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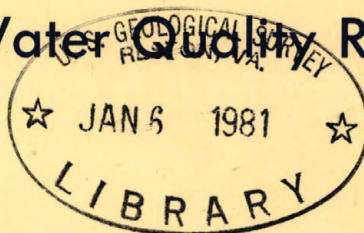
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X

# Water Resources Data for Massachusetts New Hampshire Rhode Island Vermont

Part 1. Surface Water Records

Part 2. Water Quality Records



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Prepared in cooperation with the States of Massachusetts, New Hampshire,  
Rhode Island, and Vermont and with other agencies



# CALENDAR FOR WATER YEAR 1971

## OCTOBER 1970

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    | 1  | 2  | 3  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

## NOVEMBER 1970

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  |
| 8  | 9  | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 |    |    |    |    |    |

## DECEMBER 1970

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    | 1  | 2  | 3  | 4  | 5  |
| 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 |    |    |

## JANUARY 1971

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    |    | 1  | 2  |
| 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 |    |    |    |    |    |    |

## FEBRUARY 1971

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    | 1  | 2  | 3  | 4  | 5  |
| 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 |    |    |    |    |    |

## MARCH 1971

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    | 1  | 2  | 3  | 4  | 5  |
| 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 |    |    |

## APRIL 1971

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    | 1  | 2  | 3  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 |    |

## MAY 1971

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    |    |    | 1  |
| 2  | 3  | 4  | 5  | 6  | 7  | 8  |
| 9  | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 |    |    |    |    |    |

## JUNE 1971

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    | 1  | 2  | 3  | 4  |
| 5  | 6  | 7  | 8  | 9  | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 |    |    |

## JULY 1971

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    | 1  | 2  | 3  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

## AUGUST 1971

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  |
| 8  | 9  | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 |    |    |    |    |

## SEPTEMBER 1971

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    | 1  | 2  | 3  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 |    |



1971

**Water Resources Data**

**for**

**Massachusetts**  
**New Hampshire**  
**Rhode Island**  
**Vermont**



**UNITED STATES**  
**DEPARTMENT OF THE INTERIOR**  
**GEOLOGICAL SURVEY**

Prepared in cooperation with the States of Massachusetts, New Hampshire,  
Rhode Island, and Vermont and with other agencies



Prepared in cooperation with

Massachusetts Water Resources Commission  
Massachusetts Department of Public Works  
Massachusetts Metropolitan District Commission  
New Hampshire Water Resources Board  
Rhode Island Department of Natural Resources  
Rhode Island Department of Transportation  
Rhode Island Water Resources Board  
Vermont Department of Water Resources  
Vermont Department of Highways  
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Copies of this report may be obtained from  
District Chief, Water Resources Division  
U.S. Geological Survey  
150 Causeway Street  
Boston, Massachusetts 02114

1973

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(Symbols after station name designate type of data: (c), chemical;  
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# WATER RESOURCES DATA FOR MASSACHUSETTS, NEW HAMPSHIRE, RHODE ISLAND, AND VERMONT, 1971

## PART 1. SURFACE-WATER RECORDS PART 2. WATER-QUALITY RECORDS

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### INTRODUCTION

Water-resources data for the 1971 water year for Massachusetts, New Hampshire, Rhode Island, and Vermont, including records of streamflow or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, and records of water-quality data on the chemical and physical characteristics of surface and ground water, are given in this report. In Part 1, records are included for 226 gaging stations of which 220 are streamflow discharge stations and 6 are reservoir or lake stations; also included are records of monthend contents for 41 reservoirs, and records for 118 low-flow partial-record stations, 102 crest-stage partial-record stations, and 30 miscellaneous sites. In Part 2, records on quality of surface water (chemical, temperature, and sediment) are included for 16 continuous-record stations, 30 partial-record stations, and 92 miscellaneous sites. Records of chemical analyses also are given for 26 ground-water sites. Locations of gaging and water-quality stations are shown in Figure 1. A few pertinent stations (not included above) in bordering States and Province of Quebec are also included in this report. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of C. E. Knox, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Massachusetts, New Hampshire, Rhode Island, and Vermont.

Beginning with the 1961 water year, streamflow records and related data have been released by the Geological Survey in annual reports on a State- or District-boundary basis. Water-quality records beginning with the 1964 water year have been similarly released either in separate reports or in conjunction with streamflow records. These reports are for limited distribution and are designed primarily for rapid release of data shortly after the end of the water year.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are 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 since then are in a 5-year series. Records of chemical quality, water temperatures, and suspended sediment have been published since 1941 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." More information is given under the headings "Publications" on pages 8, 9, and 11.

### COOPERATION

The U.S. Geological Survey and organizations of the States of Massachusetts, New Hampshire, Rhode Island, and Vermont have had cooperative agreements for the systematic collection of streamflow records since 1909, 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, A. W. Brownell, chairman, 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, Bruce Campbell, commissioner, J. J. Lyons, research and materials engineer; and F. C. Schwelm, deputy chief engineer of Division of Waterways; Metropolitan District Commission, John Sears, commissioner, Allan Grieve, Jr., director and chief water-supply engineer of Water Division, and F. T. Bergin, chief engineer of Construction Division.

New Hampshire: State Water Resources Board, G. M. McGee, chairman.

Rhode Island: State Department of Natural Resources, E. C. Hayes, Jr., acting director, C. B. Dunwoody, chief of Division of Planning and Development, J. M. Cronan, deputy chief of Division of Fish and Wildlife; State Department of Transportation, F. J. Fazzano, director, Morris Chorney, executive director, F. H. Dutra, chief of highway planning division; State Water Resources Board, A. A. DiMartino, chairman; city of Providence, Department of Public Works, L. P. McGarry, director.

Vermont: State Department of Water Resources, M. L. Johnson, commissioner; State Department of Highways, J. T. Gray, commissioner.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records published herein for 44 gaging stations; by the Environmental Protection Agency, for 10 water-quality stations; and by the National Park Service, U.S. Department of the Interior, for 1 water-quality station.

Assistance in collecting records was also furnished by New England Power Co., Western Massachusetts Electric Co., and Green Mountain Power Corp.

Organizations that supplied data are acknowledged in station descriptions.

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

## DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined as follows:

Biochemical oxygen demand (BOD) is the amount of oxygen required by bacteria while stabilizing decomposable organic matter under aerobic conditions.

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, approximately 1.9835 acre-feet or 646,317 gallons, and represents a runoff of approximately 0.0372 inch from 1 square mile.

Chemical oxygen demand (COD) indicates the quantity of oxidizable compounds present in a water and will vary with water compositions, concentration or reagent, temperature, period of contact, and other factors.

Coliform organisms are a group of bacteria used as an indicator of the sanitary quality of the water. The number of coliform colonies per 100 milliliters is determined by the immediate or delayed incubation membrane filter method.

Color is expressed in units of the platinum-cobalt scale proposed by Hazen (1892, p. 427-428). A unit of color is produced by one milligram per liter of platinum in the form of the chloroplatinate ion.

The extent to which water is colored by material in solution is reported as part of the water analysis because a significant color in water may indicate the presence of organic material that may have some bearing on the dissolved solids content.

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 foot per second (cfs) 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.

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.

Curie is a unit for measuring radioactivity. One curie equals that quantity of any radioactive isotope undergoing  $3.7 \times 10^{10}$  disintegration per second.

Discharge is the volume of water (or more broadly, total fluids) that passes a given point within a given period of time.

Mean discharge is the arithmetic average of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time. If this discharge is reported instead of the daily mean, the heading of the discharge column in the tables is "Discharge (cfs)."

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.

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 gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is a physical-chemical characteristic attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ( $\text{CaCO}_3$ ).

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

Milligrams per liter (mg/l, MG/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in the table below. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the weight of sediment per liter of water-sediment mixture.

Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter

| Ion                                 | Multiply by | Ion                              | Multiply by |
|-------------------------------------|-------------|----------------------------------|-------------|
| Aluminum ( $\text{Al}^{+3}$ )*      | 0.11119     | Iodide ( $\text{I}^{-1}$ )       | 0.00788     |
| Ammonia as $\text{NH}_4^{+1}$       | .05544      | Iron ( $\text{Fe}^{+3}$ )*       | .05372      |
| Barium ( $\text{Ba}^{+2}$ )         | .01456      | Lead ( $\text{Pb}^{+2}$ )*       | .00965      |
| Bicarbonate ( $\text{HCO}_3^{-1}$ ) | .01639      | Lithium ( $\text{Li}^{+1}$ )*    | .14411      |
| Bromide ( $\text{Br}^{-1}$ )        | .01251      | Magnesium ( $\text{Mg}^{+2}$ )   | .08226      |
| Calcium ( $\text{Ca}^{+2}$ )        | .04990      | Manganese ( $\text{Mn}^{+2}$ )*  | .03640      |
| Carbonate ( $\text{CO}_3^{-2}$ )    | .03333      | Nickel ( $\text{Ni}^{+2}$ )*     | .03406      |
| Chloride ( $\text{Cl}^{-1}$ )       | .02821      | Nitrate ( $\text{NO}_3^{-1}$ )   | .01613      |
| Chromium ( $\text{Cr}^{+6}$ )*      | .11539      | Nitrite ( $\text{NO}_2^{-1}$ )   | .02174      |
| Cobalt ( $\text{Co}^{+2}$ )*        | .03394      | Phosphate ( $\text{PO}_4^{-3}$ ) | .03159      |
| Copper ( $\text{Cu}^{+2}$ )*        | .03148      | Potassium ( $\text{K}^{+1}$ )    | .02557      |
| Cyanide ( $\text{CN}^{-1}$ )*       | .03844      | Sodium ( $\text{Na}^{+1}$ )      | .04350      |
| Fluoride ( $\text{F}^{-1}$ )        | .05264      | Strontium ( $\text{Sr}^{+2}$ )*  | .02283      |
| Hydrogen ( $\text{H}^{+1}$ )        | .99209      | Sulfate ( $\text{SO}_4^{-2}$ )   | .02082      |
| Hydroxide ( $\text{OH}^{-1}$ )      | .05880      | Zinc ( $\text{Zn}^{+2}$ )*       | .03060      |

\* Constituent reported in micrograms per liter; multiply by factor and divide results by 1,000.



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

pH is a symbol denoting the relative concentration of hydrogen ions in 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.

Picocurie (PC) is a unit for measuring radioactivity. One picocurie is equivalent to 1 trillionth of a curie. See Curie.

Runoff in inches (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).

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

Suspended-sediment discharge 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 is discharged in a given time. It is computed by multiplying discharge time mg/l times 0.0027.

Total sediment discharge or total sediment load 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 (Colby and Hembree, 1955).

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

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. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). 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 and the volume of water per unit of time flowing in a channel.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the presence of a thermograph or a digital mechanism that automatically records water temperatures on paper tape.

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.

WRD is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS 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.

## SPECIAL NETWORKS AND PROGRAMS

International Hydrological Decade (IHD) River Stations provide a general index of runoff and materials in the water balance (discharge of water, and dissolved and transported solids) of the world. In the United States, IHD Stations provide indices of runoff and of the general distribution of water in the principal river basins of the conterminous United States and Alaska.

Radiochemical program is a network of regularly sampled water-quality stations where additional 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.

## DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all main-stream stations are listed before the first main-stream station. Stations on tributaries to tributaries are listed in a similar manner. In the lists of gaging stations and water-quality stations in the front of this report the rank of tributaries is indicated by indentation, each indentation representing one rank.

As an added means of identification, each gaging station, partial-record station, and water-quality 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 gaging stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. 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 01127880, which appears just to the left of the station name, includes the 2-digit part number "01" plus the 6-digit downstream order number "127880." The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 1 (North Atlantic Slope basins) and Part 4 (St. Lawrence River basin). The records are listed in downstream order by parts. All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

## WELL NUMBER

The well numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The first 6 digits denote the degrees, minutes, and seconds of latitude followed by a letter denoting north or south. Seven digits following the letter denote degrees, minutes, and seconds of longitude. The last digit is a sequential number for wells within a 1-second grid. The system provides the geographic location of the well and a unique number for each well.

A local well-numbering system is also used in this report. All wells are numbered consecutively within each town.

## EXPLANATION OF SURFACE WATER DATA

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 15-, 30-, or 60-minute intervals or a continuous graph of the fluctuations. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in 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, or computation of flow over dams or weirs), 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 gage 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 backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At one station the stage-discharge relation is affected by changing stage; at this station the rate of change in stage is used as a factor in computing discharge.

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 being given to the available information on temperature and precipitation, notes by hydrologists and gage observers, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, the 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, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily reservoir stages may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

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 stage and contents is given. Tables of daily mean gage heights are included for some reservoir stations.

Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or stage, general remarks, and notations of revisions of previously published records. 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." 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. 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. The maximum discharge, the maximum gage height, and the minimum discharge if there is little or no regulation are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge if it is abnormally low). In the first paragraph, headed "Current year," the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record," the data given are for the period of record given in the PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge corresponds to the crest stage obtained by use of a water-stage recorder (digital or graphic), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge, it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, to the availability of Water Quality records, and to a recording rain gage at the gaging station is given under "REMARKS;" for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

Previously published 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 "REVISIONS (WATER YEARS)" 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 the 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 were revised, that 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 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. ").

In the yearly summary below the monthly summary, the figures following "MAX" are the maximum daily discharges for the calendar and water years; likewise, those following "MIN" are the minimum daily discharges.



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.

Peak discharges and their times of occurrence and corresponding gage heights for most stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parenthesis, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published 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.

For gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations and miscellaneous sites are given in three tables at the end of the surface-water records in this report. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

#### Accuracy of data

The accuracy of discharge 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; "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 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. 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 and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, evaporation, or 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 unadjusted losses are large in comparison with the observed discharge.

#### Publications

In each water-supply paper entitled "Surface Water Supply of the United States" there is a list of the numbers of preceding water-supply papers containing streamflow information for the area covered by that report. In addition, there is a list of numbers of water-supply papers containing detailed information on major floods in the area. Records for stations in Massachusetts, New Hampshire, Rhode Island, and Vermont for the period October 1960 to September 1965 are in Water Supply Papers 1901, 1902, and 1912.

Two series of summary reports entitled "Compilation of Records of Surface Waters of the United States" have been published; the first series covers the entire period of record through September 1950, and the second series covers the period October 1950 to September 1960. These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station. Records for the stations included in this report are compiled in Water-Supply Papers 1301, 1302, and 1307 through September 1950, and in 1721, 1722, and 1727 for October 1950 to September 1960.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

#### Other data available

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

### EXPLANATION OF WATER-QUALITY DATA

#### Collection and examination of data

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads in this report.

Descriptive statements are given for water-quality stations located at or near streamflow stations. Given are location, drainage area, periods of record for the various water-quality data, extremes of pertinent data, and general remarks, in a format similar to that used for streamflow gaging stations. For ground-water stations, no descriptive statements are given; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of ground water.

Data on the quality of surface water (chemical, temperature, and sediment) were collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly, or less frequently, and at some sites data were recorded on punched paper tape at 60-minute intervals or on a continuous graph.

Water-quality information is presented for chemical quality, microbiology, radio chemistry, water temperature, and fluvial sediment. Chemical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, specific conductance, pH, and pesticide and herbicide content. Microbiological information includes quantitative identification of certain bacteriological indicator organisms. Water-temperature data represent daily maximum, minimum, and mean temperature. Fluvial-sediment information is given for suspended-sediment discharges and concentrations.

Prior to the 1968 water year, data for chemical constituents and concentration of suspended sediment were reported in parts per million (ppm), and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began to use the metric system; data for chemical constituents and concentrations of suspended sediment are now reported in milligrams per liter (mg/l), and water temperatures are given in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/ml (grams per milliliter), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the

density to convert to milligrams per liter. To convert temperatures in degrees Celsius to degrees Fahrenheit, see the following table:

Degrees Celsius (°C) to degrees Fahrenheit (°F)  
(Temperature reported to nearest 0.5°C)

| °C  | °F | °C   | °F | °C   | °F | °C   | °F | °C   | °F  | °C   | °F  |
|-----|----|------|----|------|----|------|----|------|-----|------|-----|
| 0.0 | 32 | 8.0  | 46 | 15.5 | 60 | 23.5 | 74 | 31.0 | 88  | 39.0 | 102 |
| .5  | 33 | 8.5  | 47 | 16.0 | 61 | 24.0 | 75 | 31.5 | 89  | 39.5 | 103 |
| 1.0 | 34 | 9.0  | 48 | 16.5 | 62 | 24.5 | 76 | 32.0 | 90  | 40.0 | 104 |
| 1.5 | 35 | 9.5  | 49 | 17.0 | 63 | 25.0 | 77 | 33.0 | 91  | 40.5 | 105 |
| 2.0 | 36 | 10.0 | 50 | 18.0 | 64 | 25.5 | 78 | 33.5 | 92  | 41.0 | 106 |
| 3.0 | 37 | 10.5 | 51 | 18.5 | 65 | 26.0 | 79 | 34.0 | 93  | 41.5 | 107 |
| 3.5 | 38 | 11.0 | 52 | 19.0 | 66 | 26.5 | 80 | 34.5 | 94  | 42.0 | 108 |
| 4.0 | 39 | 11.5 | 53 | 19.5 | 67 | 27.0 | 81 | 35.0 | 95  | 43.0 | 109 |
| 4.5 | 40 | 12.0 | 54 | 20.0 | 68 | 28.0 | 82 | 35.5 | 96  | 43.5 | 110 |
| 5.0 | 41 | 13.0 | 55 | 20.5 | 69 | 28.5 | 83 | 36.0 | 97  | 44.0 | 111 |
| 5.5 | 42 | 13.5 | 56 | 21.0 | 70 | 29.0 | 84 | 36.5 | 98  | 44.5 | 112 |
| 6.0 | 43 | 14.0 | 57 | 21.5 | 71 | 29.5 | 85 | 37.0 | 99  | 45.0 | 113 |
| 6.5 | 44 | 14.5 | 58 | 22.0 | 72 | 30.0 | 86 | 38.0 | 100 | 45.5 | 114 |
| 7.0 | 45 | 15.0 | 59 | 23.0 | 73 | 30.5 | 87 | 38.5 | 101 | 46.0 | 115 |

$$* \text{ } ^\circ\text{C} = 5/9 (\text{ } ^\circ\text{F} - 32) \text{ or } ^\circ\text{F} = 9/5 (\text{ } ^\circ\text{C}) + 32.$$

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements and some pollutants in micrograms per liter instead of milligrams per liter. (See "Definition of Terms," p. 3.)

### Solutes

The methods of collecting and analyzing water samples for determining the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). 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 at several verticals across the channel to determine accurately the solute load.

At chemical-quality stations where monitors are installed, the records consist of daily maximum, minimum, and mean values for each constituent measured. More detailed records (hourly values) may be obtained from the district office of the U.S. Geological Survey at the address given on page II of this report.

Ground-water quality does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately define ground-water quality at a given site. Water samples from wells are analyzed individually.

### Temperature

Water temperatures are measured at most of the water-quality stations. Most large streams have a small diurnal temperature change; 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 monitors are installed, the record consists of daily maximum, minimum, and mean temperature. Where thermographs are located, the records consist of maximum and minimum temperatures for each day and the monthly averages.

Sediment

At one station, suspended-sediment concentrations are determined from samples collected daily by using a depth-integrating cable-suspended sampler from a fixed sampling point. During periods of high or rapidly changing flow, samples are taken twice or more often throughout the day. For periods when no samples are collected, daily loads of suspended sediment are estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples are collected periodically with depth-integrating cable-suspended or hand samplers. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

Publications

The annual series of water-supply papers that contain information on quality of surface waters in Massachusetts, New Hampshire, Rhode Island, and Vermont are listed below. Data for the North Atlantic slope basins are given in Part 1; data for the St. Lawrence River basin are given in Part 4.

Water-supply paper numbers and parts,  
water years 1953-68

| Year | Part 1 | Year | Part 1 | Part 4 |
|------|--------|------|--------|--------|
| 1953 | 1290   | 1961 | 1881   | -      |
| 1954 | 1350   | 1962 | 1941   | -      |
| 1955 | 1400   | 1963 | 1947   | -      |
| 1956 | 1450   | 1964 | 1954   | -      |
| 1957 | 1520   | 1965 | 1961   | -      |
| 1958 | 1571   | 1966 | 1991   | -      |
| 1959 | 1641   | 1967 | 2011   | 2012   |
| 1960 | 1741   | 1968 | *2091  | *2094  |

\* In preparation.

## HYDROLOGIC CONDITIONS

At the beginning of the water year, runoff was excessive (in the upper quartile of record) in central New Hampshire and southwestern Vermont, deficient (in the lower quartile of record) in Rhode Island, central and eastern Massachusetts, and coastal New Hampshire, and in the normal range elsewhere in the district.

In Rhode Island, eastern Massachusetts, and coastal New Hampshire, cumulative runoff was in the normal range for October to March and deficient for April to September. Elsewhere in the district, cumulative runoff was deficient for October to March and in the normal range for April to September.

Cumulative runoff for the water year was in the normal range except in central Massachusetts, where it was deficient.

At the end of the water year, runoff was in the low-normal or deficient range except in southwestern Massachusetts where, although still only in the normal range, it was above median.

The snow pack was unusually heavy over much of the district this year. At the end of March, water content was record high in some areas in the Connecticut River basin and near maximum in some northern areas in the Merrimack River basin. However, moderately warm days, cold nights, and lack of significant rainfall combined to produce gradual melting of this snow. Therefore, spring runoff was orderly with less than usual lowland flooding, and peak discharges were not outstanding.

Figure 1 on page 12 for which records of three, long-term, index gaging stations were used, shows a comparison of the monthly and yearly mean discharge for the 1971 water year with the median discharge for the period 1941-70.



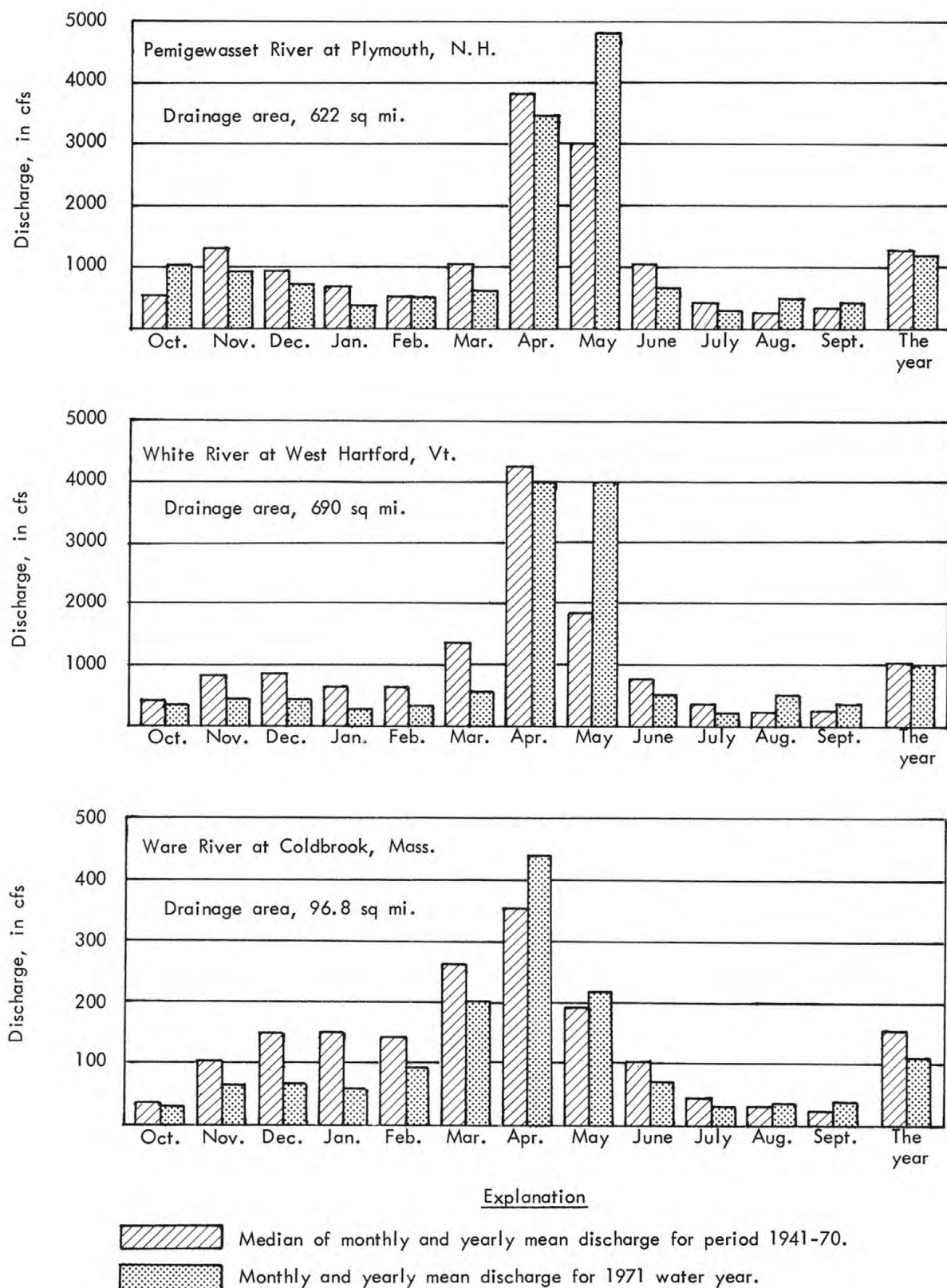


Figure 1.--Comparison of discharge at three long-term index gaging stations during 1971 water year with median discharge for period 1941-70.

