411

CLASS 1.411

ORDER 1.936

FAMILY 3.066

GENERA 3.726

USED DEPTH INTEGRATED SAMPLING METHOD.

MERRIMACK RIVER BASIN

43

01096906 BOULDER BROOK NEAR EAST BOLTON, MA

LOCATION.--Lat 42°27'10", long 71°34'52", Worcester County, Hydrologic Unit 01070005, at culvert on Brown Road, 400 ft (122 m) upstream from Interstate Highway 495, 0.3 mi (0.5 km) upstream from gaging station, and 1.1 mi (1.8 km) west of East Bolton.
DRAINAGE AREA.--1.32 mi² (3.42 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 300 ft (91 m), from topographic map.

REMARKS.--Records fair.

EXTREMES FOR CURRENT PERIOD.--September 1975: Maximum discharge, 11 ft³/s (0.31 m³/s) Sept. 27, gage height, 1.49 ft (0.454 m); minimum, 0.03 ft³/s (0.001 m³/s) Sept. 23.Water year 1976: Peak discharges above base of 18 ft³/s (0.51 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 13	-	20 0.57	- -	Jan. 28	0830	*24 0.68	*1.83 0.558
Nov. 27	1715	19 0.54	1.71 0.521	Feb. 2	0845	*24 0.68	*1.83 0.558

Minimum discharge, 0.01 ft³/s (<0.001 m³/s) many days during summer.

DISCHARGE, IN CUBIC FEET PER SECOND, SEPTEMBER 11 TO 30, 1975

DAY	SEP	DAY	SEP
11	.04	21	.05
12	.05	22	.05
13	.21	23	.37
14	.05	24	2.8
15	.05	25	5.2
16	.05	26	2.9
17	.05	27	6.6
18	.05	28	2.2
19	.05	29	1.5
20	.05	30	1.2

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.7	4.3	3.8	5.0	4.3	6.6	2.3	.21	.14	.03	.04
2	.88	1.6	3.6	3.3	12	3.9	5.0	5.6	.80	.03	.04	.04
3	.83	1.5	3.4	3.1	7.5	3.9	3.9	3.3	.63	.01	.03	.03
4	.78	1.5	3.1	3.3	6.0	3.9	3.4	2.8	.23	.01	.02	.03
5	.52	1.3	2.8	2.8	5.2	5.6	3.3	2.6	.21	.01	.02	.02
6	.52	1.2	2.8	2.6	4.5	4.7	3.1	2.3	.21	.01	.01	.02
7	.52	1.2	2.6	2.6	4.3	3.8	2.8	2.1	.21	.01	.06	.02
8	.36	1.3	2.6	4.7	3.9	3.4	2.8	2.9	.21	.01	.20	.01
9	.35	1.4	3.1	3.3	3.6	3.3	2.8	2.2	.07	.01	1.1	.01
10	.30	1.5	9.7	2.8	3.3	3.3	2.6	2.1	.07	.01	1.9	.03
11	.62	4.0	4.7	2.5	3.9	3.4	2.6	1.9	.06	.01	.40	.04
12	4.0	3.5	3.6	2.6	3.6	3.1	2.4	2.6	.04	.02	.03	.03
13	3.1	12	3.3	2.4	3.9	5.6	2.3	2.2	.04	.02	.03	.02
14	2.2	7.0	3.4	8.0	3.6	4.1	2.3	1.9	.04	.02	.03	.02
15	1.6	5.6	3.3	4.5	3.1	3.4	2.1	1.7	.04	.02	.05	.02
16	1.4	4.8	3.1	3.6	5.4	3.0	2.1	1.6	.04	.02	.26	.02
17	1.2	4.5	2.8	3.4	6.8	3.4	2.0	1.7	.13	.02	.02	.02
18	8.4	4.1	3.1	3.1	5.4	3.3	1.9	1.9	.06	.02	.01	.02
19	7.5	3.9	2.5	3.1	8.0	3.4	1.9	2.0	.05	.01	.01	.01
20	6.8	3.6	2.5	3.3	6.0	5.6	1.8	1.9	.05	.01	.01	.01
21	4.1	5.8	2.5	3.0	5.4	5.6	1.8	1.9	.04	.01	.01	.01
22	3.1	7.1	2.5	2.8	9.0	4.1	2.0	2.1	.03	.03	.01	.01
23	2.5	4.1	2.8	2.6	7.1	3.8	2.4	1.6	.02	.02	.01	.01
24	2.2	3.9	2.6	2.5	6.2	3.6	1.9	1.4	.02	.02	.03	.01
25	3.3	3.9	2.5	2.3	6.2	3.6	2.6	1.3	.01	.02	.03	.01
26	3.8	3.8	5.4	2.8	5.6	3.3	5.2	1.3	.01	.02	.04	.04
27	2.4	8.2	6.8	6.2	5.4	3.3	3.1	1.3	.01	.02	.02	.02
28	1.9	6.2	4.1	14	4.9	3.8	2.8	1.1	.01	.02	.03	.01
29	1.9	4.5	3.4	7.3	4.5	3.3	2.3	.97	.01	.01	.02	.01
30	2.2	4.1	3.1	6.2	---	3.1	2.1	.83	.01	.03	.02	.02
31	1.8	---	4.7	5.4	---	3.0	---	.70	---	.03	.02	---
TOTAL	72.18	118.8	110.7	123.9	159.3	118.9	83.9	62.10	3.57	.65	4.50	.61
MEAN	2.33	3.96	3.57	4.00	5.49	3.84	2.80	2.00	.12	.021	.15	.020
MAX	8.4	12	9.7	14	12	5.6	6.6	5.6	.80	.14	1.9	.04
MIN	.30	1.2	2.5	2.3	3.1	3.0	1.8	.70	.01	.01	.01	.01
CFSM	1.77	3.00	2.70	3.03	4.16	2.91	2.12	1.52	.09	.02	.11	.02
IN.	2.03	3.35	3.12	3.49	4.49	3.35	2.36	1.75	.10	.02	.13	.02

WTR YR 1976 TOTAL 859.11 MEAN 2.35 MAX 14 MIN .01 CFSM 1.78 IN 24.19

NOTE.--Doubtful or no gage-height record Oct. 19 to Nov. 18.

MERRIMACK RIVER BASIN

01096906 BOULDER BROOK NEAR EAST BOLTON, MA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1971 to current year.

WATER TEMPERATURES: June 1971 to current year.

INSTRUMENTATION.--Water-quality monitor since June 1971.

REMARKS.--Figures of daily discharge, computed on basis of records for gaging station 0.3 mi (0.5 km) downstream, are available at district office. Interruptions in the record due to malfunctions of the instrument. Recording air-temperature gage located at station since October 1972.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 368 micromhos Aug. 15, 1976; minimum recorded, 36 micromhos July 24, 1976.

WATER TEMPERATURES: Maximum, 29.0°C July 17, 18, 1975; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 368 micromhos Aug. 15; minimum recorded, 36 micromhos July 24.

WATER TEMPERATURES: Maximum, 26.5°C July 9; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	98	95	97	102	81	95	81	72	78	119	93	113
2	99	91	97	103	100	102	80	72	78	117	72	97
3	100	94	98	103	101	102	81	75	78	118	106	115
4	103	97	100	103	101	102	81	52	72	117	83	108
5	103	92	99	105	101	103	87	48	73	108	55	83
6	101	93	98	105	95	103	86	81	83	126	49	85
7	100	91	97	104	96	102	88	74	84	125	81	113
8	104	93	100	104	97	101	89	70	82	115	85	105
9	103	95	98	104	101	102	92	81	90	120	52	86
10	102	92	99	102	90	99	80	71	77	113	57	85
11	106	77	99	97	91	95	85	80	83	98	48	76
12	106	78	91	97	61	92	88	86	87	110	60	87
13	99	88	95	62	52	59	92	90	90	123	56	100
14	97	88	93	74	60	67	94	91	93	157	86	124
15	100	94	99	77	72	74	97	93	95	118	91	110
16	100	97	100	80	76	78	100	83	97	121	92	109
17	100	96	98	81	76	79	101	70	91	118	73	100
18	102	71	81	82	78	80	100	73	94	107	42	73
19	88	82	86	81	75	80	110	56	78	127	37	73
20	97	88	93	83	73	81	86	58	76	125	60	106
21	101	94	98	84	66	77	105	79	93	124	90	115
22	102	96	100	75	69	72	108	99	104	119	50	95
23	106	102	104	77	61	72	112	63	96	100	42	68
24	105	101	104	77	72	75	97	40	62	83	65	74
25	104	88	100	76	73	75	107	45	79	117	57	103
26	99	91	97	78	74	77	116	77	95	117	112	115
27	100	92	98	81	61	72	106	95	103	164	101	124
28	101	94	98	74	66	70	110	82	103	99	85	93
29	100	92	99	75	71	73	113	71	92	99	96	97
30	99	91	95	78	75	76	117	73	102	97	85	94
31	101	86	98	---	---	---	116	104	110	97	64	89
MONTH	106	71	97	105	52	85	117	40	88	164	37	97

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	95	83	93	80	77	79	87	67	78	---	---	---
2	76	53	62	82	64	74	80	74	77	---	---	---
3	85	57	72	75	63	71	82	75	79	---	---	---
4	92	65	83	78	74	76	83	69	79	---	---	---
5	90	63	79	79	70	76	82	73	80	---	---	---
6	88	40	70	79	70	76	86	66	82	82	73	80
7	89	43	71	80	66	76	84	71	82	82	69	76
8	90	60	80	81	75	78	84	67	77	74	63	71
9	89	55	76	84	46	70	83	75	81	77	69	74
10	94	60	85	82	76	79	81	73	79	82	75	79
11	97	84	89	84	69	80	82	68	78	83	79	81
12	90	85	88	86	58	77	81	53	74	83	65	76
13	89	79	86	87	70	78	81	59	77	82	75	78
14	87	64	82	83	75	81	85	79	83	84	80	82
15	92	55	82	85	69	79	85	81	83	88	83	85
16	90	75	82	85	63	79	93	84	88	88	84	86
17	102	71	86	82	57	69	96	90	93	89	78	84
18	83	77	80	85	41	66	98	92	95	89	73	83
19	276	81	168	82	42	63	99	93	96	86	79	82
20	207	106	168	86	70	79	98	94	96	84	81	82
21	247	95	174	80	73	77	99	91	95	86	71	80
22	325	158	256	81	76	79	98	85	94	84	79	82
23	147	80	112	86	46	75	100	92	96	88	81	84
24	251	73	131	88	71	83	95	89	92	89	84	86
25	78	61	76	89	83	87	93	74	86	88	83	85
26	75	69	73	91	78	87	84	73	79	87	84	85
27	77	63	75	89	69	84	84	81	82	92	82	86
28	78	64	73	90	80	87	82	77	80	94	87	90
29	79	54	71	89	67	85	---	---	---	95	86	91
30	---	---	---	89	75	86	---	---	---	93	89	91
31	---	---	---	89	85	87	---	---	---	97	88	92
MONTH	325	40	97	91	41	78	100	53	84	97	63	83
JUNE				JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	96	89	91	96	46	62	186	73	94	288	180	253
2	93	83	88	90	66	77	192	84	115	139	59	82
3	96	68	86	112	74	93	197	141	174	229	80	139
4	94	86	90	131	91	112	213	177	193	263	116	216
5	96	85	90	141	100	123	220	171	191	269	128	194
6	96	85	90	147	93	129	216	176	205	211	124	163
7	92	84	88	153	120	138	138	54	80	279	114	184
8	98	72	90	152	130	144	79	60	71	250	120	179
9	99	89	92	149	128	138	79	62	71	208	162	191
10	98	78	93	167	133	153	143	75	121	189	40	116
11	103	91	96	185	151	171	145	117	131	192	94	144
12	100	90	94	191	75	139	221	115	137	187	75	132
13	95	84	91	227	169	199	321	131	194	277	154	210
14	98	87	92	203	177	188	358	302	326	297	159	210
15	125	90	98	204	158	182	368	76	171	269	138	193
16	134	96	112	201	148	184	107	72	84	255	167	210
17	179	80	100	233	130	192	270	86	155	258	105	189
18	130	92	102	163	135	149	287	160	232	309	100	209
19	135	98	114	165	122	149	267	145	206	334	214	255
20	119	84	97	176	144	160	327	162	234	310	128	250
21	164	91	112	193	40	149	345	198	294	149	109	125
22	189	100	128	170	76	145	344	283	319	151	99	122
23	211	125	159	204	158	173	349	237	294	163	108	142
24	231	155	185	236	36	139	317	231	281	160	117	138
25	235	133	180	261	144	183	264	171	231	159	123	141
26	228	126	168	169	147	157	341	211	282	207	161	183
27	198	136	165	186	161	171	351	224	274	199	122	141
28	204	143	175	177	167	172	318	167	254	149	125	135
29	222	123	171	175	151	169	188	74	136	149	139	146
30	199	163	180	169	80	107	280	159	214	152	133	141
31	---	---	---	194	154	182	263	164	205	---	---	---
MONTH	235	68	117	261	36	149	368	54	193	334	40	171
YEAR	368	36	112									

MERRIMACK RIVER BASIN

01096906 BOULDER BROOK NFAR EAST BOLTON, MA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.5	13.5	14.5	8.0	5.0	6.5	9.0	4.5	7.5	1.5	0.5	1.0
2	14.5	13.0	14.0	10.5	8.0	9.0	4.5	3.5	4.0	0.5	0.5	0.5
3	12.5	10.5	11.5	11.5	9.0	10.5	3.5	2.0	3.0	1.0	0.5	1.0
4	13.5	11.0	12.0	12.5	10.5	11.5	2.5	1.0	1.5	1.0	0.5	0.5
5	13.0	10.5	11.5	11.0	9.5	10.5	2.5	1.0	1.5	0.5	0.5	0.5
6	14.5	12.0	13.0	10.0	7.5	9.0	5.0	2.5	3.5	0.5	0.5	0.5
7	13.0	11.5	12.0	11.0	8.0	9.5	4.5	1.0	2.5	0.5	0.5	0.5
8	12.5	10.0	11.5	13.5	11.0	12.5	1.5	1.0	1.0	0.5	0.5	0.5
9	12.0	10.5	11.5	13.5	11.5	12.5	3.0	1.5	2.0	0.5	0.5	0.5
10	11.5	9.5	10.5	12.0	11.0	11.5	5.0	3.0	4.0	0.5	0.5	0.5
11	12.0	10.5	11.0	11.5	9.0	10.5	4.5	3.0	3.5	0.5	0.5	0.5
12	12.0	11.5	11.5	10.0	7.5	9.0	3.0	2.0	2.5	0.5	0.5	0.5
13	12.5	11.0	11.5	9.5	9.0	9.5	2.5	2.5	2.5	0.5	0.5	0.5
14	14.0	12.0	12.5	9.5	7.0	9.0	5.0	2.5	4.0	0.5	0.5	0.5
15	15.0	12.5	14.0	7.0	5.5	6.5	7.0	4.5	6.0	0.5	0.5	0.5
16	15.0	12.5	14.0	7.0	5.0	6.0	7.0	3.0	5.5	0.5	0.5	0.5
17	13.0	11.0	12.0	7.5	5.0	6.5	2.5	1.0	2.0	0.5	0.5	0.5
18	12.0	11.0	11.5	9.0	6.5	7.5	3.0	1.0	2.0	0.5	0.0	0.5
19	10.5	10.0	10.5	7.5	5.5	6.5	1.0	1.0	1.0	0.5	0.0	0.5
20	10.5	10.0	10.5	9.0	6.5	8.0	1.0	1.0	1.0	0.5	0.5	0.5
21	12.0	9.5	11.0	10.0	8.0	9.0	1.0	1.0	1.0	0.5	0.0	0.5
22	13.0	11.0	11.5	9.5	5.5	8.0	0.5	0.5	0.5	0.0	0.0	0.0
23	12.5	10.5	11.5	6.0	4.0	5.0	0.5	0.5	0.5	0.0	0.0	0.0
24	12.5	10.0	11.0	4.5	3.5	4.0	0.5	0.0	0.5	0.0	0.0	0.0
25	12.5	10.5	11.5	5.0	3.5	4.0	0.5	0.0	0.5	0.5	0.0	0.0
26	12.5	11.0	12.0	5.5	4.5	5.0	0.5	0.5	0.5	0.5	0.0	0.0
27	11.5	9.0	10.5	6.0	4.5	5.0	0.5	0.5	0.5	0.5	0.0	0.5
28	11.0	8.5	10.0	6.0	4.5	5.0	1.0	0.5	1.0	1.0	0.0	0.5
29	12.5	9.5	11.0	5.0	3.5	4.0	1.0	0.5	0.5	1.0	0.0	0.5
30	11.5	7.5	9.5	7.0	3.5	5.0	0.5	0.5	0.5	1.5	0.0	0.5
31	8.0	6.0	7.0	---	---	---	2.0	0.5	1.5	1.0	0.0	0.0
MONTH	15.5	6.0	11.5	13.5	3.5	8.0	9.0	0.0	2.0	1.5	0.0	0.5
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1.5	0.5	1.0	5.0	4.0	4.5	7.5	6.0	6.5	---	---	---
2	1.5	0.0	0.0	4.0	0.5	2.0	10.0	5.0	7.5	---	---	---
3	0.5	0.0	0.0	0.5	0.5	0.5	10.0	5.5	8.0	---	---	---
4	1.0	0.0	0.5	2.5	0.5	1.5	9.5	5.0	7.0	---	---	---
5	0.5	0.0	0.0	7.5	2.0	5.0	9.5	4.5	7.0	---	---	---
6	0.5	0.0	0.0	7.0	3.5	5.5	10.5	6.0	8.0	16.5	13.0	15.5
7	0.5	0.0	0.0	4.5	1.5	3.0	9.5	6.0	7.5	14.5	10.0	12.0
8	1.0	0.0	0.5	4.0	0.5	2.0	8.5	4.5	6.5	12.5	9.0	10.5
9	1.5	0.0	0.5	2.0	0.0	1.0	7.5	4.0	6.0	12.0	8.5	10.5
10	1.5	0.0	1.0	2.5	0.5	1.5	9.0	3.5	6.5	14.5	9.5	12.5
11	2.0	1.0	1.5	4.5	1.0	2.5	7.5	4.0	6.5	15.0	11.5	13.5
12	2.0	0.5	1.5	3.5	0.0	1.5	6.5	1.5	4.0	14.0	11.5	13.0
13	3.0	1.5	2.0	5.5	0.5	3.0	9.5	2.5	6.0	13.5	9.5	11.5
14	2.5	0.0	1.5	5.5	2.0	3.5	12.0	5.5	8.5	15.0	11.0	13.0
15	2.0	0.0	1.0	5.0	1.0	3.0	12.0	7.0	9.5	16.5	14.0	15.0
16	4.0	2.0	3.0	2.0	0.0	0.5	16.5	10.0	13.0	15.0	12.0	14.0
17	3.0	2.0	2.5	0.5	0.0	0.0	18.5	12.5	15.0	15.5	13.0	14.0
18	2.5	1.5	2.0	0.5	0.0	0.0	19.0	13.5	16.0	15.0	14.0	14.5
19	---	---	---	2.0	0.0	1.0	19.5	14.0	16.5	14.0	10.0	12.5
20	---	---	---	5.5	0.0	3.5	18.5	14.5	16.5	11.0	9.5	10.0
21	---	---	---	8.5	4.0	6.0	16.5	13.0	14.5	12.0	9.0	11.0
22	---	---	---	6.0	3.0	4.5	13.0	11.5	12.0	12.0	10.0	11.0
23	---	---	---	6.0	1.0	3.5	15.5	11.5	13.0	12.5	9.5	11.0
24	---	---	---	8.5	2.5	5.5	12.5	9.5	11.0	12.5	10.5	11.5
25	6.5	2.5	2.5	8.5	5.0	7.0	11.5	8.5	10.0	11.5	10.0	10.5
26	6.0	3.0	5.0	10.0	5.0	7.5	8.0	7.5	8.0	11.0	9.5	10.5
27	7.5	4.5	6.0	10.5	5.0	8.0	9.0	6.5	8.0	13.0	9.5	11.5
28	7.0	3.0	5.0	10.0	6.5	8.5	9.0	7.5	8.0	16.0	11.5	13.5
29	5.5	1.5	3.5	10.0	4.5	7.0	---	---	---	15.5	12.5	14.5
30	---	---	---	8.0	5.5	6.5	---	---	---	15.0	13.5	14.5
31	---	---	---	7.0	5.5	6.5	---	---	---	16.0	13.0	14.5
MONTH	7.5	0.0	2.0	10.5	0.0	3.5	19.5	1.5	9.5	16.5	8.5	12.5

01096910 BOULDER BROOK AT EAST BOLTON, MA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1971 to current year.

WATER TEMPERATURES: June 1971 to current year.

INSTRUMENTATION.--Water-quality monitor since June 1971.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 754 micromhos Feb. 13, 1972; minimum, 68 micromhos June 27, 1973, Mar. 21, Sept. 29, 1974.

WATER TEMPERATURES: Maximum, 28.0°C June 30, 1971, June 23, 24, Aug. 2, 1975; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 466 micromhos Sept. 14; minimum recorded, 82 micromhos Nov 13.

WATER TEMPERATURES: Maximum recorded, 24.0°C June 16; but may have been higher during period of missing record in July and August; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	235	219	224	159	155	157	145	136	141	135	129	133
2	237	235	236	162	158	160	144	140	142	146	136	140
3	249	238	241	172	159	161	146	144	145	143	138	140
4	259	249	254	196	161	167	149	143	147	144	136	139
5	263	258	260	165	158	161	152	146	149	155	141	147
6	268	261	264	171	165	168	149	142	146	157	147	152
7	274	268	271	173	166	168	150	144	148	150	140	146
8	334	276	285	174	153	165	154	151	152	155	115	128
9	363	284	293	167	159	162	153	133	150	143	133	139
10	289	284	286	172	152	168	124	96	109	151	142	147
11	289	193	275	151	141	146	135	123	130	157	149	152
12	169	142	155	166	140	155	141	135	139	151	143	146
13	177	141	163	110	82	94	145	141	143	146	140	143
14	179	160	170	122	97	111	146	141	143	259	113	145
15	196	179	188	133	125	130	148	144	146	140	126	132
16	206	196	201	138	133	135	150	147	148	141	134	137
17	212	204	206	164	134	140	151	145	149	148	135	139
18	218	117	147	162	133	139	150	142	146	149	140	145
19	145	128	136	144	135	139	168	154	160	153	143	148
20	153	136	145	146	142	143	171	160	167	147	139	143
21	165	150	160	147	101	137	163	152	157	143	137	140
22	169	163	166	130	98	118	163	148	153	145	138	141
23	185	166	173	139	130	135	149	143	146	150	146	148
24	194	168	173	143	133	139	152	145	150	149	146	147
25	174	134	163	140	134	138	155	149	151	150	146	148
26	159	133	146	143	135	139	151	100	134	246	147	165
27	161	154	157	143	98	123	120	108	116	248	134	175
28	159	155	157	132	113	125	131	121	127	132	109	119
29	171	154	157	139	132	136	141	131	136	138	130	136
30	159	141	148	143	139	141	144	136	141	141	139	140
31	156	148	153	---	---	---	144	118	127	152	136	144
MONTH	363	117	198	196	82	143	171	96	143	259	109	143

01096910 BOULDER BROOK AT EAST BOLTON, MA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEC. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	150	143	145	137	132	134	148	95	124	433	152	166
2	143	102	118	140	133	136	134	114	126	162	158	160
3	143	131	139	137	134	135	144	135	139	---	---	---
4	149	140	144	140	133	137	147	142	144	---	---	---
5	150	140	145	134	114	127	151	145	147	---	---	---
6	150	145	149	137	126	133	153	148	150	166	159	163
7	158	146	153	145	136	139	153	150	151	166	160	162
8	155	149	153	145	140	142	154	150	152	160	146	151
9	155	150	152	154	142	146	155	151	153	163	154	158
10	155	151	153	146	141	143	156	153	155	165	160	162
11	154	138	147	147	133	140	156	154	155	172	163	167
12	154	146	151	154	139	144	160	153	156	172	135	153
13	155	138	149	144	114	127	159	154	157	163	151	159
14	155	144	151	143	129	135	160	156	158	172	160	166
15	169	146	157	146	140	143	161	157	159	180	170	176
16	145	132	139	166	143	150	164	159	161	185	173	178
17	143	125	137	154	131	141	168	160	163	184	160	168
18	141	135	139	149	138	143	171	162	166	172	147	158
19	138	126	131	147	130	142	174	165	169	158	134	152
20	137	129	135	138	102	124	174	167	170	163	156	159
21	140	132	136	129	113	123	174	166	171	164	127	153
22	133	111	119	137	128	133	174	154	168	164	149	157
23	129	116	124	140	134	137	161	151	155	176	161	168
24	133	126	129	142	137	139	166	143	156	179	170	174
25	130	123	127	142	138	140	154	145	150	178	169	173
26	132	127	129	142	138	140	158	152	155	182	171	177
27	134	128	130	144	139	141	162	156	159	191	178	183
28	135	128	132	144	128	137	162	99	130	207	183	193
29	136	128	132	145	140	142	149	129	143	218	199	206
30	---	---	---	145	143	144	153	147	150	216	204	209
31	---	---	---	147	145	146	---	---	---	229	205	213
MONTH	169	102	139	166	102	138	174	95	153	433	127	170
JUNE				JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	232	217	226	305	207	243	408	289	345	445	424	437
2	213	186	194	353	293	321	390	318	355	447	397	429
3	232	198	215	401	354	384	428	393	409	391	370	376
4	236	220	227	413	400	406	444	427	432	411	378	396
5	244	224	231	415	399	404	446	428	437	427	411	420
6	246	237	242	436	404	416	454	321	435	434	422	428
7	239	219	226	439	419	426	354	288	307	441	431	435
8	258	226	234	442	421	429	311	265	294	445	434	440
9	285	250	262	449	428	435	268	174	240	450	442	446
10	316	285	299	459	431	440	231	164	194	457	424	447
11	319	306	311	460	439	451	299	237	263	419	373	386
12	322	316	320	446	353	391	373	302	332	420	385	404
13	332	319	326	436	415	421	427	375	402	444	420	434
14	350	330	341	435	419	425	429	414	422	466	442	452
15	340	328	333	447	423	431	425	245	409	464	459	461
16	359	330	348	452	425	436	299	223	261	461	456	459
17	355	256	294	448	392	422	---	---	---	458	446	454
18	303	262	287	445	434	438	---	---	---	419	376	392
19	328	304	317	449	436	443	---	---	---	428	388	412
20	337	311	326	459	443	450	---	---	---	444	422	432
21	334	313	326	462	292	415	---	---	---	452	439	447
22	363	337	349	413	323	382	---	---	---	444	439	441
23	393	364	381	453	413	429	---	---	---	442	439	440
24	398	382	389	454	315	373	---	---	---	435	423	428
25	426	372	406	432	389	414	450	437	443	418	416	417
26	449	428	434	439	430	434	463	447	456	422	420	420
27	435	387	409	446	440	444	462	458	460	427	420	424
28	410	338	380	450	444	448	461	454	458	420	415	417
29	430	347	398	454	324	436	456	332	394	417	407	413
30	433	348	403	382	335	358	375	339	359	412	407	410
31	---	---	---	412	383	400	423	413	419	---	---	---
MONTH	449	186	314	462	207	411	---	---	---	466	370	427
YEAR	466	82	227									

MERRIMACK RIVER BASIN

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01096910 BOULDER BROOK AT EAST BOLTON, MA--Continued

TEMPERATURE (DEG. C) OF WATER, OCTOBER 1975 TO JUNE 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.0	12.5	14.5	8.5	5.0	7.0	8.5	4.0	6.5	2.0	1.5	2.0
2	15.0	12.5	14.0	11.0	8.0	9.5	4.0	2.5	3.0	1.0	0.0	0.5
3	13.5	10.0	11.5	12.5	9.0	11.0	4.5	2.0	3.0	1.0	0.0	0.5
4	15.0	10.5	12.0	13.5	10.5	12.0	4.0	2.0	3.0	1.0	0.0	0.5
5	14.0	9.0	11.5	11.5	9.0	10.0	7.5	3.0	5.0	1.0	0.0	0.0
6	16.0	11.5	13.5	10.0	7.0	8.5	11.0	7.5	9.5	1.5	0.0	0.0
7	13.5	9.5	11.5	11.5	7.5	9.5	10.5	8.0	9.0	0.0	0.0	0.0
8	13.5	8.0	10.5	14.0	11.0	12.5	9.0	7.0	8.0	0.0	0.0	0.0
9	13.5	9.5	11.0	13.5	11.0	12.0	8.5	4.5	6.0	0.0	0.0	0.0
10	12.5	7.5	10.0	12.5	10.5	11.5	6.5	5.5	6.0	0.0	0.0	0.0
11	12.0	10.0	11.0	12.0	8.5	10.0	6.0	4.0	5.0	0.0	0.0	0.0
12	12.0	11.5	11.5	9.0	6.5	8.0	4.5	3.5	3.5	0.0	0.0	0.0
13	12.5	10.5	11.5	9.5	9.0	9.0	3.5	3.0	3.5	0.0	0.0	0.0
14	14.5	11.5	12.5	9.5	7.5	9.0	5.0	3.0	4.0	0.0	0.0	0.0
15	16.0	12.0	14.0	7.0	6.0	6.5	6.5	4.5	5.5	0.0	0.0	0.0
16	15.5	12.0	14.0	7.0	5.5	6.5	6.5	3.0	5.0	0.0	0.0	0.0
17	13.0	10.5	11.5	7.5	5.5	6.5	3.0	1.5	2.0	0.5	0.0	0.0
18	11.5	10.5	11.5	9.0	7.0	8.0	3.0	1.0	2.5	0.5	0.0	0.0
19	10.5	10.0	10.5	8.0	7.0	7.5	2.0	0.5	1.0	0.0	0.0	0.0
20	11.0	10.0	10.5	9.5	7.0	8.0	2.0	0.5	1.0	0.0	0.0	0.0
21	12.0	9.5	11.0	10.5	8.0	9.0	1.0	0.5	0.5	0.5	0.0	0.0
22	13.0	11.0	12.0	9.5	6.0	8.0	1.5	0.5	1.0	0.0	0.0	0.0
23	13.0	10.0	11.5	6.5	4.5	5.5	2.0	0.5	1.0	0.0	0.0	0.0
24	12.5	9.5	11.0	5.0	4.0	4.5	1.0	0.5	0.5	0.0	0.0	0.0
25	13.0	10.0	11.5	5.0	4.0	4.5	1.5	0.5	0.5	0.0	0.0	0.0
26	13.5	11.0	12.5	5.5	4.0	4.5	0.5	0.5	0.5	0.0	0.0	0.0
27	12.0	9.0	10.5	5.5	4.0	5.0	1.5	0.5	1.0	0.0	0.0	0.0
28	11.0	8.0	10.0	6.0	4.0	5.0	1.5	0.5	1.0	1.5	0.0	0.0
29	13.0	9.0	11.0	5.0	3.5	4.0	1.0	0.5	0.5	5.0	1.0	3.0
30	12.0	7.5	9.5	6.5	3.0	4.5	2.0	0.5	1.0	2.5	0.0	1.0
31	8.0	6.0	7.0	---	---	---	3.5	1.0	2.0	0.5	0.0	0.0
MONTH	17.0	6.0	11.5	14.0	3.0	8.0	11.0	0.5	3.5	5.0	0.0	0.0
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.5	0.0	0.5	5.5	4.5	5.0	8.0	7.5	7.5	13.5	7.0	10.0
2	2.0	0.0	0.5	4.5	2.5	3.5	9.5	6.5	8.0	12.5	10.5	11.0
3	2.0	0.0	0.5	3.0	2.5	2.5	10.0	7.0	8.5	---	---	---
4	1.0	0.0	0.5	4.5	1.0	3.0	9.5	7.0	8.0	---	---	---
5	1.0	0.0	0.5	6.5	1.0	3.5	10.0	6.5	8.0	---	---	---
6	0.0	0.0	0.0	5.5	3.5	4.5	10.0	7.0	8.5	18.0	14.5	16.0
7	0.0	0.0	0.0	5.5	2.0	3.5	9.5	7.0	8.0	14.5	11.5	12.5
8	0.5	0.0	0.0	4.5	1.5	3.0	8.5	6.0	7.0	14.0	10.0	12.0
9	2.0	0.0	0.5	4.5	2.0	3.5	8.5	6.5	7.5	14.0	9.5	11.5
10	1.5	0.0	0.5	7.5	3.5	5.0	10.0	6.5	8.5	16.0	10.0	12.5
11	2.0	0.0	1.0	7.5	5.0	6.0	9.5	7.5	8.5	15.5	11.5	13.5
12	2.5	0.5	1.5	7.5	4.5	6.0	10.0	6.5	8.0	15.0	12.0	13.5
13	4.0	2.5	3.0	8.5	5.5	7.0	12.0	7.5	9.5	15.5	11.0	13.0
14	3.5	1.5	3.0	9.5	6.5	8.0	13.5	9.5	11.5	15.5	11.5	14.0
15	4.0	1.5	3.0	9.5	7.0	8.5	14.0	10.5	12.0	17.5	12.0	14.5
16	5.0	3.5	4.0	8.5	7.5	8.0	17.5	12.5	15.0	16.0	12.0	14.0
17	4.0	3.5	3.5	8.5	7.5	8.0	19.5	14.5	17.0	16.5	13.5	14.5
18	3.5	2.0	2.5	8.5	0.5	5.0	20.5	15.5	18.0	15.5	13.5	14.5
19	4.5	3.0	3.5	3.5	0.5	2.0	21.5	17.0	19.0	13.5	10.5	12.0
20	4.5	3.0	3.5	7.0	3.0	5.0	21.0	17.5	19.0	12.0	10.0	11.0
21	5.5	2.0	4.0	9.0	5.5	7.0	20.5	17.0	18.5	13.0	9.5	11.5
22	6.5	5.0	6.0	8.5	6.0	7.5	17.5	17.0	17.0	13.0	10.0	11.5
23	5.0	3.0	3.5	8.5	5.5	7.0	20.5	17.0	18.5	14.5	10.0	12.0
24	4.5	2.0	3.5	10.0	6.5	8.0	19.0	16.0	17.5	13.5	10.5	12.0
25	6.5	3.0	4.5	10.0	8.0	9.0	18.0	16.0	17.0	12.5	10.0	11.0
26	6.0	3.5	5.0	11.0	8.0	9.0	19.0	16.0	17.5	11.5	10.0	11.0
27	7.0	4.5	5.5	10.5	6.5	8.5	19.5	8.0	16.0	15.0	10.0	12.5
28	6.5	3.5	5.0	10.0	8.0	9.0	11.5	8.5	9.5	17.5	11.0	13.5
29	5.5	2.5	4.0	10.0	6.5	8.0	13.5	9.5	11.5	17.0	11.5	14.0
30	---	---	---	9.0	7.0	8.0	13.5	7.5	10.0	15.5	12.5	14.0
31	---	---	---	8.0	7.0	7.5	---	---	---	18.0	12.5	15.0
MONTH	7.0	0.0	2.5	11.0	0.5	6.0	21.5	6.0	12.5	18.0	7.0	13.0

MERRIMACK RIVER BASIN

01096910 BOULDER BROOK AT EAST BOLTON, MA--Continued

TEMPERATURE (DEG. C) OF WATER, OCTOBER 1975 TO JUNE 1976--Continued

DAY	JUNE		
	MAX	MIN	MEAN
1	16.5	13.0	14.5
2	15.5	11.5	13.5
3	17.5	11.0	14.0
4	17.5	11.5	14.5
5	18.5	11.0	14.5
6	16.0	13.0	14.0
7	16.0	13.0	14.5
8	20.5	14.0	16.5
9	20.5	14.0	17.0
10	22.0	15.0	17.5
11	22.0	15.5	18.0
12	20.5	14.0	17.0
13	20.0	12.0	15.5
14	20.5	13.5	16.5
15	23.0	15.5	18.5
16	24.0	16.5	19.5
17	21.5	18.0	19.5
18	---	---	---
19	---	---	---
20	---	---	---
21	---	---	---
22	---	---	---
23	---	---	---
24	---	---	---
25	---	---	---
26	---	---	---
27	---	---	---
28	---	---	---
29	---	---	---
30	---	---	---
31	---	---	---
MONTH	---	---	---
PERIOD	24.0	0.0	7.5

01097000 ASSABET RIVER AT MAYNARD, MA

LOCATION.--Lat 42°25'55", long 71°27'01", Middlesex County, Hydrologic Unit 01070005, on right bank at Maynard, 150 ft (46 m) upstream from bridge on State Highway 27, 1.7 mi (2.7 km) downstream from Assabet Brook, and 7.1 mi (11.4 km) upstream from confluence with Sudbury River.

DRAINAGE AREA.--116 mi² (300 km²).

PERIOD OF RECORD.--Discharge: July 1941 to current year.

Chemical analyses: Water years 1954, 1967-74 (partial-record station).

Water temperatures: Water years 1967-74 (partial-record station).

Sediment records: Water years 1967-74 (partial-record station).

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

GAGE.--Water-stage recorder. Datum of gage is 142.12 ft (43.318 m) above mean sea level.

REMARKS.--Records good. Occasional diurnal fluctuation at low flow by mills upstream; greater regulation prior to 1969. High flow affected by retarding reservoirs since 1962. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years, 183 ft³/s (5.193 m³/s), 21.42 in/yr (544 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,250 cfs (120 m³/s) Aug. 20, 1955, gage height, 8.94 ft (2.725 m); maximum gage height, 8.96 ft (2.731 m) Aug. 20, 1955 (backwater from debris); minimum daily discharge, 0.20 cfs (0.006 m³/s) Feb. 7, 1965.

Maximum discharge since at least 1886, that of Aug. 20, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,030 ft³/s (29.2 m³/s) Jan. 28, gage height, 5.01 ft (1.527 m); minimum daily, 21 ft³/s (0.59 m³/s) July 11, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	224	351	314	692	348	252	178	84	80	60	35
2	129	222	313	333	732	333	376	252	93	86	74	39
3	119	213	292	311	670	330	428	327	100	74	84	49
4	109	201	272	292	539	325	355	304	91	58	76	47
5	94	177	249	274	459	350	292	254	81	48	54	46
6	84	160	232	249	399	385	254	213	74	38	51	49
7	77	160	225	235	367	360	231	187	72	30	84	41
8	74	158	226	252	336	330	215	208	68	26	97	36
9	74	158	220	287	324	315	201	218	63	26	136	34
10	71	158	227	283	358	300	198	196	60	22	205	37
11	81	171	305	272	361	290	191	176	54	21	195	74
12	159	175	370	244	373	280	184	187	47	27	181	60
13	252	258	355	226	370	320	176	208	47	28	136	49
14	309	497	310	319	373	370	169	198	44	25	94	43
15	284	673	281	431	469	340	164	171	41	23	84	39
16	244	610	263	448	578	320	157	152	39	22	82	37
17	187	494	253	405	619	300	155	155	36	22	72	39
18	238	412	239	376	670	290	148	162	36	23	64	54
19	402	352	231	348	644	287	141	169	36	25	57	55
20	512	310	211	273	582	315	133	167	36	21	51	50
21	527	280	191	265	644	392	122	169	35	24	46	45
22	476	309	184	260	666	462	124	178	33	47	46	43
23	395	367	182	245	574	415	152	173	30	57	38	38
24	327	375	180	238	505	357	150	152	27	96	34	34
25	292	345	180	228	473	316	143	131	28	111	30	34
26	292	308	200	249	445	292	215	120	27	67	25	33
27	284	295	246	505	415	273	278	113	25	50	29	36
28	270	345	301	926	386	254	267	105	27	42	31	39
29	254	393	339	954	361	252	228	98	26	35	43	40
30	240	393	328	728	---	241	196	86	25	46	52	39
31	229	---	304	586	---	223	---	86	---	51	41	---
TOTAL	7235	9193	8060	11356	14384	9965	6295	5493	1485	1351	2352	1294
MEAN	233	306	260	366	496	321	210	177	49.5	43.6	75.9	43.1
MAX	527	673	370	954	732	462	428	327	100	111	205	74
MIN	71	158	180	226	324	223	122	86	25	21	25	33
CFSM	2.01	2.64	2.24	3.16	4.28	2.77	1.81	1.53	.43	.38	.65	.37
IN.	2.32	2.95	2.58	3.64	4.61	3.20	2.02	1.76	.48	.43	.75	.41
CAL YR 1975	TOTAL	74730	MEAN 205	MAX 996	MIN 18	CFSM 1.77	IN 23.96					
WTR YR 1976	TOTAL	78463	MEAN 214	MAX 954	MIN 21	CFSM 1.84	IN 25.16					

MERRIMACK RIVER BASIN

01097300 NASHOBA BROOK NEAR ACTON, MA

LOCATION.--Lat 42°30'39", long 71°24'25", Middlesex County, Hydrologic Unit 01070005, on right bank 1,500 ft (450 m) downstream from dam at North Acton, 2.2 mi (3.5 km) northeast of Acton, and 5 mi (8 km) upstream from mouth.

DRAINAGE AREA.--12.7 mi² (32.9 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1962-63. July 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 155 ft (47 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Occasional regulation since 1967 by small pond upstream.

AVERAGE DISCHARGE.--13 years, 19.3 ft³/s (0.547 m³/s), 20.64 in/yr (524 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 360 ft³/s (10.2 m³/s) Mar. 19, 1968, gage height, 5.07 ft (1.545 m); minimum, 0.02 ft³/s (0.001 m³/s) Sept. 6, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 90 ft³/s (2.55 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 14	0900	113 3.20	3.73 1.137	Feb. 19	1900	144 4.08	3.95 1.204
Jan. 28	1645	*269 7.62	*4.48 1.366	Feb. 23	0745	173 4.90	4.10 1.250
Feb. 3	0115	169 4.79	4.08 1.244	Mar. 21	1815	97 2.75	3.59 1.094

Minimum discharge, 0.26 ft³/s (0.007 m³/s) July 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	28	54	64	89	62	35	22	7.7	2.6	.73	3.3
2	13	25	50	60	126	61	69	42	8.3	3.7	.78	3.2
3	10	23	46	52	150	51	67	56	8.8	3.7	.75	3.0
4	8.6	22	41	48	117	49	53	44	8.0	2.9	.65	2.9
5	8.0	20	36	44	90	54	42	33	8.1	2.3	.48	2.9
6	7.8	19	33	38	74	77	35	26	8.1	1.8	.46	2.2
7	7.3	17	34	34	65	70	32	22	7.1	1.5	.91	1.7
8	6.6	17	32	37	59	56	28	26	6.9	1.0	1.5	1.8
9	6.2	19	29	41	56	43	27	27	7.2	.68	3.5	1.6
10	5.9	19	47	42	52	40	25	22	8.6	.58	7.5	1.5
11	6.2	21	76	38	52	40	23	19	8.0	.48	8.6	2.5
12	13	23	69	35	58	40	23	21	7.1	.65	8.6	4.4
13	33	62	56	33	61	45	22	29	6.2	.59	7.5	5.4
14	39	110	47	45	65	64	21	24	5.8	.57	6.0	4.9
15	34	109	42	54	65	61	18	19	5.4	.62	4.4	3.4
16	26	89	41	68	64	48	17	16	5.4	.64	3.9	2.9
17	19	67	38	59	104	36	17	15	3.9	.60	4.0	2.6
18	28	56	35	50	120	39	16	16	3.2	.51	3.9	2.8
19	64	48	31	44	125	42	15	20	3.1	.38	3.3	4.0
20	79	43	25	38	128	46	14	22	2.6	.38	2.6	5.3
21	74	42	21	36	102	75	13	20	1.9	.39	1.7	3.3
22	63	60	20	35	113	79	12	26	1.6	.48	1.3	2.8
23	52	68	21	34	146	62	16	23	1.7	.45	1.1	2.3
24	42	58	22	32	103	50	18	17	1.7	.55	1.1	1.9
25	37	51	26	31	84	45	16	14	1.4	.44	.94	1.7
26	39	47	33	31	83	42	35	13	1.2	.34	.79	1.5
27	42	50	40	38	78	39	53	12	1.1	.30	.76	1.3
28	37	72	50	190	75	36	42	11	.95	.30	.76	1.3
29	32	73	65	206	67	36	32	9.9	.99	.27	.89	1.3
30	30	61	63	166	---	33	26	8.8	1.0	.81	1.8	1.2
31	30	---	64	109	---	30	---	8.4	---	.75	3.2	---
TOTAL	909.6	1419	1287	1832	2571	1551	862	684.1	143.04	31.26	84.40	80.9
MEAN	29.3	47.3	41.5	59.1	88.7	50.0	28.7	22.1	4.77	1.01	2.72	2.70
MAX	79	110	76	206	150	79	69	56	8.8	3.7	8.6	5.4
MIN	5.9	17	20	31	52	30	12	8.4	.95	.27	.46	1.2
CFSM	2.31	3.72	3.27	4.65	6.98	3.94	2.26	1.74	.38	.08	.21	.21
IN.	2.66	4.16	3.77	5.37	7.53	4.54	2.52	2.00	.42	.09	.25	.24
CAL YR 1975	TOTAL	10162.29	MEAN	27.8	MAX	165	MIN	.43	CFSM	2.19	IN	29.76
WTR YR 1976	TOTAL	11455.30	MEAN	31.3	MAX	206	MIN	.27	CFSM	2.46	IN	33.55

MERRIMACK RIVER BASIN

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01097300 NASHOBA BROOK NEAR ACTON, MA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-74, October 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1971 to September 1974, October 1975 to September 1976.

WATER TEMPERATURES: October 1971 to September 1974, October 1975 to September 1976.

INSTRUMENTATION.--Water-quality monitor since Oct. 1971 (no record during 1975 water year).

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. Recording air-temperature gage located at station since January 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 371 micromhos May 13, 1972; minimum, 71 micromhos Apr. 2, 1973.

WATER TEMPERATURES: Maximum, 29.0°C June 24, 1976; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 231 micromhos Aug. 12, 13; minimum recorded, 102 micromhos Nov. 14.

WATER TEMPERATURES: Maximum, 29.0°C June 24; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C). WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	191	186	188	169	168	169	140	133	137	130	114	122
2	195	191	193	171	169	170	144	137	141	133	126	130
3	196	195	195	173	171	172	146	143	145	130	128	129
4	197	195	196	175	172	173	150	144	146	131	127	129
5	199	197	198	176	174	175	155	146	151	138	132	136
6	200	197	199	177	175	176	155	150	153	143	138	140
7	205	200	202	177	174	176	149	145	147	---	---	---
8	204	202	203	177	175	176	152	145	149	---	---	---
9	202	200	201	179	175	177	153	148	151	---	---	---
10	203	199	201	179	177	178	145	118	128	---	---	---
11	201	195	200	178	174	176	120	117	119	---	---	---
12	196	183	190	175	160	173	119	116	117	---	---	---
13	185	176	181	155	103	120	125	118	121	---	---	---
14	176	173	174	112	102	107	126	124	125	---	---	---
15	176	172	174	115	110	112	130	125	127	199	190	195
16	176	167	175	121	115	117	129	125	127	200	176	190
17	179	175	177	132	121	126	130	124	127	175	164	168
18	177	142	160	139	132	135	129	126	128	174	168	172
19	141	131	134	145	139	142	141	125	133	171	167	169
20	134	132	133	148	144	147	---	---	---	169	167	169
21	142	134	138	149	135	146	---	---	---	168	166	167
22	146	142	144	133	124	128	---	---	---	167	163	165
23	152	147	149	132	127	130	---	---	---	167	163	165
24	158	153	156	133	131	132	---	---	---	166	165	165
25	159	156	158	138	132	134	---	---	---	167	163	164
26	157	156	156	150	138	143	---	---	---	166	162	164
27	160	158	159	152	132	144	---	---	---	203	166	184
28	163	160	161	134	126	130	---	---	---	183	148	168
29	169	164	167	131	128	130	---	---	---	148	141	144
30	168	166	167	133	130	132	---	---	---	150	144	147
31	170	167	168	---	---	---	111	110	110	155	149	152
MONTH	205	131	174	179	102	148	---	---	---	---	---	---

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	156	149	153	120	118	119	153	132	144	147	135	144
2	149	117	127	125	120	121	133	126	128	131	121	124
3	136	127	131	131	121	127	136	132	134	130	122	126
4	143	132	139	134	127	133	141	137	138	135	129	132
5	146	139	142	133	119	127	145	140	142	139	135	137
6	148	141	144	126	119	124	147	144	146	144	140	141
7	152	145	147	126	122	124	149	146	148	148	141	146
8	155	147	152	131	126	129	150	147	149	141	136	139
9	154	150	152	138	128	133	151	148	149	141	138	140
10	154	150	153	138	133	137	152	149	151	145	141	143
11	153	151	152	139	137	138	153	150	152	147	144	146
12	155	150	153	145	137	141	153	149	151	147	137	141
13	154	143	149	144	128	136	153	149	152	139	135	137
14	146	141	143	145	126	136	154	152	153	141	139	140
15	145	140	142	143	139	141	155	153	154	146	142	144
16	141	137	139	142	138	140	156	154	155	149	146	148
17	139	119	126	144	138	140	159	156	157	148	146	147
18	124	121	123	147	141	144	160	158	159	150	146	148
19	127	117	121	152	145	149	161	159	160	147	143	145
20	125	119	122	147	134	141	162	160	161	143	142	142
21	122	120	121	141	128	135	162	160	161	143	139	142
22	120	103	111	142	137	140	162	157	160	140	132	135
23	106	103	104	144	137	140	166	157	161	138	133	136
24	115	106	111	148	141	144	166	164	165	143	138	141
25	118	114	116	149	148	149	163	149	157	145	143	144
26	115	114	114	153	149	151	149	133	139	147	145	146
27	115	111	113	153	151	151	136	133	135	149	147	148
28	114	112	113	151	149	150	138	135	137	151	148	149
29	119	111	116	152	151	151	141	138	139	152	149	151
30	---	---	---	153	151	152	146	140	143	152	151	151
31	---	---	---	154	151	153	---	---	---	154	151	152
MONTH	156	103	132	154	118	139	166	126	149	154	121	142
JUNE				JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	153	151	153	167	135	150	171	163	167	190	186	188
2	152	150	151	172	167	170	175	163	170	192	187	190
3	156	150	152	173	168	170	180	169	174	189	184	185
4	159	155	156	177	170	173	182	168	174	193	187	191
5	167	158	162	182	176	179	182	173	177	192	184	190
6	172	168	170	182	177	180	180	171	174	185	182	184
7	171	165	168	183	176	179	170	156	162	183	180	181
8	166	163	165	178	173	176	164	152	157	180	178	179
9	169	163	166	177	169	173	195	165	184	179	175	177
10	175	168	173	174	167	171	201	180	192	176	170	172
11	177	173	175	176	169	173	228	199	210	165	126	142
12	173	171	172	176	162	167	231	226	228	165	161	163
13	170	167	169	168	157	161	231	228	230	163	161	162
14	168	165	167	168	164	165	230	228	229	168	163	165
15	169	165	167	168	161	164	230	208	221	171	167	169
16	175	168	172	167	164	166	209	202	205	172	170	171
17	177	174	176	166	161	164	211	208	210	172	168	170
18	178	173	176	171	162	166	208	205	206	169	164	166
19	179	173	176	171	161	165	206	204	205	174	169	172
20	183	176	180	170	164	166	204	200	202	179	175	177
21	181	176	179	169	164	166	208	198	201	180	177	179
22	178	173	176	169	154	163	207	191	198	183	179	181
23	179	173	177	166	154	159	199	195	196	181	176	178
24	182	174	179	166	157	161	198	190	193	181	178	179
25	184	175	181	165	154	158	191	187	189	180	176	178
26	180	174	177	168	157	160	189	183	186	177	171	174
27	178	172	175	170	162	165	184	179	181	171	165	167
28	173	168	170	170	162	166	178	175	176	167	160	163
29	173	169	171	169	161	164	177	160	171	162	158	159
30	171	167	169	161	154	157	173	147	156	164	162	163
31	---	---	---	170	159	166	187	177	184	---	---	---
MONTH	184	150	170	183	135	167	231	147	191	193	126	174
YEAR	231	102	157									

01097300 NASHOBA BROOK NEAR ACTON, MA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.5	13.0	14.0	6.5	4.5	5.5	7.5	5.0	7.0	1.0	0.5	0.5
2	15.0	13.0	14.0	8.5	6.0	7.0	6.0	3.5	4.5	1.0	0.5	0.5
3	13.0	11.0	12.0	10.5	8.0	9.0	3.5	2.0	3.0	0.5	0.5	0.5
4	14.0	10.5	12.0	12.5	10.0	11.0	1.5	1.0	1.0	0.5	0.5	0.5
5	12.5	10.5	11.5	12.0	10.5	11.0	1.5	0.5	1.0	0.5	0.5	0.5
6	14.5	11.5	13.0	10.5	8.5	9.5	2.0	1.0	1.5	0.5	0.0	0.0
7	14.0	12.0	13.0	10.0	8.0	9.0	2.0	1.0	1.5	---	---	---
8	13.5	10.5	12.0	13.0	10.0	11.5	1.0	0.5	0.5	---	---	---
9	12.0	10.5	11.0	14.5	12.5	13.5	1.5	0.5	1.0	---	---	---
10	11.0	9.5	10.5	13.0	12.5	12.5	2.0	1.5	2.0	---	---	---
11	11.0	10.5	10.5	12.5	11.0	12.0	3.0	2.0	2.5	---	---	---
12	11.0	11.0	11.0	10.5	8.5	9.5	2.5	1.5	1.5	---	---	---
13	13.0	10.5	11.5	9.5	9.0	9.5	1.5	1.0	1.0	---	---	---
14	14.5	12.0	13.0	10.0	8.5	9.5	3.0	1.5	2.0	---	---	---
15	14.5	12.5	13.5	8.5	6.5	7.5	6.5	3.5	4.5	0.5	0.0	0.5
16	15.5	13.5	14.0	6.0	5.0	5.5	6.5	4.5	6.0	0.5	0.0	0.5
17	13.5	12.0	12.5	5.5	4.0	5.0	4.0	2.0	2.5	0.5	0.0	0.0
18	12.0	10.5	11.5	7.0	5.0	6.0	2.0	1.0	1.5	0.0	0.0	0.0
19	10.5	9.5	10.0	6.5	5.0	6.0	1.0	0.5	0.5	0.0	0.0	0.0
20	10.0	9.5	9.5	7.5	5.5	6.5	---	---	---	0.0	0.0	0.0
21	11.0	9.0	10.0	9.5	7.0	7.5	---	---	---	0.5	0.0	0.0
22	12.0	10.5	11.0	9.5	7.5	8.5	---	---	---	0.0	0.0	0.0
23	12.0	10.5	11.0	7.5	4.5	6.0	---	---	---	0.0	0.0	0.0
24	11.5	10.0	11.0	4.5	2.0	3.0	---	---	---	0.0	0.0	0.0
25	12.0	10.5	11.0	3.0	2.0	2.5	---	---	---	0.5	0.0	0.0
26	12.5	12.0	12.0	4.0	3.0	3.5	---	---	---	0.5	0.0	0.0
27	12.0	10.0	11.0	5.0	3.5	4.0	---	---	---	0.5	0.0	0.0
28	10.0	8.5	9.5	5.0	4.0	4.5	---	---	---	0.5	0.0	0.5
29	11.0	8.5	9.5	4.5	3.0	3.5	---	---	---	0.0	0.0	0.0
30	10.5	8.0	9.5	5.0	2.5	3.5	---	---	---	0.5	0.0	0.0
31	8.0	6.0	7.0	---	---	---	1.0	0.5	0.5	0.5	0.0	0.0
MONTH	15.5	6.0	11.5	14.5	2.0	7.5	---	---	---	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.5	0.0	0.0	2.5	1.5	1.5	9.0	7.5	8.0	14.5	12.5	13.5
2	0.5	0.0	0.0	1.5	0.0	0.5	10.0	6.5	8.5	17.0	13.0	15.0
3	0.0	0.0	0.0	0.5	0.0	0.0	11.5	8.0	10.0	17.5	15.0	16.5
4	0.5	0.0	0.0	0.5	0.0	0.5	11.0	8.0	9.5	14.5	12.0	13.0
5	0.0	0.0	0.0	3.0	0.5	1.5	11.0	7.0	9.0	15.0	10.0	12.5
6	0.0	0.0	0.0	5.0	2.5	4.0	12.5	8.0	10.5	19.0	13.0	16.0
7	0.5	0.0	0.0	3.5	1.5	2.5	11.0	8.5	10.0	18.0	13.5	16.0
8	0.5	0.0	0.0	3.0	0.5	2.0	9.5	7.5	8.5	15.5	11.5	13.5
9	0.5	0.0	0.0	2.0	0.5	1.0	9.0	6.0	7.5	15.5	11.5	13.0
10	0.5	0.0	0.0	1.5	0.5	1.0	10.5	6.0	8.5	17.0	12.0	14.5
11	0.5	0.0	0.5	3.5	1.0	2.0	9.0	6.0	8.5	18.0	14.0	16.0
12	0.5	0.0	0.5	3.0	0.5	2.0	8.0	3.5	6.0	18.0	15.0	16.0
13	0.5	0.0	0.5	4.0	1.0	2.5	10.0	4.0	7.0	17.0	12.5	15.0
14	0.5	0.0	0.0	5.5	2.0	4.0	13.0	7.5	10.5	18.0	14.0	16.0
15	0.5	0.0	0.0	6.0	3.0	4.5	13.5	9.5	11.5	22.0	16.5	19.0
16	0.5	0.0	0.5	5.0	1.0	2.5	18.5	12.0	15.0	20.0	16.5	18.0
17	1.0	0.0	0.5	1.5	0.5	1.0	20.5	16.0	18.5	19.0	16.5	17.5
18	0.5	0.0	0.0	1.5	0.5	1.0	23.0	18.0	20.0	18.5	17.0	18.0
19	0.5	0.0	0.0	1.5	0.5	1.0	22.5	18.5	20.5	18.0	13.0	15.5
20	0.5	0.0	0.0	4.0	0.5	2.5	23.0	19.0	20.5	13.0	11.5	12.0
21	0.0	0.0	0.0	7.5	3.0	5.0	20.0	17.5	18.5	14.0	11.0	12.5
22	1.0	0.0	0.0	7.5	4.5	6.0	17.5	14.5	15.5	15.0	11.5	13.0
23	0.5	0.0	0.0	7.0	3.0	5.0	17.5	13.5	15.0	16.5	12.0	14.0
24	1.0	0.0	0.0	9.0	4.0	6.5	15.5	13.0	14.0	15.0	13.0	14.0
25	1.5	0.0	0.5	10.0	7.0	8.5	14.0	10.0	12.0	14.5	12.0	13.0
26	1.5	0.0	0.5	12.0	7.5	10.0	10.0	8.5	9.0	13.5	12.0	13.0
27	3.0	0.5	1.5	12.5	8.5	10.5	9.0	7.5	8.0	16.0	11.5	14.0
28	3.0	0.5	1.5	13.0	9.5	11.5	12.0	8.0	10.0	19.5	13.0	16.0
29	2.0	0.0	1.0	12.0	7.5	10.0	14.0	10.5	12.0	20.0	15.5	17.5
30	---	---	---	10.0	8.0	9.0	15.5	11.5	13.5	19.5	17.0	18.0
31	---	---	---	8.5	7.5	8.0	---	---	---	21.5	16.5	19.0
MONTH	3.0	0.0	0.5	13.0	0.0	4.0	23.0	3.5	12.0	22.0	10.0	15.0

01097500 SUDBURY RIVER AT FRAMINGHAM CENTER, MA

LOCATION.--Lat 42°17'29", long 71°26'35", Middlesex County, Hydrologic Unit 01070005, at dam of Framingham Reservoir No. 1, 0.5 mi (0.8 km) upstream from outlet of Farm Pond, and 0.8 mi (1.3 km) southwest of Framingham Center.

DRAINAGE AREA.--75.2 mi² (194.8 km²), since January 1881.

PERIOD OF RECORD.--Discharge: January 1875 to current year.
Chemical analyses: Water year 1957 (partial-record station).
Water temperatures: Water year 1957 (partial-record station).

REVISED RECORDS.--WSP 1051: 1937.

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 South Branch Nashua River is diverted into Sudbury Reservoir en route to Boston metropolitan district.

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

AVERAGE DISCHARGE.--101 years, 114 ft³/s (3.228 m³/s), 20.59 in/yr (523 mm/yr), adjusted to present drainage area.

MONTHLY DISCHARGE, IN CUBIC FEET PER SECOND, AND RAINFALL, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Month	Mean	Per square mile	Runoff in inches	Rainfall in inches
October.....	188	2.50	2.89	6.48
November.....	290	3.86	4.31	7.16
December.....	158	2.10	2.43	6.20
Calendar year 1975.....	150	1.99	27.08	53.60
January.....	280	3.72	4.30	5.81
February.....	342	4.55	4.91	2.46
March.....	280	3.72	4.30	2.84
April.....	133	1.77	1.98	2.42
May.....	95.7	1.27	1.47	2.84
June.....	20.1	.27	.30	1.80
July.....	12.1	.16	.19	3.88
August.....	75.3	1.00	1.15	5.31
September.....	70.0	.93	1.04	2.73
Water year 1976.....	162	2.15	29.25	49.93

MERRIMACK RIVER BASIN

01099500 CONCORD RIVER BELOW RIVER MEADOW BROOK AT LOWELL, MA

LOCATION.--Lat 42°38'12", long 71°18'09", Middlesex County, Hydrologic Unit 01070005, on right bank 300 ft (90 m) downstream from Rogers Street Bridge at Lowell, 0.3 mi (0.5 km) downstream from River Meadow Brook, and 0.8 mi (1.3 km) upstream from mouth.

DRAINAGE AREA.--Total above gage, 405 mi² (1,049 km²); net above gage, 312 mi² (808 km²) - diversion as needed from 92.6 mi² (239.8 km²) 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.

Chemical analyses: Water years 1953, 1967-74 (partial-record station).

Water temperatures: Water years 1967-74 (partial-record station).

Sediment records: Water years 1967-74 (partial-record station).

GAGE.--Water-stage recorder. Datum of gage is 67.41 ft (20.547 m) above mean sea level.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Daily discharge includes water released from 92.6 mi² (239.8 km²) in basins of Sudbury River and Lake Cochituate (see table below for figures of diversion). Prior to December 1961, water diverted upstream for use of city of Lowell. Low flow regulated by mills upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years, 614 ft³/s (17.39 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft³/s (136 m³/s) Mar. 22, 1968, gage height, 9.16 ft (2.792 m); minimum daily, 4.0 ft³/s (0.11 m³/s) Sept. 29, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,190 ft³/s (62.0 m³/s) Jan. 31, gage height, 7.13 ft (2.173 m), from peak-stage indicator; maximum gage height, 7.14 ft (2.176 m) Jan. 19 (backwater from ice); minimum daily discharge, 60 ft³/s (1.70 m³/s) July 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	810	947	1500	1270	2100	1600	1090	785	350	104	168	240
2	734	909	1430	1300	2050	1500	1160	863	337	124	178	206
3	673	876	1390	1290	2100	1450	1160	887	337	140	183	212
4	610	849	1330	1280	2050	1400	1170	907	327	136	173	219
5	546	811	1290	1250	1900	1350	1140	914	320	125	164	206
6	493	779	1240	1200	1700	1400	1110	891	306	113	142	194
7	425	751	1200	1160	1550	1450	1050	835	306	101	159	183
8	362	753	1150	1190	1400	1450	991	821	299	85	192	174
9	306	731	1130	1200	1300	1400	929	785	283	70	260	163
10	270	717	1250	1150	1250	1350	885	752	254	63	462	157
11	251	712	1290	1150	1200	1300	857	716	231	60	536	198
12	362	718	1310	1100	1200	1250	805	702	194	110	567	234
13	515	1020	1300	1050	1200	1250	786	688	187	98	574	242
14	622	1230	1300	1200	1250	1200	751	673	178	94	571	219
15	675	1340	1280	1270	1300	1200	722	641	165	92	563	205
16	692	1430	1230	1320	1400	1180	698	611	155	91	554	202
17	687	1480	1200	1350	1500	1190	673	594	144	90	406	198
18	780	1460	1180	1300	1700	1190	658	589	133	80	400	215
19	922	1450	1130	1250	1800	1180	641	596	126	75	403	226
20	1050	1450	1060	1200	1900	1200	625	593	114	72	370	229
21	1180	1450	948	1140	1950	1310	603	612	106	68	319	227
22	1230	1450	793	1100	1950	1360	578	636	97	76	270	217
23	1240	1460	740	1100	1950	1400	563	635	89	90	247	213
24	1210	1470	740	1050	1950	1400	548	623	83	103	224	196
25	1180	1490	790	1000	1900	1370	541	597	78	124	202	182
26	1170	1460	940	1000	1850	1310	640	571	70	138	186	176
27	1130	1460	1060	1090	1800	1270	709	535	67	132	177	177
28	1100	1510	1120	1540	1750	1220	767	510	68	111	171	175
29	1060	1510	1170	1700	1700	1170	805	476	68	99	135	168
30	1010	1520	1200	1940	---	1130	804	426	65	112	212	148
31	972	---	1240	2150	---	1080	---	385	---	145	303	---
TOTAL	24271	35193	35931	39290	48650	40510	24459	20849	5537	3121	9471	6001
MEAN	783	1173	1159	1267	1678	1307	815	673	185	101	306	200
MAX	1240	1520	1500	2150	2100	1600	1170	914	350	145	574	242
MIN	251	712	740	1000	1200	1080	541	385	65	60	135	148
(†)	-215	-323	-330	-380	-547	-355	-190	-131	-33.6	-2.32	-79.5	-63.0

CAL YR 1975 TOTAL 262388 MEAN 719 MAX 1770 MIN 40
WTR YR 1976 TOTAL 293283 MEAN 801 MAX 2150 MIN 60

† Diversion in cubic feet per second, into basin while diverting flow from 92.6 mi² in basins of Sudbury River and Lake Cochituate for use of Boston metropolitan district; records furnished by Water Division of Boston Metropolitan District Commission.

NOTE.--No gage-height record Jan. 31 to Mar. 14.

01100000 MERRIMACK RIVER BELOW CONCORD RIVER, AT LOWELL, MA

LOCATION.--Lat 42°38'45", long 71°17'56", Middlesex County, Hydrologic Unit 01070002, on right bank at Lowell 1,100 ft (350 m) downstream from Concord River.

DRAINAGE AREA.--Total above gage, 4,635 mi² (12,005 km²); net above gage, 4,425 mi² (11,461 km²) - diversions as needed from 210 mi² (544 km²) for use of Boston metropolitan district and city of Worcester.

PERIOD OF RECORD.--Discharge: June 1923 to current year.

Chemical analyses: Water years 1954, 1966-74 (partial-record station).

Water temperatures: January 1966 to September 1967, water years 1968-74 (partial-record station).

Sediment records: April 1967 to September 1972.

GAGE.--Water-stage recorder. Datum of gage is 5.18 ft (1.579 m) above mean sea level. Prior to Mar. 7, 1934, at Boott Mills, 1,800 ft (550 m) upstream and 700 ft (200 m) above mouth of Concord River, in same gage pool and at same datum; gage-height record (furnished by Proprietors of the Locks and Canals on Merrimack River) was indicative of flow including that of Concord River.

REMARKS.--Records good. Daily discharge includes water released from 210 mi² (544 km²) in basins of Sudbury and South Branch Nashua Rivers and Lake Cochituate (see table below for figures of diversion). Flow regulated by powerplants, by Franklin Falls Reservoir since 1942, and by Squam, Newfound, Winnipisaukee, Winnisquam, and other lakes and reservoirs upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--53 years, 7,432 ft³/s (210.5 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 173,000 ft³/s (4,900 m³/s) Mar. 20, 1936, gage height, 68.4 ft (20.85 m), from floodmarks; minimum daily, 199 ft³/s (5.64 m³/s) Sept. 23, 1923.
Maximum discharge since 1735, that of Mar. 20, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42,000 ft³/s (1,190 m³/s) Apr. 3, gage height, 51.27 ft (15.627 m); minimum daily, 1,100 ft³/s (31.2 m³/s) July 11, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11700	8140	14400	8940	22000	20700	27100	9700	7730	2570	2480	4820
2	9220	7590	13700	8750	20200	19500	30900	10200	7480	2840	7480	4860
3	8030	7660	13300	8210	21700	17900	40600	13900	5910	2990	7880	4690
4	6740	7120	12700	7730	22500	17000	39800	18100	5450	3380	8590	3150
5	5810	6420	11800	7200	20600	16900	36800	17000	5030	3150	6670	2930
6	5640	6630	11000	6700	17500	17800	31900	14600	4550	2750	4790	5980
7	5000	6700	10300	7230	14800	19800	26600	12400	4550	2570	2840	4920
8	4960	6530	9700	7260	13200	20200	22500	11200	4690	2400	3110	5160
9	4260	6670	9340	6800	12300	18800	19900	10900	4420	2260	5390	5350
10	2260	7480	10300	6400	11500	16800	17900	10600	4480	1800	11300	5650
11	2900	8250	13600	6100	10700	15200	16600	9860	3850	1100	18300	5160
12	6280	10100	15600	5800	10500	14000	15600	9380	3240	2570	28300	6110
13	11900	14300	14400	6050	10300	13300	14700	9300	2840	3510	26300	7410
14	13800	21700	12700	6670	10400	13800	13200	12000	2810	5580	18200	7550
15	12900	28300	11200	7800	10400	13900	12400	12200	2290	3340	12200	7260
16	10200	26900	10300	8480	10500	12900	11500	11700	2180	2990	13100	6320
17	9450	22500	10000	7900	11500	12600	10900	11300	2310	2180	18500	6220
18	9100	17600	9530	7100	12600	11400	12300	10700	1900	2290	19700	4650
19	13500	14200	8750	7000	13400	10900	13900	10600	1710	3110	15700	4620
20	19800	12800	6880	8800	14800	10700	14100	13000	1550	3280	14500	7410
21	23500	11900	5550	6460	15700	12100	12700	17800	2310	1970	9780	6560
22	27100	14500	6350	6350	15800	16200	11000	19000	2050	2050	8710	6150
23	23900	19900	6180	6200	18100	20100	9940	17700	2070	2370	7050	5580
24	19200	19800	6100	5400	20000	21900	9060	15900	2430	1530	6560	3970
25	15700	16200	6110	5200	20300	20700	9410	14100	2540	1100	6490	2130
26	13400	14300	6810	5480	19700	20000	10100	12500	1920	2960	5580	1430
27	12000	13800	8180	6290	19200	20500	12100	11300	1970	2930	5100	1400
28	11300	15200	9220	10500	19800	22500	13100	10100	2990	2750	4070	1700
29	10700	16300	9780	22000	20800	28600	12400	9260	2720	2480	4190	2800
30	9940	15500	9780	28300	---	31600	11200	8630	2400	2600	5390	5500
31	8980	---	9340	26900	---	29000	---	7880	---	1760	5160	---
TOTAL	349170	404990	312940	274000	460800	557300	540210	382810	102370	81160	313410	147440
MEAN	11260	13500	10090	8839	15890	17980	18010	12350	3412	2618	10110	4915
MAX	27100	28300	15600	28300	22500	31600	40600	19000	7730	5580	28300	7550
MIN	2260	6420	5550	5200	10300	10700	9060	7880	1550	1100	2480	1400
(†)	223	331	341	439	722	587	228	167	52.0	10.6	87.3	70.2
CAL YR 1975 TOTAL	3257507			8925			34200		470			
WTR YR 1976 TOTAL	3926600			10730			40600		1100			

† Diversion, in cubic feet per second, into basin while diverting flow from 210 mi² in basins of Sudbury and South Branch Nashua Rivers and Lake Cochituate for use of Boston metropolitan district; records furnished by Water Division of Metropolitan District Commission.

MERRIMACK RIVER BASIN

01100600 SHAWSHEEN RIVER NEAR WILMINGTON, MA

LOCATION.--Lat 42°34'05", long 71°12'55", Middlesex County, Hydrologic Unit 01090001, on right bank at downstream side of bridge on State Highway 129, 1 mi (1.6 km) upstream from Content Brook, and 2.5 mi (4.0 km) northwest of Wilmington.

DRAINAGE AREA.--35.3 mi² (91.4 km²).

PERIOD OF RECORD.--Discharge: November 1963 to current year.
Chemical analyses: Water year 1973 (partial-record station).
Water temperatures: Water year 1973 (partial-record station).

REVISED RECORDS.--WRD MA, NH, RI, VT, 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 80.44 ft (24.518 m) above mean sea level.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Diversion upstream at times during period January through June each year since 1973 for municipal supply of Burlington. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years (water years 1965-76), 56.1 ft³/s (1.589 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft³/s (29.7 m³/s) Mar. 19, 1968, gage height, 8.60 ft (2.621 m); minimum, 1.2 ft³/s (0.034 m³/s) Aug. 30, 31, Sept. 1, 2-4, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 15	-	400 11	-	Feb. 3	1600	396 11.2	6.15 1.875
Jan. 28	2130	*875 24.8	*8.08 2.463				

Minimum discharge, 3.8 ft³/s (0.11 m³/s) June 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	74	122	153	152	103	76	74	32	21	89	81
2	64	69	109	147	212	99	103	86	33	24	96	64
3	49	64	104	120	359	95	132	102	35	24	87	52
4	42	59	97	109	268	91	107	106	35	21	70	51
5	38	56	88	101	161	93	96	93	31	18	46	47
6	36	53	82	88	125	126	86	77	29	16	32	43
7	36	52	78	77	105	140	76	61	27	15	39	39
8	34	51	75	80	93	117	70	63	20	14	52	33
9	33	53	73	98	86	102	66	61	17	13	64	29
10	32	54	92	106	80	92	64	54	15	13	99	27
11	33	57	164	89	82	87	62	53	12	13	150	31
12	56	61	153	74	96	85	61	64	10	27	129	35
13	124	124	123	66	105	90	60	82	8.2	33	92	30
14	166	250	102	92	120	129	59	82	7.0	28	68	27
15	142	350	92	211	117	138	57	68	6.2	21	56	25
16	109	300	86	193	128	109	55	54	5.5	18	57	24
17	86	220	81	135	189	95	55	50	4.8	15	56	24
18	84	170	78	113	236	84	54	55	4.8	15	49	42
19	170	140	75	93	239	85	52	50	4.3	14	39	48
20	251	120	65	80	253	94	50	49	14	12	33	39
21	221	110	59	70	181	146	50	48	19	11	30	33
22	174	130	52	64	158	173	49	57	17	16	27	27
23	133	160	50	60	213	136	60	68	18	26	25	25
24	105	192	50	56	174	114	65	67	16	22	24	23
25	90	148	50	53	137	102	62	53	16	30	22	23
26	93	127	55	50	124	94	90	46	16	36	21	20
27	108	120	81	71	119	87	131	44	17	26	20	20
28	108	158	131	598	114	85	125	42	18	19	23	21
29	94	181	182	760	108	82	103	38	18	16	36	21
30	84	146	163	438	---	81	88	35	19	28	51	20
31	77	---	146	210	---	77	---	34	---	64	81	---
TOTAL	2954	3849	2958	4655	4534	3231	2264	1916	524.8	669	1763	1024
MEAN	95.3	128	95.4	150	156	104	75.5	61.8	17.5	21.6	56.9	34.1
MAX	251	350	182	760	359	173	132	106	35	64	150	81
MIN	32	51	50	50	80	77	49	34	4.3	11	20	20
(†)	0	0	0	12.7	5.05	.76	1.74	3.72	3.16	0	0	0

CAL YR 1975 TOTAL 24647.7 MEAN 67.5 MAX 350 MIN 5.1
WTR YR 1976 TOTAL 30341.8 MEAN 82.9 MAX 760 MIN 4.3

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

NOTE.--No gage-height record Nov. 14-23.

MERRIMACK RIVER BASIN

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01100750 MERRIMACK RIVER AT WEST NEWBURY, MA

LOCATION.--Lat 42°48'38", long 71°00'02", Essex County, Hydrologic Unit 01070002, at Bridge Street Bridge, 0.9 mi (1.4 km) northwest of West Newbury.

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1968 to current year (no winter records in water year 1973, 1976).

pH: October 1968 to current year (no winter records in water year 1973, 1976).

WATER TEMPERATURES: October 1968 to current year (no winter records in water year 1973, 1976).

DISSOLVED OXYGEN: October 1968 to current year (no winter records in water years 1973, 1976).

INSTRUMENTATION.--Water-quality monitor since October 1968.

REMARKS.--Periods of missing record due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, >1,000 micromhos Aug. 17, 18, 20, 1970, Sept. 7, Oct. 4, 6, 7, 1971, Aug. 19, 1973; minimum, 39 micromhos May 11, 1976, but may have been lower during period of missing record.

pH: Maximum recorded, 9.6 units May 22, 1976; minimum, 4.9 units Oct. 30, 1973.

WATER TEMPERATURES: Maximum, 31.5°C Aug. 2, 1975; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN: Maximum, 18.2 mg/L Apr. 9, 1971; minimum, 0 mg/L Aug. 30, 31, 1974.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 410 micromhos Sept. 27; minimum recorded, 39 micromhos May 11, but maximum and minimum may have been higher or lower during periods of missing record.

pH: Maximum recorded, 9.6 units May 22; minimum recorded, 6.0 units Oct. 3, 10, Nov. 1, but have been lower during periods of missing record.

WATER TEMPERATURES: Maximum recorded, 29.0°C June 24, but may have been higher during period of missing record in July; minimum, probably 0.0°C on many days during winter period.

DISSOLVED OXYGEN: Maximum recorded, 11.7 mg/L Oct. 27, Nov. 3; minimum recorded, 1.4 mg/L Oct. 4, 25; but maximum and minimum may have been higher or lower during periods of missing record.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	COD IN BOTTOM MATERIAL (MG/KG)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)
OCT												
06...	1330	101	6.3	17.0	15.0	4	8.4	52	--	19000	11000	390
NOV												
05...	1130	110	6.6	15.0	9.5	3	10.6	18	--	36000	6100	1200
DEC												
09...	0900	108	7.9	.0	.5	1	9.7	14	50000	14000	6200	2600
JAN												
06...	1100	132	7.4	-4.0	.0	1	11.8	13	--	--	--	--
APR												
09...	0915	79	7.9	5.0	6.0	30	7.2	10	--	5400	8140	870
MAY												
18...	1100	85	6.4	18.0	17.0	3	2.8	15	--	17000	4700	390
JUN												
02...	0945	100	6.9	15.0	18.0	--	9.0	--	--	22000	8000	480
JUL												
06...	1230	141	7.3	28.5	25.5	4	7.1	20	--	35000	11000	900
AUG												
12...	0900	160	6.7	18.0	21.0	16	6.8	27	--	970000	250000	60000
SEP												
01...	1000	125	7.1	17.5	21.5	7	6.8	14	--	16000	8400	8110

DATE	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	TOTAL RESIDUE (MG/L)	LOSS ON IGNITION IN BOTTOM MATERIAL (MG/KG)	TOTAL NITRATE (N) (MG/L)
OCT												
06...	--	--	--	--	--	--	--	--	24	89	--	.25
NOV												
05...	--	--	--	--	--	--	--	--	46	76	--	.27
DEC												
09...	17	1.4	16	0	13	.3	10	15	2	57	21000	.27
JAN												
06...	--	--	--	--	--	--	--	--	9	101	--	--
APR												
09...	16	1.1	10	0	8	.2	14	22	5	214	--	.35
MAY												
18...	--	--	--	--	--	--	--	--	14	62	--	.01
JUN												
02...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
06...	--	--	--	--	--	--	--	--	10	102	--	.46
AUG												
12...	--	--	--	--	--	--	--	--	58	113	--	.42
SEP												
01...	--	--	--	--	--	--	--	--	24	32	--	.35

B NON-IDEAL COLONY COUNT.

MERRIMACK RIVER BASIN

01100750 MERRIMACK RIVER AT WEST NEWBURY, MA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	PHENOLS (UG/L)	OIL AND GREASE (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)
OCT 06...	.01	.26	.15	.83	.98	1.2	.17	--	0	.000	.000
NOV 05...	.01	.28	.22	.54	.76	1.0	.15	--	28	.000	.000
DEC 09...	.01	.28	.21	.40	.61	.89	.09	2	0	.000	.000
JAN 06...	--	--	--	--	--	--	.11	--	0	.000	.000
APR 09...	.01	.36	.08	.75	.83	1.2	.82	0	2	.000	.000
MAY 18...	.01	.02	.04	.61	.65	.67	.12	--	--	.000	.000
JUN 02...	--	--	--	--	--	--	--	--	--	.000	.000
JUL 06...	.03	.49	.27	.93	1.2	1.7	.24	--	3	--	--
AUG 12...	.03	.45	.29	1.0	1.3	1.8	.30	--	0	19.9	2.21
SEP 01...	.04	.39	.45	.38	.83	1.2	.24	--	2	9.23	4.12

DATE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL ALUMI- NUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL BARIUM (BA) (UG/L)	TOTAL BARIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL BERYL- LIUM (BE) (UG/L)	TOTAL BERYL- LIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL BISMUTH (BI) (UG/L)	TOTAL BORON (B) (UG/L)	TOTAL BORON IN BOTTOM MA- TERIAL (UG/G)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CADMIUM IN BOTTOM MA- TERIAL (UG/G)
DEC 09...	210	2900	20	29	<8	<4	--	20	34	<2	2
APR 09...	800	2800	20	60	<0	1	<1	20	7	0	--

DATE	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL CHRO- MIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL COBALT (CO) (UG/L)	TOTAL COBALT IN BOTTOM MA- TERIAL (UG/G)	TOTAL COPPER (CU) (UG/L)	TOTAL COPPER IN BOTTOM MA- TERIAL (UG/G)	TOTAL GALLIUM (GA) (UG/L)	TOTAL GER- MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL IRON IN BOTTOM MA- TERIAL (UG/G)	TOTAL LEAD (PB) (UG/L)
DEC 09...	5	18	<1	2	5	28	<1	<7	640	4500	6
APR 09...	8	36	<1	4	7	40	<1	<2	560	4100	4

DATE	TOTAL LEAD IN BOTTOM MA- TERIAL (UG/G)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MANGA- NESE IN BOTTOM MA- TERIAL (UG/G)	TOTAL MOLYB- DENUM (MO) (UG/L)	TOTAL MOLYB- DENUM IN BOT- TOM MA- TERIAL (UG/G)	TOTAL NICKEL (NI) (UG/L)	TOTAL NICKEL IN BOTTOM MA- TERIAL (UG/G)	TOTAL SILVER (AG) (UG/L)	TOTAL SILVER IN BOTTOM MA- TERIAL (UG/G)
DEC 09...	45	1	80	83	<1	1	2	8	<0	0
APR 09...	340	0	40	180	<1	2	3	10	<0	0

MERRIMACK RIVER BASIN

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01100750 MERRIMACK RIVER AT WEST NEWBURY, MA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL STROM- TIUM (SR) (UG/L)	TOTAL STROM- TIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL TIN (SN) (UG/L)	TOTAL TITANIUM (TI) (UG/L)	TOTAL TITANIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL VANAD- IUM (V) (UG/L)	TOTAL VANAD- IUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL ZINC (ZN) (UG/L)	TOTAL ZINC IN BOTTOM MA- TERIAL (UG/G)	TOTAL ZINC IN BOTTOM MA- TERIAL (UG/L)
DEC 09...	40	3	<8	10	250	<2.0	6.0	20	47	--
APR 09...	40	7	<2	60	140	1.0	8.0	10	--	2

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL PCP (UG/L)	POLY- CHLOR- INATED NAPH- THA- LENES (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)
DEC 09...	.0	--	.00	.0	.00	.00	.00
APR 09...	.0	.00	.00	.0	.00	.00	.00
MAY 18...	.0	.00	.00	.0	.00	.00	.00

DATE	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR- EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL TOX- APHENE (UG/L)
DEC 09...	.00	.00	.00	.00	.00	0
APR 09...	.11	.00	.00	.00	.00	0
MAY 18...	.00	.00	.00	.00	.00	0

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDEO GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDEO GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED GROSS BETA AS SR90 (PC/L)	SUS- PENDEO GROSS BETA AS SR90 (PC/L)
NOV 05...	.7	2.8	3.1	2.1	2.5	1.7
APR 09...	2.4	<.4	3.2	<.4	2.5	<.4

MERRIMACK RIVER BASIN

01100750 MERRIMACK RIVER AT WEST NEWBURY, MA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

			OCTOBER			NOVEMBER		
	DAY		MAX	MIN	MEAN	MAX	MIN	MEAN
	1		94	90	93	101	99	100
	2		95	92	94	105	102	103
	3		99	95	97	107	104	106
	4		101	97	99	108	105	107
	5		102	99	101	114	107	110
	6		105	96	102	---	---	---
	7		107	98	103	---	---	---
	8		111	103	108	---	---	---
	9		113	108	111	---	---	---
	10		120	111	116	---	---	---
	11		122	118	120	---	---	---
	12		127	118	123	---	---	---
	13		128	109	122	---	---	---
	14		108	102	105	---	---	---
	15		106	100	104	---	---	---
	16		100	94	96	---	---	---
	17		97	94	95	---	---	---
	18		96	95	96	---	---	---
	19		---	---	---	---	---	---
	20		---	---	---	---	---	---
	21		---	---	---	---	---	---
	22		---	---	---	---	---	---
	23		67	64	66	---	---	---
	24		72	67	69	---	---	---
	25		77	72	74	---	---	---
	26		81	77	79	---	---	---
	27		87	81	84	---	---	---
	28		91	87	89	---	---	---
	29		95	92	93	---	---	---
	30		97	94	95	---	---	---
	31		98	96	97	---	---	---
	MONTH		128	64	97	---	---	---
			MARCH			APRIL		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN
---	---	---	---	78	69	73	150	91
---	---	---	---	82	77	78	154	113
---	---	---	---	81	72	77	157	102
---	---	---	---	89	73	81	151	93
---	---	---	---	88	67	79	137	87
---	---	---	---	82	75	79	123	81
---	---	---	---	87	82	85	127	82
---	---	---	---	92	87	89	128	75
---	---	---	---	95	70	88	138	50
---	---	---	---	87	75	82	142	43
---	---	---	---	92	81	88	141	39
---	---	---	---	95	84	90	144	48
---	---	---	---	102	89	95	149	59
---	---	---	---	109	70	91	150	78
---	---	---	---	115	79	101	144	76
---	---	---	---	120	81	103	130	69
---	---	---	---	123	85	106	123	67
---	---	---	---	125	91	108	118	56
---	---	---	---	123	97	109	116	63
---	---	---	---	118	96	107	118	61
---	---	---	---	113	101	107	112	75
---	---	---	---	118	101	110	102	83
---	---	---	---	123	102	113	93	72
---	---	---	---	129	105	116	92	74
---	---	---	---	139	113	125	100	78
---	---	---	---	141	119	131	106	81
---	---	---	---	147	124	138	124	84
---	---	---	---	151	118	137	126	83
---	---	---	---	153	117	136	128	84
72	71	71	---	154	98	134	132	82
72	70	71	---	---	---	---	133	83
---	---	---	---	154	67	102	157	39
---	---	---	---					104

MERRIMACK RIVER BASIN

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01100750 MERRIMACK RIVER AT WEST NEWBURY, MA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	133	85	108	140	134	137	166	160	163	182	99	135
2	135	99	113	141	135	138	166	162	163	185	117	145
3	101	100	101	141	136	139	170	158	165	184	106	139
4	102	101	102	146	138	140	189	143	161	187	99	143
5	104	103	104	144	138	141	182	143	160	211	95	143
6	106	104	105	144	140	142	178	141	155	184	98	138
7	107	105	106	---	---	---	180	141	158	185	96	135
8	108	106	107	---	---	---	179	139	157	190	93	141
9	110	106	108	---	---	---	179	138	154	190	116	141
10	112	108	110	---	---	---	178	137	152	186	120	147
11	112	109	111	---	---	---	176	134	149	181	115	142
12	115	110	112	---	---	---	159	133	146	175	87	136
13	119	111	113	---	---	---	153	131	144	173	83	130
14	116	113	114	---	---	---	154	130	145	171	80	128
15	119	114	116	143	141	141	154	129	145	170	113	133
16	119	116	117	144	142	143	152	130	145	166	99	130
17	122	117	118	147	143	144	150	128	142	169	109	132
18	121	118	119	148	144	145	149	127	141	160	77	120
19	122	119	120	149	146	146	148	126	140	163	100	125
20	124	120	122	148	147	147	150	126	140	163	77	122
21	127	122	124	149	148	148	156	125	142	175	99	138
22	129	123	125	150	149	149	154	124	141	183	72	136
23	130	124	126	154	150	150	155	123	139	187	94	138
24	132	126	128	152	151	151	157	123	141	192	67	142
25	132	126	129	157	153	153	155	120	136	296	67	159
26	134	128	130	156	154	155	156	124	138	337	70	167
27	135	129	131	160	155	156	170	118	135	410	92	196
28	137	130	133	158	156	157	156	119	135	323	93	177
29	138	131	135	159	157	158	163	114	131	222	110	157
30	140	133	136	163	158	159	165	116	135	174	97	149
31	---	---	---	166	161	162	159	113	131	---	---	---
MONTH	140	85	117	---	---	---	189	113	146	410	67	142
YEAR	410	39	121									

PH (UNITS), OCTOBER 1975 TO JULY 1976

	OCTOBER			NOVEMBER			MARCH			APRIL		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.3	6.1	6.2	6.8	6.0	6.4	---	---	---	8.0	7.5	7.7
2	6.3	6.1	6.2	7.4	6.7	7.0	---	---	---	7.6	7.4	7.5
3	6.3	6.0	6.1	7.4	7.2	7.3	---	---	---	7.5	7.0	7.3
4	6.4	6.2	6.3	7.2	6.6	7.0	---	---	---	8.5	6.7	7.6
5	6.4	6.2	6.3	6.9	6.6	6.7	---	---	---	8.5	7.0	7.7
6	6.5	6.3	6.4	---	---	---	---	---	---	8.3	7.7	8.2
7	6.5	6.3	6.4	---	---	---	---	---	---	8.8	8.0	8.4
8	6.5	6.2	6.4	---	---	---	---	---	---	8.3	7.9	8.1
9	6.4	6.1	6.3	---	---	---	---	---	---	8.0	6.3	7.7
10	6.5	6.0	6.3	---	---	---	---	---	---	8.1	7.7	7.9
11	6.5	6.2	6.3	---	---	---	---	---	---	8.1	7.9	8.0
12	6.5	6.4	6.4	---	---	---	---	---	---	8.2	7.7	8.0
13	6.8	6.5	6.6	---	---	---	---	---	---	8.5	8.1	8.3
14	6.8	6.6	6.7	---	---	---	---	---	---	8.7	8.2	8.4
15	6.8	6.3	6.6	---	---	---	---	---	---	8.7	8.2	8.5
16	6.7	6.2	6.4	---	---	---	---	---	---	8.7	8.1	8.5
17	6.6	6.2	6.5	---	---	---	---	---	---	8.3	7.5	8.0
18	6.5	6.3	6.5	---	---	---	---	---	---	8.2	7.4	7.7
19	---	---	---	---	---	---	---	---	---	8.0	7.3	7.5
20	---	---	---	---	---	---	---	---	---	8.1	7.3	7.6
21	---	---	---	---	---	---	---	---	---	7.5	7.1	7.3
22	---	---	---	---	---	---	---	---	---	7.2	7.1	7.1
23	6.8	6.5	6.6	---	---	---	---	---	---	7.3	7.1	7.2
24	6.9	6.1	6.5	---	---	---	---	---	---	7.4	7.1	7.2
25	---	---	---	---	---	---	---	---	---	7.4	7.2	7.3
26	---	---	---	---	---	---	---	---	---	7.5	7.3	7.4
27	---	---	---	---	---	---	---	---	---	7.6	7.4	7.5
28	---	---	---	---	---	---	---	---	---	7.7	7.6	7.7
29	6.4	6.3	6.4	---	---	---	---	---	---	7.8	7.6	7.7
30	6.5	6.4	6.4	---	---	---	8.0	7.3	7.7	7.7	7.0	7.3
31	6.8	6.2	6.4	---	---	---	7.9	7.4	7.7	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	8.8	6.3	7.7

MERRIMACK RIVER BASIN

01100750 MERRIMACK RIVER AT WEST NEWBURY, MA--Continued

PH (UNITS), OCTOBER 1975 TO JULY 1976--Continued

DAY	MAY			JUNE			JULY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.1	6.4	7.0	7.2	6.5	6.7	8.3	7.2	7.7
2	7.1	6.9	7.0	7.0	6.6	6.8	8.3	6.5	7.4
3	7.0	6.4	6.4	6.9	6.6	6.7	6.9	6.4	6.7
4	6.9	6.8	6.4	6.8	6.6	6.7	7.3	6.6	6.9
5	7.0	6.8	6.9	7.0	6.6	6.8	7.9	6.6	7.1
6	7.0	6.8	6.4	7.2	6.8	7.0	7.4	6.6	7.0
7	6.8	6.7	6.7	7.5	7.0	7.3	---	---	---
8	6.9	6.7	6.8	7.1	6.9	7.4	---	---	---
9	6.9	6.7	6.8	7.3	6.7	7.0	---	---	---
10	6.9	6.7	6.8	7.3	7.0	7.2	---	---	---
11	6.8	6.7	6.7	7.3	6.8	7.0	---	---	---
12	6.7	6.6	6.6	7.2	6.6	6.9	---	---	---
13	6.7	6.5	6.6	7.4	6.7	7.0	---	---	---
14	6.7	6.5	6.6	7.6	6.8	7.1	---	---	---
15	6.6	6.5	6.5	7.5	6.6	7.0	---	---	---
16	6.5	6.4	6.4	7.0	6.5	6.8	---	---	---
17	6.4	6.3	6.4	7.2	6.5	6.8	---	---	---
18	6.7	6.2	6.4	6.7	6.4	6.6	---	---	---
19	6.8	6.4	6.5	7.2	6.5	6.7	---	---	---
20	7.6	6.5	6.8	8.7	6.6	7.4	---	---	---
21	7.1	6.8	6.9	7.7	6.6	7.0	---	---	---
22	9.6	6.6	7.5	7.9	6.6	7.1	---	---	---
23	6.7	6.4	6.6	7.3	6.6	6.9	---	---	---
24	6.5	6.3	6.4	7.2	6.6	6.8	---	---	---
25	6.8	6.3	6.5	7.3	6.4	6.7	---	---	---
26	6.5	6.3	6.4	7.7	6.7	7.1	---	---	---
27	6.9	6.3	6.5	7.3	6.4	6.8	---	---	---
28	6.6	6.3	6.5	7.4	6.5	6.9	---	---	---
29	6.5	6.3	6.4	6.8	6.4	6.6	---	---	---
30	6.5	6.3	6.4	7.6	6.7	7.2	---	---	---
31	7.3	6.5	6.7	---	---	---	---	---	---
MONTH	9.6	6.2	6.7	8.7	6.4	6.9	---	---	---
PERIOD	9.6	6.0	7.0						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.0	15.0	16.0	9.5	7.5	8.5
2	16.0	15.0	15.5	9.0	8.5	8.5
3	15.0	13.0	14.0	9.0	8.5	9.0
4	15.5	13.0	14.5	9.5	9.0	9.5
5	14.5	12.5	14.0	9.5	9.0	9.5
6	15.5	14.0	15.0	---	---	---
7	15.0	14.0	14.5	---	---	---
8	14.5	14.0	14.5	---	---	---
9	14.5	13.5	14.0	---	---	---
10	14.0	13.5	14.0	---	---	---
11	14.0	13.5	13.5	---	---	---
12	13.5	13.0	13.0	---	---	---
13	13.5	12.5	13.0	---	---	---
14	13.5	12.5	13.0	---	---	---
15	13.5	12.5	13.0	---	---	---
16	14.0	13.0	13.5	---	---	---
17	13.5	12.5	13.0	---	---	---
18	13.5	12.5	13.0	---	---	---
19	---	---	---	---	---	---
20	---	---	---	---	---	---
21	---	---	---	---	---	---
22	---	---	---	---	---	---
23	11.0	10.5	11.0	---	---	---
24	11.5	10.5	11.0	---	---	---
25	11.5	11.0	11.0	---	---	---
26	12.0	11.0	11.5	---	---	---
27	12.0	10.5	11.0	---	---	---
28	11.5	10.5	11.0	---	---	---
29	12.0	10.0	11.0	---	---	---
30	11.5	9.5	10.0	---	---	---
31	9.0	8.0	8.5	---	---	---
MONTH	17.0	8.0	13.0	---	---	---

MERRIMACK RIVER BASIN

01100750 MERRIMACK RIVER AT WEST NEWBURY, MA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCTOBER				NOVEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.2	8.8	9.0	11.2	10.1	10.6
2	9.2	6.2	8.7	11.6	11.0	11.1
3	9.1	2.8	6.5	11.7	11.2	11.5
4	7.3	1.4	4.0	11.6	10.8	11.1
5	5.0	2.0	3.3	11.1	10.5	10.8
6	9.2	3.9	7.7	---	---	---
7	10.1	8.6	9.4	---	---	---
8	10.4	8.7	9.5	---	---	---
9	---	---	---	---	---	---
10	---	---	---	---	---	---
11	---	---	---	---	---	---
12	---	---	---	---	---	---
13	---	---	---	---	---	---
14	---	---	---	---	---	---
15	---	---	---	---	---	---
16	---	---	---	---	---	---
17	---	---	---	---	---	---
18	---	---	---	---	---	---
19	---	---	---	---	---	---
20	---	---	---	---	---	---
21	---	---	---	---	---	---
22	---	---	---	---	---	---
23	---	---	---	---	---	---
24	---	---	---	---	---	---
25	11.3	1.4	10.2	---	---	---
26	11.5	10.8	11.1	---	---	---
27	11.7	11.2	11.5	---	---	---
28	11.6	11.0	11.3	---	---	---
29	11.2	9.8	10.9	---	---	---
30	10.9	9.0	10.6	---	---	---
31	11.3	9.2	10.2	---	---	---
MONTH	---	---	---	---	---	---

MARCH			APRIL			MAY			
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	9.3	7.4	8.3	5.0	4.3	4.6
2	---	---	---	8.9	7.1	7.9	4.8	3.9	4.5
3	---	---	---	10.3	8.0	8.9	4.5	4.0	4.2
4	---	---	---	11.1	8.0	9.2	4.7	4.1	4.4
5	---	---	---	11.3	7.5	8.7	4.9	4.0	4.4
6	---	---	---	9.8	6.6	7.6	4.5	3.5	4.2
7	---	---	---	7.7	6.7	7.1	4.0	3.5	3.8
8	---	---	---	7.5	6.3	6.8	4.4	3.5	4.0
9	---	---	---	8.3	6.4	7.0	4.2	3.4	3.9
10	---	---	---	7.9	6.4	7.0	4.2	3.3	3.7
11	---	---	---	7.7	6.3	6.7	3.9	3.3	3.6
12	---	---	---	8.1	7.0	7.5	3.6	2.5	3.4
13	---	---	---	7.6	3.8	6.2	3.7	3.1	3.3
14	---	---	---	6.3	3.9	4.7	3.6	2.9	3.2
15	---	---	---	5.1	4.4	4.8	3.5	2.8	3.2
16	---	---	---	5.0	4.5	4.8	3.4	2.7	3.0
17	---	---	---	5.3	4.5	5.0	3.3	2.5	3.0
18	---	---	---	5.3	4.5	5.0	3.0	1.8	2.7
19	---	---	---	5.3	4.8	5.1	3.9	3.4	3.7
20	---	---	---	5.3	4.6	5.0	4.2	3.3	3.8
21	---	---	---	5.2	4.8	5.0	4.6	3.8	4.2
22	---	---	---	5.2	4.9	5.1	5.5	4.6	5.1
23	---	---	---	5.2	4.6	4.9	6.2	5.1	5.5
24	---	---	---	5.2	4.6	5.0	6.2	5.3	5.7
25	---	---	---	5.0	4.7	4.8	6.9	6.0	6.4
26	---	---	---	5.2	4.9	5.1	7.1	6.5	6.7
27	---	---	---	5.3	4.9	5.1	7.7	6.5	7.2
28	---	---	---	5.2	4.8	5.0	7.9	6.4	7.1
29	---	---	---	5.3	4.5	4.9	8.1	6.8	7.4
30	9.9	8.3	9.2	5.4	4.4	4.7	8.3	7.6	8.0
31	9.8	7.8	8.7	---	---	---	9.0	8.1	8.4
MONTH	---	---	---	11.3	3.8	6.1	9.0	1.8	4.7

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DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

[illegible]

PARKER RIVER BASIN

01101000 PARKER RIVER AT BYFIELD, MA

LOCATION.--Lat 42°45'10", long 70°56'46", Essex County, Hydrologic Unit 01090001, on left bank 1,400 ft (450 m) downstream from dam, 0.5 mi (0.8 km) south of Byfield, 0.7 mi (1.1 km) upstream from Wheeler Brook, and 5.5 mi (8.8 km) southwest of Newburyport.

DRAINAGE AREA.--21.6 mi² (55.9 km²).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 23.46 ft (7.151 m) above mean sea level (levels by Massachusetts Department of Public Works).

REMARKS.--Records good except those for periods of indefinite stage-discharge relation or no gage-height record, which are poor. Some regulation at low flow by mill and ponds upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 36.1 ft³/s (1.022 m³/s), 22.70 in/yr (577 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 489 ft³/s (13.8 m³/s) Mar. 19, 1968, gage height, 5.61 ft (1.710 m); maximum gage height, 5.70 ft (1.737 m), Oct. 29, 1975 (backwater from coffer dam); minimum daily discharge, 0.09 ft³/s (0.003 m³/s) Sept. 25-30, Oct. 3-6, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 195 ft³/s (5.52 m³/s) Feb. 2, gage height, 3.66 ft (1.116 m); from peak-stage indicator; maximum gage height, 5.70 ft (1.737 m) Oct. 29 (backwater from coffer dam); minimum daily discharge, 0.81 ft³/s (0.023 m³/s) July 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEH	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	48	96	85	160	104	72	41	16	1.4	12	7.8
2	27	45	90	90	180	96	80	48	15	1.2	11	7.2
3	23	42	84	88	190	87	87	51	13	1.1	9.8	4.0
4	20	38	75	84	175	82	84	52	12	1.0	8.7	9.0
5	18	35	70	80	160	85	77	50	11	.95	8.1	7.6
6	15	32	65	75	125	105	70	45	9.8	.90	7.5	8.0
7	13	30	60	70	109	123	65	41	9.3	.90	7.8	7.2
8	11	28	57	75	93	118	60	42	9.0	.90	10	6.4
9	10	26	54	78	83	104	55	41	10	.82	25	5.5
10	9.0	24	60	72	77	93	52	40	7.4	.81	43	5.0
11	9.0	30	75	68	76	86	49	37	6.2	.81	48	6.7
12	20	40	85	64	75	80	46	37	5.4	2.1	42	9.8
13	21	50	80	60	76	83	42	38	4.7	1.1	38	8.4
14	21	105	75	65	79	91	40	37	4.5	1.0	34	7.1
15	20	110	72	70	78	94	38	35	4.1	1.1	31	6.2
16	19	105	68	75	84	90	36	33	3.9	1.0	28	5.4
17	18	95	64	80	100	82	35	31	3.5	.90	25	5.0
18	35	85	58	75	117	79	34	30	3.1	1.0	23	5.2
19	50	75	55	72	133	74	32	29	2.8	1.0	21	7.5
20	66	69	51	65	151	76	29	29	2.8	1.0	18	7.5
21	70	67	45	60	144	90	27	28	2.7	1.0	15	6.2
22	72	90	40	57	151	115	26	29	5.9	1.0	13	5.9
23	70	105	35	52	166	117	26	29	3.8	1.1	10	5.6
24	65	105	32	48	153	108	26	28	2.8	1.1	9.0	5.4
25	55	100	35	45	138	100	26	27	2.7	1.1	7.5	5.2
26	65	90	40	42	129	94	36	25	2.4	1.0	6.5	5.5
27	68	100	50	70	121	88	43	24	2.2	1.0	6.0	6.8
28	64	120	60	100	116	85	49	22	1.7	.90	5.8	6.3
29	60	115	66	175	109	80	48	20	.91	2.0	6.8	7.2
30	56	105	64	170	---	74	45	19	1.0	11	8.5	8.0
31	52	---	75	165	---	70	---	17	---	13	8.5	---
TOTAL	1153.0	2109	1936	2475	3548	2853	1435	1055	179.61	55.19	547.5	202.6
MEAN	37.2	70.3	62.5	79.8	122	92.0	47.8	34.0	5.99	1.78	17.7	6.75
MAX	72	120	96	175	190	123	87	52	16	13	48	9.8
MIN	9.0	24	32	42	75	70	26	17	.91	.81	5.8	5.0
CFSM	1.72	3.25	2.89	3.69	5.65	4.26	2.21	1.57	.28	.08	.82	.31
IN.	1.99	3.63	3.33	4.26	6.11	4.91	2.47	1.82	.31	.10	.94	.35
CAL YR 1975 TOTAL	14578.24											
WTR YR 1976 TOTAL	17548.90											
MEAN 39.9												
MAX 150												
MIN .73												
CFSM 1.85												
IN 25.11												
MEAN 47.9												
MAX 190												
MIN .81												
CFSM 2.22												
IN 30.22												

NOTE.--Stage-discharge relation indefinite Oct. 1 to Nov. 27, July 17-30, Aug. 2 to Sept. 30. No gage-height record Nov. 28 to Feb. 6.

01101500 IPSWICH RIVER AT SOUTH MIDDLETON, MA

LOCATION.--Lat 42°34'10", long 71°01'39", Essex County, Hydrologic Unit 01090001, on right bank in Peabody, 700 ft (200 m) downstream from Boston Street Bridge at South Middleton, 1.3 mi (2.1 km) downstream from Wills Brook, and 2 mi (3 km) south of Middleton.

DRAINAGE AREA.--43.4 mi² (112.4 km²).

PERIOD OF RECORD.--Discharge: June 1938 to current year.

Chemical analyses: Water years 1957, 1959 (partial-record station).

Water temperatures: Water years 1957, 1959 (partial-record station).

REVISED RECORDS.--WSP 1301: 1942(M). WSP 1621: 1938-58 (monthly runoff).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 44.97 ft (13.707 m) above mean sea level (Massachusetts Geodetic Survey bench mark).

REMARKS.--Records good except those for period of no gage-height record, which are fair. Diversions upstream for municipal supply of Reading, Lynn, and Peabody. Occasional regulation by mill upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--38 years, 61.5 ft³/s (1.742 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 833 ft³/s (23.6 m³/s) Mar. 19, 1968, gage height, 7.09 ft (2.161 m); minimum, 0.1 ft³/s (0.003 m³/s) Sept. 24, Oct. 1, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 380 ft³/s (10.8 m³/s) Feb. 2, gage height, 4.98 ft (1.518 m); minimum, 0.67 ft³/s (0.019 m³/s) July 22-24, Sept. 7, 15, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	79	158	152	259	165	112	71	27	2.4	27	13
2	70	72	157	161	337	150	138	94	22	2.0	26	15
3	54	66	132	156	325	140	129	90	23	1.9	22	17
4	31	61	118	154	300	135	123	74	24	1.8	20	16
5	23	55	98	146	255	150	119	67	22	1.7	18	15
6	18	48	96	128	200	180	108	61	20	1.6	16	9.0
7	13	42	95	117	175	155	92	65	18	1.5	18	3.4
8	8.7	39	101	130	150	140	84	72	16	1.5	25	11
9	5.8	38	96	131	135	130	77	68	14	1.3	47	10
10	3.5	36	149	120	120	125	71	56	12	1.2	85	9.8
11	11	36	152	110	115	121	66	37	11	1.6	78	15
12	38	38	135	106	120	117	53	39	9.9	1.6	66	14
13	39	136	121	100	125	125	55	41	8.6	2.0	51	12
14	29	201	114	129	130	144	50	35	7.6	2.4	33	6.2
15	32	178	118	136	135	139	46	32	6.8	2.2	45	.91
16	32	178	121	131	145	137	42	28	5.9	1.8	51	7.9
17	32	173	111	132	160	127	39	29	5.1	1.6	43	10
18	66	156	108	130	200	123	36	30	4.5	1.4	32	14
19	106	137	99	115	275	122	32	34	3.9	1.2	13	11
20	120	121	87	110	245	128	30	51	3.6	1.1	7.2	2.5
21	123	111	82	100	270	164	25	54	3.5	1.1	3.3	1.5
22	121	190	82	95	295	175	24	63	3.2	.85	7.6	1.1
23	115	182	73	90	275	164	27	61	2.8	.67	10	3.8
24	106	178	62	84	250	154	26	48	2.5	1.2	3.1	9.2
25	103	189	69	78	235	144	26	40	2.3	1.0	11	2.3
26	123	173	83	74	220	136	59	48	2.1	1.0	9.8	6.0
27	113	172	118	113	210	128	72	47	2.0	.97	9.0	.95
28	101	196	125	308	200	125	72	43	2.0	1.0	8.5	9.5
29	93	176	122	275	190	119	72	39	1.9	1.0	11	10
30	90	159	123	305	---	112	69	35	1.8	35	15	9.1
31	83	---	134	300	---	106	---	31	---	48	14	---
TOTAL	1963.0	3616	3443	4416	6051	4280	1974	1583	289.0	125.59	825.5	266.16
MEAN	63.3	121	111	142	209	138	65.8	51.1	9.63	4.05	26.6	8.87
MAX	123	201	158	308	337	180	138	94	27	48	85	17
MIN	3.5	36	62	74	115	106	24	28	1.8	.67	3.1	.91

CAL YR 1975 TOTAL 24649.30 MEAN 67.5 MAX 292 MIN .78
WTR YR 1976 TOTAL 28832.25 MEAN 78.8 MAX 337 MIN .67

NOTE.--No gage-height record Feb. 3 to Mar. 9.

IPSWICH RIVER BASIN

01102000 IPSWICH RIVER NEAR IPSWICH, MA

LOCATION.--Lat 42°39'35", long 70°53'39", Essex County, Hydrologic Unit 01090001, on left bank 200 ft (60 m) downstream from Willowdale Dam, 1.5 mi (2.4 km) downstream from Howlett Brook, and 4 mi (6 km) upstream from Ipswich.

DRAINAGE AREA.--124 mi² (321 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1930 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1621: 1930-58 (monthly runoff).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 20.63 ft (6.288 m) above mean sea level.

REMARKS.--Records excellent except those for period of no gage-height record, which are fair. Diversions upstream for municipal supply of Reading, Lynn, Peabody, Danvers, Salem, and Beverly. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years, 188 ft³/s (5.324 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,680 ft³/s (75.9 m³/s) Mar. 20, 21, 1968, gage height, 8.41 ft (2.563 m); minimum, 0.8 ft³/s (0.023 m³/s) Aug. 20, 1965.
Maximum discharge since 1886, that of Mar. 20, 21, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 943 ft³/s (26.7 m³/s) Feb. 3, gage height, 5.22 ft (1.591 m); minimum, 3.6 ft³/s (0.10 m³/s) July 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	265	552	402	812	569	375	195	65	13	51	32
2	160	246	512	415	877	520	380	190	55	14	62	32
3	145	228	463	419	914	462	385	205	42	14	69	32
4	132	212	419	419	916	444	380	210	41	12	71	34
5	121	195	380	408	816	440	370	217	40	11	67	35
6	112	180	347	382	654	466	355	215	39	9.3	59	35
7	99	167	314	357	547	476	340	205	43	8.1	56	33
8	86	158	280	373	463	483	320	190	45	7.2	56	29
9	74	150	258	374	404	466	300	176	43	6.3	68	23
10	62	145	278	363	362	436	280	167	40	5.3	90	22
11	52	141	305	343	349	411	265	160	36	4.7	116	25
12	60	137	363	314	338	386	245	158	31	12	144	29
13	77	195	402	291	335	383	225	153	27	15	155	33
14	93	275	401	308	344	394	210	147	25	15	148	32
15	104	373	381	339	343	403	200	138	22	14	138	29
16	109	460	352	357	362	413	180	128	21	12	125	24
17	108	502	322	376	410	410	170	119	18	11	112	19
18	124	502	302	383	459	395	160	112	15	9.6	101	20
19	144	478	280	360	557	385	150	107	14	8.5	93	23
20	183	447	250	321	640	390	140	103	13	7.2	86	25
21	225	422	202	288	683	425	130	102	12	6.5	77	24
22	258	455	165	264	743	475	125	106	11	5.9	64	18
23	273	474	163	246	779	500	120	109	10	5.4	48	15
24	275	502	165	220	769	495	115	112	9.5	5.5	37	13
25	275	533	165	202	751	480	115	115	9.0	5.0	31	12
26	287	535	188	190	717	450	135	113	8.3	4.5	25	14
27	296	541	228	217	691	430	160	107	8.3	4.2	24	14
28	305	569	254	355	663	410	180	101	8.1	4.2	26	14
29	306	580	289	514	611	390	195	95	7.8	3.8	26	13
30	299	574	323	819	---	380	200	87	7.7	14	28	13
31	284	---	370	884	---	375	---	78	---	34	31	---
TOTAL	5299	10641	9673	11503	17313	13542	6905	4420	766.7	302.2	2284	716
MEAN	171	355	312	371	597	437	230	143	25.6	9.75	73.7	23.9
MAX	306	580	552	884	916	569	385	217	65	34	155	35
MIN	52	137	163	190	335	375	115	78	7.7	3.8	24	12

CAL YR 1975 TOTAL 71244.6 MEAN 195 MAX 690 MIN 2.4
WTR YR 1976 TOTAL 83364.9 MEAN 228 MAX 916 MIN 3.8

NOTE.--No gage-height record Mar. 17 to May 3.

IPSWICH RIVER BASIN

75

01102000 IPSWICH RIVER NEAR IPSWICH, MA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1976.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	
JUN 09...	1200	43	215	6.9	30.0	20.0	70	2	7.8	21	812	81	
DATE	TIME	STREPTOCOCCI (COLONIES PER 100 ML)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	SUSPENDED SOLIDS (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	
JUN 09...	80	22	3.6	42	0	34	8.5	11	32	77	140	.41	
DATE	TIME	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ALUMINUM IN BOTTOM MATERIAL (UG/G)	TOTAL BARIUM (BA) (UG/L)	TOTAL BARIUM IN BOTTOM MATERIAL (UG/G)	TOTAL BERYLLIUM (BE) (UG/L)	TOTAL BERYLLIUM IN BOTTOM MATERIAL (UG/G)	TOTAL BISMUTH (BI) (UG/L)
JUN 09...	08	.52	.60	1.0	.07	90	600	10	10	<1	0	<4	
DATE	TIME	TOTAL BORON (B) (UG/L)	TOTAL BORON IN BOTTOM MATERIAL (UG/G)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL CHROMIUM IN BOTTOM MATERIAL (UG/G)	TOTAL COBALT (CO) (UG/L)	TOTAL COBALT IN BOTTOM MATERIAL (UG/G)	TOTAL COPPER (CU) (UG/L)	TOTAL COPPER IN BOTTOM MATERIAL (UG/G)	TOTAL GALLIUM (GA) (UG/L)	TOTAL GERMANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL IRON IN BOTTOM MATERIAL (UG/G)
JUN 09...	30	2	4	1	<3	1	3	2	<1	<4	900	1100	
DATE	TIME	TOTAL LEAD (PB) (UG/L)	TOTAL LEAD IN BOTTOM MATERIAL (UG/G)	TOTAL MANGANESE (MN) (UG/L)	TOTAL MANGANESE IN BOTTOM MATERIAL (UG/G)	TOTAL MOLYBDENUM (MO) (UG/L)	TOTAL MOLYBDENUM IN BOTTOM MATERIAL (UG/G)	TOTAL NICKEL (NI) (UG/L)	TOTAL NICKEL IN BOTTOM MATERIAL (UG/G)	TOTAL SILVER (AG) (UG/L)	TOTAL SILVER IN BOTTOM MATERIAL (UG/G)	TOTAL STRONTIUM (SR) (UG/L)	TOTAL STRONTIUM IN BOTTOM MATERIAL (UG/G)
JUN 09...	3	10	100	100	2	0	3	3	<0	0	70	1	
DATE	TIME	TOTAL TIN (SN) (UG/L)	TOTAL TITANIUM (TI) (UG/L)	TOTAL TITANIUM IN BOTTOM MATERIAL (UG/G)	TOTAL VANADIUM (V) (UG/L)	TOTAL VANADIUM IN BOTTOM MATERIAL (UG/G)	TOTAL ZINC (ZN) (UG/L)	PHENOLS (UG/L)	OIL AND GREASE (MG/L)	CHLORO-PHYLL A (UG/L)	CHLORO-PHYLL B (UG/L)	TOTAL PCB (UG/L)	POLY-CHLORINATED NAPHTHALENES (UG/L)
JUN 09...		<3	<2	3	<3.0	<.2	<6	0	16	.000	.000	.0	.00
DATE	TIME	TOTAL ALDRIN (UG/L)	TOTAL CHLORDANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DIELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL HEPTACHLOR (UG/L)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL TOXAPHENE (UG/L)	
JUN 09...		.00	.0	.00	.00	.00	.00	.00	.00	.00	.00	0	

B NON-IDEAL COLONY COUNT.