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PART 1. SURFACE WATER RECORDS



GAGING-STATION RECORDS  
NORTH ATLANTIC SLOPE BASINS  
ANDROSCOGGIN RIVER BASIN

01052500 Diamond River near Wentworth Location, N.H.

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

DRAINAGE AREA.--153 sq mi.

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

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

AVERAGE DISCHARGE.--30 years, 338 cfs (30.00 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,040 cfs May 11 (gage height, 7.72 ft); minimum, 24 cfs Aug. 20, 21 (gage height, 1.31 ft).

Period of record: Maximum discharge, 8,630 cfs June 16, 1943 (gage height, 10.66 ft), from rating curve extended above 3,900 cfs; minimum, 6.8 cfs Aug. 27, 28, 1949, Sept. 1, 1952 (gage height, 0.81 ft).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|--------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 523    | 186   | 270   | 120   | 78    | 88    | 79     | 1,540  | 339   | 121   | 93    | 157   |
| 2     | 377    | 175   | 253   | 120   | 77    | 86    | 81     | 1,450  | 281   | 330   | 134   | 112   |
| 3     | 562    | 166   | 240   | 115   | 76    | 84    | 90     | 1,600  | 277   | 142   | 187   | 90    |
| 4     | 1,120  | 156   | 215   | 110   | 76    | 82    | 150    | 2,970  | 277   | 92    | 334   | 78    |
| 5     | 621    | 152   | 183   | 110   | 76    | 81    | 125    | 2,860  | 242   | 71    | 136   | 70    |
| 6     | 427    | 149   | 170   | 115   | 76    | 80    | 110    | 2,060  | 197   | 60    | 83    | 76    |
| 7     | 335    | 141   | 165   | 110   | 76    | 79    | 105    | 2,410  | 182   | 55    | 395   | 104   |
| 8     | 281    | 141   | 160   | 110   | 75    | 78    | 100    | 2,580  | 633   | 49    | 254   | 84    |
| 9     | 243    | 130   | 160   | 100   | 74    | 78    | 100    | 2,820  | 507   | 43    | 128   | 72    |
| 10    | 211    | 125   | 155   | 97    | 75    | 77    | 105    | 3,000  | 293   | 42    | 87    | 90    |
| 11    | 192    | 128   | 155   | 93    | 76    | 77    | 145    | 3,430  | 214   | 37    | 65    | 66    |
| 12    | 185    | 135   | 155   | 90    | 75    | 76    | 320    | 3,570  | 178   | 34    | 61    | 67    |
| 13    | 183    | 128   | 150   | 86    | 73    | 76    | 640    | 3,390  | 154   | 32    | 52    | 225   |
| 14    | 215    | 121   | 150   | 84    | 78    | 76    | 951    | 2,360  | 135   | 56    | 44    | 405   |
| 15    | 521    | 120   | 150   | 82    | 91    | 80    | 758    | 1,520  | 122   | 91    | 38    | 469   |
| 16    | 1,150  | 126   | 150   | 80    | 120   | 200   | 553    | 1,620  | 112   | 61    | 36    | 255   |
| 17    | 587    | 119   | 150   | 77    | 160   | 500   | 453    | 1,680  | 100   | 46    | 33    | 171   |
| 18    | 403    | 111   | 150   | 75    | 140   | 330   | 462    | 1,660  | 90    | 93    | 29    | 166   |
| 19    | 317    | 109   | 150   | 73    | 120   | 160   | 614    | 1,710  | 81    | 69    | 27    | 166   |
| 20    | 264    | 116   | 150   | 72    | 105   | 120   | 1,240  | 1,620  | 75    | 66    | 25    | 134   |
| 21    | 237    | 820   | 145   | 70    | 98    | 105   | 1,640  | 1,340  | 80    | 61    | 24    | 147   |
| 22    | 220    | 677   | 145   | 69    | 93    | 94    | 1,570  | 1,250  | 186   | 45    | 41    | 171   |
| 23    | 256    | 690   | 145   | 68    | 90    | 89    | 1,090  | 1,080  | 117   | 36    | 122   | 140   |
| 24    | 678    | 563   | 145   | 67    | 87    | 86    | 768    | 694    | 89    | 31    | 200   | 119   |
| 25    | 527    | 337   | 170   | 66    | 85    | 84    | 863    | 573    | 98    | 30    | 120   | 101   |
| 26    | 371    | 218   | 165   | 66    | 88    | 83    | 968    | 932    | 248   | 30    | 70    | 88    |
| 27    | 306    | 262   | 160   | 66    | 92    | 82    | 962    | 794    | 139   | 32    | 52    | 79    |
| 28    | 263    | 258   | 150   | 77    | 90    | 81    | 1,230  | 705    | 89    | 42    | 253   | 70    |
| 29    | 236    | 287   | 140   | 82    | ----- | 80    | 1,390  | 562    | 69    | 32    | 761   | 69    |
| 30    | 214    | 261   | 130   | 81    | ----- | 80    | 1,290  | 470    | 62    | 32    | 353   | 74    |
| 31    | 197    | ----- | 125   | 79    | ----- | 80    | -----  | 405    | ----- | 33    | 249   | ----- |
| TOTAL | 12,222 | 7,107 | 5,101 | 2,710 | 2,520 | 3,452 | 18,952 | 54,655 | 5,666 | 1,994 | 4,486 | 4,115 |
| MEAN  | 394    | 237   | 165   | 87.4  | 90.0  | 111   | 632    | 1,763  | 189   | 64.3  | 145   | 137   |
| MAX   | 1,150  | 820   | 270   | 120   | 160   | 500   | 1,640  | 3,570  | 633   | 330   | 761   | 469   |
| MIN   | 183    | 109   | 125   | 66    | 73    | 76    | 79     | 405    | 62    | 30    | 24    | 66    |
| CFSM  | 2.58   | 1.55  | 1.08  | .57   | .59   | .73   | 4.13   | 11.5   | 1.24  | .42   | .95   | .90   |
| IN.   | 2.97   | 1.73  | 1.24  | .66   | .61   | .84   | 4.61   | 13.29  | 1.38  | .48   | 1.09  | 1.00  |

CAL YR 1970 TOTAL 139,210 MEAN 381 MAX 4,760 MIN 22 CFSM 2.49 IN 33.85  
WTR YR 1971 TOTAL 122,980 MEAN 337 MAX 3,570 MIN 24 CFSM 2.20 IN 29.90

PEAK DISCHARGE (BASE, 3,600 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-11 | 2100 | 7.72  | 4,040     |      |      |       |           |

## ANDROSCOGGIN RIVER BASIN

17

01053500 Androscoggin River at Errol, N.H.

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

DRAINAGE AREA.--1,045 sq mi.

PERIOD OF RECORD.--January 1905 to current year. October 1922 to November 1943, monthly discharge only, published in WSP 1301. Prior to 1922, published as "at Errol Dam."

GAGE.--Water-stage recorder. Datum of gage is 1,227.30 ft above mean sea level. Prior to Dec. 8, 1943, nonrecording gage at Errol Dam at datum 5.0 ft higher.

AVERAGE DISCHARGE.--66 years, 1,877 cfs (24.39 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 4,760 cfs May 12 (gage height, 4.60 ft); minimum daily, 991 cfs May 16.

Period of record: Maximum daily discharge, 16,100 cfs May 22, 1969; minimum daily, leakage only at various times when gates in dam were closed. Instantaneous maximum discharge not available prior to Dec. 9, 1943.

REMARKS.--Records excellent. Flow regulated by Rangeley, Mooselookmeguntic, Richardson, Aziscohos, and Umbagog Lakes (combined usable capacity, 28,100,000,000 cu ft), with final regulation at Errol Dam.

COOPERATION.--Records prior to Dec. 9, 1943, furnished by Union Water Power Co.

REVISIONS.--WSP 1001: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV        | DEC       | JAN       | FEB         | MAR        | APR        | MAY    | JUN    | JUL    | AUG    | SEP    |
|-------------|---------------|------------|-----------|-----------|-------------|------------|------------|--------|--------|--------|--------|--------|
| 1           | 1,560         | 1,790      | 1,590     | 1,810     | 1,670       | 1,710      | 1,920      | 2,840  | 2,020  | 1,560  | 1,630  | 1,680  |
| 2           | 1,640         | 1,890      | 1,640     | 1,820     | 1,640       | 1,730      | 1,890      | 2,940  | 2,010  | 1,410  | 1,590  | 1,710  |
| 3           | 1,490         | 1,930      | 1,680     | 1,810     | 1,660       | 1,770      | 1,820      | 3,010  | 1,990  | 1,540  | 1,660  | 1,700  |
| 4           | 1,350         | 1,920      | 1,700     | 1,790     | 1,640       | 1,770      | 1,770      | 3,460  | 1,990  | 1,490  | 1,310  | 1,680  |
| 5           | 1,530         | 1,900      | 1,670     | 1,790     | 1,640       | 1,800      | 1,730      | 4,220  | 2,130  | 1,460  | 1,550  | 1,680  |
| 6           | 1,600         | 1,900      | 1,720     | 1,790     | 1,640       | 1,930      | 1,620      | 4,480  | 2,240  | 1,580  | 1,550  | 1,670  |
| 7           | 1,630         | 1,920      | 1,820     | 1,770     | 1,630       | 1,960      | 1,490      | 4,440  | 2,110  | 1,600  | 1,440  | 1,700  |
| 8           | 1,670         | 1,930      | 1,820     | 1,730     | 1,600       | 1,970      | 1,400      | 3,880  | 1,670  | 1,680  | 1,540  | 1,720  |
| 9           | 1,720         | 1,920      | 1,820     | 1,750     | 1,590       | 1,970      | 1,380      | 4,620  | 1,680  | 1,680  | 1,630  | 1,730  |
| 10          | 1,710         | 1,890      | 1,770     | 1,760     | 1,600       | 1,970      | 1,360      | 4,500  | 2,080  | 1,630  | 1,640  | 1,760  |
| 11          | 1,750         | 1,880      | 1,790     | 1,770     | 1,580       | 1,990      | 1,330      | 4,240  | 2,180  | 1,710  | 1,600  | 1,760  |
| 12          | 1,770         | 1,900      | 1,860     | 1,790     | 1,560       | 1,970      | 1,330      | 4,700  | 2,150  | 1,720  | 1,540  | 1,730  |
| 13          | 1,770         | 1,900      | 1,860     | 1,820     | 1,560       | 1,980      | 1,360      | 4,360  | 2,240  | 1,730  | 1,550  | 1,620  |
| 14          | 1,720         | 1,900      | 1,840     | 1,820     | 1,560       | 1,970      | 1,410      | 3,540  | 2,170  | 1,710  | 1,530  | 1,500  |
| 15          | 1,720         | 1,900      | 1,800     | 1,810     | 1,600       | 1,960      | 1,450      | 1,990  | 2,020  | 1,680  | 1,700  | 1,410  |
| 16          | 1,550         | 1,890      | 1,860     | 1,790     | 1,630       | 1,970      | 1,450      | 991    | 1,970  | 1,670  | 1,760  | 1,580  |
| 17          | 1,530         | 1,890      | 1,810     | 1,770     | 1,630       | 2,010      | 1,380      | 1,060  | 2,020  | 1,640  | 1,760  | 1,540  |
| 18          | 1,600         | 1,890      | 1,770     | 1,790     | 1,580       | 2,060      | 1,310      | 1,050  | 2,010  | 1,670  | 1,750  | 1,540  |
| 19          | 1,670         | 1,890      | 1,770     | 1,790     | 1,580       | 2,060      | 1,320      | 1,020  | 1,960  | 1,680  | 1,760  | 1,580  |
| 20          | 1,790         | 1,850      | 1,800     | 1,810     | 1,580       | 2,050      | 1,470      | 1,150  | 2,050  | 1,590  | 1,700  | 1,680  |
| 21          | 1,810         | 1,500      | 1,840     | 1,820     | 1,580       | 1,980      | 1,820      | 1,230  | 2,080  | 1,670  | 1,660  | 1,660  |
| 22          | 1,810         | 1,490      | 1,850     | 1,810     | 1,620       | 1,930      | 1,150      | 1,300  | 1,970  | 1,730  | 1,680  | 1,670  |
| 23          | 1,730         | 1,470      | 1,850     | 1,800     | 1,670       | 1,920      | 2,350      | 1,240  | 1,970  | 1,720  | 1,590  | 1,710  |
| 24          | 1,350         | 1,460      | 1,850     | 1,760     | 1,680       | 1,920      | 2,380      | 1,710  | 1,990  | 1,640  | 1,540  | 1,710  |
| 25          | 1,270         | 1,560      | 1,850     | 1,710     | 1,670       | 1,920      | 2,350      | 1,890  | 1,790  | 1,660  | 1,620  | 1,710  |
| 26          | 1,460         | 1,660      | 1,760     | 1,720     | 1,640       | 1,930      | 2,390      | 2,660  | 1,360  | 1,680  | 1,680  | 1,730  |
| 27          | 1,580         | 1,750      | 1,760     | 1,730     | 1,600       | 1,940      | 2,420      | 2,690  | 1,440  | 1,700  | 1,670  | 1,760  |
| 28          | 1,640         | 1,720      | 1,760     | 1,810     | 1,680       | 1,940      | 2,520      | 2,720  | 1,580  | 1,700  | 1,380  | 1,760  |
| 29          | 1,730         | 1,640      | 1,730     | 1,800     | -----       | 1,940      | 2,660      | 2,880  | 1,660  | 1,700  | 1,300  | 1,790  |
| 30          | 1,730         | 1,620      | 1,810     | 1,730     | -----       | 1,940      | 2,740      | 2,330  | 1,640  | 1,600  | 1,470  | 1,800  |
| 31          | 1,720         | -----      | 1,820     | 1,700     | -----       | 1,930      | -----      | 2,070  | -----  | 1,600  | 1,540  | -----  |
| TOTAL       | 50,600        | 53,750     | 55,270    | 55,170    | 45,310      | 59,890     | 53,970     | 85,211 | 58,170 | 50,830 | 49,120 | 50,270 |
| MEAN        | 1,632         | 1,792      | 1,783     | 1,780     | 1,618       | 1,932      | 1,799      | 2,749  | 1,939  | 1,640  | 1,585  | 1,676  |
| MAX         | 1,810         | 1,930      | 1,860     | 1,820     | 1,680       | 2,060      | 2,740      | 4,700  | 2,240  | 1,730  | 1,760  | 1,800  |
| MIN         | 1,270         | 1,460      | 1,590     | 1,700     | 1,560       | 1,710      | 1,310      | 991    | 1,360  | 1,410  | 1,300  | 1,410  |
| MEAN†       | 1,936         | 1,169      | 977       | 431       | 524         | 638        | 4,225      | 9,293  | 1,027  | 121    | 653    | 478    |
| CFSM†       | 1.85          | 1.12       | .94       | .41       | .50         | .61        | 4.04       | 8.89   | .98    | .12    | .62    | .46    |
| IN.†        | 2.13          | 1.25       | 1.08      | .48       | .52         | .70        | 4.51       | 10.25  | 1.10   | .13    | .72    | .51    |
| CAL YR 1970 | TOTAL 860,800 | MEAN 2,358 | MAX 7,300 | MIN 1,220 | MEAN† 1,988 | CFSM† 1.90 | INT† 25.80 |        |        |        |        |        |
| WTR YR 1971 | TOTAL 667,561 | MEAN 1,829 | MAX 4,700 | MIN 991   | MEAN† 1,800 | CFSM† 1.72 | INT† 23.38 |        |        |        |        |        |

† Adjusted for change in contents in Rangeley, Mooselookmeguntic, Richardson, Aziscohos, and Umbagog Lakes.

## ANDROSCOGGIN RIVER BASIN

01054000 Androscoggin River near Gorham, N.H.

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

DRAINAGE AREA.--1,363 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 832.88 ft above mean sea level. Prior to Sept. 30, 1922, nonrecording gage showing head and tailwater elevations at site 3 miles upstream at different datum.

AVERAGE DISCHARGE.--58 years, 2,435 cfs (24.26 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 9,060 cfs May 5 (gage height, 7.24 ft); minimum daily, 1,640 cfs Aug. 14.  
Period of record: Maximum daily discharge, 20,000 cfs June 18, 1917, Apr. 30, 1923; minimum daily, 795 cfs Mar. 15, 1948.

REMARKS.--Records excellent. Flow regulated by Rangeley, Mooselookmeguntic, Richardson, Aziscohos, and Umbagog Lakes (combined usable capacity, 28,100,000 cu ft), with final regulation at Errol Dam 35 miles upstream. Diurnal fluctuation caused by powerplant 0.8 mile upstream.

REVISIONS.--WSP 1001: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT    | NOV       | DEC    | JAN    | FEB    | MAR    | APR     | MAY     | JUN    | JUL    | AUG    | SEP    |
|-------------|--------|-----------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|
| 1           | 1,830  | 1,960     | 1,960  | 1,930  | 1,870  | 1,910  | 2,300   | 5,400   | 2,610  | 2,260  | 1,720  | 1,820  |
| 2           | 1,880  | 2,070     | 1,950  | 1,970  | 1,830  | 1,930  | 2,330   | 5,440   | 2,430  | 2,650  | 1,830  | 1,870  |
| 3           | 2,000  | 2,100     | 2,000  | 2,010  | 1,730  | 1,960  | 2,380   | 5,740   | 2,400  | 1,980  | 1,830  | 1,850  |
| 4           | 2,370  | 2,120     | 2,070  | 1,970  | 1,720  | 1,980  | 2,450   | 8,290   | 2,390  | 1,860  | 1,970  | 1,790  |
| 5           | 2,190  | 2,110     | 1,970  | 2,010  | 1,730  | 1,970  | 2,400   | 8,660   | 2,330  | 1,710  | 1,820  | 1,780  |
| 6           | 2,050  | 2,120     | 2,010  | 1,990  | 1,750  | 2,010  | 2,320   | 7,760   | 2,450  | 1,660  | 1,780  | 1,770  |
| 7           | 1,930  | 2,060     | 1,900  | 1,950  | 1,750  | 2,130  | 2,230   | 7,600   | 2,530  | 1,750  | 1,750  | 1,850  |
| 8           | 1,920  | 2,100     | 1,950  | 1,890  | 1,750  | 2,140  | 2,060   | 7,180   | 2,570  | 1,780  | 1,730  | 1,820  |
| 9           | 1,940  | 2,120     | 2,090  | 1,820  | 1,710  | 2,190  | 1,940   | 7,590   | 2,430  | 1,840  | 1,760  | 1,820  |
| 10          | 1,930  | 2,080     | 2,090  | 1,920  | 1,720  | 2,160  | 1,950   | 7,590   | 2,330  | 1,760  | 1,760  | 1,850  |
| 11          | 1,880  | 2,050     | 2,000  | 1,950  | 1,720  | 2,200  | 2,090   | 7,440   | 2,470  | 1,730  | 1,800  | 1,800  |
| 12          | 1,990  | 2,070     | 1,920  | 1,930  | 1,720  | 2,210  | 2,520   | 7,660   | 2,450  | 1,810  | 1,790  | 1,860  |
| 13          | 1,980  | 2,090     | 2,050  | 1,860  | 1,710  | 2,200  | 3,020   | 7,660   | 2,400  | 1,800  | 1,770  | 1,890  |
| 14          | 1,980  | 2,070     | 2,140  | 1,910  | 1,740  | 2,230  | 3,340   | 6,740   | 2,500  | 1,890  | 1,640  | 1,940  |
| 15          | 1,960  | 2,080     | 2,040  | 2,000  | 1,730  | 2,270  | 3,170   | 4,780   | 2,360  | 1,810  | 1,670  | 2,130  |
| 16          | 2,150  | 2,100     | 1,960  | 1,970  | 1,780  | 2,430  | 2,860   | 2,950   | 2,220  | 1,820  | 1,880  | 1,970  |
| 17          | 2,060  | 2,080     | 2,060  | 1,960  | 1,840  | 2,600  | 2,600   | 2,710   | 2,170  | 1,780  | 1,870  | 1,930  |
| 18          | 1,900  | 2,080     | 2,040  | 1,860  | 1,840  | 2,630  | 2,480   | 2,540   | 2,210  | 1,800  | 1,920  | 1,830  |
| 19          | 1,920  | 2,070     | 2,020  | 1,900  | 1,790  | 2,630  | 2,790   | 2,550   | 2,090  | 1,840  | 1,870  | 1,670  |
| 20          | 1,930  | 2,080     | 2,020  | 1,910  | 1,790  | 2,610  | 3,960   | 2,420   | 2,060  | 1,880  | 1,810  | 1,810  |
| 21          | 2,020  | 2,560     | 1,980  | 1,920  | 1,780  | 2,530  | 4,810   | 2,420   | 2,280  | 1,810  | 1,730  | 1,850  |
| 22          | 2,020  | 2,480     | 1,990  | 1,970  | 1,790  | 2,430  | 5,160   | 2,440   | 2,300  | 1,800  | 1,740  | 1,850  |
| 23          | 2,050  | 2,290     | 2,100  | 1,980  | 1,810  | 2,350  | 5,020   | 2,550   | 2,180  | 1,860  | 1,860  | 1,860  |
| 24          | 2,460  | 2,330     | 2,020  | 2,000  | 1,840  | 2,330  | 4,460   | 2,300   | 2,140  | 1,790  | 1,780  | 1,880  |
| 25          | 2,110  | 2,050     | 2,060  | 1,980  | 1,850  | 2,290  | 4,570   | 2,510   | 2,150  | 1,760  | 1,720  | 1,870  |
| 26          | 1,920  | 1,950     | 2,020  | 1,980  | 1,870  | 2,270  | 4,880   | 3,030   | 2,000  | 1,780  | 1,750  | 1,850  |
| 27          | 1,970  | 2,040     | 1,990  | 1,940  | 1,840  | 2,280  | 4,750   | 4,120   | 1,650  | 1,810  | 1,800  | 1,900  |
| 28          | 1,940  | 2,070     | 1,960  | 1,930  | 1,840  | 2,290  | 5,110   | 3,630   | 1,760  | 1,800  | 1,930  | 1,880  |
| 29          | 1,980  | 2,050     | 1,930  | 1,920  | -----  | 2,320  | 5,360   | 3,740   | 1,820  | 1,810  | 2,050  | 1,920  |
| 30          | 1,990  | 2,020     | 1,910  | 1,930  | -----  | 2,340  | 5,270   | 3,540   | 1,770  | 1,850  | 1,830  | 1,890  |
| 31          | 1,980  | -----     | 1,940  | 1,950  | -----  | 2,340  | -----   | 2,780   | -----  | 1,740  | 1,340  | -----  |
| TOTAL       | 62,230 | 63,450    | 62,140 | 60,210 | 49,840 | 70,160 | 100,580 | 151,760 | 67,450 | 57,220 | 56,000 | 55,800 |
| MEAN        | 2,007  | 2,115     | 2,005  | 1,942  | 1,780  | 2,263  | 3,353   | 4,895   | 2,248  | 1,846  | 1,806  | 1,860  |
| MAX         | 2,460  | 2,560     | 2,140  | 2,010  | 1,870  | 2,630  | 5,360   | 8,660   | 2,610  | 2,650  | 2,050  | 2,130  |
| MIN         | 1,830  | 1,950     | 1,900  | 1,820  | 1,710  | 1,910  | 1,940   | 2,300   | 1,650  | 1,660  | 1,640  | 1,670  |
| MEAN†       | 2,311  | 1,402     | 1,199  | 593    | 686    | 969    | 5,779   | 11,440  | 1,336  | 327    | 874    | 662    |
| CFSM†       | 1.70   | 1.09      | .88    | .44    | .50    | .71    | 4.24    | 8.39    | .98    | .24    | .64    | .49    |
| IN.†        | 1.96   | 1.22      | 1.01   | .50    | .52    | .82    | 4.73    | 9.67    | 1.09   | .28    | .74    | .54    |
| CAL YR 1970 | TOTAL  | 1,061,580 | MEAN   | 2,908  | MAX    | 12,400 | MIN     | 1,780   | MEAN†  | 2,538  | CFSM†  | 1.86   |
| WTR YR 1971 | TOTAL  | 856,840   | MEAN   | 2,348  | MAX    | 8,660  | MIN     | 1,640   | MEAN†  | 2,319  | CFSM†  | 1.70   |
|             |        |           |        |        |        |        |         |         |        |        | INT    | 25.26  |
|             |        |           |        |        |        |        |         |         |        |        | INT    | 23.08  |

† Adjusted for change in contents in Rangeley, Mooselookmeguntic, Richardson, Aziscohos, and Umbagog Lakes.

## SACO RIVER BASIN

19

01064300 Ellis River near Jackson, N.H.

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

DRAINAGE AREA.--10.9 sq mi.

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

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

AVERAGE DISCHARGE.--7 years, 31.8 cfs (39.62 inches per year).

EXTREMES.--Current year: Maximum discharge, 662 cfs Nov. 21 (gage height, 3.78 ft), from rating curve extended above 310 cfs on basis of slope-area measurement at gage-height 8.99 ft; minimum daily, 5.1 cfs Feb. 7, 8, 12.

Period of record: Maximum discharge, 4,500 cfs Nov. 3, 1966 (gage height, 10.34 ft from recorder, affected by drawdown; 18.9 ft from floodmarks, site and datum then in use), from rating curve extended above 390 cfs on basis of slope-area measurement at gage height 10.34 ft; minimum, 3.7 cfs Mar. 27, 1965.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN   | FEB   | MAR   | APR     | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|------|-------|-------|-------|-------|-------|---------|-------|-------|-------|-------|-------|
| 1     | 14   | 19    | 20    | 7.0   | 5.7   | 6.4   | 7.3     | 51    | 59    | 21    | 17    | 16    |
| 2     | 13   | 18    | 21    | 6.8   | 5.0   | 6.3   | 8.7     | 49    | 53    | 20    | 14    | 14    |
| 3     | 85   | 17    | 20    | 6.5   | 5.5   | 6.2   | 41      | 184   | 66    | 15    | 28    | 13    |
| 4     | 57   | 16    | 19    | 6.4   | 5.4   | 6.1   | 31      | 215   | 67    | 14    | 35    | 12    |
| 5     | 29   | 16    | 19    | 6.4   | 5.3   | 6.0   | 21      | 88    | 53    | 13    | 18    | 12    |
| 6     | 22   | 15    | 22    | 6.7   | 5.2   | 6.0   | 19      | 82    | 42    | 13    | 14    | 20    |
| 7     | 19   | 15    | 18    | 7.2   | 5.1   | 6.0   | 17      | 91    | 50    | 13    | 14    | 14    |
| 8     | 17   | 15    | 15    | 7.0   | 5.1   | 6.0   | 15      | 89    | 106   | 12    | 12    | 13    |
| 9     | 15   | 14    | 14    | 7.0   | 5.2   | 5.9   | 13      | 94    | 83    | 12    | 11    | 11    |
| 10    | 15   | 14    | 13    | 6.9   | 5.3   | 5.6   | 13      | 116   | 52    | 11    | 10    | 9.8   |
| 11    | 14   | 20    | 12    | 6.9   | 5.3   | 5.6   | 25      | 174   | 42    | 10    | 12    | 10    |
| 12    | 14   | 22    | 11    | 6.9   | 5.1   | 5.8   | 44      | 197   | 39    | 9.8   | 10    | 22    |
| 13    | 14   | 17    | 11    | 6.8   | 5.8   | 5.9   | 58      | 255   | 38    | 9.4   | 9.8   | 43    |
| 14    | 14   | 16    | 10    | 6.6   | 20    | 6.2   | 76      | 111   | 34    | 16    | 9.4   | 56    |
| 15    | 14   | 15    | 9.5   | 6.4   | 17    | 7.0   | 47      | 79    | 31    | 12    | 9.1   | 41    |
| 16    | 23   | 15    | 9.2   | 6.2   | 14    | 25    | 31      | 88    | 30    | 11    | 8.7   | 26    |
| 17    | 16   | 14    | 8.9   | 6.1   | 11    | 16    | 24      | 116   | 28    | 12    | 7.8   | 21    |
| 18    | 14   | 13    | 8.8   | 6.0   | 9.5   | 11    | 24      | 174   | 27    | 12    | 7.5   | 18    |
| 19    | 14   | 14    | 8.7   | 5.8   | 8.5   | 8.4   | 49      | 190   | 27    | 14    | 7.3   | 16    |
| 20    | 13   | 27    | 8.6   | 5.7   | 7.8   | 8.4   | 73      | 210   | 26    | 23    | 7.0   | 14    |
| 21    | 12   | 250   | 8.4   | 5.6   | 7.4   | 7.8   | 74      | 124   | 27    | 13    | 7.3   | 27    |
| 22    | 13   | 56    | 8.0   | 5.6   | 7.1   | 7.8   | 62      | 144   | 27    | 11    | 7.0   | 19    |
| 23    | 88   | 66    | 8.1   | 5.7   | 6.9   | 7.5   | 42      | 83    | 23    | 10    | 8.4   | 15    |
| 24    | 131  | 41    | 8.4   | 5.8   | 6.7   | 7.3   | 40      | 62    | 22    | 16    | 8.7   | 14    |
| 25    | 50   | 29    | 8.5   | 6.0   | 6.6   | 7.3   | 44      | 72    | 21    | 27    | 7.5   | 14    |
| 26    | 38   | 28    | 8.2   | 6.1   | 6.3   | 6.8   | 43      | 213   | 25    | 15    | 7.0   | 12    |
| 27    | 33   | 23    | 7.8   | 6.1   | 6.5   | 6.8   | 49      | 83    | 19    | 14    | 7.5   | 12    |
| 28    | 28   | 24    | 7.4   | 6.1   | 6.4   | 7.0   | 51      | 67    | 17    | 13    | 92    | 12    |
| 29    | 25   | 24    | 7.2   | 6.1   | ----- | 7.0   | 49      | 65    | 17    | 13    | 44    | 12    |
| 30    | 22   | 23    | 7.0   | 5.9   | ----- | 7.3   | 42      | 67    | 17    | 17    | 24    | 11    |
| 31    | 21   | ----- | 7.0   | 5.8   | ----- | 7.3   | -----   | 72    | ----- | 19    | 19    | ----- |
| TOTAL | 897  | 896   | 364.7 | 196.2 | 211.3 | 239.7 | 1,133.0 | 3,705 | 1,168 | 441.2 | 494.0 | 549.8 |
| MEAN  | 28.9 | 29.9  | 11.8  | 6.33  | 7.55  | 7.73  | 37.8    | 120   | 38.9  | 14.2  | 15.9  | 18.3  |
| MAX   | 131  | 250   | 22    | 7.2   | 20    | 25    | 76      | 255   | 106   | 27    | 92    | 56    |
| MIN   | 12   | 13    | 7.0   | 5.6   | 5.1   | 5.6   | 7.3     | 49    | 17    | 9.4   | 7.0   | 9.8   |
| CFSM  | 2.65 | 2.74  | 1.08  | .58   | .69   | .71   | 3.47    | 11.0  | 3.57  | 1.30  | 1.46  | 1.68  |
| IN.   | 3.06 | 3.06  | 1.24  | .67   | .72   | .82   | 3.87    | 12.64 | 3.99  | 1.51  | 1.69  | 1.88  |

CAL YR 1970 TOTAL 10,022.4 MEAN 27.5 MAX 375 MIN 5.0 CFSM 2.52 IN 34.20  
WTR YR 1971 TOTAL 10,295.9 MEAN 28.2 MAX 255 MIN 5.1 CFSM 2.59 IN 35.14

## PEAK DISCHARGE (BASE, 400 CFS)

| DATE  | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|-------|------|-------|-----------|------|------|-------|-----------|
| 11-21 | 0415 | 3.78  | 662       |      |      |       |           |
| 5-3   | 2245 | 3.44  | 526       |      |      |       |           |
| 5-26  | 0215 | 3.47  | 538       |      |      |       |           |
| 8-28  | 1515 | 3.25  | 450       |      |      |       |           |



## SACO RIVER BASIN

01064400 Lucy Brook near North Conway, N.H.

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

DRAINAGE AREA.--4.68 sq mi.

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

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

AVERAGE DISCHARGE.--7 years, 9.28 cfs (26.93 inches per year).

EXTREMES.--Current year: Maximum discharge, 545 cfs May 3 (gage height, 7.47 ft); minimum, 0.69 cfs Aug. 26.

Period of record: Maximum discharge, 992 cfs Nov. 3, 1966, Apr. 25, 1968 (gage height, 9.20 ft, from floodmarks), from rating curve extended above 50 cfs on basis of slope-area measurement of peak flow; maximum recorded gage height, 8.14 ft Nov. 3, 1966 (affected by drawdown); minimum discharge, 0.32 cfs Sept. 2, 3, 29, 30, 1968.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are fair.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY     | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|-------|-------|
| 1     | 2.2   | 9.0   | 10    | 4.1   | 2.8   | 5.2   | 6.3   | 44      | 4.8   | 3.4   | 4.3   | 3.1   |
| 2     | 2.2   | 8.3   | 9.3   | 3.7   | 2.9   | 5.2   | 6.8   | 42      | 4.5   | 2.9   | 3.8   | 2.8   |
| 3     | 1.9   | 7.8   | 9.0   | 3.7   | 2.8   | 4.7   | 17    | 15.9    | 4.3   | 2.5   | 4.1   | 2.5   |
| 4     | 2.7   | 7.1   | 9.2   | 3.7   | 2.8   | 5.6   | 19    | 174     | 4.0   | 2.3   | 6.4   | 2.1   |
| 5     | 10    | 7.1   | 8.3   | 3.5   | 2.8   | 5.6   | 17    | 70      | 3.5   | 2.1   | 4.5   | 1.8   |
| 6     | 7.2   | 6.5   | 7.9   | 3.7   | 2.7   | 4.9   | 16    | 54      | 3.7   | 1.9   | 3.6   | 15    |
| 7     | 6.7   | 6.6   | 7.6   | 3.5   | 2.7   | 4.5   | 16    | 49      | 3.6   | 1.8   | 3.1   | 8.2   |
| 8     | 5.7   | 6.0   | 7.4   | 3.8   | 2.7   | 4.5   | 14    | 40      | 4.5   | 1.6   | 2.7   | 5.9   |
| 9     | 5.1   | 5.4   | 7.0   | 3.6   | 2.7   | 4.5   | 13    | 45      | 4.0   | 1.5   | 2.5   | 4.6   |
| 10    | 4.6   | 5.4   | 6.6   | 3.5   | 2.7   | 4.5   | 13    | 37      | 3.5   | 1.4   | 2.1   | 3.9   |
| 11    | 4.3   | 8.0   | 6.4   | 3.5   | 2.7   | 4.5   | 20    | 30      | 3.2   | 1.3   | 2.7   | 3.6   |
| 12    | 4.1   | 7.9   | 6.1   | 3.4   | 2.7   | 4.3   | 32    | 25      | 2.8   | 1.2   | 2.5   | 11    |
| 13    | 3.7   | 6.9   | 5.6   | 3.3   | 3.0   | 4.3   | 44    | 27      | 2.6   | 1.2   | 1.9   | 41    |
| 14    | 3.7   | 6.4   | 5.5   | 3.2   | 3.0   | 4.4   | 53    | 24      | 2.4   | 2.2   | 1.8   | 59    |
| 15    | 4.5   | 6.4   | 5.2   | 3.2   | 10    | 5.4   | 35    | 20      | 2.2   | 1.4   | 1.8   | 30    |
| 16    | 14    | 7.1   | 4.9   | 3.2   | 6.4   | 11    | 25    | 17      | 2.0   | 1.2   | 1.7   | 16    |
| 17    | 6.7   | 6.7   | 4.8   | 3.2   | 6.0   | 12    | 25    | 15      | 1.9   | 1.6   | 1.4   | 12    |
| 18    | 7.0   | 6.2   | 4.8   | 3.1   | 5.4   | 8.5   | 26    | 14      | 1.8   | 1.8   | 1.3   | 9.6   |
| 19    | 6.3   | 7.2   | 4.7   | 3.1   | 5.2   | 8.0   | 41    | 13      | 1.7   | 2.3   | 1.2   | 8.0   |
| 20    | 5.5   | 13    | 4.6   | 3.0   | 5.2   | 8.5   | 60    | 12      | 1.6   | 3.2   | 1.2   | 7.2   |
| 21    | 5.5   | 8.6   | 4.5   | 3.0   | 4.9   | 7.6   | 62    | 11      | 1.5   | 1.5   | 1.2   | 7.2   |
| 22    | 5.4   | 22    | 4.3   | 3.0   | 4.8   | 7.0   | 57    | 12      | 1.7   | 1.2   | 1.1   | 6.5   |
| 23    | 44    | 27    | 4.4   | 2.9   | 4.9   | 7.0   | 45    | 10      | 1.5   | 1.0   | 1.2   | 5.8   |
| 24    | 82    | 21    | 4.5   | 2.8   | 4.8   | 6.8   | 42    | 9.0     | 1.4   | .89   | 1.1   | 5.4   |
| 25    | 28    | 16    | 4.5   | 2.8   | 4.7   | 6.7   | 43    | 8.5     | 1.3   | .89   | .89   | 4.9   |
| 26    | 22    | 13    | 4.5   | 2.8   | 4.3   | 6.0   | 42    | 8.0     | 8.0   | .89   | .65   | 4.7   |
| 27    | 20    | 12    | 4.2   | 2.8   | 5.1   | 6.4   | 42    | 7.4     | 6.0   | 1.3   | 1.3   | 4.5   |
| 28    | 15    | 12    | 4.0   | 2.9   | 5.7   | 6.3   | 43    | 7.1     | 5.0   | 1.0   | 1.2   | 4.3   |
| 29    | 13    | 11    | 3.9   | 2.9   | ----- | 6.3   | 47    | 6.3     | 4.2   | 3.1   | 8.8   | 4.1   |
| 30    | 11    | 11    | 4.0   | 2.8   | ----- | 6.3   | 42    | 5.7     | 3.7   | 4.7   | 4.7   | 3.6   |
| 31    | 10    | ----- | 4.1   | 2.7   | ----- | 6.3   | ----- | 5.0     | ----- | 5.4   | 3.6   | ----- |
| TOTAL | 407.4 | 386.4 | 181.8 | 100.8 | 143.3 | 192.7 | 572.1 | 1,041.0 | 97.3  | 60.67 | 91.18 | 298.3 |
| MEAN  | 13.1  | 12.9  | 5.86  | 3.25  | 5.12  | 6.22  | 32.4  | 33.6    | 3.24  | 1.96  | 2.94  | 9.54  |
| MAX   | 82    | 86    | 10    | 4.1   | 30    | 12    | 62    | 159     | 8.0   | 5.4   | 12    | 59    |
| MIN   | 2.2   | 5.4   | 3.9   | 2.7   | 2.7   | 4.3   | 6.3   | 5.0     | 1.3   | .89   | .65   | 1.8   |
| CFSM  | 2.80  | 2.76  | 1.25  | .69   | 1.05  | 1.33  | 6.92  | 7.18    | .65   | .42   | .63   | 2.12  |
| IN.   | 3.24  | 3.07  | 1.45  | .80   | 1.14  | 1.53  | 7.73  | 8.27    | .77   | .48   | .72   | 2.37  |

CAL YR 1970 TOTAL 3,642.25 MEAN 9.98 MAX 57 MIN .59 CFSM 2.13 IN 28.95  
 WTR YR 1971 TOTAL 3,972.95 MEAN 10.9 MAX 159 MIN .69 CFSM 2.23 IN 31.58

## PEAK DISCHARGE (BASE, 190 CFS)

NOTE.--No gage-height record June 4 to July 13.

| DATE  | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|-------|------|-------|-----------|------|------|-------|-----------|
| 10-24 | 0100 | 6.53  | 191       |      |      |       |           |
| 5-3   | 2245 | 7.47  | 545       |      |      |       |           |

## SACO RIVER BASIN

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01064500 Saco River near Conway, N. H.

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

DRAINAGE AREA.--386 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 418.19 ft above mean sea level. Aug. 26, 1903, to June 30, 1912, nonrecording gage at site 0.8 mile downstream at different datum.

AVERAGE DISCHARGE.--48 years (1903-9, 1929-71), 907 cfs (31.91 inches per year).

EXTREMES.--Current year: Maximum discharge, 14,800 cfs May 4 (gage height, 9.89 ft); minimum, 136 cfs Aug. 27 (gage height, 2.09 ft).

Period of record. Maximum discharge, 43,900 cfs Mar. 27, 1953 (gage height, 17.20 ft), from rating curve extended above 23,000 cfs on basis of slope-area measurement of peak flow; minimum, 40 cfs Mar. 16, 1932 (gage height, 1.61 ft).

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

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1301: 1908-9.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC        | JAN     | FEB       | MAR      | APR    | MAY     | JUN    | JUL   | AUG   | SEP    |
|-------------|---------------|----------|------------|---------|-----------|----------|--------|---------|--------|-------|-------|--------|
| 1           | 350           | 579      | 750        | 305     | 230       | 570      | 310    | 2,950   | 1,100  | 274   | 460   | 285    |
| 2           | 305           | 538      | 710        | 300     | 225       | 515      | 325    | 3,080   | 921    | 369   | 345   | 245    |
| 3           | 537           | 507      | 665        | 300     | 220       | 480      | 650    | 5,320   | 887    | 324   | 320   | 223    |
| 4           | 2,000         | 481      | 630        | 295     | 220       | 455      | 1,200  | 12,200  | 903    | 272   | 722   | 208    |
| 5           | 901           | 467      | 595        | 290     | 215       | 440      | 1,000  | 6,720   | 828    | 248   | 489   | 197    |
| 6           | 602           | 457      | 565        | 340     | 215       | 430      | 840    | 5,060   | 703    | 236   | 351   | 279    |
| 7           | 499           | 431      | 540        | 330     | 215       | 425      | 740    | 4,720   | 638    | 234   | 291   | 307    |
| 8           | 450           | 414      | 515        | 315     | 215       | 415      | 660    | 4,620   | 776    | 211   | 258   | 255    |
| 9           | 390           | 396      | 495        | 300     | 220       | 405      | 605    | 4,730   | 1,460  | 203   | 235   | 224    |
| 10          | 346           | 384      | 475        | 295     | 240       | 400      | 610    | 4,270   | 834    | 195   | 216   | 202    |
| 11          | 321           | 432      | 460        | 285     | 235       | 395      | 850    | 4,990   | 647    | 188   | 210   | 189    |
| 12          | 306           | 589      | 440        | 280     | 225       | 390      | 1,940  | 5,410   | 565    | 180   | 237   | 258    |
| 13          | 294           | 527      | 425        | 270     | 250       | 380      | 2,620  | 5,770   | 514    | 173   | 211   | 1,450  |
| 14          | 290           | 467      | 410        | 265     | 500       | 400      | 3,180  | 4,410   | 476    | 199   | 192   | 1,610  |
| 15          | 307           | 446      | 395        | 260     | 1,500     | 450      | 2,730  | 3,160   | 443    | 229   | 183   | 1,660  |
| 16          | 610           | 461      | 385        | 255     | 1,250     | 520      | 2,070  | 2,920   | 419    | 206   | 181   | 940    |
| 17          | 595           | 461      | 375        | 250     | 950       | 1,000    | 1,700  | 2,800   | 395    | 193   | 176   | 696    |
| 18          | 459           | 428      | 365        | 250     | 760       | 630      | 1,700  | 3,190   | 372    | 224   | 166   | 587    |
| 19          | 400           | 434      | 360        | 245     | 650       | 520      | 2,240  | 3,360   | 349    | 224   | 160   | 503    |
| 20          | 367           | 502      | 350        | 245     | 550       | 470      | 3,670  | 3,370   | 331    | 382   | 155   | 444    |
| 21          | 351           | 3,760    | 345        | 240     | 485       | 435      | 4,480  | 2,990   | 321    | 316   | 150   | 465    |
| 22          | 340           | 2,390    | 340        | 240     | 430       | 400      | 4,000  | 2,730   | 348    | 240   | 149   | 524    |
| 23          | 682           | 1,980    | 335        | 235     | 400       | 375      | 3,330  | 2,300   | 330    | 210   | 155   | 418    |
| 24          | 3,830         | 1,740    | 350        | 230     | 380       | 355      | 2,800  | 1,670   | 305    | 194   | 171   | 373    |
| 25          | 1,840         | 1,250    | 425        | 230     | 375       | 340      | 3,130  | 1,420   | 330    | 247   | 153   | 339    |
| 26          | 1,280         | 1,000    | 390        | 230     | 375       | 330      | 2,990  | 2,310   | 646    | 262   | 143   | 314    |
| 27          | 1,110         | 919      | 360        | 255     | 410       | 325      | 2,860  | 1,810   | 464    | 234   | 145   | 297    |
| 28          | 906           | 843      | 340        | 340     | 600       | 320      | 3,020  | 1,410   | 359    | 214   | 429   | 286    |
| 29          | 783           | 823      | 330        | 295     | -----     | 310      | 3,170  | 1,270   | 309    | 205   | 1,280 | 280    |
| 30          | 692           | 784      | 320        | 265     | -----     | 305      | 2,840  | 1,220   | 285    | 426   | 503   | 272    |
| 31          | 628           | -----    | 310        | 245     | -----     | 305      | -----  | 1,170   | -----  | 370   | 349   | -----  |
| TOTAL       | 22,771        | 24,890   | 13,750     | 8,480   | 12,540    | 13,490   | 62,260 | 113,350 | 17,258 | 7,682 | 9,185 | 14,330 |
| MEAN        | 735           | 830      | 444        | 274     | 448       | 435      | 2,075  | 3,656   | 575    | 248   | 296   | 478    |
| MAX         | 3,830         | 3,760    | 750        | 340     | 1,500     | 1,000    | 4,480  | 12,200  | 1,460  | 426   | 1,280 | 1,660  |
| MIN         | 290           | 384      | 310        | 230     | 215       | 305      | 310    | 1,170   | 285    | 173   | 143   | 189    |
| CFSM        | 1.90          | 2.15     | 1.15       | .71     | 1.16      | 1.13     | 5.38   | 9.47    | 1.49   | .64   | .77   | 1.24   |
| IN.         | 2.19          | 2.40     | 1.33       | .82     | 1.21      | 1.30     | 6.00   | 10.92   | 1.66   | .74   | .89   | 1.38   |
| CAL YR 1970 | TOTAL 332,666 | MEAN 911 | MAX 7,910  | MIN 122 | CFSM 2.36 | IN 32.06 |        |         |        |       |       |        |
| WTR YR 1971 | TOTAL 319,986 | MEAN 877 | MAX 12,200 | MIN 143 | CFSM 2.27 | IN 30.84 |        |         |        |       |       |        |

## PEAK DISCHARGE (BASE, 8,700 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | 0800 | 9.89  | 14,800    |      |      |       |           |

01064800 Cold Brook at South Tamworth, N.H.

LOCATION.--Lat 43°48'57", long 71°17'51", Carroll County, on right bank 100 ft upstream from highway bridge on Johnson Mountain Road, 0.8 mile south of South Tamworth, and 0.9 mile upstream from mouth.

DRAINAGE AREA.--5.41 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 840 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 11.7 cfs (29.37 inches per year).

EXTREMES.--Current year: Maximum discharge, 412 cfs May 3 (gage height, 7.84 ft), from rating curve extended above 110 cfs on basis of slope-area measurement at gage height 7.61 ft; minimum, 0.33 cfs part or all of each day July 11-18, Aug. 17-19.