01102500 ABERJONA RIVER AT WINCHESTER, MA

LOCATION.--Lat 42°26'50", long 71°08'22", Middlesex County, Hydrologic Unit 01090001, on left bank at Winchester
0.5 mi (0.8 km) upstream from head of Mystic Lakes.

DRAINAGE AREA.--24.2 mi² (62.7 km²), excludes 0.6 mi² (1.6 km²) drained by Winchester North Reservoir.

PERIOD OF RECORD.--Discharge: April 1939 to current year.
Chemical analyses: Water year 1958-59, 1973 (partial-record station).
Water temperatures: Water year 1958-59, 1973 (partial-record station).

REVISED RECORDS.--WRD MA, NH, RI, VT, 1974: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is at mean sea level.

REMARKS.--Records good. 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 (550 m) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 27.4 ft³/s (0.776 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 835 ft³/s (23.6 m³/s) Aug. 19, 1955, gage height, 13.64 ft (4.157 m), from rating curve extended above 330 ft³/s (9.35 m³/s); maximum gage height, 14.43 ft (4.398 m) Oct. 7, 1962 (backwater from Upper Mystic Lake); no flow for part of Oct. 10, 12, 1950, caused by pumpage from gage pool; minimum daily discharge, 0.25 ft³/s (0.007 m³/s) Oct. 10, 1950.
Maximum discharge since 1886, that of Aug. 19, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 461 ft³/s (13.1 m³/s) Jan. 28, gage height, 12.97 ft (3.953 m); minimum, 0.77 ft³/s (0.022 m³/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	25	55	69	72	35	59	19	7.9	22	43	17
2	12	25	49	53	201	36	64	49	10	6.2	24	24
3	9.7	21	45	52	130	35	44	39	7.7	3.4	12	24
4	8.4	18	40	53	90	35	34	25	6.5	1.9	7.8	16
5	7.7	16	36	41	69	46	30	27	5.8	1.4	5.9	15
6	7.7	15	35	36	57	43	26	26	5.5	1.3	6.1	14
7	6.5	15	34	35	48	33	24	24	6.6	1.4	17	11
8	6.2	17	30	91	44	35	22	22	6.4	1.4	36	9.7
9	6.5	17	36	62	40	18	22	19	5.8	1.3	96	7.4
10	6.0	20	96	47	33	25	21	15	5.5	1.2	143	7.4
11	9.4	19	56	41	43	27	20	12	4.6	1.2	40	24
12	33	26	35	38	44	27	19	25	3.4	14	18	9.8
13	27	167	40	40	43	66	17	19	2.7	5.4	10	6.8
14	29	158	45	120	46	51	18	14	2.7	3.2	11	5.6
15	17	95	40	88	40	47	23	12	2.8	2.1	15	4.9
16	13	67	33	65	51	56	22	11	2.8	1.6	14	4.2
17	11	55	24	61	79	51	19	16	2.6	2.3	10	4.6
18	84	50	30	46	77	41	17	15	2.3	1.2	8.3	5.9
19	74	42	21	42	96	44	16	21	2.2	.85	7.0	4.8
20	69	38	17	41	74	55	19	19	2.1	.86	6.2	4.7
21	53	59	16	40	58	66	15	27	2.0	7.7	5.9	6.0
22	39	134	19	39	63	58	21	26	1.8	6.3	5.4	4.3
23	38	85	21	37	73	53	23	15	1.6	1.7	5.2	3.6
24	35	65	21	36	58	49	15	13	1.6	26	4.7	3.2
25	50	66	19	35	50	41	24	11	1.5	7.0	4.2	6.2
26	56	59	77	36	46	37	60	11	1.3	3.1	3.7	3.9
27	41	87	160	149	42	34	38	11	1.3	2.2	8.8	4.7
28	45	95	103	381	38	37	24	9.9	1.4	1.6	38	5.0
29	34	67	73	221	35	31	19	8.8	1.2	1.5	54	3.9
30	29	56	50	120	---	30	18	8.0	1.1	107	49	3.3
31	26	---	77	88	---	34	---	7.7	---	70	23	---
TOTAL	898.1	1679	1433	2311	1840	1276	793	577.4	110.7	308.31	732.2	264.9
MEAN	29.0	56.0	46.2	74.5	63.4	41.2	26.4	18.6	3.69	9.95	23.6	8.83
MAX	84	167	160	381	201	66	64	49	10	107	143	24
MIN	6.0	15	16	35	33	18	15	7.7	1.1	.85	3.7	3.2
CAL YR 1975	TOTAL	11108.74	MEAN	30.4	MAX	196	MIN	.94				
WTR YR 1976	TOTAL	12223.61	MEAN	33.4	MAX	381	MIN	.85				

CHARLES RIVER BASIN

77

01103305 CHARLES RIVER NEAR MILLIS, MA

LOCATION.--Lat 42°07'59", long 71°21'46", Norfolk County, Hydrologic Unit 01090001, on left bank 150 ft (46 m) upstream from Myrtle St. Bridge, 500 ft (150 m) downstream from Mill River, and 2.5 mi (4.0 km) south of Millis.

DRAINAGE AREA.--85.9 mi² (222.5 km²).

PERIOD OF RECORD.--Discharge: August 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 125 ft (38 m), from topographic map.

REMARKS.--Records good except those for period of shifting-control, which are fair. Flow affected by diversions to and from the basin for municipal supplies. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 ft³/s (50.1 m³/s) Jan. 28, 1976, gage height, 6.94 ft (2.115 m), from rating curve extended above 520 ft³/s (14.7 m³/s); minimum, 12 ft³/s (0.34 m³/s) Aug. 19, 20, 25-27, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,770 ft³/s (50.1 m³/s) Jan. 28, gage height, 6.94 ft (2.115 m), from rating curve extended above 520 ft³/s (14.7 m³/s); minimum, 16 ft³/s (0.45 m³/s) July 11, 12, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	147	284	345	600	212	178	137	60	31	46	76
2	105	138	258	322	800	200	251	164	68	38	49	68
3	87	134	237	285	800	189	270	185	71	35	43	76
4	74	124	215	268	620	178	251	181	71	27	38	77
5	65	115	195	235	510	189	216	157	68	25	32	71
6	61	110	186	208	430	222	196	148	61	24	27	64
7	56	105	176	188	360	226	176	131	59	26	26	56
8	49	101	169	277	310	212	162	118	57	25	45	49
9	47	101	166	323	260	189	153	110	53	24	117	45
10	47	101	212	304	230	174	145	106	49	19	204	42
11	46	106	256	242	236	169	138	97	45	16	210	58
12	61	109	272	208	247	167	133	94	41	17	181	62
13	106	265	247	192	243	200	128	100	37	19	137	61
14	141	475	214	338	245	247	124	103	36	19	100	53
15	142	523	201	454	234	256	120	100	33	19	84	48
16	126	455	185	454	243	238	113	91	32	19	81	44
17	105	362	178	393	284	218	112	88	30	19	71	41
18	160	286	166	340	301	202	108	91	30	20	61	43
19	343	237	154	273	360	204	103	92	29	19	51	48
20	409	217	133	224	399	232	100	94	29	18	46	48
21	402	201	124	197	379	274	92	103	28	16	42	48
22	335	327	123	187	358	286	91	138	28	17	40	44
23	268	397	114	172	390	272	109	134	28	17	38	40
24	217	391	123	167	363	245	110	123	28	20	38	37
25	190	332	127	163	323	220	104	106	27	23	34	34
26	212	289	151	161	291	198	151	95	26	25	32	32
27	212	282	308	312	267	183	176	88	25	23	34	31
28	206	335	418	1380	245	178	178	80	23	19	117	31
29	188	340	440	1410	226	178	166	72	23	18	135	31
30	171	329	366	1100	---	174	149	67	22	21	127	31
31	160	---	339	700	---	166	---	64	---	38	99	---
TOTAL	4922	7434	6737	11822	10554	6498	4503	3457	1217	696	2385	1489
MEAN	159	248	217	381	364	210	150	112	40.6	22.5	76.9	49.6
MAX	409	523	440	1410	800	286	270	185	71	38	210	77
MIN	46	101	114	161	226	166	91	64	22	16	26	31

CAL YR 1975 TOTAL 55454 MEAN 152 MAX 651 MIN 15
WTR YR 1976 TOTAL 61714 MEAN 169 MAX 1410 MIN 16

NOTE.--Shifting-control method used June 11 to Sept. 30.

CHARLES RIVER BASIN

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA
(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 (0.5 km) downstream from highway bridge at Charles River Village, 0.8 mi (1.3 km) downstream from Noanet Brook, and 1.3 mi (2.1 km) northeast of Dover.

DRAINAGE AREA.--184 mi² (477 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 89.76 ft (27.359 m) above mean sea level.

REMARKS.--Records good. Flow affected by diversions to and from basin for municipal supplies.

AVERAGE DISCHARGE.--39 years. 298 ft³/s (8.439 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,220 ft³/s (91.2 m³/s) Aug. 23, 1955, gage height, 9.24 ft (2.816 m) and Mar. 22, 1968, gage height, 8.72 ft (2.658 m); minimum, 0.5 ft³/s (0.014 m³/s) Oct. 24, 1952 (caused by unusual regulation); minimum daily, 0.9 ft³/s (0.025 m³/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 ft³/s (89.8 m³/s), by computation of flow over dam at site 0.2 mi (0.3 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,860 ft³/s (52.7 m³/s) Feb. 3, gage height, 6.12 ft (1.865 m); minimum, 29 ft³/s (0.82 m³/s) July 19, 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	402	420	740	754	1640	631	426	319	145	45	82	175
2	344	383	714	760	1740	596	464	341	167	67	87	151
3	276	353	681	750	1740	566	482	351	177	71	82	146
4	217	327	637	726	1670	535	505	364	170	61	75	146
5	182	294	545	690	1550	533	512	361	154	53	64	141
6	162	275	554	650	1390	538	495	332	144	44	55	125
7	144	258	515	606	1260	541	462	297	135	45	57	110
8	129	250	476	654	1130	538	424	270	125	46	86	96
9	115	243	446	630	970	523	389	246	113	46	192	84
10	107	245	500	620	850	506	361	228	106	42	374	79
11	109	253	502	615	760	485	338	214	97	37	386	104
12	172	259	525	609	703	461	310	213	84	44	365	111
13	230	496	543	580	675	500	292	213	79	36	321	115
14	274	612	546	667	664	513	279	216	75	36	292	104
15	298	691	529	672	647	535	268	210	71	35	245	90
16	297	754	499	709	659	554	256	197	68	34	203	79
17	274	787	466	752	688	561	246	193	63	37	169	76
18	396	779	445	750	702	538	238	193	60	33	144	82
19	522	742	407	740	767	525	230	197	58	31	121	84
20	634	693	358	695	781	543	221	198	58	30	104	86
21	704	670	249	626	798	569	211	216	57	35	92	87
22	725	739	240	570	834	580	214	258	54	41	82	79
23	717	703	255	550	854	589	243	277	51	34	71	73
24	671	729	295	520	837	589	247	271	51	53	65	65
25	649	756	340	460	817	571	246	248	50	41	58	61
26	642	755	402	423	785	538	293	224	44	41	55	55
27	595	768	528	577	747	508	327	204	43	40	59	56
28	571	775	553	1140	706	487	366	188	42	35	140	55
29	534	750	611	1310	666	453	389	170	40	32	210	56
30	499	740	671	1510	---	435	361	157	40	51	231	56
31	457	---	749	1690	---	408	---	148	---	50	212	---
TOTAL	12052	16503	15574	23009	28035	16449	10095	7516	2625	1370	4779	2827
MEAN	389	550	502	742	967	531	337	242	87.5	44.2	154	94.2
MAX	725	787	749	1690	1740	631	512	364	177	85	386	175
MIN	107	243	240	423	647	408	211	148	40	30	55	55
CAL YR 1975	TOTAL	125987	MEAN	345	MAX	983	MIN	29				
WTR YR 1976	TOTAL	140834	MEAN	385	MAX	1740	MIN	30				

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to current year.

WATER TEMPERATURES: November 1974 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1974.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 250 micromhos Aug. 22, 1975; minimum recorded, 82 micromhos Feb. 11, 1976, but may have been lower during period of missing record in January to March.

WATER TEMPERATURES: Maximum, 30.5°C Aug. 2, 1975; minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 245 micromhos July 18-21; minimum recorded, 82 micromhos Feb. 11, but may have been lower during periods of missing record in January to March.

WATER TEMPERATURES: Maximum, 28.5°C June 24; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COL. PER 100 ML)
OCT											
06...	0930	161	186	6.4	17.0	14.0	--	9.2	81000	852	816
NOV											
03...	0930	354	161	6.5	16.0	8.5	--	11.0	81200	110	422
12...	1300	253	197	6.7	12.0	8.0	4	9.7	1100	33	12
DEC											
10...	1000	506	170	7.8	5.5	2.0	2	11.9	770	550	260
JAN											
09...	0900	630	172	6.7	-10.0	.0	--	12.1	811	48	83
FEB											
10...	0940	888	151	6.5	-4.0	.0	--	12.1	28	48	85
MAR											
08...	0900	542	185	7.1	3.5	5.0	--	10.3	815	88	82
APR											
08...	0900	428	170	7.7	--	9.5	--	7.0	818	80	84
MAY											
12...	1100	226	169	7.9	18.5	17.0	--	10.2	88	36	81
JUN											
02...	1400	171	180	6.8	18.0	20.0	--	7.6	100	42	88
JUL											
08...	0930	47	222	7.4	26.5	24.5	--	7.7	150	836	330
AUG											
09...	0930	148	225	7.4	16.0	20.5	--	7.8	5900	4100	456
SEP											
01...	1300	175	190	7.4	18.5	20.0	--	7.2	10000	8140	450

DATE	HARDNESS (CA+MG) (MG/L)	NON-CALCIUM HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT										
06...	--	--	--	--	--	--	--	--	--	--
NOV										
03...	--	--	--	--	--	--	--	--	--	--
12...	42	24	12	2.9	19	2.3	22	0	18	6.3
DEC										
10...	33	20	8.0	3.2	16	1.5	16	0	13	.4
JAN										
09...	--	--	--	--	--	--	--	--	--	--
FEB										
10...	--	--	--	--	--	--	--	--	--	--
MAR										
08...	--	--	--	--	--	--	--	--	--	--
APR										
08...	--	--	--	--	--	--	--	--	--	--
MAY										
12...	--	--	--	--	--	--	--	--	--	--
JUN										
02...	--	--	--	--	--	--	--	--	--	--
JUL										
08...	--	--	--	--	--	--	--	--	--	--
AUG										
09...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	--	--	--	--	--	--	--	--	--	--

B NON-IDEAL COLONY COUNT.

CHARLES RIVER BASIN

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLORIDE (CL) (MG/L)	DIS- SOLVED FLUORIDE (F) (MG/L)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT 06...	--	--	--	--	--	--	.36	.98	1.3	.32
NOV 03...	--	--	--	--	--	--	.39	.72	1.1	.21
12...	17	32	.3	8.9	131	106	.67	.67	1.3	.33
DEC 10...	17	27	.1	8.2	114	89	.55	.34	.89	.10
JAN 09...	--	--	--	--	--	--	.60	.35	.95	.08
FEB 10...	--	--	--	--	--	--	.57	.38	.95	.06
MAR 04...	--	--	--	--	--	--	.55	.28	.83	.10
APR 08...	--	--	--	--	--	--	--	--	--	--
MAY 12...	--	--	--	--	--	--	.32	.88	1.2	.26
JUN 02...	--	--	--	--	--	--	.45	.93	1.4	.28
JUL 08...	--	--	--	--	--	--	.03	.85	.88	.32
AUG 04...	--	--	--	--	--	--	.08	1.5	1.6	.40
SEP 01...	--	--	--	--	--	--	.34	.73	1.1	.38

DATE	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDE D ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	SUS- PENDE D CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	SUS- PENDE D CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUS- PENDE D COBALT (CO) (UG/L)
NOV 12...	0	0	0	0	0	0	<10	<10	0	0	0
DEC 10...	0	0	0	1	0	1	10	10	0	1	0

DATE	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS- PENDE D COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS- PENDE D LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS- PENDE D MERCURY (HG) (UG/L)
NOV 12...	0	0	0	0	510	340	2	0	2	<.5	.0
DEC 10...	1	0	0	0	390	230	16	9	7	<.5	.0

DATE	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	SUS- PENDE D MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	SUS- PENDE D SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS- PENDE D ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV 12...	<.5	50	0	50	0	0	0	10	0	10
DEC 10...	<.5	20	0	20	0	0	0	20	0	30

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976

OCT. 6, 1975
0930 HOURS

IDENTIFICATION OF PHYTOPLANKTON

5,900 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...MICRACETIACEAE			
...GOLENKINIA		37	1
...OCCYSTACEAE			
...ANKISTRODESMIUS		37	1
...SCENEDSMACEAE			
D ...SCENEDSMUS		860	15
CHRYSOPHYTA			
..RACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
...CYCLOTILLA		330	6
D ...MFLOSIYA		2,000	34
..PENNALES	PENNATE		
...ACHNANTHACEAE			
...ACHNANTHES		75	1
...COCCONEIS		150	3
...CYMBELLACEAE			
L ...AMPHORA			
...FRAGILARIACEAE			
...ASTERIONELLA		260	4
...FRAGILARIA		150	3
...MERIDIIONACEAE			
L ...MERIDIION			
...NAVICULACEAE	NAVICULOID		
...NAVICULA		110	2
...NITZSCHACEAE			
...NITZSCHIA		220	4
...TABELLARIACEAE			
...TABELLARIA		37	1
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..CHROOCOCCALES	COCCHOID		
D ...CHROOCOCCACEAE		1,500	27
...ANACYSTIS			

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%

L - LESS THAN 1% MAY NOT HAVE BEEN ACTUALLY COUNTED

ANALYSIS METHOD: SEDGWICK-RAPHER CHAMBER, 200-X MICROSCOPE

DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 1.391

CLASS 1.391

ORDER 1.896

FAMILY 2.321

GENERA 2.659

USED DEPTH INTEGRATED SAMPLING METHOD.

CHARLES RIVER BASIN

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

NOV. 3, 1975
0630 HOURS

IDENTIFICATION OF PHYTOPLANKTON

1,700 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCACEAE			
...SCENEDESMACEAE			
....SCENEDESMUS		81	5
CHRYSOPHYTA			
..RACILLARIOPHYCEAE	DIAZOS		
..CENTRALES	CENTRIC		
...COSCINODISCEACEAE			
....CYCLOTELLA		20	1
....MELUSIRA		500	40
..PENNALES	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		61	4
...FRAGILARIACEAE			
....ASTERIONELLA		40	2
...GOMPHONEMACEAE			
....GOMPHONEMA		20	1
...MERIDIOMACEAE			
....MERIDIUM		61	4
...NAVICULACEAE	NAVICULOID		
....NAVICULA		61	5
...NITZSCHACEAE			
....NITZSCHIA		140	9
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORIACEAE			
....LYNGBYA		500	30

NOTE: D = DOMINANT ORGANISM: GREATER OR EQUAL TO 15%
ANALYSIS METHOD: SEDGWICK-HAFTER CHAMBER, 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 1.130

CLASS 1.130

ORDER 1.749

FAMILY 2.312

GENERA 2.390

USED DEPTH INTEGRATED SAMPLING METHOD.

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

DEC. 10, 1975
1000 HOURS

IDENTIFICATION OF PHYTOPLANKTON

240 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...SCENEDESMACEAE			
D ...SCENEDESMUS		39	16
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CFNTRIC		
...COSCINODISCAEAE			
...MELOSIRA		6	2
..PENNALES	PENNALE		
...ACHNANTHACEAE			
...ACHNANTHES		28	12
...CYMHELLACEAE			
...CYMHELLA		6	2
...FRAGILARIACEAE			
D ...ASTERIONELLA		67	28
...SYNEDRA		28	12
...GOMPHONEMATACEAE			
...GOMPHONEMA		11	5
...MERIDIONACEAE			
...MERIDION		17	7
...NAVICULACEAE	NAVICULOID		
...NAVICULA		17	7
...NITZSCHACEAE			
...NITZSCHIA		6	2
...SURIRELLACEAE			
L ...SURIRELLA			0
...TABELLARIACEAE			
...TABELLARIA		6	2
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..CHROOCOCCALES	COCCOID		
...CHROOCOCCACEAE			
...ANACYSTIS		11	5

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%
 L - LESS THAN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.900

CLASS 0.900

ORDER 1.051

FAMILY 2.769

GENERA 3.115

USED DEPTH INTEGRATED SAMPLING METHOD.

CHARLES RIVER BASIN

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

JAN. 9, 1976
0900 HOURS

IDENTIFICATION OF PHYTOPLANKTON

170 CELLS/ML

ORGANISM_NAME	COMMON_NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCEAE			
....MELOSIRA		5	3
..PENNALES	PENNATE		
...ACHNANTHACEAE			
D ...ACHNANTHES		39	23
...CYMBELLACEAE			
L ...CYMBELLA			0
...EUNOTIACEAE			
I ...EUNOTIA			0
...FRAGILARIACEAE			
D ...ASTERIONELLA		29	17
I ...FRAGILARIA			0
...SYNEDRA		24	14
...MERIDIONACEAE			
...MERIDION		14	9
...NAVICULACEAE	NAVICULOID		
...NAVICULA		14	9
...TABELLARIACEAE			
L ...TABELLARIA			0
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...CHROOCOCCALES	COCCOID		
...CHROOCOCCACEAE			
D ...ANACYSTIS		43	26

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THEN 1% MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
 PHYL/DIV 0.822
 CLASS 0.822
 ORDER 0.997
 FAMILY 2.269
 GENERA 2.582
 USED DEPTH INTEGRATED SAMPLING METHOD.

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

FEB. 10, 1976
1100 HOURS

IDENTIFICATION OF PHYTOPLANKTON

150 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
..OCCYSTACEAE			
....ANKISTHODESMUS		10	7
....POLYORIPSIS		5	3
....WESTLLA		20	14
....SCENEDESMACEAE			
....SCENEDESMUS		20	14
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
..COSCINOIDISACEAE			
LCYCLOTELLA			0
....MELOSIHA		15	10
..PENNALES	PENNATE		
....ACHNANTHACEAE			
....COCCONEIS		5	3
....EUMOTIACEAE			
LFUNOTIA			0
....FRAGILARIACEAE			
....ASTERIONELLA		15	10
....GOMPHONEMACEAE			
....GOMPHONEMA		10	7
....MERIDIONACEAE			
....MERIDION		20	14
....NAVICULACEAE	NAVICULOID		
....NAVICULA		10	7
....SURIKELLACEAE			
....SURIKELLA		5	3
....TARELLARIACEAE			
....TARELLARIA		10	7

NOTE: L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER • 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.958

CLASS 0.958

ORDER 1.361

FAMILY 3.094

GENERA 3.427

USED DEPTH INTEGRATED SAMPLING METHOD.

CHARLES RIVER BASIN

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

MAR. 9, 1976
1100 HOURS

IDENTIFICATION OF PHYTOPLANKTON

320 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCALFS			
...OCCYSTACEAE			
....DICTYOSPHAERIUM		11	3
...OCCYSTIS		21	7
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIAATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		5	2
....MELOSIRA		26	8
..PENNACEAE	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		11	3
...EUNOTIACEAE			
....EUNOTIA		5	2
...FRAGILARIACEAE			
....ASTERIONELLA		11	3
....FRAGILARIA		21	7
....SYNDRA		42	13
...GOMPHONEMACEAE			
....GOMPHONEMA		16	5
...MERIDIIONACEAE			
D ...MERIDIION		74	23
...NAVICULACEAE	NAVICULOID		
....NAVICULA		37	12
...NITZSCHACEAE			
....NITZSCHIA		37	12

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.469
CLASS 0.469
ORDER 0.922
FAMILY 2.846
GENERA 3.324

USED DEPTH INTEGRATED SAMPLING METHOD.

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

APR. 8, 1976
0900 HOURS

IDENTIFICATION OF PHYTOPLANKTON

5,500 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCACEAE			
...SCENEDESMACEAE			
...SCENEDESMUS		150	3
..VOLVOCALES			
...VOLVOCAEAE			
...GONIUM		590	11
..ZYGNEATALES			
...ZYGNEMATAEAE			
...MOUGEOTIA		37	1
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINOIDISCEAE			
U ...CYCLOTELLA		850	16
D ...MELUSIRA		2,500	45
..PENNALES	PENNATE		
...CYMBELLACEAE			
...CYMBELLA		37	1
...FRAGILARIACEAE			
L ...ASTERIONELLA			0
...SYNEDRA		190	3
...GOMPHONEMACEAE			
...GOMPHONEMA		37	1
...MERIDIONACEAE			
...MERIDION		110	2
...NAVICULACEAE	NAVICULOID		
...NAVICULA		190	3
...NITZSCHACEAE			
D ...NITZSCHIA		820	15
...SURIRELLACEAE			
...SURIRELLA		37	1

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-HAFTER CHAMBER • 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.589

CLASS 0.589

ORDER 1.481

FAMILY 1.977

GENERA 2.473

USED DEPTH INTEGRATED SAMPLING METHOD.

CHARLES RIVER BASIN

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

MAY 12, 1976
1100 HOURS

IDENTIFICATION OF PHYTOPLANKTON

3,800 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
..MICHACTINIACEAE			
LGOLENKINIA			0
..OCCYSTACEAE			
..ANKISTODOSMUS		50	1
LDICTYOSPHAERIUM			0
..KIECHNERIELLA		75	2
..SILENASTRUM		25	1
..SCENEDESMACEAE			
..SCENEDESMUS		100	3
..TETRASTRUM		500	13
..VULVOCALES			
..VOLVOCAEAE			
LPANDORINA			0
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
..COSCINOIDISCAEAE			
..CYCLOTELLA		100	3
DMFUSIWA		1,600	41
..PENNACEAE	PENNATE		
..ACHNANTHACEAE			
..ACHNANTHES		25	1
..COCCONEIS		25	1
..CYMHELLACEAE			
..CYMHELLA		25	1
..FRAGILARIACEAE			
LASTERIONELLA			0
..FRAGILARIA		520	14
..SYNEUMA		100	3
..GOMPHONEMACEAE			
..GOMPHONEMA		50	1
..MERIDIIONACEAE			
..MERIDIION		25	1
..NAVICULACEAE	NAVICULOID		
..FRIUSTULIA		25	1
..NAVICULA		150	4
..NITZSCHACEAE			
..NITZSCHIA		150	4
..TARELLARIACEAE			
..TARELLARIA		25	1
..CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
..CHRYSOMONADALES			
..OCHROMONADACEAE			
..DINOKRYON		25	1
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..CHROOCOCCALES	COCCOID		
..CHROOCOCCACEAE			
..ANACYSTIS		270	7
..USCILLATORIALES	FILAMENTOUS		
..NOSTOCACEAE			
LANABAENA			0

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
 PHYL/DIV 1.059
 CLASS 1.113
 ORDER 1.820
 FAMILY 2.557
 GENERA 3.000
 USED DEPTH INTEGRATED SAMPLING METHOD.

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

JUNE 2, 1976
1400 HOURS

IDENTIFICATION OF PHYTOPLANKTON

7,400 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...RHOZYCOCCACEAE			
L ...RHOZYCOCCUS			0
...OCCYSTACEAE			
....ANKISTHODESMUS		280	4
....TETRAEDRUM		70	1
...SCENEDESMACEAE			
....SCENEDESMUS		280	4
...TETRASPOALES			
...PALMELLACEAE			
D ...SPHAEROCYSTIS		1,300	17
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIAATOMS		
..CENTRALES	CENTRIC		
...COSCINOIDISACEAE			
D ...CYCLOTELLA		2,000	27
...MELOSIRA		770	10
...PENNATES	PENNATE		
...ACHNANTHACEAE			
...ACHNANTHES		210	3
L ...COCCONEIS			0
...EUNOTIACEAE			
L ...EUNOTIA			0
...FRAGILARIACEAE			
....ASTERIONELLA		70	1
....FRAGILARIA		420	6
....SYNEURA		350	5
...MERIDIIONACEAE			
....MERIDIION		210	3
...NAVICULACEAE	NAVICULOID		
...NAVICULA		490	7
...NITZSCHACEAE			
....NITZSCHIA		280	4
...SURIWELLACEAE			
L ...SURIWELLA			0
...TARELLARIACEAE			
....TARELLARIA		70	1
..CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
..CHRYSUMONADALES			
...OCHROMONADACEAE			
....DINORHYN		70	1
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..CHROOCOCCALES	COCCOID		
...CHROOCOCCACEAE			
....ANACYSTIS		560	8

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 1.171
 CLASS 1.243
 ORDER 2.127
 FAMILY 2.844
 GENERA 3.348

USED DEPTH INTEGRATED SAMPLING METHOD.

CHARLES RIVER BASIN

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

QUALITATIVE AND QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1975 TO AUGUST 1976--Continued

AUG. 9, 1976

0930 HOURS

IDENTIFICATION OF PHYTOPLANKTON

79,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOVOCCALFS			
..OCCYSTACEAE			
....ANKISTRODESMUS		460	1
LOOCYSTIS			0
LTETRAEDRON			0
....SCENEDESMACEAE			
....SCENEDESMUS		1,800	2
....TETRASTRUM		460	1
....ZYGNEATALES			
....DESMIDIACEAE	PLACOVERM DESMIDS		
LSTAUSTRUM			0
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
....COSCINODISCACEAE			
....CYCLOTELLA		3,200	4
....MELOSIRA		1,200	1
..PENNALES	PENNATE		
....ACHNANTHACEAE			
LACHNANTHES			0
....EUNOTIACEAE			
LEUNOTIA			0
....FRAGILARIACEAE			
....FRAGILARIA		810	1
LSYNEURA			0
....MERIDIONACEAE			
LMERIDION			0
....NITZSCHIAEAE			
....NITZSCHIA		580	1
....TABELLARIACEAE			
LTABELLARIA			0
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..CHROOCOCCALES	COCCOID		
..CHROOCOCCACEAE			
....ANACYSTIS		690	1
..OSCILLATORIALES	FILAMENTOUS		
....NOSTOCACEAE			
DANABAENA		29,000	36
....OSCILLATORIAEAE			
DOSCILLATORIA		41,000	51

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%

L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED

ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE

DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.621

CLASS 0.621

ORDER 0.761

FAMILY 1.672

GENERA 1.758

DATE	LENGTH OF EXPOSURE (DAYS)	BIOMASS(G/SQ M)		CHLOROPHYLL A	CHLOROPHYLL B	BIOMASS PIGMENT RATIO	SAMPLING METHOD
		DRY WEIGHT	ASH WEIGHT	(MG/SQ M)	(MG/SQ M)		
APR 08	31	23	16	28	1.9	250	ARTIFICIAL SUBSTRATE

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	186	180	185	165	164	164	147	141	144	159	101	109
2	187	184	186	162	158	160	149	146	148	170	163	167
3	187	183	185	161	158	159	151	148	150	165	95	145
4	186	184	185	165	160	162	153	150	151	166	98	148
5	187	184	186	171	164	168	158	148	153	184	168	175
6	189	185	187	173	169	171	160	155	158	182	175	177
7	194	189	191	173	172	173	163	159	162	178	84	152
8	199	195	197	174	171	172	164	161	163	167	86	112
9	203	199	201	175	173	174	170	165	168	171	167	169
10	207	203	206	177	176	176	171	164	168	---	---	---
11	211	208	210	182	175	179	169	166	168	---	---	---
12	212	203	208	181	179	180	170	167	169	---	---	---
13	207	193	200	177	153	163	166	163	164	---	---	---
14	210	194	205	155	151	153	165	161	163	---	---	---
15	216	204	213	155	142	150	162	158	160	---	---	---
16	226	217	222	142	135	138	164	158	161	---	---	---
17	225	222	224	136	132	134	163	160	162	---	---	---
18	225	199	217	133	132	133	174	163	164	---	---	---
19	200	193	197	134	131	133	174	163	166	---	---	---
20	196	194	195	137	132	135	167	163	165	---	---	---
21	196	185	190	140	135	137	171	166	168	---	---	---
22	188	186	187	142	134	138	179	171	176	---	---	---
23	191	188	190	146	143	145	183	180	181	---	---	---
24	192	189	190	147	140	144	183	179	181	---	---	---
25	188	185	186	141	139	140	185	183	184	---	---	---
26	184	178	182	141	137	138	190	124	162	---	---	---
27	183	179	181	138	133	136	168	124	142	---	---	---
28	181	177	180	139	134	137	145	110	125	---	---	---
29	177	174	176	144	139	142	172	144	163	---	---	---
30	174	171	173	145	141	144	185	163	179	---	---	---
31	171	169	170	---	---	---	152	109	121	---	---	---
MONTH	226	169	194	182	131	153	190	109	161	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	177	170	174	179	176	177
2	---	---	---	---	---	---	172	168	170	176	170	173
3	---	---	---	---	---	---	173	170	171	173	170	172
4	---	---	---	---	---	---	173	168	171	170	168	169
5	---	---	---	---	---	---	172	168	170	168	166	167
6	---	---	---	---	---	---	174	169	172	167	165	166
7	---	---	---	---	---	---	173	167	170	168	167	167
8	---	---	---	188	179	186	173	166	171	169	167	168
9	---	---	---	188	186	187	173	172	173	168	166	167
10	154	87	113	194	187	189	175	172	174	169	166	167
11	95	82	86	201	189	194	176	173	175	170	168	169
12	123	99	114	190	186	188	178	174	176	170	165	168
13	127	124	125	191	184	186	178	176	177	169	166	167
14	138	127	134	186	176	185	181	176	178	170	168	169
15	148	134	140	188	185	187	184	180	182	172	170	171
16	137	133	135	187	184	186	186	182	184	173	170	171
17	---	---	---	189	183	185	187	184	185	173	172	172
18	---	---	---	195	183	189	188	184	186	174	171	173
19	---	---	---	184	176	180	190	187	188	176	173	175
20	---	---	---	187	172	182	191	188	190	176	175	176
21	---	---	---	182	173	176	192	190	191	177	172	175
22	---	---	---	182	176	180	194	189	192	171	165	169
23	---	---	---	181	177	180	189	184	187	171	167	170
24	---	---	---	181	174	177	185	182	183	171	169	170
25	---	---	---	179	174	177	183	180	182	172	169	170
26	---	---	---	179	174	177	180	175	177	171	170	171
27	---	---	---	179	176	177	175	173	174	174	171	172
28	---	---	---	181	175	178	177	172	174	177	173	175
29	---	---	---	182	178	180	183	177	181	179	177	178
30	---	---	---	183	179	181	181	179	180	178	176	177
31	---	---	---	183	176	179	---	---	---	179	177	178
MONTH	---	---	---	---	---	---	194	166	179	179	165	171

CHARLES RIVER BASIN

01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	179	177	178	222	217	221	238	229	233	195	192	194
2	183	177	180	222	219	221	231	220	224	195	190	192
3	187	182	184	222	212	217	227	223	225	191	186	189
4	186	184	185	218	211	213	233	224	228	188	184	186
5	187	183	185	221	217	218	242	234	237	188	185	187
6	186	182	184	224	220	222	243	238	240	192	186	189
7	189	184	187	223	221	222	240	236	238	192	188	190
8	191	189	190	226	223	224	240	231	235	190	187	188
9	193	191	192	231	226	228	233	211	227	191	189	190
10	193	192	192	234	230	232	218	199	210	193	183	188
11	196	192	194	234	233	233	225	218	221	190	184	188
12	198	196	197	231	228	230	228	218	223	193	186	189
13	200	198	199	233	229	231	216	206	209	187	183	185
14	202	200	201	235	231	233	210	205	208	187	183	185
15	203	202	202	238	234	236	205	199	201	187	184	185
16	207	204	205	243	239	241	205	199	201	187	184	185
17	209	208	208	244	242	243	203	199	201	186	183	185
18	209	207	208	245	242	244	203	200	201	185	180	183
19	210	208	209	245	244	245	202	198	200	191	184	188
20	211	209	210	245	242	244	204	199	200	194	191	193
21	216	212	214	245	236	242	202	195	198	198	193	195
22	220	216	218	240	238	239	200	195	197	200	197	199
23	221	219	220	242	238	240	207	196	202	202	197	199
24	223	221	222	242	235	239	212	205	208	199	196	198
25	223	221	222	242	239	240	213	208	210	200	197	198
26	226	224	225	242	239	241	213	207	210	200	194	197
27	226	223	225	242	238	240	209	195	206	196	189	193
28	225	222	223	240	232	236	200	190	194	199	190	194
29	224	222	223	237	234	236	196	186	190	200	197	199
30	225	222	224	239	230	236	191	184	187	200	197	199
31	---	---	---	238	235	237	194	183	187	---	---	---
MONTH	226	177	204	245	211	233	243	183	211	202	180	191
YEAR	245	82	186									

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.0	16.0	16.5	7.5	7.0	7.5	6.0	4.5	5.5	0.5	0.5	0.5
2	16.5	15.5	16.0	8.5	7.5	8.0	5.0	4.5	4.5	0.5	0.5	0.5
3	15.0	14.0	14.5	9.0	8.0	8.5	4.0	3.0	3.5	0.5	0.5	0.5
4	15.0	13.5	14.0	10.5	9.0	10.0	3.0	1.5	2.0	0.0	0.0	0.0
5	14.5	13.5	14.0	10.5	10.0	10.0	1.5	1.0	1.0	0.0	0.0	0.0
6	15.0	14.0	14.5	10.5	9.5	10.0	2.5	1.0	2.0	0.0	0.0	0.0
7	14.5	14.0	14.0	10.5	9.5	10.0	2.5	1.0	1.5	0.0	0.0	0.0
8	14.0	13.0	13.5	12.0	10.5	11.5	1.0	0.5	0.5	0.0	0.0	0.0
9	13.5	13.0	13.5	13.0	12.0	12.5	1.0	0.5	0.5	---	---	---
10	13.0	12.0	13.0	13.0	12.5	12.5	2.5	1.0	2.0	---	---	---
11	13.0	12.5	12.5	13.0	12.0	12.5	2.5	2.0	2.0	---	---	---
12	13.0	12.5	12.5	12.0	11.0	11.5	2.0	1.5	2.0	---	---	---
13	13.5	12.5	12.5	11.0	10.5	11.0	2.0	2.0	2.0	---	---	---
14	14.5	13.0	13.5	10.5	9.5	10.5	3.0	2.0	2.5	---	---	---
15	15.0	14.0	14.5	9.5	8.0	8.5	4.5	3.0	4.0	---	---	---
16	15.5	15.0	15.0	8.0	7.0	7.5	5.0	4.5	5.0	---	---	---
17	15.0	14.0	14.5	7.0	6.0	6.5	4.5	3.5	4.0	---	---	---
18	14.0	12.5	13.5	7.0	6.5	6.5	4.0	2.5	3.5	---	---	---
19	12.5	11.5	12.0	7.0	6.0	6.5	2.0	0.5	1.0	---	---	---
20	11.5	11.5	11.5	7.5	6.5	7.0	0.5	0.5	0.5	---	---	---
21	12.0	11.0	11.5	9.0	7.5	8.0	0.5	0.5	0.5	---	---	---
22	13.0	11.5	12.0	9.0	8.5	9.0	0.5	0.5	0.5	---	---	---
23	12.5	12.0	12.5	8.5	7.0	7.5	1.0	1.0	1.0	---	---	---
24	12.5	12.0	12.5	7.0	5.0	6.0	1.0	1.0	1.0	---	---	---
25	13.0	12.0	12.5	5.0	4.5	4.5	0.5	0.5	0.5	---	---	---
26	13.0	12.5	13.0	4.5	4.0	4.0	0.5	0.5	0.5	---	---	---
27	12.5	12.0	12.0	4.5	4.0	4.0	0.5	0.5	0.5	---	---	---
28	12.0	11.0	11.5	4.5	4.0	4.0	0.5	0.5	0.5	---	---	---
29	12.0	11.0	11.5	4.0	3.5	4.0	0.5	0.5	0.5	---	---	---
30	11.5	10.0	11.0	4.5	3.5	4.0	0.5	0.5	0.5	---	---	---
31	9.5	8.0	8.5	---	---	---	0.5	0.5	0.5	---	---	---
MONTH	17.0	8.0	13.0	13.0	3.5	8.0	6.0	0.5	2.0	---	---	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	9.0	8.5	9.0	14.0	13.0	13.5
2	---	---	---	---	---	---	9.5	8.5	9.0	15.5	13.0	14.5
3	---	---	---	---	---	---	10.0	9.0	9.5	16.5	15.0	15.5
4	---	---	---	---	---	---	10.0	9.0	9.5	15.5	14.5	15.0
5	---	---	---	---	---	---	9.5	8.5	9.0	15.0	14.0	14.5
6	---	---	---	---	---	---	10.5	9.0	9.5	16.5	15.0	16.0
7	---	---	---	---	---	---	10.5	9.5	10.0	17.0	16.0	16.5
8	---	---	---	5.5	4.5	5.0	10.0	9.5	9.5	16.5	15.5	15.5
9	---	---	---	4.5	3.5	4.0	9.5	8.5	9.0	16.5	14.5	15.5
10	0.0	0.0	0.0	3.0	2.5	3.0	9.0	8.0	8.5	17.0	15.0	16.0
11	0.0	0.0	0.0	3.5	2.5	3.0	9.0	7.5	8.5	18.0	16.0	17.0
12	0.5	0.0	0.0	3.5	2.5	3.0	7.5	6.5	7.0	18.0	17.0	17.5
13	0.5	0.0	0.5	4.5	3.0	3.5	8.0	6.5	7.0	17.5	16.0	17.0
14	0.5	0.0	0.5	5.0	3.5	4.5	10.0	7.5	9.0	18.0	16.0	17.0
15	0.5	0.0	0.5	5.5	4.5	5.0	11.5	9.5	10.5	20.0	18.0	19.0
16	1.5	0.5	1.0	5.5	3.0	4.5	13.5	10.5	12.0	20.5	19.0	19.5
17	---	---	---	2.5	1.5	2.5	16.5	13.5	15.0	20.5	19.5	20.0
18	---	---	---	2.5	1.0	2.0	18.5	16.0	17.5	21.0	19.5	20.0
19	---	---	---	3.0	2.0	2.5	20.0	18.0	19.0	20.0	17.5	19.0
20	---	---	---	6.0	3.0	4.5	21.0	19.0	20.0	17.5	15.5	16.5
21	---	---	---	8.0	6.0	7.0	20.5	19.0	19.5	15.5	15.0	15.5
22	---	---	---	8.0	7.0	7.5	19.0	18.0	18.5	16.0	14.5	15.5
23	---	---	---	7.5	6.5	7.0	18.0	17.0	17.5	16.5	15.0	15.5
24	---	---	---	8.5	6.5	7.5	17.0	16.0	16.5	16.5	15.5	16.0
25	---	---	---	9.0	7.5	8.5	16.0	14.0	15.0	16.0	15.0	15.5
26	---	---	---	10.0	8.0	9.0	13.5	11.5	12.5	15.0	14.5	15.0
27	---	---	---	11.0	9.5	10.0	11.5	10.5	10.5	16.0	14.5	15.5
28	---	---	---	11.5	10.5	11.0	11.0	10.0	10.5	18.0	15.5	17.0
29	---	---	---	11.0	10.0	10.5	12.0	11.0	11.5	19.0	17.5	18.5
30	---	---	---	10.5	9.5	10.0	13.0	11.5	12.5	19.5	18.5	19.0
31	---	---	---	9.5	9.0	9.5	---	---	---	21.0	18.5	20.0
MONTH	---	---	---	---	---	---	21.0	6.5	12.0	21.0	13.0	16.5
JUNE				JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.0	19.5	20.5	25.0	24.0	24.5	21.5	20.5	21.0	22.5	21.0	22.0
2	20.5	19.0	19.5	25.5	23.5	24.5	21.5	20.0	21.0	22.5	21.0	22.0
3	20.0	18.5	19.0	25.0	24.0	24.5	22.0	19.5	21.0	21.5	21.0	21

CHARLES RIVER BASIN

01104000 MOTHER BROOK AT DEDHAM, MA

LOCATION.--Lat 42°15'18", long 71°09'53", Norfolk County, Hydrologic Unit 01090001, on right bank 100 ft (30 m) upstream from Washington Street Bridge at Dedham and 0.4 mi (0.6 km) downstream from point of diversion from Charles River.

PERIOD OF RECORD.--Discharge: October 1931 to current year.

Chemical analyses: Water years 1959, 1969-70 (partial-record station).

Water temperatures: Water years 1959, 1969-70 (partial-record station).

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

GAGE.--Water-stage recorder. Concrete control since June 10, 1960. Datum of gage is 0.03 ft (0.009 m) below mean sea level. Dec. 9, 1931, to June 9, 1960, nonrecording gage at site 200 ft (60 m) upstream at same datum.

REMARKS.--Records good except those for period of no gage-height, which are poor. Mother Brook is a diversion from Charles River to Neponset River through Dedham and Hyde Park. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years, 80.1 ft³/s (2.268 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft³/s (29.5 m³/s) Mar. 21, 1968, gage height, 87.18 ft (26.572 m); maximum gage height, 92.90 ft (28.316 m) Aug. 24, 1955, from graph based on gage readings; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 609 ft³/s (17.2 m³/s) Feb. 2, gage height, 85.17 ft (25.960 m); minimum, 1.8 ft³/s (0.051 m³/s) Apr. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	123	233	242	520	239	88	48	13	19	14	39
2	100	109	226	245	580	216	105	51	19	14	13	33
3	80	94	214	244	580	201	109	43	25	15	9.7	30
4	57	90	196	241	546	186	107	56	22	11	7.6	24
5	40	82	176	218	519	180	110	74	20	7.2	5.3	21
6	31	71	161	200	476	189	103	65	18	5.0	4.6	20
7	27	63	151	187	446	175	92	56	17	3.5	6.7	16
8	21	58	133	240	398	171	76	64	16	3.0	14	13
9	17	55	123	213	357	159	65	56	14	3.1	8.8	10
10	15	51	140	271	306	153	57	51	11	3.2	64	10
11	15	54	140	291	265	147	50	43	8.7	2.8	85	16
12	33	56	137	262	283	135	45	49	7.9	5.6	79	14
13	59	154	139	239	277	148	20	46	7.6	3.9	69	14
14	70	196	141	316	264	156	24	44	7.6	3.3	61	13
15	71	207	140	321	246	153	46	45	7.4	3.1	54	11
16	76	222	135	311	257	153	41	38	6.0	2.7	41	9.4
17	69	237	123	330	274	170	35	38	3.7	3.2	27	9.5
18	125	245	121	330	279	153	33	36	3.0	3.0	21	9.5
19	183	237	110	325	311	142	18	64	3.0	2.7	16	10
20	210	218	93	304	316	147	5.6	51	5.0	2.4	15	9.9
21	230	205	73	274	309	155	3.4	63	8.0	3.1	13	11
22	237	242	58	247	329	162	2.9	77	10	4.4	11	9.9
23	228	222	59	215	357	159	4.9	90	7.5	3.1	9.6	8.2
24	216	218	69	197	339	155	3.8	64	5.6	7.1	8.5	7.6
25	210	235	75	182	331	147	4.7	52	5.1	6.3	7.8	6.9
26	226	237	103	172	320	139	25	46	5.0	4.2	7.0	6.1
27	196	247	180	244	309	121	69	36	4.9	3.6	7.3	6.6
28	176	266	179	449	291	122	74	23	4.8	3.7	41	7.7
29	160	250	182	510	259	108	76	18	5.1	3.3	39	6.7
30	152	236	192	547	---	96	68	21	5.2	20	54	6.5
31	141	---	225	542	---	84	---	17	---	13	49	---
TOTAL	3583	4980	4427	8909	10344	4821	1561.3	1525	296.1	188.5	862.9	409.5
MEAN	116	166	143	287	357	156	52.0	49.2	9.87	6.08	27.8	13.7
MAX	237	266	233	547	580	239	110	90	25	20	85	39
MIN	15	51	58	172	246	84	2.9	17	3.0	2.4	4.6	6.1

CAL YR 1975 TOTAL 33763.46 MEAN 92.5 MAX 318 MIN .09
WTR YR 1976 TOTAL 41907.30 MEAN 115 MAX 580 MIN 2.4

NOTE.--No gage-height record June 1 to July 6.

01104200 CHARLES RIVER AT WELLESLEY, MA

LOCATION.--Lat 42°18'59", long 71°13'42", Norfolk County, Hydrologic Unit 01090001, on left bank at east limits of Wellesley, 30 ft (9 m) upstream from a horseshoe-shaped dam and 50 ft (15 m) upstream from bridge on State Highway 9.

DRAINAGE AREA.--211 mi² (546 km²).

PERIOD OF RECORD.--Discharge: August 1959 to current year.
Sediment records: Water year 1968 (partial-record station).

GAGE.--Water-stage recorder and masonry dam. Datum of gage is 67.92 ft (20.702 m) above mean sea level.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow affected by diversion to Mother Brook (station 01104000), and by diversions to and from basin for municipal supplies. Occasional regulation at dam 0.2 mi (0.3 m) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years, 268 ft³/s (7.590 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,410 ft³/s (68.3 m³/s) Mar. 21, 1968, gage height, 6.20 ft (1.890 m); no flow Sept. 15, Oct. 6, 1959 (caused by closing of gates at dam at gage); minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Aug. 24, 31, Sept. 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,290 ft³/s (64.9 m³/s) Feb. 5, gage height, 6.09 ft (1.856 m); minimum not determined; minimum daily, 24 ft³/s (0.68 m³/s) July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	367	367	599	578	1170	498	417	362	125	80	100	175
2	328	338	592	580	1320	475	456	382	131	67	94	165
3	283	314	573	580	1220	453	441	377	138	56	84	155
4	233	287	549	580	1280	441	450	301	138	63	78	145
5	194	253	518	555	1240	439	450	324	138	53	71	138
6	165	245	495	513	1080	432	456	333	131	45	64	122
7	141	225	456	500	968	423	450	279	115	43	76	106
8	131	221	434	586	904	423	433	245	109	41	100	97
9	122	217	413	546	813	423	405	241	106	41	145	94
10	112	210	439	486	720	423	383	221	103	37	305	91
11	106	205	435	442	664	411	359	209	97	35	295	122
12	128	210	423	413	592	397	332	198	80	45	275	115
13	187	413	427	390	520	423	328	194	80	41	260	112
14	225	489	434	517	496	434	255	194	70	39	240	112
15	233	507	434	513	472	434	254	191	67	35	225	109
16	241	524	427	492	477	448	261	183	67	31	200	100
17	249	555	416	507	505	454	257	176	65	26	165	91
18	377	561	392	507	517	461	253	176	70	26	145	91
19	507	561	363	499	560	461	278	176	70	25	125	89
20	518	555	331	475	562	470	271	169	67	24	115	86
21	543	555	282	433	557	490	259	187	56	29	100	86
22	543	599	243	401	583	489	260	225	51	43	87	83
23	555	586	233	345	611	489	279	225	49	38	80	80
24	543	573	247	333	611	495	270	225	45	59	73	78
25	543	573	257	316	606	507	279	225	41	54	67	72
26	567	573	332	301	591	487	221	209	41	46	63	67
27	524	605	475	445	547	472	270	187	39	41	63	67
28	483	637	478	839	510	446	319	176	37	36	94	65
29	456	631	478	899	507	428	362	158	31	33	155	65
30	423	618	490	940	---	420	367	145	31	60	205	65
31	392	---	549	1040	---	408	---	135	---	90	190	---
TOTAL	10419	13207	13214	16551	21203	13954	10075	7028	2388	1382	4339	3043
MEAN	336	440	426	534	731	450	336	227	79.6	44.6	140	101
MAX	567	637	599	1040	1320	507	456	382	138	90	305	175
MIN	106	205	233	301	472	397	221	135	31	24	63	65

CAL YR 1975 TOTAL 113261 MEAN 310 MAX 790 MIN 21
WTR YR 1976 TOTAL 116803 MEAN 319 MAX 1320 MIN 24

NOTE.--No gage-height record July 19 to Sept. 2.

CHARLES RIVER BASIN

01104500 CHARLES RIVER AT WALTHAM, MA

LOCATION.--Lat 42°22'20", long 71°14'03", Middlesex County, Hydrologic Unit 01090001, on right bank 800 ft (250 m) downstream from Moody Street Bridge in Waltham and 0.3 mi (0.5 km) upstream from Beaver Brook.

DRAINAGE AREA.--227 mi² (588 km²), excludes 23.6 mi² (61.1 km²) 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.

Chemical analyses: Water years 1953, 1959, 1968-70 (partial-record station).

Water temperatures: Water years 1959, 1969-70 (partial-record station).

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 (6.102 m) above mean sea level. Prior to July 10, 1904, at dam 700 ft (200 m) upstream and July 10, 1904, to Oct. 2, 1909, at dam 0.7 mi (1.1 km) downstream at different datums; discharge computed from flow over dam and through wheels and gates of Boston Manufacturing Co. and Waltham Bleachery, respectively.

REMARKS.--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 were made during the year.

AVERAGE DISCHARGE.--45 years (water years 1932-76), 292 ft³/s (8.269 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,150 ft³/s (118 m³/s) Feb. 3, 1976, gage height, 6.54 ft (1.993 m), caused by release of water stored behind ice jam upstream; minimum, 0.1 ft³/s (0.003 m³/s) Oct. 1, 12, 1943; minimum daily, 0.2 ft³/s (0.006 m³/s) Oct. 4, 1943.
Minimum discharge since 1886, that of Feb. 3, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,150 ft³/s (118 m³/s) Feb. 3, gage height, 6.54 ft (1.993 m), caused by release of water stored behind ice jam upstream; minimum, 37 ft³/s (1.05 m³/s) July 21; minimum daily, 41 ft³/s (1.16 m³/s) July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	382	417	679	687	1310	572	483	430	176	137	134	218
2	350	379	659	673	1610	544	563	450	186	104	129	201
3	309	355	627	678	1580	525	536	440	175	84	106	195
4	256	333	588	663	1590	508	526	400	173	85	96	167
5	212	304	561	601	1380	517	529	350	167	76	90	158
6	184	286	535	576	1270	519	519	380	157	63	86	147
7	159	272	500	559	1080	518	506	330	147	58	108	134
8	144	266	470	718	991	503	482	290	136	57	153	122
9	132	250	464	639	888	497	453	260	127	54	462	113
10	122	256	558	568	791	489	417	250	118	52	370	111
11	123	258	529	494	736	478	396	230	111	51	384	151
12	209	273	506	456	673	461	367	206	107	68	365	128
13	238	628	500	443	593	514	355	144	105	61	338	122
14	260	738	504	677	578	536	343	191	94	53	323	122
15	267	685	501	636	558	533	290	203	84	49	324	116
16	269	665	483	591	572	540	301	200	84	48	275	106
17	268	667	459	608	632	553	296	212	76	56	217	101
18	490	671	450	573	655	538	284	206	73	49	183	103
19	619	658	414	554	744	534	279	206	74	43	155	98
20	619	632	365	523	724	561	301	201	74	41	137	98
21	612	674	321	484	702	612	285	239	70	46	122	103
22	616	815	301	447	729	612	273	285	66	71	112	98
23	631	744	282	395	763	608	306	278	64	59	102	91
24	591	692	287	363	743	600	311	282	63	108	92	84
25	608	697	302	342	712	580	317	274	64	83	85	78
26	656	687	435	346	682	554	361	255	63	68	79	74
27	599	734	648	600	651	539	295	230	59	56	80	82
28	552	766	625	1340	618	527	373	213	56	50	196	87
29	515	725	596	1310	598	492	410	200	54	47	223	76
30	484	691	602	1230	---	477	440	184	53	156	257	71
31	447	---	679	1210	---	466	---	175	---	151	244	---
TOTAL	11923	16218	15430	19984	25153	16507	11597	8194	3056	2184	6027	3555
MEAN	385	541	498	645	867	532	387	264	102	70.5	194	119
MAX	656	815	679	1340	1610	612	563	450	186	156	462	218
MIN	122	250	282	342	558	461	273	144	53	41	79	71

CAL YR 1975 TOTAL 129366 MEAN 354 MAX 888 MIN 40
WTR YR 1976 TOTAL 139828 MEAN 382 MAX 1610 MIN 41

01105000 NEPONSET RIVER AT NORWOOD, MA

LOCATION.--Lat 42°10'39", long 71°12'05", Norfolk County, Hydrologic Unit 01090001, on left bank 200 ft (60 m) upstream from Pleasant Street Bridge, 200 ft (60 m) downstream from Penn Central Railroad bridge, 0.45 mi (0.72 km) downstream from Hawes Brook, and 0.5 mi (0.8 km) south of Norwood.

DRAINAGE AREA.--35.2 mi² (91.2 km²).

PERIOD OF RECORD.--Discharge: October 1939 to current year. October 1939 monthly discharge only, published in WSP 1301.

Chemical analyses: Water years 1958-59, 1966-68 (partial-record station).

Water temperatures: Water years 1958-59, 1966-68 (partial-record station).

GAGE.--Water-stage recorder. Datum of gage is 44.04 ft (13.423 m) above mean sea level, unadjusted.

REMARKS.--Records good except those for period of doubtful gage-height record, which are fair. Flow regulated by mills and reservoirs upstream. Flow affected by several diversions upstream for municipal and industrial use. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 53.0 ft³/s (1.501 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,490 ft³/s (42.2 m³/s) Aug. 19, 1955, gage height, 14.65 ft (4.465 m), from floodmarks; minimum daily, 1.4 ft³/s (0.040 m³/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 (3.368 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 775 ft³/s (21.9 m³/s) Jan. 28, gage height, 9.36 ft (2.853 m), at upstream side of railroad bridge, from rating curve extended above 260 ft³/s (7.36 m³/s); minimum daily, 4.8 ft³/s (0.14 m³/s) June 24, 26, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	76	119	159	182	89	92	44	26	12	33	21
2	35	66	111	140	312	85	109	78	28	7.8	23	25
3	32	61	107	125	266	89	103	78	31	16	21	28
4	27	60	95	123	195	86	92	63	26	14	14	30
5	28	53	85	102	165	94	74	52	23	8.7	10	29
6	30	47	81	91	144	106	68	45	21	6.0	7.3	27
7	25	46	78	87	128	104	63	43	17	6.9	20	19
8	18	51	71	162	121	90	53	42	14	6.9	86	12
9	16	55	68	155	104	81	54	36	13	6.9	156	9.2
10	15	54	99	120	99	78	54	35	12	6.9	153	13
11	18	58	111	104	99	79	61	32	8.7	7.3	99	26
12	47	61	98	94	99	83	50	36	6.5	15	61	25
13	58	188	88	85	94	103	45	36	6.0	7.8	48	20
14	58	235	82	227	97	115	43	39	6.9	6.0	31	12
15	51	185	74	212	94	97	40	37	6.0	6.0	32	11
16	43	145	69	162	97	90	38	33	6.5	5.6	30	15
17	31	117	65	167	118	101	37	29	6.5	6.9	24	9.2
18	117	100	68	144	124	99	42	26	6.5	6.0	20	12
19	194	87	65	111	156	90	56	28	5.6	6.0	14	14
20	171	79	57	97	153	99	41	27	6.9	5.2	9.7	9.7
21	130	97	58	88	136	110	37	51	12	9.2	7.8	7.8
22	103	133	60	85	143	107	39	82	9.7	8.7	7.8	7.8
23	83	140	66	79	163	96	42	69	6.0	5.2	7.3	6.4
24	70	122	63	76	141	86	36	45	4.8	11	6.3	6.4
25	86	120	61	75	120	85	44	37	5.2	14	6.9	6.4
26	120	114	118	71	109	81	72	36	4.8	7.8	6.0	11
27	116	130	230	216	107	81	72	35	5.6	6.5	9.7	14
28	93	157	208	642	104	85	55	34	5.2	6.9	64	12
29	78	150	172	446	99	87	51	27	5.6	5.2	56	10
30	74	130	150	279	---	79	45	22	4.8	20	36	8.2
31	75	---	163	211	---	77	---	23	---	14	26	---
TOTAL	2077	3117	3040	4935	3969	2832	1708	1300	340.8	272.4	1125.8	457.1
MEAN	67.0	104	98.1	159	137	91.4	56.9	41.9	11.4	8.79	36.3	15.2
MAX	194	235	230	642	312	115	109	82	31	20	156	30
MIN	15	46	57	71	94	77	36	22	4.8	5.2	6.0	6.4

CAL YR 1975 TOTAL 23124.7 MEAN 63.4 MAX 254 MIN 5.0
WTR YR 1976 TOTAL 25174.1 MEAN 68.8 MAX 642 MIN 4.8

NOTE.--Doubtful gage-height record Aug. 25 to Sept. 30.

NEPONSET RIVER BASIN

01105500 EAST BRANCH NEPONSET RIVER AT CANTON, MA

LOCATION.--Lat 42°09'16", long 71°08'47", Norfolk County, Hydrologic Unit 01090001, on right bank 100 ft (30 m) downstream from Washington Street Bridge at Canton, 200 ft (60 m) downstream from Forge Pond Dam, and 900 ft (250 m) downstream from Massapoag Brook.

DRAINAGE AREA.--27.2 mi² (70.4 km²).

PERIOD OF RECORD.--Discharge: October 1952 to current year.

Chemical analyses: Water years 1959, 1967-68 (partial-record station).

Water temperatures: Water years 1959, 1967-68 (partial-record station).

REVISED RECORDS.--WSP 1901: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 80.18 ft (24.439 m) above mean sea level (Massachusetts Department of Public Works bench mark).

REMARKS.--Records good. Flow regulated by Forge, Bolivar, Massapoag, and Reservoir Ponds, and other ponds upstream. Flow affected by diversion for municipal supply of Canton and Stoughton. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--24 years, 51.4 ft³/s (1.456 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,790 ft³/s (50.7 m³/s) Aug. 19, 1955, gage height, 8.18 ft (2.493 m), from rating curve extended above 690 ft³/s (19.5 m³/s); minimum daily, 0.60 ft³/s (0.017 m³/s) July 7, Sept. 1, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 492 ft³/s (13.9 m³/s) Jan. 28, gage height, 4.18 ft (1.274 m); minimum daily, 5.3 ft³/s (0.15 m³/s) July 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	59	100	123	160	64	73	31	24	27	38	16
2	37	54	99	106	289	63	94	75	36	23	32	23
3	32	55	89	102	205	63	66	69	33	14	20	39
4	28	49	82	106	180	66	55	53	26	11	14	25
5	25	48	73	93	160	77	53	42	22	9.6	11	20
6	24	43	70	79	147	78	48	39	19	8.9	11	18
7	23	42	68	78	133	67	52	36	19	8.5	13	15
8	20	44	60	168	122	61	52	34	18	13	71	14
9	19	44	60	133	111	56	49	31	17	9.9	227	12
10	18	43	92	96	101	56	46	27	15	8.2	252	12
11	17	49	85	81	101	59	45	25	14	7.1	107	18
12	45	47	71	80	96	62	43	47	13	8.2	80	16
13	65	190	64	81	90	86	41	35	12	9.2	46	27
14	52	187	62	238	85	90	39	29	11	7.9	39	35
15	40	125	56	171	75	71	37	30	10	7.3	46	28
16	31	100	57	133	80	67	36	26	11	7.1	60	19
17	28	94	54	150	92	84	37	27	11	6.8	49	16
18	129	89	65	105	92	75	36	29	11	6.5	42	11
19	208	85	53	95	130	75	34	32	11	6.3	36	13
20	143	78	45	90	118	90	33	34	12	5.8	29	13
21	115	82	47	86	96	92	31	54	11	5.3	26	11
22	99	129	49	84	106	85	27	79	11	5.3	23	9.6
23	88	99	55	77	119	74	34	54	11	5.8	20	8.2
24	85	93	55	73	96	70	33	53	11	11	17	7.6
25	90	118	49	67	87	66	39	36	10	11	13	7.1
26	119	99	96	67	81	63	81	30	9.9	8.5	11	6.5
27	92	118	234	220	78	59	58	25	11	8.2	14	9.2
28	79	145	159	420	72	69	48	19	10	7.3	32	12
29	73	105	122	254	67	66	38	22	10	6.5	27	11
30	73	93	107	193	---	58	35	22	11	28	22	8.9
31	71	---	127	172	---	54	---	23	---	43	16	---
TOTAL	2010	2606	2505	4021	3369	2166	1393	1168	450.9	345.2	1444	481.1
MEAN	64.8	86.9	80.8	130	116	69.9	46.4	37.7	15.0	11.1	46.6	16.0
MAX	208	190	234	420	289	92	94	79	36	43	252	39
MIN	17	42	45	67	67	54	27	19	9.9	5.3	11	6.5
CAL YR 1975	TOTAL	19996.35	MEAN	54.8	MAX	234	MIN	.65				
WTR YR 1976	TOTAL	21959.20	MEAN	60.0	MAX	420	MIN	5.3				

BLACKS CREEK BASIN

99

01105557 FURNACE BROOK AT QUINCY, MA

LOCATION.--Lat 42°15'28", long 71°00'33", Norfolk County, Hydrologic Unit 01090001, on left bank 20 ft (6 m) upstream from Hancock Street Bridge at Quincy and 1.1 mi (1.8 km) upstream from mouth.

DRAINAGE AREA.--3.83 mi² (9.92 km²), based on storm-sewer system.

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

GAGE.--Water-stage recorder. Altitude of gage is 5 ft (2 m), from topographic map.

REMARKS.--Records fair. Occasional regulation at low flow. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 291 ft³/s (8.24 m³/s) May 13, 1975, gage height, 4.72 ft (1.439 m); minimum, 0.11 ft³/s (0.003 m³/s) June 21, 1973; minimum daily, 0.19 ft³/s (0.005 m³/s) Aug. 20-22, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 120 ft³/s (3.40 m³/s), revised, and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 18	1245	120 3.40	3.70 1.128	Aug. 9	1715	*179 5.07	*4.02 1.225
Feb. 2	0345	148 4.19	3.93 1.198	Aug. 28	0245	127 3.60	3.64 1.109
Aug. 8	1000	158 4.47	3.87 1.180				

Minimum discharge, 0.47 ft³/s (0.013 m³/s) July 5-7, 8-12; minimum daily, 0.47 ft³/s (0.013 m³/s) July 6, 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	4.4	8.7	11	9.8	7.7	13	3.3	3.2	5.9	6.3	2.2
2	5.9	3.6	7.2	8.2	32	9.5	7.2	10	2.4	.61	1.6	8.9
3	5.1	3.8	6.7	8.9	13	11	6.5	5.3	1.8	.52	1.3	3.8
4	4.5	3.8	5.9	8.2	10	12	6.0	4.4	1.6	.52	1.3	3.2
5	4.2	3.6	5.5	6.5	8.7	8.4	5.6	4.0	1.4	.52	1.2	3.0
6	3.6	3.8	5.7	5.7	7.7	8.4	5.4	4.0	1.3	.47	1.2	2.6
7	3.0	4.4	5.3	10	6.5	9.2	5.3	4.2	1.3	2.0	5.1	3.2
8	3.0	6.1	5.1	21	6.1	7.7	5.5	4.4	1.3	1.1	21	3.5
9	2.8	5.1	5.7	11	5.7	6.5	6.1	4.2	1.3	.47	39	3.0
10	2.8	6.7	11	7.9	5.1	7.2	5.9	4.2	1.3	.47	40	4.0
11	4.4	3.6	6.1	6.7	5.1	7.7	3.0	4.0	1.2	.47	36	3.2
12	9.8	7.4	5.5	6.7	5.1	7.7	1.6	7.0	1.2	3.5	16	2.4
13	5.7	33	5.1	6.3	4.5	11	2.0	4.4	1.1	.52	4.4	1.8
14	4.9	18	4.9	36	5.5	8.7	2.4	3.6	1.1	.52	3.5	1.6
15	3.6	12	4.7	14	11	7.4	3.5	3.6	1.1	.52	3.5	1.6
16	3.6	8.9	5.1	15	10	7.0	3.3	3.6	.97	.52	3.6	1.6
17	4.0	7.2	4.7	13	7.4	7.9	3.5	6.7	1.1	.97	2.4	2.4
18	38	5.9	6.5	8.7	7.4	5.7	3.5	5.7	.97	.61	2.1	4.5
19	20	5.1	4.4	6.7	10	7.7	3.3	6.3	.97	.61	1.8	1.8
20	16	5.1	4.0	6.5	7.2	7.9	3.5	4.4	.97	.61	1.8	1.8
21	11	12	3.8	6.1	6.3	8.9	4.0	10	.97	2.0	1.8	2.0
22	8.4	10	4.0	5.9	12	9.8	6.1	3.3	.86	.75	1.8	2.0
23	6.7	7.4	3.8	5.1	9.2	9.8	3.3	2.8	.75	.61	1.8	1.8
24	5.7	11	3.3	5.1	7.7	9.8	2.8	2.4	.66	3.3	1.7	1.7
25	10	9.5	3.2	4.7	7.2	9.8	7.7	2.2	1.4	.75	1.7	1.7
26	7.0	7.4	28	6.5	7.4	9.8	7.0	2.8	.86	.86	1.7	1.6
27	5.9	15	29	32	7.4	10	4.9	2.6	.75	.86	2.7	2.2
28	5.9	11	17	55	7.2	12	4.2	2.1	.75	.97	13	2.1
29	5.1	8.9	12	25	7.4	9.0	3.6	1.7	1.1	.86	8.2	1.7
30	5.9	7.9	10	16	---	7.0	3.3	1.6	.97	13	3.8	1.7
31	4.9	---	14	12	---	5.9	---	1.6	---	1.7	2.8	---
TOTAL	227.7	251.6	245.9	391.4	249.6	268.1	143.0	130.4	36.65	47.09	234.1	78.6
MEAN	7.35	8.39	7.93	12.6	8.61	8.65	4.77	4.21	1.22	1.52	7.55	2.62
MAX	38	33	29	55	32	12	13	10	3.2	13	40	8.9
MIN	2.8	3.6	3.2	4.7	4.5	5.7	1.6	1.6	.66	.47	1.2	1.6
CFSM	1.92	2.19	2.07	3.29	2.25	2.26	1.25	1.10	.32	.40	1.97	.68
IN.	2.21	2.44	2.39	3.80	2.42	2.60	1.39	1.27	.36	.46	2.27	.76

CAL YR 1975 TOTAL 2372.84 MEAN 6.50 MAX 38 MIN .57 CFSM 1.70 IN 23.04
WTR YR 1976 TOTAL 2304.14 MEAN 6.30 MAX 55 MIN .47 CFSM 1.64 IN 22.37

WEYMOUTH FORE RIVER BASIN

01105585 TOWN BROOK AT QUINCY, MA

LOCATION.--Lat 42°14'52", long 70°59'52", Norfolk County, Hydrologic Unit 01090001, on left bank 200 ft (61 m) downstream from Miller Stile Road at Quincy and 0.8 mi (1.3 km) upstream from Town River Bay.

DRAINAGE AREA.--4.25 mi² (11.01 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 5 ft (1.5 m), from topographic map.

REMARKS.--Records good. Diurnal fluctuation caused by plant upstream. Flow regulated by Old Quincy Reservoir 2.2 mi (3.5 km) upstream. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 481 ft³/s (13.6 m³/s) May 13, 1975, gage height, 7.40 ft (2.256 m), from rating curve extended above 160 ft³/s (4.53 m³/s); minimum daily, 0.68 ft³/s (0.019 m³/s) Aug. 2, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 260 ft³/s (7.36 m³/s), revised, and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 18	1045	308 8.72	5.85 1.783	Aug. 8	0945	412 11.7	6.80 2.073
Feb. 2	0345	325 9.20	5.98 1.823	Aug. 9	1645	*a442 12.5	*7.08 2.158
Aug. 7	0415	286 8.10	5.55 1.692				

a From rating curve extended as explained above.

Minimum daily discharge, 1.1 ft³/s (0.031 m³/s) July 3-5, 9, 10, 16, 19, 23, 26, 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	8.0	16	24	19	10	20	3.4	6.8	15	10	4.2
2	4.7	7.0	13	19	61	10	8.0	16	4.7	3.0	2.0	18
3	4.2	9.0	11	19	22	10	6.8	5.2	3.6	1.1	1.5	4.3
4	5.7	7.0	8.4	16	20	16	6.5	4.5	3.4	1.1	1.4	3.1
5	7.4	6.5	8.7	14	18	13	6.2	4.0	3.4	1.1	1.5	2.8
6	7.4	5.8	9.0	12	17	9.0	6.0	3.8	3.4	1.2	1.7	2.5
7	6.5	5.4	8.4	21	16	8.7	5.7	4.0	3.4	5.0	15	2.3
8	6.5	6.8	8.4	37	16	8.0	5.7	4.0	3.4	2.0	56	2.1
9	5.7	5.7	8.0	13	17	7.7	5.7	3.6	3.2	1.1	99	1.8
10	4.9	9.4	15	12	17	9.0	5.4	3.6	3.2	1.1	42	5.7
11	4.9	6.2	4.0	11	17	9.0	5.4	3.8	3.4	1.2	26	2.7
12	18	14	3.2	12	12	7.1	5.2	11	2.8	9.0	23	1.7
13	6.5	58	3.2	12	8.0	16	5.2	4.0	3.0	2.0	15	1.5
14	5.2	14	3.2	66	7.4	8.0	5.2	3.8	3.0	1.6	8.4	1.4
15	3.0	9.0	3.0	17	7.7	7.4	5.2	3.8	3.0	1.4	10	1.3
16	2.4	8.7	3.2	24	7.7	13	4.9	3.6	3.2	1.1	6.8	1.3
17	3.8	7.7	3.2	16	13	10	3.6	4.9	3.4	2.1	3.0	2.8
18	79	7.1	8.7	12	12	4.9	3.8	4.2	3.2	1.3	2.4	8.7
19	25	6.5	3.8	11	16	8.0	3.8	6.2	3.0	1.1	2.4	1.5
20	30	6.5	3.4	9.4	8.4	7.4	3.0	4.0	3.2	1.3	2.3	1.2
21	21	22	3.6	9.4	6.8	7.4	1.8	24	3.0	4.9	2.3	1.3
22	19	12	4.0	9.4	21	6.0	5.2	5.2	2.6	1.8	2.1	1.2
23	17	7.1	4.0	9.0	9.0	5.7	2.1	4.0	1.3	1.1	2.1	1.4
24	17	23	3.6	8.4	9.0	5.2	1.7	3.8	1.3	6.5	2.1	1.4
25	25	17	3.6	8.4	11	5.2	11	3.8	3.7	1.3	2.1	1.4
26	8.4	14	57	13	10	4.9	9.4	3.8	2.5	1.1	2.1	1.7
27	11	38	35	57	10	4.7	4.5	3.6	2.3	1.3	4.0	3.6
28	14	18	14	67	9.7	7.7	3.2	3.6	2.3	1.1	16	2.1
29	14	15	14	24	9.7	4.9	2.4	3.6	3.2	1.1	12	1.3
30	16	14	22	22	---	6.2	2.1	3.6	2.8	28	4.5	1.2
31	11	---	33	19	---	6.0	---	3.6	---	3.0	4.0	---
TOTAL	409.1	388.4	338.6	624.0	428.4	256.1	164.7	164.0	94.7	105.0	382.7	87.5
MEAN	13.2	12.9	10.9	20.1	14.8	8.26	5.49	5.29	3.16	3.39	12.3	2.92
MAX	79	58	57	67	61	16	20	24	6.8	28	99	18
MIN	2.4	5.4	3.0	8.4	6.8	4.7	1.7	3.4	1.3	1.1	1.4	1.2
CAL YR 1975 TOTAL	3493.23			MEAN 9.57	MAX 79	MIN .68						
WTR YR 1976 TOTAL	3443.20			MEAN 9.41	MAX 99	MIN 1.1						

01105600 OLD SWAMP RIVER NEAR SOUTH WEYMOUTH, MA

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 (30 m) downstream from unnamed tributary entering from left, 0.4 mi (0.6 km) upstream from Whitmans Pond, and 1.2 mi (1.9 km) north of South Weymouth.

DRAINAGE AREA.--4.29 mi² (11.11 km²).

PERIOD OF RECORD.--Discharge: May 1966 to current year.

Chemical analyses: Water years 1967-68 (partial-record station).

Water temperatures: Water years 1967-68 (partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 70 ft (21 m), from topographic map.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 9.56 ft³/s (0.271 m³/s), 30.26 in/yr (769 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 566 ft³/s (16.0 m³/s) Mar. 18, 1968, gage height, 5.22 ft (1.591 m); maximum gage height, 5.35 ft (1.631 m) Feb. 15, 1971 (ice jam); minimum discharge, 0.11 ft³/s (0.003 m³/s) Sept. 5, 6, 9, 10, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 90 ft³/s (2.55 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Jan. 28	0845	*229 6.49	*4.49 1.369	Aug. 9	1800	130 3.68	3.98 1.213

Minimum discharge, 0.18 ft³/s (0.005 m³/s) July 20, 21, 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	6.5	13	21	14	6.8	10	4.1	3.2	7.1	4.5	2.0
2	4.5	6.3	12	16	50	6.8	15	11	4.3	3.7	3.9	6.8
3	3.9	5.7	10	14	31	6.8	11	7.7	3.2	2.0	2.3	7.1
4	3.7	5.2	9.2	15	14	8.3	8.3	5.5	2.5	1.3	1.5	5.1
5	3.3	5.2	8.3	12	15	13	7.4	4.8	2.0	.96	.96	4.0
6	3.0	5.0	8.0	10	13	14	6.3	4.1	1.8	.74	.89	2.9
7	2.7	4.8	8.0	9.5	11	9.5	5.5	4.1	1.5	.63	1.5	2.4
8	2.3	4.8	7.4	37	10	8.6	5.2	4.3	1.5	.53	10	1.9
9	2.2	4.3	7.1	26	9.8	6.8	5.2	3.9	1.4	.44	52	1.6
10	2.0	4.3	16	16	8.9	6.8	5.0	3.5	1.2	.40	76	1.6
11	3.2	5.2	15	9.5	9.5	7.7	4.8	3.5	1.1	.33	21	2.1
12	9.5	5.7	11	8.6	9.8	8.0	4.3	5.7	1.1	.40	8.6	1.5
13	11	47	8.9	8.9	9.5	15	4.3	4.8	.89	.44	5.7	1.3
14	11	52	8.0	41	9.5	16	3.9	3.9	.74	.40	4.3	1.1
15	7.7	23	7.4	39	9.5	11	3.7	3.5	.74	.40	3.3	1.1
16	6.0	14	7.1	25	9.8	8.6	3.5	3.2	.74	.37	5.7	1.1
17	4.8	11	6.8	23	13	13	3.5	4.1	.74	.27	4.8	1.1
18	39	9.2	9.5	15	13	14	3.3	4.1	.68	.27	3.5	4.6
19	57	8.6	7.7	11	21	10	3.3	5.0	.63	.24	2.8	2.0
20	28	7.4	6.2	8.6	18	14	3.0	4.5	.58	.20	2.5	1.5
21	19	11	5.7	7.7	13	14	2.8	7.4	.58	.20	2.0	1.3
22	13	18	8.0	7.7	16	12	2.5	7.1	.58	.33	1.9	1.1
23	9.8	14	8.3	7.4	19	9.2	2.5	5.0	.53	.24	1.8	.99
24	8.0	15	7.1	7.1	13	8.0	2.5	3.7	.44	.89	1.5	.88
25	9.8	24	8.3	7.1	10	6.8	4.5	3.3	.40	.48	1.3	.81
26	12	18	31	8.6	9.8	6.5	12	3.3	.40	.30	1.2	.81
27	10	23	70	69	9.5	6.3	8.3	3.2	.40	.22	1.2	2.1
28	8.0	30	53	164	8.9	10	6.8	3.2	.40	.22	3.7	1.6
29	7.4	18	27	55	8.0	8.6	5.5	2.8	.37	.18	3.3	1.5
30	7.7	13	18	26	---	7.1	4.5	2.5	.37	3.9	3.2	1.2
31	7.7	---	21	18	---	6.0	---	2.3	---	2.7	2.5	---
TOTAL	322.4	419.2	444.0	743.7	410.5	299.2	168.4	139.1	35.01	30.78	239.35	65.09
MEAN	10.4	14.0	14.3	24.0	14.2	9.65	5.61	4.49	1.17	.99	7.72	2.17
MAX	57	52	70	164	50	16	15	11	4.3	7.1	76	7.1
MIN	2.0	4.3	5.7	7.1	8.0	6.0	2.5	2.3	.37	.18	.89	.81
CF5M	2.42	3.26	3.33	5.59	3.31	2.25	1.31	1.05	.27	.23	1.80	.51
IN.	2.79	3.63	3.85	6.45	3.56	2.59	1.46	1.21	.30	.27	2.07	.56
CAL YR 1975	TOTAL	3383.40	MEAN	9.27	MAX	71	MIN	.35	CF5M	2.16	IN	29.33
WTR YR 1976	TOTAL	3316.73	MEAN	9.06	MAX	164	MIN	.18	CF5M	2.11	IN	28.75

NORTH RIVER BASIN

01105730 INDIAN HEAD RIVER AT HANOVER, MA

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 (0.5 km) upstream from Iron Mine Brook, and 1 mi (2 km) southwest of Hanover.

DRAINAGE AREA.--30.3 mi² (78.5 km²).

PERIOD OF RECORD.--Discharge: July 1966 to current year.

Chemical analyses: November 1969 to September 1971, water years 1970-71 (partial-record station).

Water temperatures: November 1969 to September 1971.

GAGE.--Water-stage recorder. Datum of gage is 3.16 ft (0.963 m) above mean sea level.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Some regulation by mills and by Wampatuck, Indian Head, Maquan, and other ponds upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 63.2 ft³/s (1.790 m³/s) 28.32 in/yr (719 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,390 ft³/s (39.4 m³/s) Mar. 18, 1968, gage height, 7.13 ft (2.173 m); minimum, 0.18 ft³/s (0.005 m³/s) July 13, 14, 1971; minimum daily, 0.23 ft³/s (0.007 m³/s) July 14, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 280 ft³/s (7.93 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 19	1115	286 8.10	4.02 1.225	Jan. 14	1930	332 9.40	4.26 1.298
Nov. 13	2300	314 8.89	4.17 1.271	Jan. 28	1930	*885 25.1	*5.95 1.814
Dec. 27	1515	425 12.0	4.66 1.420	Feb. 2	1615	361 10.2	4.40 1.341
Jan. 8	1730	280 7.93	3.99 1.216	Aug. 10	1245	295 8.35	4.07 1.241

Minimum discharge, 0.30 ft³/s (0.008 m³/s) Sept. 13, 14; minimum daily, 3.9 ft³/s (0.11 m³/s) Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	60	115	170	156	61	70	38	16	11	7.0	17
2	59	54	109	135	296	58	122	79	30	8.5	5.9	42
3	51	51	93	117	264	58	87	68	27	7.9	5.7	74
4	44	48	81	131	171	62	69	50	20	7.6	6.2	46
5	39	45	72	99	134	100	60	41	17	7.6	6.7	31
6	37	42	70	76	116	120	55	36	15	7.3	8.5	24
7	34	40	70	71	100	105	52	33	14	7.6	7.9	21
8	31	42	64	234	93	78	50	36	13	7.3	34	19
9	28	45	61	206	86	69	48	30	12	6.5	155	15
10	27	42	122	137	78	60	46	27	12	6.2	270	13
11	26	49	132	89	87	65	45	25	11	6.2	168	14
12	49	46	95	76	87	71	43	27	9.2	6.2	75	13
13	82	202	78	81	81	90	40	27	8.5	6.7	44	8.7
14	84	290	71	243	84	125	39	23	7.9	6.7	30	3.9
15	69	193	67	253	72	110	39	22	7.3	6.2	27	9.6
16	53	133	65	175	84	76	36	20	7.3	5.7	46	11
17	44	103	61	178	100	100	35	24	7.0	5.9	51	12
18	131	87	73	145	103	110	34	27	7.6	5.7	33	13
19	267	76	69	100	135	85	33	27	6.7	5.2	21	10
20	205	69	51	78	150	110	30	27	8.2	5.2	18	6.7
21	160	72	61	70	110	115	29	27	8.8	5.2	15	8.7
22	121	157	68	66	120	105	27	41	8.8	5.9	13	6.9
23	94	127	67	64	140	86	28	30	9.2	5.7	12	7.1
24	76	109	62	62	110	73	26	24	9.5	8.5	11	6.7
25	71	191	58	60	93	63	30	21	9.5	6.7	9.8	6.9
26	101	162	134	69	81	54	89	21	8.5	6.5	9.5	8.5
27	87	160	397	262	78	50	73	20	8.2	6.5	8.8	13
28	70	226	309	789	73	80	63	19	7.9	5.2	61	12
29	61	165	211	619	67	70	52	16	7.3	4.4	44	8.4
30	61	126	164	284	---	58	43	14	8.8	6.2	41	7.9
31	69	---	175	189	---	50	---	15	---	5.9	24	---
TOTAL	2400	3212	3325	5328	3349	2517	1493	935	343.2	203.9	1269.0	490.0
MEAN	77.4	107	107	172	115	81.2	49.8	30.2	11.4	6.58	40.9	16.3
MAX	267	290	397	789	296	125	122	79	30	11	270	74
MIN	26	40	51	60	67	50	26	14	6.7	4.4	5.7	3.9
CFSM	2.55	3.53	3.53	5.68	3.80	2.68	1.64	1.00	.38	.22	1.35	.54
IN.	2.95	3.94	4.08	6.54	4.11	3.09	1.83	1.15	.42	.25	1.56	.60

CAL YR 1975 TOTAL 24222.5 MEAN 66.4 MAX 397 MIN 5.8 CFSM 2.19 IN 29.74
WTR YR 1976 TOTAL 24865.1 MEAN 67.9 MAX 789 MIN 3.9 CFSM 2.24 IN 30.53

NOTE.--No gage-height record Feb. 19 to Apr. 1.

01105870 JONES RIVER AT KINGSTON, MA

LOCATION.--Lat 41°59'27", long 70°44'03", Plymouth County, Hydrologic Unit 01090002, on left bank 100 ft (30 m) downstream from Elm Street Bridge at Kingston and 2.8 mi (4.5 km) upstream from mouth.

DRAINAGE AREA.--15.8 mi² (40.9 km²), excludes 4.09 mi² (10.59 km²) 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.

Chemical analyses: November 1969 to September 1971, water years 1970-71 (partial-record station).

Water temperatures: November 1969 to September 1971.

Sediment records: Water year 1970 (partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 10 ft (3 m), from topographic map.

REMARKS.--Records fair. Flow regulated by pond upstream. Flow affected at times during springs of 1968-76 by wastage from 4.09 mi² (10.59 km²) upstream from outlet of Silver Lake. Surface flow may be affected by ground water that enters from or moves into adjacent basins. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 31.6 ft³/s (0.895 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 575 ft³/s (16.3 m³/s) Mar. 19, 1968, gage height, 4.60 ft (1.402 m); maximum gage height, 4.65 ft (1.417 m) May 26, 1967 (backwater from tide); minimum daily discharge, 0.59 ft³/s (0.017 m³/s) Aug. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 176 ft³/s (4.98 m³/s) Jan. 28, gage height, 3.74 ft (1.140 m); maximum gage height, 4.35 ft (1.326 m) Mar. 16 (backwater from tide); minimum daily discharge, 0.74 ft³/s (0.021 m³/s) Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	25	47	71	55	36	31	27	18	14	13	12
2	24	25	45	60	89	39	40	30	19	12	21	8.7
3	21	34	44	54	94	40	44	33	21	9.1	13	9.3
4	22	30	42	54	78	44	39	33	21	8.2	10	10
5	22	30	37	42	69	50	34	30	19	8.2	9.1	10
6	18	24	37	36	60	50	31	27	19	8.2	9.1	9.2
7	14	21	36	34	54	50	30	24	18	6.1	16	7.5
8	15	18	33	66	50	45	25	22	16	6.1	33	8.8
9	15	19	30	76	45	40	22	22	13	5.5	85	3.2
10	11	19	36	60	44	37	24	22	11	5.5	103	.74
11	8.2	19	39	49	40	37	24	21	13	4.5	75	2.7
12	8.2	19	39	40	40	37	24	18	13	4.5	49	2.9
13	13	76	37	42	45	45	24	17	12	7.5	33	3.1
14	16	120	34	87	45	55	27	16	11	7.5	21	3.7
15	16	105	31	94	36	54	30	16	10	7.5	17	3.7
16	17	75	30	76	36	49	30	17	10	6.7	15	3.7
17	17	57	25	75	42	61	28	17	9.1	11	14	3.7
18	31	47	24	64	47	57	25	17	8.2	13	11	6.4
19	45	40	19	52	49	49	25	19	8.2	9.1	10	6.1
20	49	36	17	42	47	49	25	19	8.2	9.1	9.1	5.2
21	52	36	25	39	42	45	22	19	7.5	8.2	8.2	5.0
22	47	62	47	39	44	45	19	22	6.7	8.2	6.1	4.9
23	37	66	47	42	49	42	19	24	6.1	6.7	6.1	5.0
24	37	60	47	36	47	40	19	24	6.1	7.5	6.1	4.6
25	27	75	40	34	47	37	19	24	5.5	8.2	6.1	4.5
26	27	73	60	36	47	33	28	21	5.5	8.2	5.5	4.4
27	30	64	123	71	44	28	31	18	5.5	6.7	8.2	3.7
28	31	69	116	150	40	37	31	18	5.5	6.7	12	3.7
29	31	66	87	142	37	40	31	18	4.5	6.7	14	4.1
30	28	55	71	103	---	39	30	18	4.5	9.1	13	4.1
31	24	---	73	76	---	34	---	18	---	12	12	---
TOTAL	778.4	1465	1418	1942	1462	1344	831	671	335.1	251.5	663.6	164.64
MEAN	25.1	48.8	45.7	62.6	50.4	43.4	27.7	21.6	11.2	8.11	21.4	5.49
MAX	52	120	123	150	94	61	44	33	21	14	103	12
MIN	8.2	18	17	34	36	28	19	16	4.5	4.5	5.5	.74
CAL YR 1975	TOTAL	10614.40	MEAN	29.1	MAX	123	MIN	4.6				
WTR YR 1976	TOTAL	11326.24	MEAN	30.9	MAX	150	MIN	.74				

HERRING RIVER BASIN

01105880 HERRING RIVER AT NORTH HARWICH, MA

LOCATION.--Lat 41°42'00", long 70°06'27", Barnstable County, Hydrologic Unit 01090002, on left bank 30 ft (9 m) upstream from bridge on U.S. Route 6, 0.8 mi (1.3 km) northeast of North Harwich, 1.1 mi (1.8 km) downstream from Hinckleys Pond, and 2 mi (3 km) northwest of Harwich.

DRAINAGE AREA.--About 9.4 mi² (24.3 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 10 ft (3 m), from topographic map.

REMARKS.--Records good. 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 were made during the year.

AVERAGE DISCHARGE.--10 years, 10.6 ft³/s (0.300 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59 ft³/s (1.67 m³/s) Sept. 3, 1972, gage height, 4.43 ft (1.350 m); maximum gage height, 4.88 ft (1.487 m) June 6, 1967; minimum discharge, 0.85 ft³/s (0.024 m³/s) Oct. 4-9, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37 ft³/s (1.05 m³/s) July 30, gage height, 3.56 ft (1.085 m); minimum, 1.3 ft³/s (0.037 m³/s) Sept. 23-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	7.2	10	11	18	25	14	11	8.0	6.9	6.2	3.7
2	8.9	7.2	9.9	11	22	29	13	10	8.5	6.3	3.4	1.5
3	8.2	7.2	9.6	11	20	28	14	12	8.2	6.3	3.7	1.6
4	7.8	7.2	9.2	11	20	25	14	11	8.2	6.0	3.7	2.7
5	7.6	7.2	8.7	10	19	24	14	11	8.0	6.0	4.1	5.4
6	7.2	6.7	8.7	9.6	19	22	14	11	8.5	6.0	3.5	6.2
7	6.5	6.7	8.2	10	19	20	14	14	8.5	6.2	3.4	4.6
8	6.2	6.9	8.0	15	19	20	14	17	8.5	6.2	5.1	4.6
9	6.2	6.9	8.0	17	20	19	14	15	8.7	5.8	8.7	4.6
10	5.6	7.2	7.4	17	19	18	14	15	8.5	5.4	14	4.4
11	5.6	8.0	7.4	17	20	19	14	14	8.2	5.4	12	4.4
12	5.8	7.6	7.2	16	20	20	13	13	8.0	6.5	11	4.4
13	5.8	10	7.2	17	19	21	13	12	7.8	6.5	10	4.2
14	5.8	12	7.2	19	20	21	12	9.9	7.6	6.3	8.7	4.2
15	5.8	11	7.2	18	19	21	12	7.4	7.2	6.3	7.6	3.5
16	5.8	11	7.2	16	19	21	11	7.2	7.2	6.5	7.4	1.8
17	5.8	10	6.7	18	17	23	11	7.8	7.2	9.9	6.9	2.0
18	6.2	9.9	7.4	18	17	21	11	7.8	6.7	8.9	6.5	1.8
19	7.2	9.6	6.7	17	19	21	11	8.7	6.9	8.7	9.6	1.8
20	7.4	9.4	6.3	17	20	18	12	8.7	6.7	8.2	16	1.6
21	6.5	9.4	7.6	17	20	15	12	8.2	6.7	8.0	6.2	1.6
22	6.3	10	10	18	14	14	12	8.2	6.5	7.8	6.0	1.6
23	6.3	9.9	8.7	18	14	13	12	8.2	6.2	6.9	5.8	1.6
24	6.3	10	8.0	19	14	13	12	7.8	6.0	7.4	5.3	1.3
25	6.5	11	8.2	19	14	13	12	7.8	6.0	7.6	4.8	1.3
26	7.2	11	9.9	18	16	13	12	7.8	6.0	6.7	4.8	1.3
27	7.2	11	11	18	21	12	12	7.8	5.8	6.3	4.6	1.5
28	7.2	12	11	19	21	13	12	8.0	5.8	5.8	5.1	1.8
29	6.9	11	10	18	21	15	12	8.2	6.0	6.0	4.9	1.6
30	7.2	10	11	18	---	15	11	8.2	6.2	9.9	4.9	1.6
31	7.4	---	11	18	---	15	---	8.2	---	8.0	5.1	---
TOTAL	207.6	274.2	264.6	495.6	540	587	378	311.9	218.3	214.7	209.0	84.2
MEAN	6.70	9.14	8.54	16.0	18.6	18.9	12.6	10.1	7.28	6.93	6.74	2.81
MAX	8.9	12	11	19	22	29	14	17	8.7	9.9	16	6.2
MIN	5.6	6.7	6.3	9.6	14	12	11	7.2	5.8	5.4	3.4	1.3
CAL YR 1975	TOTAL	3170.9	MEAN	8.69	MAX	23	MIN	3.8				
WTR YR 1976	TOTAL	3785.1	MEAN	10.3	MAX	29	MIN	1.3				

WEST BRANCH WESTPORT RIVER BASIN

105

01106000 ADAMSVILLE BROOK AT ADAMSVILLE, RI

LOCATION.--Lat 41°33'30", long 71°07'47", Newport County, Hydrologic Unit 01090002, on right bank 0.2 mi (0.3 km) upstream from milldam at Adamsville and 0.7 mi (1.1 km) upstream from mouth.

DRAINAGE AREA.--7.91 mi² (20.49 km²).

PERIOD OF RECORD.--Discharge: October 1940 to current year.

Chemical analyses: Water year 1973 (partial-record station), February 1973 to June 1974.

Water temperatures: Water year 1973 (partial-record station), July 1973 to June 1974.

REVISED RECORDS.--WSP 1701: 1955-59. WRD MA, NH, RI, VT, 1971: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Sept. 16, 1942. Altitude of gage is 15 ft (5 m), from topographic map.

REMARKS.--Records good except those for January, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 14.2 ft³/s (0.402 m³/s), 24.38 in/yr (619 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 316 ft³/s (8.95 m³/s) Dec. 27, 1969, gage height, 7.65 ft (2.332 m); maximum gage height, 7.70 ft (2.347 m) Mar. 18, 1968; minimum discharge, 0.03 ft³/s (0.001 m³/s) Sept. 23, 24, Oct. 3, 4, 1950, Sept. 24, 25, 29, 1971, Aug. 21, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 120 ft³/s (3.40 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 14	1345	133 3.77	5.24 1.597	Jan. 28	2145	173 4.90	5.90 1.798
Dec. 27	0615	*175 4.96	*5.94 1.811	Feb. 3	1445	147 4.16	5.47 1.667
Jan. 14	1800	134 3.79	5.26 1.603				

Minimum discharge, 0.05 ft³/s (0.001 m³/s) Aug. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	8.2	27	43	34	13	18	8.6	3.1	3.7	.11	1.5
2	6.4	8.2	25	34	76	12	24	20	5.1	2.9	.11	1.3
3	5.7	7.8	22	28	130	13	23	24	5.4	2.7	.11	1.7
4	4.8	7.4	19	29	78	14	19	19	5.1	2.5	.11	1.6
5	4.2	7.1	17	25	46	18	16	15	4.5	2.9	.11	1.5
6	3.7	6.7	16	18	28	19	14	12	3.9	2.9	.09	1.4
7	3.4	6.4	15	15	19	17	12	10	3.4	2.7	.07	1.1
8	2.9	6.7	15	55	14	15	11	11	3.1	2.2	5.4	1.1
9	2.7	7.1	14	49	13	13	9.4	9.8	2.7	1.8	46	.93
10	2.5	8.2	23	30	11	12	9.0	8.6	2.2	1.4	103	.83
11	2.2	11	26	20	13	13	8.6	7.8	2.0	1.1	56	.79
12	6.0	12	24	16	15	16	8.2	7.8	1.6	1.4	31	.68
13	8.2	52	20	18	18	37	7.8	7.1	1.3	1.1	20	.60
14	9.8	124	17	83	19	61	7.4	6.7	1.1	.97	13	.52
15	9.4	81	15	83	17	47	7.1	6.7	.97	.83	10	.50
16	8.2	45	14	47	18	37	7.4	6.0	.97	.71	11	.42
17	7.1	32	13	42	20	53	7.8	7.4	.83	.71	9.4	.60
18	13	24	15	31	20	45	7.4	7.8	.83	.60	7.4	1.2
19	24	19	14	22	21	33	7.4	9.0	.71	.41	5.7	1.3
20	27	16	12	17	20	27	7.1	9.0	.83	.34	4.8	1.2
21	23	16	11	15	18	24	6.7	8.6	.97	.22	3.9	1.2
22	18	35	11	15	20	20	6.4	8.2	.83	.22	3.4	1.0
23	14	37	11	14	30	17	9.0	7.1	.71	.18	2.7	.90
24	10	27	11	14	28	15	11	6.4	.60	.22	2.0	.71
25	9.8	40	11	13	24	14	11	5.7	.50	.22	1.6	.71
26	13	35	29	15	20	13	12	5.4	.41	.18	1.3	.90
27	13	35	149	33	18	12	12	5.1	.50	.18	1.4	1.0
28	12	70	96	122	15	18	11	4.5	.97	.14	2.2	1.4
29	10	45	52	124	14	19	10	4.2	1.1	.11	2.2	1.6
30	9.4	32	35	66	---	18	9.4	3.9	1.4	.09	2.4	1.6
31	9.0	---	41	43	---	15	---	3.7	---	.09	1.8	---
TOTAL	298.4	861.8	820	1179	817	700	330.1	276.1	57.63	35.72	348.31	31.79
MEAN	9.63	28.7	26.5	38.0	28.2	22.6	11.0	8.91	1.92	1.15	11.2	1.06
MAX	27	124	149	124	130	61	24	24	5.4	3.7	103	1.7
MIN	2.2	6.4	11	13	11	12	6.4	3.7	.41	.09	.07	.42
CFSM	1.22	3.63	3.35	4.80	3.57	2.86	1.39	1.13	.24	.15	1.42	.13
IN.	1.40	4.05	3.86	5.54	3.84	3.29	1.55	1.30	.27	.17	1.64	.15
CAL YR 1975	TOTAL	5784.29	MEAN	15.8	MAX	167	MIN	.13	CFSM	2.00	IN	27.20
WTR YR 1976	TOTAL	5755.85	MEAN	15.7	MAX	149	MIN	.07	CFSM	1.98	IN	27.07

TAUNTON RIVER BASIN

01108000 TAUNTON RIVER AT STATE FARM, NEAR BRIDGEWATER, MA

LOCATION.--Lat 41°56'05", long 70°57'18", Plymouth County, Hydrologic Unit 01090004, on right bank at State Farm, 1 mi (2 km) upstream from Sawmill Brook, 3.5 mi (5.6 km) northwest of Middleboro, and 4 mi (6 km) southeast of Bridgewater.

DRAINAGE AREA.--260 mi² (673 km²).

PERIOD OF RECORD.--Discharge: October 1929 to April 1976 (discontinued). Prior to October 1969, published as "at State Farm."

Chemical analyses: Water years 1953, 1967-74 (partial-record station).

Water temperatures: Water years 1967-69, 1971-74 (partial-record station).

Sediment records: Water years 1967-74 (partial-record station).

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

GAGE.--Water-stage recorder. Datum of gage is 9.61 ft (2.929 m) above mean sea level. Prior to Oct. 1, 1931, inverted nonrecording gage at site 40 ft (12 m) downstream with zero of gage at 10.02 ft (3.054 m) on present gage. Oct. 1, 1931, to June 8, 1934, nonrecording gage, and June 9, 1934, to Oct. 12, 1939, water-stage recorder, at site 40 ft (12 m) downstream at present datum.

REMARKS.--Records good. Flow affected by diversions to and from basin upstream for municipal supplies. Flow regulated by reservoirs and small powerplants upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years (water years 1930-75), 464 ft³/s (13.14 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,980 ft³/s (141 m³/s) Mar. 20, 1968, gage height, 14.48 ft (4.414 m); minimum, 8 ft³/s (0.23 m³/s) Sept. 10, 1944; minimum daily, 9 ft³/s (0.25 m³/s) Sept. 9-12, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1975 to April 1976, 3,230 ft³/s (91.5 m³/s) Jan. 29, gage height, 10.57 ft (3.222 m); minimum, 226 ft³/s (6.40 m³/s) Oct. 11; minimum daily, 232 ft³/s (6.57 m³/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1975 TO APRIL 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	
1	678	527	1140	1490	2320	737	649	
2	599	492	1070	1360	2200	707	859	
3	507	463	993	1200	2250	703	835	
4	447	442	887	1160	2000	709	768	
5	392	416	797	1040	1710	786	709	
6	356	382	750	921	1470	854	645	
7	327	356	718	784	1240	819	550	
8	290	348	663	1190	1120	759	486	
9	266	359	632	1500	1020	693	460	
10	247	347	787	1340	906	658	408	
11	232	371	916	1060	879	656	384	
12	322	365	833	884	884	684	366	
13	707	885	766	832	879	756	350	
14	722	1650	707	1250	883	925	336	
15	659	1760	674	1810	860	894	317	
16	560	1510	643	1710	857	833	301	
17	474	1210	604	1560	869	948	285	
18	624	1010	606	1410	885	972	277	
19	1120	888	612	1240	954	902	261	
20	1240	797	531	1040	1010	915	251	
21	1160	739	507	885	965	896	247	
22	1030	993	494	826	978	871	253	
23	905	1070	506	730	1130	828	257	
24	814	990	479	710	1060	759	---	
25	714	1140	498	700	969	719	---	
26	737	1210	719	691	911	679	---	
27	713	1210	1910	1050	908	637	---	
28	663	1490	2280	2260	826	671	---	
29	604	1480	2100	3140	780	714	---	
30	572	1300	1750	3150	---	671	---	
31	569	---	1540	2800	---	640	---	
TOTAL	19250	26200	28112	41723	33723	23995	---	
MEAN	621	873	907	1346	1163	774	---	
MAX	1240	1760	2280	3150	2320	972	---	
MIN	232	347	479	691	780	637	---	
CAL YR 1975	TOTAL	197544	MEAN	541	MAX	2280	MIN	61

TAUNTON RIVER BASIN

107

01108500 WADING RIVER AT WEST MANSFIELD, MA

LOCATION.--Lat 42°00'00", long 71°15'38", Bristol County, Hydrologic Unit 01090004, on right bank 200 ft (60 m) downstream from Balcolm Street Bridge at West Mansfield, 2 mi (3 km) upstream from Hodges Brook, and 3 mi (5 km) southwest of Mansfield.

DRAINAGE AREA.--19.2 mi² (49.7 km²).

PERIOD OF RECORD.--Discharge: October 1953 to current year.

Chemical analyses: Water years 1967-68 (partial-record station).

Water temperatures: Water years 1967-68 (partial-record station).

REVISED RECORDS.--WSP 1621: 1953-58 (monthly runoff). WRD MA, NH, RI, VT 1971: 1970.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 120.85 ft (36.835 m) above mean sea level.

REMARKS.--Records good except those for period of no gage-height record, which are fair. 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 were made during the year.

AVERAGE DISCHARGE.--23 years, 32.2 ft³/s (0.912 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 541 ft³/s (15.3 m³/s) Mar. 19, 1968, gage height, 6.60 ft (2.012 m); no flow Oct. 22-24, 1957, caused by temporary storage upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 201 ft³/s (5.69 m³/s) Jan. 28, gage height, 5.30 ft (1.615 m), from peak-stage indicator; minimum daily, 0.53 ft³/s (0.015 m³/s) June 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	53	78	100	130	46	44	25	9.2	4.5	7.5	4.7
2	7.7	49	74	92	155	43	57	39	12	4.4	6.0	7.3
3	6.7	42	68	84	150	43	53	42	12	4.2	3.8	7.8
4	5.8	39	63	82	125	45	50	39	11	4.3	3.0	6.5
5	5.1	35	57	68	110	47	49	35	9.0	6.8	2.5	5.8
6	4.5	33	55	60	95	49	45	32	8.2	4.9	2.3	5.4
7	3.9	31	50	56	88	49	42	29	8.2	3.2	2.5	5.6
8	3.2	30	46	90	78	45	38	28	11	3.8	12	5.6
9	3.1	38	44	90	72	42	34	24	7.3	3.6	25	5.1
10	3.0	35	57	80	66	43	32	22	5.3	3.3	39	5.4
11	3.0	33	59	68	61	43	30	17	4.7	3.3	35	8.2
12	5.3	33	53	60	57	42	29	21	3.9	3.4	30	6.6
13	11	73	50	60	53	47	27	24	3.8	3.3	27	5.7
14	12	100	50	95	52	54	26	22	3.6	3.2	21	5.2
15	9.4	104	49	110	54	51	25	28	3.3	3.5	17	4.8
16	8.8	101	47	110	56	50	24	23	3.5	3.6	18	4.8
17	9.4	90	46	100	59	59	23	23	3.1	3.2	13	5.1
18	36	78	46	90	62	53	21	25	3.1	3.0	9.1	5.5
19	78	71	46	82	75	50	21	23	2.8	2.7	6.4	5.3
20	85	64	44	69	77	51	21	22	2.7	2.5	4.8	4.9
21	84	62	40	62	73	52	22	21	2.7	2.4	4.0	4.6
22	74	75	37	58	74	52	17	19	2.6	2.4	3.5	2.8
23	65	75	37	50	75	50	15	11	2.7	2.3	3.1	2.0
24	58	74	37	46	68	49	13	17	2.4	2.6	2.6	1.8
25	55	79	39	44	61	47	14	15	1.9	2.8	2.4	1.6
26	67	73	50	43	55	45	29	16	1.7	2.8	2.1	1.5
27	77	75	120	80	53	42	33	14	1.3	2.7	2.0	1.5
28	76	89	125	175	53	44	33	13	.89	2.6	6.3	1.7
29	69	85	105	170	49	44	32	12	.57	2.4	8.6	2.0
30	64	80	95	155	---	41	29	11	.53	4.2	7.1	4.2
31	58	---	105	140	---	39	---	11	---	5.8	5.5	---
TOTAL	1056.9	1899	1872	2669	2236	1457	928	703	144.99	107.7	332.1	139.0
MEAN	34.1	63.3	60.4	86.1	77.1	47.0	30.9	22.7	4.83	3.47	10.7	4.63
MAX	85	104	125	175	155	59	57	42	12	6.8	39	8.2
MIN	3.0	30	37	43	49	39	13	11	.53	2.3	2.0	1.5
CAL YR 1975 TOTAL	13372.79											
WTR YR 1976 TOTAL	13544.69											
MEAN 36.6												
MAX 125												
MIN .38												
MEAN 37.0												
MAX 175												
MIN .53												

NOTE.--No gage-height record Dec. 21 to Feb. 17.

TAUNTON RIVER BASIN

01109000 WADING RIVER NEAR NORTON, MA

LOCATION.--Lat 41°56'51", long 71°10'38", Bristol County, Hydrologic Unit 01090004, on left bank 200 ft (60 m) downstream from bridge on State Highway 140, 0.9 mi (1.4 km) upstream from confluence with Rumford River, and 1.5 mi (2.4 km) southeast of Norton.

DRAINAGE AREA.--42.4 mi² (109.8 km²).

PERIOD OF RECORD.--Discharge: June 1925 to current year.

Chemical analyses: Water year 1967-68 (partial-record station).

Water temperatures: Water year 1967-68 (partial-record station).

REVISED RECORDS.--WSP 871: 1938. WSP 1301: 1929-33(M). WSP 1621: 1925-58 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 55.14 ft (15.127 m), corrected, above mean sea level. Prior to Oct. 1, 1930, nonrecording gage at same site at datum 0.62 ft (0.189 m) higher and Oct. 1, 1930, to May 5, 1933, at same site at present datum.

REMARKS.--Records excellent. 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 were made during the year.

AVERAGE DISCHARGE.--51 years, 71.9 ft³/s (2.036 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,460 ft³/s (41.3 m³/s) Mar. 19, 1968, gage height, 11.47 ft (3.496 m); minimum, 0.3 ft³/s (0.008 m³/s) Sept. 10, 1926.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 280 ft³/s (7.93 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Oct. 20	1200	306	8.67	7.79	2.374	Jan. 28	1900	*615	17.4	*9.57	2.917
Nov. 14	1200	378	10.7	8.30	2.530	Feb. 2	2100	409	11.6	8.50	2.591
Dec. 27	2000	356	10.1	8.15	2.484	Aug. 9	1300	287	8.13	7.65	2.332
Jan. 14	2100	326	9.23	7.94	2.420						

Minimum discharge, 1.1 ft³/s (0.031 m³/s) June 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	103	172	236	284	110	105	58	23	3.3	28	24
2	37	96	169	206	355	102	168	102	23	4.1	29	27
3	34	92	156	185	355	101	165	117	23	5.2	24	45
4	25	85	142	185	293	97	136	99	22	5.7	17	46
5	23	76	129	160	252	110	123	85	21	7.4	13	36
6	30	67	123	135	226	128	112	74	20	6.1	11	30
7	25	63	117	125	200	121	99	68	19	3.2	13	26
8	17	69	110	217	180	108	93	65	18	5.2	54	22
9	15	82	103	220	165	97	86	60	17	8.7	218	15
10	14	78	131	180	150	93	78	54	17	6.9	273	12
11	13	80	152	150	149	96	73	49	14	5.8	173	17
12	33	83	135	135	144	99	68	60	11	5.4	134	25
13	61	217	123	135	119	116	64	69	9.8	6.0	102	22
14	69	342	113	251	123	147	58	72	9.8	5.9	83	18
15	59	276	111	285	124	135	50	66	8.8	5.5	69	16
16	47	237	107	233	131	124	48	62	19	5.4	71	14
17	39	212	101	239	138	147	48	64	19	5.6	60	14
18	101	190	103	220	147	143	47	61	4.6	11	46	17
19	224	167	96	180	174	129	47	61	8.4	9.5	37	17
20	260	151	83	155	190	135	46	57	5.5	6.0	32	16
21	220	142	80	135	168	140	41	54	12	5.0	26	15
22	189	181	82	128	167	139	42	58	15	6.0	21	13
23	163	179	83	115	185	125	40	52	6.4	5.6	19	7.3
24	113	165	84	105	164	120	33	39	1.7	6.0	18	7.6
25	135	183	86	100	149	116	33	37	1.4	4.9	17	7.2
26	162	177	124	97	138	108	56	36	1.2	5.3	13	7.4
27	155	160	308	194	129	117	73	35	1.3	4.7	12	9.9
28	136	216	313	512	123	121	73	33	2.3	2.4	19	12
29	126	199	256	466	116	116	66	30	1.7	2.0	36	12
30	119	176	222	371	---	105	62	28	2.5	20	41	11
31	112	---	233	320	---	88	---	26	---	43	31	---
TOTAL	2797	4544	4347	6375	5237	3633	2233	1831	358.4	226.8	1740	561.4
MEAN	90.2	151	140	206	181	117	74.4	59.1	11.9	7.32	56.1	18.7
MAX	260	342	313	512	355	147	168	117	23	43	273	46
MIN	13	63	80	97	116	88	33	26	1.2	2.0	11	7.2
CAL YR 1975	TOTAL	32070.9	MEAN	87.9	MAX	342	MIN	5.2				
WTR YR 1976	TOTAL	33883.6	MEAN	92.6	MAX	512	MIN	1.2				

01109060 THREEMILE RIVER AT NORTH DIGHTON, MA

LOCATION.--Lat 41°51'58", long 71°07'24", Bristol County, Hydrologic Unit 01090004, on right bank 800 ft (250 m) downstream from Warner Boulevard at North Dighton and 1.4 mi (2.3 km) upstream from mouth.

DRAINAGE AREA.--83.8 mi² (217.0 km²).

PERIOD OF RECORD.--Discharge: July 1966 to current year.

Chemical analyses: Water years 1967-68 (partial-record station).

Water temperatures: Water years 1967-68 (partial-record station).

GAGE.--Water-stage recorder. Datum of gage is 11.38 ft (3.469 m) above mean sea level.

REMARKS.--Records good. 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 were made during the year.