Period of record: Maximum discharge, 612 cfs Nov. 7, 1963 (gage height, 10.21 ft), from rating curve extended above 80 cfs; minimum, 0.07 cfs Aug. 16-19, 23, 1965.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN  | FEB   | MAR   | APR     | MAY     | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|------|-------|-------|---------|---------|-------|-------|-------|-------|
| 1     | 11    | 10    | 11    | 3.7  | 2.7   | 8.6   | 7.4     | 69      | 4.8   | .95   | 2.8   | 1.2   |
| 2     | 11    | 9.3   | 10    | 3.7  | 2.7   | 7.4   | 8.2     | 66      | 3.9   | .86   | 1.7   | 1.1   |
| 3     | 50    | 8.8   | 10    | 3.7  | 2.7   | 7.0   | 30      | 244     | 5.1   | .77   | 1.9   | .86   |
| 4     | 100   | 7.6   | 12    | 3.0  | 2.7   | 6.8   | 27      | 183     | 4.5   | .77   | 2.8   | .77   |
| 5     | 25    | 8.4   | 10    | 3.3  | 2.6   | 6.5   | 26      | 94      | 3.9   | .62   | 1.9   | .77   |
| 6     | 17    | 8.4   | 9.0   | 4.0  | 2.6   | 6.2   | 21      | 83      | 3.7   | .55   | 1.3   | .77   |
| 7     | 14    | 7.0   | 8.5   | 3.6  | 2.6   | 6.0   | 19      | 77      | 3.4   | .55   | .95   | .77   |
| 8     | 11    | 7.0   | 8.0   | 3.5  | 2.6   | 5.8   | 16      | 66      | 3.0   | .49   | .86   | .77   |
| 9     | 9.3   | 6.0   | 8.0   | 3.4  | 2.6   | 5.5   | 15      | 77      | 2.6   | .43   | .69   | .69   |
| 10    | 7.6   | 6.4   | 9.0   | 3.3  | 2.6   | 5.5   | 17      | 63      | 2.0   | .43   | .69   | .55   |
| 11    | 7.6   | 15    | 6.5   | 3.3  | 2.6   | 5.4   | 38      | 55      | 2.0   | .43   | .77   | .55   |
| 12    | 6.7   | 20    | 5.8   | 3.2  | 2.6   | 5.4   | 52      | 46      | 2.0   | .33   | .77   | 3.0   |
| 13    | 6.7   | 14    | 5.3   | 3.1  | 3.0   | 5.3   | 78      | 44      | 1.9   | .33   | .69   | 4.5   |
| 14    | 6.4   | 11    | 4.9   | 3.0  | 15    | 5.3   | 87      | 40      | 1.7   | .77   | .55   | 10    |
| 15    | 7.6   | 11    | 4.7   | 3.0  | 10    | 6.0   | 55      | 27      | 1.7   | .55   | .55   | 10    |
| 16    | 58    | 12    | 4.5   | 3.0  | 7.0   | 22    | 39      | 21      | 1.6   | .33   | .55   | 6.0   |
| 17    | 28    | 12    | 4.3   | 2.9  | 6.0   | 18    | 29      | 17      | 1.4   | .33   | .49   | 5.1   |
| 18    | 19    | 11    | 4.5   | 2.9  | 5.6   | 13    | 28      | 15      | 1.4   | .49   | .43   | 4.5   |
| 19    | 14    | 9.7   | 4.3   | 2.9  | 5.4   | 11    | 54      | 13      | 1.3   | 1.3   | .38   | 3.4   |
| 20    | 12    | 14    | 4.2   | 2.8  | 5.0   | 10    | 96      | 12      | 1.1   | 1.9   | .55   | 3.0   |
| 21    | 11    | 65    | 4.2   | 2.8  | 5.0   | 9.0   | 94      | 10      | 1.1   | .69   | .49   | 3.0   |
| 22    | 9.3   | 33    | 3.9   | 2.8  | 5.0   | 8.4   | 80      | 12      | 1.1   | .49   | .49   | 2.8   |
| 23    | 74    | 30    | 4.2   | 2.7  | 5.0   | 7.9   | 56      | 11      | 1.1   | .49   | .38   | 2.4   |
| 24    | 116   | 23    | 4.2   | 2.7  | 5.0   | 7.4   | 55      | 8.4     | .95   | .49   | .38   | 2.0   |
| 25    | 39    | 17    | 4.2   | 2.7  | 5.0   | 7.0   | 63      | 8.4     | 3.4   | .38   | .38   | 1.7   |
| 26    | 31    | 14    | 3.9   | 2.7  | 4.8   | 6.9   | 61      | 7.9     | 4.2   | .38   | .38   | 1.7   |
| 27    | 26    | 12    | 3.7   | 2.9  | 5.5   | 6.8   | 53      | 7.3     | 1.9   | .62   | .69   | 1.6   |
| 28    | 19    | 12    | 3.7   | 2.8  | 9.0   | 6.8   | 55      | 6.7     | 1.6   | .49   | 5.4   | 1.6   |
| 29    | 16    | 11    | 3.7   | 2.7  | ----- | 7.0   | 72      | 6.0     | 1.3   | 1.7   | 3.4   | 1.6   |
| 30    | 14    | 11    | 3.7   | 2.6  | ----- | 7.2   | 61      | 5.4     | 1.1   | 3.9   | 1.9   | 1.6   |
| 31    | 12    | ----- | 3.7   | 2.6  | ----- | 7.4   | -----   | 5.4     | ----- | 2.6   | 1.4   | ----- |
| TOTAL | 789.2 | 436.6 | 187.6 | 95.3 | 132.9 | 248.5 | 1,392.6 | 1,400.5 | 70.75 | 25.41 | 36.61 | 78.30 |
| MEAN  | 25.5  | 14.6  | 6.05  | 3.07 | 4.75  | 8.02  | 46.4    | 45.2    | 2.36  | .82   | 1.18  | 2.61  |
| MAX   | 116   | 65    | 12    | 4.0  | 15    | 22    | 96      | 244     | 5.1   | 3.9   | 5.4   | 10    |
| MIN   | 6.4   | 6.0   | 3.7   | 2.6  | 2.6   | 5.3   | 7.4     | 5.4     | .95   | .33   | .38   | .55   |
| CFSM  | 4.71  | 2.70  | 1.12  | .57  | .88   | 1.48  | 8.58    | 8.35    | .44   | .15   | .22   | .48   |
| IN.   | 5.43  | 3.00  | 1.29  | .66  | .91   | 1.71  | 9.58    | 9.63    | .49   | .17   | .25   | .54   |

CAL YR 1970 TOTAL 4,485.32 MEAN 12.3 MAX 140 MIN .41 CFSM 2.27 IN 30.84  
WTR YR 1971 TOTAL 4,894.27 MEAN 13.4 MAX 244 MIN .33 CFSM 2.48 IN 33.65

## PEAK DISCHARGE (BASE, 220 CFS)

| DATE  | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|-------|------|-------|-----------|------|------|-------|-----------|
| 10-24 | 0015 | 7.63  | 349       |      |      |       |           |
| 5-3   | 2130 | 7.84  | 412       |      |      |       |           |

01065000 Ossiipee River at Effingham Falls, N. H.

LOCATION.--Lat 43°47'44", long 71°03'36", Carroll County, on left bank 0.3 mile upstream from bridge on State Highway 153 at Effingham Falls, 0.35 mile downstream from outlet of Ossiipee Lake, and 4 miles northwest of Effingham.

DRAINAGE AREA.--330 sq mi.

PERIOD OF RECORD.--September 1942 to current year.

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

AVERAGE DISCHARGE.--29 years, 679 cfs (27.94 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,490 cfs May 5 (gage height, 7.78 ft); minimum, 72 cfs Aug. 9; minimum daily, 120 cfs July 18, 19.

Period of record: Maximum discharge, 11,700 cfs Mar. 28, 1953 (gage height, 11.64 ft); minimum, about 5 cfs during part of several days Nov. 4-20, 1968 (caused by unusual regulation); minimum daily, 11 cfs Oct. 10, 1944.

REMARKS.--Records excellent except those for periods of doubtful gage-height record, which are good. Flow regulated by Ossiipee and Silver Lakes and Pine River Pond (combined capacity, 1,430,000,000 cu ft).

| DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971 |               |          |           |         |           |          |        |        |       |       |       |       |
|--------------------------------------------------------------------------------|---------------|----------|-----------|---------|-----------|----------|--------|--------|-------|-------|-------|-------|
| DAY                                                                            | OCT           | NOV      | DEC       | JAN     | FEB       | MAR      | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
| 1                                                                              | 344           | 1,140    | 694       | 379     | 317       | 445      | 524    | 2,350  | 449   | 171   | 167   | 261   |
| 2                                                                              | 344           | 1,130    | 701       | 378     | 312       | 454      | 536    | 2,270  | 188   | 171   | 167   | 258   |
| 3                                                                              | 346           | 1,050    | 704       | 378     | 304       | 463      | 573    | 2,300  | 210   | 170   | 169   | 256   |
| 4                                                                              | 354           | 939      | 568       | 473     | 297       | 484      | 648    | 2,870  | 268   | 200   | 181   | 254   |
| 5                                                                              | 361           | 916      | 467       | 526     | 296       | 500      | 730    | 3,430  | 361   | 193   | 196   | 253   |
| 6                                                                              | 364           | 898      | 472       | 514     | 303       | 483      | 811    | 3,430  | 357   | 122   | 266   | 251   |
| 7                                                                              | 367           | 786      | 624       | 504     | 298       | 481      | 906    | 3,210  | 355   | 126   | 309   | 250   |
| 8                                                                              | 418           | 717      | 723       | 489     | 300       | 488      | 971    | 2,930  | 353   | 124   | 301   | 249   |
| 9                                                                              | 468           | 705      | 715       | 471     | 312       | 478      | 986    | 2,690  | 353   | 124   | 203   | 247   |
| 10                                                                             | 464           | 513      | 707       | 455     | 310       | 463      | 991    | 2,490  | 351   | 124   | 265   | 246   |
| 11                                                                             | 461           | 437      | 706       | 441     | 304       | 457      | 1,030  | 2,310  | 347   | 123   | 284   | 244   |
| 12                                                                             | 457           | 507      | 697       | 429     | 301       | 454      | 1,180  | 2,140  | 344   | 123   | 279   | 245   |
| 13                                                                             | 454           | 549      | 696       | 411     | 305       | 442      | 1,430  | 2,000  | 342   | 123   | 279   | 247   |
| 14                                                                             | 451           | 669      | 700       | 399     | 329       | 432      | 1,780  | 1,580  | 340   | 125   | 279   | 253   |
| 15                                                                             | 451           | 665      | 689       | 390     | 344       | 426      | 2,080  | 1,310  | 339   | 128   | 279   | 261   |
| 16                                                                             | 464           | 661      | 681       | 378     | 369       | 435      | 2,170  | 1,300  | 337   | 126   | 277   | 268   |
| 17                                                                             | 471           | 657      | 676       | 366     | 384       | 460      | 2,080  | 1,290  | 333   | 123   | 274   | 272   |
| 18                                                                             | 475           | 653      | 662       | 354     | 400       | 497      | 1,990  | 1,200  | 328   | 120   | 272   | 272   |
| 19                                                                             | 482           | 649      | 657       | 342     | 423       | 522      | 1,960  | 1,140  | 314   | 120   | 272   | 267   |
| 20                                                                             | 531           | 648      | 649       | 331     | 438       | 555      | 2,150  | 1,130  | 309   | 121   | 270   | 267   |
| 21                                                                             | 831           | 661      | 644       | 321     | 443       | 569      | 2,510  | 650    | 309   | 123   | 272   | 267   |
| 22                                                                             | 930           | 683      | 625       | 319     | 439       | 574      | 2,790  | 361    | 307   | 140   | 267   | 267   |
| 23                                                                             | 1,040         | 698      | 613       | 311     | 437       | 569      | 2,880  | 429    | 306   | 177   | 282   | 267   |
| 24                                                                             | 1,380         | 705      | 603       | 308     | 436       | 563      | 2,800  | 790    | 304   | 265   | 279   | 266   |
| 25                                                                             | 1,470         | 713      | 592       | 302     | 428       | 560      | 2,700  | 976    | 236   | 263   | 270   | 263   |
| 26                                                                             | 1,420         | 717      | 578       | 303     | 419       | 552      | 2,630  | 943    | 169   | 263   | 272   | 262   |
| 27                                                                             | 1,340         | 706      | 567       | 319     | 419       | 538      | 2,570  | 906    | 169   | 263   | 298   | 261   |
| 28                                                                             | 1,260         | 701      | 481       | 338     | 431       | 524      | 2,480  | 875    | 169   | 263   | 289   | 260   |
| 29                                                                             | 1,190         | 698      | 381       | 319     | -----     | 513      | 2,420  | 845    | 170   | 261   | 263   | 258   |
| 30                                                                             | 1,150         | 697      | 381       | 323     | -----     | 514      | 2,400  | 822    | 171   | 228   | 266   | 257   |
| 31                                                                             | 1,150         | -----    | 380       | 323     | -----     | 517      | -----  | 808    | ----- | 163   | 263   | ----- |
| TOTAL                                                                          | 21,688        | 21,868   | 19,033    | 11,894  | 10,098    | 15,412   | 51,706 | 51,775 | 8,888 | 5,166 | 8,010 | 7,749 |
| MEAN                                                                           | 700           | 729      | 614       | 384     | 361       | 497      | 1,724  | 1,670  | 296   | 167   | 258   | 258   |
| MAX                                                                            | 1,470         | 1,140    | 723       | 526     | 443       | 574      | 2,880  | 3,430  | 449   | 265   | 309   | 272   |
| MIN                                                                            | 344           | 437      | 380       | 302     | 296       | 426      | 524    | 361    | 169   | 120   | 167   | 244   |
| CAL YR 1970                                                                    | TOTAL 266,278 | MEAN 730 | MAX 3,360 | MIN 157 | CFSM 2.21 | IN 30.02 |        |        |       |       |       |       |
| WTR YR 1971                                                                    | TOTAL 233,287 | MEAN 639 | MAX 3,430 | MIN 120 | CFSM 1.94 | IN 26.30 |        |        |       |       |       |       |

NOTE.--Doubtful gage-height record Oct. 7 to Nov. 20, July 14 to Aug. 25.



## PISCATAQUA RIVER BASIN

01072100 Salmon Falls River at Milton, N.H.

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

DRAINAGE AREA.--108 sq mi.

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

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

EXTREMES.--Current year: Maximum discharge, 1,070 cfs Oct. 25 (gage height, 4.90 ft, from graph based on gage readings); minimum daily, 33 cfs July 9-11, 17, 18.

Period of record: Maximum discharge, 1,730 cfs Feb. 12, 1970 (gage height, 5.49 ft); minimum daily, 19 cfs Aug. 30, Sept. 13, 1970.

REMARKS.--Records good except those for period of shifting control, which are fair. Flow completely regulated by Great East and Lovell Lakes and Horn, Wilson, and Milton (also controls Northeast and Town House) Ponds, combined usable capacity, 1,280,000,000 cu ft. See table below for figures of monthend contents.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT          | NOV      | DEC       | JAN    | FEB   | MAR   | APR     | MAY     | JUN     | JUL     | AUG     | SEP   |
|-------------|--------------|----------|-----------|--------|-------|-------|---------|---------|---------|---------|---------|-------|
| 1           | 133          | 334      | 227       | 130    | 121   | 219   | 257     | 537     | 161     | 42      | 51      | 50    |
| 2           | 121          | 348      | 238       | 125    | 117   | 238   | 257     | 481     | 161     | 42      | 51      | 51    |
| 3           | 115          | 370      | 227       | 121    | 115   | 238   | 293     | 420     | 147     | 42      | 51      | 72    |
| 4           | 117          | 339      | 230       | 121    | 107   | 245   | 313     | 410     | 115     | 41      | 51      | 60    |
| 5           | 117          | 317      | 281       | 121    | 107   | 269   | 400     | 503     | 76      | 42      | 51      | 51    |
| 6           | 130          | 313      | 297       | 121    | 107   | 269   | 450     | 476     | 84      | 43      | 51      | 49    |
| 7           | 135          | 309      | 293       | 121    | 105   | 249   | 481     | 410     | 86      | 42      | 51      | 105   |
| 8           | 130          | 305      | 265       | 121    | 105   | 234   | 487     | 395     | 88      | 40      | 51      | 164   |
| 9           | 125          | 297      | 241       | 115    | 107   | 215   | 465     | 385     | 89      | 33      | 51      | 164   |
| 10          | 119          | 293      | 230       | 113    | 107   | 208   | 435     | 301     | 80      | 33      | 51      | 164   |
| 11          | 117          | 289      | 208       | 113    | 107   | 241   | 470     | 212     | 72      | 33      | 51      | 161   |
| 12          | 109          | 281      | 201       | 113    | 107   | 261   | 573     | 188     | 67      | 42      | 51      | 161   |
| 13          | 107          | 277      | 188       | 109    | 111   | 241   | 685     | 137     | 63      | 47      | 50      | 150   |
| 14          | 107          | 273      | 185       | 107    | 140   | 223   | 800     | 140     | 58      | 38      | 50      | 150   |
| 15          | 113          | 273      | 182       | 107    | 161   | 223   | 848     | 147     | 54      | 34      | 50      | 150   |
| 16          | 153          | 273      | 167       | 107    | 192   | 223   | 840     | 169     | 50      | 35      | 50      | 147   |
| 17          | 208          | 305      | 169       | 105    | 208   | 227   | 752     | 227     | 49      | 33      | 50      | 147   |
| 18          | 234          | 293      | 172       | 103    | 223   | 285   | 678     | 241     | 47      | 33      | 50      | 147   |
| 19          | 234          | 253      | 164       | 103    | 227   | 301   | 631     | 230     | 46      | 40      | 50      | 145   |
| 20          | 223          | 227      | 158       | 95     | 227   | 301   | 678     | 234     | 45      | 46      | 50      | 145   |
| 21          | 208          | 227      | 155       | 93     | 227   | 289   | 752     | 230     | 47      | 43      | 51      | 142   |
| 22          | 192          | 238      | 140       | 93     | 212   | 281   | 792     | 238     | 51      | 43      | 51      | 135   |
| 23          | 253          | 249      | 140       | 93     | 212   | 289   | 784     | 265     | 46      | 42      | 51      | 135   |
| 24          | 800          | 253      | 140       | 93     | 198   | 289   | 720     | 227     | 42      | 40      | 50      | 153   |
| 25          | 1,030        | 249      | 140       | 88     | 195   | 285   | 685     | 158     | 42      | 40      | 50      | 167   |
| 26          | 816          | 234      | 140       | 88     | 182   | 285   | 657     | 172     | 43      | 40      | 50      | 164   |
| 27          | 585          | 223      | 140       | 93     | 178   | 281   | 644     | 167     | 43      | 46      | 50      | 153   |
| 28          | 487          | 212      | 140       | 100    | 185   | 277   | 637     | 164     | 43      | 51      | 51      | 147   |
| 29          | 435          | 205      | 140       | 105    | ----- | 265   | 605     | 155     | 42      | 51      | 51      | 145   |
| 30          | 380          | 201      | 130       | 117    | ----- | 261   | 579     | 150     | 43      | 51      | 51      | 135   |
| 31          | 357          | -----    | 130       | 119    | ----- | 257   | -----   | 153     | -----   | 51      | 51      | ----- |
| TOTAL       | 8,390        | 8,260    | 5,858     | 3,353  | 4,390 | 7,969 | 17,648  | 8,322   | 2,080   | 1,279   | 1,569   | 3,909 |
| MEAN        | 271          | 275      | 189       | 108    | 157   | 257   | 588     | 268     | 69.3    | 41.3    | 50.6    | 130   |
| MAX         | 1,030        | 370      | 297       | 130    | 227   | 301   | 848     | 537     | 161     | 51      | 51      | 167   |
| MIN         | 107          | 201      | 130       | 88     | 105   | 208   | 257     | 137     | 42      | 33      | 50      | 49    |
| (†)         | 789.2        | 572.9    | 580.2     | 590.6  | 658.4 | 567.5 | 1,002.6 | 1,224.2 | 1,170.3 | 1,113.0 | 1,020.1 | 752.0 |
| CAL YR 1970 | TOTAL 76,251 | MEAN 209 | MAX 1,030 | MIN 19 |       |       |         |         |         |         |         |       |
| WTR YR 1971 | TOTAL 73,027 | MEAN 200 | MAX 1,030 | MIN 33 |       |       |         |         |         |         |         |       |

† Monthend contents, in millions of cubic feet, in Great East and Lovell Lakes, and Horn, Wilson, Milton, Northeast, and Town House Ponds.

NOTE.--Shifting-control method used Feb. 28 to Apr. 4.

01072850 Mohawk Brook near Center Strafford, N.H.

LOCATION.--Lat 43°15'47", long 71°05'50", Strafford County, on left bank 0.5 mile downstream from bridge on State Highway 202A and 1.2 miles east of Center Strafford.

DRAINAGE AREA.--8.87 sq mi.

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

AVERAGE DISCHARGE.--7 years, 11.3 cfs (17.30 inches per year).

GAGE.--Water-stage recorder. Altitude of gage is 285 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 109 cfs Apr. 3 (gage height, 2.87 ft); maximum gage height, 4.17 ft Mar. 20 (backwater from ice); no flow July 24-26.

Period of record: Maximum discharge, 555 cfs Dec. 27, 1969 (gage height, 4.21 ft); maximum gage height, 6.02 ft Feb. 11, 1970 (backwater from ice); no flow at times most years.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR  | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| 1     | .23   | 2.6   | 7.5   | 6.7   | 6.5   | 25   | 29    | 24    | 5.3   | .18   | 3.8   | 4.5   |
| 2     | .17   | 2.1   | 6.8   | 6.6   | 6.1   | 20   | 40    | 19    | 4.5   | .18   | 2.3   | 2.6   |
| 3     | .14   | 1.8   | 6.0   | 6.6   | 5.8   | 17   | 95    | 35    | 3.8   | .18   | 1.5   | 2.2   |
| 4     | .37   | 1.7   | 26    | 6.2   | 5.6   | 15   | 87    | 77    | 4.3   | .14   | 1.0   | 1.3   |
| 5     | .43   | 2.6   | 28    | 7.4   | 5.4   | 17   | 73    | 40    | 3.8   | .12   | .83   | .55   |
| 6     | .37   | 3.5   | 18    | 9.0   | 5.5   | 13   | 60    | 28    | 3.0   | .12   | .51   | .34   |
| 7     | .22   | 3.2   | 14    | 8.2   | 5.8   | 15   | 58    | 22    | 2.6   | .10   | .40   | .34   |
| 8     | .17   | 2.6   | 11    | 7.4   | 6.2   | 13   | 44    | 18    | 2.2   | .08   | .34   | .22   |
| 9     | .11   | 2.2   | 9.0   | 7.0   | 7.0   | 12   | 35    | 23    | 2.1   | .03   | .26   | .14   |
| 10    | .10   | 1.9   | 10    | 8.0   | 6.8   | 11   | 46    | 26    | 1.7   | .04   | .22   | .10   |
| 11    | .09   | 3.9   | 9.0   | 6.4   | 6.0   | 11   | 82    | 20    | 1.5   | .04   | .20   | .06   |
| 12    | .09   | 8.3   | 8.0   | 5.6   | 7.0   | 11   | 74    | 16    | 1.2   | .02   | .32   | .40   |
| 13    | .09   | 6.0   | 7.4   | 5.4   | 8.5   | 10   | 82    | 19    | 1.0   | .01   | .22   | .64   |
| 14    | .35   | 4.6   | 7.0   | 5.0   | 30    | 10   | 87    | 31    | .90   | .01   | .14   | 1.7   |
| 15    | .43   | 5.0   | 6.8   | 4.6   | 35    | 13   | 64    | 20    | .83   | .01   | .12   | 2.0   |
| 16    | .94   | 7.5   | 6.7   | 4.3   | 20    | 55   | 45    | 16    | .83   | .01   | .16   | 1.2   |
| 17    | .82   | 6.8   | 6.0   | 4.1   | 17    | 50   | 35    | 19    | .70   | .01   | .12   | .90   |
| 18    | .76   | 5.3   | 6.2   | 3.8   | 15    | 35   | 35    | 17    | .64   | .01   | .10   | .76   |
| 19    | .70   | 4.6   | 7.0   | 3.6   | 13    | 30   | 46    | 14    | .64   | .06   | .07   | .51   |
| 20    | .67   | 4.6   | 8.5   | 3.3   | 12    | 28   | 61    | 12    | .55   | .14   | .06   | .30   |
| 21    | .64   | 7.8   | 8.2   | 3.1   | 11    | 30   | 57    | 11    | .43   | .10   | .06   | .28   |
| 22    | .60   | 7.8   | 8.0   | 3.0   | 11    | 27   | 49    | 12    | .51   | .04   | .06   | .28   |
| 23    | 7.5   | 8.3   | 7.6   | 3.0   | 10    | 25   | 40    | 13    | .51   | .01   | .05   | .28   |
| 24    | 38    | 8.8   | 7.2   | 3.5   | 10    | 23   | 32    | 10    | .51   | 0     | .03   | .24   |
| 25    | 13    | 7.3   | 7.0   | 4.5   | 9.8   | 21   | 33    | 9.0   | .51   | 0     | .01   | .22   |
| 26    | 7.0   | 6.3   | 7.0   | 6.0   | 10    | 19   | 37    | 8.3   | 1.0   | 0     | .01   | .20   |
| 27    | 4.8   | 5.5   | 7.0   | 10    | 12    | 18   | 36    | 7.5   | 1.0   | .01   | .02   | .18   |
| 28    | 3.9   | 5.5   | 7.0   | 12    | 18    | 17   | 29    | 7.0   | .55   | .07   | .10   | .12   |
| 29    | 3.4   | 6.3   | 6.9   | 9.0   | ----- | 16   | 29    | 6.3   | .32   | .24   | 3.2   | .10   |
| 30    | 2.9   | 7.0   | 6.8   | 7.5   | ----- | 20   | 30    | 4.8   | .18   | 12    | 14    | .10   |
| 31    | 2.7   | ----- | 6.8   | 6.8   | ----- | 25   | ----- | 5.0   | ----- | 5.8   | 6.3   | ----- |
| TOTAL | 91.69 | 151.4 | 288.4 | 187.6 | 316.0 | 652  | 1,550 | 589.9 | 47.61 | 19.76 | 36.51 | 22.76 |
| MEAN  | 2.96  | 5.05  | 9.30  | 6.05  | 11.3  | 21.0 | 51.7  | 19.0  | 1.59  | .64   | 1.18  | .76   |
| MAX   | .38   | 8.8   | .28   | 12    | 35    | 55   | 95    | 77    | 5.3   | 12    | 14    | 4.5   |
| MIN   | .09   | 1.7   | 6.0   | 3.0   | 5.4   | 10   | 29    | 4.8   | .18   | 0     | .01   | .06   |
| CFSM  | .33   | .57   | 1.05  | .68   | 1.27  | 2.37 | 5.83  | 2.14  | .18   | .07   | .13   | .09   |
| IN.   | .38   | .63   | 1.21  | .79   | 1.33  | 2.73 | 6.50  | 2.47  | .20   | .08   | .15   | .10   |

CAL YR 1970 TOTAL 4,154.32 MEAN 11.4 MAX 250 MIN 0 CFSM 1.29 IN 17.42  
WTR YR 1971 TOTAL 3,953.63 MEAN 10.8 MAX 95 MIN 0 CFSM 1.22 IN 16.58

## PEAK DISCHARGE (BASE, 100 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-3  | 1900 | 2.87  | 109       |      |      |       |           |
| 4-13 | 2230 | 2.93  | 102       |      |      |       |           |

## PISCATAQUA RIVER BASIN

01073000 Oyster River near Durham, N.H.

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

DRAINAGE AREA.--12.1 sq mi.