AVERAGE DISCHARGE.--10 years, 170 ft³/s (4.814 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,490 ft³/s (70.5 m³/s) Mar. 19, 1968, gage height, 8.30 ft (2.530 m); minimum, 5.3 ft³/s (0.15 m³/s) Aug. 27, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 15	0300	720 20.4	5.01 1.527	Jan. 29	0930	*1,310 37.1	*6.18 1.884
Dec. 28	1315	733 20.8	5.04 1.536	Feb. 3	2245	848 24.0	5.29 1.612
Jan. 15	1645	659 18.7	4.87 1.484				

Minimum discharge, 15 ft³/s (0.42 m³/s) July 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	210	390	523	664	243	230	150	64	33	114	88
2	93	198	371	469	778	227	310	193	73	30	83	85
3	84	184	352	434	750	225	360	227	72	28	66	107
4	79	175	317	407	773	217	330	217	66	28	54	114
5	69	162	290	346	598	230	290	191	58	24	43	110
6	67	150	267	308	508	251	260	168	56	23	40	98
7	68	140	251	311	415	262	230	156	54	23	41	87
8	63	138	235	417	413	251	210	144	52	19	121	79
9	57	140	222	466	371	230	190	134	47	19	333	74
10	55	146	248	434	330	217	175	123	44	23	560	67
11	54	162	276	355	321	210	165	111	42	22	494	75
12	76	162	299	308	305	215	160	116	39	25	330	73
13	130	333	282	296	296	243	148	138	35	21	256	73
14	144	571	256	487	265	276	142	140	31	19	205	71
15	138	689	240	602	251	299	130	136	30	21	171	61
16	119	567	230	602	262	285	119	123	29	20	184	43
17	101	480	220	563	276	305	118	125	38	28	160	39
18	142	420	222	470	290	314	114	125	41	22	132	51
19	227	371	215	400	317	302	109	127	28	24	104	49
20	365	330	191	358	358	290	106	127	29	24	86	42
21	430	305	188	308	371	287	99	123	29	20	76	39
22	393	336	175	282	361	290	96	123	31	19	77	36
23	352	361	171	235	371	285	95	121	33	19	76	31
24	305	365	162	227	368	265	87	109	26	28	72	25
25	254	371	184	238	343	246	107	93	21	25	69	23
26	270	380	270	232	314	238	140	86	19	19	67	22
27	287	393	498	374	290	245	154	83	18	18	63	26
28	285	430	702	891	270	255	162	79	18	19	79	36
29	254	469	659	1270	254	255	154	73	19	15	84	37
30	240	424	548	1040	---	230	140	69	19	150	107	35
31	222	---	530	796	---	210	---	66	---	142	107	---
TOTAL	5532	9562	9461	14449	11483	7898	5130	3996	1161	950	4454	1796
MEAN	178	319	305	466	396	255	171	129	38.7	30.6	144	59.9
MAX	430	689	702	1270	778	314	360	227	73	150	560	114
MIN	54	138	162	227	251	210	87	66	18	15	40	22
CAL YR 1975	TOTAL	65240	MEAN 179	MAX 702	MIN 14							
WTR YR 1976	TOTAL	75872	MEAN 207	MAX 1270	MIN 15							

01109070 SEGREGANSET RIVER NEAR DIGHTON, MA

LOCATION.--Lat 41°50'25", long 71°08'36", Bristol County, Hydrologic Unit 01090004, on left bank 50 ft (15 m) upstream from twin culverts on Center Street and 1.8 mi (2.9 km) northwest of Dighton.

DRAINAGE AREA.--10.6 mi² (27.5 km²).

PERIOD OF RECORD.--Discharge: July 1966 to current year.

Chemical analyses: Water years 1967-68 (partial-record station).

Water temperatures: Water years 1967-68 (partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 30 ft (9 m), from topographic map.

REMARKS.--Records good. Occasional regulation by ponds upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 22.3 ft³/s (0.632 m³/s), 28.57 in/yr (726 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 867 ft³/s (24.6 m³/s) Mar. 18, 1968, gage height, 7.51 ft (2.289 m); no flow Aug. 13-22, 1966, Oct. 2, 3, 1968, Sept. 5, 6, 1969, Aug. 14-30, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 170 ft³/s (4.81 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Nov. 14	1000	233	6.60	4.50	1.372	Feb. 3	1200	304	8.61	4.91	1.497
Dec. 27	1730	241	6.83	4.55	1.387	Aug. 9	2245	310	8.78	5.09	1.551
Jan. 28	1100	*445	12.6	*5.59	1.704						

Minimum discharge, 0.15 ft³/s (0.004 m³/s) June 28 to July 1.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	17	40	64	48	15	27	12	4.0	.74	70	4.9
2	6.0	15	36	46	151	13	60	28	7.4	.68	38	4.3
3	5.3	14	31	40	144	14	49	36	9.7	.68	21	5.0
4	4.6	13	27	44	78	16	32	24	7.4	1.0	11	5.3
5	4.0	12	24	32	45	27	24	16	5.5	1.7	7.4	5.1
6	3.6	10	24	26	36	36	19	13	4.2	1.2	5.3	4.5
7	3.4	9.7	22	19	30	30	17	11	3.4	.81	6.0	4.0
8	3.0	11	20	97	29	22	15	11	3.0	.68	36	3.6
9	2.7	15	20	104	25	17	14	9.7	2.6	.56	209	2.9
10	2.7	15	33	62	22	16	13	8.7	2.1	.46	281	3.0
11	2.7	15	38	36	26	18	12	7.4	1.6	.33	130	3.8
12	4.6	15	30	25	27	22	12	8.7	1.5	.88	55	4.1
13	13	134	24	23	25	39	11	14	1.3	.68	32	3.9
14	18	217	21	111	25	52	8.0	13	.96	.62	21	3.2
15	16	116	20	116	21	39	9.3	10	.96	.74	16	2.8
16	12	62	20	73	23	30	9.7	8.3	.88	.68	21	2.6
17	8.7	43	18	74	29	48	9.7	9.0	.88	2.1	29	2.6
18	28	34	22	53	32	44	9.0	9.7	.88	2.3	20	3.6
19	59	29	22	35	38	34	8.3	11	.81	1.5	13	4.3
20	57	26	17	24	38	36	7.7	12	.81	1.0	9.7	4.7
21	41	25	16	20	30	34	7.1	11	.81	.74	8.0	3.9
22	29	48	15	20	37	29	6.3	14	.88	.56	6.9	3.1
23	22	51	15	20	52	24	6.6	12	.68	.51	5.8	2.6
24	17	39	15	20	40	20	6.3	9.0	.56	.68	5.1	2.1
25	18	52	14	19	30	18	6.9	7.4	.41	.51	4.4	2.0
26	27	51	52	18	26	17	20	6.9	.26	.46	4.0	1.8
27	30	65	212	95	23	15	26	6.0	.17	.41	3.6	1.7
28	24	116	159	365	20	25	21	5.3	.15	.33	6.0	2.0
29	20	76	81	263	18	28	17	4.6	.15	.29	7.7	2.2
30	17	50	47	113	---	22	14	4.2	.15	59	6.9	2.3
31	18	---	58	66	---	18	---	4.0	---	140	5.8	---
TOTAL	524.7	1395.7	1193	2123	1168	818	497.9	356.9	64.10	222.83	1095.6	101.9
MEAN	16.9	46.5	38.5	68.5	40.3	26.4	16.6	11.5	2.14	7.19	35.3	3.40
MAX	59	217	212	365	151	52	60	36	9.7	140	281	5.3
MIN	2.7	9.7	14	18	18	13	6.3	4.0	.15	.29	3.6	1.7
CFSM	1.59	4.39	3.63	6.46	3.80	2.49	1.57	1.08	.20	.68	3.33	.32
IN.	1.84	4.90	4.19	7.45	4.10	2.87	1.75	1.25	.22	.78	3.84	.36

CAL YR 1975	TOTAL	8429.30	MEAN 23.1	MAX 217	MIN .22	CFSM 2.18	IN 29.58
WTR YR 1976	TOTAL	9561.63	MEAN 26.1	MAX 365	MIN .15	CFSM 2.46	IN 33.55

BLACKSTONE RIVER BASIN

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01109500 KETTLE BROOK AT WORCESTER, MA

LOCATION.--Lat 42°13'55", long 71°50'07", Worcester County, Hydrologic Unit 01090003, on right bank 75 ft (23 m) downstream from Webster Street Bridge at Worcester and 1 mi (2 km) upstream from Beaver Brook.

DRAINAGE AREA.--31.3 mi² (81.1 km²).

PERIOD OF RECORD.--Discharge: August 1923 to current year. Prior to October 1950, published as Blackstone River at Worcester. Adjusted monthly discharge in cubic feet per second per square mile and runoff in inches, published in water-supply papers for 1923-58, may be subject to error because of regulation upstream.

REVISED RECORDS.--WSP 1301: 1927(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Concrete control since Oct. 28, 1937. Datum of gage is 472.86 ft (144.128 m) above mean sea level.

REMARKS.--Records excellent. City of Worcester diverts flow for municipal use from about 7.0 mi² (18.1 km²) of drainage area upstream; see table below for figures of diversion. Since October 1959, city diverts flow through tunnel, usually during periods of high flow; this flow included in daily discharge. No flow through diversion tunnel during year. Flow regulated by reservoirs upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--53 years, 53.6 ft³/s (1.518 m³/s), 23.26 in/yr (591 mm/yr), adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,970 ft³/s (112 m³/s) Aug. 19, 1955, gage height, 12.78 ft (3.895 m), from floodmark, from rating curve extended above 1,700 ft³/s (48.1 m³/s) on basis of computation of peak flow over dam; maximum daily, 2,720 ft³/s (77.0 m³/s) Aug. 19, 1953; minimum discharge, 0.2 ft³/s (0.006 m³/s) May 17, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 154 ft³/s (4.36 m³/s) Nov. 14; minimum discharge, 5.2 ft³/s (0.15 m³/s) July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	45	82	95	97	73	67	32	18	77	43	20
2	29	43	91	88	145	68	103	92	31	36	36	26
3	25	42	82	79	120	67	99	94	27	19	20	33
4	23	42	72	81	100	66	89	74	21	14	15	28
5	22	44	62	70	95	71	73	55	18	13	13	25
6	21	42	58	60	92	83	60	47	16	11	10	24
7	19	40	57	56	84	81	51	42	16	10	13	22
8	18	48	54	90	77	71	46	50	15	9.7	29	21
9	17	49	54	92	71	64	43	44	14	11	43	16
10	18	49	90	77	64	58	40	37	13	9.1	38	15
11	28	62	98	63	65	57	39	31	12	7.8	63	22
12	109	59	90	59	67	58	36	39	13	9.8	67	17
13	126	144	77	58	65	72	35	39	14	7.9	48	13
14	102	154	69	112	68	88	29	33	14	7.6	26	12
15	70	137	64	104	65	84	27	29	14	7.3	27	12
16	49	123	61	97	77	79	25	26	13	6.9	32	12
17	39	105	56	92	96	76	25	30	16	11	23	14
18	98	90	52	80	96	71	24	30	15	7.8	17	21
19	140	79	46	67	102	68	24	43	14	6.1	14	16
20	138	76	41	60	97	78	22	55	15	5.7	13	13
21	129	81	41	59	92	94	21	53	14	7.5	12	14
22	113	127	46	59	95	92	23	56	13	12	11	12
23	88	119	47	52	99	88	29	42	13	7.4	11	11
24	70	99	47	52	93	82	26	34	13	40	10	10
25	64	87	43	49	89	71	28	29	11	28	9.6	10
26	69	79	62	52	87	64	51	27	10	16	8.6	10
27	65	89	104	115	86	57	55	25	9.6	14	11	14
28	59	120	100	147	83	60	46	24	9.6	13	11	15
29	56	112	94	120	78	64	37	21	10	12	9.8	13
30	52	91	87	108	---	58	32	19	9.8	19	8.3	11
31	48	---	96	100	---	47	---	18	---	18	14	---
TOTAL	1937	2477	2123	2493	2545	2210	1305	1270	442.0	474.6	706.3	502
MEAN	62.5	82.6	68.5	80.4	87.8	71.3	43.5	41.0	14.7	15.3	22.8	16.7
MAX	140	154	104	147	145	94	103	94	31	77	67	33
MIN	17	40	41	49	64	47	21	18	9.6	5.7	8.3	10
(†)	10.5	9.95	10.0	10.3	10.3	10.2	10.6	10.6	12.3	11.6	9.02	8.29
CAL YR 1975 TOTAL	18456.6											
WTR YR 1976 TOTAL	18484.9											
MEAN	50.6											
MAX	158											
MIN	2.7											
MEAN†	60.9											
MEAN‡	60.8											
CFSM†	1.95											
CFSM‡	1.94											
IN†	26.40											
IN‡	26.45											

† Diversion, in cubic feet per second, for municipal supply of Worcester; records furnished by city of Worcester.
‡ Adjusted for diversion.

BLACKSTONE RIVER BASIN

01110000 QUINSIGAMOND RIVER AT NORTH GRAFTON, MA

LOCATION.--Lat 42°13'49", long 71°42'41", Worcester County, Hydrologic Unit 01090003, on right bank 800 ft (250 m) downstream from dam at outlet of Hovey Pond at North Grafton and 0.3 mi (0.5 km) upstream from Bummett Brook.

DRAINAGE AREA.--25.5 mi² (66.0 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 335 ft (102 m), from topographic map. Prior to Dec. 7, 1939, staff gage at same site and datum.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Some regulation by Lake Quinsigamond 2.3 mi (3.7 km) upstream and by ponds above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 41.4 ft³/s (1.172 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 820 ft³/s (23.2 m³/s) Aug. 20, 1955, gage height, 5.15 ft (1.570 m); no flow Aug. 6-9, 22, 1966, caused by unusual regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 220 ft³/s (6.2 m³/s) Jan. 28; minimum daily, 0.56 ft³/s (0.016 m³/s) July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	40	68	69	110	63	59	37	23	17	16	3.0
2	42	38	62	71	160	62	78	65	28	16	17	4.7
3	33	36	60	75	120	62	80	66	26	14	15	6.9
4	25	35	56	64	100	61	70	64	24	12	12	5.6
5	22	32	52	58	85	63	65	56	23	10	9.9	5.2
6	20	29	51	50	77	67	58	51	21	8.8	8.6	5.1
7	18	28	55	47	72	63	54	48	20	7.5	11	4.0
8	15	30	56	66	66	61	51	53	18	6.3	18	3.4
9	14	32	53	62	60	54	49	48	17	5.6	32	2.7
10	13	33	79	57	54	54	51	47	15	4.6	55	2.5
11	16	37	74	52	56	54	48	40	14	3.5	49	6.5
12	52	37	66	50	56	52	45	45	14	5.2	42	6.4
13	75	107	62	48	56	60	40	43	10	4.7	35	5.2
14	64	143	59	77	58	69	38	38	9.2	3.6	32	4.4
15	55	128	56	90	60	73	35	38	8.5	2.7	32	4.0
16	48	115	54	82	72	60	34	34	7.9	2.0	32	3.7
17	41	102	50	78	86	68	32	35	8.9	2.4	26	4.5
18	72	84	51	68	100	58	29	35	9.4	1.6	21	6.3
19	122	74	31	56	104	57	29	39	8.6	.97	18	6.5
20	124	65	45	50	112	61	29	41	8.7	.61	15	5.6
21	109	63	45	50	116	66	27	41	8.0	.56	14	5.7
22	91	84	50	50	126	71	28	48	7.0	1.8	13	4.9
23	80	75	49	44	123	66	32	42	6.3	1.4	11	3.7
24	69	71	45	44	110	62	30	37	5.6	9.9	9.3	3.1
25	66	69	43	41	102	64	30	34	5.1	13	7.6	2.5
26	68	65	51	44	97	67	44	31	4.5	9.9	6.4	2.1
27	58	71	71	100	83	56	47	30	3.5	7.8	6.6	2.6
28	53	87	72	200	71	59	45	28	2.6	7.0	6.4	4.4
29	49	89	68	190	66	55	44	26	2.4	5.8	5.9	3.7
30	47	78	64	160	---	50	44	24	2.0	8.3	5.9	3.1
31	43	---	70	130	---	48	---	23	---	9.0	4.0	---
TOTAL	1652	1977	1768	2328	2562	1886	1345	1287	361.2	203.54	586.6	132.0
MEAN	53.3	65.9	57.0	75.1	88.3	60.8	44.8	41.5	12.0	6.57	18.9	4.40
MAX	124	143	79	200	160	73	80	66	28	17	55	6.9
MIN	13	28	31	41	54	48	27	23	2.0	.56	4.0	2.1

CAL YR 1975 TOTAL 15564.44 MEAN 42.6 MAX 143 MIN .94
WTR YR 1976 TOTAL 16088.34 MEAN 44.0 MAX 200 MIN .56

NOTE.--No gage-height record Jan. 5 to Feb. 18.

01110500 BLACKSTONE RIVER AT NORTHBRIDGE, MA

LOCATION.--Lat 42°09'13", long 71°39'09", Worcester County, Hydrologic Unit 01090003, on left bank at Northbridge, 100 ft (30 m) downstream from Sutton Street Bridge, and 3.0 mi (4.8 km) downstream from Quinsigamond River.

DRAINAGE AREA.--139 mi² (360 km²).

PERIOD OF RECORD.--Discharge: October 1939 to current year. October and November 1939 monthly discharge only, published in WSP 1301.

Chemical analyses: Water years 1955, 1958, 1971 (partial-record station).

Water temperatures: Water years 1955, 1958, 1971 (partial-record station).

REVISED RECORDS.--WSP 1301: 1940(M).

GAGE.--Water-stage recorder. Altitude of gage is 260 ft (79 m), from topographic map.

REMARKS.--Records good. Flow regulated by mills and reservoirs upstream. Daily discharge includes flow diverted from Nashua River basin and, at times during 1966 and 1967, from Quabbin Reservoir to Blackstone River basin for municipal supply of Worcester. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 267 ft³/s (7.561 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft³/s (479 m³/s) Aug. 20, 1955, gage height, 16.74 ft (5.102 m), from rating curve extended above 3,800 ft³/s (108 m³/s) on basis of computation of flow over dam at gage height 13.7 ft (4.18 m) and slope-area measurement at gage height 16.74 ft (5.102 m); maximum gage height, 17.53 ft (5.343 m) Aug. 20, 1955, backwater from debris; minimum daily discharge, 2 ft³/s (0.057 m³/s) Aug. 29, 1941, Sept. 5, 1942, Aug. 28, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Stage and discharge of flood of Aug. 20, 1955, are the greatest since at least 1900. Flood of Mar. 19, 1936, reached a stage of 13.7 ft (4.18 m) from floodmarks, discharge, 7,510 ft³/s (213 m³/s) by computation of flow over dam 800 ft (250 m) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,480 ft³/s (70.2 m³/s) Jan. 28, gage height, 8.27 ft (2.521 m); minimum daily, 67 ft³/s (1.90 m³/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	235	242	409	482	602	339	487	227	148	376	200	94
2	207	224	387	421	1230	321	646	678	221	195	171	102
3	183	217	356	372	869	313	515	475	173	137	136	155
4	167	211	321	376	661	317	436	410	158	110	120	104
5	143	205	292	341	547	392	366	338	143	93	112	91
6	140	195	274	295	466	399	332	289	133	90	112	87
7	139	187	258	258	414	364	299	238	131	93	140	86
8	128	213	246	439	375	325	274	280	134	91	244	97
9	114	202	243	431	347	289	265	241	132	91	410	96
10	113	197	601	357	324	279	256	236	128	87	881	91
11	135	279	523	296	338	256	241	227	126	76	563	162
12	581	239	430	257	331	263	233	292	137	106	315	86
13	678	979	361	236	323	447	230	253	111	87	244	79
14	544	1280	306	679	332	458	219	198	114	83	233	101
15	410	949	278	811	307	409	216	206	122	82	274	88
16	310	709	254	619	410	372	200	191	125	82	259	88
17	276	559	229	518	551	373	183	222	159	97	195	92
18	639	454	217	433	541	335	175	224	134	76	125	138
19	1030	390	189	364	720	343	168	278	126	67	116	95
20	962	351	162	320	653	468	166	280	125	74	114	89
21	829	410	160	286	557	562	168	312	120	78	111	109
22	646	724	175	271	606	545	190	327	127	110	103	96
23	509	528	186	238	743	463	227	253	123	80	111	107
24	424	447	173	252	610	432	200	215	121	256	104	124
25	385	420	170	233	528	380	205	200	120	143	106	121
26	435	383	233	223	476	352	384	189	112	97	103	112
27	376	475	659	595	441	308	315	182	97	95	125	139
28	335	570	609	2120	398	365	262	170	97	95	103	153
29	300	487	502	1490	353	307	238	159	109	93	89	124
30	255	425	417	941	---	284	224	149	109	163	91	122
31	251	---	452	686	---	261	---	144	---	118	88	---
TOTAL	11874	13156	10072	15640	15053	11321	8320	8083	3915	3521	6098	3228
MEAN	383	439	325	505	519	365	277	261	131	114	197	108
MAX	1030	1280	659	2120	1230	562	646	678	221	376	881	162
MIN	113	187	160	223	307	256	166	144	97	67	88	79
(†)	6.71	4.46	9.58	4.79	2.61	10.2	19.2	10.5	25.6	31.3	23.3	31.3

CAL YR 1975 TOTAL 114355 MEAN 313 MAX 1410 MIN 71
WTR YR 1976 TOTAL 110281 MEAN 301 MAX 2120 MIN 67

† Diversion, in cubic feet per second, from Nashua River basin to Blackstone River basin for municipal supply of Worcester; records furnished by city of Worcester.

BLACKSTONE RIVER BASIN

01111200 WEST RIVER BELOW WEST HILL DAM, NEAR UXBRIDGE, MA

LOCATION.--Lat 42°06'17", long 71°36'28", Worcester County, Hydrologic Unit 01090003, on right bank 250 ft (76 m) downstream from West Hill Dam, 2.2 mi (3.5 km) northeast of Uxbridge, and 3.5 mi (5.6 km) upstream from mouth.

DRAINAGE AREA.--27.9 mi² (72.3 km²).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 240 ft (73 m), from topographic map.

REMARKS.--Records good. Flow regulated by West Hill Reservoir, usable capacity, 542,000,000 ft³ (15,350,000 m³). See table below for figures of monthend contents. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--14 years, 44.7 ft³/s (1.266 m³/s), 21.76 in/yr (553 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 370 ft³/s (10.5 m³/s) Mar. 26, 1968, gage height, about 3.45 ft (1.05 m); no flow for part of Aug. 17, 1967, caused by unusual regulation; minimum daily discharge, 1.1 ft³/s (0.031 m³/s) Sept. 12, 1963, Aug. 12, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 340 ft³/s (9.63 m³/s) Feb. 3, gage height, about 3.32 ft (1.01 m); minimum, 2.4 ft³/s (0.068 m³/s) July 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	49	137	129	304	79	67	43	20	6.8	7.2	4.7
2	21	46	116	117	302	74	104	61	28	7.6	7.1	4.6
3	18	43	102	102	323	72	120	81	31	6.8	5.7	6.7
4	14	42	91	97	315	68	103	76	25	6.2	4.8	6.5
5	11	39	79	88	312	73	85	65	21	5.5	5.7	6.0
6	11	37	73	77	299	88	70	56	18	5.0	5.3	5.3
7	9.1	33	70	67	166	90	63	48	17	4.6	4.9	4.6
8	9.1	32	64	92	108	81	57	43	16	4.0	9.3	4.3
9	8.2	35	60	120	96	72	55	39	15	4.0	20	4.1
10	7.9	35	87	107	86	65	52	35	14	4.2	40	3.8
11	7.9	38	131	86	85	63	49	31	13	3.9	40	5.8
12	19	38	131	74	91	64	48	37	11	3.6	25	7.7
13	51	88	110	72	85	75	45	51	9.4	3.6	20	6.4
14	65	179	94	113	90	108	44	45	8.8	3.6	14	5.2
15	65	194	83	177	83	108	42	43	8.2	3.5	14	4.5
16	52	179	75	179	91	94	40	39	7.9	3.3	19	4.4
17	37	146	68	147	113	83	40	37	7.9	3.2	15	4.4
18	43	109	64	119	132	79	42	40	8.5	3.2	12	4.7
19	96	86	59	95	144	72	39	41	7.9	2.9	9.4	4.8
20	147	73	49	79	157	81	34	46	7.9	2.5	7.8	4.8
21	157	71	46	74	147	110	26	48	8.2	2.4	7.1	4.8
22	129	140	44	72	133	126	24	57	7.9	2.8	6.1	4.5
23	107	187	50	70	145	114	28	53	7.3	3.0	5.8	4.2
24	86	177	53	63	139	96	31	42	7.3	4.2	5.3	3.8
25	72	152	50	61	121	83	30	36	6.8	5.0	4.5	3.5
26	72	124	56	59	105	76	49	31	7.0	4.4	4.4	3.3
27	78	113	103	95	96	69	67	29	6.7	3.5	4.3	3.2
28	73	128	152	88	90	67	70	26	6.1	3.2	6.4	3.5
29	65	139	150	106	83	74	61	23	6.0	2.7	6.2	3.6
30	59	136	124	284	---	70	52	21	6.0	4.4	5.9	3.6
31	55	---	117	320	---	64	---	21	---	7.3	5.6	---
TOTAL	1671.2	2888	2688	3429	4441	2538	1637	1344	364.8	130.9	347.8	141.3
MEAN	53.9	96.3	86.7	111	153	81.9	54.6	43.4	12.2	4.22	11.2	4.71
MAX	157	194	152	320	323	126	120	81	31	7.6	40	7.7
MIN	7.9	32	44	59	83	63	24	21	6.0	2.4	4.3	3.2
(†)	3.0	16.6	6.2	113.5	4.8	3.7	3.0	1.7	.9	1.1	6.5	.9
MEAN‡	54.1	102	82.8	151	110	81.5	54.3	42.9	11.9	4.30	13.2	2.55
CFSM‡	1.94	3.66	2.97	5.41	3.94	2.92	1.95	1.54	.43	.15	.47	.09
IN.†	2.23	4.06	3.42	6.23	4.24	3.37	2.17	1.77	.47	.18	.55	.10
CAL YR 1975	TOTAL	19538.6	MEAN 53.5	MAX 275	MIN 1.8	MEAN‡	53.6	CFSM‡	1.92	IN‡	26.11	
WTR YR 1976	TOTAL	21621.0	MEAN 59.1	MAX 323	MIN 2.4	MEAN‡	59.0	CFSM‡	2.11	IN‡	28.80	

† Monthend contents, in millions of cubic feet, in West Hill Reservoir.

‡ Adjusted for change in contents in West Hill Reservoir.

NOTE.--Doubtful gage-height record Jan. 29 to Feb. 7.

01111230 BLACKSTONE RIVER AT MILLVILLE, MA

LOCATION.--Lat 42°01'16", long 71°34'04", Worcester County, Hydrologic Unit 01090003, on left bank 400 ft (100 m) above railroad bridge, 0.8 mi (1.3 km) southeast of Millville, and 1.4 mi (2.3 km) upstream from Branch River.

DRAINAGE AREA.--277 mi² (717 km²).

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1969 to current year.

pH: July 1969 to current year.

WATER TEMPERATURE: July 1969 to current year.

DISSOLVED OXYGEN: July 1969 to current year.

INSTRUMENTATION.--Water-quality monitor since July 1969.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. No winter record in water years 1973, 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, >1,000 micromhos May 30, June 3, 5, 1975; minimum recorded, 49 micromhos June 30, 1973.

pH: Maximum recorded, 9.3 units Sept. 10, 1976; minimum recorded, 4.3 units Sept. 6, 1973.

WATER TEMPERATURES: Maximum recorded, 29.0°C July 29, 1970; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN: Maximum recorded, 14.9 mg/L Feb. 25, 1971; minimum, 0.0 mg/L July 12, 15-20, 26-30, Aug. 2, 3, 1971.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 418 micromhos July 1; minimum recorded, 122 micromhos Oct. 19.

pH: Maximum, 9.3 units Sept. 10; minimum recorded, 5.7 units Sept. 16, 17, but may have been lower during period of no record.

WATER TEMPERATURES: Maximum recorded, 26.5°C July 12, Aug. 23, but may have been higher during period of no record; minimum, probably 0.0°C on many days during winter period.

DISSOLVED OXYGEN: Maximum recorded, 10.1 mg/L Oct. 18; minimum recorded, 1.0 mg/L Sept. 16, 17; but maximum and minimum may have been higher or lower during period of no record.

	OCTOBER			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	220	204	209	263	247	257
2	---	---	---	230	177	192	273	187	238
3	---	---	---	190	178	186	218	181	200
4	---	---	---	192	183	187	232	190	209
5	---	---	---	196	186	191	214	188	199
6	---	---	---	220	195	206	226	211	219
7	---	---	---	231	210	220	232	221	225
8	---	---	---	228	216	222	254	225	236
9	---	---	---	229	220	224	257	206	222
10	---	---	---	232	222	226	227	221	224
11	---	---	---	231	221	227	244	221	228
12	---	---	---	231	222	228	258	222	241
13	---	---	---	249	227	238	249	193	217
14	193	170	183	270	250	261	212	201	207
15	193	174	176	265	250	259	230	208	223
16	---	---	---	298	254	279	249	223	235
17	227	213	217	284	275	280	240	219	226
18	234	170	203	286	269	278	226	211	220
19	158	122	129	274	263	268	248	218	230
20	140	132	137	278	261	271	240	195	217
21	151	135	144	307	277	296	201	192	196
22	164	148	159	316	284	303	224	168	201
23	184	159	171	327	277	305	187	168	181
24	196	178	187	305	276	287	189	186	187
25	197	186	191	291	263	283	200	186	194
26	190	163	181	259	229	250	226	204	219
27	174	163	169	237	210	222	228	213	223
28	215	178	166	253	228	240	247	220	234
29	205	199	202	263	235	246	257	232	246
30	200	198	199	257	248	251	252	237	244
31	---	---	---	---	---	---	245	236	239
MONTH	---	---	---	327	177	245	273	168	221

BLACKSTONE RIVER BASIN

01111230 BLACKSTONE RIVER AT MILLVILLE, MA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEC. G), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	235	224	231	418	307	341	336	226	268	308	288	298
2	255	207	227	318	234	258	328	229	287	340	289	303
3	273	204	238	325	240	300	260	201	216	399	334	358
4	237	204	225	307	296	300	274	210	245	408	326	372
5	258	236	246	313	306	310	301	277	296	320	277	291
6	260	246	252	306	295	301	328	301	309	336	298	314
7	258	247	251	296	292	294	324	298	309	342	327	336
8	253	244	248	305	296	303	345	267	319	331	322	327
9	293	254	269	322	305	315	267	150	220	333	324	328
10	296	286	291	331	314	324	198	145	174	373	335	357
11	303	290	297	322	315	318	241	171	200	390	342	364
12	307	289	299	316	304	311	295	226	246	404	370	391
13	295	288	291	326	301	316	295	232	259	362	276	305
14	298	268	290	329	314	323	305	275	295	284	264	272
15	294	265	280	311	287	293	301	251	281	325	285	310
16	304	293	297	333	292	314	257	220	245	341	315	327
17	328	292	317	347	325	336	239	218	226	358	336	347
18	356	294	342	351	330	339	251	220	241	360	332	346
19	354	267	309	357	335	349	284	242	253	383	342	368
20	310	260	298	334	296	318	304	290	299	337	285	312
21	348	310	325	299	281	290	325	304	315	283	267	272
22	347	310	325	339	290	306	318	309	314	300	283	293
23	309	303	306	389	343	370	317	307	311	330	302	315
24	326	302	313	355	271	329	310	299	305	356	333	342
25	353	323	333	367	211	266	297	272	286	374	353	368
26	346	332	338	210	198	202	321	275	305	360	316	332
27	353	325	341	258	204	238	323	283	306	316	304	309
28	327	325	326	279	260	272	329	289	314	304	291	300
29	332	322	328	323	281	308	341	287	323	291	276	286
30	336	315	325	318	288	305	289	266	275	309	276	291
31	---	---	---	342	297	327	302	292	296	---	---	---
MONTH	356	204	292	418	198	306	345	145	275	408	264	324
YEAR	418	122	269									

PH (UNITS), APRIL TO SEPTEMBER 1976

DAY	APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	6.8	6.7	6.7
2	---	---	---	6.8	6.7	6.7
3	---	---	---	6.7	6.7	6.7
4	---	---	---	6.9	6.7	6.8
5	---	---	---	6.8	6.8	6.8
6	---	---	---	6.8	6.7	6.7
7	---	---	---	6.7	6.6	6.6
8	---	---	---	6.7	6.6	6.7
9	---	---	---	6.6	6.6	6.6
10	---	---	---	6.6	6.6	6.6
11	---	---	---	6.6	6.5	6.6
12	---	---	---	6.5	6.5	6.5
13	---	---	---	6.5	6.4	6.5
14	---	---	---	6.4	6.4	6.4
15	---	---	---	6.4	6.3	6.4
16	7.1	6.8	6.9	6.3	6.2	6.3
17	6.8	6.7	6.8	6.3	6.2	6.3
18	6.8	6.7	6.7	6.3	6.2	6.3
19	6.8	6.7	6.7	6.2	6.2	6.2
20	6.8	6.7	6.7	6.2	6.1	6.2
21	6.8	6.7	6.7	6.2	6.1	6.2
22	6.8	6.7	6.7	6.1	6.1	6.1
23	6.8	6.7	6.7	6.2	6.1	6.2
24	6.8	6.7	6.7	6.2	6.1	6.2
25	6.9	6.7	6.8	6.2	6.1	6.2
26	6.9	6.8	6.9	6.2	6.2	6.2
27	6.9	6.8	6.9	6.2	6.1	6.2
28	6.9	6.8	6.9	6.2	6.1	6.2
29	6.8	6.7	6.8	6.2	6.1	6.1
30	6.8	6.7	6.8	6.2	6.1	6.2
31	---	---	---	6.3	6.1	6.2
MONTH	---	---	---	6.9	6.1	6.4

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

BLACKSTONE RIVER BASIN

119

01111300 NIPMUC RIVER NEAR HARRISVILLE, RI

LOCATION.--Lat 41°58'52", long 71°41'11", Providence County, Hydrologic Unit 01090003, on left bank 1.0 mi (1.6 km) upstream from mouth and 1.2 mi (1.9 km) northwest of Harrisville.

DRAINAGE AREA.--16.0 mi² (41.4 km²).

PERIOD OF RECORD.--Discharge: March 1964 to current year.

Chemical analyses: Water year 1968 (partial-record station).

Water temperatures: Water year 1968 (partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 340 ft (104 m), from topographic map.

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

AVERAGE DISCHARGE.--12 years, 28.8 ft³/s (0.816 m³/s), 24.44 in/yr (621 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft³/s (28.9 m³/s) Mar. 18, 1968, gage height, 7.42 ft (2.262 m), from rating curve extended above 530 ft³/s (15.0 m³/s); minimum, 0.09 ft³/s (0.003 m³/s) Sept. 10, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 270 ft³/s (7.65 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 22	0615	324 9.18	5.57 1.698	Jan. 28	1145	*600 17	*a7.15 2.179

a Ice jam.

Minimum discharge, 0.67 ft³/s (0.019 m³/s) July 20-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	27	66	77	100	42	65	23	12	6.1	2.5	2.7
2	11	25	69	55	170	40	104	79	24	5.2	2.3	4.5
3	9.2	24	56	48	140	38	62	55	20	3.6	1.8	9.6
4	8.3	23	49	46	100	36	49	39	15	3.0	1.3	7.2
5	6.8	22	43	45	70	59	41	32	12	2.5	1.1	5.7
6	6.6	20	42	44	58	67	36	27	9.8	2.3	1.2	4.9
7	6.5	20	41	47	54	49	34	25	9.3	1.9	11	3.9
8	6.1	20	38	140	51	40	34	24	8.8	1.9	28	3.4
9	6.0	22	37	88	47	34	32	22	7.1	1.9	65	2.9
10	5.6	21	144	66	45	34	30	19	5.6	1.7	121	2.5
11	6.0	26	104	54	47	35	29	18	5.6	1.5	43	5.6
12	20	23	66	46	45	35	27	35	6.1	1.3	20	4.8
13	71	39	53	43	43	89	27	35	5.2	1.3	13	3.8
14	45	72	48	200	45	96	26	24	4.8	1.2	8.9	3.1
15	32	104	46	130	40	61	24	21	4.4	1.0	8.8	2.8
16	23	68	43	105	50	49	23	18	4.0	.90	11	2.8
17	19	55	38	84	65	47	23	22	4.0	.90	7.8	2.8
18	44	47	37	66	61	49	21	23	12	.90	5.7	5.2
19	79	43	34	56	96	42	20	29	8.2	.90	4.3	4.4
20	124	40	31	49	88	76	19	37	7.1	.78	3.5	3.3
21	85	40	33	45	62	99	17	34	6.1	.67	2.9	3.0
22	58	256	35	42	85	85	20	50	5.2	1.0	2.7	2.8
23	46	119	34	40	116	58	26	33	4.8	1.0	2.4	2.5
24	38	80	32	38	68	49	20	25	4.0	4.4	2.2	2.3
25	39	72	30	37	59	44	22	22	3.6	3.0	2.0	2.3
26	59	64	80	42	53	41	59	20	3.3	1.7	1.8	2.3
27	44	89	220	200	50	37	42	19	2.8	1.5	2.5	2.5
28	35	146	120	500	48	49	36	16	2.5	1.0	9.1	3.6
29	32	86	92	330	43	44	30	14	2.3	.90	5.6	3.6
30	30	66	75	190	---	37	25	13	2.3	1.2	4.3	3.3
31	29	---	84	130	---	34	---	12	---	1.5	3.2	---
TOTAL	1037.1	1759	1920	3083	1999	1595	1023	865	221.9	58.65	399.9	114.1
MEAN	33.5	58.6	61.9	99.5	68.9	51.5	34.1	27.9	7.40	1.89	12.9	3.80
MAX	124	256	220	500	170	99	104	79	24	6.1	121	9.6
MIN	5.6	20	30	37	40	34	17	12	2.3	.67	1.1	2.3
CFSM	2.09	3.66	3.87	6.22	4.31	3.22	2.13	1.74	.46	.12	.81	.24
IN.	2.41	4.09	4.46	7.17	4.65	3.71	2.38	2.01	.52	.14	.93	.27
CAL YR 1975	TOTAL	12566.67	MEAN	34.4	MAX	256	MIN	.78	CFSM	2.15	IN	29.22
WTR YR 1976	TOTAL	14075.65	MEAN	38.5	MAX	500	MIN	.67	CFSM	2.41	IN	32.72

BLACKSTONE RIVER BASIN

01111500 BRANCH RIVER AT FORESTDALE, RI

LOCATION.--Lat 41°59'47", long 71°33'47", Providence County, Hydrologic Unit 01090003, on left bank 20 ft (6 m) upstream from abandoned bridge site, 400 ft (100 m) downstream from milldam at Forestdale, 1 mi (2 km) east of Slatersville, and 1.6 mi (2.6 km) upstream from mouth.

DRAINAGE AREA.--91.2 mi² (236.2 km²).

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.

Chemical analyses: Water years 1954, 1968 (partial-record station).

Water temperatures: Water years 1954, 1968 (partial-record station).

REVISED RECORDS.--WSP 2101: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 180 ft (55 m), from topographic map. Prior to July 28, 1913, nonrecording gage at site 1 mi (2 km) downstream at different datum.

REMARKS.--Records excellent. Prior to 1957, flow regulated by mills and reservoirs upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 168 ft³/s (4.758 m³/s), 25.02 in/yr (636 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,980 ft³/s (141 m³/s) Mar. 18, 1968, gage height, 11.90 ft (3.627 m), from rating curve extended above 2,100 ft³/s (59.5 m³/s) on basis of computation of peak flow over dam 400 ft (100 m) upstream; minimum daily, 5.2 ft³/s (0.15 m³/s) Oct. 7, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1886, about 5,800 ft³/s (164 m³/s) Mar. 19, 1936, by computation of flow over dam 1 mi (2 km) upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 880 ft³/s (24.9 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 19	0800	936 26.5	5.34 1.628	Jan. 14	1745	1,030 29.2	5.57 1.698
Nov. 14	0515	1,040 29.5	5.61 1.710	Jan. 28	1700	*2,780 78.7	*9.02 2.749
Nov. 22	1430	976 27.6	5.44 1.658	Feb. 2	1630	1,140 32.3	5.84 1.780
Dec. 27	1100	916 25.9	5.29 1.612				

Minimum daily discharge, 15 ft³/s (0.42 m³/s) July 20-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	186	337	457	532	218	248	137	73	56	56	34
2	67	170	347	377	940	213	451	307	109	50	48	41
3	55	150	335	340	716	216	356	330	114	37	35	64
4	48	138	304	364	535	204	282	269	88	29	29	60
5	46	132	279	293	437	250	253	218	76	26	27	50
6	43	127	274	244	388	315	233	168	67	25	36	43
7	38	123	263	246	344	272	213	148	64	24	68	37
8	35	131	238	561	327	243	199	141	61	22	142	34
9	34	140	236	528	282	211	170	128	56	20	311	32
10	33	138	587	384	258	204	148	116	53	20	561	33
11	37	157	555	289	277	201	137	107	47	19	336	46
12	75	154	407	262	288	206	130	133	46	22	189	44
13	174	653	344	245	274	318	126	179	43	19	135	46
14	176	970	314	771	280	444	124	146	37	17	100	50
15	135	676	296	720	223	347	124	126	35	17	110	48
16	106	466	280	501	225	304	121	112	36	18	120	49
17	94	377	257	470	290	293	124	121	31	17	90	65
18	350	289	254	367	304	253	121	128	40	17	66	88
19	861	261	232	290	417	240	121	137	43	16	52	80
20	730	230	206	240	407	324	114	179	40	15	43	91
21	560	260	210	228	335	410	96	162	37	15	38	98
22	424	848	231	239	353	394	90	199	34	15	34	93
23	331	675	228	218	504	315	117	185	32	15	32	90
24	274	454	207	218	391	269	106	154	29	32	30	88
25	234	385	196	210	332	238	107	137	28	36	29	70
26	304	349	318	202	296	218	245	126	25	27	28	59
27	272	385	851	684	274	204	240	121	24	23	37	64
28	232	562	679	2330	228	233	197	101	23	20	96	70
29	210	443	499	1550	220	233	168	84	24	19	66	64
30	205	363	399	924	---	206	146	77	24	50	50	59
31	199	---	444	656	---	192	---	76	---	53	39	---
TOTAL	6483	10392	10607	15408	10677	8188	5307	4752	1439	791	3033	1790
MEAN	209	346	342	497	368	264	177	153	48.0	25.5	97.8	59.7
MAX	861	970	851	2330	940	444	451	330	114	56	561	98
MIN	33	123	196	202	220	192	90	76	23	15	27	32
CFSM	2.29	3.79	3.75	5.45	4.04	2.89	1.94	1.68	.53	.28	1.07	.65
IN.	2.64	4.24	4.33	6.28	4.36	3.34	2.16	1.94	.59	.32	1.24	.73

CAL YR 1975 TOTAL 72558 MEAN 199 MAX 970 MIN 14 CFSM 2.18 IN 29.60
WTR YR 1976 TOTAL 78867 MEAN 215 MAX 2330 MIN 15 CFSM 2.36 IN 32.17

01112500 BLACKSTONE RIVER AT WOONSOCKET, RI

LOCATION.--Lat 42°00'22", long 71°30'13", Providence County, Hydrologic Unit 01090003, on right bank 50 ft (15 m) upstream from Peters River pressure conduit at Woonsocket. Records include flow of Peters River.

DRAINAGE AREA.--416 mi² (1,077 km²).

PERIOD OF RECORD.--Discharge: February 1929 to current year.

Chemical analyses: Water years 1952-53, 1957-58 (partial-record station).

Water temperatures: Water years 1952, 1957-58 (partial-record station), November 1961 to October 1964, April 1966 to March 1967.

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 (32.742 m) above mean sea level.

REMARKS.--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. No diversion from Quabbin Reservoir during year. See table with station 01110500 for figures of diversion and table with station 01111200 for monthend contents of West Hill Reservoir. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--47 years, 751 ft³/s (21.27 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,900 ft³/s (932 m³/s) Aug. 19, 1955, gage height, 21.8 ft (6.64 m), from floodmarks, from rating curve extended above 15,000 ft³/s (425 m³/s) on basis of slope-area measurement of peak flow, affected by failure of Horseshoe Dam on Mill River; minimum daily, 21 ft³/s (0.59 m³/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.--Peak discharges above base of 3,400 ft³/s (96.3 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 19	1045	3,640 103	6.37 1.942	Jan. 28	2015	*9,130 259	*10.85 3.307
Nov. 14	0030	4,270 121	6.97 2.124	Feb. 2	2145	4,340 123	7.04 2.146
Jan. 14	2245	3,580 101	6.31 1.923				

Minimum daily discharge, 91 ft³/s (2.58 m³/s) July 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	573	813	1610	1810	2420	1150	1030	673	352	293	241	203
2	467	754	1620	1530	3580	1110	1830	1070	493	386	293	222
3	393	713	1520	1400	3640	1090	1680	1370	525	253	222	280
4	345	690	1410	1450	2670	1050	1410	1200	440	190	187	283
5	307	662	1310	1230	2290	1170	1230	1010	382	266	167	247
6	284	625	1250	1090	2050	1370	1090	880	337	177	197	227
7	275	605	1200	1060	1810	1300	997	742	314	191	271	208
8	254	630	1120	1900	1590	1160	918	701	305	146	430	197
9	237	690	1100	1910	1420	1050	861	645	284	163	859	190
10	226	645	2050	1510	1340	997	801	573	267	148	1440	200
11	240	754	2200	1230	1350	971	748	545	247	132	1180	233
12	678	719	1820	1050	1390	951	695	583	244	91	693	239
13	1320	2250	1570	1090	1300	1210	667	763	232	94	495	192
14	1250	3880	1400	2630	1320	1710	640	656	206	117	430	187
15	964	3000	1300	2970	1200	1550	616	586	201	117	422	192
16	742	2160	1220	2140	1230	1290	596	545	203	115	434	190
17	606	1760	1080	1930	1480	1300	568	535	224	115	376	205
18	1430	1520	1010	1550	1690	1180	550	604	279	124	302	247
19	2970	1330	951	1280	1970	1110	541	620	229	109	250	256
20	2800	1200	819	1150	2130	1350	527	754	207	102	230	241
21	2460	1270	819	1070	1850	1690	501	736	200	113	219	256
22	1970	2830	849	1050	1750	1720	471	883	187	132	208	302
23	1560	2590	918	997	2200	1490	536	874	181	132	197	164
24	1320	2020	886	1090	2000	1310	554	724	173	180	197	222
25	1200	1780	849	1020	1690	1180	523	626	168	305	180	222
26	1390	1620	1180	931	1530	1090	843	567	159	183	190	208
27	1250	1660	2660	2350	1430	1020	1050	537	150	155	224	203
28	1100	2280	2460	7700	1320	1080	925	493	140	143	366	253
29	984	2010	1940	6340	1210	1090	831	414	134	134	302	236
30	899	1730	1610	3800	---	984	736	373	137	244	247	213
31	861	---	1740	2850	---	912	---	353	---	265	219	---
TOTAL	31355	45191	43471	61108	52850	37635	24965	21635	7601	5315	11668	6718
MEAN	1011	1506	1402	1971	1822	1214	832	698	253	171	376	224
MAX	2970	3880	2660	7700	3640	1720	1830	1370	525	386	1440	302
MIN	226	606	819	931	1200	912	471	353	134	91	167	164
CAL YR 1975	TOTAL	320870	MEAN	879	MAX	3880	MIN	106				
WTR YR 1976	TOTAL	349512	MEAN	955	MAX	7700	MIN	91				

MOSHASSUCK RIVER BASIN

01114000 MOSHASSUCK RIVER AT PROVIDENCE, RI

LOCATION.--Lat 41°50'02", long 71°24'42", Providence County, Hydrologic Unit 01090004, on left bank 800 ft (250 m) upstream from bridge on U.S. Highway 44 at Providence and 0.5 mi (0.8 km) above mouth.

DRAINAGE AREA.--23.1 mi² (59.8 km²).

PERIOD OF RECORD.--Discharge: June 1963 to current year.

Chemical analyses: Water year 1971 (partial-record station).

Water temperatures: Water year 1971 (partial-record station).

GAGE.--Water-stage recorder. Datum of gage is 8.19 ft (2.496 m) above mean sea level. Prior to Nov. 7, 1973, at datum 0.88 ft (0.268 m) lower. Mar. 10, 1972, to Nov. 7, 1973, stage record obtained at site 200 ft upstream.

REMARKS.--Records good. Occasional regulation at low flow. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 39.9 ft³/s (1.130 m³/s), 23.46 in/yr (596 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,390 ft³/s (67.7 m³/s) Mar. 18, 1968, gage height, 3.46 ft (1.055 m), present datum, from rating curve extended above 460 ft³/s (13.0 m³/s); maximum gage height, 5.81 ft (1.771 m) July 30, 1976; minimum discharge, 1.3 ft³/s (0.037 m³/s) Aug. 23, 1970; minimum daily, 1.7 ft³/s (0.048 m³/s) Aug. 10, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 25	1530	608 17.2	4.10 1.250	Jan. 28	0730	608 17.2	4.10 1.250
Nov. 13	0345	626 17.7	4.14 1.262	Feb. 2	0330	705 20.0	4.31 1.314
Dec. 26	1515	734 20.8	4.37 1.332	July 1	0115	779 22.1	4.46 1.359
Jan. 14	0315	805 22.8	4.51 1.375	July 30	0930	*1,650 46.7	*5.81 1.771

Minimum discharge, 8.0 ft³/s (0.23 m³/s) June 26; minimum daily, 8.7 ft³/s (0.25 m³/s) June 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	43	66	80	74	37	100	32	41	116	76	16
2	21	40	58	64	375	38	77	117	36	23	36	63
3	20	38	52	69	132	41	54	51	24	20	24	36
4	17	37	47	68	91	46	45	38	20	22	21	24
5	16	37	44	51	75	50	42	32	18	15	19	19
6	18	32	43	45	69	53	37	30	17	12	56	17
7	16	32	41	74	61	44	37	30	17	28	58	16
8	15	41	38	199	57	39	36	31	17	21	220	15
9	14	37	42	80	52	36	35	26	17	15	209	15
10	14	45	135	56	49	38	33	26	17	12	129	37
11	25	46	75	47	52	43	32	26	16	12	69	43
12	53	53	55	48	50	41	32	48	15	34	50	24
13	50	348	48	51	47	87	29	32	13	14	41	18
14	39	185	45	434	46	61	29	28	13	12	35	17
15	26	104	44	119	43	48	29	26	14	11	41	16
16	22	79	45	119	46	61	30	24	14	10	43	15
17	20	68	41	111	61	72	29	49	15	19	30	19
18	189	62	50	64	63	50	28	31	15	11	25	22
19	155	56	39	52	97	51	27	30	14	11	23	17
20	92	52	33	50	65	63	27	28	14	11	22	15
21	70	92	36	49	54	56	26	32	13	11	20	15
22	55	117	41	49	68	54	24	28	13	12	20	13
23	46	70	42	45	64	47	25	23	12	11	22	13
24	41	68	36	42	51	45	23	21	9.9	62	19	12
25	147	70	33	41	50	44	37	21	9.1	15	18	12
26	157	61	267	54	49	42	68	20	8.7	11	17	11
27	76	137	248	282	47	40	42	20	15	10	27	20
28	59	112	117	420	42	62	37	18	13	10	35	21
29	53	74	83	165	37	45	32	18	12	9.8	73	17
30	58	63	72	100	---	40	28	17	11	381	35	14
31	50	---	114	79	---	39	---	17	---	71	19	---
TOTAL	1656	2299	2130	3207	2067	1513	1130	970	483.7	1032.8	1532	612
MEAN	53.4	76.6	68.7	103	71.3	48.8	37.7	31.3	16.1	33.3	49.4	20.4
MAX	189	348	267	434	375	87	100	117	41	381	220	63
MIN	14	32	33	41	37	36	23	17	8.7	9.8	17	11
CFSM	2.31	3.32	2.97	4.46	3.09	2.11	1.63	1.35	.70	1.44	2.14	.88
IN.	2.67	3.70	3.43	5.16	3.33	2.44	1.82	1.56	.78	1.66	2.47	.99
CAL YR 1975	TOTAL	16458.2	MEAN	45.1	MAX	348	MIN	5.7	CFSM	1.95	IN	26.50
WTR YR 1976	TOTAL	18632.5	MEAN	50.9	MAX	434	MIN	8.7	CFSM	2.20	IN	30.00

01114500 WOONASQUATUCKET RIVER AT CENTERDALE, RI

LOCATION.--Lat 41°51'32", long 71°29'16", Providence County, Hydrologic Unit 01090004, on right bank 75 ft (23 m) downstream from bridge on U.S. Highway 44 at Centerdale and 6.5 mi (10.5 km) upstream from mouth.

DRAINAGE AREA.--38.3 mi² (99.2 km²).

PERIOD OF RECORD.--Discharge: July 1941 to current year.

Chemical analyses: Water years 1955-56 (partial-record station).

Water temperatures: Water years 1955-56 (partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 95 ft (29 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are fair. 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. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years, 71.2 ft³/s (2.016 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft³/s (40.8 m³/s) Mar. 18, 1968, gage height, 7.75 ft (2.362 m), from floodmarks; minimum daily, 2.1 ft³/s (0.059 m³/s) Aug. 26, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge during March 1936, 1,000 ft³/s (28.3 m³/s), by computation of flow over dam 0.7 mi (1.1 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 901 ft³/s (25.5 m³/s) Jan. 28, gage height, 6.13 ft (1.868 m); minimum daily, 16 ft³/s (0.45 m³/s) July 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	85	151	179	300	105	118	66	39	43	47	28
2	24	82	139	155	484	105	139	124	48	26	32	41
3	24	77	128	144	356	105	127	105	42	26	24	49
4	23	74	115	144	288	110	118	95	38	29	22	45
5	22	67	106	124	241	120	108	86	36	24	21	44
6	22	63	101	108	210	130	100	78	33	22	21	43
7	21	61	95	106	200	115	93	73	33	28	22	40
8	20	66	89	218	180	110	87	71	31	24	51	38
9	20	66	91	177	165	105	83	66	30	22	97	36
10	20	66	203	150	150	110	80	63	29	21	146	44
11	22	72	175	127	140	120	77	59	28	20	80	59
12	29	70	155	119	135	140	74	66	27	24	69	45
13	26	291	137	107	130	170	71	62	26	21	57	42
14	23	303	124	387	125	190	69	59	25	20	48	39
15	21	247	115	290	125	165	67	57	24	19	49	37
16	21	211	108	240	120	150	66	54	24	19	52	36
17	24	183	100	195	125	135	66	61	25	19	41	38
18	172	166	99	170	135	123	82	56	24	18	37	40
19	157	153	89	150	145	122	81	57	24	17	34	37
20	141	139	82	140	145	134	77	55	24	17	32	35
21	128	151	81	130	150	131	48	55	24	17	30	35
22	107	236	87	120	170	128	40	55	23	17	30	33
23	92	186	87	110	200	119	40	51	22	16	30	31
24	85	169	80	110	170	113	41	48	21	24	28	30
25	134	164	75	105	145	108	51	46	21	19	27	30
26	161	151	170	110	130	103	82	44	21	18	28	30
27	116	194	307	280	120	98	71	42	21	17	30	35
28	101	216	254	694	115	109	71	40	20	17	33	36
29	95	181	209	601	110	103	70	38	21	18	39	34
30	96	161	175	403	---	95	66	37	21	99	36	33
31	91	---	198	325	---	91	---	36	---	45	29	---
TOTAL	2064	4351	4125	6418	5209	3762	2363	1905	825	766	1322	1143
MEAN	66.6	145	133	207	180	121	78.8	61.5	27.5	24.7	42.6	38.1
MAX	172	303	307	694	484	190	139	124	48	99	146	59
MIN	20	61	75	105	110	91	40	36	20	16	21	28

CAL YR 1975 TOTAL 29807 MEAN 81.7 MAX 318 MIN 20
WTR YR 1976 TOTAL 34253 MEAN 93.6 MAX 694 MIN 16

NOTE.--No gage-height record Feb. 6 to Mar. 17.

PAWTUXET RIVER BASIN

01115630 NOOSENECK RIVER AT NOOSENECK, RI

LOCATION.--Lat 41°37'36", long 71°37'59", Kent County, Hydrologic Unit 01090004, on right bank at upstream side of bridge on State Highway 3 at Nooseneck and 5.5 mi (8.8 km) southwest of Washington.

DRAINAGE AREA.--8.23 mi² (21.32 km²).

PERIOD OF RECORD.--Discharge: Occasional low-flow measurements, water years 1961-63. November 1963 to current year.

Chemical analyses: Water year 1963 (partial-record station).

Water temperatures: Water year 1963 (partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 265 ft (81 m), from topographic map.

REMARKS.--Records good except those for January, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years (water years 1965-76), 18.3 ft³/s (0.518 m³/s), 30.20 in/yr (767 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 318 ft³/s (9.01 m³/s) Mar. 18, 1968, gage height, 6.13 ft (1.868 m); minimum, 0.81 ft³/s (0.023 m³/s) Sept. 8, 9, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 130 ft³/s (3.68 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Dec. 21	2200	166	4.70	4.72	1.439	Jan. 28	1130	*196	5.55	*5.02	1.530
Jan. 14	0900	133	3.77	4.39	1.338	Feb. 2	1015	168	4.76	4.74	1.445

Minimum discharge, 2.3 ft³/s (0.065 m³/s) July 20, 21, 28-30.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	16	37	41	49	25	30	15	9.4	4.7	11	5.0
2	12	15	35	35	115	23	38	60	15	3.9	7.6	4.8
3	11	15	32	33	79	23	29	30	13	3.7	6.4	5.2
4	9.9	15	30	37	55	23	26	23	10	3.4	5.6	5.2
5	9.1	14	28	30	48	30	23	21	9.0	3.2	5.2	5.2
6	8.7	14	28	26	42	29	22	19	8.6	3.2	4.5	4.9
7	8.7	13	28	26	40	25	21	18	8.6	3.1	4.3	4.6
8	8.4	16	25	66	38	23	21	17	8.2	3.0	41	4.3
9	8.0	16	28	41	37	21	20	15	7.6	3.0	63	4.2
10	7.6	16	62	31	33	21	19	14	7.0	3.0	55	5.2
11	8.0	19	43	26	34	22	18	13	6.7	2.9	23	9.0
12	11	17	35	25	33	23	17	21	6.4	2.9	15	6.3
13	16	95	33	25	31	57	17	19	6.1	3.0	12	5.6
14	14	70	31	93	30	49	17	15	5.9	3.0	10	5.3
15	12	44	30	52	30	33	17	15	5.9	3.0	9.4	5.1
16	11	37	29	38	31	30	16	14	5.6	3.0	12	5.2
17	9.9	34	28	36	36	37	16	18	5.4	3.7	9.0	5.2
18	28	31	29	31	35	30	15	17	5.4	3.4	7.6	4.9
19	29	29	26	27	37	30	15	16	5.4	2.9	6.7	4.9
20	24	29	24	25	37	33	14	17	5.4	2.6	6.4	4.7
21	19	32	23	24	30	30	14	15	5.4	2.3	5.9	4.5
22	17	58	24	24	40	27	13	15	5.4	3.0	5.2	4.4
23	15	38	23	23	48	25	13	14	4.9	2.7	5.2	4.3
24	14	34	22	23	34	23	13	13	4.7	4.7	4.7	4.2
25	26	35	20	22	31	23	14	13	4.5	3.7	4.5	3.9
26	42	34	65	22	30	22	22	12	4.5	3.0	4.3	3.9
27	23	51	98	97	28	21	19	11	4.3	2.9	5.4	4.4
28	19	59	49	153	26	30	18	10	4.3	2.7	6.1	5.1
29	17	41	38	84	25	25	17	9.8	4.3	2.3	5.9	5.0
30	17	37	34	62	---	22	15	9.4	4.3	27	5.6	4.7
31	17	---	48	54	---	21	---	9.4	---	11	5.4	---
TOTAL	485.3	974	1085	1332	1162	856	569	528.6	201.2	129.9	372.9	149.2
MEAN	15.7	32.5	35.0	43.0	40.1	27.6	19.0	17.1	6.71	4.19	12.0	4.97
MAX	42	95	98	153	115	57	38	60	15	27	63	9.0
MIN	7.6	13	20	22	25	21	13	9.4	4.3	2.3	4.3	3.9
CFSM	1.91	3.95	4.25	5.22	4.87	3.35	2.31	2.08	.82	.51	1.46	.60
IN.	2.19	4.40	4.90	6.02	5.25	3.87	2.57	2.39	.91	.59	1.69	.67

CAL YR 1975 TOTAL 7720.4 MEAN 21.2 MAX 98 MIN 2.8 CFSM 2.58 IN 34.89
WTR YR 1976 TOTAL 7845.1 MEAN 21.4 MAX 153 MIN 2.3 CFSM 2.60 IN 35.46

01115770 CARR RIVER NEAR NOOSENECK, RI

LOCATION.--Lat 41°38'35", long 71°36'30", Kent County, Hydrologic Unit 01090004, on left bank at upstream side of bridge on Burnt Sawmill Road, 1.5 mi (2.4 km) northeast of Nooseneck, and 4 mi (6 km) southwest of Washington.

DRAINAGE AREA.--6.73 mi² (17.43 km²).

PERIOD OF RECORD.--Discharge: 1964-63 (occasional low-flow measurements), November 1963 to current year.
Chemical analyses: Water year 1963 (partial-record station).
Water temperatures: Water year 1963 (partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 250 ft (76 m), from topographic map. Prior to Nov. 27, 1963, reference point at site 75 ft (23 m) upstream at datum 9 ft (2.7 m) higher.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow regulated by Carr Pond and other ponds upstream. Prior to May 1972, diversion from Carr Pond for municipal supply of Coventry, Warwick, and West Warwick. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years (water years 1965-76), 11.7 ft³/s (0.331 m³/s), 23.61 in/yr (600 mm/yr), adjusted for diversion prior to May 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 221 ft³/s (6.26 m³/s) Mar. 18, 1968, gage height, 6.50 ft (1.981 m); minimum, 0.30 ft³/s (0.008 m³/s) Aug. 25, 26, 1968; minimum daily, 0.36 ft³/s (0.010 m³/s) Aug. 18, Sept. 12, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 65 ft³/s (1.84 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Dec. 27	0530	69 1.95	4.68 1.426	Feb. 2	1500	70 1.98	4.70 1.433
Jan. 28	1145	*95 2.69	*5.12 1.561				

Minimum discharge, 1.5 ft³/s (0.042 m³/s) July 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	8.8	20	30	34	18	18	11	6.7	3.1	7.6	3.4
2	6.3	8.5	19	28	60	17	25	27	9.2	2.9	5.5	3.9
3	5.5	8.5	17	22	52	17	22	25	9.9	2.8	3.9	3.9
4	4.7	7.8	16	23	42	17	19	19	9.9	2.7	2.9	2.9
5	4.4	7.4	15	20	36	19	16	15	8.1	2.6	1.6	2.2
6	4.4	7.4	14	17	32	21	15	13	7.6	2.5	1.6	2.2
7	3.9	7.0	14	16	29	19	14	12	7.1	2.4	1.6	2.3
8	3.9	7.0	14	33	28	17	14	12	6.7	2.4	11	2.3
9	3.8	7.8	18	32	26	16	14	11	6.2	2.3	36	2.6
10	3.6	7.8	26	23	24	16	13	11	5.6	2.2	42	3.0
11	3.6	8.8	30	18	24	16	13	10	5.2	2.2	24	4.5
12	4.4	8.8	23	18	24	16	13	12	4.8	2.1	13	3.6
13	8.1	40	19	17	22	27	12	13	4.5	2.1	10	3.2
14	8.5	50	17	47	22	34	12	12	4.3	2.1	7.0	3.1
15	7.8	35	16	39	20	27	12	12	4.2	2.2	6.0	3.0
16	6.5	25	16	29	21	23	12	11	4.1	2.2	6.5	2.9
17	5.4	20	16	29	22	25	12	11	4.0	2.6	5.0	2.8
18	10	17	15	23	24	24	11	12	4.0	2.7	4.2	2.7
19	16	15	14	19	24	21	11	12	3.9	2.6	3.6	2.6
20	15	9.7	14	16	25	22	11	12	3.9	2.2	3.3	2.4
21	12	8.5	13	16	23	21	11	11	3.9	2.1	3.0	2.3
22	10	27	13	16	26	20	10	11	3.8	2.1	2.8	2.2
23	9.0	25	13	16	32	18	9.9	11	3.7	2.1	2.7	2.1
24	8.1	20	12	16	27	17	9.5	9.9	3.6	2.4	2.6	2.0
25	11	20	11	16	24	16	9.9	9.5	3.5	2.6	2.5	2.0
26	20	19	27	15	21	16	13	9.5	3.4	2.4	2.4	2.0
27	15	23	64	47	20	15	14	8.6	3.3	1.9	3.0	2.3
28	12	33	45	88	19	18	13	8.1	3.2	1.5	3.6	2.4
29	10	27	32	64	18	19	12	7.6	3.1	1.6	3.3	2.4
30	9.7	22	26	46	---	17	11	6.7	3.1	10	3.1	2.4
31	9.4	---	30	38	---	16	---	6.7	---	13	3.1	---
TOTAL	258.7	531.8	639	877	801	605	402.3	372.6	154.5	90.6	228.4	81.6
MEAN	8.35	17.7	20.6	28.3	27.6	19.5	13.4	12.0	5.15	2.92	7.37	2.72
MAX	20	50	64	88	60	34	25	27	9.9	13	42	4.5
MIN	3.6	7.0	11	15	18	15	9.5	6.7	3.1	1.5	1.6	2.0
CFSM	1.24	2.63	3.06	4.21	4.10	2.90	1.99	1.78	.77	.43	1.10	.40
IN.	1.43	2.94	3.53	4.85	4.43	3.34	2.22	2.06	.85	.50	1.26	.45

CAL YR 1975 TOTAL 4595.0 MEAN 12.6 MAX 64 MIN 1.2 CFSM 1.87 IN 25.40
WTR YR 1976 TOTAL 5042.5 MEAN 13.8 MAX 88 MIN 1.5 CFSM 2.05 IN 27.87

NOTE.--No gage-height record June 9 to July 15.

01116000 SOUTH BRANCH PAWTUXET RIVER AT WASHINGTON, RI

LOCATION.--Lat 41°41'24", long 71°33'59", Kent County, Hydrologic Unit 01090004, on right bank 150 ft (46 m) downstream from highway bridge at Washington and 0.9 mi (1.4 km) upstream from outlet of Tiogue Lake.

DRAINAGE AREA.--63.8 mi² (165.2 km²).

PERIOD OF RECORD.--Discharge: October 1940 to current year.

Chemical analyses: Water years 1955-1956, 1963 (partial-record station).

Water temperatures: Water years 1955-56, 1963 (partial-record station).

GAGE.--Water-stage recorder. Datum of gage is 217.76 ft (66.373 m) above mean sea level.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Flow regulated by Flat River Reservoir 2 mi (3 km) upstream (see table below), usable capacity, 250,000,000 ft³ (7,080,000 m³), and smaller reservoirs. Prior to May 1972, diversion from Carr Pond for municipal supply of Coventry, Warwick, and West Warwick. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 128 ft³/s (3.625 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft³/s (52.7 m³/s) Mar. 18, 1968, gage height, 5.13 ft (1.564 m); minimum daily, 2.8 ft³/s (0.079 m³/s) Aug. 27, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a discharge of 1,810 ft³/s (51.3 m³/s), by computation of flow over dam just upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 651 ft³/s (18.4 m³/s) Jan. 28, gage height, 3.15 ft (0.960 m); minimum daily, 5.2 ft³/s (0.15 m³/s) July 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	27	301	309	350	200	155	49	109	42	80	42
2	145	31	285	300	500	195	229	186	123	41	60	44
3	138	84	229	300	540	200	225	217	114	23	50	39
4	88	76	225	258	430	210	194	194	90	7.2	40	11
5	125	73	192	165	370	240	129	141	30	5.6	37	9.6
6	106	122	119	161	340	220	126	161	45	61	35	17
7	80	196	116	172	320	210	126	111	117	45	22	83
8	75	199	116	229	300	200	129	65	81	23	101	38
9	87	195	120	258	280	180	90	103	67	29	225	34
10	85	150	150	254	270	170	24	129	72	7.2	335	43
11	31	108	172	254	290	165	41	109	72	5.2	313	16
12	34	99	242	250	280	160	135	148	19	65	201	18
13	104	195	239	258	270	155	141	117	10	55	95	77
14	140	242	236	322	250	170	141	145	90	35	126	48
15	108	231	199	348	240	181	138	111	70	30	114	46
16	82	224	121	361	260	244	106	65	61	35	123	57
17	65	221	117	379	280	327	23	123	63	80	120	74
18	67	219	141	370	290	294	30	126	67	12	74	45
19	132	211	214	361	290	160	93	155	21	60	63	33
20	193	177	213	352	280	152	85	156	10	45	70	58
21	171	182	210	287	260	151	120	114	81	50	151	46
22	121	199	210	183	310	150	135	43	65	40	161	42
23	91	194	207	221	350	148	101	79	63	35	120	43
24	81	218	178	175	300	151	21	126	65	50	78	42
25	112	221	110	175	270	151	37	103	65	30	60	11
26	173	225	168	205	240	148	172	95	24	60	58	10
27	179	311	266	397	220	109	179	98	8.4	50	47	85
28	191	317	250	550	215	111	132	90	61	40	18	50
29	189	309	258	575	210	106	101	28	61	30	19	45
30	189	303	300	467	---	106	85	35	54	100	70	60
31	149	---	309	390	---	103	---	49	---	120	39	---
TOTAL	3686	5559	6213	9286	8805	5467	3443	3471	1878.4	1311.2	3105	1266.6
MEAN	119	185	200	300	304	176	115	112	62.6	42.3	100	42.2
MAX	193	317	309	575	540	327	229	217	123	120	335	85
MIN	31	27	110	161	210	103	21	28	8.4	5.2	18	9.6
(†)	185.0	194.5	197.5	191.0	185.0	182.0	219.5	257.5	253.5	246.5	219.5	168.0

CAL YR 1975 TOTAL 49100.4 MEAN 135 MAX 328 MIN 6.6

WTR YR 1976 TOTAL 53491.2 MEAN 146 MAX 575 MIN 5.2

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

NOTE.--No gage-height record Jan. 31 to Mar. 14, July 12 to Aug. 4, Sept. 26-30.

01116500 PAWTUXET RIVER AT CRANSTON, RI

LOCATION.--Lat 41°45'03", long 71°26'44", Providence County, Hydrologic Unit 01090004, on left bank at Cranston 0.7 mi (1.1 km) upstream from Pocasset River.

DRAINAGE AREA.--200 mi² (518 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 971: 1940-42. WSP 1381: 1940-41(M). WRD MA, NH, RI, VT, 1973: 1972 (adjusted monthly and yearly figures only).

GAGE.--Water-stage recorder. Datum of gage is 8.00 ft (2.438 m) above mean sea level.

REMARKS.--Records good. Flow regulated by powerplants and by Scituate Reservoir 13 mi (21 km) upstream, Flat River Reservoir, and other reservoirs, combined usable capacity, about 6,000,000,000 ft³ (170,000,000 m³). Diversion from Scituate Reservoir for municipal supply of Providence, North Providence, Cranston, Johnston, Smithfield, Warwick, West Warwick, and Coventry. See table below for figures of diversion and monthend contents in Scituate Reservoir and 5 smaller reservoirs, and see table with station 01116000 for monthend contents in Flat River Reservoir.

AVERAGE DISCHARGE.--36 years (water years 1941-76), 338 ft³/s (9.572 m³/s), unadjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,110 ft³/s (88.1 m³/s) Mar. 18, 1968, gage height, 11.53 ft (3.514 m); minimum daily, 22 ft³/s (0.62 m³/s) Sept. 4, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,070 ft³/s (58.6 m³/s) Jan. 28, gage height, 9.20 ft (2.837 m); minimum daily, 59 ft³/s (1.67 m³/s) July 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	186	752	927	1050	511	427	150	196	141	227	116
2	250	124	841	862	1690	586	528	449	234	103	186	127
3	234	175	755	859	1380	615	465	417	230	94	141	139
4	189	193	719	878	1210	610	408	409	178	67	111	118
5	162	178	700	674	1050	555	330	335	132	61	106	99
6	193	193	593	541	978	522	316	275	106	61	103	77
7	147	310	567	590	941	495	302	290	178	94	101	75
8	138	347	555	1080	918	474	296	175	159	78	540	135
9	144	314	567	853	866	384	289	175	141	80	943	111
10	156	318	866	758	855	377	174	250	147	78	1070	111
11	124	250	707	722	728	391	140	215	147	59	743	183
12	124	250	749	722	612	395	236	286	121	113	536	116
13	156	1090	740	710	644	481	284	335	82	103	279	86
14	219	943	728	1600	647	412	280	267	116	84	234	132
15	223	640	713	1090	727	434	279	279	138	87	219	111
16	162	461	590	997	768	506	284	165	132	87	250	100
17	150	481	559	1070	805	740	166	314	132	132	246	117
18	259	494	590	932	796	613	122	275	144	74	207	194
19	367	473	651	894	859	488	185	271	118	69	168	147
20	384	433	654	854	809	485	192	279	84	91	150	100
21	359	489	665	834	754	374	197	271	108	69	175	138
22	263	675	682	680	843	404	259	165	132	91	196	141
23	234	417	640	621	857	440	256	159	127	85	200	142
24	186	498	640	617	774	369	150	230	132	132	159	140
25	318	643	547	605	753	347	141	196	132	74	144	143
26	453	612	967	621	738	346	298	186	113	63	124	124
27	331	791	1560	1300	640	289	306	186	76	82	144	94
28	323	838	1020	1840	614	311	290	182	76	80	153	109
29	323	819	856	1550	603	295	227	132	113	78	91	193
30	327	761	838	1340	---	303	200	111	108	707	156	145
31	318	---	1020	1160	---	327	---	116	---	323	150	---
TOTAL	7443	14396	23031	28781	24909	13879	8029	7545	4032	3540	8252	3763
MEAN	240	480	743	928	859	448	268	243	134	114	266	125
MAX	453	1090	1560	1840	1690	740	528	449	234	707	1070	194
MIN	124	124	547	541	603	289	122	111	76	59	91	75
(†)	4438	4953	4812	5156	5051	5209	5315	5352	5029	4759	4676	4404
(‡)	98.1	91.1	86.2	87.1	90.5	89.5	93.0	98.7	131	116	109	102
CAL YR 1975	TOTAL	136298	MEAN	373	MAX	1560	MIN	57				
WTR YR 1976	TOTAL	147600	MEAN	403	MAX	1840	MIN	59				

† Monthend contents, in millions of cubic feet, of Scituate Reservoir and 5 smaller reservoirs.

‡ Diversion, in cubic feet per second, from Scituate Reservoir for municipal supply of Providence, North Providence, Cranston, Johnston, Smithfield, Warwick, West Warwick, and Coventry. Figures of diversion and monthend contents furnished by Providence Water Supply Board.

PAWTUXET RIVER BASIN

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 current year.

WATER TEMPERATURES: November 1961 to current year.

INSTRUMENTATION.--Water-quality monitor; prior to June 1969, water temperature recorder.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 630 micromhos Dec. 2, 1974; minimum, 64 micromhos Dec. 9, 1972.

WATER TEMPERATURES: Maximum, 30.0°C July 1, 1964, Aug. 14, 1973; minimum, 0.0°C on many days during winter periods 1965-70, 1972-76.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 535 micromhos Apr. 20; minimum, 104 micromhos Dec. 1-3.

WATER TEMPERATURES: Maximum, 27.0°C June 24, July 10; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG)
JUN 22...	127	415	6.0	24.6	23.8	28	2	4.5	22	16	4.4

DATE	BICARBONATE (HC03) (MG/L)	CARBONATE (C03) (MG/L)	ALKALINITY AS CAC03 (MG/L)	CARBONDIOXIDE (C02) (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	SUS-PENDED SOLIDS (MG/L)	TOTAL RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)
JUN 22...	17	0	14	27	34	55	8	205	1.7	.54	.86

DATE	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL CHRO- MIUM IN BOTTOM MA- TERIAL (UG/G)	PHENOLS (UG/L)	OIL AND GREASE (MG/L)	TOTAL PCB (UG/L)	POLY- CHLO- RINATED NAPH- THA- LENES (UG/L)	TOTAL ALDRIN (UG/L)
JUN 22...	1.4	3.1	.74	10	1	0	0	.0	.00	.00

[illegible]

01116500 PAWTUXET RIVER AT CRANSTON, RI--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	226	206	216	215	191	204	122	104	114	141	131	133
2	219	185	204	229	206	221	116	104	108	135	133	134
3	190	182	185	228	186	211	111	104	107	136	129	133
4	205	185	197	296	190	259	116	108	111	136	128	131
5	210	202	207	283	242	270	118	111	114	139	131	134
6	263	204	235	256	223	243	124	116	119	170	139	149
7	266	249	259	234	219	227	133	125	131	172	141	154
8	246	231	236	214	179	189	136	131	133	148	131	136
9	243	231	237	183	173	177	139	133	135	142	137	141
10	246	231	238	196	180	188	136	127	129	150	136	142
11	268	242	254	199	184	194	132	129	130	142	136	139
12	265	230	250	213	184	202	133	128	131	146	139	142
13	233	224	228	197	112	133	128	125	126	297	137	151
14	358	229	305	133	122	128	130	123	126	389	175	228
15	329	216	264	139	131	135	129	116	127	178	142	155
16	226	206	212	164	130	146	122	114	116	159	139	145
17	224	204	212	166	143	161	125	118	121	179	143	151
18	211	176	192	151	133	143	129	120	125	149	144	147
19	218	165	183	147	133	139	139	128	132	150	144	147
20	219	185	203	150	133	142	129	122	124	146	135	139
21	185	171	177	162	132	149	126	122	124	155	136	142
22	186	173	181	147	130	140	140	122	131	160	147	151
23	202	180	192	167	140	156	146	131	138	166	158	161
24	226	196	211	168	136	160	132	126	129	160	156	158
25	223	162	199	146	133	140	126	120	123	196	157	167
26	188	167	175	138	121	130	345	126	205	280	163	195
27	196	189	193	136	112	123	158	133	142	345	157	230
28	199	194	196	126	112	119	140	128	132	155	121	136
29	196	169	181	127	109	119	129	126	128	132	128	130
30	178	164	172	118	105	111	143	128	132	135	130	133
31	187	165	170	---	---	---	142	134	137	134	118	127
MONTH	358	162	212	296	105	169	345	104	128	389	118	150
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	129	118	124	186	159	170	258	226	252	294	259	275
2	132	112	121	176	163	169	228	209	218	332	204	256
3	130	117	123	204	168	188	222	210	216	298	213	240
4	127	119	122	196	172	182	229	216	220	212	179	191
5	136	126	130	188	175	181	247	229	240	186	169	179
6	140	128	134	189	173	180	258	245	251	202	187	194
7	133	130	132	192	171	181	272	258	267	236	206	227
8	132	128	131	190	176	183	266	262	264	251	234	242
9	143	130	134	198	190	193	274	263	270	235	227	230
10	142	125	130	215	190	199	291	273	282	363	235	300
11	140	130	135	223	210	216	303	290	296	362	231	304
12	158	140	145	218	205	211	303	248	283	233	212	222
13	159	141	146	221	215	218	498	319	415	229	215	221
14	146	143	145	218	210	213	333	270	287	226	207	218
15	152	142	145	250	219	231	274	252	265	264	212	248
16	144	134	139	296	214	234	262	251	257	258	247	252
17	141	137	139	265	201	231	308	262	285	348	202	261
18	140	133	136	207	187	200	336	308	324	339	224	270
19	138	132	135	230	189	210	327	264	301	251	214	237
20	139	137	138	238	202	222	535	277	404	241	213	230
21	140	133	138	253	209	232	527	411	478	229	220	225
22	142	139	140	267	216	253	402	337	359	252	231	241
23	144	143	144	241	205	223	334	291	308	234	223	229
24	144	141	142	232	203	219	307	289	298	366	219	263
25	146	141	143	242	224	233	314	303	311	386	275	352
26	152	147	149	245	232	239	301	211	248	275	261	268
27	158	151	153	261	231	241	518	271	390	270	255	263
28	162	159	160	271	259	264	266	232	244	291	263	279
29	162	158	160	287	269	277	249	220	238	305	276	291
30	---	---	---	281	270	277	259	223	246	301	292	298
31	---	---	---	274	253	261	---	---	---	290	270	279
MONTH	162	112	138	296	159	217	535	209	291	386	169	251

PAWTUXET RIVER BASIN

01116500 PAWTUXET RIVER AT CRANSTON, RI--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	381	269	310	489	415	453	228	211	218	453	330	382
2	458	309	405	413	366	390	240	230	234	515	290	304
3	302	253	278	363	349	354	271	235	256	326	309	295
4	256	237	249	351	344	347	273	259	269	344	325	333
5	276	236	255	355	351	353	259	246	254	343	323	332
6	301	277	293	358	353	355	267	247	256	345	332	339
7	293	261	271	357	346	352	293	257	275	331	315	323
8	439	303	392	476	358	408	295	169	226	479	316	364
9	379	305	331	515	452	497	228	135	168	524	448	497
10	316	305	309	443	384	408	141	130	136	442	288	377
11	346	309	324	379	351	359	149	140	144	321	299	311
12	383	349	369	349	291	320	162	144	150	360	313	343
13	382	372	377	362	314	334	212	167	193	359	307	333
14	380	348	373	456	365	407	229	200	215	405	305	342
15	413	323	349	475	443	466	286	234	263	438	409	432
16	527	425	495	436	370	395	281	236	253	433	388	410
17	501	411	447	363	294	316	239	218	228	388	348	372
18	408	386	392	300	291	295	237	213	227	356	295	327
19	398	374	384	312	296	300	238	214	227	369	309	350
20	397	385	390	305	288	296	253	217	235	361	310	334
21	392	355	378	357	306	329	273	253	263	379	311	344
22	397	333	353	401	354	394	322	278	310	388	330	362
23	488	403	459	382	344	368	297	265	280	363	312	333
24	461	374	414	341	282	307	271	245	263	331	297	313
25	371	359	364	309	292	300	263	242	252	342	297	320
26	371	363	366	337	313	326	277	241	265	334	309	320
27	378	373	376	346	327	336	285	274	278	336	303	325
28	377	353	370	383	345	359	298	268	286	425	313	380
29	350	339	343	421	384	400	325	296	305	450	383	431
30	487	346	396	420	221	291	326	294	309	371	298	316
31	---	---	---	261	212	224	527	337	465	---	---	---
MONTH	527	236	360	515	212	356	527	130	248	524	288	351
YEAR	535	104	239									

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.0	17.5	19.0	11.0	9.0	10.0	9.5	7.5	8.5	3.5	2.5	3.0
2	19.0	18.0	19.0	12.0	10.0	10.5	8.5	6.5	7.0	2.0	1.5	2.0
3	18.0	16.5	17.0	13.0	10.5	11.5	6.5	5.5	6.0	3.0	1.5	2.5
4	17.5	15.5	16.5	14.0	12.0	13.0	5.5	4.5	5.0	2.5	1.5	2.5
5	17.0	15.0	16.0	14.0	12.0	13.0	5.0	3.5	4.0	1.0	0.0	0.5
6	17.5	15.5	16.5	13.5	11.5	12.5	7.5	5.0	6.0	1.0	0.0	0.5
7	17.5	15.0	16.0	12.5	11.5	12.0	7.5	5.0	6.0	1.5	0.0	1.0
8	16.5	14.5	15.5	14.0	12.5	13.0	5.0	4.5	4.5	2.0	1.5	1.5
9	16.0	14.5	15.0	14.5	13.5	14.0	5.5	4.0	4.5	1.5	0.5	0.5
10	15.5	13.0	14.5	14.5	14.0	14.0	7.0	5.5	6.5	0.5	0.0	0.0
11	14.5	14.0	14.5	14.5	13.0	13.5	7.0	6.0	6.5	0.5	0.0	0.0
12	14.5	13.5	14.0	13.0	12.0	12.5	5.5	4.5	5.0	0.5	0.0	0.0
13	15.0	13.0	14.0	12.0	11.0	11.0	4.5	4.0	4.5	1.0	0.0	0.5
14	15.5	14.0	14.5	11.5	10.5	11.0	6.5	4.5	5.5	2.5	1.0	2.0
15	16.5	14.5	15.5	10.0	8.5	9.5	7.0	6.5	6.5	2.0	1.0	1.5
16	17.0	15.5	16.0	8.5	7.5	8.0	7.0	6.0	7.0	1.5	0.5	1.0
17	15.5	14.5	15.0	8.0	7.0	7.5	6.0	5.0	5.0	1.5	1.0	1.5
18	14.5	13.5	14.0	9.0	7.5	8.5	5.5	3.5	5.0	0.5	0.0	0.0
19	13.5	12.5	13.0	9.0	8.0	8.5	3.0	1.5	2.0	0.0	0.0	0.0
20	14.0	13.0	13.5	9.5	8.0	8.5	1.5	1.0	1.0	0.5	0.0	0.5
21	15.0	13.0	14.0	11.5	9.0	10.0	1.0	0.5	1.0	1.0	0.5	1.0
22	16.0	14.5	15.0	11.5	9.0	10.5	1.0	0.0	0.5	1.0	0.0	0.5
23	16.0	14.5	15.0	9.0	7.0	8.0	1.5	0.5	1.0	0.0	0.0	0.0
24	16.5	14.0	15.0	7.0	5.0	6.0	0.5	0.0	0.0	0.0	0.0	0.0
25	16.5	14.5	15.0	6.0	5.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0
26	16.0	15.5	16.0	6.5	5.5	6.0	1.5	0.0	0.5	1.5	0.0	1.0
27	15.5	14.5	15.0	7.5	6.5	7.0	2.5	1.0	2.0	4.5	1.5	3.0
28	14.5	13.0	14.0	7.5	7.0	7.0	3.0	2.5	2.5	5.0	3.0	4.5
29	14.5	13.5	14.0	6.5	6.0	6.5	2.0	1.5	2.0	2.5	2.0	2.5
30	14.5	12.5	13.5	7.5	6.0	6.5	2.0	1.0	1.5	2.5	2.0	2.5
31	12.0	10.5	11.0	---	---	---	3.5	2.0	3.0	2.0	1.5	2.0
MONTH	20.0	10.5	15.0	14.5	5.0	10.0	9.5	0.0	4.0	5.0	0.0	1.0

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.5	2.0	2.5	6.5	5.5	6.0	10.0	9.5	10.0	15.0	12.5	14.0
2	4.5	1.0	3.0	6.0	4.5	5.5	10.0	9.0	9.5	15.5	13.0	14.5
3	1.0	0.0	0.5	4.0	3.0	3.5	11.0	8.5	10.0	17.0	15.0	16.0
4	2.5	1.0	1.5	4.0	2.5	3.5	10.5	9.5	10.0	15.5	14.5	15.0
5	2.0	1.5	1.5	7.5	4.0	5.5	11.0	8.5	10.0	15.0	13.5	14.0
6	1.5	1.0	1.0	7.5	6.5	7.0	11.0	9.5	10.0	16.5	13.5	15.0
7	1.0	0.5	1.0	6.5	5.0	6.0	11.0	10.0	10.5	16.0	15.5	16.0
8	1.5	0.5	1.0	5.5	4.0	5.0	10.5	9.5	10.0	17.0	14.5	15.5
9	2.0	1.0	1.5	4.5	3.0	3.5	9.5	8.5	9.0	17.0	14.0	15.0
10	2.5	1.5	2.0	3.5	2.5	3.0	11.5	7.5	9.0	17.0	14.0	15.5
11	3.5	2.5	3.0	5.0	3.5	4.0	10.5	8.0	9.5	18.0	15.0	16.5
12	3.0	2.0	2.5	5.0	3.0	4.0	9.0	7.0	8.0	17.5	16.0	16.5
13	3.5	2.5	3.0	5.5	4.0	5.0	9.5	7.0	8.0	17.0	15.5	16.5
14	3.5	3.0	3.0	6.5	4.5	5.5	12.0	8.5	10.0	17.5	15.5	16.5
15	2.5	2.0	2.0	7.0	5.5	6.0	13.0	10.5	12.0	19.0	17.0	18.0
16	5.0	3.0	4.0	6.0	3.5	5.0	15.0	12.0	13.5	19.5	17.5	18.0
17	4.5	4.0	4.5	3.5	2.5	3.0	19.0	14.0	16.0	18.5	17.0	17.5
18	4.5	3.5	4.0	3.0	1.5	2.5	21.0	15.5	18.0	19.5	17.5	18.5
19	5.0	3.5	4.0	5.5	2.5	4.0	21.0	17.0	19.0	18.5	16.0	17.0
20	5.0	4.0	4.5	8.0	5.5	7.0	21.5	18.5	20.0	16.0	15.0	15.5
21	4.0	3.5	4.0	9.0	7.5	8.5	21.0	18.5	19.5	16.5	14.5	15.5
22	6.5	4.0	5.5	9.0	7.5	8.0	19.0	17.5	18.0	17.0	14.5	15.5
23	6.0	3.5	4.5	8.0	6.0	7.0	20.0	17.0	18.5	17.0	14.0	15.5
24	4.0	2.5	3.5	8.5	6.0	7.5	17.5	15.0	16.5	16.5	15.0	16.0
25	5.5	4.0	4.5	9.5	7.5	8.5	15.0	12.5	14.0	16.0	15.0	15.5
26	6.0	5.0	5.5	11.0	8.5	10.0	12.0	11.5	11.5	15.0	14.5	14.5
27	6.5	5.5	6.0	12.0	9.5	11.0	11.5	10.5	11.0	16.5	13.5	15.5
28	6.5	5.5	6.0	12.5	11.0	11.5	12.5	10.5	11.5	19.0	15.5	17.0
29	6.0	4.5	5.0	12.5	10.0	11.0	13.5	11.5	12.5	20.5	16.5	18.5
30	---	---	---	11.0	10.0	10.5	14.5	12.0	13.5	19.0	17.5	18.5
31	---	---	---	10.0	9.5	10.0	---	---	---	22.0	17.5	19.5
MONTH	6.5	0.0	3.5	12.5	1.5	6.5	21.5	7.0	12.5	22.0	12.5	16.0
JUNE				JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.5	19.0	19.5	25.5	22.5	24.0	22.0	20.5	21.0	22.0	19.0	20.5
2	19.5	17.5	18.5	26.5	23.5	25.0	22.0	20.5	21.5	20.5	18.5	20.0
3	20.0	17.0	18.5	26.5	23.5	25.0	22.5	20.0	21.5	20.5	18.0	19.0
4	20.0	17.0	18.5	25.0	22.5	24.0	23.0	20.0	21.5	20.0	18.0	18.5
5	21.5	17.0	19.0	26.0	22.0	24.0	23.5	20.5	22.0	20.0	18.0	19.0
6	19.0	17.5	18.0	26.0	22.5	24.5	24.0	21.0	22.5	20.5	17.0	18.5
7	19.0	17.0	18.0	25.0	23.5	24.5	22.5	21.0	22.0	18.5	16.0	17.5
8	21.5	18.0	20.0	25.5	23.0	24.5	21.0	19.0	20.0	20.5	17.0	18.5
9	23.5	20.0	21.5	26.0	23.0	24.5	20.0	19.5	20.0	21.0	18.0	19.0
10	24.5	21.0	22.5	27.0	23.5	25.0	22.0	20.0	21.0	19.0	18.0	18.5
11	25.0	22.5	23.5	25.5	23.0	24.5	23.0	21.0	22.0	20.5	18.0	19.0
12	24.5	21.5	23.0	26.0	23.5	24.5	24.0	22.0	23.0	21.0	18.0	19.0
13	23.5	19.5	21.5	24.0	22.5	23.5	25.0	23.0	24.0	21.5	17.5	19.0
14	21.5	19.0	20.0	23.0	21.5	22.5	25.5	23.5	24.5	21.5	18.5	20.0
15	22.5	19.5	21.0	23.0	21.0	22.0	25.5	24.0	24.5	21.5	19.0	20.0
16	25.0	21.0	23.0	24.0	21.0	22.5	25.0	23.5	24.0	21.0	19.0	20.0
17	23.5	22.5	23.0	24.5	22.0	23.0	24.0	22.0	23.0	20.5	19.5	20.0
18	25.0	22.0	23.5	25.0	21.5	23.0	24.0	22.0	22.5	22.5	20.0	21.0
19	25.0	23.0	24.0	25.5	21.0	23.5	23.0	20.5	21.5	22.5	20.5	21.5
20	24.0	22.5	23.0	26.0	23.0	24.5	23.5	20.0	21.5	23.0	19.5	21.0
21	25.0	22.0	23.5	24.0	22.5	23.5	24.0	21.5	22.5	22.0	21.0	21.5
22	26.0	23.5	24.5	25.5	22.0	22.5	25.0	23.0	24.0	21.0	19.0	20.0
23	26.5	24.0	25.0	25.5	21.5	23.5	26.0	24.5	25.0	19.5	17.5	18.5
24	27.0	24.5	25.5	25.5	23.0	24.0	25.5	23.5	24.5	18.5	17.5	18.0
25	26.0	25.0	25.5	25.5	22.5	24.0	25.5	23.0	24.0	18.5	16.0	17.0
26	26.5	24.5	25.5	25.0	20.5	23.0	25.0	23.0	24.0	18.0	15.5	17.0
27	25.0	23.0	24.0	24.5	22.0	23.0	23.5	22.5	23.0	17.5	16.5	17.0
28	26.0	22.5	24.0	26.0	22.0	24.0	24.0	22.5	23.0	18.0	17.0	17.5
29	25.0	23.0	24.0	24.5	23.0	24.0	24.5	22.5	23.0	17.5	15.5	16.5
30	24.0	23.0	23.5	23.5	21.5	22.5	22.5	21.0	21.5	17.0	15.5	16.0
31	---	---	---	21.5	21.0	21.0	22.0	19.5	20.5	---	---	---
MONTH	27.0	17.0	22.0	27.0	20.5	23.5	26.0	19.0	22.5	23.0	15.5	19.0
YEAR	27.0	0.0	13.0									

POTOWOMUT RIVER BASIN

01117000 POTOWOMUT RIVER NEAR EAST GREENWICH, RI

LOCATION.--Lat 41°38'28", long 71°26'45", Washington County, Hydrologic Unit 01090004, on right bank 45 ft (14 m) upstream from Old Forge Dam in North Kingstown, 1.5 mi (2.4 km) south of East Greenwich, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--23.0 mi² (59.6 km²).

PERIOD OF RECORD.--Discharge: August 1940 to current year.

Chemical analyses: Water years 1957, 1963 (partial-record station).

Water temperatures: Water years 1957, 1963 (partial-record station).

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

GAGE.--Water-stage recorder. Datum of gage is 5.42 ft (1.652 m) above mean sea level.

REMARKS.--Records fair. Flow affected by diversions for supply of East Greenwich, North Kingstown, Warwick, and Quonset Point (formerly U.S. Naval establishments). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 43.8 ft³/s (1.240 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 866 ft³/s (24.5 m³/s) Mar. 18, 1968, gage height, 3.36 ft (1.024 m), from rating curve extended above 440 ft³/s (12.5 m³/s); maximum gage height, 6.78 ft (2.067 m)

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, and June 24, 1976, due to closing of gate at Old Forge Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1915, about 8.5 ft (2.6 m) Sept. 21, 1938, back-water from hurricane tidal wave.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 230 ft³/s (6.51 m³/s) and maximums (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft ³ /s)	(m ³ /s)	(ft)	(m)			(ft ³ /s)	(m ³ /s)	(ft)	(m)
Nov. 13	1200	280	7.93	2.28	0.695	Jan. 28	1300	*†471	13.3	2.72	.829
Dec. 27	0200	389	11.0	2.54	.774	Feb. 2	1130	348	9.86	2.43	.741
Jan. 14	1030	336	9.52	2.40	.732	Feb. 3	0800	ice jam		*2.75	.838

† From rating curve extended above 180 ft³/s (5.10 m³/s).

No flow for part of June 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	32	74	116	116	66	85	40	23	28	14	7.5
2	17	30	72	94	270	64	126	126	45	19	11	8.5
3	14	28	64	88	200	68	92	97	36	12	7.5	8.5
4	13	27	58	102	147	68	74	64	28	9.6	6.5	8.5
5	12	26	54	81	121	81	68	52	23	8.5	5.6	8.5
6	12	24	54	66	111	81	62	50	20	7.5	4.9	8.5
7	11	24	52	68	102	68	60	45	20	6.5	5.6	6.5
8	9.6	30	50	190	97	62	54	45	17	7.5	60	6.5
9	8.5	36	52	142	92	58	52	40	15	7.5	153	6.5
10	8.5	33	106	90	90	60	52	36	14	7.5	137	7.5
11	9.6	42	99	72	94	66	52	35	13	6.5	72	11
12	28	36	74	70	90	68	50	56	12	6.5	42	8.5
13	49	214	62	70	85	134	50	58	12	6.5	27	5.6
14	33	217	58	253	83	145	49	47	11	7.5	21	4.9
15	24	131	56	172	79	104	47	42	11	7.5	20	4.9
16	17	90	56	116	85	92	47	36	10	6.5	21	4.9
17	14	72	52	142	92	124	49	58	10	9.6	19	8.5
18	45	64	60	97	92	97	45	54	9.5	8.5	14	12
19	66	58	54	74	94	88	42	49	10	7.5	12	9.6
20	56	54	47	72	94	94	40	45	11	5.6	11	6.5
21	43	60	47	72	81	85	40	43	11	5.6	11	5.6
22	33	129	50	74	106	76	38	43	10	6.5	9.6	4.9
23	27	97	49	62	131	70	42	38	9.5	6.5	8.5	4.2
24	24	79	43	68	99	68	40	33	9.0	11	8.5	4.2
25	40	90	40	68	88	66	45	32	8.5	8.5	8.5	4.2
26	88	79	119	70	81	64	70	30	8.5	7.5	8.5	4.9
27	56	102	325	208	76	60	58	28	8.5	6.5	11	4.9
28	42	150	181	401	72	90	52	27	7.5	5.6	13	5.6
29	36	102	119	284	66	79	45	24	8.5	5.6	12	4.9
30	33	79	92	175	---	66	38	23	8.5	8.5	9.6	4.9
31	33	---	126	131	---	62	---	24	---	12	7.5	---
TOTAL	918.2	2235	2445	3788	3034	2474	1664	1420	440.0	269.6	771.8	201.7
MEAN	29.6	74.5	78.9	122	105	79.8	55.5	45.8	14.7	8.70	24.9	6.72
MAX	88	217	325	401	270	145	126	126	45	28	153	12
MIN	8.5	24	40	62	66	58	38	23	7.5	5.6	4.9	4.2
CAL YR 1975	TOTAL	20470.8	MEAN	56.1	MAX	325	MIN	3.5				
WTR YR 1976	TOTAL	19661.3	MEAN	53.7	MAX	401	MIN	4.2				

01117350 CHIPUXET RIVER AT WEST KINGSTON, RI

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 (2.4 km) west of Kingston, and 3.1 mi (5.0 km) upstream from Worden Pond.

DRAINAGE AREA.--9.99 mi² (25.87 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1958 to July 1960 in Rhode Island Water Resources Board Geologic Bulletin 13. September 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 95 ft (29 m), from topographic map.

REMARKS.--Records good. Diversion upstream for supply of University of Rhode Island.

EXTREMES FOR PERIOD OF RECORD (SINCE 1973).--Maximum discharge, 88 ft³/s (2.49 m³/s) Jan. 29, 1976, gage height, 6.64 ft (2.024 m); minimum, 2.7 ft³/s (0.076 m³/s) July 28, 29, 1976.
Instantaneous maximum and minimum discharges not available prior to Sept. 14, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 88 ft³/s (2.49 m³/s) Jan. 29, gage height, 6.64 ft (2.024 m); minimum, 2.7 ft³/s (0.076 m³/s) July 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	8.9	28	41	52	26	27	18	12	5.7	3.4	5.2
2	9.8	8.4	26	38	58	25	32	22	13	5.7	3.5	5.1
3	8.5	8.0	23	35	68	25	36	27	13	5.4	3.6	5.4
4	7.6	7.7	22	34	62	26	34	28	12	5.4	3.6	5.4
5	7.1	7.5	19	33	54	25	31	25	12	4.9	3.6	5.4
6	6.6	7.2	19	29	48	27	28	22	11	4.9	3.5	5.4
7	6.3	6.9	18	27	44	27	26	20	11	4.6	3.8	5.2
8	6.1	7.0	18	37	41	25	24	19	9.8	4.5	6.9	5.2
9	5.8	7.4	17	50	39	24	24	18	9.6	4.2	15	5.1
10	5.7	7.5	19	47	37	24	23	16	9.2	3.9	24	4.9
11	5.8	7.9	21	40	36	24	22	16	8.6	3.9	27	5.4
12	6.4	7.9	22	35	36	25	22	16	8.2	4.5	24	6.1
13	6.9	17	21	32	35	31	21	18	7.9	4.2	18	5.4
14	7.1	38	20	41	34	43	20	18	7.1	3.9	14	5.2
15	7.1	49	19	56	32	47	19	18	6.9	3.8	11	4.8
16	6.9	42	18	52	32	44	19	17	6.8	3.6	9.2	4.6
17	6.5	34	17	49	32	44	19	18	6.8	3.6	9.0	4.8
18	7.6	26	17	46	33	43	19	19	6.4	3.8	8.0	5.6
19	10	22	17	40	34	41	19	20	6.2	3.6	7.1	6.1
20	12	19	17	34	34	38	18	20	6.2	3.2	6.8	5.6
21	11	18	17	31	32	37	18	19	6.4	3.2	6.4	5.7
22	11	21	18	31	32	35	17	18	6.1	3.1	6.1	5.7
23	9.9	24	18	29	36	32	16	17	5.6	3.1	5.7	5.4
24	8.8	26	16	28	38	30	16	16	5.4	3.5	5.6	5.2
25	9.6	26	15	26	36	28	16	14	5.1	3.8	5.2	5.1
26	12	25	19	26	33	28	18	14	4.8	3.4	4.9	4.9
27	14	25	44	32	31	27	19	13	5.1	2.9	5.6	4.9
28	14	30	61	62	29	27	20	12	4.6	2.9	6.1	5.2
29	12	34	53	85	27	28	19	12	4.8	2.7	6.6	5.1
30	11	32	44	74	---	28	18	12	5.1	3.0	5.9	5.2
31	10	---	41	61	---	26	---	12	---	3.2	5.2	---
TOTAL	274.1	600.3	744	1281	1135	960	660	554	236.7	122.1	268.3	158.3
MEAN	8.84	20.0	24.0	41.3	39.1	31.0	22.0	17.9	7.89	3.94	8.65	5.28
MAX	14	49	61	85	68	47	36	28	13	5.7	27	6.1
MIN	5.7	6.9	15	26	27	24	16	12	4.6	2.7	3.4	4.6

CAL YR 1975 TOTAL 7587.9 MEAN 20.8 MAX 61 MIN 5.4
WTR YR 1976 TOTAL 6993.8 MEAN 19.1 MAX 85 MIN 2.7

01117350 CHIPUXET RIVER AT WEST KINGSTON, RI--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1973 to current year.

WATER TEMPERATURE: October 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1973.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 153 micromhos Aug. 8, Sept. 11, 1976; minimum, 53 micromhos Apr. 19, 1974.

WATER TEMPERATURE: Maximum, 30.0°C Aug. 2, 1975; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 153 micromhos Aug. 8, Sept. 11; minimum, 58 micromhos Jan. 31.

WATER TEMPERATURE: Maximum, 27.0°C June 24, July 2, 6, Aug. 22, 23; minimum, 0.0°C Dec. 21-25, 29, Jan. 18, 19, 23.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	118	114	115	120	116	118	98	95	97	89	86	89
2	117	114	116	123	120	121	97	94	95	91	88	89
3	115	113	114	123	120	121	98	95	96	92	90	91
4	123	114	117	123	120	122	99	96	97	93	91	92
5	122	118	119	122	119	121	101	97	99	95	92	94
6	121	118	120	122	119	120	104	101	102	96	94	95
7	121	118	119	123	119	121	102	98	100	97	94	96
8	120	117	118	123	122	122	102	100	101	93	87	89
9	121	118	119	123	121	122	105	102	103	87	83	85
10	121	118	120	121	121	121	105	100	103	82	81	82
11	122	120	122	121	118	120	100	98	99	83	81	82
12	123	119	121	121	117	118	99	98	98	84	81	83
13	124	119	121	117	96	103	101	99	100	86	84	85
14	128	121	123	105	100	103	105	102	103	93	81	86
15	129	119	121	102	100	100	106	103	104	81	77	79
16	123	120	121	101	99	100	105	102	104	78	77	77
17	123	118	119	101	98	99	105	102	103	79	77	78
18	121	116	119	102	98	99	104	102	104	80	78	79
19	121	117	118	103	97	100	104	102	103	83	80	81
20	123	120	122	105	100	102	104	101	103	84	82	83
21	126	123	125	107	100	104	103	101	102	88	84	86
22	129	125	127	101	98	100	103	100	102	87	85	86
23	124	120	122	99	96	98	104	101	102	89	88	88
24	123	120	121	98	94	96	104	102	103	89	88	89
25	122	112	118	97	96	96	105	104	104	92	90	91
26	117	114	116	98	96	97	112	94	103	96	90	93
27	116	114	115	99	97	98	94	88	92	94	89	91
28	120	113	116	97	94	96	87	82	84	89	77	82
29	118	114	116	96	93	94	85	82	84	77	72	75
30	115	112	113	97	93	95	87	84	85	71	59	62
31	118	112	115	---	---	---	89	86	88	62	58	61
MONTH	129	112	119	123	93	108	112	82	99	97	58	84

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	65	62	64	101	98	99	107	101	104	106	100	103
2	72	61	67	99	99	99	103	100	102	105	96	101
3	71	68	70	100	98	100	102	99	101	101	97	99
4	70	64	67	100	98	99	103	99	100	99	95	97
5	67	62	65	104	100	102	103	99	101	102	97	100
6	70	65	66	101	98	99	102	98	100	104	101	102
7	74	70	72	101	98	99	103	98	100	102	101	101
8	76	73	74	102	100	101	101	98	100	103	99	101
9	79	74	77	102	99	101	101	99	100	105	99	102
10	81	77	79	102	99	101	107	100	102	108	100	103
11	81	79	80	105	102	103	104	100	102	105	101	103
12	84	80	81	105	102	103	104	101	102	104	100	102
13	85	82	84	107	101	104	107	101	103	102	98	100
14	87	84	85	103	99	101	109	102	105	103	98	100
15	90	85	87	100	97	99	116	102	105	103	100	101
16	93	90	92	97	94	96	109	103	105	102	99	101
17	92	89	90	97	95	96	111	103	106	100	98	99
18	89	87	88	98	94	96	109	103	106	100	98	99
19	92	87	89	101	95	98	113	102	107	100	96	98
20	91	87	89	104	97	100	111	106	108	105	98	100
21	93	88	90	101	99	100	111	104	107	104	99	102
22	95	93	94	101	98	99	108	106	107	106	101	103
23	92	90	92	103	98	100	111	106	108	110	101	105
24	93	91	92	105	99	102	108	106	107	111	105	107
25	97	91	93	105	101	103	109	106	107	109	104	105
26	99	92	95	109	101	104	108	102	103	106	104	105
27	101	94	96	107	101	104	101	100	100	111	106	108
28	98	94	96	106	102	104	102	99	101	113	108	110
29	100	96	98	105	101	103	105	99	101	114	108	111
30	---	---	---	105	101	102	105	99	102	113	110	112
31	---	---	---	105	102	104	---	---	---	117	112	114
MONTH	101	61	83	109	94	101	116	98	103	117	95	103
JUNE				JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	116	114	114	131	130	131	132	130	131	134	129	132
2	115	112	113	130	128	129	133	130	131	135	133	134
3	116	111	113	130	127	128	132	129	131	136	132	133
4	117	111	114	128	126	127	133	129	131	136	132	134
5	117	112	114	129	127	128	134	130	132	143	134	139
6	116	115	115	129	126	128	135	133	134	138	134	136
7	123	116	119	129	126	128	134	132	134	139	133	137
8	---	---	---	129	128	129	153	131	140	143	135	138
9	---	---	---	130	128	129	135	121	127	142	135	138
10	---	---	---	129	127	128	127	122	125	146	137	140
11	---	---	---	129	127	128	127	120	122	153	142	149
12	---	---	---	129	127	128	122	118	120	152	142	146
13	---	---	---	127	125	126	123	120	121	151	141	146
14	---	---	---	126	125	126	124	122	123	146	134	140
15	127	124	126	127	125	126	127	123	124	139	134	137
16	128	125	126	127	125	126	127	121	124	144	136	141
17	128	127	127	129	127	128	130	121	124	150	136	144
18	131	127	129	128	126	127	128	124	125	140	138	139
19	130	129	129	128	126	127	127	122	124	143	137	140
20	131	130	130	130	127	129	128	122	125	143	137	139
21	133	129	131	132	128	129	130	126	128	143	138	141
22	132	130	131	131	128	129	132	128	130	142	136	140
23	133	130	131	131	127	130	133	128	130	138	131	135
24	134	130	132	134	129	132	134	127	130	139	133	136
25	134	131	132	130	127	129	130	127	128	143	135	138
26	132	130	131	129	126	128	131	127	129	142	137	139
27	132	129	130	130	127	129	133	130	131	144	142	143
28	132	130	131	133	130	132	134	129	132	144	138	142
29	131	130	131	134	132	133	131	128	130	142	136	139
30	131	130	130	134	131	133	133	127	130	141	138	139
31	---	---	---	132	130	131	133	126	130	---	---	---
MONTH	---	---	---	134	125	129	153	118	128	153	129	139
YEAR	153	58	110									

01117350 CHIPUXET RIVER AT WEST KINGSTON, RI--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.5	16.0	17.5	11.0	8.0	9.5	9.0	6.0	7.5	2.5	1.0	2.0
2	18.0	17.0	17.5	12.5	10.0	11.0	7.0	5.0	6.0	2.0	0.5	1.5
3	17.0	14.0	15.5	14.0	10.5	12.0	6.5	4.5	5.5	2.5	1.5	2.0
4	17.5	13.5	15.5	14.5	12.0	13.0	5.5	3.5	4.5	2.5	1.0	2.0
5	17.0	13.5	15.5	14.0	11.0	12.5	5.5	3.0	4.0	1.5	0.5	1.0
6	17.5	15.5	16.5	12.5	10.0	11.5	7.0	5.0	6.0	2.5	0.5	1.5
7	16.5	14.0	15.5	13.5	10.0	12.0	6.0	3.5	4.5	2.5	1.5	2.0
8	16.0	12.5	14.5	14.0	12.5	13.5	3.5	3.0	3.5	2.0	1.5	2.0
9	15.5	14.0	14.5	15.0	12.0	13.5	5.0	3.0	4.0	1.5	0.5	1.0
10	15.0	12.0	13.5	14.5	13.5	14.0	6.0	4.5	5.5	1.5	0.5	1.0
11	15.0	14.0	14.5	14.5	11.5	13.0	5.5	4.0	4.5	1.5	0.5	1.0
12	15.0	14.0	14.5	13.0	9.5	11.5	4.0	3.5	4.0	1.5	0.5	1.0
13	16.0	13.0	14.5	12.5	12.0	12.0	4.0	3.5	3.5	2.0	0.5	1.0
14	17.0	14.5	15.5	12.0	10.5	11.5	6.0	4.0	5.0	3.0	1.5	2.5
15	18.0	14.5	16.0	11.0	9.0	10.0	7.0	4.5	5.5	2.0	1.0	1.5
16	18.0	15.5	16.5	10.5	8.5	9.5	6.0	4.0	5.5	2.0	1.0	1.5
17	15.5	14.0	15.0	10.5	8.5	9.5	4.5	3.0	4.0	2.0	1.0	1.5
18	15.0	13.5	14.5	11.0	8.5	9.5	5.0	2.0	4.0	1.5	0.0	0.5
19	13.5	13.0	13.0	10.5	7.5	9.0	3.5	1.5	2.5	2.0	0.0	1.0
20	14.0	13.0	13.0	11.0	8.0	9.5	2.5	0.5	1.5	2.0	1.0	1.5
21	15.5	12.5	13.5	11.5	8.5	10.0	1.5	0.0	1.0	3.0	1.5	2.0
22	16.5	13.0	14.5	10.5	8.0	9.5	1.5	0.0	0.5	2.0	0.5	1.5
23	16.0	13.0	14.0	9.0	7.0	8.0	2.0	0.0	0.5	1.0	0.0	0.5
24	16.0	12.5	14.0	7.5	5.5	6.5	1.0	0.0	0.5	1.0	0.5	1.0
25	15.0	13.5	14.5	7.5	6.0	6.5	1.0	0.0	0.5	2.5	1.0	1.5
26	15.0	13.5	14.5	7.5	6.0	7.0	2.0	1.0	1.5	2.5	1.5	2.0
27	14.0	12.5	13.5	8.5	6.5	7.5	1.5	0.5	1.0	4.0	2.5	3.5
28	15.0	11.5	13.0	8.0	6.0	7.0	1.5	0.5	0.5	4.0	1.5	3.0
29	15.5	12.5	14.0	7.0	5.5	6.0	1.5	0.0	0.5	2.5	1.5	2.0
30	13.5	10.5	12.5	7.5	5.5	7.0	2.0	0.5	1.0	3.0	1.5	2.0
31	11.5	9.0	10.0	---	---	---	2.5	1.5	2.0	3.0	1.0	2.0
MONTH	19.5	9.0	14.5	15.0	5.5	10.0	9.0	0.0	3.0	4.0	0.0	1.5
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.5	2.0	3.0	8.0	6.5	7.0	10.0	8.5	9.5	14.5	12.0	13.5
2	4.0	0.5	2.5	6.5	4.5	6.0	12.5	8.0	10.0	16.5	13.0	14.0
3	2.5	0.5	1.5	5.0	4.0	4.5	12.5	9.0	10.5	16.5	13.5	15.0
4	4.0	1.5	2.5	6.0	4.5	5.0	11.0	9.0	10.0	16.5	12.5	14.0
5	3.0	1.5	2.0	7.0	5.5	6.5	12.5	8.0	10.0	16.5	12.5	14.5
6	2.0	1.0	1.5	8.0	5.5	6.5	12.0	8.5	9.5	18.0	13.0	15.0
7	3.0	0.5	1.5	7.0	4.5	5.5	12.0	8.5	10.0	15.5	14.5	15.0
8	3.5	1.5	2.5	7.5	4.5	5.5	10.5	8.0	9.0	18.0	13.5	15.5
9	3.5	1.5	2.5	4.5	2.5	4.0	9.0	7.5	8.0	18.0	13.0	15.0
10	4.0	1.5	2.5	4.5	2.5	3.5	11.5	6.5	9.0	19.0	13.5	16.0
11	4.0	2.5	3.0	6.5	4.0	4.5	10.0	7.5	9.0	18.5	15.0	16.5
12	4.0	2.0	3.0	6.5	3.0	4.5	10.5	6.5	8.0	19.0	15.0	16.5
13	4.5	3.0	3.5	5.5	4.0	5.0	11.5	6.5	8.5	19.0	14.5	16.5
14	5.0	2.5	3.5	7.5	3.5	5.0	13.0	7.5	10.0	17.0	15.5	16.0
15	4.0	2.0	3.5	7.5	4.0	5.5	13.5	9.0	11.0	19.0	16.0	17.5
16	6.5	4.0	5.0	5.0	3.5	4.5	14.0	10.5	11.5	19.5	17.0	18.0
17	6.5	4.5	5.0	5.0	2.5	3.5	18.0	11.5	14.0	19.0	17.0	17.5
18	5.0	4.5	4.5	5.5	2.0	3.5	18.0	14.0	16.0	19.0	17.5	18.0
19	7.5	4.5	5.5	7.5	3.0	5.0	19.5	15.5	17.5	17.5	15.0	16.5
20	7.0	4.5	5.5	8.5	5.0	6.5	20.0	15.5	17.5	16.5	14.5	15.5
21	6.0	3.5	5.0	7.5	6.0	6.5	20.0	16.5	18.0	18.0	14.5	16.0
22	7.0	5.5	6.0	8.5	5.0	6.5	17.5	16.0	16.5	18.0	15.0	16.5
23	6.5	4.0	5.0	8.5	4.5	6.0	20.0	16.0	17.5	19.5	14.5	16.5
24	6.0	3.0	4.5	9.5	5.0	7.0	16.5	14.5	15.5	18.0	15.0	16.5
25	7.5	4.5	5.5	9.0	6.5	7.5	14.5	12.5	14.0	16.5	15.0	16.0
26	7.0	5.0	6.0	11.5	6.5	8.5	13.0	11.5	12.0	16.0	14.0	15.0
27	8.5	5.5	6.5	11.5	7.5	9.5	14.0	10.5	12.0	18.5	14.0	16.0
28	8.0	5.5	6.5	12.0	9.0	10.0	14.0	11.0	12.5	21.0	15.0	18.0
29	8.0	4.5	6.0	12.5	8.0	10.0	14.5	11.5	13.0	21.0	16.0	18.5
30	---	---	---	11.0	8.5	9.5	16.0	11.0	13.5	19.5	17.5	18.5
31	---	---	---	10.5	8.5	9.5	---	---	---	23.5	18.0	20.0
MONTH	8.5	0.5	4.0	12.5	2.0	6.0	20.0	6.5	12.0	23.5	12.0	16.0

PAWCATUCK RIVER BASIN

01117420 USQUEPAUG RIVER NEAR USQUEPAUG, RI

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 (1.9 km) upstream from Chickasheen Brook, 1.8 mi (2.9 km) south of Usquepaug, and 2.6 mi (4.2 km) west of West Kingston.