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

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

AVERAGE DISCHARGE.--37 years, 19.0 cfs (21.32 inches per year).

EXTREMES.--Current year: Maximum discharge, 140 cfs Apr. 3 (gage height, 2.98 ft); minimum, 0.23 cfs Aug. 18, 19, 25, 26, 27.

Period of record: Maximum discharge, 862 cfs Sept. 11, 1954 (gage height, 6.47 ft, present datum); maximum gage height, 8.45 ft, present datum, Mar. 19, 1936; minimum discharge, 0.23 cfs Aug. 18, 19, 25, 26, 27, 1971.

REMARKS.--Records good except those for winter period and those below 1.0 cfs, which are fair.

## DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 1.4   | 4.8   | 15    | 10    | 10    | 35    | 68    | 41    | 11    | 2.0   | 4.5   | .50   |
| 2     | 1.3   | 4.6   | 13    | 10    | 10    | 35    | 85    | 34    | 9.0   | 2.4   | 2.3   | .50   |
| 3     | 1.1   | 4.5   | 12    | 9.1   | 10    | 30    | 130   | 55    | 9.5   | 2.0   | 1.7   | .40   |
| 4     | 2.4   | 4.3   | 43    | 8.7   | 9.8   | 26    | 121   | 84    | 9.0   | 2.0   | 1.5   | .45   |
| 5     | 1.7   | 12    | 40    | 12    | 9.5   | 30    | 111   | 64    | 7.6   | 1.9   | 1.4   | .35   |
| 6     | 1.3   | 13    | 28    | 14    | 9.5   | 28    | 96    | 47    | 6.5   | 1.9   | 1.2   | .50   |
| 7     | 1.2   | 8.7   | 20    | 12    | 10    | 26    | 88    | 37    | 5.8   | 1.6   | 1.1   | .84   |
| 8     | 1.2   | 7.3   | 15    | 11    | 11    | 25    | 83    | 31    | 5.5   | 1.5   | .84   | .76   |
| 9     | 1.1   | 6.4   | 13    | 10    | 13    | 24    | 73    | 37    | 6.4   | 1.3   | .76   | .76   |
| 10    | 1.0   | 5.9   | 14    | 12    | 12    | 23    | 78    | 48    | 5.1   | 1.3   | .76   | .69   |
| 11    | 1.0   | 17    | 13    | 11    | 11    | 22    | 103   | 38    | 4.4   | 1.1   | 1.2   | .84   |
| 12    | 1.1   | 19    | 12    | 10    | 13    | 21    | 103   | 30    | 3.9   | 1.2   | 1.3   | 1.2   |
| 13    | 1.2   | 13    | 11    | 9.0   | 14    | 21    | 101   | 46    | 3.6   | 1.1   | .84   | 1.4   |
| 14    | 1.2   | 12    | 11    | 8.4   | 40    | 23    | 101   | 65    | 3.3   | 1.4   | .84   | 3.7   |
| 15    | 1.1   | 17    | 11    | 7.8   | 35    | 25    | 88    | 45    | 3.0   | 1.4   | .56   | 2.1   |
| 16    | 4.3   | 20    | 10    | 7.0   | 30    | 45    | 72    | 37    | 2.9   | 1.2   | .84   | 1.3   |
| 17    | 3.1   | 15    | 9.3   | 6.4   | 28    | 70    | 63    | 47    | 2.6   | 1.2   | 1.1   | 3.5   |
| 18    | 1.9   | 12    | 9.6   | 5.2   | 26    | 65    | 60    | 37    | 2.4   | 2.1   | .45   | 2.6   |
| 19    | 1.5   | 11    | 10    | 4.5   | 24    | 55    | 68    | 30    | 2.3   | 1.7   | .40   | 2.0   |
| 20    | 1.3   | 11    | 13    | 4.0   | 22    | 50    | 65    | 26    | 2.1   | 3.3   | .69   | 1.5   |
| 21    | 1.3   | 22    | 13    | 3.5   | 20    | 54    | 61    | 23    | 2.3   | 1.6   | .56   | 1.4   |
| 22    | 1.3   | 17    | 12    | 3.0   | 19    | 52    | 55    | 24    | 4.1   | 1.3   | .40   | 1.1   |
| 23    | 28    | 25    | 12    | 3.5   | 19    | 50    | 47    | 23    | 2.5   | 1.1   | .40   | .92   |
| 24    | 65    | 22    | 11    | 4.0   | 18    | 46    | 40    | 19    | 2.3   | 1.1   | .45   | .84   |
| 25    | 19    | 16    | 11    | 5.5   | 18    | 42    | 44    | 17    | 2.3   | 1.0   | .40   | .84   |
| 26    | 13    | 13    | 11    | 7.0   | 18    | 41    | 47    | 15    | 4.1   | .97   | .35   | .84   |
| 27    | 10    | 12    | 11    | 9.0   | 18    | 40    | 54    | 14    | 2.3   | 1.1   | .45   | .84   |
| 28    | 8.1   | 12    | 11    | 10    | 25    | 40    | 44    | 12    | 2.1   | 1.5   | 1.4   | .92   |
| 29    | 6.9   | 15    | 11    | 11    | ----- | 50    | 53    | 11    | 1.9   | 1.2   | 1.0   | 1.0   |
| 30    | 5.9   | 16    | 10    | 11    | ----- | 62    | 51    | 11    | 2.0   | 12    | .56   | 1.4   |
| 31    | 5.3   | ----- | 10    | 11    | ----- | 64    | ----- | 11    | ----- | 5.8   | .45   | ----- |
| TOTAL | 195.2 | 388.5 | 445.9 | 260.6 | 502.8 | 1,220 | 2,253 | 1,059 | 131.8 | 62.27 | 30.70 | 35.99 |
| MEAN  | 6.30  | 13.0  | 14.4  | 8.41  | 18.0  | 39.4  | 75.1  | 34.2  | 4.39  | 2.01  | .99   | 1.20  |
| MAX   | 65    | 25    | 43    | 14    | 40    | 70    | 130   | 84    | 11    | 12    | 4.5   | 3.7   |
| MIN   | 1.0   | 4.3   | 9.3   | 3.0   | 9.5   | 21    | 40    | 11    | 1.9   | .97   | .35   | .35   |
| CFM   | .52   | 1.07  | 1.19  | .70   | 1.49  | 3.26  | 6.21  | 2.83  | .36   | .17   | .08   | .10   |
| IN.   | .60   | 1.19  | 1.37  | .80   | 1.55  | 3.75  | 6.93  | 3.26  | .41   | .19   | .09   | .11   |

CAL YR 1970 TOTAL 6,718.80 MEAN 18.4 MAX 230 MIN .73 CFM 1.52 IN 20.66

WTR YR 1971 TOTAL 6,585.76 MEAN 18.0 MAX 130 MIN .35 CFM 1.49 IN 20.25

PEAK DISCHARGE (BASE, 170 CFS).--No peak above base.

## PISCATAQUA RIVER BASIN

27

01073500 Lamprey River near Newmarket, N. H.

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

DRAINAGE AREA.--183 sq mi.

PERIOD OF RECORD.--July 1934 to current year.

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

AVERAGE DISCHARGE.--37 years, 273 cfs (20.26 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,510 cfs Apr. 5 (gage height, 6.16 ft); minimum daily, 7.8 cfs Sept. 11.

Period of record: Maximum discharge, 5,490 cfs Mar. 20, 1936 (gage height, 14.88 ft), from rating curve extended above 3,100 cfs on basis of computation of flow over dam at gage height 14.69 ft; minimum daily, 1 cfs Oct. 21, 1935.

REMARKS.--Records excellent except those for winter period, which are good. Some regulation by Pawtuckaway and Mendums Ponds (combined capacity, about 600,000,000 cu ft).

REVISIONS (WATER YEARS).--WSP 1231: 1936-37.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL  | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|------|-------|-------|
| 1     | 20    | 135   | 191   | 153   | 150   | 437    | 727    | 606    | 171   | 49   | 101   | 13    |
| 2     | 16    | 125   | 184   | 148   | 145   | 482    | 821    | 561    | 154   | 51   | 85    | 12    |
| 3     | 15    | 123   | 174   | 147   | 135   | 499    | 1,130  | 570    | 147   | 42   | 70    | 10    |
| 4     | 17    | 122   | 254   | 146   | 135   | 476    | 1,360  | 772    | 142   | 34   | 58    | 9.3   |
| 5     | 20    | 140   | 339   | 161   | 140   | 462    | 1,500  | 873    | 127   | 30   | 48    | 9.3   |
| 6     | 17    | 156   | 357   | 196   | 146   | 436    | 1,390  | 833    | 110   | 27   | 39    | 9.3   |
| 7     | 16    | 137   | 300   | 205   | 146   | 412    | 1,210  | 675    | 100   | 25   | 34    | 9.6   |
| 8     | 15    | 126   | 260   | 205   | 145   | 398    | 1,120  | 559    | 109   | 23   | 30    | 9.1   |
| 9     | 15    | 115   | 220   | 190   | 165   | 373    | 993    | 503    | 191   | 20   | 28    | 8.8   |
| 10    | 15    | 106   | 231   | 180   | 210   | 351    | 908    | 540    | 166   | 19   | 22    | 8.3   |
| 11    | 14    | 124   | 205   | 170   | 230   | 333    | 991    | 513    | 154   | 19   | 21    | 7.8   |
| 12    | 14    | 167   | 205   | 200   | 228   | 314    | 1,150  | 475    | 122   | 16   | 24    | 9.6   |
| 13    | 15    | 160   | 188   | 210   | 239   | 300    | 1,340  | 475    | 100   | 16   | 25    | 13    |
| 14    | 17    | 160   | 186   | 205   | 337   | 303    | 1,400  | 642    | 47    | 16   | 23    | 32    |
| 15    | 48    | 165   | 183   | 205   | 362   | 336    | 1,390  | 622    | 56    | 16   | 21    | 43    |
| 16    | 129   | 195   | 165   | 210   | 380   | 497    | 1,280  | 579    | 63    | 16   | 19    | 38    |
| 17    | 127   | 188   | 158   | 195   | 404   | 658    | 1,090  | 578    | 58    | 15   | 18    | 62    |
| 18    | 139   | 185   | 157   | 190   | 425   | 729    | 920    | 529    | 52    | 23   | 16    | 53    |
| 19    | 118   | 171   | 190   | 175   | 422   | 798    | 858    | 472    | 47    | 25   | 15    | 41    |
| 20    | 129   | 166   | 198   | 165   | 395   | 770    | 831    | 409    | 43    | 29   | 14    | 33    |
| 21    | 135   | 203   | 192   | 160   | 364   | 723    | 825    | 359    | 46    | 27   | 13    | 30    |
| 22    | 139   | 202   | 173   | 155   | 337   | 670    | 815    | 335    | 89    | 23   | 12    | 27    |
| 23    | 189   | 222   | 165   | 140   | 318   | 639    | 759    | 333    | 76    | 21   | 11    | 25    |
| 24    | 439   | 239   | 165   | 125   | 304   | 600    | 668    | 316    | 71    | 20   | 9.9   | 21    |
| 25    | 410   | 229   | 172   | 115   | 290   | 549    | 636    | 266    | 63    | 19   | 9.3   | 17    |
| 26    | 370   | 203   | 175   | 115   | 281   | 504    | 632    | 260    | 67    | 17   | 8.8   | 15    |
| 27    | 270   | 183   | 174   | 160   | 298   | 484    | 656    | 233    | 60    | 19   | 9.9   | 14    |
| 28    | 229   | 179   | 170   | 180   | 391   | 482    | 616    | 210    | 51    | 25   | 15    | 14    |
| 29    | 200   | 185   | 154   | 180   | ----- | 538    | 611    | 191    | 50    | 26   | 17    | 13    |
| 30    | 177   | 191   | 119   | 170   | ----- | 623    | 623    | 180    | 48    | 56   | 19    | 13    |
| 31    | 155   | ----- | 164   | 160   | ----- | 676    | -----  | 214    | ----- | 73   | 16    | ----- |
| TOTAL | 3,629 | 5,002 | 6,168 | 5,316 | 7,522 | 15,852 | 29,250 | 14,683 | 2,780 | 837  | 851.9 | 620.1 |
| MEAN  | 117   | 167   | 199   | 171   | 269   | 511    | 975    | 474    | 92.7  | 27.0 | 27.5  | 20.7  |
| MAX   | 439   | 239   | 357   | 210   | 425   | 798    | 1,500  | 873    | 191   | 73   | 101   | 62    |
| MIN   | 14    | 106   | 119   | 115   | 135   | 300    | 611    | 180    | 43    | 15   | 8.8   | 7.8   |
| CFSM  | .64   | .91   | 1.09  | .93   | 1.47  | 2.79   | 5.33   | 2.59   | .51   | .15  | .15   | .11   |
| IN.   | .74   | 1.02  | 1.25  | 1.08  | 1.53  | 3.22   | 5.95   | 2.98   | .57   | .17  | .17   | .13   |

CAL YR 1970 TOTAL 96,570.3 MEAN 265 MAX 2,300 MIN 8.3 CFSM 1.45 IN 19.63  
WTR YR 1971 TOTAL 92,511.0 MEAN 253 MAX 1,500 MIN 7.8 CFSM 1.38 IN 18.81

NOTE.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

01073600 Dudley Brook near Exeter, N.H.

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

DRAINAGE AREA.--4.97 sq mi.

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

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

AVERAGE DISCHARGE.--9 years, 6.28 cfs (17.16 inches per year).

EXTREMES.--Current year: Maximum discharge, 77 cfs Apr. 3 (gage height, 5.49 ft); no flow July 17, Aug. 24-27.

Period of record: Maximum discharge, about 300 cfs Mar. 19, 1968 (gage height, about 7.40 ft), from rating curve extended above 210 cfs; no flow at times some years.

REMARKS.--Records good except those for winter period and those below 0.10 cfs, which are fair.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV    | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG  | SEP   |
|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|
| 1     | .50   | 1.1    | 3.7   | 2.7   | 2.6   | 14    | 42    | 15    | 3.7   | .27  | .29  | .02   |
| 2     | .39   | 1.0    | 3.5   | 2.6   | 2.5   | 13    | 47    | 12    | 2.9   | .39  | .11  | .01   |
| 3     | .41   | .98    | 2.9   | 2.4   | 2.5   | 12    | 73    | 13    | 2.3   | .39  | .05  | .01   |
| 4     | .66   | .93    | 7.8   | 2.3   | 2.5   | 10    | 45    | 32    | 2.8   | .22  | .06  | .01   |
| 5     | .66   | 2.0    | 25    | 2.1   | 2.5   | 11    | 34    | 25    | 2.2   | .06  | .05  | .01   |
| 6     | .47   | 3.6    | 16    | 3.5   | 2.5   | 11    | 26    | 17    | 1.6   | .08  | .08  | .01   |
| 7     | .24   | 3.1    | 10    | 3.0   | 2.6   | 10    | 23    | 12    | 1.4   | .08  | .08  | .01   |
| 8     | .14   | 2.2    | 6.0   | 2.5   | 2.9   | 9.8   | 30    | 10    | 1.6   | .06  | .06  | .01   |
| 9     | .09   | 1.7    | 5.0   | 2.2   | 3.2   | 9.2   | 27    | 12    | 4.3   | .04  | .05  | .01   |
| 10    | .06   | 1.3    | 4.5   | 3.0   | 3.0   | 9.0   | 32    | 15    | 4.6   | .03  | .04  | .01   |
| 11    | .06   | 2.4    | 4.5   | 2.7   | 2.8   | 8.6   | 37    | 13    | 2.1   | .02  | .06  | .01   |
| 12    | .06   | 5.7    | 4.0   | 2.5   | 3.2   | 8.2   | 31    | 10    | 1.6   | .02  | .13  | .03   |
| 13    | .08   | 4.9    | 3.5   | 2.2   | 3.5   | 8.0   | 28    | 12    | .98   | .01  | .11  | .06   |
| 14    | .19   | 3.7    | 3.2   | 2.0   | 15    | 9.0   | 28    | 19    | .84   | .01  | .08  | 1.0   |
| 15    | .30   | 5.3    | 3.0   | 1.9   | 13    | 10    | 25    | 15    | .66   | .01  | .08  | 2.1   |
| 16    | 1.3   | 9.2    | 2.7   | 1.7   | 12    | 15    | 19    | 12    | .50   | .01  | .08  | 1.5   |
| 17    | 1.4   | 6.7    | 2.4   | 1.5   | 11    | 34    | 17    | 19    | .18   | 0    | .05  | 1.1   |
| 18    | 1.3   | 4.0    | 2.2   | 1.3   | 10    | 28    | 16    | 16    | .18   | .02  | .04  | 1.2   |
| 19    | .81   | 2.9    | 2.5   | 1.1   | 9.2   | 25    | 19    | 11    | .08   | .03  | .03  | 1.1   |
| 20    | .66   | 2.8    | 3.4   | 1.0   | 8.8   | 23    | 20    | 8.5   | .06   | .08  | .03  | .66   |
| 21    | .63   | 5.3    | 3.4   | .85   | 8.0   | 25    | 16    | 6.8   | .15   | .10  | .03  | .54   |
| 22    | .60   | 7.3    | 3.4   | .70   | 7.4   | 27    | 14    | 6.9   | 3.1   | .07  | .02  | .39   |
| 23    | 3.6   | 6.5    | 3.3   | .90   | 7.3   | 25    | 12    | 8.2   | 4.1   | .04  | .02  | .27   |
| 24    | 22    | 7.5    | 3.3   | 1.1   | 7.2   | 24    | 10    | 6.8   | .75   | .03  | 0    | .22   |
| 25    | 11    | 4.7    | 3.2   | 1.3   | 7.0   | 22    | 11    | 5.5   | .57   | .02  | 0    | .21   |
| 26    | 6.1   | 2.9    | 3.2   | 1.7   | 7.0   | 21    | 17    | 4.7   | 2.3   | .02  | 0    | .13   |
| 27    | 3.0   | 2.2    | 3.2   | 2.2   | 7.4   | 21    | 16    | 4.1   | .57   | .04  | C    | .10   |
| 28    | 2.2   | 2.3    | 3.2   | 2.5   | 10    | 25    | 14    | 3.8   | .52   | .06  | .08  | .08   |
| 29    | 1.7   | 2.8    | 3.1   | 2.7   | ----- | 36    | 17    | 3.4   | .41   | .06  | .04  | .08   |
| 30    | 1.4   | 3.6    | 3.0   | 2.8   | ----- | 44    | 21    | 3.1   | .32   | .08  | .09  | .07   |
| 31    | 1.3   | -----  | 2.8   | 2.7   | ----- | 41    | ----- | 3.1   | ----- | .10  | .04  | ----- |
| TOTAL | 63.31 | 110.61 | 150.9 | 63.65 | 176.6 | 588.8 | 767   | 354.9 | 47.37 | 2.45 | 1.88 | 10.96 |
| MEAN  | 2.04  | 3.69   | 4.87  | 2.05  | 6.31  | 19.0  | 25.6  | 11.4  | 1.56  | .079 | .061 | .37   |
| MAX   | 22    | 9.2    | 25    | 3.5   | 15    | 44    | 73    | 32    | 4.6   | .39  | .29  | 2.1   |
| MIN   | .06   | .93    | 2.2   | .70   | 2.5   | 8.0   | 10    | 3.1   | .06   | 0    | 0    | .01   |
| CFSM  | .41   | .74    | .98   | .41   | 1.27  | 3.82  | 5.15  | 2.29  | .32   | .02  | .01  | .07   |
| IN.   | .47   | .83    | 1.13  | .48   | 1.32  | 4.41  | 5.74  | 2.66  | .35   | .02  | .01  | .08   |

CAL YR 1970 TOTAL 2,098.62 MEAN 5.75 MAX 133 MIN 0 CFSM 1.16 IN 15.71  
WTR YR 1971 TOTAL 2,338.43 MEAN 6.41 MAX 73 MIN 0 CFSM 1.29 IN 17.50

PEAK DISCHARGE (BASE 100 CFS).--No peak above base.

NOTE.--No gage-height record Feb. 3-22, Feb. 26 to Mar. 24.



01075000 Pemigewasset River at Woodstock, N.H.

LOCATION.--Lat 43°58'34", long 71°40'48", Grafton County, on right bank 0.2 mile east of Woodstock and 0.7 mile upstream from Eastman Brook.

DRAINAGE AREA.--193 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 615 ft (from topographic map).

AVERAGE DISCHARGE.--32 years, 499 cfs (35.11 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,080 cfs May 13 (gage height, 8.01 ft); minimum daily, 73 cfs July 13.

Period of record: Maximum discharge, 47,000 cfs Oct. 24, 1959 (gage height, 16.13 ft), from rating curve extended above 14,000 cfs on basis of contracted-opening measurement of peak flow; minimum daily, 42 cfs Feb. 11, 1948.