DRAINAGE AREA.--36.1 mi² (93.5 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1958 to July 1960 in Rhode Island Water Resources Board Geologic Bulletin 13. December 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 95 ft (29 m), from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD (SINCE 1974).--Maximum discharge, 353 ft³/s (10.0 m³/s) Jan. 29, 1976, gage height, 6.84 ft (2.085 m); minimum daily, 7.0 ft³/s (0.20 m³/s) Sept. 9-11, 1975.
Instantaneous maximum and minimum discharges not available prior to Dec. 5, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 353 ft³/s (10.0 m³/s) Jan. 29, gage height, 6.84 ft (2.085 m); minimum, 8.4 ft³/s (0.24 m³/s) July 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	37	124	173	196	100	93	57	45	33	18	14
2	28	35	116	161	240	98	127	102	56	34	16	14
3	26	33	109	144	283	96	139	131	61	28	15	16
4	23	32	100	143	255	96	121	117	53	22	14	15
5	21	31	92	137	220	100	104	84	47	21	14	15
6	20	29	88	120	193	107	92	71	44	20	13	14
7	19	28	87	107	180	105	85	67	42	17	13	14
8	18	31	82	157	167	93	82	66	41	17	25	13
9	17	39	78	215	157	85	80	63	39	19	110	13
10	17	37	100	188	148	84	78	59	35	17	149	13
11	16	44	122	151	143	84	77	55	34	16	138	19
12	24	44	123	128	143	89	75	66	32	18	87	17
13	43	107	106	123	136	115	70	82	30	18	44	15
14	43	208	91	181	130	189	69	70	30	16	33	13
15	33	211	85	236	123	181	68	62	30	15	29	13
16	28	164	82	206	121	152	66	57	29	14	29	13
17	24	127	78	183	125	156	68	75	28	15	27	14
18	38	105	79	165	128	156	64	89	28	17	24	16
19	72	89	79	140	129	139	62	81	33	15	21	15
20	65	80	70	121	128	133	59	77	35	14	19	14
21	51	80	71	110	120	129	57	70	35	14	18	13
22	42	114	74	110	118	121	54	69	34	12	17	13
23	35	138	74	119	156	112	56	64	31	9.8	16	12
24	32	130	67	113	161	103	54	58	26	14	15	12
25	39	121	62	106	139	98	56	56	24	15	14	12
26	82	116	91	103	124	95	80	53	23	13	14	11
27	78	113	231	136	114	91	82	53	27	14	16	13
28	56	145	275	277	106	98	70	50	25	14	20	15
29	45	163	229	347	100	111	64	47	23	14	20	15
30	41	143	178	302	---	107	58	46	23	16	18	13
31	41	---	163	233	---	94	---	46	---	17	16	---
TOTAL	1145	2774	3406	5135	4483	3517	2310	2143	1043	538.8	1022	419
MEAN	36.9	92.5	110	166	155	113	77.0	69.1	34.8	17.4	33.0	14.0
MAX	82	211	275	347	283	189	139	131	61	34	149	19
MIN	16	28	62	103	100	84	54	46	23	9.8	13	11
CFSM	1.02	2.56	3.05	4.60	4.29	3.13	2.13	1.91	.96	.48	.91	.39
IN.	1.18	2.86	3.51	5.29	4.62	3.62	2.38	2.21	1.07	.56	1.05	.43

CAL YR 1975 TOTAL 27896.6 MEAN 76.4 MAX 275 MIN 7.0 CFSM 2.12 IN 28.75
WTR YR 1976 TOTAL 27935.8 MEAN 76.3 MAX 347 MIN 9.8 CFSM 2.11 IN 28.79

01117420 USQUEPAUG RIVER NEAR USQUEPAUG, RI--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1974 to current year.

WATER TEMPERATURE: December 1974 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1974.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 121 micromhos Oct. 4, 1975; minimum, 27 micromhos Oct. 19, 1975.

WATER TEMPERATURE: Maximum, 27.0°C Aug. 3, 1975; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 121 micromhos Oct. 4, minimum, 27 micromhos Oct. 19.

WATER TEMPERATURE: Maximum, 23.5°C June 24-26; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	105	96	100	50	48	49	55	53	54	56	54	55
2	113	106	110	52	50	51	56	52	54	58	55	56
3	117	112	114	55	52	54	55	53	54	59	57	57
4	121	117	119	58	56	57	55	53	54	59	56	58
5	---	---	---	59	58	58	57	55	55	60	57	59
6	---	---	---	60	57	59	56	56	56	63	60	61
7	---	---	---	61	58	59	59	56	57	64	62	63
8	---	---	---	60	58	59	59	59	59	63	54	58
9	---	---	---	60	58	59	60	57	59	56	54	55
10	65	59	61	59	58	59	58	56	57	58	55	57
11	60	57	58	60	55	58	57	55	56	61	58	60
12	61	34	46	57	55	56	58	55	56	61	61	61
13	38	28	32	58	42	50	58	57	58	62	59	61
14	34	29	31	41	38	39	59	58	59	64	56	60
15	40	33	36	40	38	39	61	60	60	62	59	61
16	43	39	41	43	41	42	62	60	61	62	58	61
17	49	44	47	46	43	45	63	61	62	61	56	59
18	57	38	44	50	46	48	62	60	62	62	60	61
19	50	27	31	52	49	51	62	60	62	64	61	63
20	29	28	29	58	52	55	63	62	63	64	63	64
21	33	30	31	60	58	59	63	62	63	64	62	64
22	37	33	35	59	53	56	63	62	62	63	63	63
23	40	36	38	55	50	52	62	60	61	64	62	64
24	44	40	42	53	50	51	63	61	63	66	64	65
25	47	41	45	52	51	52	66	63	65	65	62	64
26	41	37	39	54	51	52	67	57	63	64	61	63
27	41	38	39	55	53	54	56	45	51	63	62	62
28	62	41	49	55	51	52	52	44	48	62	52	58
29	47	45	46	51	49	51	54	51	52	53	52	53
30	47	46	46	53	50	51	56	54	55	54	49	53
31	48	46	47	---	---	---	55	54	55	55	53	54
MONTH	121	27	52	61	38	53	67	44	58	66	49	60

01117420 USQUEPAUG RIVER NEAR USQUEPAUG, RI--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	56	54	55	59	59	59	63	60	62	65	63	64
2	55	51	53	62	59	62	61	56	58	63	58	61
3	53	48	51	62	60	61	58	56	57	59	57	58
4	57	53	55	62	58	60	60	58	59	59	56	57
5	56	55	56	60	59	59	62	60	61	60	58	59
6	56	55	56	61	59	59	63	61	62	61	59	60
7	58	55	57	63	59	61	64	62	63	62	60	61
8	59	55	58	62	60	61	64	62	63	62	60	61
9	58	55	57	63	61	62	64	62	64	63	61	62
10	58	56	57	62	61	62	65	62	63	64	61	62
11	59	56	57	63	59	61	64	61	63	64	61	63
12	58	56	57	62	59	61	65	61	63	63	60	62
13	59	56	57	62	54	58	65	62	64	61	58	59
14	58	56	57	56	53	54	66	64	65	60	58	59
15	59	56	57	58	55	56	67	65	66	63	60	62
16	59	58	58	58	57	58	67	65	66	64	62	63
17	59	58	58	57	54	56	70	66	68	63	59	63
18	59	57	58	57	54	55	72	67	70	58	57	58
19	59	57	58	58	55	57	72	69	71	57	56	56
20	60	57	58	58	56	57	72	69	70	56	55	56
21	59	58	58	59	57	58	72	69	70	58	55	56
22	59	57	59	61	58	59	72	71	71	59	56	57
23	58	54	56	62	59	60	71	67	70	59	56	58
24	57	55	56	62	58	61	69	68	68	60	57	59
25	58	56	57	63	59	62	69	66	68	59	58	59
26	59	57	58	64	61	63	67	62	64	59	58	59
27	61	58	59	65	62	64	63	61	62	59	57	58
28	62	59	61	63	60	62	63	61	62	61	57	59
29	62	60	61	62	60	61	64	62	63	61	58	60
30	---	---	---	64	61	62	65	62	64	60	59	60
31	---	---	---	64	62	63	---	---	---	60	58	59
MONTH	62	48	57	65	53	60	72	56	65	65	55	60
JUNE				JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	60	58	59	88	77	82	98	96	97	96	94	95
2	57	55	56	78	76	77	97	95	96	96	95	96
3	56	53	54	76	74	75	96	94	95	96	94	95
4	57	53	55	75	74	75	96	94	95	96	94	95
5	58	55	56	78	75	76	97	95	96	96	95	96
6	57	55	56	82	78	80	97	95	96	97	95	96
7	59	56	57	83	82	82	97	96	97	96	95	96
8	64	58	61	---	---	---	97	88	95	97	95	96
9	74	64	69	---	---	---	88	78	81	97	96	96
10	79	73	76	---	---	---	81	79	81	97	96	96
11	84	79	82	---	---	---	86	80	82	97	96	96
12	86	83	85	---	---	---	89	85	87	97	95	96
13	85	84	85	---	---	---	90	87	89	97	95	96
14	86	85	86	---	---	---	90	88	89	98	96	97
15	87	83	85	---	---	---	90	89	89	98	97	97
16	83	80	81	---	---	---	91	89	90	98	97	97
17	81	79	79	---	---	---	92	89	90	99	97	99
18	81	79	80	---	---	---	92	90	91	100	97	98
19	80	74	77	---	---	---	93	91	92	98	96	97
20	75	73	74	---	---	---	94	91	92	99	97	98
21	75	73	74	---	---	---	97	93	95	99	93	96
22	75	70	72	95	93	94	99	96	98	96	94	95
23	71	68	69	94	92	93	101	98	100	96	94	95
24	74	70	72	96	94	95	103	101	102	97	95	96
25	78	74	76	97	95	96	103	101	102	97	94	96
26	82	79	80	96	95	96	103	101	102	96	94	95
27	85	83	84	96	92	94	103	102	103	98	91	94
28	86	85	85	94	91	93	102	99	101	98	96	97
29	87	86	87	94	93	94	100	97	98	97	96	97
30	88	87	88	97	94	95	97	95	96	98	96	97
31	---	---	---	98	96	97	96	95	95	---	---	---
MONTH	88	53	73	---	---	---	103	78	94	100	91	96
YEAR	121	27	67									

01117420 USQUEPPAUG RIVER NEAR USQUEPPAUG, RI--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.5	14.0	14.0	8.5	7.0	8.0	8.0	6.0	7.0	2.5	1.5	2.0
2	16.0	14.5	15.5	9.0	8.0	8.5	6.5	4.5	5.5	1.5	0.5	1.0
3	15.5	13.5	14.0	10.5	8.0	9.5	4.0	2.5	3.5	2.0	1.0	1.5
4	14.0	12.5	13.0	12.5	10.5	11.5	2.5	1.5	2.0	2.5	1.0	2.0
5	---	---	---	12.5	11.5	12.0	2.5	1.5	2.0	1.0	0.5	0.5
6	---	---	---	12.0	10.5	11.5	5.0	2.0	3.5	0.5	0.0	0.0
7	---	---	---	12.5	10.5	11.5	5.0	3.5	4.5	1.0	0.5	0.5
8	---	---	---	12.5	11.5	12.0	3.5	2.0	3.0	0.5	0.5	0.5
9	---	---	---	13.5	12.0	13.0	3.5	2.0	2.5	0.5	0.5	0.5
10	---	---	---	14.0	13.0	13.5	5.5	3.5	5.0	0.5	0.5	0.5
11	13.0	12.0	12.5	14.0	12.5	13.0	5.5	4.5	5.0	0.5	0.0	0.0
12	13.0	12.5	12.5	12.0	11.0	11.5	4.5	3.5	4.0	0.5	0.0	0.0
13	13.0	11.5	12.5	11.5	10.5	11.0	3.5	3.0	3.5	0.0	0.0	0.0
14	14.5	12.5	13.5	11.0	9.5	10.5	5.5	3.5	4.5	0.0	0.0	0.0
15	15.0	13.0	14.0	9.0	7.0	8.0	7.0	5.5	6.0	0.0	0.0	0.0
16	16.0	14.0	15.0	7.0	6.0	6.5	7.0	6.0	7.0	0.0	0.0	0.0
17	15.0	13.5	14.0	7.0	5.5	6.5	6.0	4.5	5.0	0.5	0.0	0.0
18	14.0	13.5	14.0	8.0	6.5	7.0	4.0	2.5	3.5	0.0	0.0	0.0
19	13.0	12.0	12.5	8.0	6.5	7.5	2.0	1.0	2.0	0.0	0.0	0.0
20	12.0	12.0	12.0	8.0	7.0	7.5	0.5	0.0	0.5	0.0	0.0	0.0
21	12.5	11.5	12.0	10.0	7.5	8.5	0.5	0.0	0.0	0.5	0.0	0.0
22	13.5	12.0	12.5	10.0	8.5	9.5	0.5	0.0	0.0	0.5	0.0	0.0
23	13.5	12.0	13.0	8.0	5.5	7.0	0.5	0.0	0.5	0.0	0.0	0.0
24	13.5	12.0	13.0	5.5	4.0	5.0	0.5	0.0	0.0	0.0	0.0	0.0
25	14.0	12.5	13.5	4.5	3.5	4.0	0.5	0.0	0.0	0.0	0.0	0.0
26	14.0	13.5	13.5	5.0	4.0	4.5	1.0	0.0	0.5	0.5	0.0	0.0
27	13.5	12.5	13.0	6.5	4.5	5.5	0.5	0.0	0.0	2.0	0.5	1.0
28	12.5	11.0	11.5	7.0	6.0	6.5	0.5	0.0	0.5	3.0	2.0	2.5
29	12.5	10.5	11.5	5.5	4.0	5.0	0.5	0.0	0.0	2.0	1.0	1.5
30	12.0	10.0	11.0	6.0	4.0	5.0	1.0	0.0	0.5	1.0	0.5	1.0
31	9.5	8.0	9.0	---	---	---	2.5	1.0	1.5	1.0	0.0	0.5
MONTH	16.0	8.0	13.0	14.0	3.5	8.5	8.0	0.0	2.5	3.0	0.0	0.5

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.5	0.5	1.5	7.0	6.0	6.5	9.0	8.5	8.5	13.0	11.5	12.5
2	3.5	0.5	2.5	6.5	4.5	6.0	10.5	7.5	9.0	14.0	12.0	13.0
3	0.0	0.0	0.0	4.5	2.5	3.5	11.5	9.0	10.0	16.0	13.5	14.5
4	0.5	0.0	0.0	3.5	2.5	3.0	10.0	8.5	9.5	14.5	12.5	13.5
5	0.5	0.0	0.0	6.0	3.5	4.5	10.0	7.0	8.5	14.0	11.0	12.5
6	0.0	0.0	0.0	7.5	6.0	6.5	10.5	8.0	8.5	15.5	12.0	13.5
7	0.0	0.0	0.0	6.0	4.5	5.5	10.5	8.5	9.5	15.5	14.5	15.0
8	0.0	0.0	0.0	5.0	3.5	4.5	9.5	8.0	8.5	15.5	13.5	14.5
9	0.5	0.0	0.0	4.0	1.5	3.0	8.0	7.0	7.5	15.5	13.0	14.0
10	1.0	0.0	0.5	2.0	1.0	1.5	8.5	6.5	7.5	15.5	13.0	14.0
11	2.0	1.0	1.5	4.0	2.0	3.0	9.0	7.5	8.5	16.0	14.0	15.0
12	2.5	1.5	2.0	4.0	3.0	3.5	8.5	6.0	7.0	16.5	15.0	15.5
13	3.5	2.0	3.0	5.0	3.5	4.0	9.0	6.0	7.5	16.0	14.0	15.0
14	4.0	2.5	3.5	5.5	3.0	4.5	11.0	7.5	9.0	15.0	14.5	14.5
15	3.0	2.0	2.5	6.5	4.0	5.0	12.5	9.5	11.0	16.5	14.5	15.5
16	5.0	2.5	4.0	5.0	3.0	4.0	13.5	11.0	12.0	16.5	16.0	16.0
17	6.5	5.0	6.0	3.0	1.0	2.0	17.0	13.0	14.5	16.5	15.5	16.0
18	5.5	5.0	5.5	2.5	0.5	1.5	18.5	15.0	16.5	16.0	15.5	16.0
19	6.5	4.5	5.5	5.0	1.5	3.5	19.5	16.5	18.0	16.0	14.0	15.0
20	6.5	5.0	6.0	8.5	5.0	7.0	20.0	17.0	18.0	13.5	13.0	13.0
21	5.0	4.0	4.5	8.5	7.5	8.0	19.0	17.0	17.5	14.5	12.0	13.5
22	7.0	4.5	6.0	8.0	6.5	7.5	17.0	15.5	16.0	14.5	13.5	14.0
23	6.0	3.5	5.0	7.0	5.0	6.0	17.0	15.0	16.0	15.0	13.0	14.0
24	4.0	2.0	3.0	7.5	5.0	6.5	16.0	14.0	15.0	15.5	13.5	14.5
25	5.5	3.0	4.0	8.5	6.5	7.5	13.5	11.0	12.5	14.0	13.0	13.5
26	6.5	4.5	5.5	10.5	7.5	9.0	11.0	9.5	10.0	13.0	12.0	12.5
27	8.0	5.5	6.5	10.5	8.5	9.5	10.0	8.5	9.5	14.5	12.0	13.0
28	7.5	6.0	6.5	11.5	10.0	10.5	11.0	9.0	10.0	16.5	13.0	14.5
29	6.5	5.0	6.0	11.0	9.0	10.0	12.0	10.0	11.0	17.0	14.5	16.0
30	---	---	---	9.5	8.5	9.0	13.0	10.0	11.5	17.5	16.5	17.0
31	---	---	---	9.0	8.0	8.5	---	---	---	17.5	16.0	17.0
MONTH	8.0	0.0	3.0	11.5	0.5	5.5	20.0	6.0	11.5	17.5	11.0	14.5

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

[illegible]

01117468 BEAVER RIVER NEAR USQUEPAUG, RI

LOCATION.--Lat 41°29'33", long 71°37'43", Washington County, Hydrologic Unit 01090005, on right bank 10 ft (3 m) downstream from Beaver River Bridge on State Highway 138 in Richmond, 1.2 mi (1.9 km) southwest of Usquepaug, 3.3 mi (5.3 km) north of Kenyon, and 3.6 mi (5.8 km) upstream from mouth.

DRAINAGE AREA.--8.87 mi² (23.0 km²).

PERIOD OF RECORD.--Discharge: December 1974 to September 1975.

GAGE.--Water-stage recorder. Datum of gage is 107.68 ft (32.821 m) above mean sea level.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 116 ft³/s (3.29 m³/s) Jan. 28, 1976, gage height, 2.89 ft (0.881 m), from rating curve extended above 47 ft³/s (1.33 m³/s); minimum, 2.1 ft³/s (0.059 m³/s) Sept. 6-12, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 65 ft³/s (1.84 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Dec. 27	0645	98 2.78	2.77 0.844	Jan. 28	1815	*116 3.29	*2.89 0.881
Jan. 15	0015	68 1.93	2.54 0.774	Feb. 2	1900	99 2.80	2.78 0.847

Minimum discharge, 2.4 ft³/s (0.068 m³/s) Sept. 22-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	11	34	49	51	28	29	19	14	9.9	4.7	3.4
2	6.5	11	34	41	84	28	37	41	17	7.6	4.6	3.1
3	6.5	11	32	38	79	28	31	35	17	6.4	3.9	3.1
4	6.0	10	30	42	65	28	27	26	14	5.6	3.5	3.1
5	5.8	10	28	35	56	30	25	22	14	5.6	3.2	3.1
6	5.4	9.6	28	32	50	31	25	21	13	5.6	3.0	3.1
7	5.1	9.6	27	33	47	28	25	20	13	5.3	3.0	3.1
8	5.1	10	26	56	45	26	24	20	12	4.9	17	3.1
9	5.1	11	25	50	43	25	24	20	11	5.3	33	3.1
10	5.1	11	41	39	41	25	24	20	10	4.9	32	3.2
11	5.1	12	40	34	40	26	23	19	10	4.6	19	4.3
12	7.2	12	32	34	39	28	22	25	9.4	4.9	11	4.0
13	10	44	27	34	37	45	22	27	8.9	4.9	8.5	3.2
14	10	57	26	58	36	51	22	23	8.5	4.6	7.0	2.9
15	8.6	45	25	55	32	38	22	21	8.5	4.3	6.7	2.6
16	7.4	33	25	43	34	35	21	20	8.5	4.0	6.9	2.6
17	6.9	29	24	43	35	44	21	28	8.0	4.3	6.4	2.6
18	11	28	24	37	36	37	21	27	8.0	4.6	5.3	2.6
19	17	27	24	33	36	35	20	24	8.0	4.0	4.6	2.6
20	14	26	20	32	36	35	20	24	8.0	3.7	4.3	2.6
21	12	27	20	32	33	34	19	22	8.0	3.4	4.0	2.6
22	10	46	21	33	38	32	19	22	7.6	3.4	3.7	2.6
23	9.2	40	21	29	49	30	19	20	7.6	3.4	3.7	2.4
24	8.5	33	20	31	39	29	19	19	7.2	4.9	3.4	2.4
25	12	34	18	30	34	27	19	18	6.8	4.9	3.1	2.4
26	22	33	38	29	33	27	26	18	6.4	3.7	2.9	2.4
27	19	35	91	47	32	27	24	18	5.6	3.1	3.7	2.4
28	14	48	66	98	30	30	22	17	5.6	3.1	4.3	2.6
29	12	42	49	89	29	30	20	16	5.6	3.0	4.6	2.6
30	12	36	41	70	---	27	19	15	5.6	3.6	4.0	2.6
31	12	---	48	58	---	26	---	15	---	4.7	3.7	---
TOTAL	297.3	791.2	1005	1364	1239	970	691	682	286.8	146.2	228.7	86.4
MEAN	9.59	26.4	32.4	44.0	42.7	31.3	23.0	22.0	9.56	4.72	7.38	2.88
MAX	22	57	91	98	84	51	37	41	17	9.9	33	4.3
MIN	5.1	9.6	18	29	29	25	19	15	5.6	3.0	2.9	2.4
CFSM	1.08	2.98	3.65	4.96	4.81	3.53	2.59	2.48	1.08	.53	.83	.32
IN.	1.25	3.32	4.21	5.72	5.20	4.07	2.90	2.86	1.20	.61	.96	.36
CAL YR 1975	TOTAL	7927.6	MEAN 21.7	MAX 91	MIN 2.1	CFSM 2.45	IN 33.24					
WTR YR 1976	TOTAL	7787.6	MEAN 21.3	MAX 98	MIN 2.4	CFSM 2.40	IN 32.66					

PAWCATUCK RIVER BASIN

01117472 BEAVER RIVER AT KENYON, RI

LOCATION.--Lat 41°27'08", long 71°37'43", Washington County, Hydrologic Unit 01090005, on left bank 0.3 mi (0.5 km) upstream from mouth and 0.4 mi (0.6 km) north of Kenyon.
DRAINAGE AREA.--11.7 mi² (30.3 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 85 ft (26 m), from topographic map.

REMARKS.--Records poor. Flow may be affected at times by irrigation upstream.

EXTREMES FOR CURRENT PERIOD.--August to September 1975: Maximum discharge during period, 30 ft³/s (0.85 m³/s)Sept. 24, gage height, 2.15 ft (0.655 m); minimum, 1.8 ft³/s (0.051 m³/s) Sept. 10.Water year 1976: Maximum discharge, 128 ft³/s (3.62 m³/s) Jan. 29, gage height, 3.06 ft (0.933 m), from rating curve extended above 45 ft³/s (1.27 m³/s); minimum, 2.9 ft³/s (0.082 m³/s) Sept. 9, 10.DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1975
MEAN VALUES

DAY	AUG	SEP	DAY	AUG	SEP	DAY	AUG	SEP	
1	---	6.0	11	11	2.9	21	4.9	6.8	
2	---	5.3	12	9.6	3.4	22	5.3	4.1	
3	---	4.9	13	9.3	12	23	4.7	12	
4	---	4.3	14	9.0	9.9	24	4.3	26	
5	---	3.4	15	7.6	8.7	25	5.8	29	
6	---	2.8	16	6.3	8.1	26	5.8	25	
7	---	3.2	17	6.8	7.0	27	5.6	18	
8	---	3.4	18	6.0	5.1	28	5.1	17	
9	---	3.4	19	5.3	4.5	29	3.6	15	
10	---	2.8	20	4.9	5.6	30	5.8	11	
						31	8.7	---	
							TOTAL	---	274.6
							MFAN	---	9.15
							MAX	---	29
							MIN	---	2.8
							CFSM	---	.78
							IN.	---	.87

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	13	37	53	63	33	35	21	17	14	7.8	5.1
2	8.1	13	37	48	87	33	35	29	19	14	7.4	5.1
3	7.8	13	35	43	102	33	33	34	20	12	6.8	6.5
4	6.0	12	34	45	82	33	31	30	19	9.6	6.2	5.8
5	5.8	12	32	43	69	33	31	25	17	9.0	5.5	5.1
6	5.6	11	32	38	60	34	30	23	17	8.4	4.9	4.7
7	5.3	11	32	37	55	33	29	23	16	7.8	4.6	3.9
8	5.3	11	30	59	52	32	29	23	16	7.2	20	3.6
9	5.3	12	30	62	50	30	28	23	15	7.8	45	3.1
10	4.7	12	34	49	47	30	28	22	15	7.4	45	3.4
11	4.5	13	40	41	45	30	27	22	14	6.8	35	7.8
12	6.5	13	37	40	45	32	26	23	14	6.8	20	6.8
13	10	36	32	39	42	39	26	28	13	7.3	13	5.3
14	11	57	30	64	42	51	26	25	13	6.9	10	4.5
15	9.0	51	30	68	40	45	26	23	13	6.3	10	3.9
16	7.6	40	30	57	38	40	26	22	12	5.8	11	3.9
17	6.8	35	29	54	40	42	26	24	12	6.2	9.5	4.1
18	11	33	28	48	40	39	25	27	12	6.6	8.2	4.3
19	18	32	28	40	40	37	24	26	12	6.2	8.1	4.3
20	17	30	26	40	40	37	24	26	12	5.6	7.8	4.3
21	14	30	26	40	38	36	24	24	12	5.3	6.5	4.3
22	12	39	26	38	38	35	25	23	12	6.5	6.0	4.3
23	11	43	26	37	46	34	25	22	12	6.2	5.6	4.3
24	9.9	38	24	37	44	33	24	21	12	9.6	4.9	4.7
25	12	38	22	37	39	32	23	20	11	9.0	4.5	4.7
26	20	37	30	37	37	31	26	20	11	7.6	4.1	4.7
27	21	35	80	49	36	31	26	20	10	6.5	6.3	4.9
28	18	43	83	98	35	34	24	19	9.4	5.6	9.9	5.1
29	15	45	62	123	33	34	23	19	8.8	4.7	9.6	4.9
30	14	40	48	99	---	32	22	18	8.1	6.3	7.8	4.7
31	14	---	50	78	---	30	---	18	---	8.0	6.3	---
TOTAL	323.8	848	1120	1641	1425	1078	807	723	404.3	237.0	357.3	142.1
MEAN	10.4	28.3	36.1	52.9	49.1	34.8	26.9	23.3	13.5	7.65	11.5	4.74
MAX	21	57	83	123	102	51	35	34	20	14	45	7.8
MIN	4.5	11	22	37	33	30	22	18	8.1	4.7	4.1	3.1
CFSM	.89	2.42	3.09	4.52	4.20	2.97	2.30	1.99	1.15	.65	.98	.41
IN.	1.03	2.70	3.56	5.22	4.53	3.43	2.57	2.30	1.29	.75	1.14	.45

WTR YR 1976 TOTAL 9106.5 MEAN 24.9 MAX 123 MIN 3.1 CFSM 2.13 IN 28.95

01117472 BEAVER RIVER AT KENYON, RI--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October, 1975 to September 1976.

WATER TEMPERATURE: October 1975 to September 1976.

INSTRUMENTATION.--Water-quality manometer since October 1975.

REMARKS.--Interruptions in the record during August and September were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 105 micromhos May 21, Aug. 8, 1976; minimum, 43 micromhos Dec. 27, 1975.

WATER TEMPERATURE.--Maximum, 21.5°C Aug. 14, 1976; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), OCTOBER 1975 TO AUGUST 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	78	76	77	70	68	69	61	59	60	56	54	55
2	79	76	78	71	70	71	60	55	59	59	56	58
3	76	74	75	72	71	71	60	58	59	62	59	61
4	76	74	76	73	72	72	60	59	59	62	58	59
5	77	76	77	73	72	72	62	59	60	63	58	60
6	78	76	77	72	72	72	62	61	62	66	63	64
7	75	74	74	73	72	72	63	61	62	66	61	65
8	74	73	74	74	70	73	63	61	62	60	49	52
9	77	73	74	69	67	68	65	63	64	57	49	52
10	79	77	78	71	68	69	66	59	62	62	57	60
11	78	77	78	71	65	68	60	56	58	63	62	63
12	81	73	78	66	65	66	61	60	61	63	62	63
13	75	68	71	67	46	54	63	62	62	64	61	63
14	73	69	71	47	45	46	64	63	64	77	56	65
15	76	73	75	53	48	51	64	63	64	59	55	56
16	77	76	77	55	53	54	65	64	65	62	60	61
17	77	76	77	57	55	56	65	63	64	65	61	63
18	79	72	76	58	57	57	67	63	65	65	61	63
19	73	67	68	59	58	58	64	62	63	68	65	67
20	70	67	69	60	59	59	68	64	66	68	66	67
21	72	69	71	61	57	60	66	64	65	67	66	66
22	73	71	72	60	51	55	64	63	64	67	65	66
23	73	73	73	55	50	52	65	63	64	69	65	67
24	74	73	74	56	55	56	68	64	66	67	65	66
25	74	67	72	56	55	56	71	66	69	65	63	64
26	66	59	60	57	55	56	67	53	62	71	63	64
27	65	59	62	60	57	58	53	43	46	78	58	68
28	68	65	67	59	52	54	53	44	48	57	46	49
29	69	68	69	57	53	54	56	53	55	50	46	47
30	69	69	69	59	57	58	58	56	58	54	49	52
31	69	68	68	---	---	---	59	55	57	56	52	54
MONTH	81	59	73	74	45	61	71	43	61	78	46	61

01117472 BEAVER RIVER AT KENYON, RI--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), OCTOBER 1975 TO AUGUST 1976--Continued

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	56	55	55	64	63	63	67	64	66	65	64	65
2	65	50	55	64	63	64	63	54	60	105	56	64
3	68	47	57	64	63	63	62	59	61	58	53	55
4	69	49	58	66	63	65	63	62	62	60	58	59
5	69	57	64	66	63	65	64	63	63	62	60	61
6	71	59	65	63	61	63	65	63	64	63	62	63
7	69	54	60	65	62	63	65	64	64	64	63	63
8	69	55	60	65	65	65	65	64	64	64	62	63
9	68	59	61	65	64	65	65	64	65	63	63	63
10	---	---	---	65	63	65	65	64	65	64	63	64
11	---	---	---	67	65	66	65	64	65	64	63	64
12	---	---	---	65	63	64	65	64	65	65	58	64
13	---	---	---	68	57	64	65	64	65	58	57	57
14	---	---	---	57	52	54	66	65	66	62	59	61
15	---	---	---	59	56	58	66	65	66	64	63	63
16	---	---	---	---	---	---	67	66	66	69	64	64
17	61	60	61	---	---	---	67	66	67	66	56	61
18	61	60	60	---	---	---	68	66	67	60	56	58
19	61	59	60	63	61	62	68	67	67	61	60	61
20	60	59	60	62	62	62	68	67	67	61	60	61
21	61	58	59	63	62	62	67	67	67	64	62	63
22	63	61	62	64	62	62	67	67	67	64	63	64
23	61	53	55	64	61	63	68	67	67	65	64	65
24	59	53	56	64	63	64	67	66	66	69	65	66
25	60	59	60	65	64	64	74	66	67	67	66	67
26	61	60	61	65	64	65	66	60	63	68	67	67
27	62	61	62	65	65	65	62	60	61	69	67	68
28	62	59	61	68	63	65	63	62	63	70	68	69
29	63	60	61	64	62	63	64	63	63	71	70	70
30	---	---	---	64	63	64	65	64	64	71	70	71
31	---	---	---	66	63	65	---	---	---	72	71	72
MONTH	---	---	---	68	52	63	74	54	65	105	53	64

DAY	JUNE			JULY			AUGUST		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	73	72	73	96	85	91	87	81	84
2	74	68	72	89	84	87	89	87	88
3	70	68	69	90	86	88	90	88	89
4	73	70	72	92	90	91	91	89	90
5	74	73	74	91	88	90	92	91	91
6	75	74	75	91	88	89	93	90	92
7	76	75	76	90	88	89	92	90	91
8	78	76	77	89	88	88	105	88	96
9	79	76	78	90	88	89	99	76	82
10	81	78	79	90	88	88	85	77	83
11	82	79	81	89	87	89	90	85	88
12	83	80	81	91	87	88	91	89	90
13	82	81	82	89	86	87	92	89	90
14	83	81	82	91	87	88	90	89	89
15	83	81	82	90	87	88	92	88	90
16	84	82	83	88	86	88	89	85	88
17	84	82	83	88	85	87	88	85	86
18	83	82	82	83	81	83	91	86	89
19	84	82	83	85	82	84	94	90	92
20	82	81	81	87	85	86	95	90	92
21	82	80	81	90	87	88	95	91	93
22	82	80	81	90	87	88	---	---	---
23	83	80	81	88	77	86	---	---	---
24	83	80	82	91	82	89	---	---	---
25	---	---	---	88	81	83	---	---	---
26	---	---	---	90	86	88	---	---	---
27	---	---	---	97	87	91	---	---	---
28	---	---	---	103	91	98	---	---	---
29	---	---	---	102	90	97	---	---	---
30	---	---	---	90	88	89	---	---	---
31	---	---	---	87	79	82	---	---	---
MONTH	84	68	79	103	77	88	---	---	---
YEAR	105	43	69						

01117472 BEAVER RIVER AT KENYON, RI--Continued

TEMPERATURE (DEG. C) OF WATER, OCTOBER 1975 TO AUGUST 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	16.0	14.0	15.0	8.0	5.0	6.5	9.0	6.5	8.0	3.5	2.0	3.0
2	16.0	15.0	15.5	10.5	8.5	9.5	6.0	4.0	5.0	2.0	0.0	1.0
3	14.5	12.5	13.5	12.0	9.5	10.5	4.0	2.5	3.5	3.0	1.0	2.0
4	13.5	11.5	12.5	13.5	11.5	12.5	2.5	1.0	2.0	3.0	1.0	2.5
5	13.5	11.0	12.5	13.0	11.5	12.0	3.0	0.0	1.0	0.5	0.0	0.0
6	15.5	13.0	14.0	11.0	9.5	10.0	6.5	3.0	5.0	0.5	0.0	0.0
7	14.5	12.5	13.5	11.5	8.5	10.0	6.5	2.5	4.5	0.5	0.0	0.5
8	13.0	10.5	11.5	13.5	11.5	12.5	2.5	2.0	2.0	0.5	0.0	0.5
9	13.0	11.5	12.0	14.0	12.0	13.0	5.0	2.5	3.5	0.5	0.0	0.0
10	12.5	10.5	11.5	14.0	13.0	13.5	7.0	5.5	6.5	0.5	0.0	0.0
11	13.0	11.5	12.0	14.0	10.5	12.5	6.5	5.0	5.5	0.5	0.0	0.0
12	13.5	13.0	13.0	10.0	8.0	9.5	4.5	3.5	4.0	0.5	0.0	0.0
13	14.0	12.5	13.0	11.0	10.5	11.0	4.5	3.5	4.0	0.5	0.0	0.0
14	15.0	13.5	14.0	11.0	8.5	10.0	7.0	4.5	6.0	1.0	0.5	1.0
15	16.0	14.0	15.0	8.5	6.0	7.5	8.0	6.5	7.5	0.5	0.0	0.5
16	17.0	15.0	15.5	6.0	4.5	5.5	8.0	5.5	7.5	1.0	0.0	0.5
17	14.5	13.0	13.5	6.5	5.0	5.5	5.5	3.0	4.0	2.0	0.0	1.0
18	14.5	13.0	13.5	7.5	6.0	7.0	5.0	2.0	4.0	0.5	0.0	0.0
19	13.5	12.5	13.0	7.0	5.5	6.5	1.5	0.0	0.5	0.5	0.0	0.0
20	13.0	12.5	12.5	8.0	6.0	7.0	0.5	0.0	0.0	0.5	0.0	0.0
21	13.5	11.5	12.5	11.0	7.0	9.0	0.0	0.0	0.0	1.5	0.0	0.5
22	14.5	12.5	13.5	10.5	7.5	9.0	0.5	0.0	0.0	1.0	0.0	0.5
23	14.0	12.0	13.0	7.0	5.0	6.0	1.0	0.0	0.5	0.0	0.0	0.0
24	13.5	11.0	12.0	5.0	3.5	4.5	0.5	0.0	0.0	0.0	0.0	0.0
25	14.5	12.0	13.0	5.0	3.5	4.0	0.0	0.0	0.0	0.5	0.0	0.0
26	14.5	13.5	14.5	5.5	4.0	5.0	0.5	0.0	0.5	2.5	0.5	1.5
27	13.0	11.5	12.5	7.5	5.0	6.5	0.5	0.0	0.0	5.0	2.5	4.0
28	11.5	9.5	10.5	7.0	6.0	6.5	1.5	0.5	1.0	5.5	2.5	4.5
29	12.5	10.5	11.5	5.5	4.0	4.5	1.0	0.0	0.5	2.5	1.5	2.0
30	12.5	9.0	11.0	7.0	4.0	5.5	2.0	0.0	0.5	2.0	1.0	1.5
31	8.5	6.5	7.5	---	---	---	3.5	2.0	3.0	1.5	0.0	0.5
MONTH	17.0	6.5	13.0	14.0	3.5	8.5	9.0	0.0	3.0	5.5	0.0	1.0
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.5	1.0	2.0	7.5	6.0	7.0	9.0	8.0	8.5	13.0	11.0	12.0
2	5.0	0.0	3.0	7.0	3.5	5.5	11.5	6.5	9.0	15.5	11.5	13.0
3	0.5	0.0	0.0	3.5	3.0	3.0	12.0	8.0	10.0	16.5	12.5	14.5
4	1.0	0.0	0.5	5.0	3.0	3.5	10.0	7.5	8.5	14.0	10.5	12.0
5	1.0	0.0	3.0	8.0	5.0	6.5	10.5	6.0	8.0	14.5	9.5	12.0
6	0.0	0.0	0.0	8.5	5.5	7.5	11.5	6.5	9.0	17.0	12.0	14.5
7	1.5	0.0	0.5	5.5	3.0	4.5	10.5	7.5	9.0	16.0	14.0	14.5
8	3.0	0.0	2.0	5.5	3.0	4.0	9.0	6.5	7.5	16.0	12.5	14.0
9	4.0	2.5	3.5	3.5	0.5	1.5	8.0	6.5	7.0	14.5	10.5	13.0
10	---	---	---	3.0	0.5	2.0	10.0	5.5	7.5	16.0	11.5	13.5
11	---	---	---	5.5	3.0	4.0	9.0	7.0	8.0	16.0	13.0	14.5
12	---	---	---	4.0	1.5	3.0	8.5	4.5	6.5	16.5	13.5	15.0
13	---	---	---	5.5	3.5	4.5	9.5	4.5	7.0	16.0	11.5	14.0
14	---	---	---	6.0	2.5	4.5	12.5	7.0	9.5	14.5	13.0	14.0
15	---	---	---	6.5	3.5	4.5	12.5	8.5	10.5	18.0	14.5	16.0
16	---	---	---	---	---	---	14.0	10.5	12.0	16.5	15.0	15.5
17	7.0	5.5	6.5	---	---	---	17.5	12.0	14.5	15.5	14.5	15.0
18	6.0	5.0	5.0	---	---	---	19.0	14.0	16.5	16.0	15.0	15.5
19	7.5	5.0	6.0	7.0	3.0	6.0	19.5	15.0	17.0	15.5	12.0	14.0
20	7.0	5.0	6.0	10.0	6.0	8.0	19.0	15.0	17.0	13.0	11.0	12.0
21	5.5	3.0	4.5	9.0	8.0	8.5	17.5	14.5	16.5	14.5	11.0	13.0
22	7.5	5.5	7.0	8.0	5.5	7.0	16.0	13.5	14.5	13.5	12.0	13.0
23	6.0	2.5	4.5	7.0	3.0	5.0	18.0	14.0	15.5	14.5	11.0	13.0
24	4.0	0.5	2.5	8.5	4.0	6.0	15.5	12.0	13.0	14.0	11.5	12.5
25	6.5	3.0	4.5	9.0	6.0	7.5	12.0	10.0	11.0	12.5	11.5	12.0
26	6.5	4.0	5.5	11.0	7.0	9.0	10.0	9.0	9.5	11.5	10.5	11.0
27	8.5	4.5	7.0	11.0	7.0	9.5	11.0	7.5	9.5	14.0	10.5	12.0
28	8.0	4.5	6.5	12.0	9.5	10.5	12.0	8.5	10.5	16.0	12.0	14.0
29	7.0	3.5	5.5	11.5	7.0	9.0	12.5	9.5	11.0	15.5	13.5	15.0
30	---	---	---	9.5	7.0	8.0	14.5	9.5	12.0	15.5	14.5	15.0
31	---	---	---	9.5	7.5	8.5	---	---	---	17.0	14.0	16.0
MONTH	---	---	---	12.0	0.5	6.0	19.5	4.5	11.0	18.0	9.5	13.5

PAWCATUCK RIVER BASIN

01117472 BEAVER RIVER AT KENYON, RI--Continued

TEMPERATURE (DEG. C) OF WATER, OCTOBER 1975 TO AUGUST 1976--Continued

DAY	JUNE			JULY			AUGUST		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.0	15.0	16.0	17.5	15.5	16.5	18.0	16.5	17.0
2	15.0	13.5	14.0	18.5	17.0	17.5	18.0	16.0	16.5
3	14.5	12.0	13.5	18.5	15.5	17.0	17.0	15.0	16.0
4	14.5	11.5	13.0	17.0	15.5	16.0	17.5	15.0	16.0
5	14.5	11.5	13.5	17.5	14.5	16.0	18.5	15.0	16.5
6	14.5	13.0	13.5	18.5	15.0	16.5	19.5	16.5	18.0
7	14.5	12.5	13.5	18.0	17.0	17.5	18.5	18.0	18.0
8	17.0	14.5	15.5	19.0	17.0	17.5	17.5	16.5	17.0
9	18.0	15.5	17.0	19.5	17.5	18.5	18.5	17.5	18.0
10	19.0	16.0	17.5	19.5	16.5	18.0	20.0	18.5	19.5
11	19.0	17.0	18.0	19.0	17.5	18.0	20.5	18.5	19.5
12	18.5	16.5	17.5	19.5	18.0	18.5	20.0	18.0	19.0
13	16.0	13.5	14.5	18.5	16.0	17.0	21.0	19.0	20.0
14	15.5	14.0	15.0	16.5	16.0	16.0	21.5	20.0	20.5
15	17.5	15.0	16.0	16.0	15.5	15.5	21.0	20.0	20.5
16	19.0	16.5	17.5	17.5	14.5	16.0	20.5	19.0	19.5
17	18.5	17.0	17.5	18.5	16.5	17.5	19.0	17.0	18.0
18	19.5	16.5	18.0	18.5	16.0	17.0	19.0	16.5	17.5
19	18.5	17.0	18.0	19.0	16.0	17.5	17.5	15.5	16.0
20	17.0	17.0	17.0	20.0	17.0	18.5	17.5	14.5	16.0
21	19.0	16.5	17.5	18.5	18.0	18.5	19.0	16.0	17.5
22	20.0	18.0	19.0	19.5	17.0	18.0	---	---	---
23	20.5	18.5	19.5	19.0	14.0	17.0	---	---	---
24	20.5	19.0	19.5	20.0	17.5	19.0	---	---	---
25	---	---	---	19.5	17.0	18.5	---	---	---
26	---	---	---	18.5	15.0	16.5	---	---	---
27	---	---	---	18.5	15.5	17.0	---	---	---
28	---	---	---	20.5	16.5	18.5	---	---	---
29	---	---	---	18.5	17.0	17.5	---	---	---
30	16.0	14.0	14.5	18.0	17.0	17.5	---	---	---
31	---	---	---	17.5	16.5	17.0	---	---	---
MONTH	20.5	11.5	16.0	20.5	14.0	17.5	---	---	---
YEAR	21.5	0.0	10.0						

01117500 PAWCATUCK RIVER AT WOOD RIVER JUNCTION, RI

LOCATION.--Lat 41°26'42", long 71°40'53", Washington County, Hydrologic Unit 01090005, on right bank at downstream side of bridge on Alton-Carolina road, 0.8 mi (1.3 km) northeast of Wood River Junction, 1.5 mi (2.4 km) southwest of Carolina, and 2.9 mi (4.7 km) upstream from Wood River.

DRAINAGE AREA.--100 mi² (259 km²).

PERIOD OF RECORD.--Discharge: 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 (13.369 m) above mean sea level.

REMARKS.--Records excellent except those for periods of no gage-height record, which are fair. Occasional regulation at low flow by powerplant and mills upstream; regulation greater prior to 1969. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 191 ft³/s (5.409 m³/s), 25.94 in/yr (659 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,700 ft³/s (48.1 m³/s) Mar. 19, 1968, gage height, 7.80 ft (2.377 m); minimum, 7.4 ft³/s (0.21 m³/s) Oct. 10, 1947; minimum daily, 15 ft³/s (0.42 m³/s) Oct. 11, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 802 ft³/s (22.7 m³/s) Jan. 29, gage height, 5.44 ft (1.658 m) from peak-stage indicator; minimum, 40 ft³/s (1.13 m³/s) July 28, 29, Aug. 6-8, Sept. 25-27; minimum daily, 40 ft³/s (1.13 m³/s) July 29, Aug. 7, Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	126	330	490	700	278	270	180	135	79	48	54
2	99	119	310	470	720	274	310	230	144	81	48	54
3	93	115	290	440	740	276	320	265	149	78	47	56
4	88	113	275	420	720	274	305	255	144	71	45	55
5	83	109	255	390	650	280	280	240	132	66	44	53
6	79	107	235	330	580	285	265	225	119	63	43	52
7	78	105	220	320	510	280	250	210	115	62	40	51
8	74	109	210	430	470	270	240	195	111	61	79	50
9	73	115	210	480	430	250	238	185	107	62	188	49
10	70	120	250	450	395	245	232	180	103	59	242	50
11	70	140	280	410	379	240	225	175	99	58	229	51
12	79	150	270	380	370	256	220	180	93	59	208	54
13	95	300	260	350	355	299	215	190	90	58	166	51
14	107	385	250	480	345	380	210	190	86	56	117	50
15	107	370	240	540	326	390	205	185	86	55	97	48
16	97	345	229	520	326	390	200	180	84	52	92	48
17	88	320	223	480	332	415	195	190	83	54	84	48
18	109	290	223	445	334	400	190	218	83	52	78	49
19	142	265	218	400	337	375	185	223	83	51	71	49
20	156	250	205	370	330	355	180	213	88	48	65	49
21	151	240	190	340	319	335	180	200	88	45	61	47
22	137	280	185	300	326	320	175	195	86	45	61	46
23	121	320	185	275	357	305	175	185	83	44	59	44
24	111	315	190	270	366	290	175	175	78	47	58	42
25	121	300	200	270	359	280	180	166	73	48	55	41
26	159	280	250	290	337	270	195	161	70	47	54	40
27	179	280	500	400	318	260	205	156	68	44	59	42
28	174	330	580	650	301	260	200	151	70	41	65	43
29	154	360	540	790	286	265	190	144	70	40	65	44
30	142	350	520	780	---	260	185	142	68	43	61	44
31	132	---	500	740	---	250	---	137	---	45	57	---
TOTAL	3471	7008	8823	13700	12318	9307	6595	5921	2888	1714	2686	1454
MEAN	112	234	285	442	425	300	220	191	96.3	55.3	86.6	48.5
MAX	179	385	580	790	740	415	320	265	149	81	242	56
MIN	70	105	185	270	286	240	175	137	68	40	40	40
CFSM	1.12	2.34	2.85	4.42	4.25	3.00	2.20	1.91	.96	.55	.87	.49
IN.	1.29	2.61	3.24	5.10	4.58	3.46	2.45	2.20	1.07	.64	1.00	.54

CAL YR 1975 TOTAL 75735 MEAN 207 MAX 580 MIN 47 CFSM 2.07 IN 28.17
WTR YR 1976 TOTAL 75885 MEAN 207 MAX 790 MIN 40 CFSM 2.07 IN 28.23

NOTE.--No gage-height record Nov. 9 to Dec. 15, Dec. 20 to Feb. 10, Mar. 14 to Apr. 8, Apr. 13 to May 17.

PAWCATUCK RIVER BASIN

01117800 WOOD RIVER NEAR ARCADIA, RI

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 (2.9 km) northwest of Arcadia, and 4.5 mi (7.2 km) north of Hope Valley.

DRAINAGE AREA.--35.2 mi² (91.2 km²).

PERIOD OF RECORD.--Discharge: January 1964 to current year.

Chemical analyses: Water years 1967-74 (partial-record station).

Water temperatures: Water years 1967-69, 1971-74 (partial-record station).

Sediment records: Water years 1967-74 (partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 130 ft (40 m), from topographic map.

REMARKS.--Records excellent except those for periods of no gage-height record, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years, 74.2 ft³/s (2.101 m³/s), 28.63 in/yr (727 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 896 ft³/s (25.4 m³/s) Mar. 18, 1968, gage height, 8.64 ft (2.633 m); minimum, about 5.8 ft³/s (0.16 m³/s) about Sept. 8, 9, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 14	-	350 9.9	- -	Jan. 28	1815	*546 15.5	*7.37 2.246
Dec. 27	0300	318 9.01	5.72 1.743	Feb. 2	1445	358 10.1	6.03 1.838
Jan. 14	1530	278 7.87	5.40 1.646	Aug. 9	-	300 8.5	- -

Minimum discharge, 14 ft³/s (0.40 m³/s) July 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	63	143	172	218	104	116	62	47	25	58	23
2	47	60	133	153	317	101	148	155	62	23	52	23
3	40	56	124	142	294	102	140	134	58	21	45	25
4	35	54	114	145	248	101	126	117	52	21	36	24
5	32	49	106	125	207	110	112	102	47	23	32	24
6	30	46	104	113	185	115	102	92	43	20	28	24
7	30	47	102	109	166	110	96	84	42	19	25	22
8	29	49	96	196	158	103	92	79	40	19	40	21
9	29	58	97	184	148	96	89	73	38	18	270	20
10	28	60	160	159	139	96	84	69	36	18	250	22
11	30	70	155	134	140	96	80	65	34	18	180	33
12	40	72	140	122	136	98	77	82	31	20	130	27
13	47	130	125	113	131	156	75	82	30	18	95	23
14	54	320	114	244	127	168	73	76	29	18	65	21
15	48	260	107	243	121	148	70	73	29	18	48	20
16	42	230	102	210	125	136	72	67	28	17	52	20
17	38	180	96	195	136	148	72	74	29	18	48	21
18	49	140	95	155	141	126	69	74	28	18	44	24
19	100	113	89	133	152	121	65	76	28	16	40	22
20	100	103	82	121	158	124	64	77	30	16	36	20
21	94	109	84	116	143	121	62	75	30	15	33	20
22	86	174	85	115	158	117	61	74	28	17	30	19
23	72	168	82	111	172	109	61	66	26	16	27	18
24	60	159	76	108	150	104	58	61	25	23	25	18
25	64	148	74	104	135	100	62	58	23	20	24	18
26	115	131	148	103	126	97	81	55	22	18	23	17
27	110	158	304	229	119	93	79	53	21	17	24	19
28	90	201	276	486	111	111	77	52	20	16	31	21
29	75	179	215	476	105	105	74	49	22	15	32	20
30	70	159	170	338	---	98	68	47	22	25	29	19
31	66	---	185	258	---	95	---	47	---	75	25	---
TOTAL	1805	3766	3983	5612	4666	3509	2505	2350	1000	641	1877	648
MEAN	58.2	126	128	181	161	113	83.5	75.8	33.3	20.7	60.5	21.6
MAX	115	320	304	486	317	168	148	155	62	75	270	33
MIN	28	46	74	103	105	93	58	47	20	15	23	17
CFSM	1.65	3.58	3.64	5.14	4.57	3.21	2.37	2.15	.95	.59	1.72	.61
IN.	1.91	3.98	4.21	5.93	4.93	3.71	2.65	2.48	1.06	.68	1.98	.68

CAL YR 1975 TOTAL 31702.0 MEAN 86.9 MAX 320 MIN 9.5 CFSM 2.47 IN 33.50
WTP YR 1976 TOTAL 32362.0 MEAN 88.4 MAX 486 MIN 15 CFSM 2.51 IN 34.20

NOTE.--No gage-height record Oct. 8 to Nov. 18, July 29 to Aug. 29.

01118000 WOOD RIVER AT HOPE VALLEY, RI

LOCATION.--Lat 42°29'53", long 71°43'01", Washington County, Hydrologic Unit 01090005, on right bank 0.2 mi (0.3 km) downstream from highway bridge at Hope Valley and 6.6 mi (10.6 km) upstream from mouth.

DRAINAGE AREA.--72.4 mi² (187.5 km²).

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.

Chemical analyses: Water years 1954, 1957-59, 1968 (partial-record station).

Water temperatures: Water years 1957-59, 1968 (partial-record station).

REVISED RECORDS.--WSP 1201: 1948(P). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 65 ft (20 m), from topographic map. August to December 1909, nonrecording gage at site 1,000 ft (300 m) upstream at different datum.

REMARKS.--Records excellent. 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. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years, 151 ft³/s (4.276 m³/s), 28.32 in/yr (719 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,720 ft³/s (48.7 m³/s) Mar. 18, 1968, gage height, 8.26 ft (2.518 m), from rating curve extended above 970 ft³/s (27.5 m³/s); minimum, 4.4 ft³/s (0.12 m³/s) Oct. 18, 1941; minimum daily, 10 ft³/s (0.28 m³/s) Oct. 13, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1711, at least 12.4 ft (3.78 m) in February 1886.

Flood in November 1927 reached a stage of 11.7 ft (3.57 m), and flood in March 1936 reached a discharge of 1,540 ft³/s (43.6 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 550 ft³/s (15.6 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 14	0930	698 19.8	5.00 1.524	Jan. 29	0230	*1,180 33.4	*6.74 2.054
Dec. 27	1600	744 21.1	5.18 1.579	Feb. 2	2230	812 23.0	5.44 1.658
Jan. 15	0900	610 17.3	4.64 1.414	Aug. 9	1900	622 17.6	4.69 1.430

Minimum discharge, 29 ft³/s (0.82 m³/s) Sept. 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	125	313	412	486	218	228	131	94	52	123	42
2	91	116	294	372	715	212	336	321	124	52	104	41
3	76	108	266	353	716	216	300	352	131	47	74	42
4	68	103	241	336	555	212	262	263	111	44	60	42
5	62	98	222	287	470	232	234	220	96	49	52	41
6	77	92	216	258	398	247	213	194	89	48	47	41
7	119	94	208	230	368	227	200	179	85	43	43	40
8	111	98	191	329	347	211	189	169	81	41	146	38
9	104	123	192	443	324	198	180	155	77	40	519	36
10	94	125	307	362	302	197	171	144	73	38	513	36
11	87	147	334	304	301	199	165	137	69	37	370	49
12	81	149	288	271	295	205	159	168	65	37	273	52
13	100	334	253	242	281	327	153	189	60	38	201	45
14	112	674	226	342	274	423	150	164	59	37	143	39
15	99	604	210	571	256	339	145	154	59	36	96	36
16	90	481	200	468	257	306	145	140	58	36	101	35
17	77	381	188	438	272	352	146	166	57	39	93	35
18	107	316	187	366	284	306	141	171	58	39	78	37
19	215	259	177	342	295	276	135	169	57	35	67	38
20	216	231	160	290	301	282	130	177	61	33	59	36
21	198	249	161	260	285	274	126	180	62	32	54	35
22	179	400	165	256	316	264	123	155	59	32	50	34
23	153	371	161	233	391	244	121	129	55	32	47	32
24	125	328	151	232	331	230	115	120	52	37	45	31
25	132	304	138	229	294	220	123	119	50	41	42	30
26	244	291	209	219	270	211	163	115	48	36	39	29
27	232	339	670	238	253	202	165	111	46	33	42	31
28	186	473	619	610	238	240	154	106	44	32	55	35
29	157	399	486	1050	224	242	145	100	44	30	56	35
30	142	341	390	769	---	216	136	96	47	49	51	33
31	136	---	400	573	---	202	---	96	---	173	46	---
TOTAL	3973	8153	8223	11685	10099	7730	5153	5090	2071	1348	3689	1126
MEAN	128	272	265	377	348	249	172	164	69.0	43.5	119	37.5
MAX	244	674	670	1050	716	423	336	352	131	173	519	52
MIN	62	92	138	219	224	197	115	96	44	30	39	29
CFSM	1.77	3.76	3.66	5.21	4.81	3.44	2.38	2.27	.95	.60	1.64	.52
IN.	2.04	4.19	4.23	6.00	5.19	3.97	2.65	2.62	1.06	.69	1.90	.58
CAL YR 1975 TOTAL	65913		MEAN 181	MAX 674	MIN 29	CFSM 2.50	IN 33.87					
WTR YR 1976 TOTAL	68340		MEAN 187	MAX 1050	MIN 29	CFSM 2.58	IN 35.11					

01118500 PAWCATUCK RIVER AT WESTERLY, RI

LOCATION.--Lat 41°23'01", long 71°50'01", Washington County, Hydrologic Unit 01090005, on left bank at Westerly, 2.1 mi (3.4 km) downstream from Shunock River.

DRAINAGE AREA.--295 mi² (764 km²).

PERIOD OF RECORD.--Discharge: November 1940 to current year.
Chemical analyses: Water years 1953, 1963 (partial-record station).

REVISED RECORDS.--WSP 1051: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1.76 ft (0.536 m) below mean sea level.

REMARKS.--Records good. Diurnal fluctuation at low flow prior to 1962 by mills upstream; regulation much greater prior to 1958. Diversion upstream for municipal supply of Westerly. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--35 years (water years 1942-76), 566 ft³/s (16.03 m³/s), 26.06 in/yr (662 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,470 ft³/s (127 m³/s) Mar. 18, 1968, gage height, 10.49 ft (3.197 m); maximum gage height, 12.16 ft (3.706 m) Aug. 31, 1954, backwater from tide; minimum daily discharge, 25 ft³/s (0.71 m³/s) Aug. 17, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a discharge of 3,150 ft³/s (89.2 m³/s), by computation of flow over dam 1.5 mi (2.4 km) 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 (4.57 m) Sept. 21, 1938, due to hurricane tidal wave.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,670 ft³/s (75.6 m³/s) Jan. 29, gage height, 7.57 ft (2.307 m); maximum gage height, 7.62 ft (2.233 m) Feb. 2, backwater from tide; minimum daily discharge, 95 ft³/s (2.69 m³/s) July 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	354	985	1460	2040	768	730	501	320	152	171	134
2	225	336	918	1340	2130	738	888	655	342	155	174	130
3	212	315	842	1250	2160	738	932	842	354	155	163	130
4	204	304	768	1250	2050	752	880	842	342	148	148	134
5	186	304	700	1140	1860	775	805	738	320	144	137	130
6	178	289	655	918	1680	790	745	648	299	141	130	127
7	182	289	627	910	1460	775	662	592	283	141	127	124
8	199	294	599	1270	1370	730	662	557	273	134	199	124
9	204	325	599	1430	1230	692	641	529	273	134	550	120
10	195	348	775	1290	1160	708	613	501	259	127	842	113
11	186	388	860	1170	1090	678	599	473	244	120	738	127
12	199	414	820	1080	1060	700	571	494	239	124	529	124
13	225	880	760	970	1020	865	564	550	225	124	359	124
14	254	1490	720	1360	970	1160	550	543	221	117	278	120
15	254	1450	685	1600	932	1180	536	515	216	113	225	117
16	244	1310	648	1520	925	1120	529	473	212	113	204	120
17	230	1130	620	1460	940	1230	522	522	208	113	182	120
18	263	932	606	1290	970	1210	515	550	208	120	174	127
19	426	805	599	1080	985	1100	508	557	199	120	163	130
20	494	715	557	1030	985	1030	494	564	199	113	152	134
21	459	662	536	948	962	992	487	529	205	110	144	130
22	401	888	536	880	970	940	480	529	199	107	141	124
23	365	1000	543	730	1130	880	473	473	195	104	137	120
24	336	985	550	798	1140	828	466	432	178	117	134	120
25	342	940	550	798	1070	782	480	401	174	120	134	117
26	550	872	700	798	992	745	557	388	167	110	137	120
27	564	865	1660	1060	925	722	592	376	163	98	137	124
28	515	1110	1740	2130	865	730	578	365	167	95	152	127
29	445	1160	1610	2630	812	760	543	348	152	95	155	124
30	395	1080	1450	2520	---	752	515	336	155	98	152	124
31	376	---	1460	2310	---	715	---	325	---	120	144	---
TOTAL	9552	22234	25678	40420	35883	26585	18117	16148	6991	3782	7212	3739
MEAN	308	741	828	1304	1237	858	604	521	233	122	233	125
MAX	564	1490	1740	2630	2160	1230	932	842	354	155	842	134
MIN	178	289	536	730	812	678	466	325	152	95	127	113
CFSM	1.04	2.51	2.81	4.42	4.19	2.91	2.05	1.77	.79	.41	.79	.42
IN.	1.20	2.80	3.24	5.10	4.52	3.35	2.28	2.04	.88	.48	.91	.47

CAL YR 1975 TOTAL 213590 MEAN 585 MAX 1740 MIN 95 CFSM 1.98 IN 26.93
WTR YR 1976 TOTAL 216341 MEAN 591 MAX 2630 MIN 95 CFSM 2.00 IN 27.28

01123360 QUINEBAUG RIVER BELOW EAST BRIMFIELD DAM, AT FISKDALE, MA

LOCATION.--Lat 42°06'31", long 72°07'27", Worcester County, Hydrologic Unit 01100001, on right bank at Fiskdale, 750 ft (230 m) downstream from East Brimfield Dam, and 2.4 mi (3.9 km) upstream from Cedar Pond outlet.

DRAINAGE AREA.--67.5 mi² (174.8 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 610 ft (190 m), from topographic map.

REMARKS.--Records good. Flow regulated by East Brimfield Lake (Reservoirs in Thames River basin). Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft³/s (29.5 m³/s) Jan. 30, 1976, gage height, 6.42 ft (1.957 m); minimum daily, 5.0 ft³/s (0.14 m³/s) Aug. 17, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1886, 15,400 ft³/s (436 m³/s) Aug. 19, 1955, by slope-area measurement. Flood of Mar. 18, 1936, reached a discharge of 2,390 ft³/s (67.7 m³/s) and flood in September 1938, 7,000 ft³/s (198 m³/s), both by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,040 ft³/s (29.5 m³/s) Jan. 30, gage height, 6.42 ft (1.957 m); minimum daily, 8.7 ft³/s (0.25 m³/s) July 17.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	344	182	259	225	833	230	181	118	79	38	43	46
2	245	162	255	220	620	219	290	170	98	45	61	46
3	177	152	248	204	469	213	337	225	112	51	65	30
4	142	146	231	204	452	206	299	242	109	51	57	17
5	121	136	214	194	441	209	250	211	95	47	47	17
6	111	130	202	172	346	230	213	179	84	42	43	17
7	99	129	194	153	269	233	190	152	78	36	58	17
8	88	138	184	178	240	218	171	142	72	32	70	17
9	80	144	175	202	217	199	158	132	66	30	109	17
10	75	148	203	198	198	188	149	122	60	27	214	17
11	79	159	240	173	192	182	140	113	54	24	250	17
12	140	154	246	158	194	176	132	116	50	31	221	25
13	227	261	228	147	192	186	124	118	45	27	169	38
14	263	374	205	217	192	212	118	116	42	23	129	38
15	255	372	185	286	188	220	113	110	41	21	109	38
16	222	334	168	281	197	203	111	99	37	15	108	38
17	186	304	152	238	225	191	109	94	44	8.7	96	35
18	240	272	142	200	257	149	107	96	49	9.3	82	33
19	376	243	129	180	294	175	103	124	52	9.4	67	32
20	508	221	115	164	331	176	97	169	54	9.6	55	32
21	552	212	112	153	318	220	88	195	55	11	47	32
22	493	264	111	151	313	267	84	210	54	14	42	32
23	397	289	115	122	337	262	89	205	49	14	53	32
24	331	287	106	140	313	236	87	181	42	34	61	23
25	293	266	110	137	281	212	89	156	35	43	61	17
26	270	248	125	135	266	190	117	137	29	42	66	17
27	249	246	195	255	261	173	145	122	24	38	48	17
28	235	272	256	348	255	180	153	109	21	34	32	17
29	223	279	262	471	240	182	145	97	20	29	42	17
30	210	268	226	885	---	177	130	89	19	29	46	17
31	198	---	221	975	---	163	---	82	---	27	46	---
TOTAL	7469	6792	5814	7766	8931	6277	4519	4431	1669	892.0	2597	788
MEAN	241	226	188	251	308	202	151	143	55.6	28.8	83.8	26.3
MAX	552	374	262	975	833	267	337	242	112	51	250	46
MIN	75	129	106	122	188	149	84	82	19	8.7	32	17
MEAN†	228	229	187	289	266	201	149	142	53.1	29.4	76.6	21.6
CFSM†	3.38	3.39	2.77	4.28	3.94	2.98	2.21	2.10	.79	.44	1.13	.32
IN.†	3.89	3.78	3.19	4.95	4.26	3.43	2.47	2.42	.88	.50	1.31	.36
CAL YR 1975 TOTAL	54297.4											
WTR YR 1976 TOTAL	57945.0											
MEAN 149												
MAX 875												
MIN 8.3												
MEAN† 149												
MAX 975												
MIN 8.7												
MEAN† 156												
CFSM† 2.21												
IN† 29.97												
CFSM† 2.31												
IN† 31.44												

† Adjusted for change in contents in East Brimfield Lake.

THAMES RIVER BASIN

01123600 QUINEBAUG RIVER BELOW WESTVILLE DAM, NEAR SOUTHBRIDGE, MA

LOCATION.--Lat 42°04'58", long 72°03'27", Worcester County, Hydrologic Unit 01100001, on right bank 200 ft (60 m) downstream from Westville Dam, 1.0 mi (1.6 km) upstream from McKinstry Brook, and 1.3 mi (2.1 km) west of Southbridge.

DRAINAGE AREA. - 99.1 mi² (256.7 km²).

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

REVISED RECORDS.--WRD MA-RI-75-1: 1963-64 (monthly runoff).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 510 ft (155 m), from topographic map.

REMARKS.--Records excellent October to March, good thereafter. Flow regulated by mills, by East Brimfield and Westville Lakes (Reservoirs in Thames River basin), and by other reservoirs upstream.

AVERAGE DISCHARGE.--14 years, 165 ft³/s (4.673 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft³/s (39.9 m³/s) Feb. 1, 1976, gage height, 6.46 ft (1.969 m); minimum daily, 7.3 ft³/s (0.21 m³/s) Nov. 21, 28, 1964, July 30, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,410 ft³/s (39.9 m³/s) Feb. 1, gage height, 6.46 ft (1.969 m); minimum daily, 11 ft³/s (0.31 m³/s) July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

JAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	554	240	365	338	1210	314	296	161	108	70	59	50
2	332	220	367	314	1260	300	499	293	139	57	72	53
3	244	200	347	292	937	291	521	329	148	58	75	50
4	187	190	318	298	657	281	440	346	141	58	65	27
5	158	175	289	269	595	280	364	296	125	53	53	25
6	141	168	271	238	502	320	312	247	110	48	50	25
7	127	163	262	219	374	315	277	212	103	42	85	24
8	113	176	243	297	354	295	247	206	94	38	121	24
9	101	144	233	299	317	267	228	188	86	36	175	24
10	93	189	303	276	288	254	217	180	77	33	367	24
11	98	213	337	241	277	247	204	161	72	30	364	24
12	223	204	336	226	278	240	196	171	69	30	309	24
13	349	419	310	211	271	279	178	166	58	33	220	41
14	377	693	281	386	273	313	173	159	55	29	173	42
15	362	672	253	437	264	308	161	150	49	25	145	42
16	299	510	237	419	290	287	157	135	47	23	139	42
17	250	434	217	369	341	281	154	137	63	18	121	42
18	406	390	203	288	368	219	152	141	70	14	103	40
19	663	341	182	254	429	250	145	190	70	12	83	39
20	859	316	163	234	524	262	137	244	63	11	68	39
21	892	311	158	220	462	327	125	265	64	12	58	39
22	804	410	162	218	459	387	117	299	62	19	50	38
23	554	419	168	184	503	379	125	277	56	19	51	38
24	430	409	154	198	447	345	123	242	50	46	67	34
25	379	379	154	196	402	302	125	209	45	52	64	22
26	373	346	209	198	375	271	168	183	36	48	67	22
27	344	352	356	463	363	247	198	161	32	42	70	36
28	315	400	382	650	350	271	206	143	28	40	42	64
29	300	393	381	821	332	265	198	129	25	36	45	62
30	280	374	337	1100	---	253	175	119	25	36	51	60
31	260	---	344	1100	---	239	---	111	---	34	51	---
TOTAL	10867	9890	8322	11253	13502	8889	6618	6250	2170	1102	3463	1116
MEAN	351	330	268	363	466	287	221	202	72.3	35.5	112	37.2
MAX	892	693	382	1100	1260	387	521	346	148	70	367	64
MIN	93	163	154	184	264	219	117	111	25	11	42	22
CAL YR 1975	TOTAL	78074	MEAN 214	MAX	1140	MIN 14						
WTR YR 1976	TOTAL	83442	MEAN 228	MAX	1260	MIN 11						

01123990 QUINEBAUG RIVER NEAR DUDLEY, MA

LOCATION.--Lat 42°01'40", long 71°57'22", Worcester County, Hydrologic Unit 01100001, on right bank, 50 ft (15 m) upstream from bridge on State Highway 131, 0.2 mi (0.3 km) upstream from Massachusetts-Connecticut State line, 0.4 mi (0.6 km) upstream from gaging station at Quinebaug, CT, and 2.0 mi (3.2 km) southwest of Dudley, MA.

DRAINAGE AREA.--156 mi² (404 km²), at gage at Quinebaug, CT.

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Water years 1969 to current year.

pH: October 1968 to current year.

WATER TEMPERATURES: October 1968 to current year.

DISSOLVED OXYGEN: October 1968 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1968.

REMARKS.--Prior to October 1971, published as "at Quinebaug, Conn." No winter records in water years 1973-76.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 393 micromhos Sept. 24, 1970; minimum recorded, 56 micromhos Feb. 20, 1972.

pH: Maximum recorded, 9.0 units July 13, 16, 1971; minimum, 4.9 units July 18, 1970.

WATER TEMPERATURES: Maximum recorded, 34.0°C Aug. 2, 1975; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN: Maximum recorded, 19.6 mg/L Feb. 12, 1972; minimum recorded, 0.4 mg/L Aug. 28, 1970, Aug. 3, 1974.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 327 micromhos Sept. 30; minimum recorded, 83 micromhos Oct. 21; but maximum and minimum may have been higher or lower during periods of no record.

pH: Maximum recorded, 7.9 units Sept. 13; minimum recorded, 5.7 units May 2; but maximum and minimum may have been higher or lower during periods of no record.

WATER TEMPERATURES: Maximum recorded, 31.0°C June 24; but may have been higher during periods of no record; minimum, probably 0.0°C on many days during winter period.

DISSOLVED OXYGEN: Maximum recorded, 11.9 mg/L Oct. 24; minimum recorded, 0.7 mg/L July 1; but maximum and minimum may have been higher or lower during periods of no record.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	91	86	88	---	---	---	155	153	154
2	99	89	94	---	---	---	152	129	141
3	109	97	103	---	---	---	146	136	139
4	112	108	110	---	---	---	140	135	137
5	116	109	112	---	---	---	139	135	137
6	121	115	117	---	---	---	138	136	137
7	123	119	121	---	---	---	142	138	140
8	124	118	121	---	---	---	142	136	139
9	124	118	122	---	---	---	140	137	139
10	126	115	120	---	---	---	141	138	139
11	122	109	118	---	---	---	142	140	141
12	116	96	109	---	---	---	142	138	140
13	111	104	109	---	---	---	143	139	141
14	107	104	105	---	---	---	144	126	137
15	106	102	104	---	---	---	129	123	125
16	109	99	102	160	157	159	125	122	123
17	113	99	105	162	159	160	125	122	124
18	129	94	99	159	155	157	133	126	129
19	97	91	93	161	156	158	130	122	125
20	91	86	89	161	158	160	129	127	128
21	95	83	88	162	159	160	131	125	128
22	---	---	---	162	159	161	129	127	128
23	89	85	88	165	161	162	128	126	127
24	92	86	89	166	163	165	130	128	129
25	96	91	93	164	156	159	134	132	133
26	99	95	97	158	153	155	137	134	135
27	100	96	98	161	157	159	142	138	139
28	103	95	99	160	155	158	146	141	144
29	103	97	100	155	151	154	149	145	147
30	102	99	101	154	151	153	148	146	147
31	---	---	---	---	---	---	150	147	149
MONTH	129	83	103	---	---	---	155	122	136

THAMES RIVER BASIN

01123990 QUINEBAUG RIVER NEAR DUDLEY, MA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	154	150	152	262	228	247	214	192	209	134	128	131
2	156	151	154	254	240	246	199	188	192	129	127	128
3	161	155	159	244	238	240	213	199	207	128	122	125
4	169	160	163	245	239	242	213	210	211	125	121	123
5	174	170	172	240	223	231	211	206	209	125	123	124
6	175	173	174	224	214	219	212	209	210	127	123	125
7	176	170	174	214	209	211	208	186	196	127	125	126
8	173	169	171	228	212	215	202	189	197	139	126	132
9	178	173	175	237	211	217	201	197	199	145	138	142
10	179	177	178	---	---	---	---	---	---	160	143	150
11	181	177	178	---	---	---	---	---	---	161	153	158
12	187	179	183	---	---	---	---	---	---	157	153	155
13	185	180	183	---	---	---	---	---	---	162	153	156
14	186	182	184	---	---	---	---	---	---	163	159	161
15	194	187	190	---	---	---	---	---	---	158	154	157
16	197	191	193	---	---	---	---	---	---	165	155	159
17	205	197	199	---	---	---	---	---	---	---	---	---
18	210	199	206	---	---	---	---	---	---	---	---	---
19	201	195	198	---	---	---	174	123	136	---	---	---
20	196	191	193	---	---	---	124	117	120	---	---	---
21	199	192	195	224	219	222	121	116	118	---	---	---
22	205	198	200	227	221	223	118	116	117	156	145	149
23	207	201	204	230	218	223	119	116	117	164	153	158
24	209	204	206	239	220	225	122	119	121	163	146	156
25	207	204	206	227	196	201	123	121	122	156	148	153
26	206	200	204	213	202	208	122	119	121	156	149	154
27	209	202	205	216	212	214	120	116	118	158	148	151
28	216	202	208	216	211	213	119	115	116	177	145	155
29	229	211	218	215	211	213	119	116	117	179	158	163
30	229	223	226	219	216	217	122	118	119	327	139	229
31	---	---	---	219	210	215	137	122	132	---	---	---
MONTH	229	150	188	---	---	---	---	---	---	327	121	149
YEAR	327	83	156									

PH (UNITS), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.4	6.2	6.4	---	---	---	6.4	6.1	6.2
2	6.5	6.4	6.5	---	---	---	6.5	5.7	6.3
3	6.5	6.4	6.5	---	---	---	6.5	6.2	6.4
4	6.5	6.4	6.5	---	---	---	6.6	6.4	6.5
5	6.5	6.4	6.5	---	---	---	6.7	6.5	6.6
6	6.6	6.4	6.5	---	---	---	6.5	6.3	6.5
7	6.5	6.4	6.4	---	---	---	6.5	6.3	6.4
8	6.5	6.3	6.4	---	---	---	6.8	6.5	6.6
9	---	---	---	---	---	---	6.8	6.6	6.7
10	6.7	6.6	6.7	---	---	---	6.8	6.5	6.7
11	6.7	6.6	6.6	---	---	---	6.8	6.5	6.6
12	6.6	6.5	6.6	---	---	---	6.6	6.5	6.5
13	6.6	6.5	6.5	---	---	---	6.7	6.4	6.5
14	6.5	6.4	6.4	---	---	---	6.8	6.4	6.6
15	6.4	6.4	6.4	---	---	---	6.7	6.4	6.6
16	6.4	6.3	6.4	7.1	6.4	6.8	6.7	6.3	6.5
17	6.8	6.3	6.4	7.0	6.2	6.6	6.5	6.3	6.4
18	6.5	6.0	6.3	6.8	6.1	6.4	6.4	6.2	6.3
19	6.2	6.0	6.1	6.6	6.1	6.3	6.6	6.2	6.4
20	6.2	5.9	6.1	6.3	6.0	6.1	6.7	6.6	6.7
21	6.7	5.9	6.3	6.2	5.9	6.1	6.7	6.5	6.6
22	7.0	6.2	6.5	6.1	5.9	6.0	6.7	6.5	6.6
23	7.3	6.2	6.6	6.1	6.0	6.1	6.7	6.6	6.6
24	6.7	6.0	6.4	6.2	6.0	6.1	6.7	6.6	6.6
25	6.7	6.3	6.5	6.3	6.1	6.2	6.7	6.6	6.6
26	6.8	6.1	6.5	6.4	6.3	6.4	6.8	6.6	6.7
27	6.7	6.0	6.3	6.5	6.4	6.5	6.9	6.6	6.7
28	6.7	5.8	6.3	6.5	6.3	6.4	6.7	6.5	6.6
29	6.9	6.1	6.6	6.5	6.3	6.4	6.8	6.4	6.6
30	7.0	6.2	6.6	6.4	6.1	6.3	6.7	6.4	6.6
31	---	---	---	---	---	---	6.8	6.5	6.6
MONTH	7.3	5.8	6.4	---	---	---	6.9	5.7	6.5

01123990 QUINEBAUG RIVER NEAR DUDLEY, MA--Continued

PH (UNITS), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.7	6.5	6.6	6.3	6.2	6.2	6.8	6.5	6.6	6.9	6.6	6.7
2	6.9	6.6	6.7	6.4	6.2	6.3	6.9	6.6	6.7	6.7	6.5	6.6
3	6.9	6.7	6.8	6.4	6.2	6.3	7.0	6.6	6.8	6.8	6.7	6.7
4	6.9	6.7	6.8	6.5	6.3	6.4	7.1	6.6	6.8	6.7	6.6	6.7
5	7.0	6.7	6.8	6.7	6.4	6.6	7.2	6.6	6.9	6.8	6.7	6.7
6	7.0	6.8	6.9	6.9	6.5	6.6	6.8	6.5	6.7	7.0	6.7	6.9
7	7.0	6.7	6.9	6.9	6.4	6.6	6.6	6.5	6.6	7.6	6.9	7.2
8	6.9	6.6	6.7	7.1	6.4	6.7	6.6	6.4	6.5	7.0	6.8	6.9
9	6.7	6.5	6.6	7.0	6.4	6.7	---	---	---	6.9	6.8	6.8
10	6.6	6.4	6.5	---	---	---	---	---	---	7.0	6.7	6.8
11	6.7	6.3	6.4	---	---	---	---	---	---	7.5	6.7	7.1
12	6.7	6.3	6.4	---	---	---	---	---	---	7.8	7.0	7.3
13	6.7	6.3	6.5	---	---	---	---	---	---	7.9	7.0	7.3
14	6.7	6.3	6.5	---	---	---	---	---	---	7.5	6.9	7.2
15	6.9	6.4	6.6	---	---	---	---	---	---	7.6	7.0	7.2
16	6.9	6.4	6.6	---	---	---	---	---	---	7.5	7.0	7.2
17	6.7	6.3	6.4	---	---	---	---	---	---	---	---	---
18	6.5	6.2	6.3	---	---	---	---	---	---	---	---	---
19	6.4	6.1	6.2	---	---	---	6.6	6.4	6.5	---	---	---
20	6.3	6.1	6.2	---	---	---	6.7	6.4	6.5	---	---	---
21	6.3	6.1	6.2	6.7	6.1	6.4	6.9	6.3	6.5	---	---	---
22	6.6	5.9	6.2	6.8	6.2	6.5	7.1	6.4	6.7	7.3	6.8	7.1
23	6.8	6.1	6.4	7.1	6.3	6.6	7.3	6.5	6.8	7.3	7.0	7.2
24	6.9	6.2	6.5	6.9	6.1	6.4	6.9	6.4	6.6	7.5	7.1	7.2
25	6.9	6.3	6.5	7.0	6.4	6.7	6.9	6.5	6.6	7.7	7.3	7.4
26	7.1	6.3	6.7	7.0	6.6	6.7	6.8	6.5	6.6	7.8	7.3	7.5
27	7.2	6.4	6.7	7.1	6.5	6.7	6.6	6.5	6.5	7.5	7.1	7.3
28	7.5	6.5	6.9	7.1	6.5	6.7	6.7	6.4	6.6	7.3	7.1	7.2
29	7.2	6.5	6.7	6.8	6.4	6.5	6.8	6.5	6.6	7.3	7.0	7.1
30	6.9	6.3	6.6	6.6	6.4	6.5	6.8	6.6	6.7	7.7	6.8	7.2
31	---	---	---	6.7	6.4	6.5	6.8	6.6	6.7	---	---	---
MONTH	7.5	5.9	6.6	---	---	---	---	---	---	7.9	6.5	7.1
YEAR	7.9	5.7	6.6									

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.5	15.5	17.0	---	---	---	14.0	12.5	13.5
2	17.0	15.0	16.5	---	---	---	15.5	12.0	13.5
3	15.0	12.5	14.0	---	---	---	16.0	13.5	14.5
4	14.5	11.5	13.5	---	---	---	13.5	12.0	13.0
5	14.0	11.5	13.0	---	---	---	14.5	11.0	12.5
6	17.0	13.0	15.0	---	---	---	17.5	13.0	15.5
7	15.0	13.5	14.5	---	---	---	17.0	15.0	16.0
8	14.0	11.5	13.0	---	---	---	15.0	13.5	14.5
9	13.5	12.0	12.5	---	---	---	15.0	12.5	14.0
10	14.0	10.5	12.0	---	---	---	17.0	13.0	15.0
11	13.5	13.0	13.5	---	---	---	17.5	15.5	16.5
12	13.0	11.5	12.5	---	---	---	17.5	16.0	16.5
13	13.5	11.0	12.5	---	---	---	17.0	14.0	15.5
14	16.5	12.0	14.0	---	---	---	18.0	15.0	16.5
15	18.5	12.5	15.5	---	---	---	19.5	17.5	18.5
16	18.0	13.5	16.0	15.5	14.0	14.5	19.0	17.5	18.5
17	13.5	13.0	13.5	18.0	14.0	16.5	19.0	17.5	18.0
18	13.0	11.0	12.0	19.5	16.5	18.5	19.5	18.5	19.0
19	11.5	10.0	10.5	20.5	18.0	19.5	19.5	14.0	16.5
20	10.5	10.0	10.0	21.0	19.5	20.5	14.0	13.0	13.5
21	12.5	8.5	10.5	20.0	19.0	19.5	15.0	12.5	13.5
22	14.0	10.5	12.0	19.5	17.0	18.0	15.5	13.0	14.0
23	13.0	10.5	12.0	19.5	17.0	18.0	16.0	13.0	14.5
24	14.5	11.0	12.5	17.0	15.5	16.0	16.0	13.5	14.5
25	14.5	12.0	13.0	15.5	12.0	14.0	14.5	14.0	14.5
26	14.5	12.0	13.5	12.0	10.5	11.0	14.5	13.5	14.0
27	13.0	9.5	11.5	11.0	9.5	10.5	17.0	13.5	15.0
28	13.0	8.5	11.0	12.0	9.5	11.0	19.5	15.5	17.5
29	14.0	9.0	11.5	13.0	11.0	12.0	19.5	18.0	19.0
30	13.0	10.5	11.5	14.0	11.0	13.0	19.0	18.5	19.0
31	---	---	---	---	---	---	21.0	18.0	19.5
MONTH	18.5	8.5	13.0	---	---	---	21.0	11.0	15.5

THAMES RIVER BASIN

01123990 QUINEBAUG RIVER NEAR DUDLEY, MA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.0	19.5	20.0	25.5	24.5	25.0	23.0	20.5	21.5	24.0	19.0	21.0
2	19.5	18.0	18.5	28.0	24.5	26.0	23.0	19.5	21.0	21.5	20.0	21.0
3	19.5	17.0	18.5	27.0	23.5	25.0	23.5	20.0	21.5	22.0	19.0	20.0
4	14.0	17.5	18.5	26.0	23.0	24.0	25.0	20.5	22.5	21.5	18.5	20.0
5	20.0	17.5	19.0	28.0	23.0	25.5	25.5	21.5	23.5	21.0	19.0	20.0
6	20.0	18.0	19.0	28.0	23.5	25.5	25.0	22.5	23.5	22.0	17.0	19.0
7	19.5	17.5	18.5	27.0	24.0	25.5	23.5	20.0	22.0	20.5	16.0	18.0
8	24.0	19.0	21.0	28.5	24.5	26.0	20.0	18.5	19.0	22.5	17.0	19.0
9	25.0	21.0	22.0	29.5	24.0	26.0	20.0	18.5	19.5	23.5	17.0	19.5
10	26.5	22.5	24.5	---	---	---	---	---	---	20.5	18.5	20.0
11	26.5	23.5	24.5	---	---	---	---	---	---	23.0	18.5	20.5
12	26.0	22.5	24.5	---	---	---	---	---	---	23.0	18.0	20.0
13	24.5	20.5	22.0	---	---	---	---	---	---	22.5	17.5	20.0
14	23.5	20.5	21.5	---	---	---	---	---	---	24.5	18.5	21.5
15	26.5	21.0	23.5	---	---	---	---	---	---	23.0	20.5	21.5
16	28.5	23.5	25.5	---	---	---	---	---	---	23.0	21.0	21.5
17	27.5	25.0	26.0	---	---	---	---	---	---	22.5	21.5	22.0
18	28.0	25.0	26.0	---	---	---	---	---	---	24.5	21.5	22.5
19	27.5	25.0	26.0	---	---	---	23.0	21.5	22.0	25.0	21.0	22.5
20	26.5	24.5	25.0	---	---	---	25.0	20.5	23.0	25.0	20.0	22.5
21	27.5	24.5	25.5	25.0	23.5	24.0	27.0	22.0	24.5	24.0	21.0	22.5
22	29.0	25.5	27.0	28.0	22.5	24.5	28.5	24.0	26.0	22.0	17.0	20.0
23	30.0	25.5	27.5	27.5	21.0	24.0	29.0	25.5	27.0	21.5	16.5	19.0
24	31.0	26.0	28.5	28.5	23.0	25.0	28.0	24.5	26.0	21.0	16.5	18.5
25	29.5	26.0	27.5	26.0	22.0	24.0	27.5	23.5	25.5	20.5	15.0	17.5
26	30.0	25.0	27.0	25.5	20.5	23.0	27.5	23.0	25.0	19.0	15.0	17.0
27	28.5	24.0	26.0	26.0	21.0	23.5	25.5	24.5	25.0	19.5	17.5	18.5
28	30.0	24.0	26.5	27.5	22.0	24.5	27.0	24.0	25.0	20.0	16.0	18.5
29	28.5	24.0	26.0	25.0	22.5	23.5	27.0	23.5	25.0	20.0	14.5	17.0
30	27.0	24.0	25.5	23.0	21.5	22.0	24.5	20.0	22.5	18.0	11.0	15.5
31	---	---	---	22.0	21.0	21.5	23.5	18.5	21.0	---	---	---
MONTH	31.0	17.0	23.5	---	---	---	---	---	---	25.0	11.0	20.0
YEAR	31.0	8.5	19.0									

DISSOLVED OXYGEN (DO), MG/L. WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	6.3	5.8	6.1
2	---	---	---	---	---	---	7.2	6.5	6.8
3	---	---	---	---	---	---	8.2	7.5	7.8
4	---	---	---	---	---	---	9.6	8.6	9.2
5	---	---	---	---	---	---	10.1	9.1	9.7
6	---	---	---	---	---	---	9.4	8.7	9.3
7	---	---	---	---	---	---	9.2	8.9	9.1
8	---	---	---	---	---	---	10.6	9.4	10.0
9	---	---	---	---	---	---	11.7	9.8	10.7
10	9.9	9.5	9.7	---	---	---	11.7	9.1	10.7
11	10.1	9.8	9.9	---	---	---	10.4	8.7	9.6
12	10.6	9.5	10.2	---	---	---	9.7	8.5	9.1
13	---	---	---	---	---	---	10.2	8.6	9.5
14	---	---	---	---	---	---	9.9	8.1	9.2
15	---	---	---	---	---	---	8.7	7.0	7.9
16	---	---	---	4.4	3.3	3.8	8.7	7.0	7.8
17	---	---	---	4.5	3.2	3.9	8.1	6.1	7.4
18	---	---	---	4.4	3.1	3.8	6.6	5.4	6.0
19	---	---	---	4.1	3.1	3.6	7.3	5.8	6.8
20	---	---	---	3.9	2.8	3.4	8.2	7.6	7.8
21	---	---	---	3.6	2.8	3.2	8.6	7.5	8.0
22	---	---	---	3.6	3.1	3.3	8.9	8.3	8.5
23	11.5	10.1	11.1	3.6	3.2	3.4	10.3	9.4	9.8
24	11.9	11.1	11.4	3.8	3.5	3.7	10.2	9.0	9.8
25	11.1	10.5	10.9	4.4	4.0	4.2	10.3	9.1	9.7
26	10.8	10.3	10.6	5.0	4.7	4.9	9.7	8.6	9.2
27	11.1	10.5	10.8	5.4	5.1	5.3	9.8	8.2	9.1
28	11.0	10.1	10.6	5.6	5.1	5.4	9.6	7.7	8.8
29	10.3	9.3	9.9	5.6	5.3	5.5	9.3	8.0	8.6
30	9.9	9.5	9.7	5.9	5.4	5.7	9.3	8.1	8.7
31	---	---	---	---	---	---	9.5	7.7	8.7
MONTH	---	---	---	---	---	---	11.7	5.4	8.7

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

[illegible]

01124000 QUINEBAUG RIVER AT QUINEBAUG, CT

LOCATION.--Lat 42°01'20", long 71°57'22", Windham County, Hydrologic Unit 01100001, on right bank at Quinebaug, 500 ft (152 m) upstream from bridge on State Highway 197, 0.2 mi (0.3 km) downstream from Massachusetts-Connecticut State line, 7.8 mi (12.6 km) upstream from French River, and at mile 46 (74 km).

DRAINAGE AREA.--156 mi² (404 km²).

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

Chemical analyses: September 1952, March 1953, October 1959 to September 1960, January 1962 to November 1963, January to April 1969.

Water temperatures: October 1959 to September 1960.

REVISED RECORDS.--WSP 851: 1936(M), WSP 1201: 1939-43, 1947, 1949. WSP 1381: 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 341.52 ft (104.095 m) above mean sea level.

REMARKS.--Records good. Flow regulated by East Brimfield and Westville Lakes (Reservoirs in Thames River basin), and by smaller reservoirs upstream.

AVERAGE DISCHARGE.--45 years, 268 ft³/s (7.590 m³/s), 23.34 in/yr (593 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,300 ft³/s (1,400 m³/s) Aug. 19, 1955, gage height, 18.96 ft (5.779 m), from floodmarks, from rating curve extended above 5,100 ft³/s (144 m³/s) on basis of slope-area measurement of peak flow; minimum, about 1 ft³/s (0.028 m³/s) Sept. 9, 1943, July 12, 1949, Sept. 17, 18, 1950, July 9, 1951, Sept. 4, Oct. 29, 1956; minimum daily, about 1 ft³/s (0.028 m³/s) Sept. 4, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,620 ft³/s (74.2 m³/s) Jan. 28, gage height, 6.22 ft (1.896 m); minimum, 22 ft³/s (0.62 m³/s) July 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	630	309	538	513	1170	422	543	228	149	157	95	54
2	390	286	532	467	1530	405	811	560	217	89	93	67
3	304	263	478	433	1310	390	750	523	207	79	87	67
4	230	259	439	439	966	374	615	506	188	77	76	40
5	193	242	400	422	787	403	513	421	164	71	65	35
6	176	226	379	405	676	459	441	353	142	64	73	32
7	157	218	359	317	576	431	384	303	135	55	122	31
8	137	250	326	526	507	400	342	317	124	50	243	31
9	124	259	317	484	467	350	318	270	112	48	361	29
10	116	268	467	456	405	335	297	250	101	44	703	31
11	150	313	484	433	395	332	278	226	91	40	526	35
12	490	304	456	379	390	323	264	262	93	42	405	29
13	637	1040	416	390	384	452	245	246	78	47	286	41
14	600	1140	379	895	390	484	236	223	71	42	222	48
15	519	993	350	723	364	445	222	209	67	38	200	46
16	422	780	326	612	439	409	214	186	64	35	187	46
17	354	643	295	532	538	394	210	204	75	35	157	52
18	871	570	276	450	557	324	203	207	82	26	127	46
19	1150	495	238	400	737	362	192	323	84	24	104	45
20	1190	456	234	350	765	427	181	384	78	23	85	43
21	1090	501	218	340	650	549	163	408	77	32	73	46
22	951	716	222	322	689	605	156	442	75	38	65	43
23	765	637	242	300	751	547	169	381	69	32	58	41
24	600	588	290	300	624	486	161	328	63	85	73	40
25	544	544	322	290	563	431	173	284	60	71	71	28
26	526	495	400	286	526	387	273	246	51	68	71	24
27	472	551	682	1070	501	354	287	221	43	48	87	35
28	439	624	618	1880	478	414	289	196	39	50	56	69
29	405	576	563	1210	444	389	266	170	33	46	52	67
30	379	532	490	1010	---	260	237	157	37	48	56	63
31	336	---	557	1000	---	335	---	145	---	46	54	---
TOTAL	15347	15078	12293	17634	18579	12778	9433	9179	2869	1650	4933	1304
MEAN	495	503	397	569	641	412	314	296	95.6	53.2	159	43.5
MAX	1190	1140	682	1880	1530	605	811	560	217	157	703	69
MIN	116	218	218	286	364	323	156	145	33	23	52	24
(†)	-15.6	+2.9	-1.0	+47.2	-50.8	-1.4	-1.5	-1.0	-3.2	+0.7	-7.1	-4.6
MEAN†	479	506	396	616	590	411	312	295	92.4	53.9	152	38.9
CFSM†	3.07	3.24	2.54	3.95	3.78	2.63	2.00	1.89	0.59	0.35	0.97	0.25
IN.†	3.54	3.62	2.93	4.55	4.08	3.03	2.23	2.18	0.66	0.40	1.12	0.28
CAL YR 1975 TOTAL	116144			MEAN 318	MAX 1340	MIN 17		MEAN† 318	CFSM† 2.04	IN† 27.73		
WTR YR 1976 TOTAL	121077			MEAN 331	MAX 1880	MIN 23		MEAN† 328	CFSM† 2.10	IN† 28.62		

† Change in contents, equivalent in cubic feet per second, in East Brimfield, Westville, and West Thompson Lakes; furnished by Corps of Engineers.

‡ Adjusted for change in contents in East Brimfield and Westville Lakes.

01124350 FRENCH RIVER BELOW HODGES VILLAGE DAM, AT HODGES VILLAGE, MA

LOCATION.--Lat 42°07'06", long 71°52'54", Worcester County, Hydrologic Unit 01100001, on right bank at Hodges Village, 240 ft (73 m) downstream from Hodges Village Dam, 0.8 mi (1.3 km) west of Oxford, and 1.2 mi (1.9 km) upstream from Little River.

DRAINAGE AREA.--31.0 mi² (80.3 km²).

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

Chemical analyses: Water year 1962 (partial-record station).

Water temperatures: Water year 1962 (partial-record station).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 480 ft (146 m), from topographic map.

REMARKS.--Records good. Flow regulated by Hodges Village Reservoir (Reservoirs in Thames River basin). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--14 years, 53.1 ft³/s (1.504 m³/s), 23.26 in/yr (591 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 496 ft³/s (14.0 m³/s) Mar. 20, 1972, gage height, 3.19 ft (0.972 m); maximum gage height, 3.24 ft (0.988 m) Mar. 28, 1963; no flow for part of July 17, 1968, caused by unusual regulation; minimum daily discharge, 2.0 ft³/s (0.057 m³/s) Aug. 7, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 459 ft³/s (18.0 m³/s) Jan. 30, gage height, 3.11 ft (0.948 m); minimum, 3.0 ft³/s (0.085 m³/s) July 21, 22, 23; minimum daily, 3.1 ft³/s (0.088 m³/s) July 22.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	63	101	106	304	90	78	40	25	26	14	5.1
2	54	63	107	88	241	86	171	96	39	21	20	5.1
3	53	63	94	75	230	80	173	120	39	14	14	7.6
4	55	61	86	73	178	76	130	100	29	12	10	8.4
5	50	60	88	67	134	82	101	79	25	10	7.9	7.6
6	58	49	96	58	109	101	85	66	22	8.7	7.3	6.8
7	48	51	96	53	92	99	74	55	22	7.9	10	6.0
8	36	80	90	84	89	86	67	58	21	7.3	17	5.3
9	43	66	87	89	82	73	63	58	19	6.5	42	4.8
10	43	63	112	71	76	66	59	49	17	6.0	104	4.6
11	47	72	138	58	77	69	57	43	15	6.0	104	7.1
12	112	75	120	56	80	70	56	47	15	5.5	45	7.9
13	197	181	103	52	79	83	52	54	15	5.5	28	6.8
14	184	349	92	119	82	119	49	47	14	5.1	19	6.3
15	144	300	88	196	78	109	42	43	13	4.3	19	5.5
16	109	194	84	128	92	93	39	38	13	4.3	25	5.3
17	84	149	70	96	120	83	39	37	13	4.6	19	5.3
18	107	84	54	75	132	77	38	39	15	4.8	17	6.8
19	249	77	48	61	146	72	36	51	14	5.3	14	9.7
20	254	82	43	53	175	83	33	75	13	9.7	12	16
21	220	84	43	62	146	127	31	72	12	3.9	11	17
22	165	135	42	60	132	152	29	79	12	3.1	9.0	17
23	116	143	29	51	184	132	35	71	10	4.1	8.4	17
24	93	117	37	52	165	104	33	58	9.7	12	6.8	16
25	93	103	37	52	126	91	32	48	9.0	18	6.3	16
26	93	94	49	53	110	82	52	41	8.4	11	5.8	16
27	93	97	115	106	106	72	63	38	7.9	7.9	5.5	16
28	84	135	134	96	102	81	58	34	6.8	6.8	5.8	18
29	75	131	105	283	95	88	53	29	6.5	5.8	6.0	17
30	70	111	80	421	---	76	44	26	6.3	6.0	6.3	17
31	66	---	93	382	---	69	---	25	---	7.1	5.8	---
TOTAL	3175	3332	2561	3276	3761	2771	1872	1716	486.6	260.2	624.9	305.0
MEAN	102	111	82.6	106	130	89.4	62.4	55.4	16.2	8.39	20.2	10.2
MAX	254	349	138	421	304	152	173	120	39	26	104	18
MIN	36	49	29	51	76	66	29	25	6.3	3.1	5.5	4.6
MEAN†	102	111	82.5	114	121	89.3	62.2	55.3	16.2	8.39	20.2	10.2
CFSM†	3.29	3.58	2.66	3.68	3.90	2.88	2.01	1.78	0.52	0.27	0.65	0.33
IN.†	3.80	4.01	3.07	4.24	4.20	3.32	2.24	2.06	0.58	0.31	0.75	0.37
CAL YR 1975 TOTAL	23534.7											
WTR YR 1976 TOTAL	24140.7											
MEAN 64.5												
MAX 349												
MIN 2.2												
MEAN† 64.5												
MEAN† 65.9												
CFSM† 2.08												
CFSM† 2.13												
IN† 28.25												
IN† 28.95												

† Adjusted for change in contents in Hodges Village Reservoir.

THAMES RIVER BASIN

01124500 LITTLE RIVER AT BUFFUMVILLE, MA

LOCATION.--Lat 42°06'57", long 71°53'26", Worcester County, Hydrologic Unit 01100001, on left bank 0.6 mi (1.0 km) upstream from mouth, 0.8 mi (1.3 km) east of Buffumville, 1.1 mi (1.8 km) downstream from Buffumville Dam, and 1.5 mi (2.4 km) west of Oxford.

DRAINAGE AREA.--27.7 mi² (71.7 km²).

PERIOD OF RECORD.--Discharge: July 1939 to current year.
Chemical analyses: Water year 1973 (partial-record station).

REVISED RECORDS.--WSP 1201: 1940, 1948.

GAGE.--Water-stage recorder. Datum of gage is 457.00 ft (139.294 m) above mean sea level, unadjusted (levels by Corps of Engineers).

REMARKS.--Records excellent except those for periods of no gage-height record or backwater from leaves, which are good. Flow regulated by Buffumville Lake since 1958 (Reservoirs in Thames River basin) and by other reservoirs upstream. Prior to 1958, flow regulated by mill upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 47.2 ft³/s (1.337 m³/s), 23.14 in/yr (588 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,340 ft³/s (236 m³/s) Aug. 19, 1955, gage height, 15.53 ft (4.734 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of computation of peak flow over dam; minimum, 0.1 ft³/s (0.003 m³/s) Sept. 25, 26, 1957. Maximum discharge since construction of Buffumville Dam in 1958, 429 ft³/s (12.1 m³/s) Apr. 7, 1959, gage height, 5.04 ft (1.536 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 330 ft³/s (9.35 m³/s) Jan. 30, gage height, 4.67 ft (1.423 m); minimum, 3.3 ft³/s (0.093 m³/s) June 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	38	98	108	294	76	77	49	28	13	14	9.2
2	36	35	95	101	280	74	128	84	32	13	14	10
3	8.5	27	90	90	257	72	148	117	34	15	14	10
4	12	27	81	84	207	68	131	120	33	15	14	8.9
5	15	34	71	75	158	66	106	102	31	14	13	8.9
6	17	35	64	64	127	78	87	82	28	13	14	8.5
7	16	36	60	57	105	80	74	67	26	11	18	8.1
8	14	37	56	76	90	78	65	63	25	9.0	28	7.6
9	13	40	53	87	80	76	58	61	23	8.3	50	6.8
10	11	22	68	85	72	62	53	56	22	7.6	111	6.8
11	13	39	83	73	67	54	50	50	19	7.4	147	8.1
12	40	30	87	65	66	51	48	50	18	7.1	117	7.6
13	73	27	79	58	66	58	45	52	16	6.2	80	7.0
14	113	120	70	105	68	90	43	52	14	5.8	55	7.0
15	108	274	64	158	67	100	41	50	13	5.4	45	6.3
16	78	266	59	150	72	92	39	45	13	5.0	44	6.0
17	40	212	54	125	92	85	39	43	13	5.0	39	6.5
18	53	136	51	102	114	74	37	42	12	4.7	34	7.6
19	160	101	46	84	130	70	36	51	12	4.4	29	7.0
20	199	82	41	71	140	67	34	64	12	4.0	24	6.5
21	174	80	39	64	145	94	32	74	11	5.6	21	6.5
22	111	114	42	64	130	125	30	81	11	9.1	18	6.5
23	34	128	42	59	150	125	32	79	9.8	8.3	16	5.8
24	52	119	40	55	150	105	31	69	9.4	12	15	5.3
25	64	105	38	51	110	90	32	58	8.0	12	13	5.1
26	57	92	50	50	98	77	42	50	5.9	12	12	4.9
27	53	92	93	94	67	69	52	44	5.6	11	12	5.3
28	51	111	126	141	70	71	56	39	4.6	11	12	5.3
29	47	116	126	152	76	72	55	35	3.6	11	12	4.9
30	44	106	109	312	---	70	53	32	3.8	11	10	4.9
31	41	---	106	317	---	65	---	29	---	10	9.6	---
TOTAL	1817.5	2681	2181	3177	3548	2434	1754	1890	496.7	286.9	1054.6	208.9
MEAN	58.6	89.4	70.4	102	122	78.5	58.5	61.0	16.6	9.25	34.0	6.96
MAX	199	274	126	317	294	125	148	120	34	15	147	10
MIN	8.5	22	38	50	66	51	30	29	3.6	4.0	9.6	4.9
MEAN†	56.4	94.1	70.4	120	102	78.5	57.8	60.0	14.6	9.59	34.4	6.27
CFSM†	2.04	3.40	2.54	4.33	3.68	2.83	2.09	2.17	.53	.35	1.24	.23
IN.†	2.35	3.79	2.93	5.00	3.99	3.27	2.33	2.50	.59	.40	1.43	.25

CAL YR 1975 TOTAL 19914.9 MEAN 54.6 MAX 278 MIN 2.2 MEAN† 54.7 CFSM† 1.97 IN† 26.80
WTR YR 1976 TOTAL 21529.6 MEAN 58.8 MAX 317 MIN 3.6 MEAN† 58.6 CFSM† 2.12 IN† 28.82

† Adjusted for change in contents in Buffumville Lake.

NOTE.--No gage-height record Oct. 28 to Nov. 13, Feb. 19 to Mar. 25. Backwater from leaves Aug. 17 to Sept. 30.

01124750 BROWNS BROOK NEAR WEBSTER, MA

LOCATION.--Lat 42°03'24", long 71°49'51", Worcester County, Hydrologic Unit 01100001, on left bank 15 ft (5 m) downstream from culvert on State Highway 16 and 1.8 mi (2.9 km) east of Webster.

DRAINAGE AREA.--0.49 mi² (1.27 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 630 ft (192 m), from topographic map.

REMARKS.--Records fair. Recording rain gage at station April 1963 to December 1974 (no winter records).

AVERAGE DISCHARGE.--13 years (water years 1964-76), 1.12 ft³/s (0.032 m³/s), 31.04 in/yr (788 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 125 ft³/s (3.54 m³/s) Mar. 18, 1968, gage height, 2.46 ft (0.750 m); no flow at times during water years 1963-65, 1968-71, 1974-75.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 5.0 ft³/s (0.14 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 18	1315	9.0 0.25	1.83 0.558	Feb. 2	0645	10 0.28	1.85 0.564
Nov. 21	2045	9.0 0.25	1.83 0.558	Mar. 13	1615	7.0 0.20	1.79 0.546
Jan. 14	0530	8.0 0.23	1.81 0.552	May 21	-	8.5 0.24	-
Jan. 28	0545	*23 0.65	*2.01 0.613				

Minimum discharge, 0.05 ft³/s (0.001 m³/s) Aug. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.60	2.1	2.1	3.2	1.7	3.2	1.3	1.4	.40	.20	.18
2	.10	.60	2.1	1.8	6.5	1.5	3.8	3.2	1.4	.20	.12	.22
3	.10	.52	2.1	1.6	3.2	1.4	2.4	2.6	1.3	.12	.08	.30
4	.10	.52	1.8	1.6	3.0	1.3	2.0	2.4	1.0	.10	.06	.22
5	.10	.52	1.5	1.5	2.6	1.5	1.7	2.4	.86	.09	.06	.22
6	.10	.52	1.5	1.3	2.4	1.8	1.7	2.4	.79	.09	.14	.18
7	.10	.52	1.2	1.2	2.0	1.5	1.4	2.4	.79	.09	.20	.16
8	.10	.52	1.1	2.3	1.7	1.4	1.4	2.2	.86	.16	.72	.16
9	.10	.52	1.1	2.1	1.4	1.3	1.3	1.7	.72	.27	.65	.14
10	.10	.52	1.9	1.9	1.4	1.3	1.2	1.7	.49	.16	1.0	.16
11	.35	.52	1.5	1.8	1.4	1.3	1.0	1.4	.40	.12	.54	.27
12	2.1	.59	1.5	1.8	1.3	1.2	.94	2.4	.49	.10	.40	.18
13	3.2	3.2	1.3	1.8	1.2	4.1	.94	2.0	.44	.10	.33	.16
14	2.1	3.5	1.2	4.8	1.0	3.0	.86	1.8	.40	.09	.24	.16
15	1.9	3.0	1.2	3.2	.94	2.4	.86	1.7	.40	.09	.40	.16
16	1.8	2.3	1.2	2.5	.94	2.4	.79	1.4	.40	.08	.33	.16
17	1.6	2.3	.95	2.5	.94	2.4	.79	1.8	.33	.08	.27	.18
18	5.6	2.3	.95	2.1	.94	2.2	.72	1.7	.33	.07	.27	.20
19	7.5	2.1	.85	1.6	1.5	2.2	.59	1.8	.33	.07	.24	.20
20	5.2	1.8	.76	1.6	1.5	3.0	.59	2.0	.33	.06	.22	.18
21	3.2	3.0	.76	1.6	1.5	3.8	.54	3.0	.33	.10	.22	.16
22	2.5	4.5	.76	1.3	1.7	3.2	.65	3.8	.33	.14	.18	.16
23	1.9	3.0	.67	1.3	2.0	3.0	.79	3.0	.30	.09	.18	.16
24	1.5	3.0	.67	1.1	2.0	2.8	.65	3.0	.27	.30	.18	.16
25	1.6	3.0	.67	1.1	2.0	2.8	.72	2.8	.20	.13	.16	.13
26	1.8	2.7	1.6	.85	2.0	2.4	1.7	2.4	.16	.08	.16	.13
27	1.1	3.0	3.2	8.5	2.0	2.8	1.2	2.2	.14	.07	.20	.14
28	.85	3.2	2.3	14	1.8	2.6	1.0	2.2	.13	.06	.27	.16
29	.76	2.5	2.3	11	1.8	2.2	1.0	1.8	.14	.06	.30	.16
30	.67	2.3	2.1	5.6	---	2.0	1.0	1.5	.22	.08	.24	.16
31	.67	---	2.3	3.8	---	1.7	---	1.5	---	.09	.18	---
TOTAL	48.92	57.17	45.14	91.25	55.86	68.2	37.43	67.5	15.68	3.74	8.74	5.31
MEAN	1.58	1.91	1.46	2.94	1.93	2.20	1.25	2.18	.52	.12	.28	.18
MAX	7.5	4.5	3.2	14	6.5	4.1	3.8	3.8	1.4	.40	1.0	.30
MIN	.10	.52	.67	.85	.94	1.2	.54	1.3	.13	.06	.06	.13
CFSM	3.22	3.90	2.98	6.00	3.94	4.49	2.55	4.45	1.06	.24	.57	.37
IN.	3.71	4.33	3.42	6.91	4.23	5.17	2.84	5.11	1.19	.28	.66	.40
CAL YR 1975	TOTAL 445.48	MEAN 1.22	MAX 7.5	MIN 0	CFSM 2.49	IN 33.75						
WTR YR 1976	TOTAL 504.94	MEAN 1.38	MAX 14	MIN .06	CFSM 2.82	IN 38.26						

NOTE.--No gage-height record May 21.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	62	60	61	64	57	60	58	52	56
2	---	---	---	62	60	60	63	57	60	57	53	55
3	---	---	---	63	60	62	63	59	61	60	52	55
4	---	---	---	65	61	62	62	59	60	57	52	54
5	---	---	---	67	62	64	64	58	61	60	52	56
6	---	---	---	67	64	65	64	56	60	62	54	58
7	---	---	---	69	64	65	63	56	59	60	56	59
8	---	---	---	66	30	64	62	57	59	60	56	58
9	---	---	---	65	59	61	61	56	59	63	55	58
10	---	---	---	64	59	61	62	55	58	63	56	59
11	---	---	---	94	59	64	60	54	58	65	57	60
12	---	---	---	65	60	62	59	53	56	62	56	59
13	62	59	60	173	60	85	61	53	57	64	58	61
14	61	60	61	73	65	68	64	54	58	64	58	61
15	72	54	61	67	62	65	62	54	57	65	59	62
16	62	61	61	62	58	61	65	56	59	64	58	60
17	118	62	72	60	58	59	63	56	59	65	59	63
18	79	63	70	60	58	59	65	56	60	65	60	63
19	79	67	73	64	59	61	63	56	59	63	58	61
20	74	63	68	72	60	65	62	56	59	63	59	61
21	65	63	64	68	63	65	60	55	57	63	58	60
22	66	63	64	66	62	64	61	55	57	61	58	60
23	64	62	63	68	61	64	60	54	57	64	59	62
24	63	61	62	65	59	62	59	54	56	65	60	62
25	64	60	62	62	59	60	60	54	55	64	59	62
26	63	60	61	67	58	62	60	56	57	64	60	62
27	64	60	61	64	58	61	59	55	56	66	61	63
28	64	59	61	67	61	64	60	55	57	68	59	65
29	62	59	61	66	60	63	59	55	56	67	62	64
30	---	---	---	64	58	61	59	54	56	68	63	65
31	---	---	---	63	58	61	---	---	---	68	63	66
MONTH	---	---	---	173	30	63	65	53	58	68	52	60
JUNE				JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	68	63	66	81	79	80	76	73	75	73	68	71
2	67	63	65	83	79	81	77	74	75	74	68	70
3	69	60	66	84	80	82	76	66	72	72	67	69
4	66	64	66	84	77	82	75	70	73	71	67	69
5	70	60	66	86	80	84	75	73	74	71	68	70
6	68	65	66	---	---	---	75	73	74	71	67	69
7	69	65	68	---	---	---	74	72	73	71	67	68
8	72	67	70	85	77	82	74	70	72	71	66	68
9	75	68	70	83	80	81	75	71	73	71	66	68
10	74	70	72	83	78	81	75	72	73	71	66	68
11	75	71	73	---	---	---	74	71	72	70	66	67
12	74	70	71	---	---	---	73	70	71	69	66	67
13	72	69	71	---	---	---	75	71	73	70	66	68
14	74	70	72	---	---	---	76	72	74	72	67	70
15	75	72	73	73	65	68	74	70	72	71	67	69
16	77	73	75	76	72	74	73	69	72	71	68	70
17	75	73	74	75	67	73	73	70	71	71	67	69
18	77	73	75	77	71	75	74	69	72	71	68	69
19	76	74	75	86	75	79	74	70	72	71	68	70
20	77	75	76	85	70	79	72	77	73	72	68	70
21	78	75	76	85	81	83	78	73	76	71	69	70
22	79	75	77	85	71	75	77	73	75	71	66	68
23	80	77	78	74	71	72	77	73	75	71	65	68
24	80	77	79	74	71	72	76	72	74	70	65	67
25	81	78	79	75	71	73	77	71	74	69	65	67
26	81	78	80	74	71	73	76	70	74	69	64	67
27	81	79	80	74	71	72	77	70	72	70	65	68
28	83	80	81	70	61	67	74	70	72	67	64	65
29	82	80	81	72	69	71	74	70	72	66	63	64
30	82	75	81	77	72	75	73	69	70	67	62	65
31	---	---	---	76	74	75	73	68	70	---	---	---
MONTH	83	60	73	86	61	76	78	66	73	74	62	68
YEAR	173	30	67									

THAMES RIVER BASIN

01124750 BRONWS BROOK NEAR WEBSTER, MA--Continued

TEMPERATURE (DEG. C) OF WATER. WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.0	12.5	13.5	9.5	7.5	8.5	7.5	5.5	6.5	3.0	2.0	2.5
2	13.5	11.5	13.0	10.5	8.5	9.5	6.0	5.0	5.5	2.5	1.5	2.0
3	12.5	10.5	11.5	11.0	9.0	10.0	5.0	3.5	4.5	2.5	2.0	2.0
4	13.0	10.5	12.0	12.0	10.0	11.0	4.5	3.0	3.5	2.5	1.0	2.0
5	13.0	11.0	12.0	11.5	9.5	10.5	4.0	2.5	3.5	1.0	0.0	0.5
6	14.0	12.0	13.0	11.0	8.5	9.5	6.0	4.0	5.0	1.0	0.0	0.5
7	13.0	10.5	12.0	11.5	9.5	10.5	5.0	3.0	4.0	2.0	1.0	1.5
8	12.5	10.0	11.5	12.5	11.0	11.5	3.5	3.0	3.5	2.0	0.5	1.5
9	12.5	10.5	11.5	12.5	10.5	11.5	4.5	3.5	4.0	1.0	0.0	0.5
10	12.0	10.0	11.0	12.5	11.0	12.0	5.0	4.5	5.0	1.0	0.0	0.5
11	12.0	11.0	11.5	11.5	9.5	10.5	5.0	4.0	4.5	0.5	0.0	0.5
12	12.0	11.0	11.5	11.0	8.5	10.0	5.0	4.0	4.5	1.0	0.0	0.5
13	12.0	11.0	11.5	10.5	10.0	10.0	4.5	4.0	4.0	2.0	0.5	1.0
14	12.5	11.5	12.0	10.0	8.5	9.5	5.5	4.0	5.0	2.0	0.5	1.0
15	13.5	12.0	12.5	8.0	7.5	7.5	6.5	5.0	6.0	1.5	0.5	0.5
16	13.5	11.5	12.5	7.5	7.0	7.0	6.5	4.5	5.5	1.0	0.5	0.5
17	12.5	11.5	11.5	7.5	7.0	7.0	5.0	3.5	4.5	1.5	0.0	0.5
18	11.5	11.0	11.5	8.5	7.0	7.5	5.0	2.5	4.0	0.5	0.0	0.0
19	11.0	10.5	10.5	8.0	6.5	7.5	3.0	1.0	2.5	1.0	0.0	0.0
20	11.0	10.5	10.5	9.0	7.0	8.0	2.5	1.5	2.0	0.5	0.0	0.5
21	11.5	10.0	11.0	10.0	8.0	9.0	2.5	0.5	2.0	1.0	0.5	1.0
22	12.5	11.0	11.5	9.0	7.0	8.0	2.5	0.0	1.5	1.0	0.0	0.5
23	12.5	11.0	11.5	7.0	6.0	6.5	3.0	1.5	2.0	0.5	0.0	0.0
24	12.5	10.5	11.5	6.0	5.0	5.5	2.0	0.5	1.0	0.5	0.0	0.5
25	12.5	11.5	12.0	5.5	5.0	5.0	2.0	0.5	1.5	1.0	0.5	1.0
26	12.5	11.0	12.0	6.0	5.0	5.5	3.0	2.0	2.5	2.0	1.0	1.5
27	12.0	10.0	11.0	6.0	5.0	5.5	2.0	1.5	2.0	2.0	0.5	1.0
28	12.0	9.5	10.5	6.0	5.0	5.5	3.0	2.0	2.0	1.5	0.5	1.0
29	12.5	10.0	11.0	5.5	4.5	5.0	2.5	1.5	2.0	1.5	0.5	1.0
30	11.0	8.5	10.0	6.5	5.0	5.5	2.5	1.0	2.0	1.0	0.5	1.0
31	9.5	8.0	8.5	---	---	---	3.5	2.5	3.0	1.0	0.0	0.5
MONTH	15.0	8.0	11.5	12.5	4.5	8.5	7.5	0.0	3.5	3.0	0.0	1.0
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1.5	0.5	1.0	4.0	3.5	4.0	7.0	5.5	6.0	10.0	7.5	9.0
2	1.5	0.0	0.5	3.5	1.5	2.5	7.5	5.0	6.5	11.5	9.0	10.0
3	0.5	0.0	0.0	2.0	1.0	1.5	8.0	5.5	6.5	13.0	9.0	10.0
4	1.0	0.0	0.5	3.0	2.0	2.5	7.5	5.0	6.0	10.5	8.0	8.5
5	1.0	0.0	0.0	5.5	3.0	4.0	8.0	4.5	6.0	11.5	7.0	9.0
6	0.5	0.0	0.5	5.5	2.5	4.0	7.5	4.5	6.0	13.0	9.0	10.5
7	0.5	0.0	0.0	4.5	2.0	3.0	8.0	5.0	6.0	10.5	10.0	10.0
8	1.0	0.0	0.5	3.5	1.0	2.0	7.5	4.5	5.5	11.5	8.5	10.0
9	1.5	0.0	0.5	2.0	0.5	1.0	7.0	4.5	5.5	11.5	7.5	9.5
10	1.5	0.0	1.0	2.5	1.0	1.5	8.5	4.0	6.0	12.5	8.0	10.0
11	2.0	1.0	1.5	4.0	1.0	2.0	6.5	3.5	5.0	12.5	9.5	11.0
12	2.0	0.5	1.0	3.5	0.5	2.0	6.5	3.0	4.5	11.5	9.5	10.5
13	3.0	1.0	2.0	3.0	1.5	2.5	8.0	3.0	5.0	12.0	8.5	10.0
14	2.5	0.5	1.5	4.5	2.0	3.0	10.0	4.5	6.5	12.5	9.5	11.0
15	2.0	0.0	1.0	5.0	2.0	3.0	9.0	5.0	7.0	13.5	11.0	12.0
16	3.5	2.0	2.5	3.0	0.0	2.0	11.5	7.0	9.0	12.5	10.5	11.5
17	3.0	2.0	2.5	3.0	0.5	1.5	13.5	7.5	10.5	13.0	11.0	12.0
18	2.0	1.5	2.0	3.0	0.5	1.5	14.0	9.0	11.5	13.0	11.5	12.0
19	4.0	2.0	3.0	4.0	1.5	2.5	15.0	9.5	12.0	11.5	9.5	10.5
20	4.0	2.0	3.0	5.5	2.5	4.0	15.0	10.0	12.0	10.5	9.0	9.5
21	3.5	1.5	2.5	6.0	4.0	5.0	13.5	9.5	11.5	11.5	8.5	10.0
22	4.5	3.0	4.0	6.0	3.5	4.5	11.5	9.5	10.5	10.5	9.0	9.5
23	3.5	1.5	2.5	6.0	3.0	4.0	14.0	9.0	11.0	11.0	9.0	10.0
24	3.5	1.0	2.0	7.0	3.0	5.0	12.0	8.0	9.5	10.5	9.0	10.0
25	5.0	2.0	3.0	7.0	4.5	5.5	9.0	7.5	8.5	10.0	9.0	9.5
26	5.0	2.5	3.5	8.5	4.5	6.0	8.0	7.0	7.5	10.0	9.0	9.5
27	6.0	3.5	4.5	9.0	5.0	7.0	8.5	6.5	7.5	11.0	9.0	10.0
28	6.0	3.0	4.0	8.0	6.0	7.0	9.5	6.5	8.0	12.5	9.5	11.0
29	5.0	2.0	3.5	9.0	5.0	6.5	9.5	7.0	8.0	12.5	10.0	11.0
30	---	---	---	7.5	5.0	6.0	11.0	6.5	8.5	11.5	10.5	11.0
31	---	---	---	6.5	5.0	6.0	---	---	---	13.5	11.0	12.0
MONTH	6.0	0.0	2.0	9.0	0.0	3.5	15.0	3.0	8.0	13.5	7.0	10.5

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

[illegible]

01125000 FRENCH RIVER AT WEBSTER, MA

LOCATION.--Lat 42°03'03", long 71°53'08", Worcester County, Hydrologic Unit 01100001, on right bank in Dudley, 50 ft (15 m) upstream from Pleasant Street Bridge at Webster, and 1.1 mi (1.8 km) upstream from Potash Brook.