REMARKS.--Records good except those for winter period, which are fair. Some diurnal fluctuation caused by powerplant above station. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1701: 1942(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | CCT    | NCV    | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN    | JUL   | AUG   | SEP   |
|-------|--------|--------|-------|-------|-------|-------|--------|--------|--------|-------|-------|-------|
| 1     | 307    | 237    | 339   | 115   | 87    | 160   | 146    | 1,480  | 790    | 189   | 313   | 179   |
| 2     | 246    | 223    | 319   | 110   | 84    | 140   | 165    | 1,410  | 626    | 308   | 240   | 150   |
| 3     | 955    | 212    | 333   | 110   | 83    | 135   | 516    | 2,530  | 674    | 185   | 614   | 135   |
| 4     | 1,660  | 203    | 448   | 110   | 83    | 127   | 613    | 4,050  | 638    | 144   | 996   | 127   |
| 5     | 705    | 197    | 361   | 120   | 82    | 133   | 428    | 2,780  | 557    | 128   | 435   | 117   |
| 6     | 496    | 192    | 328   | 130   | 85    | 140   | 394    | 2,190  | 465    | 114   | 282   | 136   |
| 7     | 396    | 179    | 275   | 125   | 88    | 131   | 401    | 2,330  | 415    | 107   | 226   | 144   |
| 8     | 332    | 175    | 250   | 120   | 93    | 133   | 334    | 2,430  | 475    | 99    | 189   | 123   |
| 9     | 285    | 161    | 246   | 115   | 100   | 126   | 298    | 2,650  | 790    | 89    | 160   | 109   |
| 10    | 252    | 158    | 318   | 110   | 98    | 121   | 370    | 2,640  | 475    | 88    | 144   | 91    |
| 11    | 234    | 174    | 242   | 105   | 96    | 119   | 593    | 3,360  | 380    | 81    | 163   | 87    |
| 12    | 221    | 207    | 230   | 100   | 98    | 119   | 988    | 3,690  | 331    | 77    | 192   | 153   |
| 13    | 212    | 187    | 220   | 98    | 105   | 115   | 1,270  | 4,340  | 299    | 73    | 138   | 965   |
| 14    | 242    | 171    | 200   | 98    | 200   | 123   | 1,410  | 3,000  | 270    | 125   | 123   | 620   |
| 15    | 303    | 178    | 190   | 98    | 250   | 140   | 990    | 2,120  | 250    | 143   | 109   | 552   |
| 16    | 520    | 196    | 160   | 96    | 200   | 200   | 767    | 2,130  | 236    | 96    | 104   | 365   |
| 17    | 405    | 188    | 155   | 90    | 180   | 250   | 648    | 2,150  | 218    | 97    | 93    | 270   |
| 18    | 307    | 168    | 160   | 87    | 175   | 190   | 680    | 2,770  | 198    | 166   | 87    | 240   |
| 19    | 278    | 181    | 150   | 83    | 165   | 179   | 1,060  | 3,000  | 189    | 127   | 82    | 215   |
| 20    | 248    | 233    | 140   | 81    | 155   | 180   | 1,900  | 3,120  | 173    | 515   | 79    | 192   |
| 21    | 231    | 1,810  | 130   | 77    | 145   | 166   | 2,170  | 2,480  | 167    | 222   | 79    | 326   |
| 22    | 220    | 770    | 120   | 82    | 140   | 153   | 1,930  | 2,440  | 250    | 143   | 86    | 290   |
| 23    | 423    | 892    | 125   | 83    | 135   | 143   | 1,370  | 1,710  | 195    | 112   | 113   | 215   |
| 24    | 836    | 689    | 125   | 84    | 130   | 144   | 1,080  | 1,150  | 169    | 105   | 137   | 185   |
| 25    | 578    | 477    | 125   | 86    | 125   | 141   | 1,320  | 1,010  | 189    | 140   | 92    | 169   |
| 26    | 426    | 381    | 125   | 90    | 125   | 133   | 1,240  | 2,500  | 500    | 123   | 80    | 153   |
| 27    | 366    | 368    | 130   | 100   | 140   | 132   | 1,160  | 1,570  | 250    | 110   | 81    | 147   |
| 28    | 319    | 348    | 125   | 100   | 180   | 140   | 1,170  | 1,120  | 192    | 110   | 822   | 138   |
| 29    | 287    | 371    | 120   | 96    | ----- | 149   | 1,470  | 973    | 160    | 109   | 704   | 135   |
| 30    | 264    | 349    | 115   | 93    | ----- | 149   | 1,320  | 943    | 150    | 360   | 299   | 135   |
| 31    | 248    | -----  | 115   | 90    | ----- | 145   | -----  | 913    | -----  | 258   | 229   | ----- |
| TOTAL | 12,802 | 10,275 | 6,418 | 3,082 | 3,627 | 4,556 | 28,201 | 71,479 | 10,671 | 4,743 | 7,491 | 6,863 |
| MEAN  | 413    | 343    | 207   | 99.4  | 130   | 147   | 940    | 2,306  | 356    | 153   | 242   | 229   |
| MAX   | 1,660  | 1,810  | 448   | 130   | 250   | 250   | 2,170  | 4,340  | 790    | 515   | 996   | 965   |
| MIN   | 212    | 158    | 115   | 77    | 82    | 115   | 146    | 913    | 150    | 73    | 79    | 87    |
| CFSM  | 2.14   | 1.78   | 1.07  | .52   | .67   | .76   | 4.87   | 11.9   | 1.84   | .79   | 1.25  | 1.19  |
| IN.   | 2.47   | 1.98   | 1.24  | .59   | .70   | .88   | 5.44   | 13.78  | 2.06   | .91   | 1.44  | 1.32  |

CAL YR 1970 TOTAL 170,453 MEAN 467 MAX 4,430 MIN 52 CFSM 2.42 IN 32.85  
WTR YR 1971 TOTAL 170,208 MEAN 466 MAX 4,340 MIN 73 CFSM 2.41 IN 32.81

PEAK DISCHARGE (BASE, 7,100 CFS).--No peak above base.

## MERRIMACK RIVER BASIN

01075800 Stevens Brook near Wentworth, N. H.

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

DRAINAGE AREA.--2.94 sq mi.

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

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

AVERAGE DISCHARGE.--8 years, 4.13 cfs (19.08 inches per year).

EXTREMES.--Current year: Maximum discharge, 119 cfs May 4 (gage height, 3.07 ft); maximum gage height, 3.38 ft Feb. 14 (backwater from ice); minimum discharge, 0.01 cfs Aug. 18-23.

Period of record: Maximum discharge, 688 cfs July 29, 1969 (gage height, 5.27 ft), from rating curve extended above 120 cfs; minimum, 0.01 cfs Aug. 8-13, Sept. 18-29, 1963, Sept. 16, 19-21, 1964, Aug. 15-18, 1965, Aug. 18-23, 1971.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC  | JAN   | FEB   | MAR  | APR   | MAY   | JUN   | JUL  | AUG  | SEP   |
|-------|------|-------|------|-------|-------|------|-------|-------|-------|------|------|-------|
| 1     | 2.4  | 1.2   | 2.9  | 1.3   | .50   | 2.9  | 2.8   | 18    | 2.4   | .14  | .21  | .20   |
| 2     | 1.6  | 1.1   | 2.9  | 1.2   | .88   | 2.6  | 4.4   | 18    | 1.8   | .12  | .21  | .14   |
| 3     | 9.4  | .98   | 2.7  | 1.2   | .86   | 2.5  | 22    | 51    | 2.0   | .11  | .21  | .10   |
| 4     | 13   | .98   | 15   | 1.2   | .84   | 2.5  | 17    | 58    | 1.6   | .10  | .55  | .10   |
| 5     | 4.6  | .98   | 8.8  | 1.4   | .84   | 2.3  | 11    | 25    | 1.2   | .08  | .46  | .10   |
| 6     | 2.8  | .98   | 5.4  | 1.7   | .83   | 2.2  | 9.7   | 21    | .95   | .08  | .25  | .14   |
| 7     | 2.0  | .98   | 3.6  | 1.5   | .85   | 2.1  | 9.1   | 19    | .73   | .08  | .18  | .16   |
| 8     | 1.5  | .98   | 3.0  | 1.4   | .50   | 2.1  | 7.0   | 18    | .63   | .07  | .12  | .11   |
| 9     | 1.3  | .92   | 2.7  | 1.3   | .98   | 2.1  | 6.0   | 22    | .52   | .07  | .10  | .10   |
| 10    | 1.1  | .80   | 2.5  | 1.2   | 1.0   | 1.9  | 10    | 18    | .47   | .06  | .08  | .08   |
| 11    | 1.1  | .80   | 2.3  | 1.1   | .92   | 1.9  | 21    | 19    | .46   | .05  | .07  | .07   |
| 12    | 1.3  | .80   | 2.1  | 1.1   | .90   | 1.8  | 31    | 17    | .46   | .05  | .07  | .08   |
| 13    | 1.5  | .80   | 2.0  | 1.0   | 1.2   | 1.7  | 33    | 17    | .39   | .03  | .07  | .27   |
| 14    | 2.0  | .80   | 2.1  | 1.0   | 3.0   | 1.9  | 33    | 13    | .29   | .08  | .06  | .18   |
| 15    | 2.4  | 1.1   | 2.1  | 1.0   | 10    | 2.0  | 18    | 9.2   | .25   | .14  | .05  | .18   |
| 16    | 3.9  | 1.5   | 2.1  | .98   | 5.0   | 5.5  | 13    | 8.9   | .23   | .10  | .05  | .32   |
| 17    | 3.2  | 1.7   | 1.9  | .96   | 3.0   | 5.0  | 10    | 8.9   | .23   | .07  | .03  | .29   |
| 18    | 2.3  | 1.6   | 1.8  | .56   | 2.5   | 4.2  | 13    | 8.3   | .16   | .06  | .01  | .25   |
| 19    | 1.9  | 1.9   | 1.8  | .95   | 2.2   | 3.6  | 23    | 7.3   | .14   | .46  | .01  | .21   |
| 20    | 1.8  | 4.1   | 1.7  | .95   | 2.1   | 3.3  | 37    | 6.3   | .12   | .41  | .01  | .16   |
| 21    | 1.5  | 26    | 1.6  | .92   | 2.1   | 3.2  | 33    | 5.3   | .14   | .18  | .01  | .14   |
| 22    | 1.4  | 8.2   | 1.5  | .90   | 2.0   | 3.0  | 26    | 7.6   | .18   | .14  | .01  | .16   |
| 23    | 5.7  | 6.2   | 1.5  | .84   | 1.5   | 3.0  | 17    | 5.5   | .14   | .11  | .02  | .18   |
| 24    | 7.0  | 5.2   | 1.5  | .82   | 1.8   | 2.9  | 14    | 3.9   | .12   | .10  | .03  | .18   |
| 25    | 4.4  | 3.6   | 1.5  | .80   | 1.8   | 2.8  | 17    | 4.5   | .28   | .10  | .05  | .16   |
| 26    | 3.1  | 2.7   | 1.5  | 1.0   | 1.8   | 2.7  | 14    | 19    | .63   | .08  | .05  | .12   |
| 27    | 2.3  | 2.5   | 1.5  | 1.3   | 2.1   | 2.7  | 13    | 9.8   | .32   | .10  | .05  | .12   |
| 28    | 1.9  | 2.4   | 1.4  | 1.1   | 3.0   | 2.7  | 14    | 7.1   | .23   | .11  | 1.2  | .10   |
| 29    | 1.6  | 2.4   | 1.4  | 1.0   | ----- | 2.7  | 24    | 5.5   | .20   | .18  | 1.6  | .10   |
| 30    | 1.4  | 2.6   | 1.4  | .94   | ----- | 2.7  | 18    | 3.9   | .16   | .32  | .49  | .10   |
| 31    | 1.3  | ----- | 1.3  | .92   | ----- | 2.8  | ----- | 3.4   | ----- | .21  | .32  | ----- |
| TOTAL | 92.7 | 86.80 | 85.5 | 33.94 | 56.20 | 85.3 | 521.0 | 458.4 | 17.43 | 3.99 | 6.63 | 4.60  |
| MEAN  | 2.99 | 2.89  | 2.76 | 1.09  | 2.01  | 2.75 | 17.4  | 14.8  | .58   | .13  | .21  | .15   |
| MAX   | 13   | 26    | 15   | 1.7   | 10    | 5.5  | 37    | 58    | 2.4   | .46  | 1.6  | .32   |
| MIN   | 1.1  | .80   | 1.3  | .80   | .83   | 1.7  | 2.8   | 3.4   | .12   | .03  | .01  | .07   |
| CFSM  | 1.02 | .98   | .94  | .37   | .68   | .94  | 5.92  | 5.03  | .20   | .04  | .07  | .05   |
| IN.   | 1.17 | 1.10  | 1.08 | .43   | .71   | 1.08 | 6.55  | 5.80  | .22   | .05  | .08  | .06   |

CAL YR 1970 TOTAL 1,658.83 MEAN 4.54 MAX 60 MIN .02 CFSM 1.54 IN 20.99  
WTR YR 1971 TOTAL 1,452.49 MEAN 3.98 MAX 58 MIN .01 CFSM 1.35 IN 18.38

## PEAK DISCHARGE (BASE, 90 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | 0145 | 3.07  | 119       |      |      |       |           |

## MERRIMACK RIVER BASIN

31

01076000 Baker River near Rumney, N. H.

LOCATION.--Lat 43°47'46", long 71°50'42", Grafton County, on right bank 200 ft upstream from small right-bank tributary, 0.3 mile upstream from Halls Brook, and 1.8 miles southwest of Rumney.

DRAINAGE AREA.--143 sq mi.

PERIOD OF RECORD.--October 1928 to current year. October 1928 monthly discharge only, published in WSP 1301.

GAGE.--Water-stage recorder. Concrete control since Sept. 10, 1938. Altitude of gage is 495 ft (from topographic map).

AVERAGE DISCHARGE.--43 years, 249 cfs (23.65 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,530 cfs May 4 (gage height, 7.45 ft); minimum, 18 cfs Aug. 27.

Period of record: Maximum discharge, 21,400 cfs June 15, 1942 (gage height, 15.50 ft), from rating curve extended above 3,800 cfs on basis of slope-area measurements at gage heights 13.03, 14.49, and 15.50 ft; minimum, 6.5 cfs Dec. 4, 1947, caused by ice conditions upstream.

Maximum discharge since valley was settled about 1766, 25,900 cfs Nov. 3, 1927 (gage height, 17.4 ft, from floodmarks), from rating curve extended above 3,800 cfs as described above.

REMARKS.--Records excellent except those for winter period, which are fair. High flow slightly affected by retarding reservoirs since 1968.

REVISIONS (WATER YEARS).--WSP 726: Drainage area. WSP 781: 1934(M). WSP 1231: 1929-33(M), 1934.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 116   | 87    | 149   | 73    | 72    | 150   | 137    | 1,030  | 202   | 43    | 101   | 67    |
| 2     | 94    | 83    | 143   | 71    | 72    | 140   | 152    | 972    | 167   | 71    | 81    | 51    |
| 3     | 195   | 79    | 146   | 71    | 71    | 130   | 409    | 1,870  | 178   | 53    | 116   | 43    |
| 4     | 573   | 75    | 330   | 75    | 70    | 125   | 566    | 3,060  | 174   | 43    | 206   | 38    |
| 5     | 268   | 73    | 385   | 80    | 68    | 130   | 465    | 1,620  | 149   | 37    | 116   | 38    |
| 6     | 174   | 69    | 259   | 88    | 66    | 125   | 427    | 1,290  | 126   | 34    | 81    | 38    |
| 7     | 129   | 67    | 180   | 84    | 62    | 120   | 415    | 1,140  | 113   | 31    | 62    | 37    |
| 8     | 108   | 65    | 125   | 80    | 62    | 120   | 336    | 1,040  | 103   | 27    | 51    | 34    |
| 9     | 92    | 63    | 120   | 76    | 68    | 110   | 296    | 1,060  | 99    | 26    | 43    | 31    |
| 10    | 81    | 62    | 140   | 72    | 70    | 105   | 391    | 916    | 87    | 24    | 38    | 27    |
| 11    | 77    | 63    | 135   | 70    | 68    | 105   | 671    | 932    | 77    | 22    | 37    | 24    |
| 12    | 81    | 69    | 130   | 68    | 66    | 100   | 1,050  | 868    | 69    | 21    | 45    | 29    |
| 13    | 83    | 71    | 120   | 66    | 75    | 95    | 1,340  | 884    | 63    | 20    | 38    | 83    |
| 14    | 101   | 67    | 120   | 67    | 120   | 105   | 1,410  | 706    | 58    | 26    | 32    | 79    |
| 15    | 116   | 75    | 110   | 68    | 230   | 120   | 1,010  | 510    | 55    | 38    | 29    | 87    |
| 16    | 195   | 92    | 100   | 66    | 210   | 180   | 797    | 458    | 53    | 31    | 26    | 69    |
| 17    | 178   | 97    | 105   | 65    | 180   | 235   | 636    | 433    | 50    | 27    | 24    | 57    |
| 18    | 140   | 87    | 110   | 65    | 160   | 200   | 657    | 478    | 46    | 45    | 22    | 50    |
| 19    | 121   | 90    | 100   | 65    | 150   | 190   | 980    | 445    | 43    | 43    | 21    | 45    |
| 20    | 106   | 126   | 95    | 65    | 140   | 170   | 1,670  | 409    | 40    | 118   | 20    | 42    |
| 21    | 97    | 608   | 90    | 65    | 130   | 160   | 1,730  | 341    | 38    | 69    | 20    | 51    |
| 22    | 92    | 427   | 80    | 65    | 125   | 150   | 1,490  | 369    | 45    | 50    | 20    | 67    |
| 23    | 164   | 352   | 78    | 65    | 120   | 140   | 1,160  | 320    | 43    | 40    | 21    | 51    |
| 24    | 259   | 281   | 78    | 65    | 115   | 130   | 956    | 250    | 38    | 34    | 24    | 45    |
| 25    | 206   | 191   | 80    | 66    | 115   | 125   | 1,080  | 225    | 40    | 35    | 21    | 40    |
| 26    | 161   | 146   | 82    | 70    | 110   | 125   | 964    | 741    | 155   | 35    | 19    | 37    |
| 27    | 134   | 140   | 82    | 73    | 120   | 120   | 924    | 510    | 94    | 35    | 19    | 34    |
| 28    | 118   | 131   | 78    | 76    | 170   | 120   | 908    | 380    | 69    | 37    | 206   | 32    |
| 29    | 108   | 146   | 76    | 78    | ----- | 130   | 1,180  | 310    | 55    | 34    | 237   | 32    |
| 30    | 99    | 146   | 76    | 76    | ----- | 138   | 1,050  | 263    | 48    | 143   | 111   | 32    |
| 31    | 92    | ----- | 74    | 74    | ----- | 135   | -----  | 237    | ----- | 94    | 92    | ----- |
| TOTAL | 4,558 | 4,128 | 3,976 | 2,208 | 3,085 | 4,228 | 25,257 | 24,067 | 2,577 | 1,386 | 1,979 | 1,390 |
| MEAN  | 147   | 138   | 128   | 71.2  | 110   | 136   | 842    | 776    | 85.9  | 44.7  | 63.8  | 46.3  |
| MAX   | 573   | 608   | 385   | 88    | 230   | 235   | 1,730  | 3,060  | 202   | 143   | 237   | 87    |
| MIN   | 77    | 62    | 74    | 65    | 62    | 95    | 137    | 225    | 38    | 20    | 19    | 24    |
| CFSM  | 1.03  | .97   | .90   | .50   | .77   | .95   | 5.89   | 5.43   | .60   | .31   | .45   | .32   |
| IN.   | 1.19  | 1.07  | 1.03  | .57   | .80   | 1.10  | 6.57   | 6.26   | .67   | .36   | .51   | .36   |

CAL YR 1970 TOTAL 83,678 MEAN 229 MAX 2,280 MIN 16 CFSM 1.60 IN 21.77  
WTR YR 1971 TOTAL 78,839 MEAN 216 MAX 3,060 MIN 19 CFSM 1.51 IN 20.51

## PEAK DISCHARGE (BASE, 3,600 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | 0530 | 7.45  | 4,530     |      |      |       |           |

01076500 Pemigewasset River at Plymouth, N. H.

LOCATION.--Lat 43°45'33", long 71°41'10", Grafton County, on right bank 150 ft downstream from bridge at Plymouth and 0.3 mile downstream from Baker River.

DRAINAGE AREA.--622 sq mi.

PERIOD OF RECORD.--October 1903 to current year. Records for April 1886 to September 1903, published in WSP 124, are unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 457.07 ft above mean sea level. Prior to Jan. 1, 1910, nonrecording gage at sites 150 and 200 ft upstream at present datum or datum 1.11 ft lower. Jan. 1, 1910, to Sept. 30, 1926, nonrecording gage at site 200 ft upstream at present datum.

AVERAGE DISCHARGE.--68 years, 1,333 cfs (29.10 inches per year).

EXTREMES.--Current year: Maximum discharge, 17,000 cfs May 4 (gage height, 10.94 ft); minimum, 181 cfs Aug. 27.

Period of record: Maximum discharge, 65,400 cfs Mar. 19, 1936 (gage height, 29.0 ft, from floodmarks), from rating curve extended above 43,000 cfs on basis of computations of flow over dam at gage heights 23.0, 27.4, and 29.0 ft; minimum, 39 cfs Oct. 1, 3, 4, 1948; minimum daily, 45 cfs Sept. 20, 1923.

REMARKS.--Records good except those for winter period, which are fair. Some diurnal fluctuation during period 1940-52 caused by powerplants above station. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 471: 1912-14. WSP 726: Drainage area. WSP 1231: 1904-11, 1913-14, 1917-18, 1919(M), 1920-25, 1926-27(M), 1929-31(M). WSP 1721: 1959(M). See also PERIOD OF RECORD.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR     | MAY     | JUN    | JUL    | AUG    | SEP    |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|
| 1     | 810    | 632    | 1,070  | 440    | 345    | 670    | 620     | 4,320   | 1,650  | 312    | 800    | 425    |
| 2     | 608    | 584    | 990    | 430    | 340    | 640    | 650     | 4,240   | 1,380  | 615    | 553    | 333    |
| 3     | 920    | 550    | 1,030  | 420    | 335    | 620    | 1,750   | 7,680   | 1,340  | 444    | 748    | 298    |
| 4     | 3,610  | 508    | 1,590  | 420    | 330    | 620    | 2,770   | 14,600  | 1,340  | 319    | 2,160  | 270    |
| 5     | 2,000  | 497    | 1,910  | 440    | 340    | 610    | 2,180   | 8,880   | 1,200  | 284    | 1,120  | 258    |
| 6     | 1,310  | 476    | 1,350  | 520    | 350    | 610    | 1,970   | 6,370   | 1,010  | 264    | 700    | 252    |
| 7     | 1,000  | 446    | 1,000  | 520    | 370    | 610    | 1,920   | 5,800   | 890    | 246    | 520    | 270    |
| 8     | 822    | 426    | 750    | 480    | 390    | 610    | 1,650   | 5,660   | 820    | 240    | 416    | 258    |
| 9     | 680    | 408    | 860    | 450    | 410    | 590    | 1,410   | 5,840   | 1,180  | 222    | 348    | 240    |
| 10    | 596    | 388    | 950    | 440    | 420    | 580    | 1,660   | 5,170   | 890    | 210    | 312    | 222    |
| 11    | 528    | 417    | 870    | 430    | 410    | 590    | 2,430   | 6,080   | 720    | 205    | 305    | 205    |
| 12    | 508    | 497    | 820    | 420    | 400    | 580    | 4,040   | 6,760   | 640    | 190    | 366    | 240    |
| 13    | 497    | 497    | 760    | 400    | 400    | 570    | 5,330   | 7,700   | 564    | 186    | 312    | 1,250  |
| 14    | 539    | 455    | 720    | 400    | 500    | 590    | 5,900   | 6,090   | 510    | 210    | 270    | 1,140  |
| 15    | 706    | 446    | 650    | 410    | 750    | 640    | 4,320   | 4,140   | 463    | 270    | 246    | 1,240  |
| 16    | 1,640  | 550    | 580    | 400    | 840    | 720    | 3,240   | 3,780   | 444    | 240    | 234    | 850    |
| 17    | 1,430  | 572    | 600    | 380    | 730    | 900    | 2,570   | 3,600   | 408    | 216    | 222    | 640    |
| 18    | 1,030  | 508    | 620    | 360    | 670    | 800    | 2,660   | 4,000   | 382    | 252    | 210    | 531    |
| 19    | 834    | 508    | 580    | 350    | 640    | 730    | 3,450   | 4,380   | 357    | 284    | 200    | 454    |
| 20    | 719    | 771    | 530    | 340    | 600    | 730    | 6,330   | 4,510   | 333    | 724    | 190    | 400    |
| 21    | 656    | 4,010  | 490    | 330    | 580    | 730    | 7,680   | 4,020   | 319    | 521    | 186    | 434    |
| 22    | 608    | 2,750  | 450    | 330    | 570    | 680    | 6,390   | 3,600   | 382    | 326    | 190    | 630    |
| 23    | 1,020  | 2,250  | 460    | 340    | 560    | 660    | 4,940   | 3,170   | 382    | 264    | 200    | 454    |
| 24    | 2,440  | 2,150  | 470    | 340    | 560    | 620    | 3,700   | 2,380   | 326    | 240    | 234    | 382    |
| 25    | 1,860  | 1,510  | 480    | 340    | 560    | 610    | 4,370   | 2,070   | 326    | 258    | 216    | 340    |
| 26    | 1,220  | 1,180  | 480    | 350    | 550    | 590    | 4,120   | 4,210   | 1,020  | 270    | 190    | 312    |
| 27    | 1,090  | 1,080  | 470    | 370    | 560    | 580    | 3,850   | 3,230   | 650    | 258    | 190    | 291    |
| 28    | 930    | 1,000  | 470    | 380    | 660    | 580    | 3,720   | 2,460   | 434    | 252    | 588    | 277    |
| 29    | 834    | 1,070  | 460    | 360    | -----  | 590    | 4,810   | 2,120   | 348    | 264    | 2,020  | 270    |
| 30    | 745    | 1,040  | 450    | 355    | -----  | 610    | 4,420   | 1,940   | 333    | 876    | 800    | 270    |
| 31    | 680    | -----  | 440    | 350    | -----  | 620    | -----   | 1,810   | -----  | 690    | 575    | -----  |
| TOTAL | 32,970 | 28,176 | 23,350 | 12,295 | 14,170 | 19,880 | 104,850 | 150,610 | 21,041 | 10,152 | 15,621 | 13,436 |
| MEAN  | 1,064  | 939    | 753    | 397    | 506    | 641    | 3,495   | 4,858   | 701    | 327    | 504    | 448    |
| MAX   | 3,610  | 4,010  | 1,910  | 520    | 840    | 900    | 7,680   | 14,600  | 1,650  | 876    | 2,160  | 1,250  |
| MIN   | 497    | 388    | 440    | 330    | 330    | 570    | 620     | 1,810   | 319    | 186    | 186    | 205    |
| CFSM  | 1.71   | 1.51   | 1.21   | .64    | .81    | 1.03   | 5.62    | 7.81    | 1.13   | .53    | .81    | .72    |
| IN.   | 1.97   | 1.69   | 1.40   | .74    | .85    | 1.19   | 6.27    | 9.01    | 1.26   | .61    | .93    | .80    |

CAL YR 1970 TOTAL 457,662 MEAN 1,254 MAX 12,700 MIN 135 CFSM 2.02 IN 27.37  
WTR YR 1971 TOTAL 446,551 MEAN 1,223 MAX 14,600 MIN 186 CFSM 1.97 IN 26.71

## PEAK DISCHARGE (BASE, 12,600 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | 0900 | 10.94 | 17,000    |      |      |       |           |

01077000 Squam River at Ashland, N.H.

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

DRAINAGE AREA.--57.6 sq mi.