DRAINAGE AREA. -- 85.3 mi² (220.9 km²).

PERIOD OF RECORD.--Discharge:December 1948 to current year.

Chemical analyses: Water years 1955, 1962 (partial-record station).

Water temperatures: Water year 1955 (partial-record station).

REVISED RECORDS.--WSP 1721: 1959 (adjusted monthly and yearly figures only). WSP 2101: 1960.

GAGE.--Water-stage recorder. Datum of gage is 406.74 ft (123.974 m) above mean sea level.

REMARKS.--Records good. Flow regulated by mills, by Lake Chaubunagungamaug, estimated usable capacity, 207,000,000 ft³ (5,860,000 m³), by Buffumville Lake and Hodges Village Reservoir (Reservoirs in Thames River basin), and by smaller reservoirs upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years (water years 1950-76), 158 ft³/s (4.475 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,400 ft³/s (408 m³/s) Aug. 19, 1955, gage height, 26.05 ft (7.940 m), from floodmarks, from rating curve extended above 2,400 ft³/s (68.0 m³/s) on basis of computation of peak flow over dam; minimum daily, 2.2 ft³/s (0.062 m³/s) Aug. 15, 1965. Maximum discharge since construction of Buffumville Dam in 1958, 1,020 ft³/s (28.9 m³/s) Apr. 2, 1960, gage height, 7.56 ft (2.304 m); maximum gage height, 7.92 ft (2.414 m) Mar. 21, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 19, 1936, reached a discharge of 4,700 ft³/s (133 m³/s), by computation of flow over dam about 0.5 mi (0.8 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 938 ft³/s (26.6 m³/s) Jan. 30, gage height, 7.74 ft (2.359 m); minimum daily, 16 ft³/s (0.45 m³/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	212	185	262	262	845	224	238	171	86	50	32	25
2	170	192	262	234	855	228	317	220	92	53	37	32
3	82	170	248	221	774	224	423	265	96	44	39	28
4	82	137	230	204	636	217	375	281	84	42	32	26
5	82	140	208	181	492	224	281	238	74	38	33	27
6	78	137	208	188	390	228	235	228	66	32	49	26
7	99	105	204	188	314	220	220	228	59	28	43	25
8	55	177	192	225	269	228	217	210	56	29	88	25
9	62	161	192	230	242	224	203	200	53	27	159	23
10	64	149	221	200	228	210	190	180	49	26	257	24
11	91	170	253	177	220	207	180	156	47	25	306	25
12	225	170	257	192	220	200	171	180	50	25	242	18
13	285	300	234	188	213	224	159	177	45	31	193	16
14	345	508	208	345	217	238	143	165	42	30	150	17
15	327	764	188	456	220	250	130	156	39	26	110	17
16	239	666	188	432	217	242	125	143	37	25	94	17
17	200	561	196	315	250	231	140	145	37	23	79	20
18	239	365	185	235	299	217	127	137	38	20	66	20
19	420	221	161	185	387	224	115	165	39	18	56	22
20	657	200	140	174	478	220	109	203	40	18	50	23
21	619	221	140	174	432	257	96	224	37	25	43	29
22	541	339	149	165	390	332	96	224	33	18	43	32
23	295	381	137	170	432	321	113	224	29	19	42	30
24	216	342	132	170	441	257	104	217	28	29	40	31
25	221	271	129	161	359	224	111	193	28	25	37	29
26	208	243	170	164	286	220	168	168	26	26	32	30
27	192	253	257	415	257	228	184	148	25	27	32	33
28	192	304	345	791	224	228	184	135	23	26	31	34
29	192	335	327	544	220	228	171	118	22	25	31	32
30	185	290	248	899	---	228	159	109	25	26	29	30
31	185	---	243	920	---	220	---	98	---	25	27	---
TOTAL	7060	8457	6514	9405	10807	7223	5484	5706	1405	881	2502	766
MEAN	228	282	210	303	373	233	183	184	46.8	28.4	80.7	25.5
MAX	657	764	345	920	855	332	423	281	96	53	306	34
MIN	55	105	129	161	213	200	96	98	22	18	27	16
CAL YR 1975	TOTAL	62466	MEAN 171	MAX 764	MIN 19							
WTR YR 1976	TOTAL	66210	MEAN 181	MAX 920	MIN 16							

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 (1.1 km) southwest of Fiskdale, MA, 1.2 mi (1.9 km) east of East Brimfield. DRAINAGE AREA, 67.5 mi² (174.8 km²). PERIOD OF RECORD, July 1960 to current year. Completed in 1960 by Corps of Engineers for storage of water for recreation, conservation, and flood control. Usable capacity, 1,400,000,000 ft³ (39,600,000 m³), including 83,000,000 ft³ (2,350,000 m³) storage in recreation and conservation pool. Records furnished by 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 (2.1 km) west of Southbridge, MA. DRAINAGE AREA, 99.1 mi² (256.7 km²). Completed in 1962 by Corps of Engineers for storage of water for recreation and flood control. Usable capacity, 484,000,000 ft³ (13,700,000 m³), including 4,400,000 ft³ (125,000 m³) storage in recreation pool. Records furnished by 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, MA. DRAINAGE AREA, 31.1 mi² (80.5 km²). PERIOD OF RECORD, Feb. 1960 to current year. Completed in 1960 by Corps of Engineers for storage of water for flood control. Usable capacity, 577,000,000 ft³ (16,300,000 m³). Records furnished by Corps of Engineers.
- 01124400 BUFFUMVILLE LAKE.--Lat 42°06'58", long 71°54'29", Worcester County, Hydrologic Unit 01100001, on Little River at Buffumville, MA, 2.2 mi (3.5 km) west of Oxford. DRAINAGE AREA, 26.5 mi² (68.6 km²). PERIOD OF RECORD, September 1958 to current year. Completed in 1958 by Corps of Engineers for storage of water for recreation and flood control. Usable capacity, 555,000,000 ft³ (15,700,000 m³), including 61,000,000 ft³ (1,730,000 m³) storage in recreation pool. Records furnished by Corps of Engineers.

MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	East Brimfield Lake	Westville Lake	Hodges Village Reservoir	Buffumville Lake
Sept. 30, 1975	150.7	13.5	1.9	66.2
Oct. 31.....	116.0	6.3	1.2	60.1
Nov. 30.....	122.1	7.6	1.9	72.4
Dec. 31.....	119.9	7.0	1.6	72.4
Jan. 31, 1976.....	224.3	28.9	24.1	119.8
Feb. 28.....	119.9	6.1	1.5	69.7
Mar. 31.....	116.0	6.3	1.2	69.7
Apr. 30.....	112.6	5.8	0.8	68.0
May 31.....	109.3	6.4	0.6	65.3
June 30.....	102.7	4.6	0.5	60.1
July 31.....	104.4	4.7	0.5	61.0
Aug. 31.....	85.3	4.9	0.5	61.9
Sept. 30.....	73.2	5.0	0.6	60.1

CONNECTICUT RIVER BASIN

01161280 CONNECTICUT RIVER NEAR NORTHFIELD, MA

LOCATION.--Lat 42°41'05", long 72°28'22", Franklin County, Hydrologic Unit 01080201, on upstream side of bridge on State Highway 10, 1.1 mi (1.8 km) southwest of Northfield Town Hall, and 1.7 mi (2.7 km) downstream from Pauchaug Brook.

DRAINAGE AREA.--7,025 mi² (18,205 km²).

PERIOD OF RECORD.--October 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	COD IN BOTTOM MATERIAL (MG/KG)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
OCT 28...	1300	96	7.0	9.0	12.0	--	4	10.4	14	--	3700	--
DEC 08...	1400	108	7.2	0.0	2.0	--	2	13.2	11	--	3200	88
APR 14...	1200	96	7.4	21.0	8.0	--	4	12.4	12	16000	1400	832
JUN 03...	1430	100	7.3	20.0	19.0	--	2	9.3	28	--	4000	60
23...	1530	175	6.8	30.0	25.0	--	2	8.4	<10	--	6600	843
28...	0915	118	7.3	24.0	24.0	4	1	8.4	12	22000	2500	72
JUL 20...	1430	152	7.3	24.5	23.0	--	3	7.4	12	--	36000	180
SEP 08...	1100	153	7.3	24.0	19.5	--	5	8.6	10	35000	43000	350

DATE	STREPTOCOCCI (COLONIES PER 100 ML)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	TOTAL RESIDUE (MG/L)	LOSS ON IGNITION IN BOTTOM MATERIAL (MG/KG)
OCT 28...	280	--	--	--	--	--	--	--	--	10	77	--
DEC 08...	176	--	--	--	--	--	--	--	--	3	82	--
APR 14...	816	11	1.5	32	0	26	2.0	9.3	6.5	9	86	17000
JUN 03...	812	--	--	--	--	--	--	--	--	7	73	--
23...	822	--	--	--	--	--	--	--	--	4	80	--
28...	88	16	1.4	47	0	39	3.8	9.3	6.3	--	83	17000
JUL 20...	--	--	--	--	--	--	--	--	--	1	79	--
SEP 08...	120	19	2.1	45	0	37	3.2	12	10	6	87	32000

B NON-IDEAL COLONY COUNT.

CONNECTICUT RIVER BASIN

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01161280 CONNECTICUT RIVER NEAR NORTHFIELD, MA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	PHENOLS (UG/L)	OIL AND GREASE (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)
OCT 28...	.18	.01	.19	.06	.35	.41	.60	.03	--	0	.000	.000
DEC 08...	.25	.01	.26	.01	.21	.22	.48	.04	--	0	.000	.000
APR 14...	.35	.01	.36	.02	.31	.33	.69	.02	1	0	.000	.000
JUN 03...	.20	.01	.21	.04	.29	.33	.54	.03	--	0	.000	.000
23...	.18	.03	.21	.06	.19	.25	.46	.06	--	0	12.9	1.47
28...	--	--	.17	.06	.32	.38	.55	.04	0	0	9.65	.000
JUL 20...	.24	.01	.25	.06	.19	.25	.50	.02	--	0	2.73	.000
SEP 08...	.20	.01	.21	.01	.14	.15	.36	.04	0	0	7.07	1.19

DATE	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL CHRO- MIUM IN BOTTOM MA- TERIAL (UG/G)
JUN 28...	<10	2

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDED GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED GROSS BETA AS SR90 (PC/L)	SUS- PENDED GROSS BETA AS SR90 (PC/L)
OCT 28...	<.6	.9	2.2	.7	1.8	.6
DEC 08...	<.8	<.4	1.8	<.4	1.4	<.4

CONNECTICUT RIVER BASIN

01161500 TARBELL BROOK NEAR WINCHENDON, MA

LOCATION.--Lat 42°42'45", long 72°05'09", Worcester County, Hydrologic Unit 01080202, on left bank 0.1 mi (0.2 km) downstream from Spud Brook, 0.3 mi (0.5 km) downstream from Massachusetts-New Hampshire State line, and 2.8 mi (4.5 km) northwest of Winchendon.

DRAINAGE AREA.--18.2 mi² (47.1 km²).

PERIOD OF RECORD.--Discharge: May 1916 to current year. Prior to October 1950, published as Sip Pond Brook near Winchendon.

Chemical analyses: Water years 1965-66 (partial-record station).
Water temperatures: Water years 1965-66 (partial-record station).

REVISED RECORDS.--WSP 781: 1934. WSP 871: Drainage area. WSP 1051: 1928(M), 1933-34. WSP 1301: 1917(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 24, 1965. Datum of gage is 872.82 ft (266.036 m) above mean sea level. May 29 to June 29, 1916, nonrecording gage; June 30 to Dec. 12, 1916, water-stage recorder; and Dec. 13, 1916, to June 26, 1917, nonrecording gage, all at site 450 ft (150 m) downstream at same datum.

REMARKS.--Records excellent. Some regulation by Pearly and Sip Ponds and Damon Reservoirs 1 mi (1.6 km) upstream. Prior to 1967, greater regulation by these reservoirs and by small mill upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--60 years, 29.4 ft³/s (0.833 m³/s), 21.94 in/yr (557 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,630 ft³/s (74.5 m³/s) Sept. 21, 1938, gage height, 13.72 ft (4.182 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of critical-depth study at control section; minimum, 0.1 ft³/s (0.003 m³/s) Aug. 25, 1924.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s (4.25 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 21	0730	161 4.56	8.28 2.524	Feb. 3	1030	170 4.81	8.37 2.551
Jan. 29	0700	194 5.49	8.61 2.624	Apr. 2	1400	*227 6.43	*8.91 2.716

Minimum discharge, 1.8 ft³/s (0.051 m³/s) July 30, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	36	63	36	110	85	116	38	17	7.3	2.9	5.0
2	77	33	60	34	127	79	212	49	17	5.5	3.1	5.5
3	62	31	54	33	153	75	180	60	15	5.3	3.1	4.1
4	52	30	48	32	121	70	141	59	14	5.5	2.9	3.5
5	46	27	42	30	105	68	114	52	13	5.3	2.8	3.5
6	40	25	39	27	86	79	94	45	13	5.8	2.9	3.1
7	35	25	36	27	72	82	78	40	13	5.5	9.0	2.8
8	30	27	33	27	64	72	67	38	13	5.3	7.6	2.6
9	27	27	33	26	61	61	59	34	12	5.0	7.6	2.5
10	25	29	39	25	58	55	52	25	11	5.0	17	2.6
11	25	38	48	25	49	50	47	27	10	4.8	22	2.9
12	56	42	50	25	42	46	42	33	10	6.1	24	2.9
13	98	70	45	24	38	46	39	37	9.0	5.3	25	3.5
14	95	124	41	32	36	52	36	38	5.8	5.0	22	2.6
15	79	125	38	33	34	52	33	40	6.1	4.8	36	2.4
16	66	100	38	35	35	50	31	37	7.0	5.0	36	2.6
17	56	80	36	37	39	48	30	33	7.9	5.0	31	2.6
18	67	67	33	35	43	46	28	34	7.0	5.0	26	2.9
19	109	58	30	31	32	42	27	42	7.0	4.8	22	2.9
20	134	51	27	30	59	43	25	60	6.1	4.8	18	2.8
21	156	51	27	30	55	58	22	69	5.8	4.8	15	2.8
22	130	77	27	28	75	98	22	66	5.5	4.6	10	2.6
23	104	88	27	25	119	100	22	58	5.0	4.6	9.0	2.4
24	84	76	26	24	112	86	19	49	5.3	4.8	11	2.6
25	72	65	25	24	94	82	21	42	5.5	4.6	11	2.4
26	65	58	29	25	83	88	32	37	5.3	4.1	8.6	3.7
27	60	57	33	42	82	93	35	33	5.3	4.6	7.0	5.3
28	54	74	35	133	92	121	42	29	5.0	4.6	6.1	4.8
29	48	78	36	183	92	142	44	25	4.8	4.1	5.8	3.5
30	43	69	34	157	---	122	41	22	5.3	3.5	8.3	4.1
31	39	---	35	130	---	104	---	18	---	2.0	5.5	---
TOTAL	2129	1738	1167	1405	2188	2295	1751	1269	206.7	192.4	418.2	97.5
MEAN	68.7	57.9	37.6	45.3	75.4	74.0	58.4	40.9	8.89	4.92	13.5	3.25
MAX	156	125	63	183	153	142	212	69	17	7.3	36	5.5
MIN	25	25	25	24	34	42	19	18	4.8	2.0	2.8	2.4
CFSM	3.77	3.18	2.07	2.49	4.14	4.07	3.21	2.25	4.49	2.27	7.74	1.18
IN.	4.35	3.55	2.39	2.87	4.47	4.69	3.58	2.59	5.55	3.31	8.85	1.20

CAL YR 1975 TOTAL 15053.3 MEAN 41.2 MAX 248 MIN 3.5 CFSM 2.26 IN 30.77
WTR YR 1976 TOTAL 14876.8 MEAN 40.6 MAX 212 MIN 2.0 CFSM 2.23 IN 30.41

01162000 MILLERS RIVER NEAR WINCHENDON, MA

LOCATION.--Lat 42°41'03", long 72°05'02", Worcester County, Hydrologic Unit 01080202, on right bank 10 ft (3 m) downstream from Nolan Bridge, 0.3 mi (0.5 km) downstream from Tarbell Brook, 2 mi (3 km) west of Winchendon, and at mile 32.8 (52.8 km).

DRAINAGE AREA.--83.0 mi² (215.0 km²).

PERIOD OF RECORD.--Discharge: June 1916 to current year. March to May 1917, monthly discharge only, published in WSP 1301.

Chemical analyses: Water years 1957, 1965-66 (partial-record station).

Water temperatures: Water years 1957, 1965-66 (partial-record station).

Sediment records: Water year 1965 (partial-record station).

REVISED RECORDS.--WSP 451: 1916. WSP 871: Drainage area. WSP 1051: 1919, 1920-21(M), 1922-24, 1928(M), 1933-34.

GAGE.--Water-stage recorder. Concrete control since Oct. 6, 1933. Datum of gage is 826.66 ft (251.966 m) above mean sea level. Prior to July 27, 1916, nonrecording gage at bridge at same datum.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Lake Monomonic 6 mi (10 km) upstream and other reservoirs and, prior to 1957, by powerplant. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--60 years, 143 ft³/s (4.050 m³/s), 23.40 in/yr (594 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,500 ft³/s (241 m³/s) Sept. 22, 1938, gage height, 21.55 ft (6.568 m), from floodmarks, from rating curve extended above 2,000 ft³/s (56.6 m³/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.--Peak discharges above base of 690 ft³/s (19.5 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Jan. 28	-	*1,100 31	Ice jam	Feb. 3	-	800 23	Ice jam
Jan. 29	1600	Ice jam	*8.79 2.679	Apr. 2	1800	850 24.1	7.48 2.280

Minimum daily discharge, 15 ft³/s (0.42 m³/s) Sept. 9-13.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	486	199	286	208	560	433	494	155	109	215	24	26
2	396	187	274	182	720	408	824	278	123	206	32	27
3	332	177	211	179	730	385	769	294	112	202	28	25
4	286	169	222	177	640	356	604	290	99	148	24	24
5	256	162	143	150	520	367	475	224	76	116	21	23
6	230	153	140	150	420	447	390	204	56	93	20	20
7	206	150	143	160	360	435	336	192	49	53	84	18
8	179	172	133	150	330	387	288	184	45	35	184	17
9	169	179	133	145	300	330	253	158	39	29	263	15
10	160	167	192	140	280	290	222	135	35	26	418	15
11	169	192	242	135	265	253	192	123	32	24	375	15
12	375	182	282	130	250	228	179	138	46	84	317	15
13	381	414	256	130	240	260	165	143	35	105	240	15
14	344	514	211	192	230	301	150	135	22	84	158	17
15	305	471	202	226	220	280	143	135	20	66	140	48
16	280	394	192	211	226	263	138	126	20	51	158	54
17	228	323	172	190	230	253	135	112	23	68	138	56
18	348	274	162	180	242	251	130	114	20	76	121	57
19	437	240	150	170	305	206	121	222	23	53	105	70
20	548	217	140	160	323	235	112	340	19	46	93	93
21	570	237	138	155	290	356	107	336	18	25	87	87
22	499	418	143	150	462	464	105	299	17	21	82	51
23	420	371	153	140	612	452	109	246	53	20	73	40
24	365	323	140	130	558	404	97	206	56	21	70	53
25	342	282	138	120	479	383	109	177	36	20	42	59
26	358	249	160	118	432	319	211	155	28	20	42	35
27	334	260	249	350	441	373	211	145	23	19	34	37
28	299	344	237	850	471	471	206	135	20	19	30	42
29	265	317	219	1000	458	511	194	126	18	17	35	35
30	237	294	199	900	---	460	167	118	39	17	42	29
31	215	---	217	680	---	394	---	112	---	17	31	---
TOTAL	10019	8031	5879	7958	11594	10955	7636	5757	1311	1996	3511	1118
MEAN	323	268	190	257	400	353	255	186	43.7	64.4	113	37.3
MAX	570	514	286	1000	730	511	824	340	123	215	418	93
MIN	160	150	133	118	220	206	97	112	17	17	20	15
CFSM	3.89	3.23	2.29	3.10	4.82	4.25	3.07	2.24	.53	.78	1.36	.45
IN.	4.49	3.60	2.63	3.57	5.20	4.91	3.42	2.58	.59	.89	1.57	.50

CAL YR 1975 TOTAL 68778 MEAN 188 MAX 1210 MIN 14 CFSM 2.27 IN 30.83
WTR YR 1976 TOTAL 75765 MEAN 207 MAX 1000 MIN 15 CFSM 2.49 IN 33.96

CONNECTICUT RIVER BASIN

01162500 PRIEST BROOK NEAR WINCHENDON, MA

LOCATION.--Lat 42°40'57", long 72°06'56", Worcester County, Hydrologic Unit 01080202, on right bank 100 ft (30 m) downstream from highway bridge, 3 mi (4.8 km) upstream from mouth, and 3.5 mi (5.6 km) west of Winchendon.

DRAINAGE AREA.--19.4 mi² (50.2 km²).

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.

Chemical analyses: Water years 1965-66 (partial-record station).

Water temperatures: Water years 1965-66 (partial-record station).

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 (258.979 m) above mean sea level. Prior to Sept. 11, 1936, nonrecording gage on left bank at same datum.

REMARKS.--Records excellent. 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 were made during the year.

AVERAGE DISCHARGE.--60 years, 32.6 ft³/s (0.923 m³/s), 22.82 in/yr (580 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,000 ft³/s (85.0 m³/s) Sept. 21, 1938, gage height, 9.90 ft (3.018 m), from rating curve extended above 620 ft³/s (17.6 m³/s) on basis of contracted-opening measurements at gage heights 8.4 ft (2.56 m) and 9.90 ft (3.018 m); minimum, 0.08 ft³/s (0.002 m³/s) several times in September 1929.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 190 ft³/s (5.38 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 21	0045	193	5.47	Feb. 3	0315	205	5.81
Jan. 28	1500	*339	9.60	Apr. 2	0300	286	8.10

Minimum discharge, 1.4 ft³/s (0.040 m³/s) July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	31	65	36	150	98	126	32	20	7.9	3.3	2.5
2	82	29	62	32	150	87	257	58	23	6.0	4.6	2.4
3	47	28	55	29	175	73	209	68	19	4.9	3.3	2.4
4	31	27	46	29	131	69	159	65	15	3.9	2.7	2.2
5	26	25	39	26	114	72	124	56	11	3.5	2.4	2.3
6	23	23	36	26	92	85	99	45	9.3	3.1	2.1	2.2
7	19	22	33	27	74	89	79	38	11	2.7	11	1.9
8	19	27	29	26	61	79	62	38	11	2.7	27	1.8
9	22	36	28	23	51	68	51	35	8.6	2.5	22	1.7
10	20	35	38	22	44	56	42	31	7.9	2.2	44	1.8
11	23	44	54	20	40	45	33	27	6.9	2.1	66	2.6
12	82	45	52	20	38	42	37	38	7.2	6.6	36	2.4
13	116	72	43	20	35	43	34	53	6.3	6.6	17	2.0
14	103	123	38	30	34	57	32	44	5.7	7.2	12	1.9
15	89	126	37	40	33	57	29	38	5.2	5.7	10	1.7
16	72	116	37	46	34	49	28	33	4.6	4.6	16	1.6
17	52	97	34	43	38	33	25	32	6.3	3.9	12	1.7
18	62	73	31	40	42	37	20	36	6.3	3.3	8.6	2.4
19	107	50	28	34	50	37	17	50	5.2	2.7	6.6	2.7
20	147	41	23	30	63	42	16	81	4.9	2.5	5.4	2.2
21	186	43	22	27	63	70	14	95	4.4	2.4	4.6	10
22	153	81	23	25	78	118	19	90	4.1	2.5	3.7	8.2
23	125	92	24	23	125	116	28	74	3.7	2.1	3.3	4.1
24	101	81	23	22	125	102	24	43	3.7	3.1	2.7	2.7
25	78	68	23	20	110	95	26	33	4.1	2.4	2.4	1.9
26	53	56	26	20	96	98	54	30	3.7	1.9	2.1	1.8
27	46	53	36	40	93	99	60	27	3.1	1.6	2.2	5.6
28	42	77	40	209	104	125	48	24	2.9	2.5	3.1	9.2
29	39	83	38	285	110	142	40	21	2.9	2.2	4.4	7.5
30	37	74	34	271	---	128	35	22	3.9	2.2	4.6	5.5
31	34	---	34	207	---	111	---	22	---	2.4	3.1	---
TOTAL	2145	1778	1131	1748	2353	2422	1827	1379	230.9	109.9	348.2	98.9
MEAN	69.2	59.3	36.5	56.4	81.1	78.1	60.9	44.5	7.70	3.55	11.2	3.30
MAX	186	126	65	285	175	142	257	95	23	7.9	66	10
MIN	19	22	22	20	33	33	14	21	2.9	1.6	2.1	1.6
CFSM	3.57	3.06	1.88	2.91	4.18	4.03	3.14	2.29	.40	.18	.58	.17
IN.	4.11	3.41	2.17	3.35	4.51	4.64	3.50	2.64	.44	.21	.67	.19
CAL YR 1975	TOTAL	15812.0	MEAN	43.3	MAX	354	MIN	1.6	CFSM	2.23	IN	30.32
WTR YR 1976	TOTAL	15570.9	MEAN	42.5	MAX	285	MIN	1.6	CFSM	2.19	IN	29.86

01163200 OTTER RIVER AT OTTER RIVER, MA

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 (0.3 km) upstream from Bailey Brook, 0.8 mi (1.3 km) southeast of Otter River, and 2 mi (3 km) northwest of Gardner.

DRAINAGE AREA.--34.2 mi² (88.6 km²).

PERIOD OF RECORD.--Discharge: December 1964 to current year.
Chemical analyses: Water years 1965-66 (partial-record station).
Water temperatures: Water years 1965-66 (partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 900 ft (274 m), from topographic map.

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

AVERAGE DISCHARGE.--11 years (water years 1966-76), 60.9 ft³/s (1.725 m³/s), 24.18 in/yr (614 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 714 ft³/s (20.2 m³/s) Dec. 22, 1973, gage height, 4.41 ft (1.344 m); minimum, 2.2 ft³/s (0.062 m³/s) Aug. 13, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 522 ft³/s (14.8 m³/s) Jan. 28, gage height, 3.83 ft (1.167 m); minimum discharge, 7.5 ft³/s (0.21 m³/s) Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	57	112	83	218	146	110	59	28	21	15	23
2	98	54	106	78	241	131	221	135	40	33	16	18
3	74	51	101	68	250	115	212	155	38	30	15	18
4	61	50	95	68	225	103	172	134	34	23	14	17
5	51	48	82	65	185	110	131	105	29	19	12	16
6	46	45	74	61	140	153	102	81	25	15	10	15
7	42	43	69	54	115	159	87	69	26	14	31	14
8	39	60	56	65	99	131	75	75	26	13	67	12
9	36	81	53	63	92	101	69	73	23	11	80	11
10	34	82	80	58	82	86	63	64	20	11	132	10
11	38	93	99	54	79	80	60	57	17	12	170	11
12	115	89	92	54	80	76	57	58	17	32	129	11
13	162	159	76	52	76	92	51	57	15	47	77	9.2
14	148	251	68	95	80	121	48	53	14	36	61	9.6
15	116	251	66	115	75	118	45	52	14	26	53	9.4
16	94	205	63	106	87	101	44	49	13	20	63	9.5
17	74	158	58	97	118	87	42	46	13	17	68	9.4
18	122	121	54	82	143	80	41	53	14	14	61	10
19	229	97	49	74	162	74	40	84	14	14	46	9.8
20	259	83	41	67	182	87	39	109	13	13	34	9.4
21	271	93	43	61	161	131	38	109	13	11	28	9.5
22	223	199	47	59	192	167	37	95	13	10	23	9.2
23	172	212	48	57	275	153	42	74	12	8.9	21	8.6
24	132	182	49	54	245	121	41	60	11	9.6	19	8.4
25	106	148	49	50	194	103	48	51	11	9.6	19	8.4
26	94	118	62	55	162	95	98	47	11	8.6	22	7.9
27	84	109	94	170	158	89	113	43	11	8.3	22	11
28	81	142	95	466	167	103	105	40	9.9	8.3	23	14
29	75	139	93	492	161	115	88	35	10	8.6	31	13
30	68	122	86	385	---	101	69	31	11	9.9	33	12
31	61	---	82	290	---	87	---	30	---	11	28	---
TOTAL	3344	3542	2242	3598	4444	3416	2388	2183	545.9	524.8	1423	354.3
MEAN	108	118	72.3	116	153	110	79.6	70.4	18.2	16.9	45.9	11.8
MAX	271	251	112	492	275	167	221	155	40	47	170	23
MIN	34	43	41	50	75	74	37	30	9.9	8.3	10	7.9
CFSM	3.16	3.45	2.11	3.39	4.47	3.22	2.33	2.06	.53	.49	1.34	.35
IN.	3.64	3.85	2.44	3.91	4.83	3.72	2.60	2.37	.59	.57	1.55	.39
CAL YR 1975	TOTAL	26991.9	MEAN 74.0	MAX 468	MIN 6.7	CFSM 2.16	IN 29.36					
WTR YR 1976	TOTAL	28005.0	MEAN 76.5	MAX 492	MIN 7.9	CFSM 2.24	IN 30.46					

01164000 MILLERS RIVER AT SOUTH ROYALSTON, MA

LOCATION.--Lat 42°37'47", long 72°09'03", Worcester County, Hydrologic Unit 01080202, on right bank 500 ft (150 m) downstream from bridge in South Royalston, 0.4 mi (0.6 km) downstream from Beaver Brook, 1.7 mi (2.7 km) downstream from Birch Hill Dam, and at mile 25.5 (41.0 km).

DRAINAGE AREA.--187 mi² (484 km²).

PERIOD OF RECORD.--Discharge: July 1939 to current year.

Chemical analyses: Water years 1957, 1965-66 (partial-record station).

Water temperatures: Water years 1957, 1965-66 (partial-record station).

Sediment records: Water years 1965-66 (partial-record station).

GAGE.--Water-stage recorder. Datum of gage is 792.00 ft (241.402 m) above mean sea level (levels by Corps of Engineers).

REMARKS.--Records good except those for January, which are fair. 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 were made during the year.

AVERAGE DISCHARGE.--37 years, 319 ft³/s (9.034 m³/s), 23.17 in/yr (589 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft³/s (125 m³/s) Apr. 13, 1940, gage height, 8.40 ft (2.560 m); maximum gage height, 9.42 ft (2.871 m) Jan. 24, 1959 (ice jam); minimum daily discharge, 9.3 ft³/s (0.26 m³/s) Aug. 4, 1956. Maximum discharge since construction of Birch Hill Reservoir in 1941, 2,830 ft³/s (80.1 m³/s) June 25, 26, 1944, gage height, 7.57 ft (2.307 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 21 or 22, 1938, reached a stage of 15.9 ft (4.85 m), from floodmarks, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,460 ft³/s (69.7 m³/s) Feb. 3, gage height, 7.49 ft (2.283 m); maximum gage height, 7.75 ft (2.362 m) Jan. 21, ice jam; minimum daily discharge, 48 ft³/s (1.36 m³/s) Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1760	446	731	506	1650	992	600	404	238	460	71	96
2	1680	412	694	460	1070	925	712	568	269	465	87	86
3	1460	394	616	434	1860	835	1580	724	264	368	85	83
4	969	386	545	415	1550	774	1790	740	235	284	73	76
5	617	373	492	390	1720	768	1540	658	202	219	64	73
6	477	355	425	380	1640	898	1170	546	160	178	58	70
7	413	340	414	390	1550	943	908	477	151	134	160	63
8	365	376	371	390	1400	882	736	455	144	103	404	58
9	342	462	357	370	1100	766	620	433	128	87	450	55
10	326	462	449	350	870	666	540	381	112	78	722	56
11	324	516	583	340	632	586	476	333	102	73	840	56
12	654	525	608	330	556	529	434	340	104	191	741	55
13	931	843	588	330	491	544	407	391	102	264	538	53
14	956	1220	504	520	486	655	374	372	82	223	377	48
15	850	1320	473	620	450	666	352	360	74	172	305	64
16	732	1190	454	560	476	615	334	339	71	136	336	85
17	617	1000	421	520	564	553	318	309	77	123	330	87
18	665	819	391	480	642	531	304	307	79	136	280	97
19	1010	674	334	440	727	500	282	449	72	111	233	97
20	1280	573	320	420	808	528	265	675	74	106	195	123
21	1470	577	320	390	809	707	252	760	68	77	171	131
22	1420	932	340	370	899	900	247	722	65	68	153	110
23	1220	1050	360	350	1220	959	279	629	72	61	136	84
24	1010	967	340	330	1360	911	266	511	102	67	128	78
25	851	845	340	310	1240	843	274	413	85	64	105	92
26	763	723	450	290	1110	793	458	362	75	59	94	83
27	701	675	600	820	1040	749	589	335	65	55	92	97
28	636	819	437	1440	1050	833	577	308	60	54	97	110
29	579	848	560	1720	1030	914	531	281	58	52	104	102
30	523	789	620	1980	---	960	467	260	99	58	141	87
31	476	---	560	1910	---	883	---	251	---	60	116	---
TOTAL	26077	20911	14697	18555	30000	23608	17682	14093	3489	4586	7686	2455
MEAN	841	697	474	599	1034	762	589	455	116	148	248	81.8
MAX	1760	1320	731	1980	1860	992	1790	760	269	465	840	131
MIN	324	340	320	290	450	500	247	251	58	52	58	48
MEAN†	755	700	471	672	967	759	582	452	115	148	248	81.7
CFSM†	4.04	3.74	2.52	3.59	5.17	4.06	3.11	2.42	.61	.79	1.33	.44
IN.†	4.65	4.18	2.91	4.15	5.58	4.68	3.47	2.79	.69	.91	1.53	.49
CAL YR 1975 TOTAL	163682											
WTR YR 1976 TOTAL	183839											
MEAN 448												
MEAN 502												
MAX 1830												
MAX 1980												
MIN 43												
MIN 48												
MEAN† 449												
MEAN† 495												
CFSM† 2.40												
CFSM† 2.65												
IN† 32.57												
IN† 36.02												

† Adjusted for change in contents in Birch Hill Reservoir.

01165000 EAST BRANCH TULLY RIVER NEAR ATHOL, MA

LOCATION.--Lat 42°38'32", long 72°13'34", Worcester County, Hydrologic Unit 01080202, on right bank 300 ft (90 m) downstream from Tully Dam, 1.3 mi (2.1 km) downstream from Lawrence Brook, 3.5 mi (5.6 km) north of Athol, and 4.9 mi (7.9 km) upstream from mouth.

DRAINAGE AREA.--50.4 mi² (130.5 km²).

PERIOD OF RECORD.--Discharge: October 1915 to current year. October 1915 to May 1916 monthly discharge only, published in WSP 1301.

Chemical analyses: Water years 1965-66 (partial-record station).

Water temperatures: Water years 1965-66 (partial-record station).

Sediment records: Water years 1965-66 (partial-record station).

REVISED RECORDS.--WSP 451: 1916. WSP 891: Drainage area. WSP 1051: 1916(M), 1928. WSP 1301: 1917-35(M), 1937(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 613.71 ft (187.059 m) above mean sea level (Corps of Engineers bench mark). Prior to Oct. 26, 1948, nonrecording gage at site 0.2 mi (0.3 km) upstream at datum 14.40 ft (4.389 m) higher.

REMARKS.--Records good. Flow regulated by Tully Reservoir since 1948 (Reservoirs in Connecticut River basin). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--61 years, 81.0 ft³/s (2.294 m³/s), 21.82 in/yr (554 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,140 ft³/s (146 m³/s) Sept. 21, 1938, gage height, 8.60 ft (2.621 m), from floodmarks, site and datum then in use, from rating curve extended above 1,500 ft³/s (42.5 m³/s) on basis of contracted-opening measurement and computation of peak flow over dam; minimum, 0.01 ft³/s (<0.001 m³/s) Nov. 6-11, 1961; minimum daily, 0.01 ft³/s (<0.001 m³/s) Nov. 7-10, 1961. Maximum discharge since construction of Tully Reservoir in 1948, 828 ft³/s (23.4 m³/s) Apr. 21, 1960, gage height, 5.38 ft (1.640 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 693 ft³/s (19.6 m³/s) Oct. 21, gage height, 4.66 ft (1.420 m); minimum, 2.9 ft³/s (0.082 m³/s) Apr. 1, 2; minimum daily, 3.2 ft³/s (0.091 m³/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	431	40	198	124	263	263	146	92	25	15	14	13
2	426	41	169	124	220	255	191	127	25	15	13	13
3	411	41	151	103	457	211	410	270	92	15	13	13
4	381	42	151	67	511	179	488	238	59	15	13	13
5	304	42	185	67	519	175	549	125	38	15	13	13
6	125	42	198	67	388	179	346	62	44	15	13	13
7	84	44	191	67	357	182	173	115	44	15	13	13
8	84	44	169	67	326	183	118	125	44	15	13	13
9	82	64	110	67	304	182	203	105	42	15	14	13
10	64	120	101	67	118	181	139	71	42	15	101	13
11	25	120	115	67	38	179	124	108	42	14	151	13
12	45	120	138	67	121	174	89	122	37	14	149	13
13	157	122	135	67	163	146	72	105	24	14	149	13
14	348	195	135	67	132	135	85	125	24	14	59	13
15	353	317	130	69	110	138	91	125	18	14	12	13
16	185	308	112	108	99	139	91	108	15	14	12	13
17	86	258	88	130	78	107	77	71	15	14	12	13
18	175	157	67	127	127	72	71	71	15	14	12	13
19	283	157	67	125	160	74	71	166	15	14	12	13
20	312	154	67	105	175	75	71	254	15	14	12	13
21	325	154	67	76	175	131	71	291	15	14	12	13
22	317	154	67	66	175	194	69	191	15	14	13	13
23	401	175	67	66	260	217	69	169	16	14	13	13
24	339	216	67	55	330	218	69	151	16	14	13	13
25	274	202	67	37	317	216	69	115	15	14	13	10
26	262	169	67	37	261	216	71	88	15	14	13	12
27	254	154	58	69	192	217	99	88	15	14	13	13
28	246	157	37	3.2	214	221	266	82	15	14	13	13
29	115	172	108	160	263	231	216	69	15	14	13	13
30	38	202	142	259	---	237	71	40	15	14	13	13
31	40	---	142	259	---	238	---	25	---	14	13	---
TOTAL	6972	4183	3566	2839.2	6853	5565	4675	3894	827	444	942	386
MEAN	225	139	115	91.6	236	180	156	126	27.6	14.3	30.4	12.9
MAX	431	317	198	259	519	263	549	291	92	15	151	13
MIN	25	40	37	3.2	38	72	69	25	15	14	12	10
MEAN†	177	151	102	133	194	192	155	126	26.7	1.47	31.2	9.47
CFSM†	3.51	3.00	2.02	2.64	3.85	3.81	3.08	2.50	.53	.29	.62	.19
IN.†	4.04	3.35	2.33	3.04	4.16	4.39	3.42	2.87	.59	.34	.71	.21
CAL YR 1975 TOTAL	43443.4											
WTR YR 1976 TOTAL	41146.2											
MEAN 119												
MAX 615												
MIN 3.2												
MEAN+ 119												
MEAN+ 109												
CFSM+ 2.36												
CFSM+ 2.16												
IN+ 32.08												
IN+ 29.46												

† Adjusted for change in contents in Tully Reservoir.

CONNECTICUT RIVER BASIN

01165300 LAKE ROHUNTA OUTLET NEAR ATHOL, MA

LOCATION.--Lat 42°34'13", long 72°16'22", Worcester County, Hydrologic Unit 01080202, on right bank 300 ft (90 m) downstream from bridge on Daniel Shays Highway, 600 ft (200 m) downstream from Lake Rohunta, and 2.8 mi (4.5 km) southwest of Athol.

DRAINAGE AREA.--20.3 mi² (52.6 km²).

PERIOD OF RECORD.--Discharge: December 1964 to current year.

Chemical analyses: Water years 1965-66 (partial-record station).

Water temperatures: Water years 1965-66 (partial-record station).

GAGE.--Water-stage recorder. Datum of gage is 503.32 ft (153.412 m) above mean sea level.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow regulated by Lake Rohunta. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years (water years 1966-76), 35.5 ft³/s (1.005 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 496 ft³/s (14.0 m³/s) June 29, 1972, gage height, 5.52 ft (1.682 m), from rating curve extended above 240 ft³/s (6.80 m³/s); minimum daily, 0.17 ft³/s (0.005 m³/s) June 3, 4, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 283 ft³/s (8.01 m³/s) Aug. 9, gage height, 3.87 ft (1.180 m); minimum daily, 0.35 ft³/s (0.010 m³/s) May 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	55	82	58	132	101	78	54	19	16	9.9	11
2	75	49	78	56	151	96	120	64	22	24	9.3	9.3
3	61	48	71	52	163	92	132	73	20	29	8.8	9.3
4	50	46	66	49	146	85	118	72	19	25	7.5	8.6
5	44	43	61	47	123	83	97	68	18	20	6.8	7.3
6	47	40	58	46	105	89	83	55	18	18	5.9	6.1
7	44	37	54	45	89	97	74	48	20	17	18	5.5
8	43	39	54	43	79	90	66	46	18	14	31	4.9
9	41	41	52	42	71	80	60	21	16	10	137	4.7
10	38	47	58	41	67	74	58	9.3	16	8.7	120	5.4
11	41	50	70	41	64	67	54	18	14	8.0	44	6.1
12	58	53	80	41	63	64	52	25	12	12	5.6	4.8
13	79	85	72	38	61	65	53	33	14	14	15	4.4
14	90	143	64	51	59	71	48	23	12	14	22	4.2
15	84	161	59	65	58	72	48	.35	10	14	23	3.9
16	73	135	57	69	60	70	44	2.5	9.1	14	24	3.6
17	63	108	54	64	76	72	41	11	7.5	12	21	4.0
18	76	88	50	57	91	63	39	19	7.2	9.8	19	7.9
19	106	78	47	50	102	60	31	36	6.6	8.9	16	6.5
20	160	68	45	46	108	62	23	54	5.9	8.0	14	6.3
21	198	71	44	46	103	73	21	62	5.3	6.4	12	5.5
22	173	101	44	48	115	85	20	62	5.5	5.5	11	4.8
23	136	125	44	43	157	87	21	56	4.7	5.1	8.9	5.8
24	107	111	43	40	153	82	20	48	3.8	6.0	7.7	3.2
25	89	97	42	38	126	72	24	42	4.4	4.8	6.9	2.7
26	80	85	46	39	111	66	43	37	3.6	6.2	6.1	3.3
27	72	82	54	66	108	68	59	31	3.2	7.0	6.8	8.4
28	65	93	60	175	111	68	64	29	3.3	5.8	7.2	7.9
29	60	96	58	267	109	70	61	27	3.2	5.5	10	8.3
30	54	92	56	228	---	71	56	22	4.0	5.7	12	7.2
31	54	---	57	169	---	65	---	22	---	5.7	12	---
TOTAL	2460	2367	1780	2160	2961	2360	1708	1170.15	325.3	360.1	658.4	180.9
MEAN	79.4	78.9	57.4	69.7	102	76.1	56.9	37.7	10.8	11.6	21.2	6.03
MAX	198	161	82	267	163	101	132	73	22	29	137	11
MIN	38	37	42	38	58	60	20	.35	3.2	4.8	5.6	2.7

CAL YR 1975 TOTAL 17422.00 MEAN 47.7 MAX 270 MIN .23
WTR YR 1976 TOTAL 18490.85 MEAN 50.5 MAX 267 MIN .35

NOTE.--No gage-height record Dec. 11 to Jan. 11.

01165500 MOSS BROOK AT WENDELL DEPOT, MA

LOCATION.--Lat 42°36'10", long 72°21'36", Franklin County, Hydrologic Unit 01080202, on left bank 0.2 mi (0.3 km) upstream from mouth, 0.2 mi (0.3 km) north of Wendell Depot, and 2.5 mi (4.0 km) west of Orange.

DRAINAGE AREA.--12.3 mi² (31.9 km²).

PERIOD OF RECORD.--Discharge: June to October 1909, April to August 1910, June 1916 to current year. Published as "at Wendell" 1909-10.

Chemical analyses: Water year 1966 (partial-record station).

Water temperatures: Water year 1966 (partial-record station).

REVISED RECORDS.--WSP 821: 1936(M). WSP 891: Drainage area. WSP 1051: 1917, 1919-24, 1929(M). WSP 1231: 1917-21(M), 1922, 1923(M), 1924-26, 1927-28(M), 1929, 1930-35(M), 1939(M), 1941(M), 1944(M), 1949(M).

GAGE.--Water-stage recorder. Crest-stage gage since July 11, 1958. Datum of gage is 508.9 ft (155.11 m) above mean sea level. Prior to April 1910, nonrecording gage at site 1,200 ft (350 m) downstream at different datum. April to August 1910, nonrecording gage and sharp-crested weir at site 300 ft (90 m) downstream at different datum. June 1916 to Dec. 8, 1965, nonrecording gage at present site and datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--60 years (water years 1917-76), 20.1 ft³/s (0.569 m³/s), 22.19 in/yr (564 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,540 ft³/s (43.6 m³/s) Mar. 19, 1936, gage height, 6.30 ft (1.920 m), from floodmarks, from rating curve extended above 400 ft³/s (11.3 m³/s) on basis of slope-area measurements at gage heights 5.62 ft (1.713 m) and 6.30 ft (1.920 m); minimum, 0.2 ft³/s (0.006 m³/s) Sept. 4, 5, 1929.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 160 ft³/s (4.53 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 20	1730	193 5.47	3.36 1.024	Apr. 2	0145	220 6.23	3.48 1.061
Jan. 28	1245	*363 1.03	*4.01 1.222				

Minimum discharge, 0.99 ft³/s (0.028 m³/s) Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	22	36	23	52	55	85	21	10	7.6	4.1	1.7
2	30	21	34	21	65	49	159	51	14	5.1	3.6	1.7
3	26	20	30	20	85	41	80	48	12	3.6	2.4	1.8
4	22	19	27	20	70	40	56	40	10	2.9	1.9	1.6
5	20	18	24	17	54	42	44	30	8.9	2.4	1.6	1.5
6	18	16	22	17	45	60	37	23	8.1	2.1	1.4	1.5
7	16	16	22	17	39	54	33	20	8.9	2.2	1.3	1.4
8	15	19	19	16	35	42	30	24	8.6	2.8	1.7	1.3
9	14	24	19	16	32	34	28	21	7.2	2.4	1.1	1.2
10	13	23	40	16	29	31	25	18	6.0	2.3	3.3	1.3
11	17	30	57	15	27	29	24	16	5.1	1.6	3.2	2.0
12	72	27	39	16	25	27	22	36	4.4	6.9	1.3	1.7
13	85	67	31	15	24	31	20	41	3.9	8.6	6.9	1.4
14	58	97	28	34	24	40	20	28	3.5	7.2	4.9	1.3
15	43	73	27	32	24	35	18	28	3.3	6.7	4.0	1.2
16	33	47	26	30	25	29	18	23	2.9	3.6	5.4	1.2
17	27	37	22	28	33	28	16	20	5.2	2.8	3.7	1.5
18	59	32	20	25	40	27	15	22	5.4	2.7	2.7	6.2
19	98	28	24	21	49	26	14	49	4.0	1.7	2.2	4.3
20	150	25	23	18	58	31	13	81	3.6	1.4	2.0	2.8
21	124	29	22	17	50	57	13	54	3.5	1.5	1.9	2.4
22	71	75	24	16	63	80	14	38	3.5	1.9	1.9	2.2
23	50	57	24	16	112	54	21	30	2.9	1.6	1.3	1.9
24	40	40	22	15	75	43	16	24	2.6	2.3	1.1	1.7
25	36	34	20	14	53	46	20	20	2.5	1.9	1.1	1.8
26	40	31	28	14	49	50	47	18	2.2	1.4	1.1	1.6
27	37	38	36	51	60	51	44	17	1.9	1.3	1.2	5.1
28	32	74	35	260	77	76	34	15	1.6	1.3	2.4	4.5
29	29	54	30	146	66	65	29	13	1.7	1.3	3.9	3.5
30	29	40	25	90	---	49	24	12	2.4	1.6	3.5	3.0
31	26	---	24	69	---	41	---	11	---	1.7	2.0	---
TOTAL	1366	1133	860	1125	1440	1363	1019	892	159.8	94.4	187.2	66.3
MEAN	44.1	37.8	27.7	36.3	49.7	44.0	34.0	28.8	5.33	3.05	6.04	2.21
MAX	150	97	57	260	112	80	159	81	14	8.6	33	6.2
MIN	13	16	19	14	24	26	13	11	1.6	1.3	1.1	1.2
CFSM	3.59	3.07	2.25	2.95	4.04	3.58	2.76	2.34	.43	.25	.49	.18
IN.	4.13	3.43	2.60	3.40	4.35	4.12	3.08	2.70	.48	.29	.57	.20

CAL YR 1975	TOTAL	10511.9	MEAN	28.8	MAX	358	MIN	1.4	CFSM	2.34	IN	31.79
WTR YR 1976	TOTAL	9705.7	MEAN	26.5	MAX	260	MIN	1.1	CFSM	2.15	IN	29.35

CONNECTICUT RIVER BASIN

01166500 MILLERS RIVER AT ERVING, MA

LOCATION.--Lat 42°35'51", long 72°26'19", Franklin County, Hydrologic Unit 01080202, on right bank 5 ft (23 m) downstream from bridge at Farley, 0.6 mi (1.0 km) upstream from Mormon Hollow Brook, 2.4 mi (3.9 km) downstream from Erving, and 5.5 mi (8.8 km) upstream from mouth.

DRAINAGE AREA.--375 mi² (971 km²).

PERIOD OF RECORD.--Discharge: August 1914 to current year.

Chemical analyses: Water years 1953, 1965-66 (partial-record station).

Water temperatures: Water years 1965-66 (partial-record station).

Sediment records: Water year 1966 (partial-record station).

REVISED RECORDS.--WSP 641: 1920(M). WSP 756: Drainage area. WSP 781: 1928(M), 1933(M). WSP 1301: 1915(M).

GAGE.--Water-stage recorder. Altitude of gage is 380 ft (116 m), 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, nonrecording gage, at site 2.2 mi (3.5 km) 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 (0.6 km) downstream at different datum.

REMARKS.--Records excellent except those for January, which are fair. Flow regulated by powerplants, Lake Monomonic and other reservoirs; high flow regulated by Birch Hill Reservoir 22 mi (35 km) upstream and Tully Reservoir (Reservoirs in Connecticut River basin); greater regulation by powerplants prior to 1966. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--62 years, 624 ft³/s (17.67 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,000 (821 m³/s) Sept. 22, 1938, gage height, 13.37 ft (4.075 m), from floodmarks, 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 ft³/s (0.23 m³/s) Sept. 6, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,530 ft³/s (100 m³/s) Oct. 20, gage height, 5.86 ft (1.786 m); minimum daily, 72 ft³/s (2.04 m³/s) July 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2650	779	1440	977	2500	1890	1930	757	434	439	131	181
2	2550	738	1360	901	2800	1780	1850	1150	484	622	178	170
3	2100	710	1200	907	2500	1620	2570	1300	486	504	140	131
4	1800	681	1070	840	2810	1460	2920	1510	504	404	104	133
5	1300	648	996	747	2610	1470	2780	1210	405	329	113	128
6	950	618	976	735	2480	1730	2240	956	362	279	109	126
7	755	593	922	760	2200	1710	1620	844	327	234	231	142
8	698	639	870	740	2080	1580	1230	864	320	197	543	117
9	657	760	781	720	1880	1400	1160	807	302	164	704	111
10	631	835	964	700	1560	1270	1050	684	270	130	1150	110
11	618	952	1170	680	1070	1160	929	606	251	129	1300	99
12	1390	960	1130	680	960	1060	851	834	229	261	1090	105
13	1710	1570	1090	660	964	1100	761	857	228	331	894	126
14	1800	2200	982	1020	971	1230	740	785	217	325	702	116
15	1770	2380	941	1140	970	1220	720	757	191	271	362	108
16	1470	2160	899	1150	939	1150	680	702	170	221	452	106
17	1580	1880	817	1100	1140	1050	640	638	185	183	439	121
18	1530	1510	744	1000	1250	954	620	632	187	188	378	170
19	2150	1260	683	900	1520	913	580	950	136	195	318	166
20	3180	1110	640	810	1640	979	523	1550	154	163	276	175
21	3050	1160	661	740	1560	1360	430	1550	166	153	247	181
22	2600	1820	744	700	1960	1720	483	1410	143	130	231	185
23	2310	1820	730	660	2450	1710	564	1170	147	119	228	152
24	2060	1730	700	620	2500	1630	531	1010	157	112	212	127
25	1700	1570	680	580	2260	1570	567	842	178	92	155	108
26	1590	1390	976	550	2110	1520	929	722	143	123	163	127
27	1460	1360	1270	1500	2000	1450	1050	660	130	105	162	197
28	1330	1670	852	2800	2040	1650	1080	605	144	99	153	185
29	1130	1570	747	2950	1990	1650	1190	551	113	72	193	177
30	932	1490	1290	2900	---	1660	898	502	124	109	246	159
31	839	---	1120	2800	---	1540	---	458	---	87	211	---
TOTAL	50290	38563	29445	33967	53714	44186	34116	27873	7287	6770	11815	4239
MEAN	1622	1285	950	1096	1852	1425	1137	899	243	218	381	141
MAX	3180	2380	1440	2950	2810	1890	2920	1550	504	622	1300	197
MIN	618	593	640	550	939	913	430	458	113	72	104	99

CAL YR 1975 TOTAL 328939 MEAN 901 MAX 4200 MIN 38
WTR YR 1976 TOTAL 342265 MEAN 935 MAX 3180 MIN 72

01167000 CONNECTICUT RIVER AT TURNERS FALLS, MA

LOCATION.--Lat 42°36'40", long 72°33'20", Franklin County, Hydrologic Unit 01080201, at dam of Western Massachusetts Electric Co. at Turners Falls; 0.2 mi (0.3 km) upstream from Fall River, and at mile 122.2 (196.6 km).

DRAINAGE AREA.--7,163 mi² (18,552 km²).

PERIOD OF RECORD.--Discharge: January 1915 to current year.

Chemical analyses: Water years 1973-74 (partial-record station).

Water temperatures: Water years 1973-74 (partial-record station).

REVISED RECORDS.--WSP 741: 1932. WSP 891: Drainage area.

REMARKS.--Discharge computed by adding flow over and through dam, flow for factories through canal that diverts around dam, and flow through power stations 1 and 2 of Western Massachusetts Electric Co. 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 35,500,000,000 ft³ (1,010,000,000 m³).

COOPERATION.--Records furnished by Western Massachusetts Electric Co.

AVERAGE DISCHARGE.--61 years, 11,850 ft³/s (335.6 m³/s).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18900	12800	13200	10500	21900	30300	55900	17000	10500	14600	12200	8790
2	15600	10600	19800	8460	24100	31200	82700	21700	12400	12400	20500	9100
3	14000	8890	16000	8060	25400	22700	85700	27100	13200	10000	13500	8320
4	11300	10700	19800	5130	24200	21600	74500	25700	13400	8450	12000	8320
5	7020	14300	15600	8710	21300	20300	63400	21900	8250	6330	11200	8070
6	7930	12700	15400	9200	18800	27300	54600	19800	4530	5620	11200	3460
7	8170	14200	14800	9980	18800	30900	47600	17900	9100	7150	8430	6440
8	9270	11300	11300	9710	16000	24800	40000	17800	7600	6690	11100	6320
9	7360	8930	14200	8330	16000	24800	30300	17100	9770	7230	12500	6580
10	7940	11300	15100	6410	13300	20200	23300	15600	8840	5930	25300	6420
11	7190	18100	21000	5640	13300	20900	20200	13100	6300	5050	41500	6970
12	16300	12500	18000	7250	15400	18100	20600	13100	7890	9580	31800	7320
13	20300	26100	16500	9650	15400	17500	16900	22700	2370	16700	27600	6340
14	20000	36400	12200	8980	11800	17300	18900	22600	5600	12800	24700	6060
15	16700	33800	12200	9500	12100	16600	18600	22200	5280	9180	18100	6260
16	14500	28200	16800	10100	12800	16900	18600	22800	6140	6670	20000	6710
17	14000	23200	15700	9170	13700	15400	22800	18600	6690	6640	21300	5320
18	24000	20300	13400	5700	16100	14700	26900	18600	6930	3370	21300	3040
19	35900	18200	10800	7910	16100	15500	28800	25400	5710	6470	14000	3770
20	52500	17900	3920	9800	16000	15300	29000	42300	4360	6010	12800	7590
21	68400	19400	2560	7390	16400	24900	26700	42700	6960	5580	8840	5990
22	58900	27700	6870	8980	20500	37600	26300	35700	7780	2570	6670	5700
23	43200	25000	9080	7640	30800	50600	22200	28600	10800	5610	9590	6210
24	30800	24100	8940	3920	29700	37300	18700	25300	10900	5800	8990	6790
25	26400	19100	7780	4400	26800	35900	18000	20800	9680	5160	8260	150
26	23000	19300	7350	7330	25800	41200	21200	19900	6940	7100	6340	150
27	19100	18500	10100	10700	27000	44800	21800	18900	8340	6220	5470	9080
28	18700	21500	9040	26800	33400	58300	20700	17000	12300	6800	4990	12500
29	17400	15200	8780	36000	31500	76700	19600	15100	8980	9280	3640	12700
30	15500	13300	11200	31000	---	67000	19500	13500	6440	9890	5800	12500
31	13500	---	9190	24600	---	55100	---	12200	---	12000	7800	---
TOTAL	663780	553520	386610	336950	584400	951700	994000	673100	243980	242880	452420	201470
MEAN	21410	18450	12470	10870	20150	30700	33130	21710	8133	7835	14590	6716
MAX	68400	36400	21000	36000	33400	76700	85700	42700	13400	16700	41500	12700
MIN	7020	8890	2560	3920	11800	14700	16900	12200	2370	2570	3640	150
CAL YR 1975	TOTAL	4810990	MEAN	13180	MAX	68400	MIN	364				
WTR YR 1976	TOTAL	6284810	MEAN	17170	MAX	85700	MIN	150				

CONNECTICUT RIVER BASIN

01167800 BEAVER BROOK AT WILMINGTON, VT

LOCATION.--Lat 42°51'38", long 72°51'04", Windham County, Hydrologic Unit 01080203, on right bank 20 ft (6 m) downstream from bridge on State Highway 9, 1.0 mi (1.6 km) southeast of Wilmington, and 1.7 mi (2.7 km) upstream from mouth.

DRAINAGE AREA.--6.38 mi² (16.52 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WRD MA, NH, RI, VT, 1972: 1963(M), 1964(P), 1967-68(P), 1969-70, 1971(P).

GAGE.--Water-stage recorder. Altitude of gage is 1,560 ft (475 m), from topographic map.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are fair. Recording rain gage at station April 1964 to November 1974 (no winter records).

AVERAGE DISCHARGE.--13 years, 15.7 ft³/s (0.445 m³/s), 33.42 in/yr (849 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft³/s (33.1 m³/s) Aug. 10, 1976, gage height, 8.76 ft (2.670 m), from rating curve extended above 160 ft³/s (4.53 m³/s) on basis of slope-area measurement at gage height 8.61 ft (2.624 m); minimum, 0.06 ft³/s (0.002 m³/s) Aug 1, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 230 ft³/s (6.51 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 18	1115	354 10.0	4.94 1.506	Apr. 1	1515	632 17.9	6.32 1.926
Oct. 20	0715	274 7.76	4.49 1.369	Aug. 10	0715	*a1,170 33.1	*8.76 2.670
Mar. 28	0215	345 9.77	4.89 1.490				

a From rating curve extended as explained above.

Minimum discharge, 0.70 ft³/s (0.020 m³/s) July 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	49	10	20	50	221	26	8.9	23	28	1.9
2	10	11	23	9.0	50	34	81	82	7.8	8.5	11	2.3
3	8.9	10	15	9.5	27	36	47	36	6.1	5.4	4.7	2.1
4	8.1	14	12	8.7	18	28	35	25	5.4	4.1	2.7	1.9
5	7.4	11	11	8.3	14	62	26	19	4.4	5.1	2.1	2.1
6	7.0	9.3	11	8.0	13	69	23	17	4.7	3.0	1.3	1.9
7	6.6	8.5	9.8	7.7	12	34	20	19	7.4	2.1	21	1.5
8	6.3	15	8.1	7.4	11	23	18	22	5.1	4.1	15	1.5
9	5.6	13	8.1	7.2	10	18	16	18	4.1	8.5	11	1.5
10	5.3	36	55	7.0	10	17	15	18	3.5	4.1	351	3.8
11	25	33	27	6.9	11	14	16	17	3.0	3.0	48	6.7
12	89	35	15	6.8	11	13	14	41	3.0	9.7	20	3.3
13	44	103	12	6.7	10	26	12	26	2.5	7.1	27	2.3
14	33	79	15	25	10	23	12	20	2.1	4.7	34	1.9
15	22	37	17	13	10	16	12	28	1.9	3.8	20	1.5
16	19	25	15	10	11	12	14	20	1.9	3.3	19	1.5
17	15	19	10	8.0	13	12	13	20	3.5	2.5	13	2.7
18	172	17	9.4	7.0	14	12	12	25	3.0	2.7	9.3	5.5
19	99	14	7.0	6.8	30	13	10	78	1.9	2.3	7.4	3.8
20	176	13	6.6	6.8	22	33	9.3	64	1.9	1.5	6.1	2.7
21	64	65	7.6	6.2	17	94	8.5	46	2.3	1.3	4.4	2.2
22	36	56	9.0	5.9	70	67	8.9	31	2.3	1.2	3.5	1.9
23	25	27	8.4	5.6	50	35	12	25	15	.92	3.3	1.8
24	20	19	7.8	5.5	30	36	9.3	20	8.9	3.0	2.5	1.7
25	26	19	7.8	5.2	20	46	16	17	6.7	1.9	2.3	1.5
26	29	14	15	6.3	27	55	49	16	5.7	1.5	1.9	2.0
27	19	18	30	50	60	69	29	13	3.0	1.1	2.1	15
28	16	19	16	110	52	147	21	12	2.1	.92	5.4	7.0
29	14	14	12	50	36	42	18	10	1.9	.92	3.8	4.0
30	13	15	11	30	---	33	14	10	19	6.1	2.7	3.2
31	11	---	12	17	---	27	---	10	---	3.5	2.1	---
TOTAL	1043.2	779.8	472.6	471.5	689	1196	812.0	831	149.0	130.86	685.6	92.7
MEAN	33.7	26.0	15.2	15.2	23.8	38.6	27.1	26.8	4.97	4.22	22.1	3.09
MAX	176	103	55	110	70	147	221	82	19	23	351	15
MIN	5.3	8.5	6.6	5.2	10	12	8.5	10	1.9	.92	1.3	1.5
CFSM	5.28	4.08	2.38	2.38	3.73	6.05	4.25	4.20	.78	.66	3.46	.48
IN.	6.08	4.55	2.76	2.75	4.02	6.97	4.73	4.84	.87	.76	4.00	.54

CAL YR 1975 TOTAL 7533.50 MEAN 20.6 MAX 191 MIN 1.6 CFSM 3.23 IN 43.92
WTR YR 1976 TOTAL 7353.26 MEAN 20.1 MAX 351 MIN .92 CFSM 3.15 IN 42.87

NOTE.--No gage-height record Sept. 16-30.

01167800 BEAVER BROOK AT WILMINGTON, VT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1972 to current year.

WATER TEMPERATURES: August 1972 to current year.

INSTRUMENTATION.--Water-quality monitor since August 1972.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. Daily records are considered fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 191 micromhos Feb. 22, 1974; minimum recorded, 22 micromhos Nov. 30, 1974, but may have been lower during period of no record in November 1974.

WATER TEMPERATURES: Maximum, 25.5°C Aug. 10, 1973, June 10, 1974, July 8, Aug. 2, 1975, July 6, 1976; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 104 micromhos Feb. 12; minimum recorded, 32 micromhos Dec. 1.

WATER TEMPERATURES: Maximum, 25.5°C July 6; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	53	51	52	38	32	34	49	46	46
2	47	47	47	55	52	53	42	34	35	50	47	49
3	46	46	46	55	54	54	37	35	36	50	47	48
4	51	46	47	54	53	53	38	35	37	50	47	48
5	51	47	49	55	52	53	39	37	39	53	50	52
6	54	51	53	62	55	58	40	36	38	54	52	53
7	55	53	54	66	58	60	43	38	41	55	52	53
8	58	53	54	58	51	53	45	43	44	57	54	56
9	61	56	57	52	38	51	46	43	44	58	56	58
10	63	57	59	53	40	48	44	38	41	59	56	58
11	63	46	55	46	42	44	39	37	38	65	58	59
12	48	44	47	47	43	46	41	37	39	60	56	59
13	48	46	48	43	40	41	43	40	42	62	55	58
14	46	44	45	39	38	38	43	39	41	66	55	59
15	47	45	46	38	37	38	40	37	39	59	53	56
16	64	47	49	40	38	38	45	37	39	54	51	53
17	52	49	50	40	39	39	46	44	45	53	50	53
18	51	42	46	43	40	41	48	44	46	55	54	55
19	47	44	45	45	43	44	50	46	48	57	56	57
20	44	43	44	46	44	45	52	49	51	58	55	58
21	44	42	43	46	33	41	52	48	50	58	55	57
22	48	43	45	38	33	35	50	47	48	59	56	58
23	55	49	52	44	35	37	50	47	49	61	60	61
24	54	53	53	44	36	37	52	49	52	63	62	62
25	57	47	51	38	37	37	60	51	53	64	62	63
26	46	45	46	40	36	38	54	50	52	67	63	65
27	50	46	48	42	38	39	53	51	52	102	68	85
28	55	49	50	40	38	38	56	51	53	78	56	65
29	55	52	53	42	38	39	66	52	55	58	52	55
30	55	50	52	42	39	40	54	47	52	56	51	53
31	52	50	51	---	---	---	47	45	46	56	54	55
MONTH	64	42	50	66	33	44	66	32	44	102	46	57

01167800 BEAVER BROOK AT WILMINGTON, VT--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

				FEBRUARY			MARCH						
				DAY	MAX	MIN	MEAN	MAX	MIN	MEAN			
				1	63	53	56	56	54	55			
				2	71	63	68	56	54	55			
				3	68	56	60	59	56	57			
				4	60	58	59	---	---	---			
				5	64	63	63	54	52	53			
				6	65	62	64	56	55	55			
				7	66	64	65	62	56	58			
				8	72	65	67	---	---	---			
				9	72	66	68	---	---	---			
				10	69	67	68	61	59	60			
				11	71	67	68	78	60	65			
				12	104	70	74	73	63	68			
				13	75	72	74	63	62	62			
				14	75	74	75	64	57	62			
				15	75	74	74	66	45	62			
				16	82	74	79	64	63	64			
				17	80	76	83	69	64	66			
				18	77	76	113	51	48	50			
				19	85	76	105	50	48	49			
				20	---	---	---	48	45	46			
				21	72	66	69	---	---	---			
				22	65	59	62	---	---	---			
				23	60	56	58	54	48	49			
				24	---	---	---	---	---	---			
				25	62	56	58	---	---	---			
				26	59	57	58	48	45	45			
				27	57	55	56	54	45	46			
				28	57	55	56	---	---	---			
				29	58	55	56	---	---	---			
				30	---	---	---	---	---	---			
				31	---	---	---	---	---	---			
				MONTH	104	53	69	---	---	---			
JUNE				JULY			AUGUST			SEPTEMBER			
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	---	---	---	61	53	58	76	54	64	70	68	69	
2	57	54	55	65	61	63	68	58	63	71	67	70	
3	72	56	59	67	64	65	72	65	68	71	67	69	
4	62	60	61	71	67	69	76	71	73	---	---	---	
5	65	62	64	73	71	72	79	74	77	73	65	68	
6	66	61	65	80	73	76	83	79	81	70	65	68	
7	60	54	57	85	81	83	81	54	69	73	69	70	
8	63	56	59	87	85	86	58	55	56	74	71	72	
9	69	34	65	84	70	74	59	57	58	---	---	---	
10	73	69	71	77	71	73	55	41	41	---	---	---	
11	75	72	73	85	78	82	37	36	36	---	---	---	
12	74	72	73	86	81	83	41	36	39	---	---	---	
13	76	34	73	84	71	74	44	39	41	---	---	---	
14	77	74	75	76	72	74	41	33	39	---	---	---	
15	78	75	76	79	76	77	44	40	42	---	---	---	
16	79	78	78	82	80	82	44	40	42	---	---	---	
17	77	70	72	86	83	85	48	43	46	---	---	---	
18	73	70	72	87	86	87	55	47	50	---	---	---	
19	76	73	75	89	87	88	59	53	56	---	---	---	
20	78	74	76	90	88	89	59	55	57	---	---	---	
21	81	77	78	90	89	90	64	59	61	---	---	---	
22	83	81	82	91	89	90	65	62	63	---	---	---	
23	84	56	73	93	91	92	68	64	65	---	---	---	
24	68	60	64	93	84	87	71	65	67	---	---	---	
25	77	69	73	89	87	88	71	67	69	---	---	---	
26	80	75	77	91	88	90	72	69	70	---	---	---	
27	81	79	80	90	89	90	73	68	71	88	53	71	
28	85	81	83	91	89	90	70	56	61	61	53	59	
29	85	84	84	92	41	89	60	56	58	62	60	61	
30	85	52	76	87	77	80	63	56	60	62	59	61	
31	---	---	---	78	76	77	70	63	66	---	---	---	
MONTH	85	34	71	93	41	81	83	33	58	---	---	---	
YEAR	104	32	59										

01167800 BEAVER BROOK AT WILMINGTON, VT--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.5	10.0	11.5	6.0	3.0	4.5	5.5	2.0	4.0	0.5	0.5	0.5
2	13.0	10.5	12.0	9.0	6.0	7.5	2.5	1.0	1.5	0.5	0.0	0.5
3	11.0	8.0	9.5	9.5	7.5	9.0	2.0	0.0	1.0	0.5	0.5	0.5
4	12.5	9.0	10.5	11.0	8.0	10.0	1.0	0.0	0.5	0.5	0.5	0.5
5	12.0	8.5	10.5	8.5	6.5	8.0	0.5	0.0	0.5	0.5	0.0	0.5
6	13.0	11.0	12.0	8.0	5.5	7.0	3.0	0.5	2.0	0.5	0.0	0.5
7	11.5	9.5	10.5	10.0	6.0	8.0	1.5	0.0	0.5	0.5	0.5	0.5
8	11.0	7.5	9.5	12.0	10.0	11.0	0.5	0.0	0.5	0.5	0.5	0.5
9	11.5	8.5	10.0	11.5	10.0	10.5	1.0	0.5	1.0	0.5	0.0	0.5
10	11.0	8.5	10.0	11.5	9.5	10.5	2.0	1.0	1.5	0.5	0.5	0.5
11	11.0	10.0	10.5	9.5	7.0	8.5	2.0	0.5	1.0	0.5	0.0	0.5
12	11.0	10.0	10.5	7.5	6.0	7.0	1.5	0.0	1.0	0.5	0.5	0.5
13	11.5	9.5	10.5	8.5	7.5	8.0	1.0	1.0	1.0	1.0	0.5	0.5
14	13.5	10.5	12.0	8.0	5.0	6.5	2.5	1.0	2.0	0.5	0.5	0.5
15	14.5	11.0	12.5	5.0	4.0	4.5	4.5	2.0	3.5	0.5	0.5	0.5
16	13.5	11.5	12.5	5.0	4.0	4.5	3.5	0.5	2.5	0.5	0.5	0.5
17	12.0	10.0	11.0	5.5	3.5	4.5	1.0	0.0	0.5	0.5	0.5	0.5
18	10.5	9.5	10.0	7.0	5.0	6.0	1.0	0.0	0.5	0.5	0.0	0.5
19	9.5	8.5	9.0	6.0	3.5	5.0	0.5	0.0	0.0	0.5	0.0	0.5
20	9.0	8.5	9.0	7.0	4.5	6.0	0.5	0.0	0.0	0.5	0.5	0.5
21	10.5	8.5	9.5	7.5	5.0	6.5	0.5	0.5	0.5	0.5	0.5	0.5
22	11.5	9.0	10.0	6.5	4.5	5.5	0.5	0.5	0.5	0.5	0.0	0.5
23	11.5	8.0	9.5	5.0	3.0	4.0	0.5	0.0	0.5	0.5	0.0	0.0
24	12.0	8.5	10.0	3.5	2.5	3.0	0.5	0.0	0.5	0.5	0.5	0.5
25	11.5	9.5	11.0	3.5	2.5	3.0	0.5	0.0	0.5	0.5	0.5	0.5
26	11.5	9.0	10.5	3.5	2.5	3.0	0.5	0.5	0.5	0.5	0.5	0.5
27	9.5	7.0	8.0	3.0	0.5	2.0	0.5	0.5	0.5	0.5	0.5	0.5
28	10.5	6.0	8.0	3.0	1.5	2.5	0.5	0.5	0.5	0.5	0.5	0.5
29	10.0	7.5	9.0	2.5	1.0	1.5	0.5	0.0	0.5	0.5	0.5	0.5
30	9.5	4.5	7.0	5.0	2.0	3.5	0.5	0.0	0.5	1.0	0.5	0.5
31	5.5	3.5	4.5	---	---	---	0.5	0.5	0.5	0.5	0.5	0.5
MONTH	14.5	3.5	10.0	12.0	0.5	6.0	5.5	0.0	1.0	1.0	0.0	0.5

DAY	FEBRUARY			MARCH		
	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.5	0.5	0.5	3.0	1.0	2.0
2	0.5	0.5	0.5	1.0	0.0	0.5
3	1.0	0.5	0.5	1.5	1.0	1.0
4	0.5	0.5	0.5	---	---	---
5	1.0	0.5	0.5	1.5	1.0	1.0
6	1.0	0.5	0.5	1.5	1.0	1.0
7	1.0	0.5	0.5	1.0	0.5	1.0
8	1.0	0.5	1.0	1.0	0.5	1.0
9	1.0	0.5	1.0	2.0	1.0	1.5
10	1.0	0.5	1.0	1.5	0.5	1.0
11	1.0	1.0	1.0	2.0	0.5	1.0
12	1.0	1.0	1.0	2.5	0.0	1.0
13	1.0	1.0	1.0	3.0	0.5	1.0
14	1.5	1.0	1.0	1.0	0.0	0.5
15	1.0	0.5	1.0	0.5	0.0	0.5
16	1.5	1.0	1.0	1.0	0.0	0.5
17	1.5	0.5	1.0	1.0	0.5	0.5
18	1.5	0.5	1.0	5.0	2.0	3.0
19	1.5	1.0	1.0	6.0	2.0	3.5
20	2.0	0.5	1.5	6.0	3.0	4.0
21	2.5	0.5	2.0	---	---	---
22	1.5	0.5	1.0	---	---	---
23	1.0	0.5	0.5	---	---	---
24	---	---	---	---	---	---
25	2.5	1.0	1.5	---	---	---
26	3.0	1.5	2.0	---	---	---
27	2.5	1.5	1.5	---	---	---
28	3.0	1.0	1.5	---	---	---
29	3.0	1.5	2.5	---	---	---
30	---	---	---	---	---	---
31	---	---	---	---	---	---
MONTH	3.0	0.5	1.0	---	---	---

CONNECTICUT RIVER BASIN

187

01168151 DEERFIELD RIVER NEAR ROWE, MA

LOCATION.--Lat 42°40'57", long 72°58'37", Franklin County, Hydrologic Unit 01080203, on left bank 0.1 mi (0.2 km) downstream from Fife Brook, 1.2 mi (1.9 km) northeast of Hoosac Tunnel, and 4 mi (6 km) west of Rowe.

DRAINAGE AREA.--254 mi² (658 km²).

PERIOD OF RECORD.--Discharge: May 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 745.00 ft (227.076 m) above mean sea level.

REMARKS.--Records good. Flow regulated by Somerset and Harriman Reservoirs (Reservoirs in Connecticut River basin) and by several powerplants upstream. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,400 ft³/s (464 m³/s) Aug. 10, 1976, gage height, 14.79 ft (4.508 m); minimum daily, 42 ft³/s (1.19 m³/s) Feb. 17, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,400 ft³/s (464 m³/s) Aug. 10, gage height, 14.79 ft (4.508 m); minimum daily, 44 ft³/s (1.25 m³/s) Nov. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1420	291	1150	1260	1580	1110	2860	566	762	1300	751	941
2	1230	44	1050	1310	1940	1830	3100	798	822	656	984	831
3	1300	755	1450	1220	1820	1610	1750	571	644	368	643	809
4	561	966	927	1090	1580	756	1440	908	593	150	832	847
5	160	1060	1310	1270	1620	599	1080	960	111	95	726	665
6	667	1140	1330	1270	1370	1370	592	1270	101	459	828	611
7	559	973	1200	1190	1030	1380	460	1860	551	324	798	302
8	473	1050	1330	1210	597	348	224	1380	420	307	853	296
9	458	1050	1350	1140	455	642	326	1210	378	252	1080	212
10	488	1140	1280	1260	688	471	131	919	473	112	9140	233
11	528	1050	1320	1300	567	532	238	612	444	459	5890	145
12	881	1080	1300	1160	636	613	581	746	104	632	2510	102
13	894	1590	1380	1160	402	534	109	913	98	825	1990	354
14	1070	2380	1250	1320	47	223	292	1090	271	723	2110	258
15	1000	1910	1280	1320	47	688	557	1150	396	811	1900	288
16	1010	1850	1260	1270	45	580	618	1480	348	886	2020	308
17	1160	1370	1330	1280	839	392	580	1150	296	775	1920	248
18	2510	1360	1240	1230	749	488	222	1280	290	330	1850	238
19	2350	1330	1270	1250	812	663	481	2440	180	538	1660	245
20	3050	1180	1370	1260	997	312	214	2960	102	546	1760	588
21	2290	1480	1200	1250	1040	1050	177	3250	316	755	1540	395
22	2160	1410	1170	1070	1360	1740	105	2860	327	454	1450	381
23	2080	1340	1250	1260	1690	1530	350	2220	305	332	999	323
24	1840	1350	1320	1190	1720	1250	107	2120	443	152	680	344
25	1230	1250	1150	1160	1300	967	104	1940	396	151	863	231
26	1270	1390	1280	1260	1400	1440	437	1750	362	412	764	274
27	1200	1280	1320	1400	1390	861	284	1390	227	575	913	1150
28	824	1390	1050	1760	1360	2950	314	1280	432	603	852	868
29	919	1290	1210	1370	846	1500	674	1080	369	487	809	399
30	816	1230	1350	1770	---	1020	996	832	540	360	863	354
31	671	---	1150	1670	---	1000	---	541	---	384	555	---
TOTAL	37069	36979	38827	39930	29927	30449	19403	43526	11101	15213	50533	13240
MEAN	1196	1233	1252	1288	1032	982	647	1404	370	491	1630	441
MAX	3050	2380	1450	1770	1940	2950	3100	3250	822	1300	9140	1150
MIN	160	44	927	1070	45	223	104	541	98	95	555	102
CAL YR 1975	TOTAL	335868	MEAN	920	MAX	3050	MIN	42				
WTR YR 1976	TOTAL	366197	MEAN	1001	MAX	9140	MIN	44				

CONNECTICUT RIVER BASIN

01168500 DEERFIELD RIVER AT CHARLEMONT, MA

LOCATION.--Lat 42°37'33", long 72°51'20", Franklin County, Hydrologic Unit 01080203, on left bank 0.8 mi (1.3 km) east of Charlemont, 2.5 mi (4.0 km) downstream from Chickley River, and at mile 24.5 (39.4 km).

DRAINAGE AREA.--362 mi² (938 km²).

PERIOD OF RECORD.--Discharge: June 1913 to current year.

Chemical analyses: Water years 1954-55, 1958, 1967-69 (partial-record station).

Water temperatures: Water years 1954, 1958, 1967-69 (partial-record station).

Sediment records: Water years 1967-69 (partial-record station).

REVISED RECORDS.--WSP 781: 1915(M). WSP 1301: 1918(M).

GAGE.--Water-stage recorder. Datum of gage is 517.36 ft (157.691 m) above mean sea level.

REMARKS.--Records excellent. Flow regulated by Somerset Reservoir, since 1924 by Harriman Reservoir (Reservoirs in Connecticut River basin), and by several powerplants upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--63 years, 894 ft³/s (25.32 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,300 ft³/s (1,590 m³/s) Sept. 21, 1938, gage height, 20.17 ft (6.148 m), from floodmarks, from rating curve extended above 31,000 ft³/s (878 m³/s) on basis of slope-area and contracted-opening measurements at gage heights 17.75 ft (5.410 m) and 20.17 ft (6.148 m); minimum daily, 5 ft³/s (0.14 m³/s) June 17, 1921.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,200 ft³/s (572 m³/s) Aug. 10, gage height, 11.90 ft (3.627 m); minimum daily, 129 ft³/s (3.65 m³/s) July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1630	618	1810	1470	1940	1910	4970	793	920	1370	855	958
2	1510	332	1410	1500	2740	2520	4820	1590	1020	862	1160	867
3	1490	768	1820	1430	2280	2190	2620	1100	830	437	655	845
4	863	1160	1270	1260	2150	1500	2110	1080	870	167	845	883
5	367	1180	1520	1420	1940	1200	1580	1270	267	195	712	598
6	791	1290	1640	1430	1770	2440	1140	1490	243	443	818	625
7	698	1130	1450	1350	1350	2070	877	2050	628	401	1110	485
8	638	1250	1550	1380	960	964	595	1790	609	358	1070	230
9	586	1250	1600	1270	773	985	555	1470	524	306	1140	349
10	592	1410	2020	1410	804	864	488	1180	550	164	12000	280
11	660	1400	1830	1450	939	889	410	893	568	349	7640	223
12	1390	1350	1680	1310	855	833	899	1060	228	642	3120	196
13	1170	2650	1690	1290	620	961	408	1260	198	861	2210	357
14	1330	3260	1600	1570	388	688	520	1300	346	737	2370	295
15	1200	2540	1600	1550	267	953	655	1420	451	824	2080	379
16	1200	2330	1590	1460	308	883	822	1710	423	878	2190	326
17	1270	1840	1600	1460	1010	770	681	1400	406	839	2080	315
18	3820	1640	1510	1380	1130	731	489	1540	363	338	1950	350
19	3390	1640	1420	1420	1400	870	662	3500	257	538	1730	180
20	4870	1460	1530	1410	1600	724	467	4400	175	547	1820	540
21	3210	2080	1400	1400	1450	2100	341	4360	365	742	1580	450
22	2760	2110	1400	1200	2570	2800	264	3680	377	602	1510	470
23	2580	1780	1430	1400	2760	2150	502	2770	372	350	1050	400
24	2260	1700	1530	1410	2430	1890	264	2570	413	187	729	340
25	1670	1590	1290	1420	1860	1510	334	2330	536	129	892	280
26	1630	1680	1480	1380	2070	2180	991	2090	409	464	802	300
27	1600	1670	1720	1950	2510	1850	664	1740	172	517	948	1200
28	1070	1840	1290	3600	2400	4600	637	1510	564	627	949	1000
29	1160	1640	1420	2120	1640	2410	818	1360	423	528	892	400
30	1040	1560	1560	2210	---	1650	1310	1020	450	282	919	450
31	881	---	1400	2080	---	1540	---	782	---	516	635	---
TOTAL	49326	48148	48060	48390	44914	49625	31893	56508	13957	16200	58461	14571
MEAN	1591	1805	1550	1561	1549	1601	1063	1823	465	523	1886	486
MAX	4870	3260	2020	3600	2760	4600	4970	4400	1020	1370	12000	1200
MIN	367	332	1270	1200	267	688	264	782	172	129	635	180
CAL YR 1975 TOTAL	455671			1248	MAX 4870	MIN 150						
WTR YR 1976 TOTAL	480053			MEAN 1312	MAX 12000	MIN 129						

01169000 NORTH RIVER AT SHATTUCKVILLE, MA

LOCATION.--Lat 42°38'18", long 72°43'32", Franklin County, Hydrologic Unit 01080203, on right bank in Shattuckville, 1.2 mi (1.9 km) south of Griswoldville, and 1.3 mi (2.1 km) upstream from mouth.

DRAINAGE AREA.--88.4 mi² (229.0 km²).

PERIOD OF RECORD.--Discharge: October 1939 to current year. October and November 1939 monthly discharge only, published in WSP 1301.

Chemical analyses: Water years 1957, 1967-69 (partial-record station).

Water temperatures: Water years 1957, 1967-69 (partial-record station).

Sediment records: Water years 1967-69 (partial-record station).

REVISED RECORDS.--WSP 1111: 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 458.36 ft (139.708 m) above mean sea level.

REMARKS.--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 1959, greater regulation by mill. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 181 ft³/s (5.126 m³/s), 27.81 in/yr (706 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,200 ft³/s (374 m³/s) Oct. 15, 1955, gage height, 10.37 ft (3.161 m), from rating curve extended above 5,700 ft³/s (161 m³/s) on basis of computation of flow over dam at gage height 9.62 ft (2.932 m); minimum daily, 5.1 ft³/s (0.14 m³/s) Oct. 3, 1948.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,200 ft³/s (62.3 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 18	1200	3,030 85.8	6.48 1.975	Apr. 1	1600	7,340 208	8.67 2.643
Oct. 20	0715	3,610 102	6.85 2.088	Aug. 10	0900	*7,680 217	*8.80 2.682
Mar. 28	0400	3,030 85.8	6.48 1.975				

Minimum discharge, 13 ft³/s (0.37 m³/s) Sept. 7; minimum daily, 16 ft³/s (0.45 m³/s) July 21, 23, 24, Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	235	219	460	155	255	542	2900	169	110	136	150	23
2	209	189	334	145	606	428	1000	815	124	67	103	22
3	175	173	273	155	424	361	600	369	102	55	44	22
4	158	186	227	145	320	343	480	278	90	44	30	21
5	144	168	203	130	260	455	410	227	82	36	23	22
6	138	153	210	120	225	647	360	197	77	33	21	21
7	125	146	205	140	205	398	320	194	116	31	242	18
8	116	185	164	170	190	310	300	259	88	36	184	18
9	103	181	179	145	185	258	270	192	75	34	140	16
10	105	278	736	130	185	254	240	168	69	31	2620	21
11	227	353	427	120	192	237	220	152	61	30	445	56
12	658	300	292	115	175	210	200	344	56	31	196	35
13	365	1050	249	110	172	342	185	254	51	33	110	26
14	292	847	251	300	180	344	170	190	48	30	144	23
15	224	462	266	230	165	268	160	237	46	26	98	20
16	189	351	254	200	213	226	150	183	44	23	107	19
17	184	299	201	170	243	224	145	167	56	22	75	25
18	1410	266	185	150	226	207	140	211	54	21	58	47
19	794	241	146	135	396	204	135	954	44	18	48	36
20	2340	224	130	125	355	364	130	708	42	17	43	28
21	826	489	155	115	267	750	125	463	46	16	38	24
22	536	563	175	110	568	715	129	344	48	17	35	22
23	406	337	160	105	575	416	139	283	53	16	32	20
24	340	283	150	100	350	436	123	228	74	16	29	19
25	391	256	150	100	309	541	190	202	48	20	27	17
26	446	232	180	110	378	625	514	185	42	20	25	19
27	332	306	350	430	654	755	326	169	36	17	27	158
28	286	394	255	1300	673	1840	238	148	34	22	31	86
29	260	295	200	576	512	755	205	128	34	17	37	52
30	240	266	175	375	---	622	172	120	35	24	30	52
31	232	---	170	265	---	546	---	118	---	29	24	---
TOTAL	12486	9692	7512	6676	9458	14623	10676	8656	1885	968	5216	988
MEAN	403	323	242	215	326	472	356	279	62.8	31.2	168	32.9
MAX	2340	1050	736	1300	673	1840	2900	954	124	136	2620	158
MIN	103	146	130	100	165	204	123	118	34	16	21	16
CFSM	4.56	3.65	2.74	2.43	3.69	5.34	4.03	3.16	.71	.35	1.90	.37
IN.	5.25	4.08	3.16	2.81	3.98	6.15	4.49	3.64	.79	.41	2.19	.42

CAL YR 1975	TOTAL	102154	MEAN 280	MAX 2420	MIN 36	CFSM 3.17	IN 42.99
WTR YR 1976	TOTAL	88836	MEAN 243	MAX 2900	MIN 16	CFSM 2.75	IN 37.38

01169900 SOUTH RIVER NEAR CONWAY, MA

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 (3.5 km) north of Conway, and 2.6 mi (4.2 km) upstream from mouth.

DRAINAGE AREA.--24.0 mi² (62.2 km²).

RECORDS AVAILABLE.--Discharge: June 1966 to current year.

Chemical analyses: Water years 1967-69 (partial-record station).

Water temperatures: Water years 1967-69 (partial-record station).

Sediment records: Water years 1967-69 (partial-record station).

REVISED RECORDS.--WRD MA, NH, RI, VT, 1973: 1968-70(P), 1971(M), 1972(P).

GAGE.--Water-stage recorder. Altitude of gage is 460 ft (140 m), from topographic map. Prior to Oct. 7, 1970, at downstream side of bridge at same site and datum.

REMARKS.--Records good except those for period of no gage-height record, which are fair and those for winter period, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 55.4 ft³/s (1.569 m³/s), 31.35 in/yr (796 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,480 ft³/s (70.2 m³/s) Dec. 21, 1973, gage height, 7.77 ft

(2.368 m), from rating curve extended above 750 ft³/s (21.2 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 8.26 ft (2.518 m) Jan. 27, 1976, ice jam; minimum discharge, 3.0 ft³/s (0.085 m³/s) Aug. 21, 22, Sept. 2, 3, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 660 ft³/s (18.7 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Oct. 20	0115	952	27.0	5.66	1.725	Apr. 1	1600	1,130	32.0	5.95	1.814
Jan. 27	-	860	24	*a8.26	2.518	Aug. 9	1200	*1,400	39.6	6.38	1.945

a Ice jam.

Minimum discharge, 4.4 ft³/s (0.12 m³/s) July 26, 27, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	53	84	62	89	137	397	69	36	59	19	11
2	62	51	66	55	221	113	177	180	64	20	7.9	10
3	56	49	60	52	104	96	124	100	45	17	6.6	10
4	50	48	53	48	101	92	102	88	37	13	5.9	9.8
5	44	47	53	45	95	150	89	70	32	11	5.1	9.6
6	42	44	52	41	86	147	80	60	31	10	47	9.4
7	39	43	50	50	78	102	75	57	40	11	36	8.9
8	35	58	49	60	71	85	70	62	38	15	37	7.8
9	35	49	49	50	66	74	65	52	25	11	436	7.3
10	38	76	222	43	63	71	62	48	23	9.2	74	10
11	65	74	94	40	63	69	60	45	21	8.3	38	18
12	86	93	70	38	61	65	58	100	26	9.8	29	11
13	54	219	64	39	58	113	56	70	20	8.4	23	9.2
14	55	167	65	120	60	92	53	52	17	7.8	19	8.7
15	47	94	64	95	57	74	50	52	17	7.2	25	7.6
16	44	79	61	75	75	62	48	45	15	6.8	23	7.2
17	40	70	53	64	132	68	45	45	26	6.7	17	13
18	207	85	51	56	100	63	42	60	19	6.4	14	26
19	129	60	46	50	158	69	40	250	15	5.1	13	13
20	507	59	40	45	118	124	38	150	15	4.9	12	11
21	149	132	43	42	93	164	36	100	15	5.0	11	9.2
22	110	115	49	40	244	122	45	86	14	5.4	10	8.7
23	91	76	48	39	139	87	59	70	17	5.2	9.9	8.1
24	81	67	47	37	104	91	46	60	20	6.7	9.4	7.1
25	98	63	52	35	107	102	84	56	14	4.8	8.1	6.7
26	98	60	80	50	131	102	146	52	13	4.5	7.8	8.4
27	76	92	140	380	180	103	80	49	9.8	5.7	15	36
28	68	95	100	440	157	160	66	43	9.6	5.6	33	18
29	63	74	90	134	130	97	59	37	9.8	6.4	25	13
30	60	71	75	97	---	87	54	36	19	8.4	19	11
31	55	---	82	91	---	80	---	35	---	15	13	---
TOTAL	2649	2343	2152	2513	3141	3861	2406	2279	695.2	320.3	1048.7	344.7
MEAN	85.5	78.1	69.4	81.1	108	98.7	80.2	73.5	23.2	10.3	33.8	11.5
MAX	507	219	222	440	244	164	397	250	64	59	436	36
MIN	35	43	40	35	57	62	36	35	9.6	4.5	5.1	6.7
CFSM	3.56	3.25	2.89	3.38	4.50	4.11	3.34	3.06	.97	.43	1.41	.48
IN.	4.11	3.63	3.34	3.89	4.87	4.74	3.73	3.53	1.08	.50	1.63	.53
CAL YR 1975 TOTAL	26335.8											
WTR YR 1976 TOTAL	22952.9											
MEAN	72.2											
MAX	1020											
MIN	9.4											
CFSM	3.01											
IN	40.82											
WTR YR 1976	22952.9											
MEAN	62.7											
MAX	507											
MIN	4.5											
CFSM	2.61											
IN	35.58											

NOTE.--No gage-height record May 2 to June 3.

01170000 DEERFIELD RIVER NEAR WEST DEERFIELD, MA

LOCATION.--Lat 42°32'09", long 72°39'14", Franklin County, Hydrologic Unit 01080203, on right bank 0.4 mi (0.6 km) downstream from South River, 1.2 mi (1.9 km) west of West Deerfield, 2.5 mi (4.0 km) west of Deerfield, and 9.2 mi (14.8 km) upstream from mouth.

DRAINAGE AREA.--558 mi² (1,445 km²).

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.

Chemical analyses: Water years 1953, 1967-69 (partial-record station), October 1968 to April 1970.

Water temperatures: Water years 1967-69 (partial-record station), October 1968 to April 1970.

Sediment records: Water years 1967-69 (partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 155 ft (47 m), from topographic map. Prior to Dec. 16, 1905, nonrecording gage at site 1.5 mi (2.4 km) downstream at different datum.

REMARKS.--Records excellent. 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 were made during the year.

AVERAGE DISCHARGE.--36 years (water years 1941-76), 1,280 ft³/s (36.25 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,500 ft³/s (1,370 m³/s) Dec. 31, 1948, gage height, 15.3 ft (4.703 m); minimum daily, 28 ft³/s (0.79 m³/s) July 29, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29,700 ft³/s (841 m³/s) Aug. 10, gage height, 11.69 ft (3.563 m); minimum daily, 214 ft³/s (6.06 m³/s) July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2070	1250	2430	1800	2450	2780	8310	1400	1100	1630	1100	815
2	2020	761	2060	1750	3700	3110	7410	2780	1370	1090	1420	967
3	1780	905	2170	1760	3180	2890	3910	1860	923	516	651	890
4	1380	1510	1890	1580	2830	2400	3080	1490	1080	299	1110	908
5	856	1500	1790	1590	2500	1690	2430	1750	418	317	764	676
6	815	1500	2050	1820	2210	3610	2030	1860	438	499	819	631
7	1030	1500	1850	1890	1870	2810	1540	2260	809	534	1560	617
8	942	1570	1830	1680	1480	1880	1280	2390	730	474	1530	375
9	807	1620	1920	1510	1270	1360	1080	1850	780	347	1420	338
10	829	1900	3360	1780	1150	1380	1080	1580	667	217	14500	391
11	1070	2160	2650	1750	1380	1200	932	1230	708	344	8920	304
12	2390	1840	2230	1630	1210	1360	1160	1650	391	752	3560	272
13	1770	4200	2140	1510	1030	1660	1050	1800	307	988	2340	353
14	1800	4600	2110	2010	836	1680	913	1570	435	866	2470	507
15	1620	3380	2050	1950	628	1340	924	1700	318	850	2210	318
16	1470	2830	2080	1810	870	1440	1230	2000	629	887	2260	381
17	1650	2580	1960	1780	1460	1370	1100	1850	551	938	2190	388
18	5200	2130	1920	1710	1830	1190	987	1900	503	469	2060	354
19	4580	2030	1660	1840	2150	1240	823	4770	441	554	1800	324
20	8690	1990	1720	1700	2550	1640	873	5250	282	609	1900	566
21	4520	2650	1710	1850	1990	2990	523	4950	472	864	1630	678
22	3560	3360	1760	1550	3350	4110	646	4190	415	698	1740	477
23	3150	2400	1730	1600	3960	2960	757	3200	595	330	1110	456
24	2940	2220	1790	1830	3040	2600	475	2890	521	294	788	372
25	2380	2100	1790	1800	2400	2410	808	2650	580	214	897	311
26	2450	2090	1920	1940	2760	3160	1850	2420	455	449	828	429
27	2170	2260	2310	2690	3550	3060	1480	2090	334	588	855	1360
28	1660	2580	1810	6100	3660	6090	1070	1770	693	624	1130	1250
29	1680	2230	1780	3360	2720	3860	1110	1690	492	618	951	596
30	1480	2100	1860	2850	---	2620	1580	1320	563	402	1010	598
31	1340	---	1810	2580	---	2420	---	1000	---	473	873	---
TOTAL	70099	65746	62140	63000	64014	74310	52441	71110	18000	18734	66396	16902
MEAN	2261	2192	2005	2032	2207	2397	1748	2294	600	604	2142	563
MAX	8690	4600	3360	6100	3960	6090	8310	5250	1370	1630	14500	1360
MIN	807	761	1660	1510	628	1190	475	1000	282	214	651	272
CAL YR 1975 TOTAL	646809			MEAN 1772	MAX 9220	MIN 252						
WTR YR 1976 TOTAL	642892			MEAN 1757	MAX 14500	MIN 214						

CONNECTICUT RIVER BASIN

01170100 GREEN RIVER NEAR COLRAIN, MA

LOCATION.--Lat 42°42'12", long 72°40'16", Franklin County, Hydrologic Unit 01080203, on right bank 0.5 mi (0.8 km) upstream from bridge on West Leyden Road and 2.5 mi (4.0 km) northeast of Colrain.

DRAINAGE AREA.--41.4 mi² (107.2 km²).

PERIOD OF RECORD.--Discharge: October 1967 to current year.

Chemical analyses: Water years 1968-69 (partial-record station).

Water temperatures: Water years 1968-69 (partial-record station).

Sediment records: Water years 1968-69 (partial-record station).

REVISED RECORDS.--WRD MA, NH, RI, VT, 1971: 1968(M), 1969.

GAGE.--Water-stage recorder. Altitude of gage is 435 ft (133 m), from topographic map.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--9 years, 98.9 ft³/s (2.801 m³/s), 32.44 in/yr (824 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,560 ft³/s (129 m³/s) Dec. 21, 1973, gage height, 8.2 ft (2.50 m), from floodmarks, from rating curve extended above 890 ft³/s (25.2 m³/s) on basis of slope-area measurement of peak flow and conveyance-slope study; maximum gage height, 8.87 ft (2.704 m) Jan. 27, 1976, ice jam; minimum discharge, 1.9 ft³/s (0.054 m³/s) Aug. 1, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (22.7 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 18	1145	982 27.8	4.85 1.478	Mar. 28	0315	1,380 39.1	5.39 1.643
Oct. 20	0700	b2,060 58.3	6.15 1.875	Apr. 1	1445	*b2,900 82.1	6.95 2.118
Jan. 27	-	1,100 31.0	*a8.87 2.704	Aug. 10	0930	b2,790 79.0	6.85 2.088

a Ice jam.

b From rating curve extended as explained above.

Minimum discharge, 8.5 ft³/s (0.24 m³/s) July 27, Sept. 10

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	101	212	77	140	243	1180	90	50	101	73	12
2	90	96	162	70	296	197	567	354	53	36	44	13
3	78	91	132	75	165	174	386	174	44	32	22	13
4	70	92	108	70	120	167	308	136	40	26	16	12
5	64	85	95	62	100	208	246	112	37	22	13	11
6	60	77	99	58	96	266	216	97	39	20	12	11
7	56	73	94	67	93	184	197	97	48	19	75	10
8	51	95	79	74	90	149	179	118	38	22	67	9.6
9	49	95	87	59	88	126	160	93	41	20	53	9.1
10	44	153	296	58	88	128	140	78	34	19	887	14
11	93	183	191	56	94	119	120	71	30	16	182	37
12	331	147	135	60	95	106	110	177	31	21	83	19
13	179	436	115	59	86	147	100	121	29	22	54	14
14	141	383	114	150	84	151	92	97	27	19	76	12
15	107	220	122	110	84	128	84	116	26	16	50	11
16	91	170	115	90	100	100	78	86	24	14	53	10
17	82	148	91	76	106	108	75	78	28	14	38	13
18	485	132	86	63	105	112	71	101	26	14	31	32
19	356	119	64	58	160	114	69	324	23	13	26	23
20	1100	110	60	66	142	163	66	262	24	11	24	17
21	417	222	70	61	122	333	64	182	24	10	21	14
22	281	260	82	56	222	320	66	145	26	11	20	12
23	213	164	78	50	250	219	73	119	29	10	18	12
24	180	138	72	48	175	225	64	103	34	11	16	11
25	222	125	72	46	147	281	90	92	25	11	15	10
26	245	113	90	52	165	337	225	83	22	9.3	14	12
27	177	148	170	350	281	407	142	77	19	9.3	14	93
28	152	180	120	580	300	749	110	67	18	10	18	41
29	136	139	95	262	237	405	95	64	17	9.3	19	26
30	123	126	84	172	---	350	80	59	32	15	15	21
31	107	---	84	125	---	312	---	55	---	16	13	---
TOTAL	5875	4621	3474	3260	4231	7028	5453	3828	938	598.9	2062	554.7
MEAN	190	154	112	105	146	227	182	123	31.3	19.3	66.5	18.5
MAX	1100	436	296	580	300	749	1180	354	53	101	887	93
MIN	44	73	60	46	84	100	64	55	17	9.3	12	9.1
CFSM	4.59	3.72	2.71	2.54	3.53	5.48	4.40	2.97	.76	.47	1.61	.45
IN.	5.28	4.15	3.12	2.93	3.80	6.31	4.90	3.44	.84	.54	1.85	.50

CAL YR 1975 TOTAL 44072.0 MEAN 121 MAX 1100 MIN 18 CFSM 2.92 IN 39.60
WTR YR 1976 TOTAL 41923.6 MEAN 115 MAX 1180 MIN 9.1 CFSM 2.78 IN 37.67

NOTE.--No gage-height record Oct. 1-8.

01170500 CONNECTICUT RIVER AT MONTAGUE CITY, MA

LOCATION.--Lat 42°34'48", long 72°34'30", Franklin County, Hydrologic Unit: 01080201, on left bank 75 ft (23 m) downstream from Penn Central Railroad bridge at Montague City, 1,000 ft (300 m) downstream from Deerfield River, and at mile 119.0 (191.5 km).

DRAINAGE AREA.--7,865 mi² (20,370 km²).

PERIOD OF RECORD.--Discharge: 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 891: Drainage area. 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).

GAGE.--Water-stage recorder. Datum of gage is 99.87 ft (30.440 m) above mean sea level. 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 (14 km) downstream at datum 1.00 ft (0.305 m) lower. Since Oct. 1, 1929, water-stage recorder at present site and datum.

REMARKS.--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 ft³ (1,230,000,000 m³).

AVERAGE DISCHARGE.--72 years, 13,720 ft³/s (388.6 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 236,000 ft³/s (6,680 m³/s) Mar. 19, 1936, gage height, 49.2 ft (15.00 m), from floodmarks; minimum daily, 215 ft³/s (6.09 m³/s) Aug. 31, Sept. 1, 1958.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 61,000 ft³/s (1,730 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 20	2245	80,400 2,280	28.28 8.620	Apr. 2	2345	*102,000 2,890	*32.25 9.830
Mar. 29	1330	84,600 2,400	29.08 8.864				

Minimum daily discharge, 760 ft³/s (21.5 m³/s) Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23600	15100	15500	12500	25000	35300	66300	20100	12600	17500	13800	9680
2	19200	12100	22400	10500	29000	36900	96700	26900	14500	14700	23600	10100
3	16400	9900	24300	10000	30000	28100	94800	33400	14800	11200	16100	9520
4	13500	12800	22700	7000	28000	26000	85300	31800	15100	9610	14200	9170
5	8720	16100	17900	10000	25000	23500	72500	27600	9490	6650	12600	7340
6	9320	15500	17000	11500	21500	32900	62200	24700	5380	6410	12500	4280
7	9480	17100	16600	12500	21000	36300	55100	22400	9560	8200	10400	7210
8	10200	13800	12900	12000	18000	29700	47400	21800	8710	7510	13300	7140
9	8690	11100	15700	10000	18000	27800	37200	21000	10900	7780	14400	7290
10	9110	13700	19000	8400	15000	23000	29800	19300	10100	6640	37200	7200
11	9110	21400	25500	8000	16000	23500	23600	15800	7390	5950	54100	7800
12	19300	20500	21300	10000	17000	20900	25100	16100	8200	10800	41600	7920
13	25100	32400	19600	11500	17000	20400	19700	26700	3090	18800	34800	7320
14	23900	44200	14400	11500	13000	20600	21400	27400	6240	14400	30700	6760
15	20100	41200	13900	12000	13000	19800	21300	27300	5830	10600	22500	7210
16	17400	35600	18400	12000	14000	20100	21300	28300	6920	8160	23700	7460
17	16000	29500	17700	11500	16000	18200	24800	24300	7720	8070	25700	6890
18	31500	25200	15500	7700	19000	17000	30500	22500	7610	4330	25700	3940
19	45600	22200	12200	10000	19500	17700	33400	32700	6520	7210	23400	4820
20	62300	21200	6460	12000	19500	17500	33600	51200	4910	7120	19300	8060
21	76200	22900	5100	10000	20100	28700	31400	52500	7420	6980	11900	7140
22	65200	33900	9000	11000	24700	43900	30400	44100	8650	4050	9680	6320
23	50500	30500	10500	9600	37000	55900	25700	35300	11800	6330	10900	6690
24	37400	29800	11500	6000	35000	40600	22000	32000	12400	6340	10200	7680
25	31400	23300	10000	6600	31400	42000	20800	27000	11100	5710	9460	1020
26	28000	22800	9500	10000	30000	47300	25400	26000	8050	7850	7760	760
27	23300	21700	12500	14000	31700	48800	26500	23900	9270	7450	6510	10600
28	20400	25300	11000	28000	39400	64000	24500	20600	13700	7930	6250	14700
29	19600	22700	11000	40000	37600	81900	23200	18100	9860	10500	4740	13900
30	17500	16000	13500	35000	---	72600	23200	16300	7380	10700	6980	13600
31	15000	---	11500	28000	---	62400	---	14400	---	12700	8780	---
TOTAL	783030	679500	463560	408800	681400	1083300	1155100	831500	275200	278180	562760	229520
MEAN	25260	22650	14950	13190	23500	34950	38500	26820	9173	8974	18150	7651
MAX	76200	44200	25500	40000	39400	81900	96700	52500	15100	18800	54100	14700
MIN	8690	9900	5100	6000	13000	17000	19700	14400	3090	4050	4740	760
CAL YR 1975	TOTAL	5940280	MEAN	16270	MAX	76200	MIN	1250				
WTR YR 1976	TOTAL	7431850	MEAN	20310	MAX	96700	MIN	760				

CONNECTICUT RIVER BASIN

01171300 FORT RIVER NEAR AMHERST, MA

LOCATION.--Lat 42°21'30", long 72°30'23", Hampshire County, Hydrologic Unit 01080201, on left bank 400 ft (120 m) downstream from Southeast Street Bridge, 600 ft (180 m) downstream from Hop Brook, and 1.3 mi (2.1 km) south-east of Amherst.