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

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

AVERAGE DISCHARGE.--32 years, 85.1 cfs.

EXTREMES.--Current year: Maximum discharge, 170 cfs Mar. 11 (gage height, 10.90 ft); minimum daily, 5.7 cfs July 8.

Period of record: Maximum discharge, 617 cfs Apr. 19, 23, 1969 (gage height, 12.24 ft); minimum daily, 1.4 cfs Nov. 28, 1969.

REMARKS.--Records excellent. Flow completely regulated by Squam and Little Squam Lakes.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL     | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|
| 1     | 93    | 59    | 110   | 59    | 78    | 118   | 146   | 65    | 75    | 77      | 66    | 65    |
| 2     | 50    | 105   | 110   | 36    | 78    | 118   | 146   | 65    | 74    | 77      | 66    | 65    |
| 3     | 28    | 112   | 110   | 68    | 77    | 118   | 148   | 68    | 75    | 43      | 66    | 65    |
| 4     | 59    | 112   | 112   | 108   | 77    | 118   | 148   | 96    | 74    | 32      | 66    | 22    |
| 5     | 94    | 112   | 59    | 108   | 77    | 118   | 148   | 129   | 74    | 32      | 66    | 30    |
| 6     | 94    | 56    | 86    | 108   | 78    | 118   | 148   | 129   | 72    | 29      | 66    | 63    |
| 7     | 94    | 32    | 110   | 98    | 77    | 118   | 148   | 129   | 72    | 13      | 66    | 63    |
| 8     | 94    | 68    | 110   | 78    | 78    | 118   | 108   | 129   | 74    | 5.7     | 66    | 63    |
| 9     | 50    | 110   | 110   | 78    | 78    | 116   | 74    | 131   | 75    | 11      | 66    | 63    |
| 10    | 30    | 110   | 110   | 78    | 78    | 116   | 75    | 103   | 75    | 11      | 66    | 63    |
| 11    | 30    | 110   | 110   | 78    | 78    | 131   | 75    | 83    | 75    | 11      | 66    | 63    |
| 12    | 60    | 110   | 56    | 78    | 78    | 146   | 77    | 83    | 75    | 12      | 66    | 63    |
| 13    | 93    | 56    | 66    | 78    | 78    | 146   | 77    | 83    | 77    | 11      | 66    | 63    |
| 14    | 93    | 33    | 110   | 78    | 80    | 146   | 71    | 85    | 77    | 11      | 66    | 63    |
| 15    | 93    | 68    | 110   | 78    | 78    | 148   | 63    | 85    | 77    | 12      | 66    | 63    |
| 16    | 93    | 110   | 110   | 78    | 78    | 148   | 63    | 85    | 77    | 34      | 66    | 63    |
| 17    | 50    | 110   | 110   | 78    | 80    | 148   | 63    | 85    | 77    | 52      | 65    | 63    |
| 18    | 60    | 110   | 110   | 78    | 80    | 146   | 63    | 85    | 77    | 56      | 65    | 63    |
| 19    | 93    | 110   | 59    | 78    | 78    | 146   | 65    | 85    | 77    | 62      | 65    | 63    |
| 20    | 93    | 103   | 69    | 78    | 78    | 146   | 65    | 85    | 77    | 65      | 65    | 63    |
| 21    | 93    | 59    | 108   | 78    | 78    | 146   | 65    | 83    | 77    | 65      | 65    | 63    |
| 22    | 93    | 66    | 108   | 78    | 78    | 146   | 65    | 85    | 77    | 65      | 65    | 63    |
| 23    | 93    | 110   | 108   | 78    | 78    | 146   | 65    | 83    | 77    | 65      | 65    | 63    |
| 24    | 52    | 110   | 66    | 78    | 78    | 146   | 65    | 83    | 77    | 65      | 65    | 63    |
| 25    | 59    | 110   | 36    | 78    | 78    | 146   | 65    | 81    | 77    | 65      | 65    | 63    |
| 26    | 93    | 53    | 36    | 78    | 96    | 146   | 65    | 77    | 77    | 65      | 65    | 63    |
| 27    | 93    | 33    | 77    | 78    | 118   | 146   | 65    | 77    | 77    | 65      | 65    | 63    |
| 28    | 93    | 33    | 110   | 78    | 118   | 146   | 65    | 77    | 77    | 65      | 65    | 63    |
| 29    | 93    | 66    | 110   | 78    | ----- | 146   | 65    | 77    | 77    | 65      | 65    | 63    |
| 30    | 53    | 110   | 108   | 78    | ----- | 146   | 65    | 77    | 77    | 66      | 65    | 63    |
| 31    | 32    | ----- | 108   | 78    | ----- | 146   | ----- | 75    | ----- | 66      | 66    | ----- |
| TOTAL | 2,291 | 2,546 | 2,912 | 2,457 | 2,284 | 4,233 | 2,621 | 2,763 | 2,276 | 1,373.7 | 2,032 | 1,922 |
| MEAN  | 73.9  | 84.9  | 93.9  | 79.3  | 81.6  | 137   | 87.4  | 89.1  | 75.9  | 44.3    | 65.5  | 60.7  |
| MAX   | 94    | 112   | 112   | 108   | 118   | 148   | 148   | 131   | 77    | 77      | 66    | 65    |
| MIN   | 28    | 32    | 36    | 36    | 77    | 116   | 63    | 65    | 72    | 5.7     | 65    | 22    |

CAL YR 1970 TOTAL 36,890.0 MEAN 101 MAX 293 MIN 20  
 WTR YR 1971 TOTAL 29,610.7 MEAN 81.1 MAX 148 MIN 5.7



01078000 Smith River near Bristol, N.H.

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

DRAINAGE AREA.--85.8 sq mi.

PERIOD OF RECORD.--May 1918 to current year.

GAGE.--Water-stage recorder. Datum of gage is 449.80 ft above mean sea level (levels by Corps of Engineers). Prior to Nov. 25, 1933, nonrecording gage at site 1.5 miles upstream at different datum.

AVERAGE DISCHARGE.--53 years, 140 cfs (22.16 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,400 cfs May 4 (gage height, 6.05 ft); minimum, 8.2 cfs Aug. 24, 25, 26.

Period of record: Maximum discharge, 8,100 cfs Mar. 19, 1936 (gage height, 16.09 ft, from floodmarks), from rating curve extended above 2,700 cfs on basis of contracted-opening measurement of peak flow; minimum daily, 2.7 cfs Aug. 2, 1933.

Maximum stage since at least 1885, that of Mar. 19, 1936.

REMARKS.--Records excellent except those for winter period and period of indefinite stage-discharge relation, which are fair. Prior to 1954, some diurnal fluctuation caused by small mill above station; greater fluctuation prior to 1941.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT            | NOV      | DEC       | JAN     | FEB       | MAR      | APR    | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------------|----------------|----------|-----------|---------|-----------|----------|--------|-------|-------|------|-------|-------|
| 1           | 27             | 43       | 86        | 44      | 42        | 129      | 119    | 540   | 75    | 20   | 27    | 17    |
| 2           | 24             | 41       | 80        | 43      | 41        | 126      | 134    | 462   | 67    | 18   | 25    | 14    |
| 3           | 27             | 40       | 75        | 43      | 41        | 116      | 276    | 635   | 67    | 17   | 25    | 12    |
| 4           | 62             | 38       | 126       | 43      | 41        | 104      | 439    | 1,260 | 70    | 17   | 32    | 11    |
| 5           | 63             | 38       | 183       | 47      | 40        | 97       | 448    | 1,080 | 66    | 15   | 32    | 10    |
| 6           | 46             | 38       | 140       | 53      | 40        | 93       | 390    | 770   | 59    | 15   | 25    | 12    |
| 7           | 37             | 36       | 104       | 60      | 39        | 88       | 350    | 545   | 53    | 15   | 21    | 14    |
| 8           | 31             | 35       | 79        | 52      | 39        | 84       | 294    | 382   | 47    | 15   | 19    | 17    |
| 9           | 27             | 33       | 73        | 49      | 40        | 82       | 248    | 354   | 44    | 15   | 18    | 15    |
| 10          | 25             | 32       | 78        | 47      | 41        | 78       | 276    | 336   | 39    | 15   | 17    | 13    |
| 11          | 23             | 38       | 72        | 45      | 40        | 75       | 462    | 279   | 36    | 15   | 20    | 11    |
| 12          | 22             | 43       | 70        | 42      | 41        | 73       | 695    | 235   | 34    | 15   | 20    | 17    |
| 13          | 22             | 43       | 66        | 40      | 45        | 76       | 840    | 250   | 32    | 14   | 15    | 24    |
| 14          | 23             | 40       | 64        | 40      | 80        | 72       | 910    | 358   | 30    | 16   | 14    | 39    |
| 15          | 29             | 44       | 58        | 40      | 103       | 78       | 805    | 288   | 28    | 15   | 13    | 40    |
| 16          | 129            | 59       | 56        | 40      | 109       | 122      | 625    | 228   | 27    | 15   | 13    | 34    |
| 17          | 136            | 61       | 56        | 40      | 116       | 181      | 462    | 203   | 26    | 16   | 11    | 28    |
| 18          | 85             | 54       | 58        | 40      | 118       | 205      | 435    | 185   | 24    | 16   | 11    | 24    |
| 19          | 60             | 55       | 60        | 40      | 108       | 192      | 560    | 163   | 22    | 18   | 10    | 21    |
| 20          | 47             | 85       | 56        | 40      | 56        | 158      | 830    | 145   | 21    | 31   | 9.6   | 19    |
| 21          | 43             | 213      | 52        | 40      | 89        | 149      | 1,000  | 132   | 20    | 26   | 9.2   | 19    |
| 22          | 44             | 218      | 48        | 40      | 83        | 135      | 980    | 150   | 19    | 21   | 10    | 17    |
| 23          | 129            | 183      | 47        | 40      | 79        | 123      | 840    | 154   | 19    | 18   | 9.9   | 17    |
| 24          | 218            | 175      | 47        | 40      | 77        | 116      | 690    | 129   | 18    | 16   | 9.2   | 15    |
| 25          | 157            | 132      | 48        | 40      | 74        | 107      | 635    | 116   | 20    | 15   | 8.4   | 14    |
| 26          | 108            | 109      | 50        | 41      | 72        | 109      | 605    | 114   | 50    | 15   | 9.0   | 13    |
| 27          | 82             | 89       | 49        | 43      | 83        | 108      | 540    | 114   | 48    | 16   | 9.9   | 12    |
| 28          | 67             | 77       | 47        | 45      | 115       | 103      | 507    | 105   | 34    | 15   | 47    | 12    |
| 29          | 57             | 76       | 46        | 46      | -----     | 103      | 570    | 96    | 27    | 15   | 61    | 12    |
| 30          | 51             | 80       | 45        | 45      | -----     | 113      | 615    | 87    | 23    | 20   | 37    | 12    |
| 31          | 46             | -----    | 45        | 43      | -----     | 119      | -----  | 83    | ----- | 22   | 23    | ----- |
| TOTAL       | 1,947          | 2,248    | 2,164     | 1,351   | 1,932     | 3,514    | 16,580 | 9,578 | 1,145 | 532  | 611.2 | 535   |
| MEAN        | 62.8           | 74.9     | 69.8      | 43.6    | 69.0      | 113      | 553    | 322   | 38.2  | 17.2 | 19.7  | 17.8  |
| MAX         | 218            | 218      | 183       | 60      | 118       | 205      | 1,000  | 1,260 | 75    | 31   | 61    | 40    |
| MIN         | 22             | 32       | 45        | 40      | 35        | 72       | 119    | 83    | 18    | 14   | 8.4   | 10    |
| CFSM        | .73            | .87      | .81       | .51     | .80       | 1.32     | 6.45   | 3.75  | .45   | .20  | .23   | .21   |
| IN.         | .84            | .97      | .94       | .59     | .84       | 1.52     | 7.19   | 4.33  | .50   | .23  | .26   | .23   |
| CAL YR 1970 | TOTAL 48,026.9 | MEAN 132 | MAX 1,040 | MIN 6.8 | CFSM 1.54 | IN 20.82 |        |       |       |      |       |       |
| WTR YR 1971 | TOTAL 42,537.2 | MEAN 117 | MAX 1,260 | MIN 8.4 | CFSM 1.36 | IN 18.44 |        |       |       |      |       |       |

PEAK DISCHARGE (BASE, 1,150 CFS)

NOTE.--Stage-discharge relation indefinite July 5 to Aug. 28.

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | 0300 | 6.05  | 1,400     |      |      |       |           |

01080000 Lake Winnepesaukee at Weirs Beach, N.H.  
(Formerly published as Lake Winnepesaukee at The Weirs)

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

DRAINAGE AREA.--363 sq mi at outlet at Lakeport.

PERIOD OF RECORD.--September 1933 to current year. Prior to November 1937, monthend contents only, published in WSP 1301.

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above mean sea level. Prior to November 1937, nonrecording gage at lake outlet at Lakeport at datum 0.53 ft higher. Nov. 24, 1937, to Nov. 7, 1965, water-stage recorder at site 500 ft south at present datum.

EXTREMES.--Current year: Maximum daily gage height, 4.68 ft May 17; minimum daily, 2.52 ft Apr. 1, 2.

Period of record: Maximum daily gage height, 5.86 ft May 22, 23, 1954; minimum daily, 0.63 ft Dec. 11, 1941.

REMARKS.--Lake used for recreation and conservation for development of water power. Usable capacity, 7,220,000,000 cu ft between elevations 500.65 and 504.32 ft above mean sea level. Stage regulated at outlet and by Wentworth, Merrymeeting (see p. 65), and other lakes. Contents given herein are computed from gage height at 2400 on last day of month, eliminating the effect of seiche and wind action.

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

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

# GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT       | NOV      | DEC      | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-------------|-----------|----------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1           | 3.08      | 3.18     | 3.26     | 3.13   | 2.66   | 2.72   | 2.52   | 4.21   | 4.40   | 4.17   | 3.94   | 3.53   |
| 2           | 3.06      | 3.17     | 3.24     | 3.11   | 2.63   | 2.70   | 2.52   | 4.25   | 4.39   | 4.16   | 3.94   | 3.52   |
| 3           | 3.08      | 3.17     | 3.24     | 3.09   | 2.61   | 2.71   | 2.54   | 4.35   | 4.41   | 4.13   | 3.95   | 3.50   |
| 4           | 3.13      | 3.16     | 3.30     | 3.08   | 2.60   | 2.75   | 2.58   | 4.48   | 4.40   | 4.11   | 3.96   | 3.49   |
| 5           | 3.11      | 3.16     | 3.31     | 3.08   | 2.60   | 2.75   | 2.60   | 4.52   | 4.37   | 4.10   | 3.93   | 3.48   |
| 6           | 3.10      | 3.15     | 3.32     | 3.06   | 2.60   | 2.75   | 2.63   | 4.53   | 4.38   | 4.08   | 3.90   | 3.49   |
| 7           | 3.10      | 3.15     | 3.28     | 3.04   | 2.58   | 2.76   | 2.67   | 4.53   | 4.38   | 4.05   | 3.87   | 3.45   |
| 8           | 3.09      | 3.15     | 3.31     | 3.01   | 2.60   | 2.79   | 2.68   | 4.55   | 4.38   | 4.03   | 3.85   | 3.44   |
| 9           | 3.09      | 3.14     | 3.35     | 3.00   | 2.62   | 2.76   | 2.71   | 4.60   | 4.38   | 4.02   | 3.84   | 3.42   |
| 10          | 3.09      | 3.14     | 3.35     | 2.98   | 2.60   | 2.73   | 2.74   | 4.61   | 4.36   | 3.99   | 3.82   | 3.41   |
| 11          | 3.07      | 3.18     | 3.37     | 2.96   | 2.59   | 2.73   | 2.82   | 4.62   | 4.35   | 3.97   | 3.82   | 3.40   |
| 12          | 3.06      | 3.21     | 3.38     | 2.93   | 2.57   | 2.72   | 2.90   | 4.61   | 4.34   | 3.93   | 3.82   | 3.43   |
| 13          | 3.06      | 3.20     | 3.36     | 2.91   | 2.57   | 2.71   | 2.98   | 4.63   | 4.34   | 3.91   | 3.80   | 3.47   |
| 14          | 3.06      | 3.21     | 3.36     | 2.91   | 2.61   | 2.68   | 3.08   | 4.66   | 4.34   | 3.91   | 3.79   | 3.48   |
| 15          | 3.07      | 3.22     | 3.33     | 2.90   | 2.60   | 2.66   | 3.17   | 4.67   | 4.31   | 3.88   | 3.75   | 3.48   |
| 16          | 3.10      | 3.20     | 3.32     | 2.87   | 2.58   | 2.66   | 3.25   | 4.67   | 4.30   | 3.87   | 3.72   | 3.47   |
| 17          | 3.07      | 3.21     | 3.34     | 2.86   | 2.58   | 2.65   | 3.31   | 4.68   | 4.29   | 3.86   | 3.69   | 3.48   |
| 18          | 3.04      | 3.21     | 3.29     | 2.84   | 2.57   | 2.63   | 3.37   | 4.66   | 4.28   | 3.83   | 3.68   | 3.46   |
| 19          | 3.03      | 3.22     | 3.32     | 2.82   | 2.56   | 2.64   | 3.44   | 4.64   | 4.26   | 3.85   | 3.66   | 3.46   |
| 20          | 3.02      | 3.22     | 3.29     | 2.80   | 2.57   | 2.71   | 3.52   | 4.61   | 4.25   | 3.89   | 3.64   | 3.44   |
| 21          | 3.01      | 3.21     | 3.30     | 2.78   | 2.59   | 2.69   | 3.61   | 4.58   | 4.24   | 3.88   | 3.61   | 3.40   |
| 22          | 3.01      | 3.25     | 3.29     | 2.76   | 2.58   | 2.68   | 3.69   | 4.55   | 4.25   | 3.87   | 3.60   | 3.40   |
| 23          | 3.07      | 3.25     | 3.28     | 2.75   | 2.60   | 2.67   | 3.76   | 4.52   | 4.24   | 3.84   | 3.57   | 3.38   |
| 24          | 3.18      | 3.25     | 3.29     | 2.73   | 2.64   | 2.64   | 3.83   | 4.49   | 4.23   | 3.83   | 3.49   | 3.31   |
| 25          | 3.22      | 3.24     | 3.30     | 2.71   | 2.65   | 2.62   | 3.88   | 4.48   | 4.22   | 3.81   | 3.49   | 3.29   |
| 26          | 3.23      | 3.25     | 3.27     | 2.70   | 2.66   | 2.60   | 3.95   | 4.47   | 4.25   | 3.80   | 3.49   | 3.28   |
| 27          | 3.22      | 3.23     | 3.23     | 2.71   | 2.71   | 2.59   | 4.00   | 4.46   | 4.24   | 3.79   | 3.50   | 3.26   |
| 28          | 3.20      | 3.24     | 3.19     | 2.70   | 2.73   | 2.58   | 4.05   | 4.45   | 4.24   | 3.78   | 3.59   | 3.24   |
| 29          | 3.19      | 3.25     | 3.18     | 2.68   | -----  | 2.56   | 4.12   | 4.44   | 4.20   | 3.79   | 3.58   | 3.22   |
| 30          | 3.19      | 3.25     | 3.12     | 2.70   | -----  | 2.55   | 4.18   | 4.42   | 4.18   | 3.88   | 3.57   | 3.20   |
| 31          | 3.18      | -----    | 3.14     | 2.68   | -----  | 2.53   | -----  | 4.41   | -----  | 3.90   | 3.56   | -----  |
| MEAN        | 3.10      | 3.20     | 3.29     | 2.88   | 2.61   | 2.67   | 3.24   | 4.53   | 4.31   | 3.93   | 3.72   | 3.41   |
| MAX         | 3.23      | 3.25     | 3.38     | 3.13   | 2.73   | 2.79   | 4.18   | 4.68   | 4.41   | 4.17   | 3.96   | 3.53   |
| MIN         | 3.01      | 3.14     | 3.12     | 2.68   | 2.56   | 2.53   | 2.52   | 4.21   | 4.18   | 3.78   | 3.49   | 3.20   |
| (†)         | 16,180    | 16,340   | 16,120   | 15,190 | 15,310 | 14,900 | 18,240 | 18,640 | 18,200 | 17,720 | 16,940 | 16,240 |
| (‡)         | +59.7     | +61.7    | -82.1    | -347   | +49.6  | -153   | +1,289 | +149   | -170   | -179   | -291   | -270   |
| CAL YR 1970 | MEAN 3.55 | MAX 4.55 | MIN 2.83 | (†)    | -57.1  |        |        |        |        |        |        |        |
| WTR YR 1971 | MEAN 3.41 | MAX 4.68 | MIN 2.52 | (‡)    | +6.98  |        |        |        |        |        |        |        |

† Contents, in millions of cubic feet, at 2400 on last day of month.

‡ Change in contents, in cubic feet per second.

01080500 Lake Winnepesaukee Outlet at Lakeport, N.H.

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

DRAINAGE AREA.--363 sq mi.

PERIOD OF RECORD.--January 1860 to December 1911 (monthly gage heights only, published in WSP 301), June 1933 to current year.

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

AVERAGE DISCHARGE.--38 years, 520 cfs.

EXTREMES.--Current year: Maximum daily discharge, 1,340 cfs May 18; minimum daily, 185 cfs Feb. 24.

Period of record: Maximum daily discharge, 2,890 cfs Mar. 31, 1936; no flow Sept. 29, 1962.