DRAINAGE AREA.--36.4 mi² (94.3 km²), excludes 5.15 mi² (13.34 km²) drained by Nurse and Dean Brooks, flow of which is diverted from basin.

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

Chemical analyses: Water years 1971, 1973 (partial-record station).

Water temperatures: Water years 1971, 1973 (partial-record station).

REVISED RECORDS.--WRD MA-RI-75-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 147 ft (45 m), from topographic map. Prior to May 10, 1974, at site 400 ft (120 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are fair. Diversions upstream for municipal supply of Amherst. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 65.3 ft³/s (1.849 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,820 ft³/s (79.9 m³/s) Dec. 21, 1973, gage height, 9.88 ft (3.011 m), from rating curve extended above 690 ft³/s (19.5 m³/s); minimum, 1.9 ft³/s (0.054 m³/s) Sept. 3,

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in March 1936 and September 1938 reached discharges of 2,360 ft³/s (66.8 m³/s) and 1,640 ft³/s (46.4 m³/s), respectively, by computation of flow over dam 1.2 mi (1.9 km) downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 20	1330	699 19.8	5.23 1.594	Apr. 1	2300	551 15.6	4.65 1.417
Jan. 28	-	*1,000 28	a*5.52 2.597				

a Ice jam.

Minimum discharge, 9.9 ft³/s (0.28 m³/s) Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	66	117	124	160	133	220	74	40	84	28	13
2	86	65	114	103	347	122	344	186	65	51	21	14
3	73	62	101	91	320	106	166	141	52	32	15	16
4	66	61	82	83	225	104	129	115	39	26	13	16
5	60	56	75	67	175	145	109	89	34	23	13	15
6	56	53	74	65	135	177	95	76	31	19	15	14
7	51	51	77	63	120	134	84	71	34	17	47	13
8	47	79	64	87	110	107	81	94	33	18	49	12
9	45	49	67	89	100	89	77	75	28	17	38	12
10	43	79	140	80	92	85	73	63	25	15	110	11
11	73	97	140	68	94	88	71	55	21	15	84	14
12	276	85	102	61	93	83	68	119	22	16	40	13
13	201	331	84	58	97	128	65	103	20	16	25	12
14	150	302	79	160	105	156	62	72	19	16	19	11
15	112	196	79	170	105	119	56	68	20	15	18	11
16	87	138	73	140	139	95	56	60	19	15	46	11
17	73	112	61	115	238	86	56	63	26	15	31	12
18	262	98	56	97	216	103	52	72	25	14	19	29
19	360	85	58	81	283	90	48	208	23	13	15	35
20	530	77	46	71	260	146	45	247	23	12	15	20
21	307	128	57	70	197	207	42	156	25	12	14	16
22	189	316	60	68	312	179	49	120	24	15	13	15
23	152	175	64	64	353	121	64	92	23	14	13	14
24	122	128	59	60	195	103	50	75	22	19	12	13
25	110	112	56	56	168	99	71	70	26	16	11	13
26	109	95	101	64	179	92	150	63	24	12	11	13
27	96	149	197	300	188	87	127	56	21	11	23	20
28	85	189	157	900	176	117	98	49	19	11	25	29
29	79	137	134	600	146	102	82	43	24	11	19	22
30	74	111	116	350	---	83	71	40	25	17	18	18
31	70	---	129	220	---	74	---	40	---	19	14	---
TOTAL	4147	3722	2828	4625	5328	3560	2761	2855	832	606	834	477
MFAN	134	124	91.2	149	184	115	92.0	92.1	27.7	19.5	26.9	15.9
MAX	530	331	197	900	353	207	344	247	65	84	110	35
MIN	43	51	46	56	92	74	42	40	19	11	11	11

CAL YR 1975 TOTAL 31482.9 MEAN 86.3 MAX 1140 MIN 9.0
WTR YR 1976 TOTAL 32575.0 MEAN 89.0 MAX 900 MIN 11

01171500 MILL RIVER AT NORTHAMPTON, MA

LOCATION.--LAT 42°19'05", long 72°39'21", Hampshire County, Hydrologic Unit 01080201, on right bank at Northampton 3.5 mi (5.6 km) upstream from mouth.

DRAINAGE AREA.--54.0 mi² (139.9 km²).

PERIOD OF RECORD.--Discharge: October 1938 to current year. October 1938 monthly discharge only, published in WSP 1301.

Chemical analyses: Water years 1957-59, 1971, 1973 (partial-record station).

Water temperatures: Water years 1957-59, 1971, 1973 (partial-record station).

REVISED RECORDS.--WSP 921: 1940. WSP 1231: 1940-42(M), 1944-45(M), 1948(M), 1949.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 140 ft (43 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by mill upstream prior to 1956. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--38 years, 95.6 ft³/s (2.707 m³/s), 24.04 in/yr (611 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,300 ft³/s (178 m³/s) Aug. 19, 1955, gage height, 11.78 ft (3.591 m), from rating curve extended above 3,700 ft³/s (105 m³/s) on basis of computation of peak flow over dam; minimum, 2.2 ft³/s (0.062 m³/s) Oct. 1, 1950; minimum daily, 4.2 ft³/s (0.12 m³/s) Aug. 21, 23, 24, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,250 ft³/s (35.4 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 20	0545	1,670 47.3	5.59 1.704	Apr. 1	1715	*1,980 56.1	6.09 1.856
Jan. 28	-	1,600 45	*unknown(ice jam)	Aug. 10	0945	1,760 49.8	5.74 1.750

Minimum discharge, 10 ft³/s (0.28 m³/s) July 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	110	167	134	250	289	752	99	71	222	98	20
2	137	106	149	119	500	250	487	397	126	58	48	20
3	119	102	132	116	450	210	298	197	82	39	26	20
4	100	99	114	106	330	195	231	166	67	31	20	19
5	73	93	108	95	260	245	195	129	59	27	18	18
6	92	88	110	92	210	331	171	114	54	24	24	17
7	95	85	108	90	180	229	156	109	72	24	239	16
8	79	99	95	130	165	188	142	121	59	32	110	15
9	76	114	102	120	155	157	132	98	48	26	140	16
10	73	100	153	105	145	155	123	90	44	21	745	19
11	106	228	253	94	141	152	120	84	41	19	201	20
12	239	130	167	85	134	139	113	208	40	20	94	19
13	146	467	146	81	134	211	108	131	35	18	64	16
14	130	399	146	270	141	225	101	101	33	17	50	15
15	116	249	141	210	130	171	95	100	33	16	40	15
16	93	184	132	170	170	149	93	86	31	16	100	19
17	95	159	116	140	328	144	89	89	41	15	70	22
18	403	146	108	125	278	148	83	116	38	14	45	49
19	349	132	85	115	417	140	78	498	31	14	35	30
20	993	125	83	105	349	232	73	285	31	14	28	23
21	361	162	100	97	253	345	70	192	34	13	24	20
22	256	336	105	91	463	314	91	163	32	13	23	18
23	205	187	110	87	395	199	114	131	34	13	22	16
24	190	159	110	84	249	194	80	114	35	19	20	15
25	173	159	130	80	250	220	121	108	33	16	19	22
26	228	149	200	84	300	215	301	99	28	13	17	22
27	178	184	300	300	385	212	156	94	23	13	27	60
28	152	267	220	1200	393	328	119	82	21	18	26	41
29	139	178	199	800	313	212	103	72	23	17	26	30
30	130	157	170	500	---	180	91	69	25	25	31	24
31	119	---	170	330	---	164	---	68	---	22	23	---
TOTAL	5779	5153	4629	6155	7868	6543	4886	4410	1324	849	2453	676
MEAN	186	172	149	199	271	211	163	142	44.1	27.4	79.1	22.5
MAX	993	467	353	1200	500	345	752	498	126	222	745	60
MIN	73	85	83	80	130	139	70	68	21	13	17	15
CFSM	3.44	3.19	2.76	3.69	5.02	3.91	3.02	2.63	.82	.51	1.46	.42
IN.	3.98	3.55	3.19	4.24	5.42	4.51	3.37	3.04	.91	.58	1.69	.47

CAL YR 1975 TOTAL 51336 MEAN 141 MAX 1730 MIN 17 CFSM 2.61 IN 35.36
WTR YR 1976 TOTAL 50725 MEAN 139 MAX 1200 MIN 13 CFSM 2.57 IN 34.94

NOTE.--No gage-height record Jan. 28, 29.

CONNECTICUT RIVER BASIN

01172000 CONNECTICUT RIVER AT HOLYOKE, MA

LOCATION.--Lat 42°12'50", long 72°23'10", Hampden County, Hydrologic Unit 01080201, at dam of Holyoke Water Power Co. in Holyoke, MA.

DRAINAGE AREA.--8,309 mi² (21,520 km²).

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

REMARKS.--Discharges furnished by local power company.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICHO-MHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	COD IN BOTTOM MATERIAL (MG/KG)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
OCT 22...	1100	6300	71	6.9	33.5	11.5	25	10.3	21	--	4300	81000
NOV 11...	1000	6200	89	6.9	14.5	10.5	4	10.8	10	--	4200	84000
DEC 09...	1000	6500	120	6.9	5.5	1.5	2	12.8	9	34000	5100	410
APR 29...	1400	6500	110	7.1	21.0	9.5	3	11.8	13	9600	7200	8120
MAY 12...	1300	4700	114	7.0	16.0	14.0	3	10.0	10	--	84000	8500
JUN 23...	1330	5100	176	6.7	25.0	25.5	2	8.4	13	--	1700	180
JUL 20...	1145	3100	135	6.8	34.0	24.0	2	7.3	10	--	2100	280
SEP 08...	1400	6000	125	8.4	26.0	20.0	4	10.6	12	41000	2500	430

DATE	STREPTOCOCCI (COLONIES PER 100 ML)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	TOTAL RESIDUE (MG/L)	LOSS ON IGNITION IN BOTTOM MATERIAL (MG/KG)
OCT 22...	3500	--	--	--	--	--	--	--	--	82	90	--
NOV 11...	136	--	--	--	--	--	--	--	--	7	69	--
DEC 09...	140	19	.4	30	0	25	6.0	10	6.6	4	70	55000
APR 29...	410	9.0	1.3	24	0	20	3.1	7.3	5.5	9	79	8100
MAY 12...	842	--	--	--	--	--	--	--	--	14	54	--
JUN 23...	9	--	--	--	--	--	--	--	--	9	90	--
JUL 20...	--	--	--	--	--	--	--	--	--	1	70	--
SEP 08...	67	17	2.0	43	0	35	.3	17	10	8	76	34000

B NON-IDEAL COLONY COUNT.

CONNECTICUT RIVER BASIN

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01172000 CONNECTICUT RIVER AT HOLYOKE, MA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	PHENOLS (UG/L)	OIL AND GREASE (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)
OCT 22...	.12	.01	.13	.01	.71	.72	.85	.18	--	0	.000	.000
NOV 11...	.27	.03	.30	.06	.15	.21	.51	.06	--	1	.000	.000
DEC 09...	.31	.01	.32	.04	.22	.26	.58	.04	0	0	--	--
APR 29...	.26	.01	.27	.03	.35	.38	.65	.04	0	0	--	--
MAY 12...	.27	.01	.28	.07	.18	.25	.53	.05	--	1	.000	.000
JUN 23...	.19	.02	.21	.07	.31	.38	.59	.05	--	9	25.2	.707
JUL 20...	.35	.01	.36	.04	.24	.28	.64	.01	--	1	5.66	.000
SEP 08...	.18	.01	.19	.01	.24	.25	.44	.05	--	1	--	--

DATE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL ALUMI- NUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL BARIUM (BA) (UG/L)	TOTAL BARIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL BERYL- LIUM (BE) (UG/L)	TOTAL BERYL- LIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL BISMUTH (BI) (UG/L)	TOTAL BORON (B) (UG/L)	TOTAL BORON IN BOTTOM MA- TERIAL (UG/G)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CADMIUM IN BOTTOM MA- TERIAL (UG/G)
APR 29...	300	35000	20	600	<0	150	<2	8	400	0	<150

DATE	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL CHRO- MIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL COBALT (CO) (UG/L)	TOTAL COBALT IN BOTTOM MA- TERIAL (UG/G)	TOTAL COPPER (CU) (UG/L)	TOTAL COPPER IN BOTTOM MA- TERIAL (UG/G)	TOTAL GALLIUM (GA) (UG/L)	TOTAL GER- MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL IRON IN BOTTOM MA- TERIAL (UG/G)	TOTAL LEAD (PB) (UG/L)
APR 29...	<1	200	<1	200	2	3700	<1	<3	470	150000	20

DATE	TOTAL LEAD IN BOTTOM MA- TERIAL (UG/G)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MANGA- NESE IN BOTTOM MA- TERIAL (UG/G)	TOTAL MOLYB- DENUM (MO) (UG/L)	TOTAL MOLYB- DENUM IN BOT- TOM MA- TERIAL (UG/G)	TOTAL NICKEL (NI) (UG/L)	TOTAL NICKEL IN BOTTOM MA- TERIAL (UG/G)	TOTAL SILVER (AG) (UG/L)	TOTAL SILVER IN BOTTOM MA- TERIAL (UG/G)
APR 29...	19000	0	40	3000	1	70	3	3500	<0	10

CONNECTICUT RIVER BASIN

01172000 CONNECTICUT RIVER AT HOLYOKE, MA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL STRON- TIUM (SR) (UG/L)	TOTAL STRON- TIUM IN MA- TERIAL (UG/G)	TOTAL TIN (SN) (UG/L)	TOTAL TI- TANIUM (TI) (UG/L)	TOTAL TITA- NIUM IN MA- TERIAL (UG/G)	TOTAL VANA- DIUM (V) (UG/L)	TOTAL VANA- DIUM IN MA- TERIAL (UG/G)	TOTAL ZINC (ZN) (UG/L)	TOTAL ZINC IN MA- TERIAL (UG/G)	TOTAL ZIR- CONIUM (ZP) (UG/L)
APR 29...	40	80	<2	20	2000	<1.0	70	20	14000	<2

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDED GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS- PENDED GROSS BETA AS SK90 /Y90 (PC/L)
OCT 22...	<.4	7.3	2.2	4.6	1.7	3.7
NOV 11...	<.7	.4	2.5	.5	2.0	.4
APR 29...	<.8	<.4	2.0	.5	1.6	.4

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL PCB (UG/L)	POLY- CHLO- RINATED NAPH- THA- LENES (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)
DEC 09...	.0	--	.00	.0	.00	.00	.00
APR 29...	.0	.00	.00	.0	.00	.00	.00

	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL TOX- APHENE (UG/L)
	.00	.00	.00	.00	.00	0
	.00	.00	.00	.00	.00	0

01172500 WARE RIVER NEAR BARRE, MA

LOCATION.--Lat 42°25'35", long 72°01'30", Worcester County, Hydrologic Unit 01080204, on left bank 700 ft (200 m) downstream from Barre Falls Reservoir, 1.6 mi (2.6 km) upstream from Burnshirt River, 4 mi (6 km) east of Barre, and at mile 33.3 (53.6 km).

DRAINAGE AREA.--55.0 mi² (142.4 km²).

PERIOD OF RECORD.--Discharge: July 1946 to current year.

Chemical analyses: Water year 1957 (partial-record station).

Water temperatures: Water year 1957 (partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 745 ft (227 m), from topographic map.

REMARKS.--Records excellent except for those for December and January, which are 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 mi² (16.8 km²) above station for municipal supply of Fitchburg. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years, 91.0 ft³/s (2.577 m³/s), 22.47 in/yr (571 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft³/s (53.5 m³/s) Oct. 16, 1955, gage height, 6.31 ft (1.923 m), from rating curve extended above 1,100 ft³/s (31.2 m³/s); minimum, 0.5 ft³/s (0.014 m³/s) Sept. 11, 12, 1963; minimum daily, 0.5 ft³/s (0.014 m³/s) Sept. 11, 1963. Maximum discharge since construction of Barre Falls Reservoir in 1958, 1,050 ft³/s (29.7 m³/s) Apr. 8, 1963, gage height, 5.41 ft (1.649 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 735 ft³/s (20.8 m³/s) Oct. 1, gage height, 4.96 ft (1.512 m), was not independent of the peak discharge that occurred Sept. 29, 1975; maximum independent peak discharge, 652 ft³/s (18.5 m³/s) Jan. 30, gage height, 4.82 ft (1.469 m); maximum gage height, 5.42 ft (1.652 m) Jan. 23, ice jam; minimum discharge, 2.5 ft³/s (0.071 m³/s) Apr. 1; minimum daily, 3.2 ft³/s (0.091 m³/s) July 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	669	114	185	145	580	200	164	93	41	16	7.9	14
2	274	108	183	130	564	191	349	169	61	15	9.5	12
3	156	106	172	122	569	167	327	194	58	13	7.9	12
4	131	106	154	115	544	169	241	169	52	12	6.6	10
5	110	104	137	105	309	172	197	137	46	10	5.7	8.7
6	95	98	131	105	235	215	169	112	41	9.1	6.0	7.3
7	83	93	128	110	200	218	151	102	38	7.9	14	6.6
8	72	108	118	115	188	183	140	114	35	7.3	24	5.9
9	63	147	112	110	159	156	131	108	28	6.6	35	5.6
10	58	142	161	105	156	140	120	93	24	6.0	122	5.3
11	65	147	203	100	149	133	114	84	21	5.5	114	5.6
12	156	142	185	100	149	128	108	93	19	6.0	63	5.5
13	218	270	159	105	137	151	100	100	17	6.3	37	5.0
14	218	462	144	114	140	206	96	89	15	6.0	26	4.7
15	185	431	140	144	142	194	91	84	15	6.0	37	4.5
16	151	320	135	183	140	169	88	78	14	6.0	68	4.5
17	126	252	122	180	167	151	86	76	19	5.7	75	4.6
18	206	215	112	130	209	164	81	78	19	5.5	53	5.2
19	414	188	96	115	255	149	78	110	17	4.7	38	5.2
20	462	172	88	105	302	161	73	156	15	4.2	29	5.2
21	431	175	82	98	288	215	68	154	14	4.0	21	5.0
22	342	299	100	98	281	255	65	131	13	4.5	15	5.0
23	270	323	110	95	361	218	72	100	12	4.0	13	4.9
24	221	255	92	93	410	180	69	83	11	5.0	11	4.6
25	194	215	92	89	288	164	76	69	10	4.7	9.9	4.5
26	183	194	140	86	241	159	140	61	10	3.8	8.7	4.4
27	172	194	183	131	235	151	161	54	13	3.4	8.7	6.4
28	156	241	170	100	235	167	140	50	9.5	3.2	11	7.3
29	144	231	160	309	218	172	120	44	9.5	3.4	10	6.9
30	135	203	145	544	---	156	102	40	9.5	5.5	11	6.3
31	126	---	144	590	---	140	---	41	---	6.0	19	---
TOTAL	6286	6055	4283	4671	7851	5394	3917	3066	706.5	206.3	916.9	192.7
MEAN	203	202	138	151	271	174	131	98.9	23.6	6.65	29.6	6.42
MAX	669	462	203	590	580	255	349	194	61	16	122	14
MIN	58	93	82	86	137	128	65	40	9.5	3.2	5.7	4.4
MEAN†	163	202	138	201	220	172	130	98.8	23.4	6.28	29.9	6.35
CFSM†	2.96	3.67	2.51	3.65	4.00	3.13	2.36	1.80	.43	.11	.54	.12
IN.†	3.42	4.10	2.89	4.22	4.31	3.60	2.65	2.07	.47	.13	.63	.13

CAL YR 1975 TOTAL 45514.8 MEAN 125 MAX 676 MIN 6.3 MEAN† 124 CFSM† 2.25 IN† 30.61
WTR YR 1976 TOTAL 43545.4 MEAN 119 MAX 669 MIN 3.2 MEAN† 116 CFSM† 2.11 IN† 28.61

† Adjusted for change in contents in Barre Falls Reservoir.

CONNECTICUT RIVER BASIN

01173000 WARE RIVER AT COLDBROOK, MA

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 at Coldbrook, 2 mi (3 km) east of South Barre, 2.7 mi (4.3 km) downstream from Burnshirt River, and at mile 29.1 (46.8 km).

DRAINAGE AREA.--96.8 mi² (250.7 km²).

PERIOD OF RECORD.--Discharge: January 1928 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1031: 1944.

GAGE.--Venturi meters and water-stage recorder. Datum of gage is 5.65 ft (1.722 m) below mean sea level. Prior to Feb. 1, 1936, water-stage recorder at site 0.2 mi (0.3 km) downstream at datum 631.91 ft (192.606 m) above mean sea level, unadjusted.

REMARKS.--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 Corps of Engineers, U. S. Army; diversion began in March 1931. Flow regulated by Barre Falls Reservoir 4.3 mi (6.9 km) upstream (Reservoirs in Connecticut River basin) since 1958. Diversion at times since 1955 from 6.5 mi² (16.8 km²) 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.--48 years, 164 ft³/s (4.644 m³/s), 23.01 in/yr (584 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft³/s (396 m³/s) Sept. 21, 1938, gage height, 664.28 ft (202.473 m), by computation of flow over dam; minimum daily, 1.1 ft³/s (0.031 m³/s) Sept. 19, 1965, caused by unusual regulation. Maximum daily discharge since construction of Barre Falls Reservoir in 1958, 1,470 ft³/s (41.6 m³/s) Apr. 1, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 952 ft³/s (27.0 m³/s) Jan. 30, Feb. 2; minimum daily, 8.0 ft³/s (0.23 m³/s) Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	856	188	329	252	855	379	459	189	98	45	26	27
2	276	159	319	223	952	350	645	417	127	43	28	26
3	230	177	290	218	931	281	555	326	116	36	22	26
4	193	174	255	213	800	297	406	311	101	32	19	23
5	165	151	223	184	547	337	330	247	90	29	17	21
6	139	155	223	198	442	407	307	206	82	26	18	17
7	121	139	209	218	360	378	279	198	38	23	47	15
8	108	265	210	230	347	321	254	221	56	23	64	14
9	144	263	213	205	299	268	232	202	55	21	91	13
10	131	253	307	183	280	243	217	178	52	19	237	13
11	140	274	336	173	276	231	200	162	50	18	213	13
12	362	297	294	173	264	219	188	190	46	22	142	14
13	408	672	252	179	249	315	186	184	40	25	104	12
14	377	863	236	253	246	366	171	170	35	23	70	11
15	347	709	234	277	240	336	143	159	34	35	91	11
16	237	518	226	298	273	280	156	143	34	67	135	10
17	222	433	209	289	371	255	152	138	43	26	136	12
18	578	351	186	218	422	260	146	151	39	21	101	14
19	794	296	154	198	525	245	138	311	34	50	67	13
20	884	310	145	185	549	296	139	336	34	20	54	10
21	772	393	143	179	509	418	134	288	29	16	42	13
22	583	610	178	172	664	445	134	234	27	17	33	11
23	481	559	190	171	758	374	134	176	26	17	29	10
24	363	437	159	160	706	309	129	138	24	17	25	9.0
25	351	379	161	155	518	282	155	141	25	17	22	8.0
26	317	285	247	156	458	271	328	137	25	15	20	9.3
27	282	369	322	431	450	255	320	134	26	14	22	16
28	274	442	292	941	450	315	255	115	23	14	25	18
29	212	403	277	809	409	374	197	101	23	14	25	16
30	237	341	239	952	---	281	195	93	30	20	28	14
31	210	---	251	903	---	250	---	93	---	21	32	---
TOTAL	10794	10865	7309	9396	14150	9638	7284	6089	1462	786	1985	439.3
MEAN	348	362	236	303	488	311	243	196	48.7	25.4	64.0	14.6
MAX	884	863	336	952	952	445	645	417	127	67	237	27
MIN	108	139	143	155	240	219	129	93	23	14	17	8.0
MEAN†	308	362	235	353	437	309	243	196	48.6	25.0	64.3	14.6
CFSM†	3.18	3.74	2.43	3.65	4.51	3.19	2.51	2.02	.50	.26	.66	.15
IN.†	3.67	4.18	2.81	4.21	4.87	3.68	2.80	2.34	.56	.30	.77	.17
CAL YR 1975 TOTAL	80344.9											
WTR YR 1976 TOTAL	80197.3											
MEAN 220												
MAX 1090												
MIN 5.9												
MEAN† 219												
MAX 952												
MIN 8.0												
MEAN† 216												
CFSM† 2.26												
IN† 30.78												
CFSM† 2.23												
IN† 30.34												

† Adjusted for change in contents in Barre Falls Reservoir.

01173500 WARE RIVER AT GIBBS CROSSING, MA

LOCATION.--Lat 42°14'07", long 72°16'45", Hampshire County, Hydrologic Unit 01080204, on right bank 0.5 mi (0.8 km) upstream from Gibbs Crossing, 1.8 mi (2.9 km) upstream from Beaver Brook, 2.5 mi (4.0 km) southwest of Ware, and 8.8 mi (14.2 km) upstream from mouth.

DRAINAGE AREA.--199 mi² (515 km²).

PERIOD OF RECORD.--Discharge: August 1912 to current year.
Chemical analyses: Water years 1953-54 (partial-record station).

REVISED RECORDS.--WSP 661: Drainage area. WSP 1031: 1944. WSP 1301: 1914(M).

GAGE.--Water-stage recorder. Datum of gage is 379.79 ft (115.760 m) above mean sea level. Prior to Mar. 1, 1930, at site 0.5 mi (0.8 km) downstream at different datum.

REMARKS.--Records good except those for the period Nov. 9 to Feb. 10, which are fair. Diversion at times: since March 1931 from 97 mi² (251 km²) for supply of Boston metropolitan district (see table below for figures of diversion) and since 1955 from 6.5 mi² (16.8 km²) for municipal supply of Fitchburg. Regulation by Barre Falls Reservoir (Reservoirs in Connecticut River basin) since 1958. Flow regulated by mills upstream prior to 1967. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--64 years, 289 ft³/s (8.184 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,700 ft³/s (643 m³/s) Sept. 21, 1938, gage height, 18.2 ft (5.55 m), from floodmarks, from rating curve extended above 4,600 ft³/s (130 m³/s) on basis of contracted-opening measurement at gage height 12.83 ft (3.911 m) and a slope-area measurement at gage height 18.2 ft (5.55 m); minimum, 5.0 ft³/s (0.14 m³/s) Oct. 26, 1914; minimum daily, 6.0 ft³/s (0.17 m³/s) Oct. 4, 1914. Maximum discharge since construction of Barre Falls Reservoir in 1958, 4,240 ft³/s (120 m³/s) Jan. 28, 1976, gage height, 7.22 ft (2.201 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,240 ft³/s (120 m³/s) Jan. 28, gage height, 7.22 ft (2.201 m); minimum, 34 ft³/s (0.96 m³/s) July 18, Sept. 25, 26; minimum daily, 34 ft³/s (0.96 m³/s) Sept. 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	355	298	660	509	663	690	588	315	186	107	63	56
2	344	293	640	440	1100	640	989	574	274	93	64	62
3	429	288	580	412	850	568	666	536	313	88	58	63
4	349	288	500	435	670	523	518	667	251	85	53	58
5	303	278	450	360	1000	607	459	549	190	78	49	56
6	264	264	450	280	820	759	459	453	171	73	50	55
7	243	264	420	295	650	713	405	375	167	68	65	50
8	219	323	420	435	580	615	377	447	157	64	110	47
9	198	440	430	415	530	508	363	416	123	64	156	44
10	206	430	620	370	495	468	347	363	116	65	341	44
11	234	440	680	350	526	449	340	323	113	61	447	43
12	695	460	560	315	510	429	329	347	113	59	323	41
13	913	1000	477	295	502	566	320	370	107	96	222	40
14	799	1200	435	612	507	755	317	326	98	70	168	39
15	644	900	429	680	500	680	307	306	90	55	198	39
16	383	680	418	550	599	610	319	284	82	45	329	38
17	318	580	383	520	801	501	327	280	116	38	308	41
18	833	490	360	465	847	466	317	277	107	35	239	42
19	1340	440	290	355	1070	467	300	403	96	35	172	44
20	1200	450	255	325	1120	565	285	548	90	51	121	41
21	931	540	240	335	949	774	272	439	85	68	99	41
22	604	900	264	345	1120	939	268	388	73	57	87	38
23	483	720	275	280	1500	835	299	336	70	46	76	36
24	423	600	260	270	1170	703	274	301	68	56	67	35
25	383	510	240	280	990	618	295	286	70	49	61	34
26	377	540	339	313	847	571	556	280	68	44	57	34
27	349	600	612	1410	801	532	476	270	64	42	56	44
28	339	900	652	3880	794	656	402	259	62	40	57	47
29	339	820	500	1730	740	643	358	230	70	40	60	46
30	333	680	450	890	---	399	327	202	73	52	59	47
31	313	---	496	710	---	385	---	190	---	52	54	---
TOTAL	15143	16616	13785	18861	23251	18634	11859	11340	3663	1876	4269	1345
MEAN	488	554	445	608	802	601	395	366	122	60.5	138	44.8
MAX	1340	1200	680	3880	1500	939	989	667	313	107	447	63
MIN	198	264	240	270	495	385	268	190	62	35	49	34
(†)	178	187	0	85.2	74.4	15.9	103	32.1	0	0	0	0

CAL YR 1975 TOTAL 123032 MEAN 337 MAX 2710 MIN 49
WTR YR 1976 TOTAL 140642 MEAN 384 MAX 3880 MIN 34

+ Diversion, in cubic feet per second, from 97 mi² for supply of Boston metropolitan district; records furnished by Metropolitan District Commission.

NOTE.--No gage-height record Nov. 9 to Dec. 12.

CONNECTICUT RIVER BASIN

01174000 HOP BROOK NEAR NEW SALEM, MA

LOCATION.--Lat 42°28'42", long 72°20'05", Franklin County, Hydrologic Unit 01080204, on right bank 1.5 mi (2.4 km) upstream from mouth and 1.5 mi (2.4 km) south of New Salem.

DRAINAGE AREA.--3.39 mi² (8.78 km²).

PERIOD OF RECORD.--Discharge: October 1947 to current year. Monthly discharge only October 1947, published in WSP 1301.

Chemical analyses: Water year 1961 (partial-record station), December 1971 to September 1973.

Water temperatures: December 1971 to September 1973.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 725 ft (221 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--29 years, 6.06 ft³/s (0.172 m³/s), 24.28 in/yr (617 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 289 ft³/s (8.18 m³/s) Oct. 24, 1959, gage height, 3.17 ft (0.966 m), from rating curve extended above 130 ft³/s (3.68 m³/s); maximum gage height, 3.21 ft (0.978 m) Feb. 2, 1973, ice jam; minimum discharge, 0.004 ft³/s (<0.001 m³/s) Aug. 3, 9, 10, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.83 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 12	2245	102 2.89	2.28 0.695	Apr. 1	-	†*170 4.81	†*2.61 0.796
Jan. 28	0015	145 4.11	2.50 0.762				

† From rating curve extended above 76 ft³/s (2.15 m³/s).

‡ From peak-stage indicator.

Minimum discharge, 0.07 ft³/s (0.002 m³/s) July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	7.7	14	10	17	19	70	10	4.7	14	3.9	.71
2	9.3	7.4	12	8.4	49	16	50	22	6.6	2.7	1.0	.84
3	8.2	7.2	11	8.5	28	15	35	13	5.9	1.9	.45	.89
4	7.4	6.7	9.4	7.6	19	14	25	11	5.9	1.4	.28	.67
5	6.9	6.3	8.6	6.8	17	23	17	8.6	4.0	2.1	.21	.63
6	6.7	6.0	8.8	7.1	15	21	14	12	3.4	1.1	1.9	.48
7	6.3	6.3	8.2	8.3	14	15	12	8.4	4.3	.89	21	.39
8	5.8	13	7.4	15	14	14	11	9.3	2.7	.90	5.8	.30
9	5.6	9.3	7.4	10	13	12	10	7.8	2.6	.64	6.2	.24
10	5.6	12	20	8.0	12	11	9.6	6.4	2.1	.51	24	.35
11	18	12	15	7.4	11	12	9.2	5.9	1.8	.43	6.0	.63
12	32	18	12	7.2	10	11	8.7	14	2.7	.90	2.8	.37
13	16	42	11	6.9	11	18	8.3	8.1	1.8	.73	1.8	.29
14	15	32	9.8	46	10	14	7.9	7.4	1.6	.63	1.6	.25
15	11	19	9.4	13	10	12	7.6	8.9	1.6	.43	1.5	.23
16	9.0	16	8.7	10	15	12	7.3	6.3	1.3	.34	3.5	.28
17	8.5	14	8.0	8.0	23	11	6.9	8.0	2.4	.40	1.4	.77
18	44	13	7.5	7.4	17	9.6	6.4	9.0	1.6	.26	.96	8.8
19	30	12	7.0	6.6	27	11	6.0	25	1.3	.20	.75	1.5
20	52	11	6.5	6.2	20	24	5.6	18	1.4	.14	.65	1.3
21	26	29	7.0	6.0	16	28	5.2	13	1.4	.25	.59	1.0
22	20	25	7.0	6.0	50	22	7.1	11	1.1	.34	.46	.68
23	16	16	6.9	5.8	28	16	9.8	7.8	.91	.16	.34	.65
24	13	14	6.7	5.7	25	13	5.5	8.7	.74	.79	.29	.99
25	14	13	6.5	5.5	20	12	12	6.4	1.2	.28	.26	.58
26	13	13	20	7.4	22	11	21	6.0	.83	.15	.23	1.0
27	11	26	25	79	26	10	10	6.2	.60	.09	.93	7.2
28	10	20	15	84	23	15	12	6.5	.58	.11	3.2	2.5
29	9.3	14	11	28	19	13	8.3	3.8	.93	.15	3.1	1.5
30	8.7	13	9.6	21	---	11	7.8	3.7	2.7	.69	1.6	1.4
31	8.2	---	13	19	---	10	---	3.6	---	.68	.94	---
TOTAL	456.5	453.9	329.4	475.8	581	455.6	426.2	295.8	70.69	34.29	97.64	37.42
MEAN	14.7	15.1	10.6	15.3	20.0	14.7	14.2	9.54	2.36	1.11	3.15	1.25
MAX	52	42	25	84	50	28	70	25	6.6	14	24	8.8
MIN	5.6	6.0	6.5	5.5	10	9.6	5.2	3.6	.58	.09	.21	.23
CFSM	4.34	4.45	3.13	4.51	5.90	4.34	4.19	2.81	.70	.33	.93	.37
IN.	5.01	4.98	3.61	5.22	6.37	5.00	4.68	3.24	.78	.38	1.07	.41

CAL YR 1975 TOTAL 3222.90 MEAN 8.83 MAX 73 MIN .45 CFSM 2.60 IN 35.36
WTR YR 1976 TOTAL 3714.24 MEAN 10.1 MAX 84 MIN .09 CFSM 2.98 IN 40.75

NOTE.--No gage-height record Nov. 30 to Jan 12, Mar. 15 to Apr. 11.

01174500 EAST BRANCH SWIFT RIVER NEAR HARDWICK, MA

LOCATION.--Lat 42°23'36", long 72°14'21", Worcester County, Hydrologic Unit 01080204, on left bank 100 ft (30 m) above spillway of regulating dam and 4.6 mi (7.4 km) northwest of Hardwick.

DRAINAGE AREA.--43.7 mi² (113.2 km²).

PERIOD OF RECORD.--Discharge: January 1937 to current year. Published as "near Dana" January 1937 to September 1939.

Chemical analyses: Water year 1957 (partial-record station).

Water temperatures: Water year 1957 (partial-record station).

GAGE.--Water-stage recorder. Concrete spillway since Mar. 12, 1940. Datum of gage is 504.70 ft (153.833 m) above mean sea level.

REMARKS.--Records good.

AVERAGE DISCHARGE.--39 years, 68.3 ft³/s (1.934 m³/s), 21.22 in/yr (539 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,780 ft³/s (192 m³/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 (6.855 m) June 25, 1944; no flow at times during several years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 20	1800	517 14.6	20.47 6.239	Feb. 2	1700	398 11.3	20.29 6.184
Nov. 14	1000	437 12.4	20.35 6.203	Feb. 23	0400	510 14.4	20.46 6.236
Nov. 22	1000	385 10.9	20.27 6.178	Apr. 2	1500	385 10.9	20.27 6.178
Jan. 28	1200	*1,220 34.6	*21.39 6.520				

Minimum discharge, 2.1 ft³/s (0.059 m³/s) July 27, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	81	153	114	211	176	110	90	35	44	6.9	7.3
2	91	81	149	99	327	164	324	177	44	68	7.0	9.2
3	72	80	134	99	345	149	308	184	44	49	6.6	11
4	60	79	118	97	257	133	206	145	41	32	6.1	9.6
5	54	73	101	80	204	141	154	112	34	25	5.5	9.3
6	49	66	96	68	172	199	123	99	29	19	5.6	8.9
7	44	61	95	68	141	185	109	89	27	15	18	8.1
8	40	85	88	100	129	152	100	97	26	12	48	7.8
9	39	121	84	102	121	126	92	94	23	11	69	7.0
10	41	114	112	86	114	113	83	81	20	8.8	149	7.3
11	50	134	139	74	112	107	81	70	18	7.6	164	8.2
12	182	127	123	75	111	101	74	75	19	8.1	96	7.7
13	250	275	105	74	105	128	71	75	16	7.7	56	7.2
14	207	419	96	139	107	169	69	71	14	8.8	37	7.0
15	157	320	95	182	103	151	64	71	14	8.9	29	6.8
16	122	220	92	151	118	133	63	60	13	8.4	52	6.3
17	105	170	84	126	181	121	60	58	15	8.4	51	6.6
18	237	142	79	99	213	115	59	59	16	7.3	37	6.6
19	443	130	69	84	240	110	56	79	14	6.5	26	6.3
20	468	123	59	80	256	130	51	154	13	5.5	20	5.7
21	412	141	62	82	206	200	46	144	13	5.2	17	5.6
22	274	363	75	83	286	230	46	114	12	5.4	14	5.0
23	197	287	74	75	466	180	54	89	12	4.6	12	3.8
24	159	207	64	72	300	147	51	10	11	5.8	9.5	3.4
25	138	171	57	69	221	126	63	62	10	5.1	8.1	2.9
26	126	148	90	72	200	116	135	53	9.5	3.7	7.2	3.0
27	117	161	164	282	204	107	158	51	8.1	2.8	9.0	5.5
28	107	221	163	1080	213	119	136	45	6.7	2.8	9.4	6.6
29	101	196	129	693	196	143	117	39	7.0	2.9	9.5	6.1
30	95	163	109	388	---	129	98	35	9.5	4.8	8.8	6.5
31	87	---	116	257	---	112	---	34	---	4.9	8.1	---
TOTAL	4639	4959	3174	5150	5859	4412	3161	2680	573.8	409.0	1002.3	202.3
MEAN	150	165	102	166	202	142	105	86.5	19.1	13.2	32.3	6.74
MAX	468	419	164	1080	466	230	324	184	44	68	164	11
MIN	39	61	57	68	103	101	46	34	6.7	2.8	5.5	2.9
CFSM	3.43	3.78	2.33	3.80	4.62	3.25	2.40	1.98	.44	.30	.74	.15
IN.	3.95	4.22	2.70	4.38	4.99	3.76	2.69	2.28	.49	.35	.85	.17

CAL YR 1975 TOTAL 35009.0 MEAN 95.9 MAX 743 MIN 5.5 CFSM 2.19 IN 29.80
WTR YR 1976 TOTAL 36221.4 MEAN 99.0 MAX 1080 MIN 2.8 CFSM 2.27 IN 30.83

01174600 CADWELL CREEK NEAR PELHAM, MA

LOCATION.--Lat 42°21'16", long 72°23'18", Hampshire County, Hydrologic Unit 01080204, on left bank 0.8 mi (1.3 km) east of Knights Corner, 2 mi (3 km) upstream from mouth, 2.7 mi (4.3 km) south of Pelham, and 5 mi (8 km) north of Belchertown.

DRAINAGE AREA.--0.63 mi² (1.63 km²).

PERIOD OF RECORD.--Discharge: July 1961 to current year.

GAGE.--Water-stage recorder and concrete control with V-notch sharp-crested weir. Altitude of gage is 860 ft (262 m), from topographic map.

REMARKS.--Records excellent. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 1.14 ft³/s (0.032 m³/s), 24.57 in/yr (624 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38 ft³/s (1.08 m³/s) Sept. 27, 1975, gage height, 5.10 ft (1.554 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 18 ft³/s (0.51 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 18	1115	24 0.68	4.72 1.439	Feb. 22	1745	18 0.51	4.52 1.378
Jan. 27	1930	28 0.79	4.85 1.478	Apr. 1	1445	*30 0.85	*4.90 1.494
Feb. 2	0630	19 0.54	4.57 1.393				

No flow July 20 and part of each day July 19, 21-23, 26-28, Aug. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	.97	2.2	1.4	2.2	1.8	12	2.0	.81	3.3	.27	.03
2	1.4	.94	1.8	1.2	10	1.5	6.7	5.6	1.3	.86	.07	.10
3	1.1	.90	1.5	1.1	5.2	1.3	3.4	3.0	.71	.60	.03	.09
4	.99	.85	1.2	1.0	2.8	1.4	2.3	2.3	.55	.35	.01	.06
5	.89	.80	1.1	.93	2.1	3.4	1.8	1.6	.44	.26	.01	.06
6	.84	.75	1.2	1.0	1.8	2.9	1.5	1.3	.43	.15	.01	.04
7	.75	.73	1.1	.96	1.5	2.0	1.3	1.4	.49	.11	.96	.02
8	.68	2.3	.93	2.5	1.4	1.5	1.2	2.0	.36	.10	.57	.02
9	.65	1.7	.96	1.4	1.3	1.3	1.1	1.3	.27	.07	.89	.01
10	.64	1.8	5.0	1.1	1.2	1.2	1.0	1.1	.22	.04	3.9	.03
11	3.3	2.0	3.0	1.0	1.2	1.3	1.0	.93	.18	.03	1.1	.05
12	6.9	2.2	1.9	.89	1.2	1.2	.89	2.6	.21	.05	.43	.02
13	3.9	8.9	1.6	.89	1.2	3.3	.85	1.5	.14	.03	.24	.02
14	3.1	7.5	1.4	6.2	1.2	2.8	.80	1.2	.13	.03	.18	.01
15	2.0	3.5	1.4	2.6	1.2	2.0	.76	1.0	.12	.02	.37	.01
16	1.7	2.3	1.2	1.9	2.5	1.4	.80	.84	.09	.01	1.3	.02
17	1.4	1.8	1.0	1.4	4.0	1.6	.73	1.0	.29	.02	.39	.12
18	13	1.6	.93	1.4	3.1	1.2	.68	1.1	.13	.01	.20	.19
19	9.6	1.4	.79	1.2	6.0	1.6	.64	4.9	.09	.01	.12	.08
20	14	1.3	.68	1.0	4.4	4.2	.59	4.9	.13	0	.08	.04
21	5.2	6.1	.73	1.0	3.1	4.3	.56	2.9	.11	.01	.06	.06
22	3.2	6.3	.82	1.0	11	3.1	.90	2.1	.08	.01	.04	.04
23	2.4	3.0	.79	.93	6.2	2.0	.92	1.5	.06	.01	.03	.03
24	1.9	2.2	.76	.86	3.1	1.6	.72	1.2	.04	.19	.02	.03
25	1.8	2.0	.73	.83	2.7	1.5	1.8	1.0	.08	.04	.01	.02
26	1.8	1.8	3.5	1.3	3.0	1.3	4.5	.89	.05	.01	.01	.05
27	1.5	3.9	4.0	20	3.0	1.2	2.5	.78	.02	.01	.21	.35
28	1.3	3.2	2.5	18	2.4	2.4	1.8	.64	.02	.01	.10	.15
29	1.2	2.1	1.8	5.6	1.9	1.5	1.4	.56	.12	.02	.11	.09
30	1.2	1.8	1.4	3.4	---	1.3	1.1	.53	1.4	.13	.06	.07
31	1.1	---	1.7	2.3	---	1.1	---	.48	---	.06	.04	---
TOTAL	91.04	76.64	49.62	86.29	91.9	60.2	56.24	54.15	9.07	6.55	11.82	1.91
MEAN	2.94	2.55	1.60	2.78	3.17	1.94	1.87	1.75	.30	.21	.38	.064
MAX	14	8.9	5.0	20	11	4.3	12	5.6	1.4	3.3	3.9	.35
MIN	.64	.73	.68	.83	1.2	1.1	.56	.48	.02	0	.01	.01
CFSM	4.67	4.05	2.54	4.41	5.03	3.08	2.97	2.78	.48	.33	.60	.10
IN.	5.37	4.52	2.93	5.09	5.42	3.55	3.32	3.19	.53	.39	.70	.11

CAL YR 1975 TOTAL 625.15 MEAN 1.71 MAX 18 MIN .01 CFSM 2.71 IN 36.86
WTR YR 1976 TOTAL 595.43 MEAN 1.63 MAX 20 MIN 0 CFSM 2.59 IN 35.10

LOCATION.--Lat 42°20'08", long 72°22'12", Hampshire County, Hydrologic Unit 01080204, on left bank 200 ft (60 m) upstream from mouth, 2 mi (3 km) southeast of Knights Corner, and 4.5 mi (7.2 km) north of Belchertown.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 75 ft³/s (2.12 m³/s) and maximums (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft ³ /s)	(m ³ /s)	(ft)	(m)			(ft ³ /s)	(m ³ /s)	(ft)	(m)
Oct. 18	1130	104	2.95	6.61	2.015	Jan. 28	0245	*111	3.14	*6.66	2.030
Jan. 27	1245	ice jam	-	*6.66	2.030	Apr. 1	1600	104	2.95	6.61	2.015

Minimum discharge, 0.20 ft³/s (0.006 m³/s) July 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	4.6	8.7	6.4	9.7	8.3	43	6.9	3.4	11	1.1	.35
2	6.3	4.5	7.7	5.2	40	7.3	31	22	6.0	4.2	.74	.51
3	5.2	4.3	6.6	5.3	22	6.6	16	11	3.6	2.4	.40	.68
4	4.7	4.2	5.8	4.5	14	6.5	11	9.6	3.0	1.6	.31	.48
5	4.4	3.9	5.3	3.7	10	13	8.6	7.0	2.5	1.2	.26	.47
6	4.1	3.7	5.4	3.9	8.4	12	7.3	6.0	2.2	.94	.26	.38
7	3.7	3.7	5.0	4.5	7.1	8.1	6.6	6.0	2.6	.78	4.1	.29
8	3.4	9.7	4.5	9.7	7.2	6.7	6.0	8.9	2.1	.71	3.0	.27
9	3.3	6.9	4.5	5.8	6.4	5.8	5.6	6.2	1.7	.60	3.7	.23
10	3.2	7.5	18	4.6	6.0	5.7	5.2	5.2	1.5	.50	13	.25
11	12	8.0	11	4.3	6.3	5.8	5.0	4.6	1.3	.42	4.5	.37
12	27	8.4	7.5	4.3	5.9	5.4	4.6	9.4	1.5	.55	2.3	.27
13	14	33	6.4	4.0	5.9	12	4.5	6.6	1.2	.47	1.5	.24
14	11	29	6.0	33	6.2	11	4.3	5.4	1.1	.42	1.1	.23
15	8.0	14	5.8	10	5.8	8.1	4.0	4.9	1.0	.40	1.7	.21
16	6.6	9.9	5.2	7.3	10	6.7	4.2	4.2	.91	.35	7.0	.22
17	5.7	8.0	4.7	6.2	18	7.1	3.9	4.5	1.6	.35	2.2	.45
18	54	7.1	4.5	5.2	13	5.8	3.7	4.8	1.2	.29	1.3	1.4
19	40	6.4	3.7	4.7	25	6.5	3.4	19	.92	.24	.97	.68
20	52	6.0	3.4	4.5	19	15	3.2	20	.96	.21	.74	.39
21	23	20	4.0	4.5	13	18	3.0	11	.92	.28	.63	.38
22	14	25	4.1	4.5	41	13	3.8	8.6	.81	.44	.50	.35
23	10	12	4.0	3.8	27	8.4	4.1	6.5	.69	.28	.37	.31
24	8.6	9.1	3.7	3.8	14	7.3	3.4	5.4	.63	1.0	.33	.26
25	7.9	8.3	3.7	3.7	13	6.7	6.6	4.7	.67	.58	.29	.23
26	7.7	7.6	14	4.9	14	6.0	17	4.4	.56	.33	.26	.26
27	6.7	14	17	64	14	5.7	9.4	4.0	.49	.24	.97	1.5
28	6.2	13	9.1	84	11	9.4	7.3	3.4	.47	.23	.69	.91
29	5.7	9.1	6.5	29	9.1	6.6	5.8	3.0	.80	.26	.78	.57
30	5.3	7.6	6.0	16	---	5.8	4.8	2.8	4.0	.63	.63	.47
31	4.8	---	7.5	11	---	5.3	---	2.7	---	.58	.42	---
TOTAL	375.7	308.5	209.3	366.3	402.0	255.6	246.3	228.7	50.33	32.48	56.05	13.61
MEAN	12.1	10.3	6.75	11.8	13.7	8.25	8.21	7.38	1.68	1.05	1.81	.45
MAX	54	33	18	84	41	18	43	22	6.0	11	13	1.5
MIN	3.2	3.7	3.4	3.7	5.8	5.3	3.0	2.7	.47	.21	.26	.21
CFSM	4.31	3.67	2.40	4.20	4.95	2.94	2.92	2.63	.60	.37	.64	.16
IN.	4.97	4.08	2.77	4.85	5.32	3.38	3.26	3.03	.67	.43	.74	.18
CAL YR 1975	TOTAL	2583.13	MEAN	7.08	MAX	100	MIN	.25	CFSM	2.52	IN	34.18
WTR YR 1976	TOTAL	2544.87	MEAN	6.95	MAX	84	MIN	.21	CFSM	2.47	IN	33.68

01175500 SWIFT RIVER AT WEST WARE, MA

LOCATION.--Lat 42°16'04", long 72°19'59", Hampshire County, Hydrologic Unit 01080204, on left bank at West Ware, 1.4 mi (2.3 km) downstream from Quabbin Reservoir, 3.5 mi (5.6 km) east of Belchertown, and 8.0 mi (12.9 km) upstream from mouth.

DRAINAGE AREA.--188 mi² (487 km²), includes 1.6 mi² (4.1 km²) drained by Beaver Brook, flow of which is diverted from Ware River basin. Prior to January 1937, 186 mi² (482 km²).

PERIOD OF RECORD.--Discharge: July 1910 to September 1912 (twice-daily gage heights and corresponding discharges), October 1912 to current year.

Chemical analyses: Water years 1952-54 (partial-record station).

Water temperatures: Water years 1952, 1954 (partial-record station).

REVISED RECORDS.--WSP 401: Drainage area. WSP 451: 1916. WSP 871: 1919. WSP 1031: 1944 (changes in reservoir contents and adjusted figures only). WSP 1301: 1925(M).

GAGE.--Water-stage recorder. Datum of gage is 365.18 ft (111.307 m) above mean sea level. Prior to Aug. 25, 1912, nonrecording gage at site 400 ft (100 m) upstream at same datum.

REMARKS.--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 during 1966 and 1967 from Quabbin Reservoir to city of Worcester (see table below for figures of diversion). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years (water years 1913-39) prior to completion of Quabbin Reservoir, 314 ft³/s (8.892 m³/s), 22.68 in/yr (576 mm/yr); 37 years (water years 1940-76) affected by storage and diversions, 92.4 ft³/s (2.617 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,590 ft³/s (215 m³/s) Mar. 19, 1936, gage height, 15.00 ft (4.572 m); minimum daily, 9.1 ft³/s (0.26 m³/s) Dec. 15, 1968. Maximum discharge since construction of Quabbin Reservoir in 1939, 1,870 ft³/s (53.0 m³/s) Apr. 30, 1956, gage height, 8.37 ft (2.551 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 366 ft³/s (10.4 m³/s) Mar. 1, gage height, 4.13 ft (1.259 m); minimum daily, 27 ft³/s (0.76 m³/s) June 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	47	91	121	228	359	138	46	41	42	91	36
2	46	47	89	121	272	362	134	95	42	39	56	39
3	46	47	89	120	287	361	150	181	41	39	38	39
4	45	47	89	123	302	355	187	216	40	39	38	39
5	45	47	88	121	308	351	207	175	40	39	38	39
6	45	47	85	121	313	348	203	163	41	39	38	39
7	45	46	88	123	313	345	198	169	41	39	42	39
8	45	49	88	127	317	341	189	169	40	38	41	39
9	45	47	87	129	317	334	181	146	40	38	40	39
10	45	47	91	127	312	327	156	94	40	38	42	39
11	48	47	89	127	304	324	148	46	40	38	39	39
12	51	47	89	127	300	302	139	51	40	38	39	39
13	47	55	120	127	292	320	131	46	40	38	39	39
14	46	52	121	135	287	318	130	43	40	38	39	39
15	47	49	121	130	283	274	91	43	40	38	39	39
16	47	48	121	130	283	234	48	42	40	38	41	39
17	46	47	121	127	292	235	47	43	41	38	39	40
18	57	47	121	129	294	227	46	43	40	38	39	40
19	55	47	121	129	304	223	45	49	39	38	39	39
20	58	47	118	129	304	219	45	74	40	38	38	39
21	52	53	121	129	302	220	45	111	42	40	38	40
22	50	52	121	129	319	225	46	115	40	39	39	40
23	49	49	120	130	334	221	46	101	27	38	39	39
24	49	87	120	130	340	186	45	86	50	39	39	39
25	49	91	120	132	346	134	47	74	39	38	39	40
26	49	54	123	132	351	132	52	56	39	73	39	39
27	45	92	120	163	351	129	46	46	39	90	40	40
28	48	91	121	172	353	133	46	41	39	90	39	40
29	48	89	121	189	349	131	45	41	39	90	39	39
30	47	89	121	203	---	130	45	41	39	91	39	39
31	47	---	123	213	---	130	---	41	---	90	41	---
TOTAL	1488	1704	3358	4245	8957	7930	3076	2687	1199	1488	1286	1174
MEAN	48.0	56.8	108	137	309	256	103	86.7	40.0	48.0	41.5	39.1
MAX	58	92	123	213	353	362	207	216	50	91	91	40
MIN	45	46	85	120	228	129	45	41	27	38	38	36
(†)	+33.0	-168	+457	+232	+164	+464	+268	+448	+429	+517	+348	+385

CAL YR 1975 TOTAL 20802 MEAN 57.0 MAX 123 MIN 20
WTR YR 1976 TOTAL 38592 MEAN 105 MAX 362 MIN 27

† Diversions, in cubic feet per second, from Ware River to Quabbin Reservoir, and from Quabbin Reservoir to Wachusett Reservoir and Chicopee Valley aqueduct.

01175670 SEVENMILE RIVER NEAR SPENCER, MA

LOCATION.--Lat 42°15'54", long 72°00'19", Worcester County, Hydrologic Unit 01080204, on right bank 40 ft (12 m) upstream from bridge on Cooney Road and 1.5 mi (2.4 km) north of Spencer.

DRAINAGE AREA.--8.58 mi² (22.22 km²).

PERIOD OF RECORD.--Discharge: Occasional low-flow measurements, water year 1960. October 1960 to current year. October and November 1960 monthly discharge only, published in WSP 1901.

GAGE.--Water-stage recorder. Altitude of gage is 640 ft (195 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Occasional regulation by ponds upstream since 1971. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--16 years, 13.9 ft³/s (0.394 m³/s), 22.00 in/yr (559 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 412 ft³/s (11.7 m³/s) Mar. 18, 1968, gage height, 5.19 ft (1.582 m), from rating curve extended above 160 ft³/s (4.53 m³/s); maximum gage height, 5.41 ft (1.649 m) Mar. 7, 1963, ice jam; minimum discharge, 0.11 ft³/s (0.003 m³/s) July 21, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 60 ft³/s (1.70 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 18	2400	82 2.32	3.68 1.122	Jan. 28	1030	*266 7.53	*4.71 1.436
Nov. 14	0600	74 2.10	3.61 1.100	Feb. 2	2100	96 2.72	3.80 1.158

Minimum discharge, 0.11 ft³/s (0.003 m³/s) July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	19	27	25	49	26	36	15	6.3	6.4	2.9	.57
2	24	17	26	22	83	24	48	27	11	3.8	2.6	.96
3	20	16	23	20	75	23	38	23	9.8	2.8	1.3	2.2
4	16	16	22	21	57	23	33	21	8.5	2.6	.69	1.9
5	14	15	20	19	41	26	28	18	7.4	2.4	.51	1.4
6	13	15	20	16	35	28	25	16	6.6	1.9	.34	1.1
7	13	14	19	16	32	25	24	15	8.3	1.7	.32	.69
8	11	17	17	22	29	23	22	18	6.4	1.0	2.2	.29
9	11	18	17	20	27	21	21	15	4.4	.21	5.1	.29
10	10	18	26	16	26	20	20	13	4.2	1.6	21	.55
11	12	21	26	15	25	20	18	12	4.3	.72	28	1.2
12	35	24	24	16	24	19	17	15	5.4	.55	10	1.0
13	45	59	22	16	23	28	16	15	4.5	.41	6.6	.62
14	37	67	20	40	23	30	15	13	3.5	.32	4.3	.24
15	28	48	19	31	22	26	15	12	3.2	.51	3.5	.23
16	24	35	18	25	28	24	14	11	3.1	.47	4.4	2.7
17	22	28	16	22	37	24	14	11	5.7	.55	4.1	2.8
18	54	28	16	19	36	27	13	11	6.1	1.0	2.6	2.5
19	77	25	14	19	53	21	12	20	4.9	.29	1.8	1.9
20	74	27	14	19	45	27	12	24	4.4	.15	1.5	1.0
21	57	32	15	18	36	36	11	21	3.9	.13	1.7	.32
22	44	43	16	17	45	37	11	20	3.5	.21	1.5	.37
23	36	36	15	16	50	30	13	17	3.4	.26	1.0	1.5
24	31	31	14	16	38	27	11	14	2.8	2.4	.72	2.4
25	28	28	16	15	35	25	13	13	2.4	2.0	.41	2.2
26	26	25	25	15	33	24	22	11	2.6	.86	.35	2.7
27	24	28	33	115	31	22	21	11	3.1	.53	.89	2.7
28	23	33	28	209	29	25	21	9.2	1.8	.38	1.2	2.7
29	21	30	24	133	27	24	17	8.7	13	.32	1.9	2.2
30	21	27	21	80	---	23	15	8.1	11	.64	1.4	1.1
31	20	---	27	61	---	22	---	7.6	---	2.0	.64	---
TOTAL	899	840	640	1114	1094	780	596	465.6	165.5	39.11	115.47	42.33
MEAN	29.0	28.0	20.6	35.9	37.7	25.2	19.9	15.0	5.52	1.26	3.72	1.41
MAX	77	67	33	209	83	37	48	27	13	6.4	28	2.8
MIN	10	14	14	15	22	19	11	7.6	1.8	.13	.32	.23
CFSM	3.38	3.26	2.40	4.18	4.39	2.94	2.32	1.75	.64	.15	.43	.16
IN.	3.90	3.64	2.77	4.83	4.74	3.38	2.58	2.02	.72	.17	.50	.18

CAL YR 1975	TOTAL	6818.80	MEAN 18.7	MAX 141	MIN 1.0	CFSM 2.18	IN 29.56
WTR YR 1976	TOTAL	6791.01	MEAN 18.6	MAX 209	MIN .13	CFSM 2.17	IN 29.44

CONNECTICUT RIVER BASIN

01176000 QUABOAG RIVER AT WEST BRIMFIELD, MA

LOCATION.--Lat 42°10'56", long 72°15'51", Hampden County, Hydrologic Unit 01080204, on right bank 10 ft (3 m) upstream from abandoned highway bridge site at West Brimfield, 0.9 mi (1.4 km) upstream from Blodgett Mill Brook, 3.5 mi (5.6 km) northeast of Palmer, and 9.9 mi (15.9 km) upstream from mouth.

DRAINAGE AREA.--151 mi² (391 km²).

PERIOD OF RECORD.--Discharge: August 1909 to August 1912 (twice-daily gage heights and corresponding discharges), September 1912 to current year.

Chemical analyses: Water years 1953, 1967, 1969-70, 1972-74 (partial-record station).

Water temperatures: Water years 1967, 1969, 1972-74 (partial-record station).

Sediment records: Water years 1967, 1969-70, 1972-74 (partial-record station).

REVISED RECORDS.--WSP 451: 1916. WSP 711: Drainage area. WSP 1301: 1918(M).

GAGE.--Water-stage recorder. Altitude of gage is 390 ft (119 m), 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 (0.8 km) downstream at different datum.

REMARKS.--Records excellent except those for periods of no gage-height record, 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 were made during the year.

AVERAGE DISCHARGE.--64 years (water years 1913-76), 242 ft³/s (6.853 m³/s), 21.76 in/yr (553 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,800 ft³/s (362 m³/s) Aug. 19, 1955, gage height, 15.36 ft (4.682 m), from floodmarks, present site and datum, from rating curve extended above 2,700 ft³/s (76.5 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 6.6 ft³/s (0.19 m³/s) Sept. 28, 29, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 840 ft³/s (23.8 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
†Oct. 19	-	†1,000 28	- -	Jan. 28	-	*2,190 62.0	†*7.29 2.222
Nov. 14	-	†900 25	- -	Feb. 2	0900	1,360 38.5	6.15 1.875

† About.

‡ From peak-stage indicator.

Minimum discharge, 19 ft³/s (0.54 m³/s) Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	600	340	470	400	1080	538	460	257	145	66	77	39
2	450	320	440	380	1180	511	560	353	195	61	77	41
3	360	310	410	365	1070	479	543	346	177	58	73	46
4	300	300	380	350	1050	453	547	343	160	59	67	43
5	260	290	360	330	984	461	519	335	145	68	61	41
6	240	270	340	310	894	443	500	320	130	67	65	38
7	230	260	330	300	813	439	471	307	121	62	77	38
8	210	290	310	340	732	412	441	314	109	59	91	47
9	190	310	310	330	653	406	410	295	98	58	115	44
10	180	330	390	300	592	389	373	282	89	65	247	44
11	210	380	410	270	548	365	345	260	79	61	233	44
12	450	430	395	280	514	351	307	262	71	60	219	40
13	600	660	386	280	503	408	301	248	66	52	201	37
14	560	800	373	450	477	411	286	237	62	43	181	36
15	500	740	365	500	463	413	272	224	58	42	183	34
16	465	620	364	460	471	424	254	212	54	42	207	33
17	450	560	354	420	544	384	244	209	82	43	164	36
18	780	510	350	370	568	335	231	201	73	39	142	36
19	840	480	333	340	663	406	220	248	67	38	122	34
20	900	460	321	320	676	448	203	303	64	38	103	31
21	820	540	287	320	680	488	186	302	60	43	91	32
22	720	650	245	310	733	490	183	314	58	53	81	25
23	640	600	312	290	738	495	176	294	55	49	72	23
24	560	550	290	280	726	485	173	283	52	66	64	23
25	510	510	270	270	700	465	191	268	50	69	57	21
26	460	460	315	310	666	438	262	246	47	68	51	22
27	430	520	369	1100	619	419	265	225	45	66	55	27
28	410	580	400	2000	583	425	273	206	43	61	52	27
29	390	530	410	1500	564	405	271	187	45	57	52	25
30	380	490	400	1300	---	396	259	171	45	66	45	25
31	360	---	395	1180	---	378	---	156	---	63	40	---
TOTAL	14455	14090	11084	15955	20484	13360	9726	8208	2545	1742	3365	1032
MEAN	466	470	358	515	706	431	324	265	84.8	56.2	109	34.4
MAX	900	800	470	2000	1180	538	560	353	195	69	247	47
MIN	180	260	245	270	463	335	173	156	43	38	40	21
CFSM	3.09	3.11	2.37	3.41	4.68	2.85	2.15	1.75	.56	.37	.72	.23
IN.	3.56	3.47	2.73	3.93	5.05	3.29	2.40	2.02	.63	.43	.83	.25

CAL YR 1975 TOTAL 113783 MEAN 312 MAX 1700 MIN 35 CFSM 2.07 IN 28.03
WTR YR 1976 TOTAL 116046 MEAN 317 MAX 2000 MIN 21 CFSM 2.10 IN 28.59

NOTE.--No gage-height record Oct. 1 to Dec. 12, Jan. 7-30.

01177000 CHICOPEE RIVER AT INDIAN ORCHARD, MA

LOCATION.--Lat 42°09'38", long 72°30'52", Hampden County, Hydrologic Unit 01080204, on left bank 1,000 ft (300 m) downstream from West Street Bridge at Indian Orchard, 1.1 mi (1.8 km) upstream from Fuller Brook, and 7.2 mi (11.6 km) upstream from mouth.

DRAINAGE AREA.--688 mi² (1,782 km²).

PERIOD OF RECORD.--Discharge: August 1928 to current year. Published as "at Bircham Bend" prior to November 1938.

Chemical analyses: Water years 1953, 1957 (partial-record station).

Water temperatures: Water years 1953, 1957 (partial-record station).

REVISED RECORDS.--WSP 711: Drainage area. WSP 1231: 1934.

GAGE.--Water-stage recorder. Altitude of gage is 125 ft (38 m), from topographic map. Prior to Nov. 1, 1938, water-stage recorder at site 1.8 mi (2.9 km) downstream at different datum.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Diversion since 1941 from 186 mi² (482 km²) in Swift River basin and at times since 1931 from 97 mi² (251 km²) in Ware River basin for Boston metropolitan district; since 1950, for Chicopee; since 1952, for South Hadley; and, at times during 1966 and 1967, for Worcester; diversions at times since 1955 from 6.5 mi² (16.8 km²) in Ware River basin for Fitchburg. Diversion from Ludlow Reservoir for Springfield and, prior to 1952, for Chicopee. See table below for figures of diversion. Flow regulated by powerplants upstream, by Quabbin Reservoir 21 mi (34 km) 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 were made during the year.

AVERAGE DISCHARGE.--48 years, 902 ft³/s (25.54 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,200 ft³/s (1,280 m³/s) Sept. 21, 1938, by computation of flow over dam; minimum daily, 16 ft³/s (0.45 m³/s) several times in 1929-31.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,590 ft³/s (238 m³/s) Jan. 28, gage height, 11.32 ft (3.450 m); minimum daily, 76 ft³/s (2.15 m³/s) Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1910	1150	1870	1400	2640	1800	1450	1000	800	363	440	194
2	1680	1110	1870	1600	3630	1750	1900	1300	620	327	398	226
3	1600	1110	1700	1400	3370	1700	1800	1400	860	267	272	239
4	1460	979	1540	1250	2860	1650	1750	1550	640	226	312	169
5	1220	968	1440	1100	2870	1650	1700	1450	550	249	234	194
6	1180	974	1350	1030	2720	1600	1600	1350	500	246	243	229
7	1000	918	1330	1130	2300	1550	1550	1250	800	332	360	246
8	1000	1070	1250	1380	2190	1550	1450	1200	560	267	500	144
9	936	1210	1200	1350	2040	1500	1400	1150	470	246	550	267
10	888	1130	1450	1160	1890	1500	1300	1050	430	216	997	175
11	940	1240	1750	1030	1870	1450	1250	1050	400	239	1090	177
12	1720	1220	1590	1020	1850	1400	1150	1000	372	230	816	167
13	2260	2380	1490	997	1760	1500	1050	970	354	230	652	278
14	2050	3240	1380	1740	1790	1550	1000	930	349	250	552	98
15	1810	2680	1340	1960	1650	1550	958	890	319	215	630	129
16	1440	2160	1300	1640	1830	1550	930	850	336	212	949	197
17	1290	1910	1220	1540	2260	1500	900	820	462	197	780	144
18	1900	1740	1160	1330	2390	1500	860	860	451	198	610	203
19	3380	1610	1040	1240	2760	1500	830	980	349	164	512	191
20	3410	1520	900	1150	2910	1550	800	1400	349	180	441	246
21	3130	1560	935	1110	2610	1650	750	1450	349	270	372	188
22	2480	2630	935	1170	2600	1700	720	1500	222	224	290	167
23	2100	2240	970	1160	2900	1700	720	1200	275	242	294	172
24	1890	1850	900	1020	2700	1650	740	1350	229	335	302	178
25	1720	1740	860	1080	2400	1600	770	920	336	294	219	76
26	1660	1650	1120	1020	2200	1550	900	1100	203	242	267	135
27	1550	1750	1670	3120	2000	1500	1350	900	219	275	219	201
28	1450	2230	1600	7500	1950	1450	1300	780	345	278	249	262
29	1320	2070	1550	5290	1900	1450	1350	670	358	250	229	197
30	1260	1850	1500	3560	---	1400	1100	580	315	284	340	245
31	1200	---	1450	2880	---	1350	---	540	---	356	206	---
TOTAL	52834	49889	41660	55357	68840	48300	35328	33440	12822	7904	14325	5734
MEAN	1704	1663	1344	1786	2374	1558	1178	1079	427	255	462	191
MAX	3410	3240	1870	7500	3630	1800	1900	1550	860	363	1090	278
MIN	888	918	860	997	1650	1350	720	540	203	164	206	76
(†)	210	18.3	456	316	237	479	370	479	427	516	347	384
CAL YR 1975	TOTAL	395328	MEAN	1083	MAX	6280	MIN	164				
WTR YR 1976	TOTAL	426433	MEAN	1165	MAX	7500	MIN	76				

† Diversions, in cubic feet per second, from Ware and Swift River basins for supply of Boston metropolitan district, Chicopee, and South Hadley, and from Ludlow Reservoir for Springfield; records furnished by Water Division of Metropolitan District Commission and city of Springfield.

NOTE.--No gage-height record Feb. 22 to Apr. 14, Apr. 17 to June 11.

01177100 CHICOPEE RIVER AT CHICOPEE FALLS, MA

LOCATION.--Lat 42°09'37", long 72°34'52", Hampden County, multiple-parameter monitor on right bank on stone pier at Chicopee Falls dam, 300 ft (90 m) upstream from bridge on State Highway 33, and 4.0 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--711 mi² (1,841 km²).

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1973, August 1973 to current year.

pH: February 1973, August 1973 to current year.

DISSOLVED OXYGEN: February 1973, August 1973 to current year.

WATER TEMPERATURES: February 1973, August 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1973.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. Daily records are considered fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 533 micromhos May 29, 1975; minimum recorded, 30 micromhos Aug. 2, 1976, but may have been lower during period of no record.

pH: Maximum recorded, 9.1 units Nov. 16, 1973; minimum, 4.1 units May 29, 1976, but may have been lower during period of no record.

DISSOLVED OXYGEN: Maximum, 15.2 mg/L Feb. 3, 1973; minimum, 0.0 mg/L on many days each year.

WATER TEMPERATURES: Maximum recorded, 33.0°C July 7, 1975, Aug. 12, 13, 1976; minimum, 0.0°C on several days during winter period.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 399 micromhos July 4; minimum recorded, 30 micromhos Aug. 2, but maximum and minimum may have been higher or lower during periods of no record.

pH: Maximum recorded, 8.7 units Apr. 2; minimum recorded, 4.1 units May 29. Maximum and minimum may have been higher or lower during periods of missing record.

DISSOLVED OXYGEN: Maximum recorded, 14.6 mg/L Apr. 1, but may have been higher during period of no record; minimum, 0.0 mg/L July 17, 24.

WATER TEMPERATURES: Maximum, 33.0°C Aug. 12, 13; minimum, probably 0.0°C on several days during winter period.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), OCTOBER 1975 TO AUGUST 1976

DAY	OCTOBER			NOVEMBER			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	129	107	117	147	91	103	180	115	136	164	92	115
2	101	91	96	104	88	96	116	87	103	185	115	134
3	109	87	98	132	91	102	132	73	90	114	104	109
4	114	82	91	128	93	105	135	84	91	95	81	86
5	120	90	103	121	90	105	103	92	97	103	74	86
6	127	90	99	109	98	101	110	101	106	125	96	107
7	129	108	122	---	---	---	130	106	113	---	---	---
8	---	---	---	---	---	---	133	104	118	---	---	---
9	127	104	116	---	---	---	126	97	108	---	---	---
10	128	102	114	---	---	---	118	95	103	---	---	---
11	143	88	115	---	---	---	110	100	103	---	---	---
12	111	81	91	---	---	---	114	100	107	---	---	---
13	90	69	77	---	---	---	185	110	138	---	---	---
14	88	66	75	---	---	---	226	146	172	---	---	---
15	94	73	82	---	---	---	167	145	156	---	---	---
16	103	74	89	---	---	---	179	158	169	---	---	---
17	134	98	113	---	---	---	227	183	201	---	---	---
18	128	78	97	---	---	---	280	154	241	---	---	---
19	86	67	75	---	---	---	286	125	161	---	---	---
20	88	57	65	---	---	---	194	139	167	---	---	---
21	88	56	71	---	---	---	190	175	182	---	---	---
22	98	65	77	---	---	---	137	124	130	---	---	---
23	97	74	82	---	---	---	177	108	136	---	---	---
24	98	78	86	---	---	---	---	---	---	136	84	100
25	100	82	90	---	---	---	---	---	---	114	96	104
26	97	88	92	---	---	---	---	---	---	137	110	121
27	113	91	100	---	---	---	137	119	126	140	113	129
28	164	113	138	---	---	---	136	102	117	130	119	123
29	---	---	---	---	---	---	127	98	111	222	122	131
30	---	---	---	---	---	---	125	94	107	253	118	140
31	---	---	---	---	---	---	---	---	---	174	116	138
MONTH	164	56	95	---	---	---	286	73	133	---	---	---

CONNECTICUT RIVER BASIN

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01177100 CHICOPEE RIVER AT CHICOPEE FALLS, MA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), OCTOBER 1975 TO AUGUST 1976--Continued

DAY	JUNE			JULY			AUGUST		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	185	103	169	395	161	189	52	31	43
2	150	124	132	173	154	165	64	30	45
3	159	133	146	228	65	125	70	35	50
4	150	126	141	399	78	191	198	41	88
5	155	127	142	224	180	203	118	32	60
6	152	126	136	269	219	246	166	39	101
7	149	122	131	286	252	272	112	48	62
8	192	123	148	284	189	268	67	45	52
9	219	152	171	244	209	225	170	44	77
10	---	---	---	226	113	188	222	60	152
11	157	141	155	199	172	185	361	66	195
12	168	138	154	191	150	176	219	44	105
13	163	125	138	193	157	179	213	74	136
14	148	127	137	203	97	164	133	40	80
15	---	---	---	189	133	168	210	40	111
16	---	---	---	203	149	163	262	69	125
17	---	---	---	208	148	174	317	85	234
18	---	---	---	207	161	179	207	90	113
19	---	---	---	208	181	189	---	---	---
20	---	---	---	231	177	201	---	---	---
21	---	---	---	237	183	199	---	---	---
22	---	---	---	205	150	187	---	---	---
23	---	---	---	198	155	174	---	---	---
24	---	---	---	180	140	165	---	---	---
25	---	---	---	171	139	143	---	---	---
26	---	---	---	158	39	72	---	---	---
27	---	---	---	98	46	55	---	---	---
28	---	---	---	124	48	83	---	---	---
29	---	---	---	76	56	64	---	---	---
30	---	---	---	72	59	66	---	---	---
31	---	---	---	74	49	61	---	---	---
MONTH	---	---	---	399	39	165	---	---	---
PERIOD	399	30	127						

PH (UNITS), OCTOBER 1975 TO JULY 1976

DAY	OCTOBER			NOVEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.1	5.5	5.8	6.8	5.5	6.5
2	7.2	5.7	6.1	6.8	6.1	6.6
3	7.1	5.4	5.8	7.0	5.9	6.6
4	7.0	6.6	6.8	6.7	5.4	5.9
5	6.7	5.0	6.3	6.5	4.8	6.2
6	6.5	5.5	6.2	6.4	6.1	6.3
7	6.4	5.9	6.3	---	---	---
8	6.3	5.0	6.0	---	---	---
9	6.5	5.9	6.2	---	---	---
10	6.6	6.3	6.4	---	---	---
11	6.5	6.2	6.3	---	---	---
12	6.5	5.3	6.3	---	---	---
13	6.6	5.6	6.4	---	---	---
14	6.6	5.4	6.2	---	---	---
15	6.9	5.3	6.3	---	---	---
16	6.4	5.0	5.5	---	---	---
17	6.2	4.9	5.4	---	---	---
18	6.3	6.1	6.2	---	---	---
19	6.5	6.1	6.3	---	---	---
20	6.5	6.2	6.3	---	---	---
21	6.7	5.0	5.8	---	---	---
22	6.4	4.8	5.8	---	---	---
23	6.6	4.9	6.2	---	---	---
24	6.5	6.2	6.3	---	---	---
25	6.3	6.2	6.2	---	---	---
26	6.3	6.1	6.2	---	---	---
27	6.2	6.0	6.1	---	---	---
28	6.4	6.1	6.1	---	---	---
29	---	---	---	---	---	---
30	---	---	---	---	---	---
31	---	---	---	---	---	---
MONTH	7.2	4.8	6.1	---	---	---

CONNECTICUT RIVER BASIN

01177100 CHICOPEE RIVER AT CHICOPEE FALLS, MA--Continued

PH (UNITS), OCTOBER 1975 TO JULY 1976--Continued

DAY	APRIL			MAY			JUNE			JULY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.7	6.9	7.1	---	---	---	6.4	4.3	4.9	6.2	5.3	5.9
2	8.7	6.6	7.3	---	---	---	7.2	5.4	6.5	6.4	6.0	6.2
3	8.5	6.3	7.9	---	---	---	7.0	5.2	6.1	---	---	---
4	8.1	6.0	7.8	---	---	---	6.8	5.6	6.4	6.6	4.6	6.1
5	7.9	6.9	7.6	---	---	---	6.7	5.7	6.1	6.4	5.2	6.0
6	7.5	7.2	7.4	---	---	---	---	---	---	6.6	5.7	6.3
7	7.1	5.4	6.4	---	---	---	---	---	---	6.4	5.5	6.0
8	6.7	4.7	5.8	---	---	---	---	---	---	6.4	5.1	6.0
9	---	---	---	---	---	---	---	---	---	6.3	5.3	6.0
10	---	---	---	---	---	---	---	---	---	6.9	4.5	6.1
11	---	---	---	---	---	---	---	---	---	6.3	6.1	6.2
12	---	---	---	---	---	---	---	---	---	6.3	5.2	6.0
13	---	---	---	---	---	---	---	---	---	5.6	4.8	5.2
14	---	---	---	---	---	---	---	---	---	6.3	4.8	5.4
15	---	---	---	---	---	---	---	---	---	6.4	4.9	5.7
16	---	---	---	---	---	---	---	---	---	7.3	5.3	6.6
17	---	---	---	---	---	---	---	---	---	7.4	5.6	6.3
18	---	---	---	---	---	---	---	---	---	7.0	5.6	6.3
19	---	---	---	---	---	---	---	---	---	5.9	5.3	5.7
20	---	---	---	---	---	---	---	---	---	7.2	5.3	5.6
21	---	---	---	---	---	---	---	---	---	5.9	5.2	5.5
22	---	---	---	---	---	---	---	---	---	7.3	5.1	5.5
23	---	---	---	---	---	---	---	---	---	7.6	5.2	7.0
24	---	---	---	---	---	---	---	---	---	7.8	5.8	7.3
25	---	---	---	---	---	---	---	---	---	7.7	5.7	7.3
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	6.3	5.4	6.0	---	---	---	---	---	---
28	---	---	---	6.5	5.5	6.1	---	---	---	---	---	---
29	---	---	---	6.6	4.1	5.8	---	---	---	---	---	---
30	---	---	---	6.3	4.2	5.7	---	---	---	---	---	---
31	---	---	---	7.1	4.8	6.2	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
PERIOD	8.7	4.1	6.2									

DISSOLVED OXYGEN (DO), MG/L, OCTOBER 1975 TO JULY 1976

DAY	OCTOBER			NOVEMBER			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	10.3	8.4	9.9	14.6	13.6	14.0	9.7	9.1	9.4
2	7.9	7.1	7.5	10.1	9.4	10.0	14.2	10.2	12.6	9.6	9.0	9.2
3	9.1	7.1	7.7	10.2	8.8	9.6	14.3	10.4	11.2	9.4	9.0	9.1
4	9.2	8.2	8.7	9.7	6.1	7.8	11.1	10.0	10.4	9.7	9.0	9.2
5	8.9	6.9	8.4	8.0	6.3	7.5	10.7	9.9	10.3	10.0	8.8	9.3
6	8.3	6.8	7.7	7.8	7.2	7.4	10.9	10.1	10.4	9.8	7.9	8.8
7	7.5	6.6	7.1	---	---	---	12.8	10.2	11.2	7.9	7.3	7.7
8	7.3	5.9	6.6	---	---	---	13.1	8.4	11.3	7.8	7.2	7.5
9	6.6	5.2	5.8	---	---	---	9.4	8.5	8.8	7.1	6.5	6.9
10	6.9	6.3	6.6	---	---	---	11.6	8.2	9.5	7.5	5.9	6.5
11	7.7	7.0	7.4	---	---	---	10.9	8.5	9.1	6.0	5.7	5.8
12	9.0	8.6	8.8	---	---	---	9.4	8.5	9.2	---	---	---
13	9.9	9.0	9.5	---	---	---	11.0	9.2	9.4	---	---	---
14	10.6	8.8	9.8	---	---	---	11.7	7.4	10.0	---	---	---
15	10.0	8.4	9.1	---	---	---	12.2	8.7	10.9	---	---	---
16	9.5	8.2	8.8	---	---	---	11.6	8.4	9.4	---	---	---
17	9.0	8.2	8.6	---	---	---	11.5	7.9	9.4	---	---	---
18	---	---	---	---	---	---	11.4	8.0	9.0	---	---	---
19	---	---	---	---	---	---	11.5	7.5	9.2	---	---	---
20	---	---	---	---	---	---	11.3	7.4	10.5	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	11.5	11.0	11.3	---	---	---
23	---	---	---	---	---	---	11.7	10.7	11.2	---	---	---
24	10.0	7.7	9.9	---	---	---	12.0	11.1	11.4	9.2	6.2	7.7
25	9.9	9.2	9.6	---	---	---	11.3	8.4	9.5	8.0	6.6	7.1
26	9.3	8.8	9.1	---	---	---	11.0	10.0	10.4	7.5	6.9	7.2
27	9.2	8.2	8.8	---	---	---	11.8	9.6	10.5	7.5	6.9	7.1
28	8.6	6.1	7.9	---	---	---	12.0	10.0	10.5	7.0	6.3	6.7
29	---	---	---	---	---	---	10.6	9.2	9.6	8.8	6.2	6.6
30	---	---	---	---	---	---	10.6	9.2	9.7	8.5	5.7	6.5
31	---	---	---	---	---	---	---	---	---	7.9	5.3	6.1
MONTH	---	---	---	---	---	---	14.6	7.4	10.3	---	---	---

01177100 CHICOPEE RIVER AT CHICOPEE FALLS, MA--Continued
 DISSOLVED OXYGEN (DO), MG/L, OCTOBER 1975 TO JULY 1976--Continued

DAY	JUNE			JULY		
	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.8	5.3	7.1	3.9	.2	1.5
2	6.5	4.4	5.1	2.5	1.1	1.7
3	6.3	3.6	5.0	---	---	---
4	4.6	1.8	3.6	5.1	1.3	1.8
5	5.4	3.3	4.6	5.5	1.4	2.5
6	4.3	2.2	2.7	3.5	1.4	2.4
7	2.6	2.0	2.3	4.3	2.6	3.2
8	4.7	1.9	2.6	5.1	2.1	3.1
9	4.5	1.6	3.1	4.3	2.3	2.8
10	---	---	---	7.3	3.3	5.2
11	5.4	3.7	4.2	5.9	3.1	4.0
12	5.8	4.7	5.3	6.5	3.0	4.3
13	---	---	---	7.3	3.3	5.6
14	---	---	---	6.0	3.6	5.5
15	---	---	---	7.2	3.0	4.7
16	---	---	---	3.1	1.1	1.7
17	---	---	---	3.4	0	2.3
18	---	---	---	3.4	2.0	2.8
19	---	---	---	3.7	2.8	3.3
20	---	---	---	3.9	1.2	3.3
21	---	---	---	4.0	2.9	3.6
22	---	---	---	4.3	2.3	3.7
23	---	---	---	3.0	1.0	1.6
24	---	---	---	3.0	0	1.4
25	---	---	---	3.6	1.3	1.6
26	---	---	---	---	---	---
27	---	---	---	---	---	---
28	---	---	---	---	---	---
29	---	---	---	---	---	---
30	---	---	---	---	---	---
31	---	---	---	---	---	---
MONTH	---	---	---	---	---	---
PERIOD	14.6	0	7.2			

TEMPERATURE (DEG. C) OF WATER, OCTOBER 1975 TO AUGUST 1976

DAY	OCTOBER			NOVEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.0	15.0	16.0	10.5	9.5	10.0
2	17.0	15.5	16.0	10.5	9.0	9.5
3	17.0	14.5	15.5	10.5	9.0	9.5
4	18.0	15.5	16.5	11.5	10.0	10.5
5	17.5	13.5	16.0	12.5	10.0	11.0
6	18.5	15.0	16.5	11.5	10.5	10.5
7	19.0	15.0	16.5	---	---	---
8	19.0	13.0	15.5	---	---	---
9	16.0	14.5	15.5	---	---	---
10	16.0	13.0	14.5	---	---	---
11	14.0	13.5	14.0	---	---	---
12	13.5	13.0	13.0	---	---	---
13	14.5	12.0	13.5	---	---	---
14	16.0	12.5	14.0	---	---	---
15	18.0	12.5	15.5	---	---	---
16	16.5	13.0	14.5	---	---	---
17	14.5	12.0	13.0	---	---	---
18	14.0	13.0	13.5	---	---	---
19	13.0	11.5	12.5	---	---	---
20	11.5	11.0	11.0	---	---	---
21	14.0	10.0	11.5	---	---	---
22	15.5	11.5	13.0	---	---	---
23	16.0	11.5	13.5	---	---	---
24	14.0	12.0	13.0	---	---	---
25	13.0	12.5	13.0	---	---	---
26	13.0	12.5	13.0	---	---	---
27	14.0	12.0	13.0	---	---	---
28	14.0	12.0	13.0	---	---	---
29	---	---	---	---	---	---
30	---	---	---	---	---	---
31	---	---	---	---	---	---
MONTH	19.0	10.0	14.0	---	---	---

CONNECTICUT RIVER BASIN

01177100 CHICOPEE RIVER AT CHICOPEE FALLS, MA--Continued

TEMPERATURE (DEG. C) OF WATER, OCTOBER 1975 TO AUGUST 1976--Continued

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

DAY	JUNE			JULY			AUGUST		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.5	14.0	15.0	26.5	23.5	25.5	29.0	25.5	27.5
2	20.0	16.0	17.5	27.0	24.0	25.0	27.5	25.5	27.0
3	20.0	15.5	17.5	25.0	18.0	21.0	28.5	25.0	27.0
4	20.5	16.0	18.0	26.0	17.0	22.0	29.0	24.0	27.5
5	21.5	17.5	19.5	27.0	20.0	24.5	29.0	23.5	26.5
6	22.5	18.5	21.5	28.0	23.5	25.5	---	---	---
7	23.0	20.5	21.5	26.5	23.5	25.0	28.5	21.0	27.0
8	22.5	19.0	21.0	27.0	22.5	24.5	28.5	27.0	27.5
9	23.0	18.5	21.0	27.0	22.5	25.5	30.5	20.5	27.0
10	---	---	---	27.0	19.0	24.0	---	---	---
11	---	---	---	26.5	24.0	25.5	---	---	---
12	---	---	---	26.0	22.5	25.0	33.0	23.5	29.5
13	---	---	---	23.5	19.0	21.0	33.0	25.5	29.0
14	---	---	---	24.0	19.0	21.0	32.0	24.0	28.5
15	---	---	---	25.0	18.5	21.5	28.5	21.0	25.0
16	---	---	---	27.5	21.0	25.0	28.0	20.0	25.0
17	---	---	---	26.5	22.0	24.0	---	---	---
18	---	---	---	25.0	21.5	23.0	---	---	---
19	---	---	---	22.5	20.0	21.5	---	---	---
20	---	---	---	27.5	21.0	23.0	---	---	---
21	---	---	---	23.5	20.5	21.5	---	---	---
22	---	---	---	29.0	19.5	22.0	---	---	---
23	---	---	---	28.5	24.0	27.0	---	---	---
24	---	---	---	28.5	22.0	27.0	---	---	---
25	---	---	---	28.0	22.0	26.5	---	---	---
26	---	---	---	27.5	25.0	26.0	---	---	---
27	---	---	---	28.5	25.0	27.0	---	---	---
28	---	---	---	27.5	20.0	24.0	---	---	---
29	---	---	---	27.0	21.5	26.0	---	---	---
30	---	---	---	26.5	25.0	26.0	---	---	---
31	---	---	---	27.0	25.0	26.0	---	---	---
MONTH	---	---	---	29.0	17.0	24.5	---	---	---
PERIOD	33.0	1.5	17.0						

01179500 WESTFIELD RIVER AT KNIGHTVILLE, MA

LOCATION.--Lat 42°17'16", long 72°51'53", Hampshire County, Hydrologic Unit 01080206, on left bank at Knightville, 0.2 mi (0.3 km) downstream from Knightville Dam, 0.2 mi (0.3 km) upstream from Sykes Brook, 2.4 mi (3.9 km) upstream from Middle Branch, 3.5 mi (5.6 km) north of Huntington, and at mile 29.7 (47.8 km).

DRAINAGE AREA.--162 mi² (420 km²).

PERIOD OF RECORD.--Discharge: August 1909 to current year.

Chemical analyses: Water year 1953 (partial-record station).

Water temperatures: Water year 1953 (partial-record station).

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).

GAGE.--Water-stage recorder. Concrete control since Dec. 20, 1940. Datum of gage is 461.25 ft (140.589 m) above mean sea level (levels by Corps of Engineers). Prior to Jan. 11, 1936, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum. Jan. 11, 1935, to May 20, 1940, water-stage recorder at site 700 ft (200 m) upstream at datum 10.57 ft (3.222 m) higher. May 21 to Dec. 19, 1940, nonrecording gage at site 700 ft (200 m) upstream at datum 18.75 ft (5.715 m) higher.

REMARKS.--Records excellent. Flow regulated by Knightville Reservoir since 1941 (Reservoirs in Connecticut River basin). Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--67 years, 325 ft³/s (9.204 m³/s), 27.24 in/yr (692 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,900 ft³/s (1,070 m³/s) Sept. 21, 1938, gage height, 29.58 ft (9.016 m), from floodmarks, site and datum then in use, from rating curve extended above 3,800 ft³/s (108 m³/s) on basis of slope-area measurements at gage heights 24.07 ft (7.337 m) and 29.58 ft (9.016 m); minimum, 0.1 ft³/s (0.003 m³/s) Apr. 3, 1965; minimum daily, 1.1 ft³/s (0.031 m³/s) Apr. 2, 1965. Maximum discharge since construction of Knightville Reservoir in 1941, 6,660 ft³/s (189 m³/s) Mar. 21, 1945, gage height, 7.45 ft (2.271 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,630 ft³/s (103 m³/s) Apr. 5, gage height, 6.17 ft (1.881 m); minimum, 12 ft³/s (0.34 m³/s) Jan. 28; minimum daily, 26 ft³/s (0.74 m³/s) July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	882	305	646	386	2360	1030	685	289	257	278	265	72
2	426	294	592	277	1370	872	1350	1290	387	163	223	65
3	368	284	468	243	1060	461	1780	709	280	111	102	62
4	331	291	386	353	1010	542	2000	515	230	87	67	59
5	302	278	328	235	793	805	2950	408	202	72	52	57
6	289	251	359	190	528	1390	2510	349	182	64	46	55
7	264	243	367	247	410	1270	629	312	285	59	462	50
8	243	339	218	286	404	640	487	445	224	80	455	48
9	229	389	241	225	393	342	443	331	173	69	264	45
10	222	387	804	220	377	274	406	280	148	57	1040	49
11	283	652	1230	187	374	292	394	239	147	49	2680	128
12	865	443	663	175	378	301	376	638	144	46	2350	98
13	519	1680	500	227	360	312	352	499	129	59	316	71
14	456	1740	379	377	343	338	332	363	113	55	225	61
15	378	909	429	639	325	350	306	370	105	48	182	55
16	323	636	466	381	378	355	292	308	98	44	236	52
17	284	536	377	366	553	356	284	294	116	43	180	56
18	1140	480	328	260	800	358	261	429	134	41	136	78
19	1450	431	242	185	857	358	242	1680	102	36	114	76
20	2190	401	198	243	944	738	224	1840	92	35	98	62
21	1370	599	192	245	899	964	203	1010	92	31	87	55
22	770	1470	210	244	1020	1010	222	706	94	32	77	49
23	586	714	217	185	1260	998	268	535	91	30	70	46
24	499	541	215	208	1210	779	220	443	274	36	61	42
25	495	480	218	222	1090	676	335	408	138	34	61	39
26	624	438	330	216	1010	683	1010	366	109	29	53	40
27	481	543	549	517	1180	811	628	338	85	26	72	192
28	417	757	601	260	1420	781	455	291	72	47	144	164
29	383	550	380	546	1210	821	372	255	70	40	147	110
30	356	471	306	762	---	1040	309	236	82	55	148	83
31	322	---	366	1740	---	1020	---	234	---	57	89	---
TOTAL	17747	17532	12805	10847	24316	20967	20325	16410	4655	1913	10502	2119
MEAN	572	584	413	350	838	676	678	529	155	61.7	339	70.6
MAX	2190	1740	1230	1740	2360	1390	2950	1840	387	278	2680	192
MIN	222	243	192	175	325	274	203	234	70	26	46	39
MEAN†	535	584	420	452	729	761	582	529	155	61.6	339	70.6
CFSM†	3.30	3.60	2.59	2.79	4.50	4.70	3.59	3.27	.96	.38	2.09	.44
IN.†	3.81	4.03	2.99	3.22	4.86	5.42	4.01	3.77	1.07	.44	2.41	.49
CAL YR 1975 TOTAL	184595			MEAN 506	MAX 2970	MIN 57		MEAN† 506	CFSM† 3.12	IN† 42.40		
WTR YR 1976 TOTAL	160138			MEAN 438	MAX 2950	MIN 26		MEAN† 434	CFSM† 2.68	IN† 36.51		

† Adjusted for change in contents in Knightville Reservoir.

01180500 MIDDLE BRANCH WESTFIELD RIVER AT GOSS HEIGHTS, MA

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 (0.5 km) upstream from mouth, 0.7 mi (1.1 km) downstream from Littleville Dam, and 1.7 mi (2.7 km) north of Huntington.

DRAINAGE AREA.--52.6 mi² (136.2 km²).

PERIOD OF RECORD.--Discharge: July 1910 to current year.

REVISED RECORDS.--WSP 415: 1910-13. WSP 781: 1933(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 399.30 ft (121.707 m) above mean sea level. Prior to June 25, 1930, datum was 2.00 ft (0.610 m) higher, and June 25, 1930, to Sept. 30, 1964, datum was 1.00 ft (0.305 m) higher. Prior to Sept. 8, 1912, nonrecording gage at same site.

REMARKS.--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 were made during the year.

AVERAGE DISCHARGE.--66 years, 104 ft³/s (2.945 m³/s), 26.85 in/yr (682 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,900 ft³/s (564 m³/s) Sept. 21, 1938, gage height, 11.61 ft (3.539 m), present datum, from rating curve extended above 3,200 ft³/s (90.6 m³/s) on basis of mean of two contracted-opening measurements of peak flow; maximum gage height, 14.87 ft (4.532 m), 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, 1,360 ft³/s (38.5 m³/s) Apr. 25, 1972, gage height, 5.05 ft (1.539 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,230 ft³/s (34.8 m³/s) Aug. 11, gage height, 5.21 ft (1.588 m); minimum, 5.2 ft³/s (0.15 m³/s) July 27; minimum daily, 6.0 ft³/s (0.17 m³/s) July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	300	83	173	100	355	338	320	93	71	44	53	21
2	153	80	204	92	313	288	650	348	114	40	77	19
3	109	76	164	92	342	224	520	288	109	31	52	18
4	89	76	130	83	270	184	500	193	89	25	34	16
5	77	76	105	73	180	224	550	142	76	21	24	15
6	72	70	94	72	148	424	641	115	67	18	18	13
7	67	67	105	68	120	339	380	100	80	16	84	12
8	61	76	102	72	110	219	182	111	80	21	142	11
9	57	99	100	68	104	159	126	101	67	19	101	11
10	55	102	216	60	98	138	108	88	56	16	270	11
11	61	163	254	56	98	125	100	78	48	14	844	17
12	153	144	227	58	97	110	94	126	44	13	946	19
13	157	471	173	57	92	132	87	150	39	11	342	18
14	140	559	138	91	95	189	81	117	36	11	128	16
15	125	464	130	140	88	170	75	104	33	10	76	14
16	104	268	128	110	102	144	72	96	31	9.4	67	13
17	86	194	116	105	169	114	71	88	32	9.4	55	15
18	297	161	102	99	242	110	67	97	32	8.3	44	18
19	475	140	100	83	304	105	63	392	30	7.9	37	19
20	658	125	89	72	365	132	59	490	28	7.2	31	17
21	528	153	62	65	260	335	54	468	27	7.6	27	16
22	303	460	72	61	363	453	54	338	26	7.2	24	14
23	209	319	75	58	501	322	62	216	29	6.6	18	11
24	159	211	68	56	470	229	57	162	42	8.7	6.9	10
25	142	163	65	55	327	214	64	144	41	7.9	14	9.0
26	177	136	79	65	297	201	218	127	34	6.6	23	9.0
27	155	144	148	146	392	232	215	111	28	6.0	22	22
28	130	214	161	38	461	355	157	96	23	8.3	23	36
29	114	184	127	259	396	313	125	83	22	11	23	32
30	104	155	107	693	---	219	103	75	23	14	25	26
31	91	---	104	734	---	182	---	71	---	15	24	---
TOTAL	5408	5633	3918	3881	7159	6923	5855	5208	1457	451.1	3654.9	498.0
MEAN	174	188	126	125	247	223	195	168	48.6	14.6	118	16.6
MAX	658	559	254	734	501	453	650	490	114	44	946	36
MIN	55	67	62	38	88	105	54	71	22	6.0	6.9	9.0
MEAN†	154	190	125	147	232	218	194	167	46.1	14.6	118	16.6
CFSM†	2.93	3.61	2.38	2.79	4.41	4.14	3.69	3.17	0.88	0.28	2.24	0.32
IN.†	3.38	4.03	2.74	3.21	4.75	4.78	4.11	3.65	0.98	0.32	2.60	0.35

CAL YR 1975 TOTAL 55801.32 MEAN 153 MAX 1170 MIN .92 MEAN† 153 CFSM† 2.91 IN† 39.48
WTR YR 1976 TOTAL 50046.00 MEAN 137 MAX 946 MIN 6.0 MEAN† 135 CFSM† 2.57 IN† 34.89

† Adjusted for change in contents in Littleville Lake.

01180800 WALKER BROOK NEAR BECKET CENTER, MA

LOCATION.--Lat 42°15'49", long 73°02'48", Berkshire County, Hydrologic Unit 01080206, on right bank 20 ft (6 m) upstream from culvert on U.S. Highway 20, 0.2 mi (0.3 km) east of Bonny Rigg Corners, 1.7 mi (2.7 km) south-east of Becket Center, and 3.5 mi (5.6 km) west of Chester.

DRAINAGE AREA.--3.01 mi² (7.80 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water year 1962. November 1962 to current year.

REVISED RECORDS.--WSP MA, NH, RI, VT, 1974: 1973.

GAGE.--Water-stage recorder. Altitude of gage is 1,280 ft (390 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Recording rain gage at station May 1963 to December 1974 (no winter records).

AVERAGE DISCHARGE.--13 years (water years 1964-76), 6.64 ft³/s (0.188 m³/s), 29.96 in/yr (761 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 499 ft³/s (14.1 m³/s) Aug. 10, 1976, gage height, 7.57 ft (2.307 m), from rating curve extended above 85 ft³/s (2.41 m³/s) on basis of culvert measurement of peak flow; minimum, 0.10 ft³/s (0.003 m³/s) Sept. 1, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 80 ft³/s (2.27 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Jan. 28	-	150 4.2	-	Aug. 10	0530	*499 14.1	*7.57 2.307
Apr. 1	1415	142 4.02	5.04 1.536				

Minimum discharge, 0.10 ft³/s (0.003 m³/s) Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	6.1	13	5.9	9.0	18	61	9.8	6.0	4.3	11	.54
2	7.1	6.1	11	5.1	24	14	37	26	9.6	1.7	3.4	.54
3	5.9	5.9	9.0	5.1	17	12	20	13	5.7	1.1	1.6	.87
4	5.7	5.9	7.1	4.9	11	11	15	10	4.3	.78	1.0	.71
5	5.3	5.9	6.1	4.9	9.0	21	12	7.9	3.2	.65	.80	.71
6	4.9	5.9	6.4	5.3	7.0	21	10	6.8	3.9	.49	.74	.67
7	4.3	5.5	6.1	4.9	6.1	15	9.6	7.3	4.9	.44	21	.60
8	11	7.4	4.9	4.7	5.7	11	8.7	9.5	3.4	1.1	9.3	.59
9	19	5.3	6.4	4.3	5.7	9.0	8.2	6.9	2.5	.71	5.6	.54
10	18	7.9	26	4.3	5.1	8.2	7.6	6.1	1.9	.54	165	1.2
11	21	8.4	15	4.5	5.1	7.5	7.6	5.3	1.8	.49	27	2.4
12	20	12	9.9	4.7	4.9	7.0	7.1	16	2.3	.54	13	1.4
13	9.3	29	7.9	4.3	4.9	16	6.9	11	1.6	.71	6.0	1.0
14	11	19	7.1	17	5.3	12	6.6	8.0	1.4	.60	4.3	.88
15	5.9	11	7.1	9.0	4.9	9.2	6.1	6.8	1.4	.65	3.4	.78
16	4.9	8.2	7.1	6.4	6.4	7.8	6.6	5.7	1.1	.54	3.6	.72
17	4.1	7.1	5.7	5.1	12	7.3	6.6	5.3	1.9	.54	2.3	2.0
18	30	5.9	5.1	4.3	12	7.0	5.9	12	1.6	.60	1.7	3.0
19	25	5.5	4.3	4.0	19	6.6	5.5	39	1.3	.54	1.2	2.0
20	30	4.5	3.9	3.7	15	13	5.1	30	1.4	.44	1.2	1.4
21	15	15	5.3	3.5	10	25	4.5	20	.99	.49	.80	1.1
22	11	16	5.7	3.4	42	20	4.1	14	.99	.49	.84	1.1
23	9.6	9.9	5.1	3.3	27	14	4.3	11	.78	.44	1.2	.91
24	9.9	9.6	4.9	3.2	16	12	3.0	8.0	.65	.60	.74	.83
25	11	8.2	5.5	3.1	14	11	7.0	7.9	.78	.60	.54	.65
26	11	7.1	10	3.0	17	11	21	6.8	.54	.44	.59	.78
27	9.3	9.3	14	20	24	11	12	6.2	.44	.40	1.3	4.1
28	8.7	12	7.9	80	22	18	9.4	5.1	.49	1.1	1.4	2.8
29	7.6	9.6	5.9	25	17	12	9.0	4.1	.60	.73	.99	2.0
30	7.1	8.4	5.3	14	---	10	7.2	4.1	.65	1.4	.96	2.9
31	6.9	---	7.4	10	---	9.0	---	4.0	.65	2.0	.54	---
TOTAL	357.4	277.6	246.1	280.9	378.1	386.6	334.6	333.6	68.11	26.15	293.04	39.72
MEAN	11.5	9.25	7.94	9.06	13.0	12.5	11.2	10.8	2.27	.84	9.45	1.32
MAX	30	29	26	80	42	25	61	39	9.6	4.3	165	4.1
MIN	4.1	4.5	3.9	3.0	4.9	6.6	3.0	4.0	.44	.40	.54	.54
CFSM	3.82	3.07	2.64	3.01	4.32	4.15	3.72	3.59	.75	.28	3.14	.44
IN	4.42	3.43	3.04	3.47	4.67	4.78	4.13	4.12	.84	.32	3.62	.49

CAL YR 1975 TOTAL 3367.92 MEAN 9.23 MAX 97 MIN .40 CFSM 3.07 IN 41.61
WTR YR 1976 TOTAL 3021.92 MEAN 8.26 MAX 165 MIN .40 CFSM 2.74 IN 37.33

NOTE.--No gage-height record Jan. 19 to Feb. 2.

CONNECTICUT RIVER BASIN

01180800 WALKER BROOK NEAR BECKET CENTER, MA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1971 to current year.

WATER TEMPERATURES: December 1971 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1971.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 582 micromhos Jan. 13, 1976; minimum, 50 micromhos Aug. 2, 1973.

WATER TEMPERATURES: Maximum, 26.5°C Aug. 14, 1974; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 582 micromhos Jan. 13; minimum, 52 micromhos Oct. 9, 10.

WATER TEMPERATURES.--Maximum, 24.0°C July 6; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C). WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	108	102	105	81	79	80	106	89	96	148	113	137
2	111	107	109	85	80	81	96	91	93	145	127	135
3	117	108	112	85	81	83	99	96	98	137	134	136
4	116	113	115	88	84	86	109	100	102	140	136	137
5	119	116	117	86	77	84	113	101	106	144	134	139
6	123	117	119	78	76	77	117	107	111	141	135	138
7	125	120	124	110	77	82	120	110	114	148	138	140
8	125	53	93	127	105	113	126	111	115	164	142	147
9	54	52	53	118	108	113	214	116	146	147	142	145
10	54	52	53	119	97	113	140	95	104	147	144	146
11	85	53	64	106	95	101	108	99	104	148	145	146
12	73	68	71	111	65	101	111	108	110	158	146	148
13	118	76	96	79	65	72	137	111	117	582	145	165
14	112	90	99	89	74	79	136	122	128	389	153	178
15	120	111	116	99	88	95	141	121	123	164	155	159
16	124	119	123	96	93	94	122	117	119	165	154	158
17	129	124	127	99	95	96	121	116	119	167	157	160
18	140	74	87	101	98	100	137	121	125	241	153	165
19	90	70	86	104	101	103	133	121	126	238	154	169
20	83	69	76	105	102	103	131	122	126	162	159	160
21	89	84	87	183	68	101	123	118	120	162	160	161
22	92	89	90	86	70	79	125	121	123	164	161	162
23	93	83	88	90	83	88	125	124	124	164	159	162
24	82	79	80	84	82	83	127	123	125	164	162	163
25	89	80	84	87	84	86	127	125	125	165	164	164
26	83	82	83	115	89	93	225	124	145	403	164	217
27	82	80	81	126	91	102	133	120	124	284	151	199
28	82	80	81	92	85	89	127	121	124	151	141	144
29	85	81	82	94	89	91	204	122	130	150	146	147
30	85	82	84	100	95	98	186	124	136	153	146	149
31	82	78	80	---	---	---	210	129	157	157	151	154
MONTH	140	52	92	183	65	92	225	89	120	582	113	156

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SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	275	155	188	111	108	109	126	82	100	141	118	134
2	171	154	157	118	108	112	100	77	95	114	109	112
3	155	130	145	117	114	115	278	101	167	121	114	118
4	181	128	140	163	116	140	251	107	116	124	120	122
5	143	134	139	144	102	126	141	111	116	129	123	127
6	149	138	141	106	100	102	119	116	118	135	126	132
7	148	136	142	112	106	109	122	119	121	141	129	134
8	169	136	144	121	104	111	125	121	123	129	122	125
9	153	140	143	121	109	116	127	125	126	130	126	127
10	155	119	144	122	112	117	129	126	127	135	129	133
11	269	147	176	134	117	124	134	127	130	139	134	136
12	218	152	161	149	111	125	130	125	128	141	114	123
13	200	152	167	179	116	143	130	127	129	122	116	119
14	180	158	162	118	112	116	132	128	130	129	121	126
15	217	143	171	122	117	120	135	130	132	135	129	133
16	206	180	188	141	120	127	140	133	136	135	132	134
17	264	176	220	128	117	124	138	134	137	134	130	132
18	249	166	183	129	118	126	139	134	137	134	113	124
19	221	157	176	147	125	129	140	134	136	115	93	100
20	156	150	152	133	98	118	137	134	136	102	100	101
21	167	150	155	106	90	100	146	131	139	109	101	105
22	169	111	133	101	91	98	152	143	146	110	107	108
23	121	112	116	108	101	106	167	147	150	114	109	112
24	129	118	123	164	97	105	178	166	175	118	113	116
25	143	127	132	109	102	106	178	150	162	122	117	120
26	132	118	125	110	104	107	146	115	121	122	121	122
27	119	106	113	112	105	109	125	119	122	128	120	124
28	112	107	109	266	101	149	130	124	126	131	124	127
29	116	109	112	109	103	106	130	126	127	131	127	129
30	---	---	---	114	109	111	133	127	130	132	128	129
31	---	---	---	116	112	114	---	---	---	134	130	132
MONTH	275	106	150	266	90	117	278	77	131	141	93	123
JUNE				JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	136	128	132	135	108	123	110	79	99	217	157	192
2	127	119	121	160	131	141	146	111	125	222	200	207
3	123	118	120	171	158	163	183	147	158	250	224	238
4	139	120	128	185	173	179	206	174	183	269	217	236
5	137	127	133	205	183	194	218	193	205	253	208	228
6	144	121	131	209	185	198	235	163	217	262	228	242
7	136	129	132	228	184	209	156	92	101	251	213	234
8	155	134	142	208	175	182	114	99	106	254	220	237
9	155	142	148	217	181	208	---	---	---	279	228	253
10	160	145	151	229	183	212	---	---	---	262	155	235
11	163	150	157	256	191	222	---	---	---	157	142	149
12	159	144	148	233	200	218	---	---	---	170	152	158
13	161	147	152	213	173	185	---	---	---	200	171	179
14	171	150	159	204	183	194	---	---	---	214	193	203
15	166	154	160	222	179	199	---	---	---	228	208	216
16	170	154	163	240	189	212	---	---	---	236	197	216
17	167	145	155	238	184	203	---	---	---	225	131	188
18	161	153	158	252	187	221	---	---	---	143	126	134
19	163	154	159	257	185	220	---	---	---	169	137	147
20	188	163	178	254	203	229	---	---	---	186	163	174
21	184	146	156	243	211	229	---	---	---	196	175	183
22	169	156	163	253	206	233	---	---	---	211	185	196
23	177	158	168	262	212	237	---	---	---	215	203	209
24	176	163	170	226	172	198	---	---	---	232	215	223
25	184	167	176	247	208	225	215	171	194	238	224	232
26	187	163	175	290	196	242	206	179	194	246	186	236
27	192	171	180	308	168	251	192	147	161	161	127	135
28	193	176	184	209	145	173	162	141	150	146	135	138
29	191	170	181	238	149	215	179	157	164	161	148	154
30	181	118	173	175	147	158	207	163	187	167	74	144
31	---	---	---	202	74	169	177	172	175	---	---	---
MONTH	193	118	155	308	74	201	---	---	---	279	74	197
YEAR	582	52	140									

CONNECTICUT RIVER BASIN

01180800 WALKER BROOK NEAR BECKET CENTER, MA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.0	11.0	12.5	6.5	3.5	5.0	7.0	2.5	5.0	1.0	0.0	0.0
2	13.0	10.5	12.0	8.5	6.0	7.5	2.5	1.5	2.0	0.0	0.0	0.0
3	10.0	8.0	9.0	9.5	7.5	8.5	2.0	0.5	1.5	0.5	0.0	0.0
4	12.0	8.5	10.0	11.0	8.0	9.5	1.0	0.0	0.5	0.5	0.0	0.0
5	11.0	8.0	9.5	9.5	7.5	8.5	1.5	0.0	0.5	0.0	0.0	0.0
6	13.5	10.5	11.5	8.5	6.0	7.5	3.5	1.5	3.0	0.0	0.0	0.0
7	12.0	8.5	10.5	10.5	7.0	9.0	3.0	0.0	1.0	0.0	0.0	0.0
8	12.0	7.0	9.5	12.5	10.0	11.5	0.5	0.0	0.0	0.0	0.0	0.0
9	12.0	10.5	11.0	12.0	9.5	11.0	1.5	0.5	1.0	0.0	0.0	0.0
10	12.0	10.0	11.0	12.0	10.5	11.0	2.5	1.5	2.0	0.0	0.0	0.0
11	11.5	11.0	11.5	10.5	7.0	9.0	2.0	1.0	1.5	0.0	0.0	0.0
12	11.0	10.0	10.5	8.0	5.5	7.0	1.5	0.5	1.5	0.0	0.0	0.0
13	11.0	9.0	10.0	9.0	8.0	8.5	1.5	1.0	1.0	0.0	0.0	0.0
14	12.0	10.5	11.0	8.0	4.5	6.0	4.0	1.5	3.0	0.0	0.0	0.0
15	14.0	10.5	12.0	5.0	4.0	4.5	5.5	3.5	4.5	0.0	0.0	0.0
16	14.0	10.0	12.0	5.5	3.5	4.5	4.5	0.0	2.5	0.0	0.0	0.0
17	10.5	8.5	9.5	6.5	4.0	5.0	1.0	0.0	0.0	0.0	0.0	0.0
18	9.5	9.0	9.5	8.0	5.5	6.5	0.5	0.0	0.0	0.0	0.0	0.0
19	9.0	8.0	8.5	7.5	5.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0
20	9.0	8.5	8.5	8.0	6.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0
21	10.5	7.5	9.0	9.0	6.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0
22	11.5	8.5	10.0	7.0	4.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0
23	10.5	7.5	9.0	4.5	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
24	11.0	8.5	9.5	3.5	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
25	11.5	10.0	10.5	4.0	3.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0
26	11.0	8.5	10.0	4.5	3.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0
27	9.0	7.0	8.0	3.5	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
28	10.0	6.5	8.5	3.5	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
29	10.5	8.0	9.5	3.0	1.5	2.5	0.0	0.0	0.0	0.5	0.0	0.0
30	10.0	5.5	7.5	6.0	2.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0
31	6.0	4.5	5.0	---	---	---	1.0	0.0	0.5	0.0	0.0	0.0
MONTH	14.0	4.5	10.0	12.5	1.5	6.5	7.0	0.0	1.0	1.0	0.0	0.0
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.5	0.0	0.0	2.5	1.5	2.0	5.0	3.5	4.5	9.5	6.0	8.0
2	0.5	0.0	0.0	1.5	0.0	0.0	6.0	2.5	4.5	12.5	8.0	10.5
3	0.0	0.0	0.0	0.0	0.0	0.0	6.0	3.0	4.0	12.0	7.0	9.5
4	0.0	0.0	0.0	1.0	0.0	0.0	5.5	2.0	3.5	8.0	5.5	7.0
5	0.0	0.0	0.0	3.5	1.0	2.5	6.0	1.0	3.5	12.0	4.5	8.5
6	0.0	0.0	0.0	2.5	0.0	0.0	6.5	2.0	4.5	15.0	9.0	12.0
7	0.0	0.0	0.0	2.0	0.0	0.5	7.0	2.5	4.5	11.5	9.0	10.5
8	0.0	0.0	0.0	1.0	0.0	0.0	5.5	1.5	3.5	11.5	7.0	9.0
9	0.0	0.0	0.0	0.0	0.0	0.0	7.0	2.0	4.0	12.0	6.0	9.0
10	0.5	0.0	0.0	0.0	0.0	0.0	7.0	1.5	4.5	14.5	7.0	10.5
11	1.0	0.0	0.5	1.0	0.0	0.0	5.5	0.5	4.0	13.5	9.5	11.5
12	1.0	0.0	0.5	0.5	0.0	0.0	4.0	0.0	2.0	12.0	8.5	10.5
13	1.5	0.5	1.0	1.0	0.0	0.0	6.5	0.5	3.5	13.0	7.0	10.0
14	1.0	0.0	0.0	2.0	0.0	0.5	9.5	3.0	6.5	14.5	9.0	12.0
15	0.5	0.0	0.0	3.0	0.0	1.0	9.5	4.0	7.5	16.5	12.5	14.0
16	1.5	0.5	1.0	0.0	0.0	0.0	12.5	2.0	10.0	14.5	11.5	12.5
17	1.0	0.5	0.5	0.0	0.0	0.0	16.5	9.0	12.5	14.0	12.0	13.0
18	1.0	0.0	0.5	0.0	0.0	0.0	17.0	10.5	13.5	14.5	11.0	13.0
19	1.5	0.5	1.0	0.0	0.0	0.0	18.0	11.0	14.5	10.5	8.5	9.0
20	1.0	0.0	0.5	1.5	0.0	0.0	16.0	11.5	13.5	9.5	8.0	8.5
21	1.5	0.0	1.0	4.0	0.5	2.0	15.0	10.0	12.5	11.0	7.5	9.5
22	2.0	0.0	0.5	1.5	0.0	0.0	11.0	9.5	10.0	10.5	8.5	9.5
23	0.0	0.0	0.0	2.5	0.0	0.5	14.5	8.5	11.0	11.5	7.5	9.5
24	0.5	0.0	0.0	5.5	0.0	0.0	10.5	7.0	8.5	10.5	8.0	9.5
25	2.5	0.5	1.5	5.5	0.5	1.5	8.0	5.5	6.5	10.5	9.5	10.0
26	3.0	0.0	0.0	7.0	2.5	4.5	7.0	5.0	6.0	10.0	9.0	9.5
27	3.5	1.0	2.0	8.0	3.0	5.5	6.5	5.0	5.5	13.5	9.0	11.0
28	3.0	0.5	1.5	6.0	2.5	4.5	8.0	5.5	6.5	15.5	9.5	12.5
29	3.0	0.0	1.5	6.5	2.0	4.0	10.5	5.5	8.0	14.5	11.0	13.0
30	---	---	---	7.5	2.5	5.0	11.0	5.5	8.5	13.5	12.0	13.0
31	---	---	---	5.5	4.0	5.0	---	---	---	15.0	11.5	13.5
MONTH	3.5	0.0	0.5	8.0	0.0	1.5	18.0	0.0	7.0	16.5	4.5	10.5

CONNECTICUT RIVER BASIN

01181000 WEST BRANCH WESTFIELD RIVER AT HUNTINGTON, MA

LOCATION.--Lat 42°14'14", long 72°53'46", Hampshire County, Hydrologic Unit 01080206, on left bank at Huntington, 0.4 mi (0.6 km) downstream from Roaring Brook, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--93.7 mi² (242.7 km²).

PERIOD OF RECORD.--Discharge: September 1935 to current year.

Chemical analyses: Water years 1957, 1967-74 (partial-record station).

Water temperatures: Water years 1957, 1967-69, 1971-74 (partial-record station).

Sediment records: Water years 1967-74 (partial-record station).

GAGE.--Water-stage recorder. Datum of gage is 388.60 ft (118.445 m) above mean sea level.

REMARKS.--Records good except those for January, which are fair. Prior to 1950, some diurnal fluctuation at low flow caused by small mill upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 188 ft³/s (5.324 m³/s), 27.25 in/yr (692 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,100 ft³/s (739 m³/s) Aug. 19, 1955, gage height, 15.27 ft (4.654 m), from rating curve extended above 9,500 ft³/s (269 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.3 ft³/s (0.093 m³/s) Aug. 9, 1955, Nov. 27, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,700 ft³/s (76.5 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Jan. 28	0145	4,030 114	5.94 1.811	Apr. 1	1615	4,900 139	6.54 1.993
Feb. 22	1700	2,760 78.2	4.89 1.490	Aug. 10	0815	*8,550 242	*8.65 2.637

Minimum discharge, 11 ft³/s (0.31 m³/s) July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	235	156	377	198	329	551	2260	192	137	132	137	27
2	202	151	336	192	856	426	1090	857	250	62	83	26
3	178	146	259	166	512	333	545	378	163	43	43	26
4	156	151	209	164	382	302	406	281	136	34	29	24
5	140	146	183	158	300	571	326	222	118	29	20	24
6	131	139	189	130	262	718	281	192	107	26	20	22
7	120	130	198	150	235	417	249	184	148	26	262	20
8	113	189	161	160	220	311	225	227	117	51	158	19
9	117	189	177	140	226	240	206	178	94	33	106	18
10	113	205	829	125	209	233	190	159	82	26	3220	19
11	150	287	465	115	192	221	186	144	73	23	665	51
12	302	246	297	110	181	197	176	348	73	21	221	38
13	199	1250	246	82	177	354	164	256	66	23	136	28
14	242	820	229	270	185	360	153	190	60	22	106	23
15	181	471	233	263	171	261	145	177	56	21	90	23
16	153	341	229	190	231	219	147	154	52	19	110	24
17	135	287	189	155	413	212	146	154	59	18	87	28
18	913	255	172	145	408	203	133	204	59	17	69	49
19	701	229	126	135	670	197	123	1140	49	16	60	40
20	1440	207	111	130	566	439	115	799	46	15	52	31
21	580	580	138	125	381	795	106	528	46	14	48	26
22	396	786	150	120	1530	728	116	406	45	14	42	24
23	303	390	135	115	959	378	126	300	45	13	39	29
24	259	303	135	110	492	323	105	244	49	15	34	22
25	263	263	140	110	439	326	158	234	45	15	30	18
26	297	233	172	105	546	308	558	204	44	12	29	18
27	233	324	409	600	759	290	288	184	34	12	37	70
28	205	416	259	2880	700	536	223	165	30	18	44	66
29	195	292	225	823	522	352	226	143	33	18	37	47
30	177	259	198	496	---	280	185	132	38	27	44	35
31	161	---	225	355	---	248	---	128	---	24	31	---
TOTAL	8990	9841	7401	9017	13053	11329	9357	9104	2354	839	6089	915
MEAN	290	328	239	291	450	365	312	294	78.5	27.1	196	30.5
MAX	1440	1250	829	2880	1530	795	2260	1140	250	132	3220	70
MIN	113	130	111	82	171	197	105	128	30	12	20	18
CFSM	3.09	3.50	2.55	3.11	4.80	3.90	3.33	3.14	.84	.29	2.09	.33
IN.	3.57	3.91	2.94	3.58	5.18	4.50	3.71	3.61	.93	.33	2.42	.36
CAL YR 1975 TOTAL	99981		MEAN 274	MAX 5060	MIN 20	CFSM 2.92	IN 39.69					
WTR YR 1976 TOTAL	88289		MEAN 241	MAX 3220	MIN 12	CFSM 2.57	IN 35.05					

01183000 WESTFIELD LITTLE RIVER AT OUTLET OF COBBLE MOUNTAIN RESERVOIR,
NEAR WESTFIELD, MA

LOCATION.--Lat 42°07'34", long 72°53'37", Hampden County, Hydrologic Unit 01080206, at Cobble Mountain Dam, 7.5 mi (12.1 km) west of Westfield, and at mile 13.0 (20.9 km).

DRAINAGE AREA.--45.8 mi² (118.6 km²).

PERIOD OF RECORD.--Discharge: July 1905 to current year. Published as "near Blandford" 1905-11 and as "near Westfield" 1912-35.

Chemical analyses: Water year 1957 (partial-record station).

Water temperatures: Water year 1957 (partial-record station).

REVISED RECORDS.--WSP 501: Drainage area.

GAGE.--Venturi meters at outlet tunnel at powerhouse 2.4 mi (3.9 km) downstream. Prior to Mar. 1, 1910, non-recording gage at site 0.2 mi (0.3 km) upstream, and Mar. 1, 1910, to Sept. 30, 1935, water-stage recorder at diversion dam 2.8 mi (4.5 km) 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). No flow over spillway or through bypass tunnel during the year.

COOPERATION.--Records furnished by Springfield Board of Water Commissioners.

AVERAGE DISCHARGE.--66 years (water years 1911-76), 89.7 ft³/s (2.540 m³/s), 26.60 in/yr (676 mm/yr), adjusted for storage.

MONTHLY DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Month	Mean†	Per square mile†	Runoff in inches†
October	134	2.93	3.37
November	136	2.97	3.30
December	113	2.47	2.84
Calendar year 1975	126	2.75	37.26
January	172	3.76	4.33
February	200	4.37	4.71
March	146	3.19	3.68
April	135	2.95	3.29
May	133	2.90	3.34
June	27.2	.59	.66
July	9.03	.20	.23
August	77.8	1.70	1.96
September	7.17	.16	.17
Water year 1976	107	2.34	31.88

† Adjusted for change in contents in Borden Brook and Cobble Mountain Reservoirs.

CONNECTICUT RIVER BASIN

01183450 GREAT BROOK NEAR WESTFIELD, MA

LOCATION.--Lat 42°05'18", long 72°43'24", Hampden County, Hydrologic Unit 01080206, on left bank 50 ft (15 m) downstream from bridge on Shaker Rd., 0.4 mi (0.6 km) downstream from Kellog Brook, 1.4 mi (2.3 km) upstream from mouth, and 2.5 mi (4.0 km) southeast of center of Westfield.

DRAINAGE AREA.--29.2 mi² (75.6 km²).

PERIOD OF RECORD.--Discharge: November 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 135 ft (41.1 m), from topographic map.

REMARKS.--Records good except those for winter period and periods of no gage-height record, which are poor. Flow affected by diversion upstream for municipal supply of West Springfield. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 651 ft³/s (18.4 m³/s) Dec. 21, 1973, gage height, 5.33 ft (1.625 m), from rating curve extended above 270 ft³/s (7.65 m³/s); minimum, 4.8 ft³/s (0.14 m³/s) Aug. 16, 17, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 240 ft³/s (6.80 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Jan. 28	unknown	*500 14	*unknown				

NOTE.--Other peaks above base discharge may have occurred about Oct. 20, Feb. 19-23, Apr. 1.

Minimum daily discharge, 10 ft³/s (0.28 m³/s) July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	47	59	58	100	76	110	45	37	24	30	16
2	62	45	55	51	200	71	90	80	50	21	23	18
3	55	44	50	48	150	66	78	66	42	18	19	18
4	49	45	45	47	120	62	70	56	42	17	16	18
5	44	44	44	44	94	62	65	50	38	15	15	17
6	41	43	45	40	70	90	61	47	33	14	15	17
7	38	39	42	45	63	80	58	45	37	14	60	15
8	36	50	44	48	60	70	55	56	34	14	50	15
9	36	51	102	40	58	60	53	47	31	15	45	14
10	35	53	107	36	56	54	50	42	29	15	87	16
11	45	67	64	33	53	51	49	38	27	17	70	18
12	70	67	55	31	50	49	47	52	25	17	34	15
13	62	130	54	29	48	70	46	48	24	16	27	15
14	66	137	54	70	50	76	45	45	23	15	37	15
15	55	83	51	56	48	66	44	42	21	15	31	14
16	47	63	50	48	65	62	45	41	20	14	45	14
17	42	56	47	42	110	58	43	40	21	14	36	17
18	130	53	45	39	120	56	41	50	21	13	25	21
19	120	50	40	37	140	54	39	90	19	13	24	17
20	170	48	34	35	110	80	37	80	18	12	22	15
21	120	105	36	34	90	90	35	70	17	12	20	14
22	85	124	42	33	150	84	37	64	17	11	19	14
23	72	71	48	32	170	75	40	59	17	11	18	14
24	60	60	38	31	110	68	35	56	18	12	18	14
25	62	56	38	30	90	62	42	53	17	12	17	14
26	70	55	50	30	83	58	70	49	15	11	16	13
27	62	90	68	120	81	54	57	46	14	10	23	19
28	57	83	74	350	82	62	51	43	13	11	20	17
29	54	61	61	200	80	57	47	38	13	12	19	17
30	51	58	51	130	---	54	46	36	13	14	17	15
31	49	---	56	110	---	50	---	35	---	13	16	---
TOTAL	2015	1978	1649	1977	2701	2027	1586	1609	746	442	914	476
MEAN	65.0	65.9	53.2	63.8	93.1	65.4	52.9	51.9	24.9	14.3	29.5	15.9
MAX	170	137	107	350	200	90	110	90	50	24	87	21
MIN	35	39	34	29	48	49	35	35	13	10	15	13

CAL YR 1975 TOTAL 18441 MEAN 50.5 MAX 348 MIN 10
WTR YR 1976 TOTAL 18120 MEAN 49.5 MAX 350 MIN 10

NOTE.--No gage-height record Oct. 1 to Nov. 5, Jan. 7 to Feb. 5, Feb. 9-25, Feb. 28 to Apr. 5, Apr. 17 to June 8, July 16 to Aug. 10.

01183500 WESTFIELD RIVER NEAR WESTFIELD, MA

LOCATION.--Lat 42°06'24", long 72°41'58", Hampden County, Hydrologic Unit 01080206, on left bank 0.7 mi (1.1 km) downstream from Great Brook, 3 mi (5 km) east of Westfield, and 8.1 mi (13.0 km) upstream from mouth.

DRAINAGE AREA.--497 mi² (1,287 km²).

PERIOD OF RECORD.--Discharge: June 1914 to current year.

Chemical analyses: Water years 1952-53, 1957, 1967-74 (partial-record station).

Water temperatures: Water years 1952, 1957, 1967-69, 1971-74 (partial-record station).

Sediment records: Water years 1967-74 (partial-record station).

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 (29.947 m) above mean sea level. Prior to Nov. 3, 1933, on right bank at same datum.

REMARKS.--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 Westfield Little River for municipal supply of Springfield. See table below for figures of diversion. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--62 years, 913 ft³/s (25.86 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,300 ft³/s (1,990 m³/s) Aug. 19, 1955, gage height, 34.2 ft (10.42 m), from floodmarks, from rating curve extended above 18,000 ft³/s (510 m³/s) on basis of computations of flow over dam at gage heights 27.20 ft (8.291 m), 29.40 ft (8.961 m), and 34.2 ft (10.42 m); minimum, 9 ft³/s (0.25 m³/s) Oct. 2, 1921; minimum daily, 40 ft³/s (1.13 m³/s) Dec. 28, 29, 1914.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,180 ft³/s (232 m³/s) Aug. 10, gage height, 11.14 ft (3.395 m); minimum, 115 ft³/s (3.26 m³/s) July 18, 19, 20; minimum daily, 146 ft³/s (4.13 m³/s) July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2530	1040	1740	1080	3630	2460	3620	897	682	612	420	353
2	1560	945	1990	918	4080	2280	3490	2810	1030	460	587	314
3	1250	888	1700	824	3150	1800	3370	2130	891	357	370	323
4	992	821	1500	850	2420	1680	3260	1560	735	314	254	278
5	880	833	1130	877	2020	1990	4060	1280	647	260	224	275
6	995	781	1110	690	1640	3090	4270	1070	585	229	221	205
7	1060	736	1070	708	1240	2650	2100	985	659	224	523	218
8	948	830	1260	898	1160	1860	1560	1250	683	240	996	213
9	774	1040	1390	851	1230	1340	1320	1030	552	272	647	195
10	739	1100	2820	714	1240	1190	1100	910	554	208	4070	237
11	769	1630	2990	619	1180	1230	1040	810	471	185	4010	246
12	1680	1230	1970	660	1230	1140	1130	1320	464	216	4050	330
13	1430	3820	1420	700	1150	1250	975	1420	412	159	1460	286
14	1380	4230	1230	1430	1080	1520	915	1040	388	183	732	275
15	1340	2730	1220	1600	990	1270	854	939	381	203	549	257
16	1000	1870	1290	1350	1160	1170	829	885	357	171	653	254
17	994	1730	1150	993	1850	1200	816	837	367	178	587	286
18	2830	1530	1090	900	2390	1210	752	917	395	166	516	298
19	3670	1410	1080	750	2710	1220	719	3340	367	180	467	298
20	5740	1330	684	800	2880	1570	689	3950	330	155	416	243
21	4060	1690	669	780	2290	2570	634	2660	388	148	388	251
22	2460	3730	759	760	3420	2900	639	1980	320	164	360	286
23	1900	2270	753	720	3970	2320	901	1480	308	150	353	235
24	1590	1790	702	660	3080	1940	673	1270	434	198	278	272
25	1460	1560	665	680	2630	1750	749	1190	388	146	218	208
26	1650	1430	881	686	2610	1660	2150	1060	336	188	360	198
27	1550	1580	1500	1900	2790	1750	1720	966	283	150	298	327
28	1310	2110	1490	5310	3150	1990	1240	898	249	162	308	531
29	1220	1710	1180	3080	2770	1760	1080	772	278	195	283	388
30	1260	1400	929	2770	---	1940	935	698	266	218	370	314
31	1230	---	1060	3160	---	1800	---	650	---	218	357	---
TOTAL	52251	49794	40422	38718	65140	55500	47590	43004	14200	6909	25325	8394
MEAN	1686	1660	1304	1249	2246	1790	1586	1387	473	223	817	280
MAX	5740	4230	2990	5310	4080	3090	4270	3950	1030	612	4070	531
MIN	739	736	665	619	990	1140	634	650	249	146	218	195
(†)	56.1	47.8	53.0	56.9	56.2	61.0	61.7	61.7	77.5	73.4	70.0	62.7
CAL YR 1975 TOTAL	500757			1372	8260							
WTR YR 1976 TOTAL	447247			1222	5740							

† Diversion, in cubic feet per second, from Westfield Little River for municipal supply of Springfield; records furnished by city of Springfield.

CONNECTICUT RIVER BASIN

01183600 WESTFIELD RIVER AT WEST SPRINGFIELD, MA

LOCATION.--Lat 42°05'59", long 72°38'28", Hampden County, Hydrologic Unit 01080206, on left bank at canal, 0.3 mi (0.5 km) downstream from dam, 0.6 mi (1.0 km) downstream from Block Brook, 1.0 mi (1.6 km) west of West Springfield, and 3.5 mi (5.6 km) upstream from mouth.

DRAINAGE AREA.--513 mi² (1,329 km²).

PERIOD OF RECORD.--Water years 1972 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1972 to current year.

pH: June 1972 to current year.

WATER TEMPERATURES: June 1972 to current year.

DISSOLVED OXYGEN: June 1972 to current year.

INSTRUMENTATION.--Water-quality monitor since June 1972.

REMARKS.--During periods of low flow, flow in canal is predominantly from Silver Brook. Interruptions in the record were due to malfunctions of the instrument. No winter records in water year 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 666 micromhos Jan. 21, 1974; minimum, 23 micromhos Mar. 17, 18, 1973.

pH: Maximum recorded, 9.1 units July 28, 1976; minimum recorded, 5.9 units May 25, 1976.

WATER TEMPERATURES: Maximum, 30.5°C July 19, 1975; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN: Maximum, 18.6 mg/L Feb. 10, 1973; minimum, 4.2 mg/L Sept. 9, 29, 1972, July 11, 1975, Apr. 1, 1976.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 193 micromhos July 15; minimum recorded, 62 micromhos Oct. 21.

pH: Maximum recorded, 9.1 units July 28; minimum recorded, 5.9 units May 25.

WATER TEMPERATURES: Maximum, 27.0°C July 9; minimum, probably 0.0°C on many days during winter period.

DISSOLVED OXYGEN: Maximum recorded, 14.5 mg/L Nov. 1, 2; minimum, 4.2 mg/L Apr. 1.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), OCTOBER 1975 TO AUGUST 1976

DAY	OCTOBER			NOVEMBER			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	85	71	76	95	78	86	124	68	85	---	---	---
2	98	87	93	105	87	91	115	80	99	---	---	---
3	99	89	95	118	86	91	120	78	95	---	---	---
4	102	96	98	98	91	95	116	82	95	---	---	---
5	107	100	104	97	92	95	107	78	98	---	---	---
6	126	101	107	96	94	95	---	---	---	109	108	108
7	105	92	100	---	---	---	104	75	92	110	108	109
8	105	87	95	---	---	---	168	102	120	111	108	109
9	122	97	102	---	---	---	191	99	122	109	107	108
10	107	101	104	---	---	---	146	117	130	107	104	105
11	111	99	104	---	---	---	146	116	129	106	104	105
12	---	---	---	---	---	---	146	115	129	106	101	104
13	118	80	86	---	---	---	127	113	117	100	98	99
14	91	83	86	---	---	---	123	102	116	102	99	100
15	89	83	85	---	---	---	124	101	109	105	101	103
16	95	82	87	---	---	---	112	86	99	104	103	104
17	96	90	94	---	---	---	---	---	---	104	102	103
18	100	76	90	---	---	---	---	---	---	104	103	103
19	79	72	75	---	---	---	---	---	---	104	97	100
20	78	64	70	---	---	---	---	---	---	97	95	96
21	74	62	67	---	---	---	---	---	---	99	96	97
22	76	73	75	---	---	---	---	---	---	99	97	98
23	83	77	80	---	---	---	---	---	---	100	99	100
24	86	77	82	---	---	---	---	---	---	101	99	100
25	92	77	85	---	---	---	---	---	---	101	100	100
26	88	83	85	---	---	---	---	---	---	102	101	102
27	87	84	86	---	---	---	---	---	---	104	103	103
28	109	84	91	---	---	---	---	---	---	105	104	105
29	95	87	91	---	---	---	---	---	---	108	106	106
30	114	86	94	---	---	---	---	---	---	111	109	110
31	91	81	86	---	---	---	---	---	---	113	111	112
MONTH	126	62	89	---	---	---	---	---	---	113	95	103

01183600 WESTFIELD RIVER AT WEST SPRINGFIELD, MA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), OCTOBER 1975 TO AUGUST 1976--Continued

	JUNE			JULY			AUGUST		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	113	111	112	184	173	178	159	135	152
2	115	111	113	173	169	170	145	112	135
3	113	111	112	172	169	171	135	110	128
4	116	113	114	179	172	176	138	107	121
5	118	116	117	178	176	177	89	74	77
6	119	118	119	180	145	176	---	---	---
7	124	120	122	183	178	180	---	---	---
8	121	120	120	184	179	181	---	---	---
9	123	122	123	185	145	180	---	---	---
10	126	124	125	182	180	181	---	---	---
11	127	126	127	188	182	185	---	---	---
12	135	131	133	189	185	186	---	---	---
13	138	136	137	190	183	186	---	---	---
14	141	139	140	192	184	188	---	---	---
15	144	142	144	193	189	191	---	---	---
16	146	144	145	191	189	190	---	---	---
17	150	147	148	187	183	185	---	---	---
18	153	150	152	187	181	184	---	---	---
19	154	152	153	184	178	180	---	---	---
20	157	156	157	181	175	179	---	---	---
21	161	155	159	176	171	173	---	---	---
22	160	152	156	173	169	171	---	---	---
23	166	157	160	171	169	171	---	---	---
24	167	163	165	165	161	164	---	---	---
25	165	161	162	161	159	160	---	---	---
26	167	165	166	160	156	158	---	---	---
27	169	168	169	157	153	155	---	---	---
28	173	170	172	153	146	148	---	---	---
29	179	175	177	178	149	163	---	---	---
30	182	179	180	168	144	156	---	---	---
31	---	---	---	161	137	155	---	---	---
MONTH	182	111	143	193	137	174	---	---	---
PERIOD	193	62	125						

PH (UNITS), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER			NOVEMBER			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.8	6.7	6.7	7.0	6.8	6.9	7.0	6.8	6.9	6.7	6.5	6.6
2	6.8	6.7	6.8	7.0	6.9	6.9	7.0	6.7	6.8	6.7	6.5	6.6
3	6.7	6.7	6.7	7.0	6.9	6.9	7.1	6.6	7.0	6.5	6.4	6.4
4	6.7	6.7	6.7	7.0	6.9	6.9	7.0	6.9	6.9	6.5	6.4	6.4
5	6.7	6.6	6.7	7.0	6.9	7.0	6.9	6.8	6.9	6.6	6.4	6.5
6	6.8	6.7	6.7	7.0	6.9	6.9	6.9	6.8	6.8	6.6	6.5	6.5
7	6.7	6.6	6.7	---	---	---	6.9	6.7	6.8	6.4	6.1	6.3
8	6.7	6.5	6.6	---	---	---	6.8	6.7	6.7	6.5	6.3	6.4
9	6.8	6.6	6.8	---	---	---	6.9	6.4	6.7	6.4	6.3	6.4
10	6.8	6.7	6.8	---	---	---	6.9	6.7	6.8	6.6	6.2	6.4
11	6.8	6.7	6.8	---	---	---	6.8	6.7	6.7	6.6	6.3	6.5
12	---	---	---	---	---	---	6.9	6.8	6.9	6.5	6.3	6.4
13	6.8	6.7	6.7	---	---	---	6.9	6.8	6.9	6.5	6.3	6.4
14	6.8	6.5	6.7	---	---	---	7.0	6.8	6.9	6.5	6.3	6.4
15	6.7	6.6	6.6	---	---	---	7.0	6.7	6.8	6.6	6.4	6.5
16	6.7	6.5	6.6	---	---	---	6.9	6.8	6.8	6.6	6.4	6.5
17	6.7	6.6	6.7	---	---	---	7.0	6.7	6.8	6.7	6.4	6.5
18	6.7	6.6	6.7	---	---	---	7.0	6.7	6.9	6.8	6.6	6.7
19	6.7	6.7	6.7	---	---	---	7.1	6.7	6.9	6.7	6.5	6.6
20	6.7	6.6	6.7	---	---	---	7.1	6.8	6.9	6.6	6.5	6.5
21	6.8	6.6	6.7	---	---	---	7.1	6.8	6.9	6.7	6.5	6.6
22	6.8	6.7	6.7	---	---	---	6.9	6.7	6.8	6.8	6.6	6.7
23	6.9	6.7	6.8	---	---	---	6.9	6.7	6.8	6.9	6.8	6.9
24	6.9	6.8	6.8	---	---	---	6.8	6.6	6.7	7.0	6.8	6.9
25	6.9	6.8	6.8	---	---	---	6.7	6.6	6.7	7.0	5.9	6.5
26	6.9	6.9	6.9	---	---	---	6.7	6.6	6.6	6.9	6.6	6.8
27	7.0	6.9	7.0	---	---	---	6.6	6.5	6.6	7.1	6.8	7.0
28	7.0	6.6	6.9	---	---	---	6.7	6.6	6.6	7.2	6.8	7.0
29	7.1	6.9	7.0	---	---	---	6.6	6.6	6.6	7.1	6.8	7.0
30	7.1	6.9	6.7	---	---	---	6.6	6.5	6.6	7.2	7.0	7.1
31	7.0	6.9	6.9	---	---	---	---	---	---	7.3	7.1	7.2
MONTH	7.1	6.5	6.8	---	---	---	7.1	6.4	6.8	7.3	5.9	6.6

CONNECTICUT RIVER BASIN

01183600 WESTFIELD RIVER AT WEST SPRINGFIELD, MA--Continued

PH (UNITS), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.2	7.0	7.1	6.6	6.4	6.5	7.2	7.0	7.1	7.0	6.8	6.9
2	7.3	6.9	7.1	6.6	6.3	6.4	7.3	6.9	7.1	6.9	6.7	6.8
3	7.3	6.9	7.1	6.5	6.3	6.4	7.2	7.0	7.1	6.8	6.6	6.7
4	7.3	6.9	7.1	6.5	6.4	6.5	7.4	7.0	7.2	6.9	6.7	6.8
5	7.3	6.9	7.2	6.7	6.4	6.5	7.3	7.0	7.1	6.9	6.7	6.8
6	7.2	7.0	7.1	7.2	6.4	6.8	7.3	7.0	7.2	6.9	6.8	6.8
7	7.3	7.0	7.1	7.0	6.5	6.7	7.2	6.9	7.1	7.0	6.7	6.9
8	7.5	6.8	7.2	7.4	6.5	6.8	6.9	6.8	6.9	7.0	6.8	6.9
9	7.5	6.9	7.2	7.6	6.6	7.0	6.9	6.8	6.8	7.1	6.8	6.9
10	7.5	6.9	7.2	7.8	6.7	7.1	7.0	6.5	6.8	7.1	7.0	7.0
11	7.4	6.8	7.0	7.4	6.7	7.0	6.7	6.5	6.6	7.0	6.8	6.9
12	7.4	7.0	7.2	7.3	6.7	7.0	6.8	6.6	6.7	7.0	6.8	6.9
13	7.3	7.0	7.1	7.1	6.6	6.9	6.9	6.7	6.8	7.0	6.3	6.8
14	7.4	7.0	7.2	6.9	6.7	6.8	7.0	6.8	6.9	7.0	6.8	6.8
15	7.5	7.0	7.2	7.0	6.7	6.8	6.9	6.9	6.9	7.1	6.9	7.0
16	7.5	7.0	7.2	7.1	6.6	6.9	7.0	6.9	6.9	6.9	6.7	6.8
17	7.2	6.9	7.0	7.2	6.6	6.9	7.1	6.9	7.0	6.8	6.7	6.8
18	7.3	6.8	7.0	7.2	6.7	6.9	7.2	7.0	7.0	6.8	6.7	6.8
19	7.0	6.8	6.9	7.4	6.8	7.1	7.1	6.9	7.0	6.8	6.7	6.7
20	6.9	6.6	6.8	7.6	6.8	7.2	7.1	6.8	6.9	6.9	6.7	6.8
21	7.0	6.7	6.8	7.1	6.9	7.0	7.2	6.9	7.1	6.9	6.8	6.8
22	6.9	6.5	6.7	7.9	6.8	7.3	7.0	6.9	7.0	6.9	6.7	6.8
23	7.0	6.6	6.8	7.8	7.2	7.4	7.3	6.8	7.0	6.9	6.8	6.8
24	7.0	6.6	6.8	7.5	7.1	7.3	7.4	6.9	7.1	6.9	6.8	6.8
25	6.8	6.4	6.6	7.7	7.2	7.4	7.6	6.9	7.2	6.9	6.7	6.8
26	6.9	6.5	6.7	8.3	7.2	7.6	7.3	6.9	7.1	6.8	6.6	6.7
27	6.9	6.6	6.7	8.1	7.3	7.6	7.2	6.8	7.0	6.8	6.5	6.7
28	7.1	6.5	6.8	9.1	7.3	8.1	7.0	6.6	6.8	6.8	6.5	6.6
29	6.8	6.5	6.6	8.2	7.2	7.5	7.1	6.9	7.0	6.8	6.7	6.7
30	6.7	6.4	6.6	7.2	7.0	7.1	7.2	6.9	7.0	6.8	6.7	6.7
31	---	---	---	7.3	6.9	7.1	7.1	6.9	7.0	---	---	---
MONTH	7.5	6.4	7.0	9.1	6.3	7.0	7.6	6.5	7.0	7.1	6.3	6.8
YEAR	9.1	5.9	6.9									

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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

01183600 WESTFIELD RIVER AT WEST SPRINGFIELD, MA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.5	17.0	18.0	24.0	22.5	23.5	22.5	21.0	21.5	21.0	19.0	20.0
2	17.5	16.5	17.0	24.5	23.0	23.5	22.5	21.0	21.5	20.5	17.5	19.5
3	18.0	15.5	16.5	24.0	22.0	23.0	22.5	20.5	21.5	20.0	17.0	18.5
4	18.0	16.5	17.5	24.0	22.0	23.0	23.0	20.0	21.5	19.5	17.0	18.5
5	18.5	17.0	18.0	25.0	23.0	24.0	24.0	21.0	22.5	21.0	16.0	18.5
6	18.5	17.0	18.0	26.5	24.0	25.0	23.0	21.0	22.0	20.5	18.0	19.0
7	17.5	16.5	17.0	25.5	24.0	24.5	22.5	20.0	21.5	20.0	17.5	18.5
8	19.5	17.5	18.5	26.0	23.5	24.5	20.5	17.5	19.0	20.0	16.5	18.0
9	21.0	19.0	20.0	27.0	23.5	25.0	20.5	17.5	19.0	20.0	16.5	19.0
10	23.5	20.5	22.0	26.5	23.5	25.0	20.5	18.5	19.5	20.5	17.5	19.0
11	23.5	22.0	22.5	25.5	24.5	25.0	20.5	18.0	19.5	19.5	17.0	18.5
12	23.0	22.0	22.5	25.5	24.5	25.0	21.0	18.5	20.0	20.0	16.5	18.5
13	22.0	20.5	21.5	24.0	23.0	23.5	22.0	19.5	21.0	19.5	17.5	18.5
14	21.5	20.0	21.0	23.0	22.0	22.5	23.0	21.0	22.0	20.0	17.5	19.0
15	23.5	20.5	22.0	23.5	21.5	22.5	23.5	22.5	23.0	20.5	18.0	19.0
16	25.0	22.0	23.5	23.0	22.0	22.5	23.0	22.0	22.5	19.5	17.0	18.5
17	24.5	23.0	23.5	24.0	22.0	23.0	22.5	21.0	21.5	18.5	17.0	18.0
18	24.5	22.0	23.5	23.0	21.5	22.5	22.5	20.5	21.5	19.5	16.5	18.0
19	25.0	23.5	24.0	24.0	21.5	22.5	21.5	20.0	21.0	19.5	18.0	18.5
20	24.0	23.0	23.5	25.0	22.0	23.5	22.0	20.0	21.0	19.5	17.5	18.5
21	24.0	22.5	23.0	24.0	23.0	23.5	22.5	20.5	21.5	19.5	17.5	18.0
22	24.0	22.5	23.0	25.5	22.5	23.5	23.0	21.0	22.0	18.0	15.5	17.0
23	25.5	23.0	24.5	24.5	23.0	23.5	24.5	22.5	23.5	17.5	14.0	15.5
24	26.0	24.0	25.0	24.5	22.5	23.5	24.0	22.5	23.0	17.0	14.5	16.0
25	26.0	25.0	25.5	24.0	23.0	23.5	24.5	21.5	23.0	17.5	16.0	17.0
26	26.5	24.0	25.0	24.5	21.5	23.0	23.0	21.0	22.5	16.5	15.5	16.0
27	26.5	24.5	25.5	23.5	22.5	23.0	23.0	21.5	22.5	16.5	15.0	15.5
28	26.0	24.0	25.0	25.5	22.5	24.0	22.5	20.5	21.5	16.5	15.0	15.5
29	25.0	23.5	24.5	23.5	22.0	23.0	23.0	22.0	22.5	16.0	14.0	15.0
30	24.5	23.5	24.0	22.0	20.5	21.5	22.0	20.5	21.5	15.5	13.5	14.0
31	---	---	---	21.5	20.0	21.0	21.5	19.5	20.5	---	---	---
MONTH	26.5	15.5	22.0	27.0	20.0	23.5	24.5	17.5	21.5	21.0	13.5	18.0
YEAR	27.0	5.5	17.0									

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.4	8.6	9.2	14.5	13.5	14.2	7.4	4.2	6.4	10.6	10.1	10.4
2	8.6	8.4	8.6	14.5	13.4	14.0	6.7	6.1	6.5	10.8	10.3	10.6
3	9.6	8.9	9.3	13.3	12.1	12.8	7.5	6.4	7.0	10.8	10.5	10.6
4	9.9	8.9	9.4	12.1	10.7	11.4	7.7	6.8	7.3	11.6	11.0	11.4
5	9.6	8.9	9.2	10.9	10.3	10.5	9.6	7.2	8.3	12.5	11.6	12.1
6	8.9	8.1	8.6	11.3	10.3	10.8	9.3	7.5	8.3	12.2	10.5	11.6
7	8.6	7.9	8.2	---	---	---	8.4	6.5	7.5	11.7	10.2	11.2
8	9.3	8.1	8.8	---	---	---	7.5	6.6	7.0	12.3	11.5	11.9
9	8.9	7.4	8.7	---	---	---	7.4	6.1	6.8	13.0	11.5	12.1
10	9.2	8.5	8.9	---	---	---	7.5	5.6	6.5	12.6	10.3	11.4
11	8.8	8.6	8.8	---	---	---	7.2	6.0	6.5	10.7	9.3	10.0
12	---	---	---	---	---	---	8.8	7.4	8.0	9.6	8.7	9.1
13	9.7	8.8	9.1	---	---	---	9.5	6.8	7.9	10.1	9.2	9.8
14	9.2	8.3	8.8	---	---	---	8.2	5.8	7.3	10.5	9.1	9.9
15	8.9	7.9	8.4	---	---	---	7.6	6.0	6.7	9.2	8.0	8.7
16	8.4	7.7	8.1	---	---	---	6.6	5.6	6.3	8.2	7.9	8.0
17	9.1	8.2	8.7	---	---	---	6.8	5.2	6.0	8.4	7.9	8.2
18	10.4	9.2	9.8	---	---	---	6.3	5.3	5.8	8.5	8.1	8.3
19	11.0	10.5	10.8	---	---	---	6.7	5.5	5.9	11.9	8.3	10.0
20	11.3	11.0	11.2	---	---	---	6.5	5.8	6.0	12.7	11.8	12.3
21	11.7	10.5	11.1	---	---	---	6.7	6.0	6.3	12.1	11.2	11.7
22	10.5	9.8	10.2	---	---	---	6.9	6.5	6.7	11.3	10.7	11.0
23	10.4	9.7	10.0	---	---	---	7.6	7.0	7.3	11.6	10.0	10.7
24	10.4	9.4	10.0	---	---	---	8.1	7.4	7.9	10.8	9.5	10.0
25	9.9	9.2	9.6	---	---	---	8.9	8.1	8.4	10.5	9.9	10.5
26	9.7	9.3	9.5	---	---	---	10.2	9.2	9.8	10.7	10.3	10.5
27	10.4	9.6	10.0	---	---	---	11.0	10.5	10.8	11.0	9.1	10.2
28	11.4	10.0	10.7	---	---	---	11.0	10.1	10.7	9.6	7.8	8.8
29	11.3	9.8	10.6	---	---	---	10.6	9.8	10.3	8.4	7.8	8.1
30	11.5	9.1	10.1	---	---	---	10.7	9.7	10.3	8.1	7.8	7.9
31	13.3	11.7	12.7	---	---	---	---	---	---	8.2	7.4	7.8
MONTH	13.3	7.4	9.6	---	---	---	11.0	4.2	7.6	13.0	7.4	10.2

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

01183750 CONNECTICUT RIVER AT AGAWAM, MA

LOCATION.--Lat 42°02'57", long 72°36'35", Hampden County, multiple-parameter monitor on right bank at Agawam, MA, 1.4 mi (2.3 km) upstream from Massachusetts-Connecticut State line, and 4.5 mi (7.2 km) upstream from gaging station at Thompsonville, CT.

DRAINAGE AREA.--9,661 mi² (25,022 km²) at gage at Thompsonville, CT.

PERIOD OF RECORD.--Water years 1969 to current year. Prior to October 1971, published as "01184000 Connecticut River at Thompsonville, CT."

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1969 to current year.

pH: January 1969 to current year.

DISSOLVED OXYGEN: January 1969 to current year.

WATER TEMPERATURES: January 1969 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1969.

REMARKS.--Figures of daily discharge for gaging station at Thompsonville, CT. (station 01184000) are used for this site.

EXTREMES FOR PERIOD OF DAILY RECORDS.--

SPECIFIC CONDUCTANCE: Maximum, 268 micromhos Feb. 3, 1973; minimum, 49 micromhos Apr. 23, 1969.

pH: Maximum, 9.7 units Aug. 9, 1970; minimum, 5.6 units June 1, 21, 1976.

DISSOLVED OXYGEN: Maximum, 15.9 mg/L Feb. 17, 1971; minimum, 1.0 mg/L Aug. 20, 1971.

WATER TEMPERATURES: Maximum, 31.5°C Aug. 16, 1970; minimum, 0.0°C on several days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 204 micromhos June 16; minimum recorded, 74 micromhos Aug. 12; maximum and minimum may have been higher or lower during periods of missing record.

pH: Maximum recorded, 8.6 units July 26; minimum recorded, 5.6 units June 1, 21; maximum and minimum may have been higher or lower during periods of missing record.

DISSOLVED OXYGEN: Maximum recorded, 13.1 mg/L May 20; minimum recorded, 6.4 mg/L July 22, 23, 31; maximum and minimum may have been higher or lower during periods of missing record.

WATER TEMPERATURES: Maximum, 27.0°C June 24, 28, July 12; minimum, probably 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	pH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	COD IN BOTTOM MATERIAL (MG/KG)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)
OCT 22...	1400	72	7.0	32.0	11.0	15	9.6	16	--	9100	1000	1100
NOV 11...	1230	78	6.9	13.5	12.5	2	10.3	9	--	24000	1900	710
DEC 09...	1330	118	6.8	6.0	3.0	2	12.3	9	43000	31000	890	530
APR 29...	1100	118	7.0	19.5	10.0	2	11.2	7	64000	49000	1300	950
MAY 12...	1000	132	6.7	14.0	14.5	2	9.7	8	--	47000	17000	8280
JUN 23...	1130	178	7.3	25.0	26.0	2	8.1	12	--	63000	3100	110
JUL 20...	0930	152	6.9	33.0	24.0	3	7.1	14	--	260000	9600	--
SEP 09...	1030	154	8.9	19.0	20.6	5	11.6	18	20000	260000	18000	120
20...	0930	152	6.9	33.0	24.0	--	7.1	--	--	--	--	--

B NON-IDEAL COLONY COUNT.

CONNECTICUT RIVER BASIN

01183750 CONNECTICUT RIVER AT AGAWAM, MA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	LOSS ON IGNI- TION IN BOTTOM MA- TERIAL (MG/KG)	TOTAL NITRATE (N) (MG/L)
OCT 22...	--	--	--	--	--	--	--	--	27	52	--	.13
NOV 11...	--	--	--	--	--	--	--	--	3	30	--	.29
DEC 09...	8.2	.3	22	0	18	5.0	12	9.4	5	62	73000	.31
APR 29...	9.0	1.5	18	0	15	2.6	9.2	6.4	5	74	47000	.28
MAY 12...	--	--	--	--	--	--	--	--	11	62	--	.35
JUN 23...	--	--	--	--	--	--	--	--	12	88	--	.26
JUL 20...	--	--	--	--	--	--	--	--	6	284	--	.35
SEP 09...	15	2.3	44	0	36	.1	14	13	14	98	9500	.20
20...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	PHENOLS (UG/L)	OIL AND GREASE (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)
OCT 22...	.01	.14	.00	.40	.40	.54	.08	--	0	.000	.000
NOV 11...	.01	.30	.05	.18	.23	.53	.05	--	1	.000	.000
DEC 09...	.01	.32	.05	.18	.23	.55	.04	0	0	--	--
APR 29...	.01	.29	.04	.21	.25	.54	.05	0	0	--	--
MAY 12...	.01	.36	.10	.15	.25	.61	.05	--	0	--	--
JUN 23...	.03	.29	.12	.41	.53	.82	.08	--	0	--	--
JUL 20...	.01	.36	.13	.45	.58	.94	.08	--	0	2.02	.000
SEP 09...	.02	.22	.10	.40	.50	.72	.11	0	0	27.1	.000
20...	--	--	--	--	--	--	--	--	--	23.1	5.83

DATE	TOTAL ALUMI- NIUM (AL) (UG/L)	TOTAL ALUMI- NIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL BARIUM (BA) (UG/L)	TOTAL BARIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL BERYL- LIUM (BE) (UG/L)	TOTAL BERYL- LIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL BISMUTH (BI) (UG/L)	TOTAL BORON (B) (UG/L)	TOTAL BORON IN BOTTOM MA- TERIAL (UG/G)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CADMIUM IN BOTTOM MA- TERIAL (UG/G)
APR 29...	260	23000	20	350	<0	3	<2	10	40	0	<100

DATE	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL CHRO- MIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL COBALT (CO) (UG/L)	TOTAL COBALT IN BOTTOM MA- TERIAL (UG/G)	TOTAL COPPER (CU) (UG/L)	TOTAL COPPER IN BOTTOM MA- TERIAL (UG/G)	TOTAL GALLIUM (GA) (UG/L)	TOTAL GER- MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL IRON IN BOTTOM MA- TERIAL (UG/G)	TOTAL LEAD (PB) (UG/L)
APR 29...	2	120	<1	60	2	380	<1	<3	480	5000	4

01183750 CONNECTICUT RIVER AT AGAWAM, MA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL LEAD IN BOTTOM MA- TERIAL (UG/G)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MANGA- NESE IN BOTTOM MA- TERIAL (UG/G)	TOTAL MOLYB- DENUM (MO) (UG/L)	TOTAL MOLYB- DENUM IN BOT- TOM MA- TERIAL (UG/G)	TOTAL NICKEL (NI) (UG/L)	TOTAL NICKEL IN BOTTOM MA- TERIAL (UG/G)	TOTAL SILVER (AG) (UG/L)	TOTAL SILVER IN BOTTOM MA- TERIAL (UG/G)
APR 29...	460	0	60	2400	1	10	5	300	<0	4

DATE	TOTAL STRON- TIUM (SR) (UG/L)	TOT- STRON- TIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL TIN (SN) (UG/L)	TOTAL TI- TANIUM (TI) (UG/L)	TOTAL TITA- NIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL VANA- DIUM (V) (UG/L)	TOTAL VANA- DIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL ZINC (ZN) (UG/L)	TOTAL ZINC IN BOTTOM MA- TERIAL (UG/G)	TOTAL ZIR- CONIUM (ZR) (UG/L)
APR 29...	40	60	<2	20	1600	4.0	90	20	1200	<2

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDED GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED GROSS BETA AS AS SR90 /Y90 (PC/L)	SUS- PENDED GROSS BETA AS AS SR90 /Y90 (PC/L)
OCT 22...	.6	2.0	2.3	1.7	1.8	1.4
NOV 11...	1.0	<.4	2.4	<.4	1.9	<.4
APR 29...	<.7	<.4	1.9	<.4	1.5	<.4

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL PCB (UG/L)	POLY- CHLO- RINATED NAPH- THA- LENES (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)
DEC 09...	.0	--	.00	.0	.00	.00	.00
APR 29...	.0	.00	.00	.0	.00	.00	.00

DATE	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL TOX- APHENE (UG/L)
DEC 09...	.00	.00	.00	.00	.00	0
APR 29...	.00	.00	.00	.00	.00	0

01183750 CONNECTICUT RIVER AT AGAWAM, MA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), MAY TO SEPTEMBER 1976

[illegible]

01183750 CONNECTICUT RIVER AT AGAWAM, MA--Continued

PH (UNITS), MAY TO AUGUST 1976

DAY	MAY			JUNE			JULY			AUGUST		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	6.1	5.6	5.9	7.6	6.9	7.2	7.8	7.3	7.5
2	---	---	---	6.6	6.1	6.3	7.8	7.5	7.7	7.8	7.6	7.7
3	---	---	---	6.8	6.6	6.7	7.8	7.6	7.7	7.7	7.5	7.6
4	---	---	---	7.0	6.9	6.9	7.5	7.3	7.4	7.4	7.2	7.3
5	---	---	---	7.0	6.8	6.9	7.3	7.1	7.3	7.2	7.1	7.2
6	---	---	---	7.0	6.7	6.9	7.2	7.1	7.2	7.1	6.7	6.9
7	---	---	---	6.7	6.2	6.5	7.5	7.1	7.2	6.9	6.7	6.8
8	---	---	---	6.7	6.4	6.5	7.4	7.0	7.2	6.8	6.8	6.8
9	---	---	---	6.9	6.6	6.8	7.3	7.0	7.2	---	---	---
10	---	---	---	6.7	6.4	6.6	7.5	7.2	7.3	---	---	---
11	---	---	---	6.9	6.7	6.8	7.8	7.1	7.4	---	---	---
12	---	---	---	7.3	6.7	7.1	7.8	6.8	7.2	---	---	---
13	---	---	---	7.4	7.1	7.3	7.8	7.4	7.5	---	---	---
14	---	---	---	7.1	6.9	7.0	7.4	7.3	7.3	---	---	---
15	---	---	---	6.9	6.6	6.8	7.5	7.0	7.2	6.6	6.1	6.1
16	---	---	---	7.1	6.4	6.7	7.1	6.7	7.0	7.7	6.6	7.2
17	---	---	---	6.8	6.1	6.4	6.8	6.4	6.6	7.7	7.5	7.6
18	---	---	---	6.9	6.5	6.7	7.0	6.8	6.9	---	---	---
19	---	---	---	6.9	6.5	6.7	7.3	6.8	7.0	---	---	---
20	---	---	---	6.4	5.7	6.1	7.7	6.7	7.2	---	---	---
21	---	---	---	7.0	5.6	6.3	7.0	6.8	7.0	---	---	---
22	---	---	---	7.3	6.1	6.7	7.3	6.8	7.0	---	---	---
23	---	---	---	7.7	7.1	7.4	7.4	7.0	7.1	---	---	---
24	---	---	---	7.9	7.0	7.4	7.3	6.7	7.0	---	---	---
25	6.7	6.7	6.7	8.1	7.3	7.7	8.2	6.9	7.5	---	---	---
26	6.7	6.6	6.6	8.4	8.0	8.2	8.6	7.2	7.6	---	---	---
27	6.6	6.4	6.5	8.3	7.9	8.2	7.9	7.2	7.5	---	---	---
28	6.7	6.5	6.6	8.3	8.0	8.2	7.8	7.1	7.4	---	---	---
29	6.8	6.6	6.7	8.0	7.5	7.7	7.5	7.2	7.4	---	---	---
30	6.7	6.0	6.3	7.5	7.1	7.3	7.2	7.0	7.1	---	---	---
31	6.1	5.8	6.0	---	---	---	7.4	7.0	7.2	---	---	---
MONTH	---	---	---	8.4	5.6	7.0	8.6	6.4	7.2	---	---	---
PERIOD	8.6	5.6	7.1									

DISSOLVED OXYGEN (DO), MG/L, MAY TO SEPTEMBER 1976

DAY	MAY		
	MAX	MIN	MEAN
1	---	---	---
2	---	---	---
3	---	---	---
4	---	---	---
5	---	---	---
6	---	---	---
7	---	---	---
8	---	---	---
9	---	---	---
10	---	---	---
11	---	---	---
12	---	---	---
13	---	---	---
14	---	---	---
15	---	---	---
16	---	---	---
17	---	---	---
18	11.0	9.0	10.2
19	12.7	10.7	11.6
20	13.1	11.7	12.6
21	12.9	12.6	12.7
22	12.7	12.5	12.6
23	12.2	11.7	12.0
24	11.4	10.9	11.2
25	10.5	10.3	10.4
26	10.4	10.3	10.4
27	10.4	10.1	10.2
28	10.2	9.7	9.9
29	9.8	9.5	9.7
30	9.6	9.3	9.4
31	9.3	9.0	9.1
MONTH	---	---	---

CONNECTICUT RIVER BASIN

01183750 CONNECTICUT RIVER AT AGAWAM, MA--Continued

DISSOLVED OXYGEN (DO), MG/L, MAY TO SEPTEMBER 1976--Continued

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.0	8.8	8.9	7.8	7.0	7.4	7.1	6.7	6.9	8.6	8.2	8.4
2	9.1	8.8	8.9	8.1	7.6	7.9	7.4	6.9	7.2	8.7	8.4	8.5
3	9.1	8.8	8.9	8.2	7.7	7.9	7.7	7.3	7.5	9.2	8.9	9.1
4	9.1	8.7	8.9	8.0	7.7	7.8	7.7	7.4	7.5	9.8	9.2	9.5
5	9.0	8.6	8.8	7.8	7.4	7.7	7.6	7.3	7.4	10.2	9.7	10.0
6	8.7	8.1	8.5	7.9	7.2	7.6	7.5	7.2	7.3	11.3	10.1	10.8
7	8.9	8.4	8.7	7.9	7.2	7.6	7.4	7.1	7.3	12.5	10.7	11.5
8	8.8	8.3	8.7	7.7	7.1	7.4	7.6	7.2	7.5	12.0	10.7	11.4
9	8.7	7.2	7.8	7.5	7.1	7.3	7.5	7.4	7.5	12.5	10.8	11.6
10	7.5	6.8	7.2	7.5	6.9	7.2	7.9	7.5	7.7	11.6	10.2	10.9
11	8.0	6.6	7.4	7.7	6.9	7.3	8.4	8.0	8.3	10.6	9.7	10.2
12	8.1	7.7	8.0	7.9	6.8	7.2	8.4	8.1	8.3	11.1	9.6	10.5
13	8.1	7.7	7.9	7.9	7.2	7.5	8.1	7.8	8.0	11.1	9.7	10.5
14	8.0	7.6	7.8	8.0	7.4	7.7	7.8	7.5	7.6	10.7	9.6	10.1
15	8.1	7.5	7.8	8.0	7.4	7.7	7.8	7.6	7.7	10.4	9.1	9.7
16	7.9	7.6	7.7	7.7	7.1	7.5	7.8	7.5	7.6	10.2	9.0	9.5
17	7.7	7.2	7.3	7.5	6.8	7.1	7.8	7.7	7.7	9.3	8.7	9.0
18	7.6	7.1	7.4	7.8	6.9	7.4	8.5	7.7	8.0	9.0	8.2	8.7
19	7.8	7.3	7.5	8.2	6.7	7.5	8.6	8.3	8.4	8.2	7.6	7.9
20	7.8	7.2	7.5	8.3	6.8	7.5	8.5	8.3	8.4	---	---	---
21	8.0	7.2	7.6	7.6	6.7	7.2	8.5	7.8	8.2	---	---	---
22	7.9	7.3	7.6	7.5	6.4	7.0	8.2	7.7	8.0	---	---	---
23	8.1	7.5	7.8	8.4	6.4	7.3	7.8	7.4	7.6	---	---	---
24	8.3	7.6	8.0	8.0	6.5	7.2	7.7	7.3	7.6	---	---	---
25	8.0	7.3	7.7	8.2	6.5	7.4	7.8	7.3	7.5	---	---	---
26	8.0	7.3	7.7	8.4	6.8	7.6	8.0	7.4	7.7	---	---	---
27	8.4	7.5	8.0	8.0	6.9	7.4	7.7	7.0	7.3	---	---	---
28	8.3	7.7	8.0	7.9	6.8	7.3	7.4	7.1	7.3	---	---	---
29	7.7	7.3	7.5	7.3	6.7	7.1	7.5	7.3	7.4	---	---	---
30	7.6	7.2	7.4	6.9	6.6	6.7	8.0	7.4	7.6	---	---	---
31	---	---	---	7.2	6.4	6.8	8.4	7.6	8.0	---	---	---
MONTH	9.1	6.6	8.0	8.4	6.4	7.4	8.6	6.7	7.7	---	---	---
PERIOD	13.1	6.4	8.4									

TEMPERATURE (DEG. C) OF WATER, MAY TO SEPTEMBER 1976

MAY			
DAY	MAX	MIN	MEAN
1	---	---	---
2	---	---	---
3	---	---	---
4	---	---	---
5	---	---	---
6	---	---	---
7	---	---	---
8	---	---	---
9	---	---	---
10	---	---	---
11	---	---	---
12	---	---	---
13	---	---	---
14	---	---	---
15	---	---	---
16	---	---	---
17	---	---	---
18	16.5	16.0	16.5
19	16.0	13.0	15.0
20	13.0	12.0	12.5
21	12.5	12.0	12.0
22	12.0	11.5	12.0
23	12.5	11.5	12.0
24	13.5	12.5	13.0
25	13.0	13.0	13.0
26	13.0	12.5	13.0
27	14.0	12.5	13.5
28	15.5	13.5	14.5
29	16.0	15.0	15.5
30	16.5	16.0	16.5
31	18.0	16.5	17.0
MONTH	---	---	---

CONNECTICUT RIVER BASIN

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT
(National stream-quality accounting network 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 (2 km) downstream from Thompsonville, 3 mi (5 km) downstream from Massachusetts-Connecticut State line, and at mile 68.2 (109.7 km).

DRAINAGE AREA.--9,661 mi² (25,022 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 741: 1932. WSP 891: Drainage area.

GAGE.--Water-stage recorders on river and on canal of Connecticut Light and Power Co. Datum of gage is 38.48 ft (11.729 m) above mean sea level.

REMARKS.--Records good. Discharge includes water diverted around station by canal of Connecticut Light and Power Co. Flow regulated by powerplants, by diversion from Chicopee River basin (see table below), and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, Quabbin Reservoir, and other reservoirs, combined usable capacity, about 107 billion cubic feet (3.03 billion cubic meters).

AVERAGE DISCHARGE.--48 years, 16,230 ft³/s (459.8 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 282,000 ft³/s (7,990 m³/s) Mar. 20, 1936, gage height, 16.6 ft (5.06 m), from floodmarks; minimum daily, 968 ft³/s (27.4 m³/s) Oct. 20, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 107,000 ft³/s (3,030 m³/s) Apr. 3, gage height, 7.45 ft (2.217 m); minimum daily, 2,130 ft³/s (60.3 m³/s) Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31100	17000	20500	16900	37000	43000	67900	24200	15600	12800	14300	9320
2	26000	15000	23500	15400	38100	41900	91100	27000	14900	16000	17800	10200
3	21900	13500	27000	14700	39800	37800	105000	35900	16100	13400	21400	10800
4	19400	13300	28500	13600	39600	32000	97200	36000	16800	11600	16400	9690
5	15100	15800	24100	12100	34900	30200	86000	33300	14600	8680	13600	9210
6	11900	18700	21300	13400	30900	33500	74300	28600	9400	6890	13200	7640
7	12600	18500	20500	14000	26900	40400	63400	26700	7920	7030	12300	5740
8	12000	18700	17600	15700	25300	38800	55100	24700	10400	7670	14500	7270
9	12700	16400	18200	14800	22800	33300	46000	24000	10500	7860	14900	7770
10	11300	15600	25500	12700	21800	28800	35400	22800	11600	8620	24600	7600
11	11700	20400	30100	10500	19900	26900	28600	19200	9970	6580	55300	7360
12	16800	24700	25300	10600	20900	26100	28500	18700	9080	7930	50900	9140
13	28300	32800	23000	12900	21400	24800	24000	22700	7200	13500	41600	8610
14	28700	48400	18600	15200	20500	26000	23100	28700	5090	16200	33600	7940
15	27100	51900	18100	17300	17400	24500	23400	28500	7040	12500	28100	6280
16	22700	45400	21200	17000	18100	24000	23700	29200	6430	9700	24400	7530
17	20100	37300	21200	15700	21000	23400	24400	28300	8710	7760	25400	8100
18	26400	32200	18700	13500	24900	21100	29400	24100	8620	7110	26400	6710
19	52000	28600	15500	12300	28000	20700	33500	30300	7680	5620	24200	4840
20	62600	25800	8970	13400	30300	21900	35100	48400	7610	7190	23800	6650
21	83100	25800	10600	14000	28600	26300	33900	59200	6190	6710	14100	8710
22	78300	36800	13500	13000	30300	43000	31900	52300	7450	7260	13200	7120
23	65600	39800	13800	12800	42400	56500	30300	42700	9800	4640	10600	6580
24	49500	35800	13700	12800	44800	53400	26000	36600	11900	6200	10300	7530
25	41100	31600	13300	12700	40700	44900	22300	31300	11800	6710	9960	6210
26	35500	27800	13900	10100	37100	48900	27100	28200	10200	6420	8880	2130
27	30700	26700	16700	17000	37100	51500	30300	27300	8450	8270	8290	4460
28	29600	29900	18100	36600	42500	57400	29200	23700	11400	8180	6500	13200
29	26500	31000	16000	50100	46200	76700	26000	21200	12400	9690	6820	13800
30	23000	25300	16000	50300	---	81600	25500	19100	8880	11000	6500	13600
31	20000	---	16800	42400	---	71600	---	16600	---	10800	7430	---
TOTAL	953300	820500	589770	553500	889200	1210900	1277600	919500	303720	280520	599280	241740
MEAN	30750	27350	19020	17850	30660	39060	42590	29660	10120	9049	19330	8058
MAX	83100	51900	30100	50300	46200	81600	105000	59200	16800	16200	55300	13800
MIN	11300	13300	8970	10100	17400	20700	22300	16600	5090	4640	6500	2130
(†)	191	0	438	297	218	460	352	462	405	497	328	364
CAL YR 1975 TOTAL	7102640			MEAN 19460	MAX 83100	MIN 2540						
WTR YR 1976 TOTAL	8639530			MEAN 23610	MAX 105000	MIN 2130						

† Diversion, in cubic feet per second, from Chicopee River basin to Wachusett Reservoir.

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 1973 to current year.

WATER TEMPERATURES: October 1955 to September 1956, October 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 171 micromhos Jan. 14, 1976; minimum, 55 micromhos Oct. 21, 22, 1975.

WATER TEMPERATURES: Maximum, 32°C Aug. 3, 1975; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 171 micromhos Jan. 14; minimum, 55 micromhos Oct. 21, 22.

WATER TEMPERATURES: Maximum, 27.5°C June 24-28, July 12; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
OCT 29...	1430	26500	92	6.6	23.0	11.0	9	4	10.3	93	10000	2400
NOV 19...	0950	28600	82	6.8	14.5	7.0	7	4	11.7	96	5700	740
DEC 17...	0930	21000	68	7.0	1.0	3.0	5	3	12.4	92	7000	800
JAN 21...	0915	14000	142	--	<-5.0	.0	4	4	13.4	91	22000	420
FEB 11...	1115	19900	108	7.3	7.0	.5	3	4	13.5	94	10000	460
MAR 17...	1000	23400	102	6.9	-3.0	1.0	5	4	14.1	99	2300	350
APR 21...	0920	33900	76	6.7	21.5	13.0	9	6	10.2	96	36000	940
MAY 12...	0940	18700	106	6.6	15.5	14.0	10	2	9.8	94	120000	3200
JUN 16...	0915	6430	108	7.1	26.0	23.0	4	4	7.8	114	180000	22000
JUL 21...	0855	6710	118	7.1	23.5	24.0	4	3	6.2	73	180000	12000
AUG 04...	0900	16400	128	7.2	18.5	21.0	7	4	7.6	84	8100000	811000
SEP 22...	0920	7120	125	7.1	13.5	20.0	10	4	7.9	86	280000	28000

DATE	STREPTOCOCCI (COLONIES PER 100 ML)	HARDNESS (CA, MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CAC03 (MG/L)
OCT 29...	580	36	18	11	2.0	--	--	--	--	22	0	18
NOV 19...	540	23	0	8.5	.5	--	--	--	--	29	0	24
DEC 17...	1200	27	9	8.0	1.7	--	--	--	--	22	0	18
JAN 21...	980	31	7	10	1.5	--	--	--	--	30	--	25
FEB 11...	560	27	11	8.5	1.3	7.3	36	.6	.9	19	0	16
MAR 17...	170	28	11	8.5	1.7	--	--	--	--	21	0	17
APR 21...	190	30	5	10	1.2	--	--	--	--	30	0	25
MAY 12...	320	30	7	9.5	1.6	4.9	25	.4	.9	28	0	23
JUN 16...	460	42	5	13	2.2	7.8	28	.5	1.4	44	0	36
JUL 21...	320	37	4	12	1.7	6.5	27	.5	1.5	40	0	33
AUG 04...	640	36	3	12	1.5	5.8	25	.4	1.2	41	0	34
SEP 22...	900	37	2	12	1.8	7.2	29	.5	1.4	43	0	35

B NON-IDEAL COLONY COUNT.

CONNECTICUT RIVER BASIN

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CARBON DIOXIDE (CO ₂) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT 29...	8.8	11	6.6	--	6.5	59	--	--	.08	4220	--
NOV 19...	7.4	9.8	6.9	--	6.3	43	55	--	.06	3320	6
DEC 17...	3.5	11	6.8	--	6.0	57	--	--	.08	3230	--
JAN 21...	--	11	11	--	7.0	69	--	--	.09	2610	--
FEB 11...	1.5	11	11	.1	6.6	58	--	56	.08	3120	--
MAR 17...	4.2	12	10	--	6.1	60	--	--	.08	3790	--
APR 21...	9.6	7.4	5.8	--	5.1	47	--	--	.06	4300	--
MAY 12...	11	8.0	6.7	.1	5.2	64	--	51	.09	3230	--
JUN 16...	5.6	12	12	.1	4.9	73	--	75	.10	1270	--
JUL 21...	5.1	9.0	8.3	.1	4.6	71	--	64	.10	1290	--
AUG 04...	4.1	10	7.5	.1	5.2	69	--	64	.09	3060	--
SEP 22...	5.5	9.0	10	.1	5.0	82	76	68	.11	1580	7

DATE	TOTAL RESI- DUE (MG/L)	LOSS ON IGNI- TION IN BOTTOM MA- TERIAL (MG/KG)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA (NH ₄) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (NO ₃) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT 29...	65	--	.28	.05	.06	.31	.36	.64	2.8	.07
NOV 19...	79	--	.25	.02	.03	.30	.32	.57	2.5	.06
DEC 17...	59	--	.35	.04	.05	.19	.23	.58	2.6	.05
JAN 21...	76	--	.50	.09	.12	.28	.37	.87	3.9	.07
FEB 11...	65	--	.45	.07	.09	.21	.28	.73	3.2	.06
MAR 17...	76	--	.49	.07	.09	.24	.31	.80	3.5	.06
APR 21...	63	--	.37	.04	.05	.19	.23	.60	2.7	.05
MAY 12...	80	--	.33	.05	.06	.35	.40	.73	3.2	.07
JUN 16...	92	--	.28	.29	.37	.31	.60	.88	3.9	.12
JUL 21...	81	--	.26	.16	.21	.47	.63	.89	3.9	.13
AUG 04...	81	7300	.29	.08	.10	.57	.65	.94	4.2	.12
SEP 22...	90	--	.32	.18	.23	.35	.53	.85	3.8	.13

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

WATER QUALITY DATA. WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDE D ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC IN BOTTOM MA- TERIAL (UG/G)	TOTAL CAD- MIUM (CD) (UG/L)	SUS- PENDE D CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CADMIUM IN BOTTOM MA- TERIAL (UG/G)	TOTAL CHRO- MIUM (CR) (UG/L)	SUS- PENDE D CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL CHRO- MIUM IN BOTTOM MA- TERIAL (UG/G)
OCT 29...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 19...	0	0	0	--	2	0	2	--	10	10	0	--
DEC 17...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 21...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 11...	0	0	0	--	1	0	1	--	<10	0	<10	--
MAR 17...	--	--	--	--	--	--	--	--	--	--	--	--
APR 21...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	0	0	0	--	2	0	2	--	20	10	10	--
JUN 16...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 21...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 04...	1	0	1	2	2	0	2	0	20	10	10	5
SEP 22...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TOTAL COBALT (CO) (UG/L)	SUS- PENDE D COBALT (CO) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS- PENDE D COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL COPPER IN BOTTOM MA- TERIAL (UG/G)	TOTAL IRON (FE) (UG/L)	SUS- PENDE D IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL IRON IN BOTTOM MA- TERIAL (UG/G)
OCT 29...	--	--	--	--	--	0	--	--	--	150	--
NOV 19...	1	0	1	10	10	0	--	360	280	80	--
DEC 17...	--	--	--	--	--	0	--	--	--	100	--
JAN 21...	--	--	--	--	--	10	--	--	--	140	--
FEB 11...	0	0	0	0	0	0	--	390	290	100	--
MAR 17...	--	--	--	--	--	0	--	--	--	90	--
APR 21...	--	--	--	--	--	0	--	--	--	70	--
MAY 12...	1	0	1	10	10	0	--	640	490	150	--
JUN 16...	--	--	--	--	--	10	--	--	--	90	--
JUL 21...	--	--	--	--	--	0	--	--	--	60	--
AUG 04...	0	0	0	30	30	0	9	550	420	130	4100
SEP 22...	--	--	--	--	--	0	--	--	--	110	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

CONNECTICUT RIVER BASIN

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	ORGANIC CARBON IN BOT- TOM MA- TERIAL (C) (G/KG)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	OIL AND GREASE (MG/L)	TOTAL PHYTO- PLANK- TON (CELLS PER ML)	CHLORO- PHYLL A (UG/L)
OCT 29...	5.4	--	.00	--	.0	0	750	.000
NOV 19...	4.1	--	.01	3	.0	0	--	.000
DEC 17...	2.9	--	.00	--	.0	0	110	.000
JAN 21...	3.0	--	.01	--	.0	1	190	.000
FEB 11...	3.2	--	.00	--	.0	1	1000	.000
MAR 17...	3.6	--	.00	--	.0	0	270	.000
APR 21...	4.1	--	.00	--	.0	0	430	.000
MAY 12...	3.9	--	.00	--	.0	0	1000	.000
JUN 16...	4.3	--	.00	--	.1	0	15000	19.5
JUL 21...	13	--	.00	--	.1	0	21000	24.5
AUG 04...	4.6	3.8	.00	--	.1	0	2400	6.70
SEP 22...	4.0	--	.00	4	.1	0	5400	23.4

DATE	CHLORO- PHYLL B (UG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	RED MAT. FALL DIAM. % FINER THAN 2.00 MM
OCT 29...	.000	--	--	--	--	--	--
NOV 19...	.000	6	463	--	--	--	--
DEC 17...	.000	5	283	100	--	--	--
JAN 21...	.000	--	--	--	--	--	--
FEB 11...	.000	4	215	100	--	--	--
MAR 17...	.000	--	--	--	--	--	--
APR 21...	.000	36	3300	91	--	--	--
MAY 12...	.000	12	606	94	--	--	--
JUN 16...	1.96	9	156	90	--	--	--
JUL 21...	.794	8	145	88	--	--	--
AUG 04...	1.54	28	1240	86	1	3	100
SEP 22...	17.6	9	173	100	--	--	--

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTONOCT. 29, 1975
1430 HOURS

IDENTIFICATION OF PHYTOPLANKTON

750 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTHODESMUS		36	5	
...SCENEDESMACEAE		36	5	
....ACTINASTRUM		36	5	
DSCENEDESMUS		<u>180</u>	<u>24</u>	
	TOTALS	250	34	1.149=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCEAE				
....CYCLOTELLA		9	1	
DMELOSIIRA		250	34	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
....ACHNANTHES		27	4	
...COCconeis		18	2	
...CYMBELLACEAE				
LAMPHORA			0	
....CYMBELLA		9	1	
...EUNOTIACEAE				
LEUNOTIA			0	
...FRAGILARIACEAE				
....ASTERIONELLA		36	5	
....H.ARCUS				
....HANNAEA ARCUS		18	2	
....SYNEDRA		18	2	
...GOMPHONEMATACEAE				
LGOMPHONEMA			0	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		91	12	
LPINNULARIA			0	
...NITZSCHACEAE				
....HANTZSCHIA		9	1	
....NITZSCHIA		9	1	
...TABELLARIACEAE				
LTABELLARIA			0	
	TOTALS	<u>500</u>	<u>65</u>	2.389=DIVERSITY
..CHRYSOPHYCEAE	YELLOW-BROWN ALGAE			
...CHRYSONOMADALES				
...OCHROMONADACEAE				
LDINOBYRON			0	

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%
 L - LESS THEN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
 PHYL/DIV 0.922
 CLASS 0.922
 ORDER 1.583
 FAMILY 2.402
 GENERA 2.893

CONNECTICUT RIVER BASIN

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON--ContinuedDEC. 17, 1975
0930 HOURS

IDENTIFICATION OF PHYTOPLANKTON

110 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..ZYGNEMATALES				
...DESMIDIACEAE	PLACODERM DESMIDS			
...STAUSTRUM				
	TOTALS	6	6	0.000=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCEAE				
...MELOSIRA		6	6	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
...ACHNANTHES		6	6	
...CYMBELLACEAE				
...CYMBELLA		13	12	
...FRAGILARIACEAE				
...ASTERIONELLA		6	6	
...GOMPHONEMACEAE				
...GOMPHONEMA		6	6	
...NAVICULACEAE	NAVICULOID			
D ...NAVICULA		19	18	
L ...PINNULARIA			0	
...NITZSCHACEAE				
D ...NITZSCHIA		44	41	
...TABELLARIACEAE				
L ...TABELLARIA			0	
	TOTALS	100	95	2.350=DIVERSITY

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%

L - LESS THEN 15% MAY NOT HAVE BEEN ACTUALLY COUNTED

ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE

DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.323

CLASS 0.323

ORDER 0.640

FAMILY 2.534

GENERA 2.534

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON--ContinuedJAN. 21, 1976
0915 HOURS

IDENTIFICATION OF PHYTOPLANKTON

190 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		10	5	
...SCENEDESMACEAE				
....SCENEDESMUS				
	TOTALS	<u>10</u> 20	<u>5</u> 10	1.000=DIVERSITY
CHRYSOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...FRAGILARIACEAE				
....H.ARCUS		5	3	
...CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....CYCLOTELLA		5	3	
..PENNALES	PENNATE			
...CYMBELLACEAE				
....CYMBELLA		5	3	
...FRAGILARIACEAE				
....ASTERIONELLA		10	5	
...FRAGILARIA		5	3	
....SYNEDRA		5	3	
...GOMPHONEMACEAE				
....GOMPHONEMA		5	3	
...MERIDIONACEAE				
....MERIDION		5	3	
...NAVICULACEAE	NAVICULOID			
....NAVICULA				
	TOTALS	<u>25</u> 70	<u>13</u> 39	2.835=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
.MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIA				
DOSCILLATORIA				
	TOTALS	<u>100</u> 100	<u>54</u> 54	0.000=DIVERSITY

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
 PHYL/DIV 1.348
 CLASS 1.348
 ORDER 1.612
 FAMILY 2.315
 GENERA 2.469

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON--ContinuedFEB. 11, 1976
1115 HOURS

IDENTIFICATION OF PHYTOPLANKTON

1,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		7	1	
....CHLORELLA		7	1	
....KIRCHNERIELLA		15	1	
	TOTALS	29	3	1.500=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCEAE				
LMELOSIRA			0	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
...ACHNANTHES		65	6	
...CYMBELLACEAE				
...CYMBELLA		7	1	
...EUNOTIACEAE				
...EUNOTIA		7	1	
...FRAGILARIACEAE				
LASTERIONELLA			0	
....H. ARCUS				
LHANNAEA ARCUS			0	
...GOMPHONEMACEAE				
LGOMPHONEMA			0	
...NAVICULACEAE	NAVICULOID			
LCALONEIS			0	
...NAVICULA		44	4	
...NITZSCHACEAE				
...NITZSCHIA		7	1	
...TABELLARIACEAE				
LTABELLARIA			0	
	TOTALS	130	13	1.723=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIACEAE				
DLYNGBYA		300	29	
DOSCILLATORIA		580	56	
	TOTALS	880	85	0.929=DIVERSITY

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
 PHYL/DIV 0.721
 CLASS 0.721
 ORDER 0.721
 FAMILY 0.937
 GENERA 1.765

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON--Continued

MAR. 17, 1976

1000 HOURS

IDENTIFICATION OF PHYTOPLANKTON

270 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...FRAGILARIACEAE			
D ...H. ARCUS		49	19
...ACHNANTHACEAE			
D ...ACHNANTHES		160	59
...EUNOTIACEAE			
...EUNOTIA		10	4
...FRAGILARIACEAE			
...FRAGILARIA		10	4
...SYNEDRA		10	4
...GOMPHONEMACEAE			
...GOMPHONEMA		10	4
...NAVICULACEAE	NAVICULOID		
...NAVICULA		10	4
...TABELLARIACEAE			
...TABELLARIA		10	4
TOTALS		270	102
			1.955=DIVERSITY

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%
 ANALYSIS METHOD: SEDGWICK-RAFER CHAMBER • 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
 FAMILY 1.890
 GENERA 1.955

CONNECTICUT RIVER BASIN

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON--ContinuedAPR. 21, 1976
0820 HOURS

IDENTIFICATION OF PHYTOPLANKTON

430 CELLS/ML

__ORGANISM__NAME_____	__COMMON__NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS				
	TOTALS	<u>13</u> 13	<u>3</u> 3	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...FRAGILARIACEAE				
....H.ARCUS		13	3	
...CENTRALES	CENTRIC			
...COSCINODISCEAE				
....CYCLOTELLA		39	9	
....MELOSIRA		26	6	
..PENNALES	PENNATE			
...CYMBELLACEAE				
....CYMBELLA		39	9	
...FRAGILARIACEAE				
DFRAGILARIA		65	15	
....SYNEDRA		52	12	
...GOMPHONEMATACEAE				
....GOMPHONEMA		39	9	
...MERIDIONACEAE				
....MERIDION		13	3	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		39	9	
...NITZSCHACEAE				
DNITZSCHIA		<u>78</u> 400	<u>18</u> 93	3.143=DIVERSITY
	TOTALS			
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....TRACHELOMONAS				
	TOTALS	<u>13</u> 13	<u>3</u> 3	0.000=DIVERSITY

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
 PHYL/DIV 0.390
 CLASS 0.390
 ORDER 1.175
 FAMILY 2.926
 GENERA 3.343

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON--ContinuedMAY 12, 1976
0840 HOURS

IDENTIFICATION OF PHYTOPLANKTON

1,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...SCENEDESMACEAE				
....SCENEDESMUS				
	TOTALS	12	1	0.000=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...FRAGILARIACEAE				
....H.ARCUS		12	1	
...CENTRALES	CENTRIC			
...COSCINODISCACEAE				
...CYCLOTELLA		23	2	
...MELOSIRA		12	1	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
...ACHNANTHES		94	9	
...COCCONEIS		6	1	
...CYMBELLACEAE				
...CYMBELLA		70	7	
...FRAGILARIACEAE				
...ASTERIONELLA		76	8	
...SYNEDRA		47	5	
...GOMPHONEMACEAE				
...GOMPHONEMA		29	3	
...MERIDIONACEAE				
...MERIDION		12	1	
...NAVICULACEAE	NAVICULOID			
...CALONEIS		12	1	
...NAVICULA		130	13	
...STAURONEIS		6	1	
...NITZSCHIACEAE				
...NITZSCHIA		65	6	
...SURIPELLACEAE				
...SURIPELLA		6	1	
	TOTALS	600	60	3.311=DIVERSITY
..CHRYSOPHYCEAE	YELLOW-BROWN ALGAE			
..CHRYSOMONADALES				
...CHROMULINACEAE				
....CHRYSOCOCCUS		29	3	
	TOTALS	29	3	0.000=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIA				
DOSCILLATORIA		340	34	
	TOTALS	340	34	0.000=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
...EUGLENALES				
...EUGLENACEAE				
....LEPOCINCLIS		6	1	
....TRACHELOMONAS		12	1	
	TOTALS	18	2	0.918=DIVERSITY

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
 PHYL/DIV 1.128
 CLASS 1.299
 ORDER 1.575
 FAMILY 3.009
 GENERA 3.302

CONNECTICUT RIVER BASIN

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON--ContinuedJUNE 16, 1976
0815 HOURS

IDENTIFICATION OF PHYTOPLANKTON

15,000 CELLS/ML

__ORGANISM__NAME__	__COMMON__NAME__	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...MICRACTINIACEAE				
....MICRACTINIUM		380	3	
...SCENEDESMACEAE				
...CRUCIGENIA		1,500	10	
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
...CHLAMYDOMONAS		95	1	
...VOLVOCAEAE				
....GONIUM				
	TOTALS	<u>1,400</u> 3,400	<u>10</u> 24	1.542=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCEAE				
...CYCLOTELLA		1,100	8	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
...ASTERIONELLA		670	4	
...SYNEDRA		95	1	
...NITZSCHIAEAE				
....NITZSCHIA				
	TOTALS	<u>380</u> 2,300	<u>3</u> 16	1.640=DIVERSITY
..CHRYSTOPHYCEAE	YELLOW-BROWN ALGAE			
..CHRYSOMONADALES				
...MALLOMONADACEAE				
...MALLOMONAS		95	1	
...OCHROMONADACEAE				
....DINOBYRON				
	TOTALS	<u>1,500</u> 1,600	<u>10</u> 11	0.323=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...CHROOCOCCALES	COCCTOD			
...CHROOCOCCACEAE				
DANACYSTIS		3,600	24	
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIAEAE				
DOSCILLATORIA				
	TOTALS	<u>4,000</u> 7,600	<u>27</u> 51	0.998=DIVERSITY

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:PHYL/DIV 1.489
CLASS 1.744
ORDER 2.633
FAMILY 2.865
GENERA 2.892

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON--ContinuedJULY 21, 1976
0855 HOURS

IDENTIFICATION OF PHYTOPLANKTON

21,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..CHARACIACEAE				
LSCHROEDERIA			0	
..MICRACTINIACEAE				
..GOLLENKINIA		150	1	
DMICRACTINIUM		4,200	20	
..OOCYSTACEAE				
LANKISTRODESMUS			0	
LCHODATELLA			0	
..DICTYOSPHAERIUM		220	1	
..SCENEDESMACEAE				
..SCENEDESMUS		1,400	7	
..TETRASTRUM		1,500	7	
TOTALS		7,700	36	1.831=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CFNTRIC			
..COSCINODISCEAE				
DCYCLOTELLA		4,100	19	
..MELOSIRA		1,900	9	
..PENNALES	PENNATE			
..ACHNANTHACEAE				
..ACHNANTHES		150	1	
..FRAGILARIACEAE				
..FRAGILARIA		150	1	
..NAVICULACEAE	NAVICULOID			
..NAVICULA		150	1	
..NITZSCHACEAE				
..NITZSCHIA		150	1	
TOTALS		6,500	32	1.436=DIVERSITY
..CHRYSOPHYCEAE	YELLOW-BROWN ALGAE			
..CHRYSONOMADALES				
..OCHROMONADACEAE				
..DINORRYON				
TOTALS		150	1	0.000=DIVERSITY
..XANTHOPHYCEAE	YELLOW-GREEN ALGAE			
..HETEROCOCCALES				
..CHLOROTHECIACEAE				
LOPHIOCYTIUM			0	
TOTALS		74	0	0.000=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
..CHROOCOCCACEAE				
DANACYSTIS		7,000	33	
TOTALS		7,000	33	0.000=DIVERSITY

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 1.583
 CLASS 1.658
 ORDER 1.792
 FAMILY 2.304
 GENERA 2.754

CONNECTICUT RIVER BASIN

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON--ContinuedAUG. 4, 1976
0800 HOURS

IDENTIFICATION OF PHYTOPLANKTON

2,400 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...MICRACTINIACEAE				
...MICRACTINIUM		200	8	
...OOCYSTACEAE				
....ANKISTRODESMUS		50	2	
....DICTYOSPHAERIUM			0	
....KIRCHNERIELLA		25	1	
...SCENEDESMACEAE				
....SCENEDESMUS		350	14	
...VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS		25	1	
...ZYGNEMATALES				
...DESMIDIACEAE	PLACODERM DESMIDS			
....ARTHRODESMUS		25	1	
TOTALS		670	27	1.818=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCAEAE				
....CYCLOTELLA		250	10	
....MELOSIRA		350	14	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
....ACHNANTHES		50	2	
...COCCONEIS		25	1	
...FRAGILARIACEAE				
....ASTERIONELLA		300	12	
...GOMPHONEMACEAE				
....GOMPHONEMA		25	1	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		50	2	
...NITZSCHIACEAE				
....NITZSCHIA		25	1	
TOTALS		1,100	43	2.321=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
....NOSTOCACEAE				
.....ANABAENA		500	21	
...OSCILLATORIAEAE				
....OSCILLATORIA		170	7	
TOTALS		670	28	0.826=DIVERSITY

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
 PHYL/DIV 1.547
 CLASS 1.547
 ORDER 2.113
 FAMILY 3.013
 GENERA 3.312

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON--ContinuedSEP. 22, 1976
0820 HOURS

IDENTIFICATION OF PHYTOPLANKTON

5,400 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...MICRACTINIACEAE				
L ...MICRACTINIUM			0	
...OOCYSTACEAE				
...CHLORELLA		42	1	
...SCENEDESMACEAE				
...SCENEDESMUS		340	6	
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
...CHLAMYDOMONAS		42	1	
..ZYGNEMALES				
...DESMIDIACEAE	PLACODERM DESMIDS			
LCLOSTERIUM			0	
	TOTALS	420	8	0.922=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCEAE				
...CYCLOTELLA		420	8	
D ...MELOSIRA		2,700	51	
..PENNALES	PENNATE			
...CYMBELLACEAE				
...CYMBELLA		42	1	
...FRAGILARIACEAE				
...ASTERIONELLA		460	9	
...FRAGILARIA		460	9	
L ...SYNEDRA			0	
...GOMPHONEMACEAE				
L ...GOMPHONEMA			0	
...NITZSCHIACEAE				
L ...NITZSCHIA			0	
...TABELLARIACEAE				
...TABELLARIA				
	TOTALS	300 4,400	6 84	1.758=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
L ...ANACYSTIS			0	
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIA				
	TOTALS	510 510	9 9	0.000=DIVERSITY

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.837
 CLASS 0.837
 ORDER 1.588
 FAMILY 1.855
 GENERA 2.363

PERIPHYTON

(Sampling method-Polyethylene strip)

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a	Chlorophyll b	Biomass pigment ratio
		Dry weight	Ash weight	(mg/m ²)	(mg/m ²)	
May 12	28	6.23	5.54	16.1	2.05	43

CONNECTICUT RIVER BASIN

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	85	78	80	86	84	85	81	73	77	---	---	---
2	94	86	87	89	85	87	85	75	80	---	---	---
3	95	94	95	95	89	91	82	74	78	---	---	---
4	102	96	98	103	94	98	95	82	87	---	---	---
5	104	99	102	103	97	99	98	87	94	134	129	132
6	106	85	97	99	88	92	89	83	85	128	123	126
7	107	106	106	97	93	95	95	84	89	126	113	122
8	108	105	106	98	85	93	104	91	101	156	111	126
9	110	107	108	98	94	95	103	84	94	156	135	145
10	113	109	111	95	87	92	84	76	80	133	129	131
11	116	110	113	94	33	89	76	70	72	132	129	131
12	112	85	101	84	77	81	78	72	75	134	131	133
13	86	79	82	82	69	77	80	77	79	134	124	130
14	90	79	82	72	68	70	82	80	81	171	113	142
15	89	81	84	74	69	71	83	81	82	170	124	143
16	93	83	89	76	72	73	85	82	83	122	113	116
17	92	74	84	77	74	75	89	81	84	122	114	118
18	79	67	72	78	75	76	104	81	89	129	115	122
19	68	61	64	79	76	77	107	104	106	128	123	125
20	64	57	59	80	77	79	---	---	---	127	122	125
21	58	55	56	81	75	78	---	---	---	124	119	121
22	61	55	59	83	71	77	---	---	---	123	117	120
23	63	61	62	75	70	72	---	---	---	123	117	120
24	66	62	64	76	74	76	---	---	---	118	105	112
25	68	63	67	80	76	78	---	---	---	123	115	120
26	70	68	69	84	80	82	---	---	---	139	122	126
27	72	68	69	82	77	80	---	---	---	142	109	122
28	73	69	71	83	77	80	---	---	---	109	76	89
29	75	72	73	77	75	76	---	---	---	90	83	86
30	80	76	78	81	78	79	---	---	---	104	91	98
31	85	80	83	---	---	---	---	---	---	106	91	98
MONTH	116	55	83	103	68	82	---	---	---	171	76	121

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	89	74	80	90	90	90	89	80	85	95	92	93
2	99	71	88	90	89	90	83	76	80	99	80	93
3	94	89	91	94	89	91	80	77	78	82	79	79
4	102	92	94	102	93	95	79	75	78	87	83	85
5	103	93	97	105	100	102	78	76	77	89	87	88
6	97	93	94	103	91	96	77	72	75	91	90	90
7	97	96	97	91	89	89	83	77	79	93	91	93
8	100	97	98	93	89	90	87	82	84	97	93	95
9	102	101	102	96	93	95	92	86	89	96	92	93
10	104	100	101	102	95	98	95	92	94	94	93	93
11	112	103	106	106	102	103	98	95	97	99	94	96
12	116	108	112	105	101	102	97	96	97	103	100	102
13	109	106	108	118	102	110	103	95	99	102	92	97
14	112	109	111	116	103	109	104	102	103	94	92	93
15	116	110	112	104	101	102	104	103	104	98	94	96
16	119	116	118	102	101	101	105	103	104	99	97	98
17	117	114	115	108	101	102	105	103	104	99	95	96
18	114	108	110	109	103	105	105	101	103	96	95	96
19	110	104	107	110	103	105	104	101	102	99	84	94
20	104	98	100	112	109	110	101	96	99	83	75	78
21	100	97	98	108	97	101	95	91	93	81	77	79
22	102	98	101	97	92	95	91	87	88	81	79	80
23	97	89	91	95	90	93	90	87	89	82	80	81
24	92	91	92	90	83	86	91	88	89	83	82	82
25	92	90	91	85	83	84	93	89	92	88	83	86
26	93	92	93	86	84	85	97	86	94	89	88	88
27	93	92	92	87	85	86	86	83	84	92	88	90
28	92	89	90	85	79	83	86	85	86	97	91	94
29	90	89	90	85	72	75	91	86	89	97	96	96
30	---	---	---	85	79	83	93	91	92	100	97	99
31	---	---	---	84	82	84	---	---	---	104	100	101
MONTH	119	71	99	118	72	95	105	72	91	104	75	91

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	107	104	105	149	143	145	134	132	133	---	---	---
2	112	107	109	143	137	139	---	---	---	---	---	---
3	114	106	108	138	131	135	---	---	---	---	---	---
4	110	104	107	131	124	127	---	---	---	---	---	---
5	115	105	111	125	123	124	---	---	---	---	---	---
6	120	114	117	128	125	126	---	---	---	---	---	---
7	122	118	120	130	126	128	---	---	---	134	132	133
8	127	124	126	133	127	129	---	---	---	142	133	138
9	125	119	121	132	129	130	---	---	---	139	133	136
10	123	120	121	132	129	130	---	---	---	137	128	132
11	125	121	122	133	128	131	---	---	---	138	133	136
12	131	125	128	135	131	133	---	---	---	139	137	138
13	130	128	129	136	135	135	---	---	---	143	139	141
14	131	128	130	134	129	131	---	---	---	143	139	141
15	136	131	134	132	128	130	---	---	---	145	140	142
16	144	135	139	130	124	126	---	---	---	147	145	146
17	145	139	142	127	122	124	---	---	---	146	141	143
18	143	135	138	128	123	125	---	---	---	141	137	139
19	141	128	137	126	123	124	---	---	---	144	137	139
20	141	134	137	127	121	125	---	---	---	154	147	151
21	140	137	138	126	121	124	---	---	---	153	146	149
22	143	139	141	130	125	128	---	---	---	145	141	143
23	143	139	141	131	129	130	---	---	---	148	144	147
24	148	141	144	132	123	130	---	---	---	150	146	149
25	151	146	148	135	130	133	---	---	---	147	140	143
26	148	144	146	131	127	129	---	---	---	141	140	141
27	149	146	147	133	129	132	---	---	---	150	140	142
28	150	147	148	135	133	134	---	---	---	153	140	146
29	152	146	148	138	133	135	---	---	---	141	130	134
30	149	146	148	141	135	138	---	---	---	136	133	134
31	---	---	---	136	133	135	---	---	---	---	---	---
MONTH	152	104	131	149	121	130	---	---	---	154	128	141
YEAR	171	55	104									

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.5	15.0	15.0	9.5	9.0	9.5	6.5	5.5	6.5	---	---	---
2	15.5	15.0	15.5	9.5	9.0	9.5	6.5	6.0	6.5	---	---	---
3	15.0	14.5	15.0	10.0	9.5	9.5	6.0	5.0	5.0	---	---	---
4	15.0	14.0	14.5	11.0	10.0	10.5	5.0	3.5	4.0	---	---	---
5	15.0	14.0	14.5	11.5	10.5	11.0	4.0	3.0	3.5	0.5	0.0	0.5
6	15.5	14.5	15.0	11.0	10.5	11.0	3.5	3.0	3.5	0.5	0.5	0.5
7	15.5	14.5	15.0	11.0	10.5	10.5	3.5	3.0	3.0	0.5	0.5	0.5
8	15.0	14.5	15.0	12.0	11.0	11.5	3.0	2.5	2.5	0.5	0.0	0.5
9	14.5	14.5	14.5	12.5	11.5	12.0	3.5	2.0	2.5	0.5	0.0	0.5
10	14.5	14.0	14.5	12.5	12.0	12.5	4.0	3.0	3.5	0.5	0.0	0.0
11	14.5	14.0	14.0	12.5	11.5	12.5	3.5	3.0	3.5	0.0	0.0	0.0
12	14.0	13.0	13.5	11.5	10.5	11.0	3.0	3.0	3.0	0.0	0.0	0.0
13	13.5	13.0	13.5	10.5	10.0	10.0	3.0	2.5	2.5	0.5	0.0	0.0
14	14.0	13.5	13.5	10.0	9.5	10.0	3.0	2.5	2.5	1.0	0.0	1.0
15	14.5	13.5	14.0	9.5	8.5	9.0	4.5	3.0	3.5	0.5	0.0	0.5
16	15.0	14.0	14.5	8.5	7.5	8.0	5.0	4.5	4.5	0.5	0.0	0.5
17	14.5	14.0	14.0	7.5	7.0	7.5	4.5	3.5	4.0	0.5	0.0	0.5
18	14.0	12.5	13.0	7.5	7.0	7.5	3.5	2.5	3.0	0.0	0.0	0.0
19	12.0	11.5	12.0	8.0	7.5	8.0	2.5	1.0	2.0	0.0	0.0	0.0
20	11.5	11.0	11.0	8.5	8.0	8.0	---	---	---	0.5	0.0	0.0
21	11.0	10.5	11.0	9.0	8.0	8.5	---	---	---	0.5	0.0	0.5
22	11.5	11.0	11.0	9.0	8.0	8.5	---	---	---	0.5	0.0	0.5
23	12.0	11.0	11.5	8.0	7.0	7.5	---	---	---	0.0	0.0	0.0
24	12.5	11.5	12.0	7.0	6.5	6.5	---	---	---	0.0	0.0	0.0
25	12.5	12.0	12.0	6.5	5.5	6.0	---	---	---	0.5	0.0	0.5
26	12.5	12.0	12.5	6.5	6.0	6.0	---	---	---	0.5	0.5	0.5
27	12.5	12.0	12.0	6.0	6.0	6.0	---	---	---	0.5	0.5	0.5
28	12.0	11.5	12.0	6.0	5.0	5.5	---	---	---	0.5	0.0	0.5
29	12.0	11.5	11.5	5.0	4.5	5.0	---	---	---	0.5	0.0	0.5
30	12.0	10.5	11.5	5.5	4.5	5.0	---	---	---	0.5	0.0	0.5
31	10.5	9.5	10.0	---	---	---	---	---	---	0.5	0.0	0.5
MONTH	15.5	9.5	13.0	12.5	4.5	9.0	---	---	---	1.0	0.0	0.5

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976--Continued

FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.5	0.0	0.5	2.5	2.5	2.5	7.0	5.5	6.0	12.0	11.0	11.5
2	0.5	0.0	0.0	2.5	2.0	2.5	6.5	5.5	5.5	13.5	11.5	12.5
3	0.5	0.0	0.0	2.0	1.0	1.5	5.5	5.0	5.5	13.0	12.5	12.5
4	1.0	0.5	1.0	1.5	1.0	1.0	5.5	5.0	5.5	12.5	12.0	12.5
5	1.0	0.5	0.5	3.5	1.5	2.5	6.0	5.0	5.5	12.5	11.5	12.0
6	1.0	0.5	0.5	4.5	3.5	4.0	6.5	5.5	6.0	14.0	12.0	13.0
7	1.0	0.5	0.5	3.5	2.5	3.0	7.0	6.0	6.5	13.5	13.0	13.5
8	1.0	0.5	0.5	2.5	2.0	2.5	7.5	6.5	6.5	14.0	13.0	13.5
9	1.5	0.5	1.0	2.0	1.5	1.5	7.5	6.5	7.0	13.5	12.5	13.0
10	1.0	0.5	1.0	2.0	1.0	1.5	8.0	7.0	7.5	14.5	13.0	13.5
11	1.5	1.0	1.0	3.0	1.5	2.5	8.0	7.0	8.0	15.5	14.0	14.5
12	1.5	0.5	1.5	3.0	2.0	2.5	7.5	6.5	7.0	15.5	14.5	15.0
13	2.0	1.5	1.5	3.0	2.0	2.5	8.0	6.5	7.0	15.5	14.5	15.0
14	2.0	1.0	1.5	4.0	2.5	3.5	9.5	7.0	8.0	15.5	14.5	15.0
15	1.0	1.0	1.0	4.5	3.5	4.0	9.5	8.0	9.0	16.5	15.0	15.5
16	2.0	1.0	1.5	4.0	2.5	3.0	10.5	9.0	9.5	16.5	16.0	16.0
17	2.0	1.5	2.0	2.5	1.5	2.0	11.5	10.0	11.0	16.5	16.0	16.5
18	1.5	1.5	1.5	2.5	1.0	2.0	12.5	11.0	12.0	17.0	16.5	16.5
19	2.5	1.5	2.0	3.0	2.0	2.5	13.5	12.0	13.0	16.0	14.0	15.5
20	2.5	2.0	2.5	5.0	2.5	4.0	14.5	13.0	14.0	13.5	13.0	13.0
21	2.0	1.5	2.0	5.5	5.0	5.5	14.5	13.5	14.0	13.0	12.5	13.0
22	3.0	2.0	3.0	5.0	4.0	4.5	13.5	13.0	13.5	12.5	12.0	12.5
23	3.0	1.5	2.0	4.0	2.5	3.0	14.0	13.0	13.5	13.0	12.0	12.5
24	1.5	1.0	1.5	4.0	2.0	3.0	13.5	12.5	13.0	13.5	12.5	13.0
25	2.5	1.5	2.0	4.5	4.0	4.0	12.5	11.5	12.0	13.5	13.0	13.5
26	3.5	2.5	3.0	5.0	4.0	4.5	11.5	9.5	10.5	13.5	13.0	13.5
27	3.5	3.0	3.5	6.0	5.0	5.5	9.5	9.0	9.5	14.5	13.0	14.0
28	4.0	3.5	3.5	6.5	6.0	6.0	10.5	9.0	10.0	16.0	14.0	15.0
29	3.5	2.5	2.5	6.0	5.5	5.5	11.0	10.0	10.5	16.5	15.0	16.0
30	---	---	---	5.5	5.0	5.5	12.0	10.5	11.5	17.0	16.0	16.5
31	---	---	---	5.5	5.0	5.5	---	---	---	18.5	16.5	17.5
MONTH	4.0	0.0	1.5	6.5	1.0	3.5	14.5	5.0	9.5	18.5	11.0	14.0
JUNE				JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.5	18.0	18.0	26.5	25.5	25.5	24.5	23.5	24.0	---	---	---
2	19.0	17.5	18.0	26.5	25.0	25.5	24.5	23.0	24.0	---	---	---
3	19.5	17.5	18.5	25.5	25.0	25.0	23.5	22.5	23.0	---	---	---
4	19.5	18.0	19.0	25.0	24.5	25.0	23.0	22.0	22.5	---	---	---
5	20.0	19.0	19.5	26.0	24.5	25.0	22.5	21.5	22.5	---	---	---
6	20.0	19.5	19.5	27.0	25.0	26.0	22.5	22.0	22.5	---	---	---
7	20.0	19.0	19.5	26.5	25.5	26.0	22.5	20.5	21.5	20.0	19.0	19.5
8	21.0	19.5	20.5	27.0	25.5	26.0	21.0	20.0	20.5	20.5	19.5	20.0
9	22.0	20.5	21.5	27.0	25.5	26.5	20.5	20.0	20.0	21.0	19.5	20.0
10	24.0	22.0	23.0	27.0	25.5	26.5	20.5	20.0	20.5	20.5	20.0	20.5
11	24.5	23.0	24.0	27.0	26.0	26.5	20.0	19.5	20.0	20.5	19.5	20.0
12	24.0	23.0	23.5	27.5	26.0	27.0	---	---	---	20.5	19.5	20.0
13	23.5	22.0	23.0	26.0	25.0	25.5	---	---	---	20.5	19.0	20.0
14	22.5	21.5	22.0	25.0	24.5	25.0	---	---	---	20.5	19.5	20.0
15	24.0	22.0	23.0	25.0	24.5	24.5	---	---	---	20.5	20.0	20.5
16	25.0	23.5	24.5	25.0	24.0	24.5	---	---	---	20.5	20.5	20.5
17	25.0	24.5	25.0	25.0	24.0	24.5	---	---	---	20.5	20.0	20.5
18	26.0	24.5	25.0	25.0	24.0	24.5	---	---	---	20.5	20.0	20.5
19	25.5	25.0	25.0	25.5	24.0	25.0	---	---	---	21.0	20.0	20.5
20	25.5	24.5	25.0	26.0	25.0	25.5	---	---	---	21.5	20.5	21.0
21	25.5	25.0	25.0	25.5	25.0	25.0	---	---	---	21.0	20.5	20.5
22	26.0	25.0	25.5	26.0	24.5	25.0	---	---	---	20.5	19.5	20.0
23	27.0	25.0	26.0	25.5	24.5	25.0	---	---	---	19.5	19.0	19.5
24	27.5	26.0	27.0	25.5	25.0	25.5	---	---	---	19.0	18.5	19.0
25	27.5	27.0	27.0	26.0	24.5	25.5	---	---	---	19.0	17.5	18.5
26	27.5	26.5	27.0	26.0	25.0	25.5	---	---	---	19.0	17.5	18.0
27	27.5	26.5	27.0	25.5	24.5	25.0	---	---	---	18.5	17.5	18.0
28	27.5	26.0	27.0	26.5	25.0	26.0	---	---	---	18.5	17.5	18.0
29	27.0	26.0	26.5	25.5	25.0	25.5	---	---	---	17.5	16.5	17.0
30	26.5	25.5	26.0	25.0	24.0	24.5	---	---	---	17.0	17.0	17.0
31	---	---	---	24.5	23.5	24.0	---	---	---	---	---	---
MONTH	27.5	17.5	23.5	27.5	23.5	25.5	---	---	---	21.5	16.5	19.5
YEAR	27.5	0.0	12.0									

01185100 FALL RIVER BELOW OTIS RESERVOIR, NEAR OTIS, MA

LOCATION.--Lat 42°09'42", long 73°03'48", Berkshire County, Hydrologic Unit 01080207, on right bank 0.4 mi (0.6 km) downstream from Otis Reservoir, 0.5 mi (0.8 km) upstream from mouth, and 2.6 mi (4.2 km) southeast of Otis.

DRAINAGE AREA.--16.5 mi² (42.7 km²).

PERIOD OF RECORD.--Discharge: August 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,260 ft (384 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow regulated by Otis Reservoir (Reservoirs in Connecticut River basin). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 39.1 ft³/s (1.107 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 422 ft³/s (12.0 m³/s) July 2, 1972, gage height, 5.41 ft (1.649 m); minimum daily, 0.68 ft³/s (0.019 m³/s) June 20, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 334 ft³/s (9.46 m³/s) Aug. 10, gage height, 5.01 ft (1.527 m); minimum daily, 1.2 ft³/s (0.034 m³/s) July 27-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	170	49	62	105	110	7.1	2.7	114	101	2.9	2.0
2	4.6	170	49	62	49	110	7.6	4.2	114	30	2.5	2.0
3	4.2	170	49	38	49	110	6.0	3.6	35	2.8	2.0	2.1
4	4.2	170	48	5.3	110	110	5.1	3.0	2.8	2.4	1.7	2.1
5	4.0	168	47	5.3	170	51	4.7	2.8	2.6	2.2	1.5	2.2
6	3.9	122	47	5.8	170	6.9	4.4	2.4	2.5	1.9	1.3	2.2
7	3.8	94	47	5.0	77	6.6	4.2	2.2	3.3	1.9	1.9	2.2
8	3.8	94	47	4.0	4.0	6.0	3.9	2.4	4.2	2.0	2.2	2.2
9	3.7	93	47	4.0	4.0	5.3	3.7	2.3	3.3	1.9	150	2.2
10	3.7	115	47	4.1	4.0	4.9	3.4	2.1	2.6	1.8	322	2.5
11	33	126	48	4.0	4.0	4.7	3.3	1.9	2.2	1.8	302	2.8
12	97	127	49	4.0	4.0	4.6	3.2	2.9	2.0	1.8	80	2.7
13	97	129	49	4.0	4.0	4.9	3.2	2.8	2.1	1.8	2.5	2.7
14	97	129	49	5.4	4.0	5.3	3.0	2.5	2.0	1.8	59	2.7
15	97	129	48	46	4.0	5.3	3.0	2.3	2.0	1.8	85	2.6
16	97	148	48	88	45	4.7	2.6	2.1	2.0	1.6	68	2.5
17	97	163	48	105	72	4.7	2.8	1.8	54	1.4	18	2.6
18	270	163	48	105	72	4.6	2.8	2.3	42	1.4	18	3.6
19	250	163	30	105	72	4.4	2.6	4.7	2.7	1.4	7.0	3.8
20	135	163	12	105	72	4.7	2.4	4.9	2.4	1.4	2.5	3.7
21	135	160	12	45	72	5.7	2.3	4.2	2.2	1.5	2.5	3.6
22	135	160	12	4.0	93	6.6	2.2	3.2	2.2	1.7	2.5	3.5
23	135	160	12	4.0	110	5.7	2.3	2.6	1.8	1.4	2.5	3.4
24	140	91	12	4.0	110	5.1	2.3	2.1	1.7	1.5	2.4	3.3
25	250	48	12	4.0	108	4.7	2.3	2.0	1.6	1.5	2.4	3.2
26	260	48	30	4.0	108	4.6	4.0	1.8	1.4	1.4	2.3	3.0
27	235	48	62	45	111	4.6	3.7	2.1	1.4	1.2	2.4	3.4
28	135	48	62	105	111	4.9	3.3	2.9	1.5	1.2	2.5	3.4
29	135	49	62	160	111	4.9	2.9	4.6	1.9	1.2	2.5	3.4
30	135	49	62	185	---	4.7	2.6	5.5	9.8	1.2	2.4	3.4
31	155	---	62	185	---	4.6	---	27	---	1.2	2.2	---
TOTAL	3231.9	3667	1306	1511.9	2029.0	624.7	107.1	113.9	423.2	179.1	1156.6	85.0
MEAN	104	122	42.1	48.8	70.0	20.2	3.57	3.67	14.1	5.78	37.3	2.83
MAX	270	170	62	185	170	110	7.6	27	114	101	322	3.8
MIN	3.7	48	12	4.0	4.0	4.4	2.2	1.8	1.4	1.2	1.3	2.0

CAL YR 1975 TOTAL 16551.28 MEAN 45.3 MAX 320 MIN .85
WTR YR 1976 TOTAL 14435.40 MEAN 39.4 MAX 322 MIN 1.2

NOTE.--No gage-height record Oct. 7 to Nov. 4, Jan. 23 to Feb. 24.

CONNECTICUT RIVER BASIN

01185500 WEST BRANCH FARMINGTON RIVER NEAR NEW BOSTON, MA

LOCATION.--Lat 42°04'45", long 73°04'24", Berkshire County, Hydrologic Unit 01080207, on left bank 5 ft (1.5 m) downstream from highway bridge, 0.3 mi (0.5 km) downstream from Clam River, 1 mi (1.6 km) south of New Boston, and at mile 65.0 (104.6 km).

DRAINAGE AREA.--92.0 mi² (238.3 km²).

PERIOD OF RECORD.--Discharge: May 1913 to current year. Prior to October 1948, published as Farmington River near New Boston.

REVISED RECORDS.--WSP 641: 1924(M). WSP 756: Drainage area. WSP 781: 1928(M). WSP 1231: 1914.

GAGE.--Water-stage recorder. Datum of gage is 758.21 ft (231.102 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Otis Reservoir 7.0 mi (11.3 km) upstream on Fall River (Reservoirs in Connecticut River basin). High flow slightly affected by retarding reservoirs since 1966. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--63 years, 181 ft³/s (5.126 m³/s), 26.72 in/yr (679 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,300 ft³/s (971 m³/s) Aug. 19, 1955, gage height, 14.06 ft (4.285 m), from rating curve extended above 9,600 ft³/s (272 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 2.4 ft³/s (0.068 m³/s) Aug. 20, 21, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,740 ft³/s (106 m³/s) Aug. 10, gage height, 7.64 ft (2.329 m); maximum gage height, 11.86 ft (3.615 m) Jan. 27, ice jam; minimum daily discharge, 18 ft³/s (0.51 m³/s) July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	397	283	317	210	433	524	705	204	208	332	246	53
2	253	283	312	200	562	462	760	499	290	142	102	49
3	214	273	269	174	477	395	503	322	170	72	65	38
4	182	277	229	134	434	362	372	243	112	62	54	38
5	156	273	208	122	470	437	293	197	99	51	53	37
6	137	228	207	120	405	504	245	164	92	44	47	34
7	117	187	209	140	307	385	213	170	96	44	106	32
8	112	225	189	130	188	305	189	190	81	75	129	29
9	99	224	192	120	186	234	173	159	70	52	232	27
10	96	284	418	110	170	204	158	143	59	42	2030	35
11	133	337	351	105	156	191	151	132	57	37	1130	60
12	283	381	292	96	151	174	146	274	61	37	521	42
13	263	760	246	90	147	272	134	217	51	42	270	37
14	321	699	235	240	153	298	130	183	45	36	244	32
15	251	535	233	260	148	245	126	159	47	34	228	28
16	227	457	222	240	201	210	153	137	45	32	283	27
17	213	433	200	220	342	199	142	134	94	31	159	34
18	650	389	186	210	362	181	127	182	111	27	122	50
19	744	357	130	205	498	178	117	545	50	25	93	48
20	858	337	120	200	473	298	107	585	48	24	67	41
21	635	475	140	170	372	478	98	446	47	24	58	39
22	500	627	160	140	833	527	104	348	44	31	52	37
23	415	503	140	115	792	366	111	267	42	23	46	34
24	355	366	130	105	576	297	97	210	39	30	39	33
25	426	267	130	100	496	269	138	182	42	25	37	33
26	419	240	160	110	520	249	381	163	39	20	34	33
27	408	322	250	850	600	237	259	152	36	18	56	76
28	280	353	205	1300	610	324	210	133	36	19	50	64
29	273	294	205	950	532	283	187	122	57	19	43	51
30	260	263	210	700	---	239	155	117	87	29	36	46
31	270	---	220	556	---	211	---	117	---	27	35	---
TOTAL	9947	10932	6715	8422	11594	9538	6684	7096	2355	1506	6667	1217
MEAN	321	364	217	272	400	308	223	229	78.5	48.6	215	40.6
MAX	858	760	418	1300	833	527	760	585	290	332	2030	76
MIN	96	187	120	90	147	174	97	117	36	18	34	27
MEAN†	264	297	218	272	400	352	264	274	77.0	47.2	215	40.6
CFSM†	2.87	3.23	2.37	2.96	4.35	3.83	2.87	2.98	.84	.51	2.34	.44
IN.†	3.31	3.60	2.73	3.41	4.69	4.42	3.20	3.44	.93	.59	2.70	.49
CAL YR 1975	TOTAL	90016	MEAN 247	MAX 2080	MIN 29	MEAN†	247	CFSM†	2.68	IN†	36.43	
WTR YR 1976	TOTAL	82673	MEAN 226	MAX 2030	MIN 18	MEAN†	226	CFSM†	2.46	IN†	33.50	

† 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 (19 km) northeast of Pittsburg, NH, 506,000,000 ft³ (14,300,000 m³); First Lake, 5.6 mi (9.0 km) northeast of Pittsburg, NH, 3,330,000,000 ft³ (94,300,000 m³). Records furnished by New England Power Co.
01129000. LAKE FRANCIS on Connecticut River at Pittsburg, NH, completed in March 1940, used for storage of water for power and for recreation, has usable capacity of 4,326,000,000 ft³ (122,500,000 m³). Records furnished by New Hampshire Water Resources Board.
- 01132000; 01132500. MOORE AND COMERFORD RESERVOIRS on Connecticut River are operated as a unit for storage of water for hydroelectric power development and are used for recreation. The downstream order and usable capacity of each are as follows: Moore Reservoir, 4.5 mi (7.2 km) northwest of Littleton, NH, filled in April 1956, 4,970,000,000 ft³ (141,000,000 m³); Comerford Reservoir, 5 mi (8 km) northeast of Monroe, NH, completed in 1930, 1,279,000,000 ft³ (36,220,000 m³). Records furnished by New England Power Co.
01141000. UNION VILLAGE RESERVOIR on Ompompanoosuc River, 0.3 mi (0.5 km) north of Union Village, VT, completed in 1949 for flood control, has usable capacity of 1,660,000,000 ft³ (47,000,000 m³). Records furnished by Corps of Engineers.
- 01148000; 01150000. LAKES AND PONDS IN MASCOMA RIVER BASIN are operated as a unit for storage of water for power and are used for recreation. The reservoirs and usable capacity of each are as follows: 01148000 Goose Pond, 5.2 mi (8.4 km) northeast of Mascoma, NH, 509,000,000 ft³ (14,400,000 m³); Grafton Pond, 8.5 mi (13.7 km) southeast of Mascoma, 144,000,000 ft³ (4,080,000 m³); Crystal Lake, 5.8 mi (9.3 km) southeast of Mascoma, 75,000,000 ft³ (2,100,000 m³); 01150000 Mascoma Lake at Mascoma, 337,000,000 ft³ (9,540,000 m³); total usable capacity of the four reservoirs, 1,060,000,000 ft³ (30,000,000 m³). Records furnished by New Hampshire Water Resources Board.
01151400. NORTH HARTLAND RESERVOIR on Ottauquechee River at North Hartland, VT, completed in 1961, used for flood control and recreation, has usable capacity of 3,110,000,000 ft³ (88,100,000 m³). Records furnished by Corps of Engineers.
01152000. SUNAPEE LAKE on Sugar River at Sunapee, NH, used for recreation and storage of water for power, has usable capacity of 862,000,000 ft³ (24,400,000 m³). Records collected by Geological Survey.
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 ft³ (63,200,000 m³). Records furnished by Corps of Engineers.
01155400. BALL MOUNTAIN RESERVOIR on West River, 2 mi (3.2 km) north of Jamaica, VT, completed in 1961, used for flood control and recreation, has usable capacity of 2,380,000,000 ft³ (67,400,000 m³). Records furnished by Corps of Engineers.
01155900. TOWNSHEND RESERVOIR on West River, 1.8 mi (2.9 km) northwest of Townshend, VT, completed in 1961, used for flood control and recreation, has usable capacity of 1,460,000,000 ft³ (41,300,000 m³). Records furnished by Corps of Engineers.
01157500. SURRY MOUNTAIN LAKE on Ashuelot River, 4.5 mi (7.2 km) north of Keene, NH, completed in 1942, used for flood control and recreation, has usable capacity of 1,420,000,000 ft³ (40,200,000 m³). Records furnished by Corps of Engineers.
01158550. OTTER BROOK LAKE on Otter Brook, 2.5 mi (4.0 km) northeast of Keene, NH, completed in 1958, used for flood control and recreation, has usable capacity of 798,000,000 ft³ (22,600,000 m³). Records furnished by Corps of Engineers.
01163500. BIRCH HILL RESERVOIR on Millers River, 1 mi (1.6 km) east of South Royalston, MA, completed in 1941 for flood control, has usable capacity of 2,180,000,000 ft³ (61,700,000 m³). Records furnished by Corps of Engineers.
01164500. TULLY RESERVOIR on East Branch Tully River, 3.5 mi (5.6 km) north of Athol, MA, completed in 1948 for flood control, has usable capacity of 958,000,000 ft³ (27,100,000 m³). Records furnished by 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 (4.0 km) northeast of Somerset, VT, completed in 1913, 2,500,000,000 ft³ (71,000,000 m³); Harriman Reservoir on Deerfield River at Davis Bridge, VT, completed in 1924, 5,060,000,000 ft³ (143,000,000 m³). Records furnished by New England Power Co.
01172400. BARRE FALLS RESERVOIR on Ware River, 4 mi (6 km) east of Barre, MA, completed in 1958 for flood control, has usable capacity of 1,050,000,000 ft³ (29,700,000 m³). Records furnished by Corps of Engineers.
01175000. QUABBIN RESERVOIR on Swift River, 3.2 mi (5.1 km) east of Belchertown, MA, completed in August 1939 for storage of water for municipal supply, has usable capacity of 53,800,000,000 ft³ (1,520,000,000 m³). Records furnished by Water Division, Metropolitan District Commission.
01176410. CONANT BROOK RESERVOIR in Chicopee River basin, 1.5 mi (2.4 km) southeast of South Monson, MA, completed in September 1966 for flood control, has usable capacity of 163,000,000 ft³ (4,620,000 m³). Records furnished by Corps of Engineers.
01176500. LUDLOW RESERVOIR in Chicopee River basin, 3.2 mi (5.1 km) northwest of Three Rivers, MA, completed in 1875 for storage of water for municipal supply, has usable capacity of 201,000,000 ft³ (5,690,000 m³). Records furnished by Board of Water Commissioners, Springfield, MA.
01179000. KNIGHTVILLE RESERVOIR on Westfield River, 4 mi (6 km) north of Huntington, MA, completed in 1941 for flood control, has usable capacity of 2,130,000,000 ft³ (60,300,000 m³). Records furnished by Corps of Engineers.

CONNECTICUT RIVER BASIN

Reservoirs in Connecticut River basin--Continued

01180450. LITTLEVILLE LAKE on Middle Branch Westfield River, 2 mi (3 km) north of Huntington, MA, completed in 1965, used for flood control, water supply, and recreation, has usable capacity of 1,410,000,000 ft³ (39,900,000 m³). Records furnished by Corps of Engineers.

01181900; 01182500. BORDEN BROOK AND COBBLE MOUNTAIN RESERVOIRS in Westfield 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 (5.6 km) south of Blandford, MA, completed in 1909, 344,000,000 ft³ (9,740,000 m³); Cobble Mountain Reservoir on Westfield Little River, 6.5 mi (10.5 km) west of Westfield, MA, completed in 1931, 3,050,000,000 ft³ (86,400,000 m³). Records furnished by Board of Water Commissioners, Springfield, MA.

01185000. OTIS RESERVOIR in Farmington River basin, 3 mi (5 km) southeast of Otis, MA, completed in 1865, used for storage of water for power and for recreation, has usable capacity of 780,000,000 ft³ (22,000,000 m³). Records furnished by Massachusetts Department of Natural Resources, Division of Forests and Parks.

MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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, 1975.....	3,186.0	4,065.2	5,539.1	2.5	977.9	107.3
Oct. 31.....	2,507.5	3,958.3	5,412.5	2.2	828.1	23.6
Nov. 30.....	2,023.6	3,945.6	5,910.4	13.4	724.6	24.2
Dec. 31.....	1,933.7	3,455.5	5,732.2	18.1	622.1	113.0
Jan. 31, 1976.....	1,651.5	2,240.6	5,932.2	70.7	758.2	148.0
Feb. 29.....	846.5	1,598.7	4,269.9	13.6	818.4	124.0
Mar. 31.....	1,039.9	1,213.1	3,488.6	51.5	1,070.0	138.0
Apr. 30.....	3,021.8	2,949.5	5,673.5	6.6	1,022.7	126.0
May 31.....	3,396.5	4,168.8	5,519.6	4.1	1,125.3	129.0
June 30.....	3,455.8	3,789.4	5,840.2	1.7	1,093.2	121.0
July 31.....	3,318.7	3,431.2	5,686.9	1.6	1,076.7	126.0
Aug. 31.....	3,240.1	3,246.6	5,617.3	1.4	1,048.2	116.0
Sept. 30.....	2,107.3	3,463.6	5,627.4	1.8	973.6	25.3
	Sunapee Lake	North Springfield Reservoir	Ball Mountain Reservoir	Townshend Reservoir	Surry Mountain Lake	Otter Brook Lake
Sept. 30, 1975.....	502	26.9	93.8	40.0	124.0	43.2
Oct. 31.....	483	23.3	9.5	32.4	65.7	34.8
Nov. 30.....	362	24.0	5.3	39.4	71.8	35.8
Dec. 31.....	343	25.4	4.6	38.6	80.7	36.2
Jan. 31, 1976.....	348	23.3	150.8	47.2	209.1	134.6
Feb. 29.....	396	30.5	32.0	45.5	102.5	44.4
Mar. 31.....	479	51.5	55.8	43.3	254.0	55.1
Apr. 30.....	495	26.9	91.7	41.1	62.2	11.2
May 31.....	644	24.7	90.3	37.2	55.3	10.5
June 30.....	600	26.9	98.1	34.4	58.6	13.8
July 31.....	588	50.4	94.5	43.3	59.8	32.6
Aug. 31.....	552	24.0	105.5	36.6	59.8	32.6
Sept. 30.....	496	26.9	93.8	58.0	108.1	33.4
	Birch Hill Reservoir	Tully Reservoir	Somerset and Harriman Reservoirs	Barre Falls Reservoir	Quabbin Reservoir†	Conant Brook Reservoir
Sept. 30, 1975.....	239.3	159.2	6,178.7	109.5	49,869	0.3
Oct. 31.....	7.5	29.7	6,198.2	2.9	51,343	0
Nov. 30.....	15.8	60.7	5,703.8	3.7	53,319	.1
Dec. 31.....	8.0	25.4	4,280.5	2.9	53,051	.1
Jan. 31, 1976.....	205.4	136.0	2,566.9	137.9	54,081	.3
Feb. 29.....	37.0	30.4	2,781.9	9.6	54,993	.1
Mar. 31.....	30.0	64.0	5,031.4	3.4	54,741	.1
Apr. 30.....	11.0	60.7	6,678.4	2.9	55,066	†.1
May 31.....	4.8	60.7	6,565.1	2.6	54,930	†.1
June 30.....	1.5	58.5	6,262.0	2.2	54,196	†.1
July 31.....	1.5	59.6	6,138.1	1.2	52,726	.1
Aug. 31.....	2.2	61.8	5,512.1	2.0	52,188	.1
Sept. 30.....	1.8	53.0	5,181.0	1.8	51,113	.1
	Ludlow Reservoir	Knightville Reservoir	Littleville Lake	Borden Brook and Cobble Mountain Reservoirs	Otis Reservoir	
Sept. 30, 1975.....	181.1	100.5	479.4	2,892.8	680.3	
Oct. 31.....	200.5	.6	425.0	2,731.5	527.9	
Nov. 30.....	200.5	.8	430.2	2,718.9	352.0	
Dec. 31.....	200.5	19.2	426.3	2,565.7	355.1	
Jan. 31, 1976.....	197.7	293.7	483.6	2,605.3	355.1	
Feb. 29.....	194.0	20.0	445.8	2,719.6	355.1	
Mar. 31.....	192.2	247.4	431.5	2,809.6	475.0	
Apr. 30.....	192.2	.6	427.6	2,904.1	582.3	
May 31.....	190.4	.7	423.7	3,070.1	703.3	
June 30.....	188.5	.3	417.2	2,948.2	699.5	
July 31.....	184.9	.1	417.2	2,798.1	695.7	
Aug. 31.....	184.9	.2	418.5	2,739.6	695.7	
Sept. 30.....	177.5	.2	418.5	2,538.4	695.7	

† Affected by diversion from Ware River and diversion to Wachusett Reservoir and Chicopee Valley aqueduct.

‡ Estimated.

01197000 EAST BRANCH HOUSATONIC RIVER AT COLTSVILLE, MA

LOCATION.--Lat 42°28'10", long 73°11'49", Berkshire County, Hydrologic Unit 01100005, on right bank 40 ft (12 m) downstream from Hubbard Avenue Bridge at Coltsville, 1.2 mi (1.9 km) upstream from Unkameet Brook, and 2 mi (3 km) northeast of Pittsfield.

DRAINAGE AREA.--57.1 mi² (147.9 km²).

PERIOD OF RECORD.--Discharge: March 1936 to current year. Prior to October 1945, published as Housatonic River at Coltsville.

Chemical analyses: Water years 1963-65 (partial-record station).

Water temperatures: Water years 1963-65 (partial-record station).

REVISED RECORDS.--WSP 851: 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 993.49 ft (302.816 m) above mean sea level.

REMARKS.--Records good. Flow regulated by powerplants upstream and, since 1949, by Cleveland Brook Reservoir, usable capacity, 214,000,000 ft³ (6,060,000 m³/s), 5.4 mi (8.7 km) upstream; regulation greater prior to 1955. Diversion upstream from Cleveland Brook Reservoir for municipal supply of Pittsfield since May 1950; see table below for figures of diversion. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years, 114 ft³/s (3.228 m³/s), 27.11 in/yr (689 mm/yr), adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,400 ft³/s (181 m³/s) Sept. 21, 1938, gage height, 10.80 ft (3.292 m), from rating curve extended above 2,300 ft³/s (65.1 m³/s) on basis of computation of peak flow over dam; minimum daily, 4.4 ft³/s (0.12 m³/s) Aug. 15, 1936.

Maximum discharge since at least 1755, that of Sept. 21, 1938.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,150 ft³/s (32.6 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 1	1830	1,190 33.7	4.49 1.369	Aug. 10	0930	*3,920 111	*6.52 1.987

Minimum daily discharge, 17 ft³/s (0.48 m³/s) July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	90	239	108	196	311	626	96	97	53	237	34
2	133	87	234	89	281	264	663	323	116	45	171	34
3	120	88	177	86	236	191	266	237	87	38	70	33
4	110	95	133	79	218	196	192	189	78	33	40	31
5	102	90	115	70	179	312	162	132	66	39	35	30
6	100	79	123	67	151	454	144	105	63	35	34	28
7	96	69	135	73	130	285	133	111	99	33	175	27
8	91	109	109	73	121	194	125	184	78	36	181	27
9	88	135	103	64	117	152	120	119	60	37	127	26
10	86	121	236	58	111	148	112	94	54	33	1890	40
11	126	148	237	55	115	143	103	82	51	28	701	73
12	233	138	150	60	110	128	101	256	54	28	282	47
13	188	406	120	59	102	194	92	212	48	33	150	36
14	181	381	110	120	90	228	79	144	44	32	120	33
15	153	268	122	120	81	177	69	153	44	28	106	30
16	128	185	139	112	100	119	69	131	42	26	120	29
17	115	154	106	95	193	105	68	117	80	23	99	32
18	363	140	90	70	197	112	61	123	60	21	81	36
19	364	126	62	61	260	112	59	522	45	19	74	34
20	415	115	60	64	264	195	56	602	41	18	70	32
21	283	250	68	65	218	407	53	435	41	19	54	30
22	194	425	77	63	421	472	51	297	41	19	39	28
23	142	259	78	56	453	248	52	223	61	18	40	30
24	127	185	66	57	299	198	50	180	177	23	36	38
25	124	162	66	54	236	220	81	152	92	20	33	42
26	126	151	92	60	258	222	207	140	50	17	34	49
27	120	188	148	275	341	231	160	132	42	33	43	91
28	108	233	144	642	383	559	126	120	39	35	44	82
29	98	187	118	409	304	318	135	91	42	28	49	59
30	100	158	100	293	---	230	100	77	42	27	63	52
31	96	---	111	218	---	197	---	74	---	38	40	---
TOTAL	4867	5222	3868	3775	6165	7322	4315	5853	1934	915	5238	1193
MEAN	157	174	125	122	213	236	144	189	64.5	29.5	169	39.8
MAX	415	425	239	642	453	559	663	602	177	53	1890	91
MIN	86	69	60	54	81	105	50	74	39	17	33	26
(†)	15.8	13.5	12.5	15.1	13.4	12.3	15.7	12.5	13.6	15.2	12.7	13.2
CAL YR 1975	TOTAL	54894	MEAN 150	MAX 1330	MIN 26	MEAN† 163	CFSM† 2.85	IN† 38.67				
WTR YR 1976	TOTAL	50667	MEAN 138	MAX 1890	MIN 17	MEAN† 152	CFSM† 2.66	IN† 36.30				

† Diversion, in cubic feet per second, from Cleveland Brook Reservoir for municipal supply of Pittsfield; records furnished by city of Pittsfield.

‡ Adjusted for diversion.

01197500 HOUSATONIC RIVER NEAR GREAT BARRINGTON, MA

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 (0.8 km) upstream from Williams River, and 2 mi (3 km) north of Great Barrington.

DRAINAGE AREA.--280 mi² (725 km²).

PERIOD OF RECORD.--Discharge: May 1913 to current year.

Chemical analyses: Water years 1957-59, 1963-64, 1971 (partial-record station).

Water temperatures: Water years 1957-59, 1963-64, 1971 (partial-record station).

Sediment records: Water year 1971 (partial-record station).

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).

GAGE.--Water-stage recorder. Datum of gage is 683.04 ft (208.191 m) above mean sea level. Prior to Oct. 1, 1931, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are fair. Regulation at low flow by powerplants upstream. High flow slightly affected by retarding reservoir since 1973. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--63 years, 525 ft³/s (14.87 m³/s), 25.46 in/yr (647 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft³/s (346 m³/s) Jan. 1, 1949, gage height, 12.08 ft (3.682 m), from rating curve extended above 5,300 ft³/s (150 m³/s) on basis of computations of flow over dams at gage heights 11.72 ft (3.572 m) and 12.08 ft (3.682 m); minimum daily, 1.0 ft³/s (0.028 m³/s) Oct. 18, 1914.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,400 ft³/s (68.0 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Jan. 28	1630	*3,460 98.0	*7.33 2.234	Aug. 11	2345	3,020 85.5	6.77 2.063

Minimum daily discharge, 88 ft³/s (2.49 m³/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1040	567	1040	589	1400	1510	1240	563	503	439	492	217
2	842	545	1290	490	1800	1430	2170	1100	639	575	721	202
3	704	527	1120	470	1600	1290	2240	1250	620	445	521	209
4	610	556	908	450	1500	1170	1780	1090	503	311	330	297
5	562	566	749	365	1250	1280	1330	923	480	271	246	205
6	490	521	704	350	1050	1600	1080	793	433	246	221	166
7	462	489	751	397	900	1660	945	707	498	250	544	88
8	460	609	655	420	820	1440	861	807	509	254	969	123
9	438	703	586	365	780	1150	800	793	439	254	771	173
10	425	656	693	325	750	1020	742	659	390	238	1700	194
11	466	768	920	330	780	961	707	588	359	217	2720	433
12	823	727	807	335	740	892	653	853	374	198	2730	369
13	846	1410	644	340	710	984	607	1170	340	229	1880	271
14	905	1720	572	583	714	1160	607	1020	297	221	1220	225
15	833	1660	566	729	659	1080	569	861	297	209	845	202
16	681	1320	595	636	687	953	588	815	288	202	707	190
17	587	1030	554	570	1020	830	594	749	325	198	594	190
18	1120	904	500	470	1340	785	544	756	428	190	480	221
19	1720	821	396	390	1430	778	498	1160	344	169	400	221
20	2080	774	349	350	1620	907	428	1850	288	163	359	205
21	1960	912	346	360	1440	1250	433	2180	267	157	335	194
22	1660	1770	377	360	1520	1630	400	2080	284	157	306	190
23	1290	1750	400	330	2050	1600	364	1800	306	154	279	183
24	1000	1370	365	330	1920	1230	344	1460	302	166	262	169
25	896	1070	355	330	1600	1030	390	1190	385	176	187	169
26	885	940	420	384	1440	984	756	1030	330	154	202	180
27	808	950	750	1100	1490	945	876	930	250	148	250	306
28	744	1200	732	3050	1620	1230	721	785	217	173	267	395
29	700	1110	611	3090	1600	1500	653	707	246	194	258	330
30	665	949	529	2420	---	1320	607	575	316	194	267	275
31	609	---	585	1850	---	1000	---	515	---	190	246	---
TOTAL	27311	28894	19869	22558	36230	36599	24527	31759	11257	7142	21309	6792
MEAN	881	963	641	728	1249	1181	818	1024	375	230	687	226
MAX	2080	1770	1290	3090	2050	1660	2240	2180	639	575	2730	433
MIN	425	489	346	325	659	778	344	515	217	148	187	88
CFSM	3.15	3.44	2.29	2.60	4.46	4.22	2.92	3.66	1.34	.82	2.45	.81
IN.	3.63	3.84	2.64	3.00	4.81	4.86	3.26	4.22	1.50	.95	2.83	.90
CAL YR 1975 TOTAL	291670			MEAN 799	MAX 2690	MIN 157	CFSM 2.85	IN 38.75				
WTR YR 1976 TOTAL	274247			MEAN 749	MAX 3090	MIN 88	CFSM 2.68	IN 36.44				

01331500 HOOSIC RIVER AT ADAMS, MA

LOCATION.--Lat 42°36'40", long 73°07'28", Berkshire County, Hydrologic Unit 02020003, on left bank at Adams, 500 ft (150 m) downstream from Dry Brook, and 0.4 mi (0.6 km) upstream from Pecks Brook.

DRAINAGE AREA.--46.3 mi² (119.9 km²).

PERIOD OF RECORD.--Discharge: October 1931 to current year.

Chemical analyses: Water years 1967-69 (partial-record station).

Water temperatures: Water years 1967-69 (partial-record station).

Sediment records: Water years 1967-68 (partial-record station).

REVISED RECORDS.--WRD MA, NH, RI, VT, 1973: 1971-72.

GAGE.--Water-stage recorder. Datum of gage is 828.01 ft (252.377 m) above mean sea level. Prior to Oct. 1, 1964, datum was 9.00 ft (2.743 m) higher and Oct. 1, 1964, to May 29, 1974, 8.00 ft (2.438 m) higher, at site 500 ft (150 m) upstream.

REMARKS.--Records fair. Diversion upstream for municipal supply of Adams. Some diurnal fluctuation by mill upstream prior to 1961. Flow regulated by Cheshire Reservoir 5.1 mi (8.2 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years, 89.3 ft³/s (2.529 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,080 ft³/s (144 m³/s) Sept. 21, 1938, gage height, 9.25 ft (2.819 m), site and datum then in use, from rating curve extended above 1,100 ft³/s (31.2 m³/s) on basis of computation of peak flow over dam; minimum daily, 8.0 ft³/s (0.23 m³/s) Aug. 31, Sept. 1, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s (25.5 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 1	1530	1,140 32.3	7.36 2.243	Aug. 10	unknown	*a2,720 77.0	*b8.41 2.563

a From rating curve extended above 450 ft³/s (12.7 m³/s) by logarithmic plotting.

b From floodmarks.

Minimum discharge not determined; minimum daily, 23 ft³/s (0.65 m³/s) Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	89	181	85	162	218	578	110	103	66	162	34
2	135	86	154	73	282	192	437	250	83	60	86	33
3	103	85	128	71	203	170	274	150	75	52	53	32
4	96	87	110	71	162	175	227	120	77	42	47	30
5	85	66	99	69	135	270	197	95	66	39	42	33
6	66	77	106	67	126	300	175	90	62	36	41	27
7	64	77	109	67	116	200	162	90	92	34	191	25
8	64	113	90	67	111	160	150	96	81	42	146	24
9	64	125	93	67	106	155	140	90	69	38	88	23
10	67	118	184	66	101	150	130	84	62	34	1300	39
11	120	132	153	66	101	145	120	80	57	33	380	87
12	189	136	114	64	98	135	115	220	55	35	175	52
13	137	348	107	64	98	170	110	150	52	37	110	44
14	124	288	106	103	101	155	105	110	49	35	110	39
15	113	200	107	83	92	140	100	160	48	35	105	36
16	108	160	112	69	106	130	96	120	45	31	94	33
17	101	160	91	64	165	125	92	100	51	31	83	36
18	373	152	83	55	159	125	88	130	75	31	56	39
19	287	145	61	52	226	125	84	450	54	30	51	35
20	357	140	60	52	178	170	80	469	49	27	49	33
21	230	243	64	51	140	320	77	373	48	25	46	32
22	182	273	69	50	362	350	74	295	46	25	43	31
23	159	178	67	49	274	210	72	238	45	24	42	29
24	146	153	67	49	176	190	70	219	43	28	39	28
25	140	121	69	48	173	196	90	189	41	25	37	27
26	129	114	83	57	189	207	150	168	42	24	34	35
27	121	147	121	413	264	222	110	152	39	25	46	150
28	108	171	98	515	272	542	120	137	35	27	65	71
29	103	130	83	287	212	247	130	121	45	26	48	48
30	103	119	79	219	---	200	100	113	51	28	40	45
31	92	---	85	155	---	185	---	111	---	30	36	---
TOTAL	4331	4433	3133	3268	4890	6279	4453	5280	1740	1055	3845	1230
MEAN	140	148	101	105	169	203	148	170	58.0	34.0	124	41.0
MAX	373	348	184	515	362	542	578	469	103	66	1300	150
MIN	64	66	60	48	92	125	70	80	35	24	34	23

CAL YR 1975 TOTAL 50028 MEAN 137 MAX 753 MIN 34
WTR YR 1976 TOTAL 43937 MEAN 120 MAX 1300 MIN 23

NOTE.--Doubtful or no gage-height record Apr. 11 to May 19, Aug. 21 to Sept. 30.

01332000 NORTH BRANCH HOOSIC RIVER AT NORTH ADAMS, MA

LOCATION.--Lat 42°42'08", long 73°05'37", Berkshire County, Hydrologic Unit 02020003, on left bank at North Adams, 0.4 mi (0.6 km) downstream from Hudson Brook, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--39.0 mi² (101.0 km²).

PERIOD OF RECORD.--Discharge: June 1931 to current year.

Chemical analyses: Water years 1967-69 (partial-record station).

Water temperatures: Water years 1967-69 (partial-record station).

Sediment records: Water years 1967-69 (partial-record station).

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1933(M). WSP 801: 1928(M). WRD MA, NH, RI, VT, 1973: 1971.

GAGE.--Water-stage recorder. Concrete control at present site. Datum of gage is 820.46 ft (250.076 m) above mean sea level. Prior to Sept. 23, 1938, at site 100 ft (30 m) upstream at same datum. July 9, 1959, to July 29, 1960, nonrecording gage at site 500 ft (150 m) upstream at datum about 4.6 ft (1.40 m) lower.

REMARKS.--Records good. Infrequent diurnal fluctuation at low flow by mill upstream; more frequent fluctuation prior to 1948. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years, 96.7 ft³/s (2.739 m³/s), 33.67 in/yr (855 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,950 ft³/s (253 m³/s) Sept. 21, 1938, gage height, 12.05 ft (3.673 m), from floodmarks, by computation of peak flow over dam; maximum gage height, 12.24 ft (3.731 m) Aug. 10, 1976. Minimum discharge, 1.7 ft³/s (0.048 m³/s) July 30, 1965; minimum daily, 3.1 ft³/s (0.088 m³/s) July 30, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1927 reached a discharge of 9,980 ft³/s (283 m³/s), by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s (36.8 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 28	0330	2,100 59.5	8.94 2.725	May 20	1845	1,680 47.6	8.59 2.618
Apr. 1	1515	2,590 73.3	9.31 2.838	Aug. 10	0815	*8,450 239	*12.24 3.731
May 19	0815	1,680 47.6	8.59 2.618				

+ By computation of peak flow over dam.

Minimum discharge, 15 ft³/s (0.42 m³/s) June 28, Sept. 15; minimum daily, 17 ft³/s (0.48 m³/s) June 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	64	228	74	134	284	1150	140	74	264	405	29
2	93	61	163	62	309	207	580	388	75	88	180	33
3	82	62	126	66	192	203	315	207	61	75	88	32
4	74	88	102	59	144	166	215	170	54	56	62	26
5	68	74	93	49	120	309	166	132	48	48	48	31
6	64	64	100	57	115	361	147	110	46	38	41	26
7	59	61	115	68	102	203	132	110	75	41	219	22
8	54	80	86	57	112	144	115	120	54	56	211	20
9	52	86	86	51	107	118	102	95	42	88	126	18
10	49	93	192	52	105	112	95	86	36	49	2690	54
11	126	110	150	59	93	100	110	78	37	35	549	114
12	340	112	110	56	70	88	97	309	35	147	231	53
13	195	377	97	46	70	118	86	180	29	166	156	38
14	192	320	97	110	68	115	82	129	26	97	159	30
15	134	195	102	82	62	95	80	269	29	72	137	25
16	118	153	118	64	80	78	80	156	25	54	224	23
17	102	137	90	57	90	80	78	129	56	51	119	25
18	631	144	82	52	86	86	70	184	38	40	88	31
19	371	134	57	48	177	95	64	868	26	32	70	29
20	484	118	56	45	129	163	59	1070	23	26	58	24
21	259	250	84	43	100	519	54	820	24	28	49	23
22	180	269	84	42	399	496	59	561	30	34	42	25
23	144	160	75	41	309	232	68	345	23	23	37	29
24	120	129	66	41	177	224	56	228	19	49	31	22
25	112	112	64	41	153	279	88	170	27	38	27	19
26	107	102	95	44	180	325	180	140	26	25	24	28
27	95	147	170	513	345	411	134	120	19	23	38	227
28	86	153	120	740	320	1130	163	102	17	23	87	101
29	82	112	86	330	215	371	203	88	21	21	60	70
30	75	105	82	195	---	289	140	80	137	46	48	56
31	70	---	86	132	---	250	---	74	---	35	35	---
TOTAL	4720	4072	3262	3376	4563	7651	4968	7658	1232	1868	6339	1283
MEAN	152	136	105	109	157	247	166	247	41.1	60.3	204	42.8
MAX	631	377	228	740	399	1130	1150	1070	137	264	2690	227
MIN	49	61	56	41	62	78	54	74	17	21	24	18
CFSM	3.90	3.49	2.69	2.79	4.03	6.33	4.26	6.33	1.05	1.55	5.23	1.10
IN.	4.50	3.88	3.11	3.22	4.35	7.30	4.74	7.30	1.18	1.78	6.05	1.22

CAL YR 1975	TOTAL	52025	MEAN 143	MAX 1250	MIN 14	CFSM 3.67	IN 49.62
WTR YR 1976	TOTAL	50992	MEAN 139	MAX 2690	MIN 17	CFSM 3.56	IN 48.64

01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MA

LOCATION.--Lat 42°42'21", long 73°10'50", Berkshire County, Hydrologic Unit 02020003, on left bank 1.0 mi (1.6 km) upstream from Green River and 1.2 mi (1.9 km) east of Williamstown.

DRAINAGE AREA.--132 mi² (342 km²).

PERIOD OF RECORD.--Discharge: July 1940 to current year.

Chemical analyses: Water years 1953-54, 1957-58, 1967-69 (partial-record station).

Water temperatures: Water years 1957-58, 1967-68 (partial-record station).

Sediment records: Water years 1967-69 (partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 595 ft (181 m), from topographic map.

REMARKS.--Records fair. Slight diurnal fluctuation at low flow prior to 1966 caused by mills upstream. Some regulation by Cheshire Reservoir 17 mi (27 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 274 ft³/s (7.760 m³/s), 28.19 in/yr (716 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s (368 m³/s) Dec. 31, 1948, gage height, 14.85 ft (4.526 m), from rating curve extended above 4,300 ft³/s (122 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 5.8 ft³/s (0.16 m³/s) Aug. 30, 31, Oct. 26, 1940; minimum daily, 25 ft³/s (0.71 m³/s) Sept. 2, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,400 ft³/s (68.0 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Jan. 28	0245	2,520 71.4	5.70 1.737	May 19	0915	2,660 75.3	5.86 1.786
Mar. 28	0500	2,690 76.2	5.89 1.795	May 20	1945	2,440 69.1	5.61 1.710
Apr. 1	1630	3,670 104	6.96 2.121	Aug. 10	0930	*11,200 317	*13.02 3.968

† From rating curve extended above 2,200 ft³/s (62.3 m³/s) on basis of contracted-opening measurement at gage height 14.85 ft (4.526 m) and slope-area measurements at gage heights 13.02 ft (3.968 m) and 11.80 ft (3.597 m).

Minimum discharge, 65 ft³/s (1.84 m³/s) Sept. 9; minimum daily, 69 ft³/s (1.95 m³/s) Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	340	246	554	254	486	695	1980	285	238	403	667	99
2	316	238	442	238	890	584	1410	796	235	191	308	102
3	277	238	373	235	630	505	733	411	202	176	183	99
4	257	285	324	231	520	509	549	336	194	140	144	89
5	246	235	300	225	450	830	464	261	176	130	130	99
6	235	235	312	215	400	944	407	257	172	123	119	82
7	202	231	328	216	377	614	364	257	227	123	437	75
8	194	289	285	216	377	505	332	273	183	154	390	72
9	191	304	289	210	360	442	304	250	162	172	250	69
10	191	300	495	213	348	437	281	227	151	130	4740	123
11	312	352	411	195	360	420	289	216	151	109	1300	269
12	625	328	332	202	344	390	265	651	147	202	495	151
13	411	865	308	194	348	472	246	407	137	227	348	123
14	416	762	304	328	352	459	242	296	133	169	340	113
15	340	524	312	277	332	407	242	455	137	137	324	102
16	304	437	328	231	381	377	238	296	130	123	377	96
17	285	403	285	215	477	368	235	261	198	119	289	102
18	1240	398	277	195	429	364	220	360	151	109	220	113
19	836	381	225	180	662	368	213	1740	130	102	191	106
20	1110	356	215	170	495	514	202	1880	126	96	169	96
21	656	640	235	165	411	981	194	1480	123	96	158	96
22	495	717	238	160	1110	1060	194	1050	126	102	144	96
23	424	459	235	155	853	594	202	695	123	92	130	96
24	398	403	215	150	554	554	191	519	116	116	116	85
25	356	356	215	150	519	614	238	416	119	106	106	79
26	348	332	265	190	574	645	437	352	119	89	102	96
27	316	433	386	1260	830	717	316	308	109	99	130	442
28	300	442	293	1850	807	1830	340	261	106	106	191	250
29	285	352	265	853	630	790	377	265	130	99	162	183
30	269	332	242	604	---	630	265	257	273	126	133	154
31	257	---	269	481	---	584	---	246	---	109	106	---
TOTAL	12432	11873	9557	10458	15306	19203	11970	15764	4724	4275	12899	3757
MEAN	401	396	308	337	528	619	399	509	157	138	416	125
MAX	1240	865	554	1850	1110	1830	1980	1880	273	403	4740	442
MIN	191	231	215	150	332	364	191	216	106	89	102	69
CFSM	3.04	3.00	2.33	2.55	4.00	4.69	3.02	3.86	1.19	1.05	3.15	.95
IN.	3.50	3.35	2.69	2.95	4.31	5.41	3.37	4.44	1.33	1.20	3.64	1.06
CAL YR 1975	TOTAL	137862	MEAN	378	MAX	2100	MIN	136	CFSM	2.86	IN	38.85
WTR YR 1976	TOTAL	132218	MEAN	361	MAX	4740	MIN	69	CFSM	2.73	IN	37.26

01333000 GREEN RIVER AT WILLIAMSTOWN, MA

LOCATION.--Lat 42°42'32", long 73°11'50", Berkshire County, Hydrologic Unit 02020003, on left bank 0.1 mi (0.2 km) upstream from bridge on State Highway 2 at Williamstown and 0.8 mi (1.3 km) upstream from mouth.

DRAINAGE AREA.--42.6 mi² (110.3 km²).

PERIOD OF RECORD.--Discharge: September 1949 to current year.

Chemical analyses: Water years 1967-69 (partial-record station).

Water temperatures: Water years 1967-69 (partial-record station).

Sediment records: Water years 1967-69 (partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 615 ft (187 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Slight diurnal fluctuation at times caused by mill upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 82.9 ft³/s (2.348 m³/s), 26.43 in/yr (671 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,060 ft³/s (115 m³/s) Dec. 21, 1973, gage height, 5.68 ft (1.731 m), from rating curve extended above 750 ft³/s (21.2 m³/s) on basis of slope-area measurement at gage height 4.94 ft (1.506 m); maximum gage height, 5.94 ft (1.811 m) Sept. 12, 1960; minimum discharge, 3.1 ft³/s (0.088 m³/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 (2.3 m), from flood-marks.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 850 ft³/s (24.1 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Jan. 28		809	22.9	†3.48	1.061	May 19	0700	1,550	43.9	4.16	1.268
Feb. 22	1300	987	22.0	3.67	1.119	June 30	1930	†3,980	113	*5.64	1.719
Apr. 1	1500	1,210	34.3	3.88	1.183	Aug. 10	1545	1,730	49.0	4.30	1.311

† From peak-stage indicator.

* From rating curve extended as explained above.

Minimum discharge, 12 ft³/s (0.34 m³/s) July 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	73	179	70	200	215	516	133	86	330	52	34
2	86	71	148	60	300	194	361	258	84	133	74	35
3	78	70	130	58	210	174	251	194	70	107	42	32
4	72	83	117	54	170	177	206	174	71	78	31	30
5	68	70	106	52	145	321	182	150	60	61	25	32
6	67	68	110	54	125	285	158	131	59	46	21	27
7	64	67	106	60	115	215	140	140	67	41	36	26
8	59	86	89	56	105	185	126	135	53	45	65	25
9	53	80	89	51	98	155	111	113	49	43	44	25
10	51	81	128	48	90	145	101	101	45	35	1210	68
11	88	89	104	46	85	133	101	95	44	29	676	60
12	106	95	93	46	81	115	90	281	41	39	293	36
13	84	232	88	50	78	145	83	191	37	35	206	31
14	98	295	88	100	76	124	76	163	36	31	171	29
15	81	210	89	90	76	107	71	174	37	27	163	27
16	75	185	88	80	94	93	68	140	32	25	163	26
17	72	167	76	68	105	84	65	131	53	24	117	32
18	313	153	72	59	130	86	63	179	37	21	97	29
19	308	143	59	53	293	95	60	668	32	19	84	27
20	371	130	61	50	188	147	56	691	30	18	73	25
21	246	217	76	50	166	269	53	537	30	18	65	25
22	201	207	72	48	523	269	56	407	29	17	59	25
23	170	170	68	45	326	200	53	293	27	15	53	22
24	148	153	62	43	228	182	50	231	27	18	49	21
25	135	138	60	42	212	174	74	197	30	14	44	21
26	124	124	82	50	215	166	122	171	26	13	41	32
27	110	182	120	90	269	166	105	147	22	13	43	131
28	100	151	95	400	255	301	113	128	22	19	70	60
29	93	128	83	310	218	200	117	109	33	14	49	44
30	86	119	80	260	---	177	109	99	725	18	41	40
31	78	---	82	220	---	155	---	88	---	15	37	---
TOTAL	3783	4037	2900	2763	5176	5454	3737	6649	1994	1361	4194	1077
MEAN	122	135	93.5	89.1	178	176	125	214	66.5	43.9	135	35.9
MAX	371	295	179	400	523	321	516	691	725	330	1210	131
MIN	51	67	59	42	76	84	50	88	22	13	21	21
CFSM	2.86	3.17	2.19	2.09	4.18	4.13	2.93	5.02	1.56	1.03	3.17	.84
IN.	3.30	3.53	2.53	2.41	4.52	4.76	3.26	5.81	1.74	1.19	3.66	.94
CAL YR 1975 TOTAL	47595											
WTR YR 1976 TOTAL	43125											
MEAN 130												
MAX 1470												
MIN 25												
CFSM 3.05												
IN 41.56												
MEAN 118												
MAX 1210												
MIN 13												
CFSM 2.77												
IN 37.66												

NOTE.--No gage-height record Dec. 26 to Feb. 17.

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 and discharge measurements at miscellaneous sites 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 tabulation of discharge measurements made at miscellaneous sites. There were no discharge measurements made at low-flow partial-record stations during water year 1976.

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 1976

Annual maximum discharge at crest-stage partial-record stations during water year 1976								
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum			
					Date	Gage height (feet)	Discharge (ft ³ /s)	
Merrimack River basin								
01095200	Houghton Brook near Oakdale, Mass.	Lat 42°24'57", long 71°48'12", Worcester County, at culvert on State Highway 140, 2 mi north of Oakdale.	0.69	1964-76	1-28-76	7.00	18	
01097452	Jackstraw Brook at Hopkinton Road, Westborough, Mass.	Lat 42°15'28", long 71°36'13", Worcester County, at culvert on Hopkinton Rd. (Route 135), 0.9 mi southeast of Westborough.	1.24	1972-76	1-28-76	8.76	55	
01100100	Richardson Brook near Lowell, Mass.	Lat 42°39'48", long 71°16'02", Middlesex County, at culvert on Methuen St., 3 mi northeast of Lowell.	4.32	1963-76	1-28-76	13.08	124	
01100800	Cobbler Brook near Merrimac, Mass.	Lat 42°50'55", long 71°01'10", Essex County, at culvert on Highland St., 1.3 mi northwest of Merrimac.	.77	1963-76	8- 9-76	8.44	57	
Charles River basin								
01104600	Beaver Brook at Belmont, Mass.	Lat 42°23'26", long 71°11'51", Middlesex County, at culvert on State Highway 60 (Trapelo Rd.), 1 mi southwest of Belmont.	4.09	1963-76	1-28-76	12.87	205	
South River basin								
01105850	Furnace Brook near Marshfield, Mass.	Lat 42°06'30", long 70°43'53", Plymouth County, at culvert on Furnace St., 1.7 mi northwest of Marshfield.	1.61	1964-76	1-28-76	8.79	35	
Taunton River basin								
01109100	Taunton River tributary near Fall River, Mass.	Lat 41°45'31", long 71°07'01", Bristol County, at culvert on State Highway 79, 4 mi northeast of Fall River.	0.25	1964-76	1-28-76	9.32	12	
Runnins River basin								
01109270	Runnins River at Seekonk, Mass.	Lat 41°49'25", long 71°20'00", Bristol County, at culvert on Pleasant St., 1.0 mi north of Seekonk.	4.24	1967-76	1-28-76	6.52	95	
Blackstone River basin								
01111250	Dry Arm Brook near Wallum Lake, R.I.	Lat 41°58'22", long 71°45'03", Providence County, at culvert on State Highway 100, 1.8 mi south of Wallum Lake.	1.74	1966-76	1-28-76	9.51	88	
01113600	Blackstone River tributary No. 2 at Berkeley, R.I.	Lat 41°55'27", long 71°24'49", Providence County, at culvert on State Highway 122, 0.5 mi southeast of Berkeley.	1.04	1966-76	1-28-76	6.34	42	

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1976--Continued

Annual maximum discharge at cross bridge partial record stations during water year 1976 continued								
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum			
					Date	Gage height (feet)	Dis-charge (ft ³ /s)	
Pawtuxet River basin								
01115300	Wilbur Hollow Brook near Clayville, R.I.	Lat 41°46'06", long 71°38'03", Providence County, at culvert on State Highway 12, 2.3 mi east of Clayville.	4.61	1966-76	1-28-76	12.96	181	
01115830	Bear Brook near Coventry, R.I.	Lat 41°39'37", long 71°37'42", Kent County, at culvert on Fish Hill Rd., 3 mi south of Coventry.	3.98	1966-76	1-28-76	9.07	124	
01116600	Pocasset River near North Scituate, R.I.	Lat 41°50'13", long 71°31'49", Providence County, at culvert on Belfield Drive, 3 mi east of North Scituate.	1.34	1966-76	1-28-76	8.48	34	
Thames River basin								
01123160	Wales Brook tributary near Wales, Mass.	Lat 42°04'48", long 72°11'51", Hampden County, at culvert on Holland Rd., 1.5 mi northeast of Wales.	0.71	1964-76	1-28-76	7.24	15	
01124050	Tufts Branch at Dudley, Mass.	Lat 42°03'11", long 71°56'22", Worcester County, at culvert on Dudley-Southbridge Rd., 0.7 mi northwest of Dudley.	1.06	1963-76	1-28-76	10.08	31	
Connecticut River basin								
01161300	Millers Brook at Northfield, Mass.	Lat 42°41'07", long 72°27'11", Franklin County, at culvert on Beers Plain Rd., 0.8 mi south of Northfield.	2.33	1964-76	4- 1-76	15.66	79	
01171910	Broad Brook near Holyoke, Mass.	Lat 42°11'59", long 72°41'11", Hampden County, at culvert on Keys Rd., 3.5 mi west of Holyoke.	2.26	1965-76	4- 1-76	16.92	68	
01175600	Caruth Brook near Paxton, Mass.	Lat 42°19'00", long 71°58'16", Worcester County, at culvert on Spring St., 2.2 mi west of Paxton.	2.35	1964-76	1-28-76	8.61	144	
01178230	Mill Brook at Plainfield, Mass.	Lat 42°30'57", long 72°55'30", Hampshire County, at culvert on High St., 0.4 mi west of Plainfield.	4.47	1964-76	8-10-76	16.79	470	
01183100	Seymour Brook tributary at Granville, Mass.	Lat 42°03'53", long 72°51'42", Hampden County, at culvert on State Highway 189, at Granville.	.66	1964-76	4- 1-76	10.51	19	
01183810	Longmeadow Brook at Pondsides Rd., near Longmeadow, Mass.	Lat 42°02'22", long 72°35'32", Hampden County, at culvert on Pondsides Rd., 2 mi southwest of Longmeadow.	4.15	1967-76	4- 1-76	4.94	82	
Housatonic River basin								
01197550	Housatonic River tributary at Risingdale, Mass.	Lat 42°13'57", long 73°20'47", Berkshire County, at culvert on State Highway 183, 0.7 mi southeast of Risingdale.	0.69	1963-76	8-10-76	16.45	33	

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 1976

Discharge measurements made at miscellaneous sites during water year 1976						
Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Dis-charge (ft ³ /s)
Merrimack River basin						
Cow Pond Brook	Salmon Brook	Lat 42°37'08", long 71°30'31", Middlesex County, at culvert on Wharf Rd., 3 mi east of Groton, MA.	-	1975	9- 9-76	*1.9
Salmon Brook	Merrimack River	Lat 42°40'42", long 71°29'37", Middlesex County, at culvert on Main St., Dunstable, MA.	-	1975	8-31-76 9- 9-76	*6.7 *4.5
Stony Brook	do	Lat 42°35'04", long 71°28'46", Middlesex County, at Town Farm Rd., 2 mi west of Westford, MA.	-	1975	9- 9-76	*3.3
do	do	Lat 42°37'22", long 71°23'35", Middlesex County, at two culverts on Meadowbrook Rd., 1 mi south of Chelmsford, MA.	-	1975	9- 9-76	*9.4
Assabet River	Concord River	Lat 42°16'16", long 71°37'59", Worcester County, at culvert on Fisher St., 1 mi west of Westborough, MA.	-	1975	8-25-76	*2.8
Hop Brook	Assabet River	Lat 42°17'35", long 71°39'48", Worcester County, at culvert on U.S. Highway 20, 2 mi southwest of Northborough, MA.	-	1975	8-25-76	*.65
Assabet River	Concord River	Lat 42°18'55", long 71°38'05", Worcester County, at culvert on railroad line east of School St., Northborough, MA.	-	1975	8-26-76	*8.4
Cold Harbor Brook	Assabet River	Lat 42°19'42", long 71°38'31", Worcester County, just below Howard Brook and above railroad bridge, just north of Northborough, MA.	-	-	8-26-76	*.74
North Brook	Assabet River	Lat 42°21'15", long 71°37'40", Worcester County, at culvert on Whitney St., 2 mi south of Berlin, MA.	-	1975	8-26-76	*1.1
Danforth Brook	do	Lat 42°23'57", long 71°34'00", Middlesex County, at culvert on Cox St., Hudson, MA.	-	1975	8-26-76	*0.4
Fort Meadow Brook	do	Lat 42°23'20", long 71°31'19", Middlesex County, at culvert on Chestnut St., 2 mi east of Hudson, MA.	-	1975	8-26-76	*1.1
Elizabeth Brook	do	Lat 42°25'47", long 71°30'56", Middlesex County, at culvert on Wheeler St., 1 mi southwest of Stow, MA.	-	1975	8-27-76 9- 1-76	*1.6 *2.6
Fort Pond Brook	do	Lat 42°28'07", long 71°24'31", Middlesex County, 400 ft upstream from confluence with Nashoba Brook, 1 mi northwest of West Concord, MA.	-	1975	9-10-76 9-27-76	*2.6 *3.4
Nashoba Brook	Fort Pond Brook	Lat 42°28'06", long 71°24'26", Middlesex County, 200 ft downstream from State Highway 2, 1 mi northwest of West Concord, MA.	-	1975	9-10-76	*3.1
Sudbury River	Concord River	Lat 42°16'02", long 71°33'12", Middlesex County, at bridge on Fruit St., 3 mi northwest of Hopkinton, MA.	-	1975	8-25-76	*5.1
do	do	Lat 42°15'36", long 71°27'25", Middlesex County, at culvert on Fountain St., Ashland, MA.	-	1975	8-25-76	*7.8
Beaverdam Brook	Lake Cochituate	Lat 42°17'04", long 71°23'33", Middlesex County, at culvert on Boden Lane, 2 mi west of Natick, MA.	-	1975	8-25-76	*2.3
Hop Brook	Wash Brook	Lat 42°22'40", long 71°25'43", Middlesex County, at culvert on Peakham Rd., 1 mi southwest of Sudbury, MA.	-	1975	8-27-76	*7.4

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1976.--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Dis- charge (ft ³ /s)
Merrimack River basin--Continued						
Wash Brook	Sudbury River	Lat 42°21'26", long 71°24'13", Middlesex County, at culvert on Landham Rd., 2 mi southeast of Sudbury, MA.	-	1975	8-27-76 9- 1-76	*10.8 *11.0
Pawtucket River basin						
Beaver River	Pawcatuck River	Lat 41°31'31", long 71°38'23", Washington County, at bridge on Hillsdale Rd., 0.3 mi north of Hillsdale, and 3.3 mi east of Wyoming, RI.	5.53	-	7-07-66 7-20-66 8-29-66 8-23-67 9-18-74 9-23-76	*3.60 5.41 *1.10 3.99 *2.51 .94
do	do	Lat 41°30'42", long 71°38'31", Washington County, at Punchbowl Trail, 0.7 mi south of Hillsdale, and 3.2 mi east of Wyoming, RI.	-	-	9-18-74 9-23-76	*2.61 *1.59
do	do	Lat 41°29'33", long 71°37'43", Washington County, at Beaver River Bridge on State Highway 138 in Richmond, 1.2 mi southwest of Usquepaug, RI, 3.3 mi north of Kenyon, and 3.6 mi upstream from mouth.	8.87	-	9-18-74	*3.92
do	do	Lat 41°28'45", long 71°37'26", Washington County, near culvert on Beaver River School Rd., 0.2 mi east of Beaver River Rd., in Richmond, 1.8 mi southwest of Usquepaug, RI.	-	-	9-18-74 10-11-74 9-21-76 9-23-76	*4.44 *4.76 *3.34 *3.04
do	do	Lat 41°28'27", long 71°37'35", Washington County, 0.7 mi north of Shannock Hill Rd., 1.9 mi northeast of Shannock, and 1.9 mi north of Kenyon, RI.	-	-	9-21-76 9-23-76	*3.90 *3.53
do	do	Lat 41°28'08", long 71°37'28", Washington County, 0.4 mi north of Shannock Hill Rd., 1.6 mi northeast of Shannock, and 1.6 mi north of Kenyon, RI.	-	-	9-21-76	*4.11
do	do	Lat 41°27'51", long 71°37'42", Washington County, at bridge on Shannock Hill Rd., 1.2 mi northeast of Shannock, and 1.2 mi north of Kenyon, RI.	11.2	-	7-07-66 7-20-66 8-29-66 8-24-67 9-19-74 10-11-74 4-19-76 9-21-76 9-23-76	*10.5 21.3 *3.41 9.72 *7.68 *5.36 27.3 *4.26 *3.59
do	do	Lat 41°27'09", long 71°37'42", Washington County, 0.3 mi above mouth and 0.4 mi north of Kenyon, RI.	11.7	-	9-19-74 10-11-74 4-19-76 9-22-76 9-23-76	5.89 *4.95 24.9 *4.31 *4.35
Pasquiset Brook	do	Lat 41°26'38", long 71°37'39", Washington County, at bridge on State Highway 2, 0.2 mi south of Kenyon, RI.	6.32	-	7-05-66 7-22-66 8-31-66 8-24-67 9-19-74 9-24-76	*2.84 1.98 *6.67 2.33 *1.69 *9.0
Taney Brook	do	Lat 41°27'38", long 71°38'54", at culvert on Shannock Hill Rd., 0.8 mi northeast of Carolina, RI.	1.67	-	7-07-66 7-20-66 8-30-66 8-24-67	*.33 *6.7 *0.6 .55

DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)
MERRIMACK RIVER BASIN											
01094400 NORTH NASHUA RIVER AT FITCHBURG, MA											
OCT. 15	0905	14.5	JAN. 13	1045	1.5	MAR. 12	0900	3.5	JUNE 21	0755	24.0
NOV. 14	1400	9.0	JAN. 30	1150	2.5	MAY 19	1100	17.5	AUG. 02	0950	19.5
01094500 NORTH NASHUA RIVER NEAR LEOMINSTER, MA											
DEC. 03	1415	5.5	MAR. 12	1330	4.5	JUNE 21	1020	20.5	SEP. 15	1445	21.5
JAN. 30	1300	2.5	MAY 19	1030	17.0	AUG. 02	1300	20.5			
01096000 SQUANNACOOK RIVER NEAR WEST GROTON, MA											
OCT. 09	0920	10.5	JAN. 16	1215	0.0	MAY 05	1110	10.5	JUNE 16	1200	22.5
NOV. 20	1330	6.5	MAR. 09	1130	2.0	AUG. 04	1045	19.5	SEP. 15	1105	18.0
01096500 NASHUA RIVER AT EAST PEPPERELL, MA											
OCT. 09	1145	13.5	MAR. 09	0915	4.5	JUNE 20	0830	26.0	AUG. 04	1215	23.5
NOV. 20	1000	8.5	MAY 05	1010	13.0	JUNE 16	1000	26.0	SEP. 15	0920	20.5
01097000 ASSARET RIVER AT MAYNARD, MA											
OCT. 17	1230	14.0	MAR. 22	0945	5.5	AUG. 03	1300	20.5	SEP. 15	1315	15.5
JAN. 15	1200	0.0	MAY 20	1015	14.5	JUNE 21	1020	23.5			
01099500 CONCORD RIVER BELOW RIVER MEADOW BROOK, AT LOWELL, MA											
OCT. 16	1125	14.5	JAN. 26	1345	1.0	MAY 14	0920	17.5	AUG. 06	1345	23.0
DEC. 02	1245	7.5	MAR. 15	1330	4.5	JUNE 17	1010	23.5	SEP. 23	1500	14.5
01100000 MERRIMACK RIVER BELOW CONCORD RIVER, AT LOWELL, MA											
MAR. 15	1200	5.5	MAY 11	0900	15.5	JUNE 17	1045	24.5	AUG. 04	1240	23.0
01100600 SHAWSHOEN RIVER NEAR WILMINGTON, MA											
NOV. 24	1050	4.5	MAR. 16	1015	3.5	JUNE 28	1220	22.0	SEP. 21	1515	14.5
JAN. 20	1230	0.0	MAY 22	0815	12.5	AUG. 06	1120	20.5			
PARKER RIVER BASIN											
01101000 PARKER RIVER AT BYFIELD, MA											
OCT. 14	1100	13.0	MAR. 10	1430	1.5	MAY 04	1300	13.5	AUG. 05	1430	19.5
JAN. 19	1525	0.0	MAR. 22	1420	6.0	JUNE 23	0630	24.5	SEP. 14	1425	19.0
IPSWICH RIVER BASIN											
01101500 IPSWICH RIVER AT SOUTH MIDDLETON, MA											
NOV. 24	1300	5.0	MAR. 10	0930	1.5	JUNE 15	1045	21.5	SEP. 14	0815	16.0
JAN. 14	0945	0.0	MAY 04	0905	13.5	AUG. 05	0845	19.0			
01102000 IPSWICH RIVER NEAR IPSWICH, MA											
NOV. 24	1445	4.0	MAR. 10	1230	1.5	JUNE 15	1240	24.0	SEP. 14	1025	17.5
JAN. 14	1125	0.5	MAY 04	1030	14.5	AUG. 05	1120	22.5			

DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)
MYSTIC RIVER BASIN											
01102500 ABERJONA RIVER AT WINCHESTER, MA											
NOV. 12	1230	12.5	FEB. 18	1400	3.5	APR. 21	1300	16.0	JULY 13	1230	23.0
DEC. 18	1300	3.5	MAR. 25	1300	9.0	MAY 26	1330	14.0	AUG. 25	1130	24.0
CHARLES RIVER BASIN											
01103305 CHARLES RIVER NEAR MILLIS, MA											
OCT. 20	1600	45.0	FEB. 05	1000	1.0	APR. 30	1400	12.0	AUG. 04	1355	25.0
DEC. 18	1000	3.5	MAR. 19	1330	5.0	JUNE 10	1255	17.0	SEP. 25	1110	15.0
01104000 MOTHER BROOK AT DEDHAM, MA											
NOV. 03	1230	9.5	FEB. 03	1500	1.5	MAY 26	1200	15.5	AUG. 25	1400	23.0
DEC. 08	1000	2.0	MAR. 25	0900	6.0	JULY 07	0900	23.0			
01104200 CHARLES RIVER AT WELLESLEY, MA											
NOV. 12	1000	12.5	MAR. 18	1000	1.5	JUNE 09	0900	21.0	JULY 07	1330	23.0
DEC. 11	1000	3.0	APR. 16	0830	12.0						
01104500 CHARLES RIVER AT WALTHAM, MA											
NOV. 21	1410	8.5	MAR. 23	1145	6.5	JUNE 28	0940	25.5	SEP. 21	1125	17.0
JAN. 20	0830	1.0	MAY 12	1030	17.5	AUG. 06	0730	22.5			
NEPONSET RIVER BASIN											
01105000 NEPONSET RIVER AT NORWOOD, MA											
NOV. 03	1100	12.0	FEB. 03	1100	1.0	APR. 20	0830	20.0	JULY 09	1200	23.5
DEC. 08	1300	4.0	MAR. 25	1030	7.0	MAY 26	1030	14.5	AUG. 24	1230	23.0
01105500 EAST BRANCH NEPONSET RIVER AT CANTON, MA											
DEC. 08	1200	2.0	APR. 20	1030	19.0	JULY 07	1000	23.0	AUG. 24	1000	23.0
MAR. 25	1130	7.0	MAY 26	0930	14.0						
BLACKS CREEK BASIN											
01105557 FURNACE BROOK AT QUINCY, MA											
NOV. 05	1030	12.5	MAR. 16	0930	4.5	JULY 15	0900	18.0	SEP. 01	0900	16.5
DEC. 05	0930	8.0	APR. 14	0900	9.5	JULY 29	0930	17.0	SEP. 15	1000	18.0
FEB. 12	0830	3.0	JUNE 01	1130	15.5						
WEYMOUTH FORE RIVER BASIN											
01105585 TOWN BROOK AT QUINCY, MA											
NOV. 05	0930	12.0	FEB. 12	1030	3.0	APR. 14	1030	10.5	SEP. 15	1030	21.0
DEC. 15	1030	8.5	MAR. 16	1030	4.5	JULY 15	1030	20.0			
WEYMOUTH BACK RIVER BASIN											
01105600 OLD SWAMP RIVER NEAR SOUTH WEYMOUTH, MA											
NOV. 05	1200	12.0	FEB. 12	1130	3.5	APR. 14	1200	11.5	JULY 15	1200	21.0
DEC. 15	1130	8.5	MAR. 16	1330	4.0	JUNE 01	0830	17.0	SEP. 01	1230	18.0

DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)
NORTH RIVER BASIN											
01105730 INDIAN HEAD RIVER AT HANOVER, MA											
NOV. 05	1330	12.5	FEB. 12	1330	3.5	JUNE 02	0930	17.0	SEP. 15	1200	24.0
DEC. 15	1300	8.0	APR. 15	1500	11.0	JULY 15	1330	22.0			
JONES RIVER BASIN											
01105870 JONES RIVER AT KINGSTON, MA											
NOV. 10	0930	13.0	MAR. 22	1200	8.5	JULY 29	1200	16.0	SEP. 01	1430	20.0
FEB. 04	1330	1.5	JUNE 02	1100	15.5						
HERRING RIVER BASIN											
01105880 HERRING RIVER AT NORTH HARWICH, MA											
NOV. 14	1100	12.0	MAR. 24	1100	9.0	JUNE 03	1000	17.0	JULY 20	1200	25.0
DEC. 19	1100	3.0	APR. 15	0930	10.5	JUNE 09	1130	22.0	AUG. 31	1300	20.0
FEB. 19	1200	5.0									
WEST BRANCH WESTPORT RIVER BASIN											
01106000 ADAMSVILLE BROOK AT ADAMSVILLE, RI											
OCT. 20	1300	9.0	FEB. 17	1100	4.5	APR. 12	1530	7.5	JULY 12	1000	23.0
DEC. 10	1200	7.0	MAR. 15	1500	7.0	JUNE 03	1100	14.5	AUG. 30	1300	20.0
TAUNTON RIVER BASIN											
01108000 TAUNTON RIVER AT STATE FARM, NEAR BRIDGEWATER, MA											
NOV. 10	1200	12.5	FEB. 04	1000	01.5	MAR. 22	0930	8.0	APR. 19	1000	14.0
01108500 WADING RIVER AT WEST MANSFIELD, MA											
NOV. 11	0930	13.0	FEB. 18	0900	3.5	APR. 13	0930	6.0	JULY 06	1000	24.0
DEC. 12	1000	2.5	MAR. 23	1030	5.5	MAY 24	1000	15.5	SEP. 14	1130	23.0
01109000 WADING RIVER NEAR NORTON, MA											
NOV. 11	1230	13.0	MAR. 23	1230	6.0	MAY 24	1200	14.5	SEP. 14	1300	23.0
FEB. 18	1130	3.5	APR. 13	1100	7.0	JULY 06	1300	24.0			
01109060 THREE MILE RIVER AT NORTH DIGHTON, MA											
NOV. 04	1200	12.0	FEB. 06	1130	1.5	APR. 12	1030	6.5	JULY 08	1000	24.0
DEC. 09	1230	2.0	MAR. 15	1000	6.0	MAY 25	1000	14.0			
01109070 SEGREGANSET RIVER NEAR DIGHTON, MA											
NOV. 04	1000	12.0	FEB. 06	1330	1.5	APR. 12	1230	7.0	JULY 08	1200	24.0
DEC. 09	1030	2.0	MAR. 15	1230	6.5	MAY 25	1300	14.0	AUG. 30	1300	21.0
BLACKSTONE RIVER BASIN											
01109500 KETTLE BROOK AT WORCESTER, MA											
MAR. 31	1210	9.0	MAY 18	1210	20.0	SEP. 10	1340	19.0			

[illegible]

DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)
POTOWOMUT RIVER BASIN											
01117000 POTOWOMUT RIVER NEAR EAST GREENWICH, RI											
OCT. 01	1100	15.5	FEB. 09	0900	0.5	MAY 25	1100	14.0	SEP. 08	1000	17.0
DEC. 16	1300	8.0	APR. 09	1230	8.0	JULY 13	1500	23.5			
PAWCATUCK RIVER BASIN											
01117468 BEAVER RIVER NEAR USQUEPAUG, RI											
OCT. 08	1130	8.0	JAN. 22	0945	1.0	APR. 06	1210	9.0	JULY 21	1000	16.0
NOV. 18	1020	6.5	MAR. 17	1225	3.0	MAY 12	0855	12.5	SEP. 05	0700	12.5
JAN. 06	0840	0.0									
01117500 PAWCATUCK RIVER AT WOOD RIVER JUNCTION, RI											
OCT. 01	1345	15.5	APR. 09	0655	8.0	JULY 09	0900	21.5	AUG. 24	0900	21.5
DEC. 17	1015	4.0	MAY 18	1115	16.0						
01117800 WOOD RIVER NEAR AWCADIA, RI											
OCT. 07	1100	12.5	APR. 02	0820	7.0	MAY 18	1430	16.5	JULY 13	0845	16.5
01118000 WOOD RIVER AT HOPE VALLEY, RI											
OCT. 01	1145	15.5	APR. 09	0825	7.5	MAY 18	1300	17.5	AUG. 24	0650	20.5
DEC. 17	0915	4.5									
01118500 PAWCATUCK RIVER AT WESTERLY, RI											
APR. 08	0800	9.5	MAY 18	0900	17.0	JULY 12	1500	27.0	SEP. 01	0800	18.5
THAMES RIVER BASIN											
01123360 QUINEBAUG RIVER BELOW EAST BRIMFIELD DAM, AT FISKDALE, MA											
MAY 20	1145	15.0	JULY 12	1015	29.0	AUG. 19	1030	24.5	SEP. 22	1600	20.5
01123600 QUINEBAUG RIVER BELOW WESTVILLE DAM, NEAR SOUTHBRIDGE, MA											
JULY 12	1530	23.0	AUG. 19	1330	21.0	SEP. 21	1615	19.5			
01124350 FRENCH RIVER BELOW HODGES VILLAGE DAM, AT HODGES VILLAGE, MA											
MAY 20	0800	12.0	JUNE 14	1430	21.0	SEP. 22	1115	20.0			
01124500 LITTLE RIVER AT RUFFUMVILLE, MA											
MAY 20	0945	15.0	SEP. 22	1400	19.5						
01125000 FRENCH RIVER AT WEBSTER, MA											
APR. 07	0845	9.5	MAY 21	1115	14.0	JUNE 07	1630	23.0	SEP. 21	1345	20.0
CONNECTICUT RIVER BASIN											
01161500 TARBELL BROOK NEAR WINCHENDON, MA											
DEC. 11	0900	2.0	MAR. 17	1630	1.0	MAY 21	1630	12.0	SEP. 07	0900	13.5
FEB. 26	1030	1.5	APR. 13	1600	6.0	JULY 13	0930	21.0			

DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)
CONNECTICUT RIVER BASIN--CONTINUED											
01162000 MILLERS RIVER NEAR WINCHENDON, MA											
OCT. 24	1200	11.5	FEB. 26	1330	2.0	JUNE 02	1530	20.5	SEP. 02	1600	18.0
DEC. 11	1130	2.0	APR. 13	1400	6.0	JULY 09	0900	21.0			
01162500 PRIEST BROOK NEAR WINCHENDON, MA											
OCT. 10	1100	9.5	FEB. 26	1500	1.5	MAY 21	1330	12.0	SEP. 02	1430	18.0
DEC. 11	1200	2.0	APR. 13	1000	4.0	JULY 08	1530	24.0			
01163200 OTTER RIVER AT OTTER RIVER, MA											
OCT. 07	1000	10.0	JAN. 08	1530	0.5	APR. 16	1500	12.5	JULY 16	1130	22.0
OCT. 10	0900	10.0	FEB. 27	0900	2.0	JUNE 02	1700	19.0	SEP. 14	0900	15.5
DEC. 02	1600	2.0									
01164000 MILLERS RIVER AT SOUTH ROYALSTON, MA											
MAR. 05	0900	1.5	JUNE 07	1030	14.0	JULY 16	1000	21.0	SEP. 08	1430	18.0
APR. 28	0930	6.0									
01165000 EAST BRANCH TULLY RIVER NEAR ATHOL, MA											
OCT. 09	0930	12.0	JAN. 14	1100	1.0	APR. 12	1100	7.0	JULY 02	1030	23.5
OCT. 21	1000	9.0	MAR. 02	1400	0.5	MAY 17	1000	21.0	SEP. 02	1130	20.0
DEC. 10	1330	2.0									
01165300 LAKE ROHINTA OUTLET NEAR ATHOL, MA											
DEC. 10	1130	2.0	MAR. 02	0830	0.5	JUNE 01	0930	21.0	SEP. 01	0900	21.0
JAN. 13	1600	1.0	APR. 16	1230	10.5	JULY 08	1330	23.5			
01165500 MOSS BROOK AT WENDELL DEPOT, MA											
NOV. 06	1530	8.0	MAR. 04	1630	1.0	MAY 21	0930	9.0	JULY 07	1100	12.0
DEC. 23	1430	1.0	APR. 12	1530	5.0						
01166500 MILLERS RIVER AT ERVING, MA											
NOV. 06	1430	10.0	JUNE 04	0930	14.5	JULY 07	1630	23.5	SEP. 08	1000	15.5
MAR. 05	1500	3.0									
01168151 DEERFIELD RIVER NEAR HOWE, MA											
MAR. 25	1400	4.0	JULY 21	1400	20.0	SEP. 09	1000	19.0	SEP. 13	1100	18.0
JUNE 10	1030	17.0	AUG. 12	1200	18.0						
01168500 DEERFIELD RIVER AT CHARLEMONT, MA											
DEC. 29	1100	0.0	MAR. 15	1400	15.0	JULY 19	1030	20.0	SEP. 03	1045	19.0
01169000 NORTH RIVER AT SHATTUCKVILLE, MA											
DEC. 16	1300	4.0	MAR. 11	1200	3.0	JUNE 10	1400	19.0	AUG. 30	1230	20.5
FEB. 05	1500	0.0	APR. 27	1400	7.0	JULY 12	1230	23.0			
01169900 SOUTH RIVER NEAR CONWAY, MA											
OCT. 10	1630	10.0	FEB. 04	1630	0.0	JUNE 04	1300	18.0	JULY 14	1400	21.0
OCT. 15	1200	12.5	MAR. 12	1200	1.0	JUNE 21	1530	24.0	AUG. 30	1630	20.5
DEC. 04	1010	1.0	APR. 27	1000	6.5						
01170000 DEERFIELD RIVER NEAR WEST DEERFIELD, MA											
OCT. 15	1430	14.5	MAR. 26	1300	5.0	JUNE 10	1600	23.5	JULY 19	1430	21.0

DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)
CONNECTICUT RIVER BASIN--CONTINUED											
01180500 MIDDLE BRANCH WESTFIELD RIVER AT GOSS HEIGHTS, MA											
OCT. 16	1400	12.0	FEB. 05	1400	0.0	JUNE 08	1400	18.5	AUG. 24	1800	25.5
DEC. 24	1200	1.0	APR. 04	1230	6.0	JULY 12	0930	25.0			
01181000 WEST BRANCH WESTFIELD RIVER AT HUNTINGTON, MA											
OCT. 23	1137	9.5	JAN. 21	1040	0.5	APR. 22	1130	14.0	JULY 22	1210	21.0
NOV. 20	1130	6.5	FEB. 19	1255	0.5	MAY 24	1115	12.0	AUG. 23	1415	24.0
DEC. 14	1200	0.5	MAR. 23	1300	4.0	JUNE 21	1120	22.0	SEP. 23	1510	16.5
01183450 GREAT BROOK NEAR WESTFIELD, MA											
NOV. 07	1345	10.5	FEB. 05	1700	0.0	JULY 15	1530	22.0	SEP. 23	1530	20.5
DEC. 16	1400	6.0	JUNE 04	1645	20.5	AUG. 10	1215	19.5			
01183500 WESTFIELD RIVER NEAR WESTFIELD, MA											
JUNE 09	1000	19.5	JULY 15	1800	22.0	AUG. 18	1300	23.0	SEP. 23	1715	19.5
01185100 FALL RIVER BELOW OTIS RESERVOIR, NEAR OTIS, MA											
NOV. 05	1415	10.5	FEB. 25	1445	2.0	JULY 09	1330	18.0	AUG. 24	1145	18.5
DEC. 29	1500	1.0	JUNE 10	1030	18.0						
01185500 WEST BRANCH FARMINGTON RIVER NEAR NEW BOSTON, MA											
NOV. 05	1145	10.5	FEB. 25	1230	2.0	JULY 08	1215	23.5	AUG. 24	1015	19.5
DEC. 30	1145	0.0	APR. 14	1315	19.0						
HOUSATONIC RIVER BASIN											
01197000 EAST BRANCH HOUSATONIC RIVER AT COLTSVILLE, MA											
DEC. 19	1100	2.0	APR. 21	1700	16.5	JUNE 03	1030	14.5	JULY 08	1000	19.5
FEB. 14	1730	0.0									
01197500 HOUSATONIC RIVER NEAR GREAT BARRINGTON, MA											
NOV. 20	1430	7.5	APR. 20	1810	16.0	JULY 08	1120	20.5			
HUDSON RIVER BASIN											
01331500 HOOSIC RIVER AT ADAMS, MA											
OCT. 15	1630	12.5	DEC. 17	1115	1.0	APR. 02	1030	6.0	JULY 07	0915	19.0
OCT. 20	1200	11.5	FEB. 18	1200	0.0	MAY 20	1315	8.0	AUG. 20	0930	16.0
OCT. 21	1130	11.0	MAR. 25	0930	3.5						
01332000 NORTH BRANCH HOOSIC RIVER AT NORTH ADAMS, MA											
NOV. 12	1330	10.5	DEC. 17	1315	1.0	APR. 22	1430	13.0	JULY 07	1315	18.0
01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MA											
NOV. 12	1545	10.5	FEB. 18	1545	0.5	JULY 07	1615	20.5	AUG. 19	1845	18.0
DEC. 17	1445	2.0	MAY 20	1530	8.0						
01333000 GREEN RIVER AT WILLIAMSTOWN, MA											
OCT. 15	1805	12.0	OCT. 21	0915	12.0	FEB. 18	1400	0.5	JULY 07	1650	19.5
OCT. 20	1445	12.0	DEC. 17	1630	1.0	JUNE 02	1300	15.5			

BARNSTABLE COUNTY

413956070164301 (revised). Local number, AIW 230 (Formerly published as Barnstable 230).

LOCATION (revised).--Lat 41°59'56", long 70°16'43", Hydrologic Unit 01090002, 50 ft (15 m) west of Mary Dunn Road at Hyannis Airport and 0.3 mi (0.5 km) 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 (0.03 m), depth 35.8 ft (10.9 m), screened 32.8 to 35.8 ft (10.0 to 10.9 m).

DATUM.--Land-surface datum is 43.23 ft (13.18 m) above mean sea level. Measuring point: Top of casing, 0.7 ft (0.2 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.05 ft (6.42 m) below land-surface datum, May 12, 1973; lowest, 26.22 ft (7.99 m) below land-surface datum, Oct. 25, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.97	23.64	23.03	22.24	21.26	21.57	21.51	22.18	22.78E	23.37	23.8A	24.26
10	23.90	23.64	22.92	22.09	21.15	21.65	21.66	22.26	22.87	23.48	23.89	24.35
15	23.83	23.58	22.82	21.92	21.15	21.69	21.75	22.35	22.98	23.51	23.95	24.45
20	23.80	23.42	22.74	21.76E	21.24	21.61	21.86	22.45	23.09	23.58	24.00	24.53
25	23.74	23.27	22.65	21.71	21.40	21.52	21.98	22.55	23.19	23.69	24.08	24.62
EOM	23.69	23.13	22.47	21.35	21.47	21.49	22.08	22.69E	23.30	23.83	24.19	24.72

E, ESTIMATED.

414518070020301. Local number, BMW 21 (Formerly published as Brewster 21).

LOCATION.--Lat 41°45'18", long 70°02'03", Hydrologic Unit 01090002, about 50 ft (15 m) north of Nook Road, 0.1 mi (0.2 km) south of Cliff Pond, 0.3 mi (0.5 km) 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 (0.06 m), depth 25 ft (7.6 m), screened 22 to 25 ft (6.7 to 7.6 m).

DATUM.--Land-surface datum is 36.97 ft (11.27 m), corrected, above mean sea level. Measuring point: Top of casing, 2.40 ft (0.73 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.90 ft (2.10 m) below land-surface datum, Apr. 25, 1974; lowest measured, 13.34 ft (4.07 m) below land-surface datum, Oct. 25, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	10.18	DEC 16	10.02	FEB 24	8.81	APR 26	8.45	JUN 28	8.88	AUG 26	9.52
NOV 25	10.00	JAN 22	9.26	MAR 24	8.12	MAY 27	8.59	JUL 29	9.25	SEP 29	9.98

413449070322401. Local number, FSW 5 (Formerly published as Falmouth 5).

LOCATION.--Lat 41°34'49", long 70°32'24", Hydrologic Unit 01090002, near old pumping house, about 300 ft (90 m) southwest of water tank, 400 ft (120 m) northwest of intersection of Fresh Pond Road and State Highway 28 in Falmouth.

Owner: Town of Falmouth.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2.5 in (0.06 m), depth 50 ft (15.2 m), cased to 50 ft (15.2 m), open end.

DATUM.--Land-surface datum is 11.18 ft (3.41 m) above mean sea level. Measuring point: Top of casing, 0.23 ft (0.05 m) above land-surface datum.

PERIOD OF RECORD.--August 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.55 ft (0.78 m) below land-surface datum, May 1, 1958; lowest measured, 5.69 ft (1.73 m) below land-surface datum, Dec. 31, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	4.94	DEC 15	4.35	FEB 24	3.52	APR 27	3.62	JUN 29	3.66	AUG 25	4.69
NOV 25	4.59	JAN 28	3.60	MAR 23	3.75	MAY 25	4.13	JUL 28	3.70	SEP 29	5.19

GROUND-WATER LEVELS IN MASSACHUSETTS

420239070062001. Local number, TSW 1 (Formerly published as Truro 1).

LOCATION.--Lat 42°02'39", long 70°06'20", Hydrologic Unit 01090002, near old pumping station about 200 ft (60 m) north of State Highway 6A and 1.2 mi (1.9 km) 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 (0.03 m), depth 68 ft (20.7 m), cased to 68 ft (20.7 m), open end.

DATUM.--Land-surface datum is 16.80 ft (5.12 m), corrected, above mean sea level. Measuring point: Top of casing, 3.50 ft (1.07 m) 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, 9.73 ft (2.97 m) below land-surface datum, Dec. 27, 1972; lowest measured, 12.1 ft (3.69 m) below land-surface datum, Sept. 11, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	10.78J	DEC 29	10.54J	FEB 25	10.25J	APR 28	10.65J	JUN 28	11.10J	AUG 26	11.32J
NOV 24	10.61J	JAN 29	10.54J	MAR 24	10.34J	MAY 25	10.77J	JUL 27	11.22J	SEP 28	11.04J

J, NEARBY WELL EITHER BEING PUMPED OR PUMPED RECENTLY.

BERKSHIRE COUNTY

423503073075401. Local number, CUW 2 (Formerly published as Cheshire 2).

LOCATION.--Lat 42°35'03", long 73°07'54", Hydrologic Unit 02020003, at intersection of Wells and Jenks Roads 2.3 mi (3.7 km) northeast of Cheshire.

Owner: John Jayko.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in (0.76 m), depth 22 ft (6.7 m), cased with stone to 22 ft (6.7 m), open end.

DATUM.--Altitude of land-surface datum is 1,210 ft (369 m). Measuring point: Inside rim of concrete well top, 1.0 ft (0.3 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.09 ft (0.03 m) below land-surface datum, Jan. 19, 1952; lowest measured, 14.03 ft (4.28 m) below land-surface datum, Nov. 20, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	3.46	DEC 30	5.30	FEB 26	2.69	APR 29	3.28	JUN 25	6.48	AUG 27	6.16
NOV 26	2.86	JAN 26	2.14	MAR 30	1.47	MAY 28	3.03	JUL 28	8.46	SEP 23	8.22

421316073212801. Local number, GMW 2 (Formerly published as Great Barrington 2).

LOCATION.--Lat 42°13'16", long 73°21'28", Hydrologic Unit 01100005, 30 ft (9 m) west of State Highway 41 and 1.5 mi (2.4 km) 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 (0.91 m), depth 15 ft (4.6 m), cased with stone to 15 ft (4.6 m), open end.

DATUM.--Altitude of land-surface datum is 732 ft (223 m). Measuring point: Top of stone curbing, east side of well at land-surface datum.

REMARKS.--Water level affected by stream.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.02 ft (1.23 m) below land-surface datum, Feb. 12, 1970; lowest, 14.97 ft (4.56 m) below land-surface datum, Nov. 20, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.52	9.27	7.92	8.86	6.99	8.02	7.54	8.60	10.09	11.32	12.71	12.30
10	10.32	8.94	8.41	9.12	7.68	8.45	8.35	8.96	10.39	11.97	7.01	12.50
15	8.67	7.20	8.35	7.58	7.48	8.34	8.99	9.14	10.75	12.37	9.59	12.29
20	5.62	8.06	8.57	8.75	6.95	8.50	9.25	7.80	10.95	12.59	10.74	12.53
25	7.83	7.44	7.77	8.80	7.51	8.35	9.77	8.70	10.99	12.66	11.41	12.64
EOM	8.92	7.84	7.70	6.97	7.87	8.10	9.20	9.93	11.53	12.69	11.96	12.67

ESSEX COUNTY

424841071004101. Local number, HLW 23 (Formerly published as Haverhill 23).

LOCATION.--Lat 42°48'41", long 71°00'41", Hydrologic Unit 01070002, about 50 ft (15 m) north of Amesbury Line Road and 0.9 mi (1.4 km) south of State Highway 110 in Haverhill.

Route 110.

Owner: Benjamin Hamm.

AQUIFER.--Glacial sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 12 in (0.3 m), depth 15.1 ft (4.6 m), cased with tile to 15.1 ft (4.6 m), open end.

DATUM.--Altitude of land-surface datum is 105 ft (32 m). Measuring point: Top of hole in base of wooden recorder shelter, 1 ft (0.3 m) above land-surface datum.

PERIOD OF RECORD.--October 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.08 ft (2.46 m) below land-surface datum, Apr. 19, 1961; lowest, 15.02 ft (5.48 m) below land-surface datum, Feb. 2, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.35	12.64	11.28	10.35	9.59	9.12	9.24	10.69	11.96	13.00	13.71	14.05
10	13.36	12.71	11.03	10.42	9.47	8.86	9.40	10.93	12.14	13.15	13.64	14.13
15	13.34	12.19	10.53	10.23	9.20	8.98	9.63	11.13	12.33	13.23	13.71	14.19
20	13.15	11.99	10.36	10.24	8.79	9.08	9.90	11.32	12.51	13.36	13.75	14.25
25	12.76	11.71	10.58	10.42	8.70	8.86	10.19	11.51	12.70	13.49	13.86	14.33
EOB	12.65	11.53	10.25	9.89	8.84	9.17	10.45	11.75	12.86	13.63	13.97	14.38

425103070513401. Local number, SBW 9 (Formerly published as Salisbury 9).

LOCATION.--Lat 42°51'03", long 70°51'34", Hydrologic Unit 01070002, at intersection of Gerrish and Seabrook Roads 0.6 mi (1.0 km) 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 (0.76 m), depth 11 ft (3.4 m), cased with tile to 11 ft (3.4 m), open end.

DATUM.--Altitude of land-surface datum is 35 ft (11 m). Measuring point: Top inside lip of tile casing, 1.60 ft (0.49 m) above land-surface datum.

PERIOD OF RECORD.--August 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.06 ft (0.93 m) below land-surface datum, Mar. 27, 1969; lowest measured, 8.20 ft (2.50 m) below land-surface datum, Sept. 25, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	4.50	DEC 23	4.71	FEB 23	3.64	APR 26	4.96	JUN 28	6.68	AUG 25	6.30
NOV 24	3.94	JAN 21	4.45	MAR 25	4.14	MAY 25	4.96	JUL 26	7.28	SEP 21	7.11

FRANKLIN COUNTY

423305072320301. Local number, M5W 5 (Formerly published as Montague 5).

LOCATION.--Lat 42°33'05", long 72°32'03", Hydrologic Unit 01080201, about 15 ft (5 m) west of Montague Road, 0.2 mi (0.3 km) north of Old Northfield Road, and 1.0 mi (1.6 km) north of Montague.

Owner: Thomas C. Kurtyka.

AQUIFER.--Glacial outwash of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in (0.03 m), depth 12 ft (3.6 m), screened 9 to 12 ft (2.7 to 3.6 m).

DATUM.--Altitude of land-surface datum is 240 ft (73 m). Measuring point: Top of casing, 1.75 ft (0.69 m) above land-surface datum.

PERIOD OF RECORD.--January 1936 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.41 ft (0.11 m) below land-surface datum, Feb. 26, 1976; lowest measured, 8.00 ft (2.44 m) below land-surface datum, Dec. 28, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	1.71	DEC 30	1.60	FEB 26	0.41	APR 29	0.62	JUN 28	1.41	AUG 27	2.07
NOV 26	1.48	JAN 26	1.77	MAR 30	0.60	MAY 28	0.71	JUL 28	2.03	SEP 28	1.63

422605072435401. Local number, S6W 7 (Formerly published as Sunderland 7).

LOCATION (revised).--Lat 42°26'07", long 72°32'44", Hydrologic Unit 01080201, about 100 ft (30 m) east of State Highway 116 and 30 ft (10 m) north of Russellville Brook in Sunderland.

AQUIFER.--Glacial outwash of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2.5 in (0.06 m), depth 54 ft (16.5 m), cased to 54 ft (16.5 m), open end.

DATUM.--Altitude of land-surface datum is 210 ft (64 m). 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 (2.09 m) below land-surface datum, Apr. 25, 1973; lowest measured, 23.26 ft (7.09 m) below land-surface datum, Feb. 24, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	10.21	DEC 30	9.60	FEB 26	10.27	APR 29	9.29	JUN 28	12.00	AUG 26	15.33
NOV 26	9.74	JAN 26	8.67	MAR 30	10.10	MAY 28	10.43	JUL 28	12.50	SEP 28	15.34

HAMPDEN COUNTY

420646072420101. Local number, WYW 62 (Formerly published as Westfield 62).

LOCATION.--Lat 42°06'46", long 72°42'01", Hydrologic Unit 01080206, at Western Massachusetts Hospital about 200 ft (60 m) east of East Mountain Road and 0.4 mi (0.6 km) 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 (0.06 m), depth 25 ft (7.6 m), casing information not available.

DATUM.--Altitude of land-surface datum is 210 ft (64 m). Measuring point: Top of casing, 3.5 ft (1.1 m) 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 (1.13 m) below land-surface datum, Oct. 29, 1975; lowest measured, 11.18 ft (3.41 m) below land-surface datum, Sept. 5, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	3.70	DEC 29	5.60	FEB 25	5.15	APR 28	5.62	JUN 28	9.86	AUG 26	9.75
NOV 25	4.91	JAN 22	7.38	MAR 29	5.78	MAY 27	6.15	JUL 28	8.09	SEP 27	9.04

HAMPSHIRE COUNTY

421355072322001. Local number, GKW 68 (Formerly published as Granby 68).

LOCATION.--Lat 42°13'55", long 72°32'20", Hydrologic Unit 01080201, about 15 ft (5 m) east of Morgan Street, 0.3 mi (0.5 km) south of East Street, and 2.0 mi (3.2 km) 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 (0.03 m), depth 18 ft (5.5 m), screened 16 to 18 ft (4.9 to 5.5 m).

DATUM.--Land-surface datum is 239.17 ft (72.90 m) above mean sea level. 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, 4.99 ft (1.52 m) below land-surface datum, Aug. 22, Nov. 15, 1955; lowest measured, 11.17 ft (3.40 m) below land-surface datum, Nov. 25, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	5.39	DEC 29	6.46	FEB 25	5.20	APR 28	6.48	JUN 28	7.69	AUG 26	8.96
NOV 25	5.58	JAN 22	6.70	MAR 29	5.99	MAY 27	6.65	JUL 28	8.74	SEP 27	9.53

MIDDLESEX COUNTY

422316071092501. Local number, CAW 667 (Formerly published as Cambridge 667).

LOCATION.--Lat 42°23'16", long 71°09'25", Hydrologic Unit, 01090001, 270 ft (80 m) east of Blanchard Road and 950 ft (290 m) south of Concord Avenue, at Fresh Pond Golf Course in Cambridge.

Owner: Cambridge Water Department.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.2 m), depth 129 ft (39.2 m), casing information not available.

DATUM.--Land-surface datum is 11.63 ft (3.54 m) above mean sea level. Measuring point: Top of casing, 0.39 ft (0.12 m) above land-surface datum.

PERIOD OF RECORD.--October 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.14 ft (1.57 m) below land-surface datum, Dec. 29, 1969; lowest measured, 27.21 ft (8.29 m) below land-surface datum, Dec. 27, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	13.36	DEC 24	11.18	FEB 24	8.28	APR 27	5.86	JUN 25	8.31	AUG 27	12.81
NOV 28	12.63	JAN 30	6.38	MAR 25	6.96	MAY 28	5.72	JUL 28	11.53	SEP 23	13.91

423845071231401. Local number, CHW 68 (Formerly published as Chelmsford 68).

LOCATION.--Lat 42°38'45", long 71°23'14", Hydrologic Unit 01070002, 1,300 ft (400 m) north of intersection of Wharton Lane and B & M Railroad, 400 ft (640 m) east of Middlesex Street, and 0.5 mi (0.8 km) north of Vinal Square in North Chelmsford.

Owner: Mrs. Harold Blakie.

AQUIFER.--Glacial outwash of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 50 ft (15.2 m), cased to 50 ft (15.2 m), open end.

DATUM.--Land-surface datum is 100.83 ft (30.73 m) above mean sea level. Measuring point: Top of hole in cap on casing, 1.40 ft (0.43 m) below land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.25 ft (1.60 m) below land-surface datum; Apr. 25, 1969; lowest measured, 12.24 ft (3.73 m) below land-surface datum, Sept. 28, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	7.52	DEC 23	6.78	FEB 23	6.09	APR 26	7.72	JUN 28	10.01	AUG 25	9.15
NOV 24	6.80	JAN 21	7.46	MAR 25	7.06	MAY 25	8.23	JUL 26	10.26	SEP 21	9.77

423812071174801. Local number, L2W 14 (Formerly published as Lowell 14).

LOCATION.--Lat 42°38'12", long 71°17'48", Hydrologic Unit, 01070005, at YWCA (formerly Rogers Hall School), about 50 ft (15 m) north of Rogers Street, and 800 ft (240 m) northwest of intersection of Rogers Street and State Highway 38 in Lowell.

Owner: Y.W.C.A.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in (0.61 m), depth 30 ft (9.1 m), cased with stone to 30 ft (9.1 m), open end.

DATUM.--Land-surface datum is 157.78 ft (48.09 m) above mean sea level. Measuring point: Top edge of stone slab under wooden cover, 0.20 ft (0.06 m) below land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.79 ft (2.37 m) below land-surface datum, Mar. 27, 1958; lowest measured, 19.79 ft (6.03 m) below land-surface datum, Dec. 29, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	15.12	DEC 23	11.57	FEB 23	9.78	APR 26	10.16	JUN 28	12.99	AUG 25	15.69
NOV 24	13.17	JAN 30	10.45	MAR 25	8.94	MAY 25	10.93	JUL 26	14.54	SEP 21	16.60

GROUND-WATER LEVELS IN MASSACHUSETTS

423329071122501. Local number, XMW 10 (Formerly published as Wilmington 10).

LOCATION.--Lat 42°33'29", long 71°12'25", Hydrologic Unit 01090001, about 50 ft (15 m) south of Hopkins Street and 0.3 mi (0.5 km) west of Shawshen Avenue (State Highway 129) in Wilmington.

Owner: L. Chisholm.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in (0.91 m), depth 9.0 ft (2.7 m), cased with stone to 9.0 ft (2.7 m), open end.

DATUM.--Land-surface datum is 113.63 ft (34.63 m) above mean sea level. Measuring point: Projecting stone in well, 0.17 ft (0.05 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.45 ft (0.14 m) below land-surface datum, Feb. 27, 1968; dry, Sept. 27, 1941, Nov. 1, 1941, Oct. 30, 1957, Aug. 26, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	1.97	DEC 23	1.25	FEB 23	1.14	APR 26	1.06	JUN 28	5.13	AUG 25	4.61
NOV 24	1.32	JAN 21	1.81	MAR 25	1.49	MAY 25	2.38	JUL 26	5.69	SEP 21	5.38

423401071093801. Local number, XMW 78 (Formerly published as Wilmington 78).

LOCATION.--Lat 42°34'01", long 71°09'38", Hydrologic Unit 01090001, at Whitefield Public School in Wilmington, about 30 ft (9 m) west of State Highway 62, and 0.3 mi (0.5 km) 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 (1.07 m), depth 12 ft (3.7 m) cased with stone to 12 ft (3.7 m), open end.

DATUM.--Altitude of land-surface datum is 95 ft (29 m). Measuring point: Hole in base of wooden recorder shelter, 0.33 ft (0.10 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.46 ft (1.36 m) above land-surface datum, Feb. 27, 1976; lowest, 11.27 ft (3.44 m) below land-surface datum, Oct. 30, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.09	7.16	6.12	5.78	5.03	5.33	5.95	6.89	7.66	8.59	8.97	8.69E
10	8.22	7.29	6.06	5.89	5.11	5.53	6.13	7.00	7.81	8.75	8.60	8.76E
15	8.02	6.62	5.94	5.35	4.95	5.61	6.36	7.11	7.98	8.85	8.35	8.84E
20	7.51	6.52	5.92	5.61	4.62	5.57	6.57	7.23	8.16	9.00	8.35	8.92E
25	7.16	6.15	6.21	5.82	4.85	5.59	6.71	7.33	8.32	9.14	8.52	8.98
EOM	7.10	6.15	5.65	5.12	5.23	5.91	6.82	7.50	8.46	8.89	8.59	9.06

E, ESTIMATED.

NORFOLK COUNTY

421435071165701. Local number, DVW 10 (Formerly published as Dover 10).

LOCATION.--Lat 42°14'35", long 71°16'57", Hydrologic Unit 01090001, at Dover Public School about 400 ft (120 m) southwest of and about 400 ft (120 m) 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 (0.05 m), depth 54 ft (16.5 m), screened 52 to 54 ft (15.8 to 16.5 m).

DATUM.--Altitude of land-surface datum is 160 ft (48.8 m). Measuring point: Top of casing, 3 ft (0.9 m) above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.25 ft (9.22 m) below land-surface datum, Feb. 20, 1970; lowest measured, 36.87 ft (11.24 m) below land-surface datum, Jan. 21, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	33.74	DEC 30	31.94	FEB 25	30.95	APR 28	32.05	JUN 28	33.34	AUG 26	34.36
NOV 20	32.99	JAN 26	31.10	MAR 30	31.60	MAY 27	32.59	JUL 27	34.01	SEP 27	34.53

420432071151201. Local number, FXW 3 (Formerly published as Foxborough 3).

LOCATION.--Lat 42°04'32", long 71°15'12", Hydrologic Unit 01090004, at Foxborough State Hospital, near railroad tracks, 100 ft (30 m) east of driveway, and 250 ft (76 m) 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 (0.05 m), depth 32 ft (9.8 m), screened 30 to 32 ft (9.2 to 9.8 m).

DATUM.--Altitude of land-surface datum is 290 ft (88 m). Measuring point: Top of casing, 3 ft (0.9 m) above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.24 ft (4.95 m) below land-surface datum, Mar. 25, 1968; lowest measured, 21.42 ft (6.53 m) below land-surface datum, Dec. 28, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	18.94	DEC 30	18.11	FEB 25	18.06	APR 28	18.59	JUN 28	19.67	AUG 26	19.77
NOV 20	18.59	JAN 26	18.32	MAR 30	18.09	MAY 27	19.02	JUL 27	20.27	SEP 27	20.25

420954070564501. Local number, XGW 2 (Formerly published as Weymouth 2).

LOCATION.--Lat 42°09'54", long 70°56'45", Hydrologic Unit 01090001, 40 ft (12 m) 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 (0.05 m), depth 30 ft (9.1 m), screened 28 to 30 ft (8.5 to 9.1 m).

DATUM.--Altitude of land-surface datum is 180 ft (55 m). Measuring point: Top of casing, 30 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.33 ft (1.62 m) below land-surface datum, Jan. 30, 1976; lowest measured, 22.06 ft (6.72 m) below land-surface datum, Nov. 22, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	11.40	DEC 30	6.92	FEB 25	6.57	APR 29	9.24	JUN 28	14.05	AUG 26	15.22
NOV 20	9.68	JAN 30	5.33	MAR 30	7.68	MAY 27	10.64	JUL 27	17.07	SEP 28	17.06

PLYMOUTH COUNTY

415228070554601. Local number, LKW 14 (Formerly published as Lakeville 14).

LOCATION.--Lat 41°52'28", long 70°55'46", Hydrologic Unit 01090004, 30 ft (9 m) 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 (0.05 m), depth 41 ft (12.5 m), screened 39 to 41 ft (11.9 to 12.5 m).

DATUM.--Altitude of land-surface datum is 105 ft (32 m). Measuring point: Top of casing, 1.5 ft (0.5 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.05 ft (3.06 m) below land-surface datum, Jan. 4, 1973; lowest, 23.59 ft (7.19 m) below land-surface datum, Oct. 26, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.15	17.57	15.54	13.84	11.37	12.04	11.98	13.25	14.50	16.08	17.44	16.79
10	18.14	17.50	15.31	13.54	11.32	12.10	12.13	13.38	14.73	16.36	17.25	17.00
15	18.17	17.35	15.20	13.11	11.59	12.11	12.35	13.54	15.00	16.59	16.63	17.23
20	18.10	16.90	15.17	12.67	11.81	11.72	12.55	13.72	15.28	16.84	16.39	17.41
25	17.92	16.49	15.10	12.69	11.91	11.69	12.78	13.95	15.56	17.05	16.36	17.62
EOM	17.69	15.98	14.27	11.95	11.92	11.98	13.05	14.24	15.81	17.31	16.57	17.80

415453070434901. Local number, PWV 22 (Formerly published as Plymouth 22).

LOCATION.--Lat 41°54'53", long 70°43'49", Hydrologic Unit 01090004, 10 ft (3 m) 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 (0.03 m), depth 42 ft (12.8 m) screened 40 to 42 ft (12.2 to 12.8 m).

DATUM.--Altitude of land-surface datum is 145 ft (44 m). 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 (6.04 m) below land-surface datum, May 26, 1958; lowest measured, 28.99 ft (8.84 m) below land-surface datum, Jan. 28, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	24.64	DEC 30	22.95	FEB 25	21.48	APR 28	22.09	JUN 28	23.33	AUG 26	24.82
NOV 20	24.44	JAN 26	21.21	MAR 30	21.91	MAY 27	22.61	JUL 27	23.95	SEP 27	24.72

WORCESTER COUNTY

420610071421401. Local number, NXW 1 (Formerly published as Northbridge 1).

LOCATION.--Lat 42°06'10", long 71°42'14", Hydrologic Unit 01090003, about 100 ft (30 m) 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 (0.05 m), depth 12 ft (3.7 m), screened 10 to 12 ft (3.0 to 3.7 m).

DATUM.--Altitude of land-surface datum is 370 ft (113 m). Measuring point: Top of casing, 2 ft (0.61 m) above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.04 ft (0.62 m) below land-surface datum, Jan. 30, 1976; lowest measured, 4.75 ft (1.45 m) below land-surface datum, Nov. 22, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	2.62	DEC 24	2.66	FEB 24	2.42	APR 27	2.67	JUN 24	3.00	AUG 26	3.12
NOV 28	2.39	JAN 30	2.04	MAR 26	2.50	MAY 26	2.74	JUL 27	3.35	SEP 22	3.40

422805071480801. Local number, SYW 1 (Formerly published as Sterling 1).

LOCATION.--Lat 42°28'05", long 71°48'08", Hydrologic Unit 01070004, 45 ft (14 m) northeast of Justice Hill Road and 0.8 mi (1.3 km) 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 (0.61 m), depth 15 ft (4.5 m), cased with stone to 15 ft (4.5 m), open end.

DATUM.--Altitude of land-surface datum is 710 ft (220 m). Measuring point: Top edge of angle iron, at land-surface datum.

PERIOD OF RECORD.--May 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.66 ft (0.51 m) below land-surface datum, Mar. 26, 1969; dry, Nov. 28, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	3.24	DEC 23	3.15	FEB 24	3.10	APR 27	3.22	JUN 28	8.03	AUG 27	11.47
NOV 28	3.16	JAN 30	3.19	MAR 26	3.19	MAY 28	4.02	JUL 28	11.19	SEP 27	12.92

421410072081301. Local number, WUW 2 (Formerly published as West Brookfield 2).

LOCATION.--Lat 42°14'10", long 72°08'13", Hydrologic Unit 01080204, about 50 ft (15 m) north of State Highway 9 and about 500 ft (150 m) 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 (0.03 m), depth 43.0 ft (13.1 m), screened 40 to 43 ft (12.2 to 13.1 m).

DATUM.--Altitude of land-surface datum is 630 ft (192 m). Measuring point: Top of casing, 1.0 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--October 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.17 ft (5.23 m) below land-surface datum, Apr. 24, 1973; lowest measured, 23.63 ft (7.20 m) below land-surface datum, Feb. 21, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	18.49	DEC 24	18.04	FEB 24	17.72	APR 27	17.84	JUN 25	18.41	AUG 26	18.95
NOV 28	18.18	JAN 30	17.87	MAR 26	17.98	MAY 26	18.09	JUL 28	18.73	SEP 27	19.43

423430072015201. Local number, XNW 13 (Formerly published as Winchendon 13).

LOCATION.--Lat 42°42'04" (revised), long 72°01'52", Hydrologic Unit 01080202, about 50 ft (15 m) east of Forristall Road, 0.2 mi (0.3 km) north of Elmwood Road, and 1.6 mi (2.6 km) northeast of Winchendon.

Owner: W. B. Hart.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in (0.61 m), depth 12 ft (3.7 m), cased with stone to 12 ft (3.7 m), open end.

DATUM.--Land-surface datum is 1,209.36 ft (368.61 m) above mean sea level. Measuring point: Top of extension pipe, 3.8 ft (1.2 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.86 ft (0.57 m) below land-surface datum, Mar. 20, 1948; lowest measured, 13.36 ft (4.07 m) below land-surface datum, Dec. 24, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	4.15	DEC 30	4.90	FEB 26	3.56	APR 29	4.59	JUN 28	8.08	AUG 27	8.00
NOV 26	3.80	JAN 26	4.85	MAR 30	3.72	MAY 28	5.44	JUL 28	9.03	SEP 27	10.29

KENT COUNTY

414022071332801. Local number, COW 411 (Formerly published as Cov 411).

LOCATION.--Lat 41°40'22", long 71°33'28", Hydrologic Unit 01090004, town of Coventry, about 75 ft (23 m) west of house on Powhattan Ave., 1.3 mi (2.1 km) southeast of Washington.

Owner: Robert Card.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in (0.61 m), depth 26 ft (7.9 m), cased with concrete to 26 ft (7.9 m), open end.

DATUM.--Altitude of land-surface datum is 260 ft (79 m). Measuring point: Hole in top of wooden cover, 1.98 ft (0.60 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.50 ft (5.64 m) below land-surface datum, Dec. 27, 1972; lowest measured, 23.73 ft (7.23 m) below land-surface datum, Jan. 29, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	22.27	DEC 26	20.98	FEB 21	19.84	APR 23	20.37	JUN 26	21.65	AUG 28	21.28
NOV 28	21.33	JAN 27	20.48	MAR 27	19.80	MAY 22	20.83	JUL 24	22.04	SEP 25	21.92

413907071465001. Local number, GWG 181 (Formerly published as Wgr 181).

LOCATION.--Lat 41°39'07", long 71°46'50", Hydrologic Unit 01090005, town of West Greenwich, about 50 ft (15 m) from southeast corner of a house 1.3 mi (2.1 km) north of intersection of Hazard and Muddy Brook Roads, and 1.8 mi (2.9 km) 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 (0.76 m), depth 18.5 ft (5.64 m), lined with stone to 18.5 ft (5.64 m), shored.

DATUM.--Altitude of land-surface datum is 380 ft (115 m). Measuring point: Edge of shelter floor, 2.19 ft (0.67 m) above land-surface datum.

PERIOD OF RECORD.--January 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.36 ft (4.07 m) below land-surface datum, Dec. 29, 1969; lowest measured, 17.68 ft (5.39 m) below land-surface datum, Sept. 28, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	15.05	DEC 26	14.65	FEB 21	15.32	APR 23	16.02	JUN 27	16.56	AUG 28	16.10
NOV 28	14.55	JAN 27	15.38	MAR 27	15.65	MAY 22	16.22	JUL 24	17.28	SEP 25	16.67

PROVIDENCE COUNTY

415710071402201. Local number, BUW 187 (Formerly published at Bur 187).

LOCATION.--Lat 41°57'10", long 71°40'22", Hydrologic Unit 01090003, town of Burrillville, 25 ft (8 m) east of road and 75 ft (23 m) southwest of a house 0.6 mi (1.0 km) north of intersection of Harrisville and Lapham Farm Roads, and 0.9 mi (1.4 km) 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 (0.61 m), depth 19.8 ft (6.04 m) lined with stone to 19.8 ft (6.04 m), shored.

DATUM.--Altitude of land-surface datum is 462 ft (141 m). Measuring point: Hole in base of shelter, 0.59 ft (0.18 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.15 ft (3.71 m) below land-surface datum, Apr. 9, 1970; lowest, 18.83 ft (5.72 m) below land-surface datum, Nov. 3, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	16.86	DEC 27	14.19	FEB 21	13.99	APR 23	14.16	JUN 26	15.68	AUG 28	16.42
NOV 28	14.70	JAN 28	13.85	MAR 27	13.55	MAY 22	14.47	JUL 24	16.76	SEP 25	16.99

415626071254601. Local number, CUW 265 (Formerly published as Cum 265).
 LOCATION.--Lat 41°56'26", long 71°25'46", Hydrologic Unit 01090003, town of Cumberland, at 27 Scott Street, 900 ft (270 m) 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 (0.61 m), depth 20 ft (6.1 m), lined with stone to 20 ft (6.1 m), shored.
 DATUM.--Altitude of land-surface datum is 130 ft (40 m). Measuring point: Hole in wooden cover, 0.06 ft (0.02 m) above land-surface datum.
 PERIOD OF RECORD.--August 1946 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.60 ft (2.93 m) below land-surface datum, Mar. 26, 1969; lowest measured, 17.20 (5.24 m) below land-surface datum, Sept. 29, 1949.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	11.02	DEC 27	10.99	FEB 21	11.81	APR 23	12.58	JUN 26	13.16	AUG 28	12.65
NOV 28	10.68	JAN 28	10.74	MAR 27	11.76	MAY 22	12.58	JUL 24	15.49	SEP 25	13.64

415437071242201. Local number, LIW 84 (Formerly published as Lin 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 (240 m) 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 (0.20 m), depth 107 ft (32.6 m), cased to 107 ft (32.6 m), open end.
 DATUM.--Altitude of land-surface datum is 60 ft (18 m). Measuring point: Inside lower lip of 8 in (0.20 m) pipe, 3.32 ft (1.01 m) 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, 0.02 ft (0.01 m) above land-surface datum, Mar. 26, 1969; lowest measured, 7.30 ft (2.23 m) below land-surface datum, Aug. 24, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	2.80	DEC 27	2.02	FEB 21	3.35	APR 23	4.42	JUN 26	5.40	AUG 28	5.54
NOV 28	1.98	JAN 28+	0.97	MAR 27	3.34	MAY 22	4.18	JUL 24	5.53	SEP 25	5.14

415948071325001. Local number, NSW 21 (Formerly published as Nsm 21).
 LOCATION.--Lat 41°59'48", long 71°32'50", Hydrologic Unit 01090003, town of North Smithfield, 500 ft (152 m) southwest of State Highway 146A, 900 ft (270 m) 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 (0.61 m), depth 16 ft (4.9 m), cased with tile to 16 ft (4.9 m), open end.
 DATUM.--Land-surface datum is 238.68 ft (72.77 m) above mean sea level. Measuring point: Hole in wooden cover at top of tile casing, 2.08 ft (0.63 m) 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 (1.12 m) below land-surface datum, Mar. 26, 1969; lowest measured, 11.71 ft (3.57 m) below land-surface datum, Oct. 28, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	7.28J	DEC 27	6.20J	FEB 21	6.56J	APR 23	7.61J	JUN 26	8.86J	AUG 28	8.48J
NOV 28	5.86J	JAN 28	4.76J	MAR 27	6.68J	MAY 22	7.57J	JUL 24	9.69J	SEP 25	8.76J

J, WELL EITHER BEING PUMPED OR PUMPED RECENTLY.

415318071220401. Local number, PAW 136 (Formerly published as 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 (460 m) 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 (0.05 m), depth 43 ft (13.11 m), cased to about 40 ft (12.2 m), screened about 40 to 43 ft (12.2 to 13.1 m).

DATUM.--Altitude of land-surface datum is 86 ft (26 m). Measuring point: Top of casing, 3.15 ft (0.96 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.32 ft (0.71 m) below land-surface datum, Dec. 27, 1972; lowest measured, 7.28 ft (2.22 m) below land-surface datum, Jan. 29, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	4.48	DEC 27	3.66	FEB 21	3.18	APR 23	3.78	JUN 26	4.70	AUG 28	3.86
NOV 28	4.09	JAN 28	2.85	MAR 27	3.47	MAY 22	4.04	JUL 24	4.91	SEP 25	4.31

414746071255601. Local number, PRW 48 (Formerly published as Pro 48).

LOCATION.--Lat 41°47'46", long 71°25'56", Hydrologic Unit 01090004, city of Providence, at 333 Adelaide Avenue, and 800 ft (240 m) northwest of Adelaide and 800 ft (240 m) 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 (0.20 m), depth 124 ft (37.8 m), cased to 116 ft (35.4 m), screened 116 to 124 ft (35.4 to 37.8 m).

DATUM.--Land-surface datum is 45.79 ft (13.96 m), above mean sea level. Measuring point: Top edge of hole in center of steel cover, 0.48 ft (0.15 m) 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, 5.08 ft (1.55 m) below land-surface datum, Apr. 20, May 4, 1953; lowest, 10.22 ft (3.12 m) below land-surface datum, Oct. 20, 1947.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	7.26	DEC 27	6.78	FEB 21	6.48	APR 23	6.52	JUN 26	7.02	AUG 28	6.76
NOV 28	6.37	JAN 28	6.36	MAR 27	6.47	MAY 22	6.67	JUL 24	7.09	SEP 25	6.78

414939071260801. Local number, PRW 1051 (Formerly published as Pro 1051).

LOCATION.--Lat 41°49'39", long 71°26'08", Hydrologic Unit 01090004, city of Providence, at 10 Eagle Street, and 200 ft (60 m) south of Valley and 300 ft (690 m) east of Eagle Streets.

Owner: Licht Industries.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 10 in (0.25 m), depth 82 ft (25.0 m), cased to 82 ft (25.0 m), open end.

DATUM.--Altitude of land-surface datum is 10 ft (3.0 m). Measuring point: Floor of recorder shelter, 1.65 ft (0.50 m) above land-surface datum.

REMARKS.--Water level affected by pumping from one or more nearby wells.

PERIOD OF RECORD.--January 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.93 ft (0.28 m) below land-surface datum, Jan. 2, 1974; lowest measured, 16.10 ft (4.91 m) below land-surface datum, Jan. 16, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	2.65J	DEC 20	2.00J	FEB 21	2.12J	AUG 28	1.21				
NOV 01	2.31J	JAN 24	2.16J	JUL 24	0.73J	SEP 25	1.38				

J, WELL OR WELLS NEARBY EITHER BEING PUMPED OR PUMPED RECENTLY.

WASHINGTON COUNTY

412214071394001. Local number, CHW 18 (Formerly published as Cha 18).

LOCATION.--Lat 41°22'14", long 71°39'40", Hydrologic Unit 01090005, town of Charlestown, 1,900 ft (579 m) 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, diameter 8 in (0.20 m), depth 32 ft (9.8 m), cased to 32 ft (9.8 m), open end.

DATUM.--Altitude of land-surface datum is 26 ft (7.9 m). 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, 12.79 ft (3.90 m) below land-surface datum, Apr. 25, 1953; lowest measured, 21.63 ft (6.59 m) below land-surface datum, Dec. 29, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	18.97	DEC 26	16.97	FEB 21	14.95	APR 23	16.46	JUN 26	18.82	AUG 28	19.28
NOV 28	16.82	JAN 27	15.26	MAR 27	15.18	MAY 22	17.76	JUL 24	19.72	SEP 25	19.95

413423071431901. Local number, EXW 6 (Formerly published as Exe 6).

LOCATION.--Lat 41°34'23", long 71°43'19", Hydrologic Unit 01090005, town of Exeter, in Arcadia State Forest, 150 ft (46 m) west of Wood River, 250 ft (76 m) south of Ten Road Road, and 2.0 mi (3.2 m) 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 (0.76 m), depth 10 ft (3.0 m), cased with concrete to 10 ft (3.0 m), open end.

DATUM.--Altitude of land-surface datum is 130 ft (40 m). 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, 3.27 ft (1.00 m) below land-surface datum, Dec. 27, 1972; lowest measured, 7.74 (2.36 m) below land-surface datum, Sept. 27, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	6.14J	DEC 26	5.28J	FEB 21	3.97J	APR 23	5.35J	JUN 26	6.24J	AUG 28	6.43J
NOV 28	4.28J	JAN 27	5.46J	MAR 27	4.74J	MAY 22	5.39J	JUL 24	6.58J	SEP 25	6.78J

J, AFFECTED BY STAGE OF A NEARBY STREAM.

413307071323601. Local number, EXW 16 (Formerly published as Exe 16).

LOCATION.--Lat 41°33'07", long 71°32'36", Hydrologic Unit 01090005, town of Exeter, about 25 ft (8 m) 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 (0.06 m), depth 27 (8.2 m), cased to 27 ft (8.2 m), open end.

DATUM.--Land-surface datum is 154.47 ft (47.09 m) above mean sea level. Measuring point: Top of casing, 1.78 ft (0.54 m) 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, 7.38 ft (2.25 m) below land-surface datum, Apr. 15, 1953; lowest measured, 15.40 ft (4.69 m) below land-surface datum, Oct. 30, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	12.32	DEC 27	9.94	FEB 21	8.96	APR 23	9.47	JUN 26	10.91	AUG 28	11.96
NOV 28	11.44	JAN 27	9.42	MAR 27	9.13	MAY 22	10.11	JUL 24	11.60	SEP 25	12.55

413148071281601 (corrected). Local number, NKW 255 (Formerly published as Nok 255).

LOCATION.--Lat 41°31'48", long 71°28'16", Hydrologic Unit 01090004, town of North Kingston, 100 ft (30 m) east of Pendar Road, 0.6 mi (0.9 km) south of intersection of Pendar and Tower Hill Roads, and 1.0 mi (1.6 km) south of Allenton.

Owner: Carlton Cook.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in (0.61 m), depth 14 ft (4.3 m), cased with concrete to 14 ft (4.3 m), open end.

DATUM.--Altitude of land-surface datum is 50 ft (15 m). 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 (1.16 m) below land-surface datum, Mar. 26, 1968; lowest measured, 12.33 ft (3.76 m) below land-surface datum, Sept. 27, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	8.90	DEC 27	7.88	FEB 21	7.39	APR 23	8.05	JUN 26	9.33	AUG 28	9.95
NOV 28	7.66	JAN 27	6.69	MAR 27	7.28	MAY 22	8.35	JUL 24	10.00	SEP 25	10.38

413308071280501. Local number, NKW 450 (Formerly published as Nok 450).

LOCATION.--Lat 41°33'08", long 71°28'05", Hydrologic Unit 01090004, town of North Kingston, at 890 Tower Hill Road in Belleville, and 0.35 mi (0.56 km) 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 (0.61 m), depth 17 ft (5.2 m), cased with concrete to 17 ft (5.2 m), open end.

DATUM.--Altitude of land-surface datum is 60 ft (18 m). Measuring point: Hole in top of wooden base, 2.80 ft (0.85 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.85 ft (3.00 m) below land-surface datum, June 24, 1972; lowest measured, 16.45 ft (5.02 m) below land-surface datum, Dec. 29, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	14.42	DEC 27	11.67	FEB 21	11.28	APR 23	11.99	JUN 26	13.71	AUG 28	14.72
NOV 28	12.80	JAN 28	10.39	MAR 27	11.21	MAY 22	12.72	JUL 24	14.57	SEP 25	15.16

412717071415301. Local number, RIW 231 (Formerly published as Ric 231).

LOCATION.--Lat 41°27'17", long 71°41'53", Hydrologic Unit 01090005, town of Richmond, about 50 ft (15 m) west of Narragansett Trail, and 1.2 mi (1.9 km) 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 (0.76 m), depth 29 ft (8.8 m), lined with stone to 29 ft (8.8 m), shored.

DATUM.--Altitude of land-surface datum is 84 ft (26 m). Measuring point: Hole in top of wooden cover, 0.36 ft (0.11 m) above land-surface datum.

PERIOD OF RECORD.--May 1955 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.65 ft (6.30 m) below land-surface datum, May 23, 1958; lowest measured, dry, several times, 1965-67.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	26.79	DEC 26	26.24	FEB 21	23.31	APR 23	23.26	JUN 27	24.67	AUG 28	25.97
NOV 28	26.84	JAN 27	24.84	MAR 27	23.22	MAY 22	23.85	JUL 24	25.36	SEP 25	26.57

412918071321001. Local number, SNW 6 (Formerly published as Sok 6).

LOCATION.--Lat 41°29'18", long 71°32'10", Hydrologic Unit 01090005, town of South Kingston, at northwest corner of Mead Field at University of Rhode Island, and 0.9 mi (1.4 km) 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 (0.25 m), depth 34 ft (10.4 m), cased to 34 ft (10.4 m), open end.

DATUM.--Land-surface datum is 111.89 ft (34.11 m) above mean sea level. Measuring point: Floor of recorder shelter, 0.57 ft (0.17 m) 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, 7.92 ft (2.41 m) below land-surface datum, Apr. 12, 13, 1958; lowest, 15.06 ft (4.59 m) below land-surface datum, Dec. 29, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	13.68	DEC 27	11.67	FEB 21	10.67	APR 23	11.67	JUN 26	13.83	AUG 28	13.78
NOV 28	12.36	JAN 28	10.70	MAR 27	10.71	MAY 22	12.81	JUL 26	14.42	SEP 25	14.52

412923071361601. Local number, SNW 515 (Formerly published as Sok 515).

LOCATION.--Lat 41°29'23", long 71°36'16", Hydrologic Unit 01090005, town of South Kingston, at Laurel Lane Golf Course, 2.7 mi (4.3 km) 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 (0.91 m), depth 30 ft (9.15 m), lined with stone to 30 ft (9.15 m), shored.

DATUM.--Land-surface datum is 127.84 ft (38.97 m) above mean sea level. Measuring point: Top edge of concrete casing on south rim of well, 0.50 ft (0.15 m) above land-surface datum (since Dec. 27, 1975).

PERIOD OF RECORD.--May 1955 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.38 ft (7.43 m) below land-surface datum, Apr. 18, 1958, Mar. 26, 1968; lowest measured, 30.11 ft (9.18 m) below land-surface datum, Oct. 25, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	27.01	DEC 27	26.80	FEB 21	25.56	APR 23	26.55	JUN 26	28.03	AUG 28	28.68
NOV 28	25.46	JAN 27	25.83	MAR 27	25.90	MAY 22	27.15	JUL 24	28.79	SEP 25	29.22

412154071462901. Local number, WEW 522 (Formerly published as Wes 522).

LOCATION.--Lat 41°21'54", long 71°46'29", Hydrologic Unit 01090005, town of Westerly, 350 ft (107 m) northwest of intersection of Pound and Old Shore Roads and 1.0 mi (1.6 km) north of Dunn Corner.

Owner: S. Panciera.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in (0.76 m), depth 16 ft (4.88 m), lined with stone to 16 ft (4.88 m), shored.

DATUM.--Altitude of land-surface datum is 45 ft (13.72 m). Measuring point: Southwest corner of stone casing, 0.91 ft (0.28 m) above land-surface datum.

PERIOD OF RECORD.--January 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.34 ft (3.15 m) below land-surface datum, Dec. 27, 1972; lowest measured, 14.39 ft (4.39 m) below land-surface datum, Aug. 25, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	12.74	DEC 26	12.19	FEB 21	9.38	APR 23	12.17	JUN 26	13.47	AUG 28	13.24
NOV 28	11.74	JAN 27	11.31	MAR 27	11.34	MAY 22	12.55	JUL 24	14.04	SEP 25	13.67

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FACTORS FOR CONVERTING ENGLISH UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
<i>Length</i>		
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)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	*hectares (ha)
	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)
<i>Volume</i>		
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 (10 ⁶ gal)	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days [(ft ³ /s) · d]	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
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 (mgal/d)	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	tonnes (t)

*The unit hectare is approved for use with the International System (SI) for a limited time. See NBS Special Bulletin 330, p.15, 1972 edition.

**The unit liter is accepted for use with the International System (SI). See NBS Special Bulletin 330, p. 13, 1972 edition.

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