REMARKS.--Records good. Flow completely regulated by Winnepesaukee (see preceding page), Wentworth, Merrymeeting (see p. 65), and other lakes. Daily discharge computed from relation between discharge, stage, and deflection of vane in measuring flume.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC       | JAN     | FEB    | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------------|---------------|----------|-----------|---------|--------|--------|--------|--------|-------|-------|-------|-------|
| 1           | 240           | 300      | 300       | 750     | 720    | 715    | 1,050  | 280    | 485   | 220   | 290   | 290   |
| 2           | 240           | 300      | 300       | 760     | 715    | 715    | 1,050  | 280    | 250   | 225   | 290   | 290   |
| 3           | 240           | 300      | 300       | 755     | 715    | 715    | 1,100  | 355    | 230   | 220   | 290   | 275   |
| 4           | 240           | 300      | 300       | 760     | 705    | 710    | 1,200  | 800    | 230   | 220   | 290   | 275   |
| 5           | 240           | 300      | 300       | 750     | 700    | 705    | 1,190  | 1,310  | 260   | 220   | 290   | 275   |
| 6           | 240           | 300      | 300       | 750     | 715    | 705    | 1,180  | 1,300  | 230   | 220   | 290   | 275   |
| 7           | 235           | 300      | 300       | 750     | 710    | 710    | 1,160  | 1,090  | 245   | 220   | 285   | 275   |
| 8           | 235           | 300      | 300       | 750     | 715    | 820    | 950    | 265    | 230   | 220   | 300   | 255   |
| 9           | 235           | 300      | 300       | 730     | 715    | 1,040  | 535    | 460    | 250   | 220   | 285   | 255   |
| 10          | 230           | 300      | 300       | 730     | 710    | 1,020  | 515    | 840    | 230   | 220   | 275   | 275   |
| 11          | 230           | 300      | 445       | 710     | 705    | 1,020  | 530    | 840    | 245   | 220   | 275   | 275   |
| 12          | 230           | 300      | 760       | 730     | 700    | 1,020  | 535    | 870    | 225   | 235   | 285   | 275   |
| 13          | 225           | 300      | 775       | 735     | 720    | 1,010  | 440    | 875    | 225   | 250   | 285   | 265   |
| 14          | 225           | 300      | 770       | 735     | 720    | 1,010  | 245    | 880    | 225   | 290   | 285   | 260   |
| 15          | 225           | 300      | 760       | 730     | 720    | 1,010  | 250    | 875    | 225   | 270   | 285   | 260   |
| 16          | 225           | 300      | 765       | 735     | 715    | 1,010  | 250    | 875    | 225   | 270   | 285   | 265   |
| 17          | 225           | 300      | 590       | 735     | 715    | 1,010  | 255    | 1,100  | 225   | 270   | 280   | 290   |
| 18          | 225           | 300      | 255       | 725     | 715    | 1,000  | 255    | 1,340  | 225   | 270   | 280   | 290   |
| 19          | 225           | 300      | 255       | 720     | 715    | 1,010  | 260    | 1,330  | 225   | 290   | 280   | 290   |
| 20          | 250           | 300      | 410       | 715     | 715    | 1,020  | 260    | 1,320  | 225   | 290   | 290   | 285   |
| 21          | 295           | 300      | 760       | 710     | 715    | 1,010  | 260    | 1,310  | 195   | 290   | 295   | 265   |
| 22          | 295           | 300      | 760       | 710     | 315    | 1,040  | 265    | 1,310  | 195   | 290   | 295   | 265   |
| 23          | 295           | 300      | 755       | 720     | 200    | 1,020  | 265    | 1,310  | 225   | 285   | 300   | 255   |
| 24          | 295           | 300      | 755       | 715     | 185    | 1,050  | 270    | 1,090  | 225   | 285   | 290   | 270   |
| 25          | 295           | 300      | 755       | 715     | 215    | 1,030  | 270    | 655    | 225   | 300   | 295   | 285   |
| 26          | 295           | 300      | 770       | 715     | 215    | 1,060  | 250    | 630    | 225   | 285   | 300   | 285   |
| 27          | 295           | 300      | 765       | 710     | 365    | 1,060  | 250    | 625    | 225   | 285   | 290   | 280   |
| 28          | 295           | 300      | 770       | 710     | 715    | 1,050  | 250    | 625    | 225   | 285   | 280   | 280   |
| 29          | 295           | 300      | 765       | 710     | -----  | 1,050  | 255    | 615    | 225   | 295   | 290   | 270   |
| 30          | 295           | 300      | 755       | 705     | -----  | 1,050  | 255    | 615    | 225   | 285   | 290   | 270   |
| 31          | 295           | -----    | 755       | 710     | -----  | 1,050  | -----  | 615    | ----- | 290   | 290   | ----- |
| TOTAL       | 7,905         | 9,000    | 17,150    | 22,585  | 17,185 | 29,445 | 15,800 | 26,685 | 7,100 | 8,035 | 8,930 | 8,220 |
| MEAN        | 255           | 300      | 553       | 729     | 614    | 950    | 527    | 861    | 237   | 259   | 288   | 274   |
| MAX         | 295           | 300      | 775       | 760     | 720    | 1,060  | 1,200  | 1,340  | 485   | 300   | 300   | 290   |
| MIN         | 225           | 300      | 255       | 705     | 185    | 705    | 245    | 265    | 195   | 220   | 275   | 255   |
| CAL YR 1970 | TOTAL 215,815 | MEAN 591 | MAX 1,600 | MIN 225 |        |        |        |        |       |       |       |       |
| WTR YR 1971 | TOTAL 178,040 | MEAN 488 | MAX 1,340 | MIN 185 |        |        |        |        |       |       |       |       |

01081000 Winnepesaukee River at Tilton, N. H.

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

DRAINAGE AREA. --471 sq mi.

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

GAGE. --Water-stage recorder. Datum of gage is 441.87 ft above mean sea level, unadjusted.

AVERAGE DISCHARGE. --34 years, 677 cfs.

EXTREMES. --Current year: Maximum discharge, 1,750 cfs May 6 (gage height, 5.58 ft); minimum daily, 211 cfs July 9.

Period of record: Maximum discharge, 3,810 cfs Sept. 21, 1938 (gage height, 7.90 ft); maximum gage height, 7.93 ft Mar. 27, 1953; minimum daily discharge, 48 cfs Aug. 31, 1941.

REMARKS. --Records good. Flow regulated by powerplants prior to 1967 and by Winnepesaukee (see sta 01080000), Winnisquam 4.5 miles upstream, Wentworth, Merrymeeting (see p. 65), and other lakes above station.

REVISIONS (WATER YEARS). --WSP 1901: 1960.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC       | JAN     | FEB    | MAR    | APR    | MAY    | JUN   | JUL   | AUG    | SEP    |
|-------------|---------------|----------|-----------|---------|--------|--------|--------|--------|-------|-------|--------|--------|
| 1           | 297           | 362      | 431       | 809     | 815    | 847    | 1,240  | 598    | 607   | 297   | 408    | 317    |
| 2           | 287           | 361      | 449       | 810     | 810    | 847    | 1,260  | 574    | 403   | 297   | 397    | 304    |
| 3           | 294           | 357      | 569       | 807     | 815    | 841    | 1,430  | 662    | 369   | 282   | 392    | 296    |
| 4           | 370           | 353      | 567       | 810     | 815    | 841    | 1,560  | 1,130  | 350   | 261   | 423    | 296    |
| 5           | 366           | 375      | 583       | 816     | 809    | 855    | 1,590  | 1,640  | 333   | 251   | 408    | 296    |
| 6           | 339           | 389      | 537       | 821     | 813    | 850    | 1,560  | 1,740  | 324   | 241   | 373    | 313    |
| 7           | 320           | 368      | 514       | 823     | 806    | 856    | 1,570  | 1,720  | 315   | 230   | 370    | 317    |
| 8           | 305           | 358      | 467       | 820     | 814    | 886    | 1,530  | 999    | 307   | 222   | 366    | 311    |
| 9           | 297           | 351      | 457       | 820     | 823    | 1,040  | 1,370  | 775    | 307   | 211   | 363    | 310    |
| 10          | 287           | 350      | 459       | 819     | 824    | 1,070  | 1,300  | 1,270  | 293   | 226   | 326    | 307    |
| 11          | 280           | 373      | 554       | 818     | 815    | 1,090  | 1,440  | 1,180  | 282   | 227   | 301    | 302    |
| 12          | 276           | 403      | 873       | 815     | 814    | 1,100  | 1,510  | 1,300  | 272   | 224   | 295    | 323    |
| 13          | 276           | 401      | 902       | 815     | 827    | 1,100  | 1,510  | 1,300  | 268   | 228   | 287    | 350    |
| 14          | 273           | 395      | 905       | 817     | 860    | 1,110  | 1,480  | 1,200  | 262   | 216   | 288    | 362    |
| 15          | 273           | 402      | 895       | 820     | 880    | 1,130  | 1,330  | 1,160  | 253   | 213   | 286    | 402    |
| 16          | 320           | 424      | 884       | 815     | 890    | 1,190  | 1,180  | 1,130  | 251   | 342   | 285    | 534    |
| 17          | 316           | 414      | 905       | 820     | 878    | 1,250  | 1,060  | 1,200  | 248   | 299   | 283    | 629    |
| 18          | 287           | 402      | 868       | 815     | 868    | 1,240  | 1,000  | 1,370  | 245   | 297   | 285    | 600    |
| 19          | 273           | 406      | 828       | 815     | 861    | 1,240  | 970    | 1,430  | 247   | 296   | 286    | 568    |
| 20          | 259           | 428      | 798       | 810     | 865    | 1,270  | 917    | 1,550  | 243   | 249   | 279    | 552    |
| 21          | 253           | 487      | 781       | 810     | 862    | 1,270  | 931    | 1,530  | 245   | 234   | 279    | 577    |
| 22          | 263           | 497      | 779       | 812     | 773    | 1,260  | 925    | 1,560  | 261   | 233   | 283    | 592    |
| 23          | 331           | 482      | 790       | 811     | 534    | 1,240  | 830    | 1,540  | 306   | 236   | 285    | 640    |
| 24          | 525           | 475      | 804       | 807     | 493    | 1,230  | 616    | 1,490  | 245   | 240   | 283    | 606    |
| 25          | 543           | 449      | 809       | 805     | 472    | 1,220  | 598    | 1,320  | 249   | 249   | 279    | 529    |
| 26          | 484           | 428      | 808       | 814     | 492    | 1,210  | 609    | 896    | 319   | 252   | 280    | 470    |
| 27          | 440           | 416      | 809       | 815     | 757    | 1,200  | 611    | 803    | 309   | 255   | 304    | 432    |
| 28          | 410           | 412      | 809       | 815     | 816    | 1,190  | 580    | 689    | 284   | 247   | 409    | 402    |
| 29          | 394           | 414      | 808       | 820     | -----  | 1,200  | 597    | 679    | 257   | 258   | 530    | 378    |
| 30          | 382           | 428      | 808       | 827     | -----  | 1,220  | 616    | 678    | 254   | 364   | 368    | 361    |
| 31          | 370           | -----    | 810       | 824     | -----  | 1,230  | -----  | 681    | ----- | 374   | 332    | -----  |
| TOTAL       | 10,390        | 12,160   | 22,260    | 25,275  | 21,901 | 34,123 | 33,720 | 35,794 | 8,908 | 8,051 | 10,333 | 12,676 |
| MEAN        | 335           | 405      | 718       | 815     | 782    | 1,101  | 1,124  | 1,155  | 297   | 260   | 333    | 423    |
| MAX         | 543           | 497      | 905       | 827     | 890    | 1,270  | 1,590  | 1,740  | 607   | 374   | 530    | 640    |
| MIN         | 253           | 350      | 431       | 805     | 472    | 841    | 580    | 574    | 243   | 211   | 279    | 296    |
| CAL YR 1970 | TOTAL 282,965 | MEAN 775 | MAX 2,390 | MIN 228 |        |        |        |        |       |       |        |        |
| WTR YR 1971 | TOTAL 235,591 | MEAN 645 | MAX 1,740 | MIN 211 |        |        |        |        |       |       |        |        |

01081500 Merrimack River at Franklin Junction, N.H.

LOCATION.--Lat 43°25'26", long 71°39'12", Merrimack County, on right bank at Franklin Junction, 1 mile downstream from confluence of Pemigewasset and Winnepesaukee Rivers.

DRAINAGE AREA.--1,507 sq mi.

PERIOD OF RECORD.--July 1903 to January 1904, March 1904 to January 1905, March 1905 to current year.

GAGE.--Water-stage recorder. Datum of gage is 250.4 ft above mean sea level, unadjusted. Prior to Sept. 13, 1923, nonrecording gage at bridge 350 ft downstream at same datum.

AVERAGE DISCHARGE.--66 years (1905-71), 2,724 cfs (24.55 inches per year).

EXTREMES.--Current year: Maximum discharge, 17,300 cfs May 5 (gage height, 13.69 ft); minimum daily, 525 cfs July 10.

Period of record: Maximum discharge, 83,000 cfs Mar. 19, 1936 (gage height, 36.4 ft, from floodmarks), from rating curve extended above 30,000 cfs on basis of slope-area measurement and computation of flow over dam at gage height 29.5 ft, and velocity-area study; minimum daily, 169 cfs Aug. 28, 1965. Maximum discharge since construction of Franklin Falls Reservoir in 1942, 22,400 cfs Apr. 4, 1951 (gage height, 16.34 ft).

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants, by Franklin Falls Reservoir (4 miles upstream) since 1942, and by Squam, Little Squam, Newfound, Winnepesaukee, Winnisquam, Wentworth, Merrymeeting, and other lakes. See page 65 for description and monthend contents of many of these reservoirs.

REVISIONS (WATER YEARS).--WSP 401: 1914. WSP 641: 1923(M). WSP 756: Drainage area. WSP 781: 1928(M). WSP 1231: 1911-13, 1916-17(M), 1919(M), 1922(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR     | MAY     | JUN    | JUL    | AUG    | SEP    |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|
| 1     | 1,840  | 1,180  | 1,840  | 1,700  | 1,700  | 2,570  | 2,800   | 7,370   | 2,850  | 1,020  | 1,360  | 1,080  |
| 2     | 1,360  | 1,270  | 1,720  | 1,350  | 1,600  | 2,540  | 2,970   | 6,970   | 2,250  | 781    | 1,460  | 793    |
| 3     | 627    | 1,040  | 1,910  | 1,600  | 1,550  | 2,240  | 3,570   | 8,060   | 1,980  | 940    | 1,500  | 762    |
| 4     | 1,460  | 1,130  | 2,490  | 1,700  | 1,300  | 2,170  | 5,090   | 14,400  | 2,230  | 816    | 1,730  | 651    |
| 5     | 2,460  | 1,250  | 3,420  | 1,800  | 1,450  | 2,100  | 5,610   | 16,400  | 2,050  | 799    | 2,390  | 658    |
| 6     | 2,540  | 1,060  | 2,800  | 1,850  | 1,450  | 1,800  | 4,780   | 13,300  | 1,680  | 909    | 1,700  | 715    |
| 7     | 2,410  | 916    | 2,100  | 1,950  | 1,600  | 1,850  | 5,620   | 10,900  | 1,500  | 656    | 1,310  | 702    |
| 8     | 2,350  | 1,030  | 1,850  | 1,900  | 1,700  | 1,850  | 5,260   | 9,380   | 1,470  | 753    | 1,180  | 862    |
| 9     | 1,700  | 980    | 1,500  | 1,800  | 1,600  | 2,300  | 4,100   | 8,690   | 1,630  | 710    | 1,200  | 781    |
| 10    | 1,140  | 1,040  | 1,500  | 1,700  | 1,650  | 2,180  | 4,020   | 9,020   | 1,880  | 525    | 1,350  | 736    |
| 11    | 595    | 1,180  | 1,800  | 1,700  | 1,600  | 2,180  | 4,680   | 8,220   | 1,370  | 555    | 1,280  | 655    |
| 12    | 614    | 1,250  | 2,130  | 1,700  | 1,550  | 2,060  | 6,670   | 8,940   | 1,300  | 662    | 1,530  | 758    |
| 13    | 845    | 1,330  | 2,070  | 1,700  | 1,500  | 2,030  | 9,390   | 9,640   | 1,030  | 587    | 956    | 1,410  |
| 14    | 845    | 940    | 2,310  | 1,700  | 1,800  | 1,940  | 10,400  | 9,970   | 1,180  | 646    | 556    | 2,030  |
| 15    | 1,070  | 1,090  | 2,260  | 1,600  | 2,200  | 2,470  | 9,780   | 8,060   | 1,150  | 620    | 549    | 1,800  |
| 16    | 1,810  | 1,300  | 2,150  | 1,600  | 2,700  | 2,850  | 7,520   | 6,480   | 1,000  | 708    | 582    | 1,680  |
| 17    | 1,380  | 1,340  | 2,000  | 1,600  | 2,900  | 3,480  | 5,830   | 5,350   | 889    | 710    | 718    | 1,650  |
| 18    | 845    | 1,190  | 1,850  | 1,700  | 2,600  | 3,490  | 5,410   | 5,840   | 994    | 681    | 1,140  | 1,400  |
| 19    | 838    | 1,470  | 1,850  | 1,650  | 2,300  | 3,360  | 5,790   | 6,640   | 874    | 920    | 1,150  | 1,420  |
| 20    | 956    | 1,600  | 1,800  | 1,600  | 1,900  | 3,070  | 8,500   | 6,830   | 859    | 1,160  | 793    | 1,220  |
| 21    | 1,040  | 2,770  | 1,850  | 1,550  | 1,950  | 2,900  | 11,200  | 6,730   | 1,070  | 1,350  | 582    | 1,020  |
| 22    | 1,180  | 4,870  | 1,800  | 1,400  | 1,800  | 2,610  | 11,200  | 6,460   | 868    | 928    | 549    | 1,240  |
| 23    | 1,590  | 3,060  | 1,700  | 1,450  | 1,550  | 2,570  | 9,980   | 6,050   | 803    | 853    | 808    | 1,390  |
| 24    | 2,710  | 3,310  | 1,500  | 1,500  | 1,500  | 2,740  | 7,980   | 5,330   | 882    | 589    | 675    | 1,330  |
| 25    | 3,270  | 2,650  | 1,600  | 1,550  | 1,450  | 2,560  | 7,090   | 3,870   | 822    | 659    | 640    | 1,060  |
| 26    | 2,330  | 2,260  | 1,800  | 1,600  | 1,500  | 2,540  | 7,270   | 4,000   | 1,370  | 927    | 710    | 1,010  |
| 27    | 1,900  | 1,930  | 1,600  | 1,650  | 1,600  | 2,490  | 6,840   | 5,140   | 1,770  | 921    | 845    | 1,030  |
| 28    | 1,290  | 1,570  | 1,900  | 1,650  | 2,310  | 2,450  | 6,260   | 3,940   | 970    | 883    | 1,030  | 1,090  |
| 29    | 1,350  | 1,790  | 1,900  | 1,700  | -----  | 2,540  | 6,450   | 3,380   | 1,080  | 916    | 2,030  | 938    |
| 30    | 1,220  | 1,900  | 1,900  | 1,650  | -----  | 2,690  | 7,800   | 3,280   | 947    | 1,610  | 1,910  | 1,100  |
| 31    | 1,210  | -----  | 1,800  | 1,600  | -----  | 2,710  | -----   | 2,950   | -----  | 1,450  | 1,260  | -----  |
| TOTAL | 46,775 | 49,696 | 60,700 | 51,200 | 50,310 | 77,330 | 199,860 | 231,550 | 40,748 | 26,244 | 35,473 | 32,971 |
| MEAN  | 1,509  | 1,657  | 1,958  | 1,652  | 1,797  | 2,495  | 6,662   | 7,471   | 1,358  | 847    | 1,144  | 1,099  |
| MAX   | 3,270  | 4,870  | 3,420  | 1,950  | 2,900  | 3,490  | 11,200  | 16,400  | 2,850  | 1,610  | 2,390  | 2,030  |
| MIN   | 595    | 916    | 1,500  | 1,350  | 1,300  | 1,800  | 2,800   | 2,950   | 803    | 525    | 549    | 651    |
| CFSM  | 1.00   | 1.10   | 1.30   | 1.10   | 1.19   | 1.66   | 4.42    | 4.96    | .90    | .56    | .76    | .73    |
| IN.   | 1.15   | 1.23   | 1.50   | 1.26   | 1.24   | 1.91   | 4.93    | 5.72    | 1.01   | .65    | .88    | .81    |

CAL YR 1970 TOTAL 999,507 MEAN 2,738 MAX 14,500 MIN 536 CFSM 1.82 IN 24.67  
WTR YR 1971 TOTAL 902,897 MEAN 2,474 MAX 16,400 MIN 525 CFSM 1.64 IN 22.29

NOTE.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.



## MERRIMACK RIVER BASIN

39

01082000 Contoocook River at Peterborough, N.H.

LOCATION.--Lat 42°51'45", long 71°57'35", Hillsborough County, on left bank 1,100 ft downstream from milldam, 1 mile south of Peterborough, and 1.5 miles upstream from Nubanusit Brook.

DRAINAGE AREA.--68.1 sq mi.

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

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

AVERAGE DISCHARGE.--26 years, 113 cfs (22.53 inches per year).

EXTREMES.--Current year: Maximum discharge, 830 cfs Apr. 13 (gage height, 3.88 ft); minimum daily, 13 cfs July 26, 27.

Period of record: Maximum discharge, 2,640 cfs Nov. 26, 1950 (gage height, 6.35 ft), from rating curve extended above 1,700 cfs; minimum daily, 0.8 cfs Sept. 15, 16, 1953.

Flood in September 1938 reached a stage of about 15 ft, from information by local residents.

REMARKS.--Records good except those for winter period, which are fair. Flow slightly regulated by mill and reservoirs above station; regulation greater prior to 1965.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT          | NOV       | DEC       | JAN    | FEB       | MAR      | APR    | MAY   | JUN   | JUL  | AUG  | SEP   |
|-------------|--------------|-----------|-----------|--------|-----------|----------|--------|-------|-------|------|------|-------|
| 1           | 19           | 26        | 68        | 52     | 41        | 99       | 117    | 311   | 73    | 25   | 60   | 25    |
| 2           | 23           | 25        | 65        | 52     | 40        | 96       | 161    | 270   | 65    | 30   | 48   | 22    |
| 3           | 24           | 24        | 61        | 51     | 40        | 85       | 427    | 297   | 68    | 25   | 54   | 21    |
| 4           | 32           | 24        | 122       | 50     | 40        | 78       | 545    | 403   | 69    | 22   | 54   | 20    |
| 5           | 28           | 64        | 120       | 56     | 43        | 82       | 500    | 341   | 61    | 20   | 43   | 19    |
| 6           | 26           | 84        | 59        | 62     | 42        | 80       | 431    | 271   | 54    | 18   | 33   | 21    |
| 7           | 24           | 64        | 78        | 55     | 41        | 73       | 384    | 224   | 50    | 17   | 28   | 23    |
| 8           | 22           | 51        | 65        | 58     | 44        | 73       | 345    | 189   | 52    | 17   | 24   | 23    |
| 9           | 20           | 44        | 68        | 56     | 52        | 74       | 296    | 223   | 62    | 16   | 22   | 20    |
| 10          | 18           | 42        | 71        | 54     | 50        | 70       | 328    | 288   | 49    | 15   | 19   | 18    |
| 11          | 18           | 45        | 65        | 52     | 46        | 69       | 455    | 229   | 42    | 15   | 24   | 18    |
| 12          | 19           | 49        | 66        | 50     | 45        | 68       | 575    | 185   | 39    | 15   | 34   | 56    |
| 13          | 18           | 46        | 66        | 47     | 49        | 66       | 690    | 237   | 37    | 15   | 27   | 59    |
| 14          | 19           | 54        | 68        | 46     | 84        | 66       | 770    | 335   | 36    | 16   | 24   | 51    |
| 15          | 22           | 75        | 65        | 44     | 98        | 75       | 670    | 260   | 33    | 14   | 21   | 46    |
| 16          | 36           | 95        | 64        | 43     | 88        | 162      | 522    | 216   | 32    | 14   | 20   | 40    |
| 17          | 30           | 87        | 84        | 42     | 80        | 176      | 416    | 223   | 30    | 15   | 19   | 46    |
| 18          | 26           | 75        | 81        | 41     | 77        | 155      | 379    | 197   | 28    | 19   | 18   | 43    |
| 19          | 24           | 71        | 75        | 41     | 71        | 146      | 405    | 161   | 26    | 25   | 17   | 38    |
| 20          | 22           | 84        | 71        | 40     | 69        | 153      | 537    | 132   | 25    | 33   | 20   | 33    |
| 21          | 21           | 140       | 68        | 35     | 66        | 140      | 587    | 120   | 24    | 22   | 22   | 34    |
| 22          | 23           | 117       | 64        | 38     | 65        | 124      | 537    | 151   | 27    | 17   | 19   | 30    |
| 23          | 37           | 117       | 62        | 37     | 65        | 115      | 462    | 137   | 25    | 15   | 18   | 27    |
| 24          | 73           | 90        | 61        | 36     | 65        | 104      | 394    | 117   | 24    | 14   | 17   | 23    |
| 25          | 60           | 77        | 59        | 36     | 64        | 101      | 407    | 107   | 23    | 14   | 17   | 21    |
| 26          | 45           | 59        | 57        | 35     | 64        | 93       | 368    | 99    | 37    | 13   | 17   | 20    |
| 27          | 43           | 55        | 56        | 50     | 81        | 88       | 319    | 91    | 31    | 13   | 22   | 20    |
| 28          | 38           | 62        | 55        | 47     | 102       | 87       | 283    | 85    | 27    | 14   | 63   | 20    |
| 29          | 33           | 65        | 54        | 45     | -----     | 93       | 345    | 80    | 24    | 20   | 59   | 21    |
| 30          | 29           | 69        | 52        | 44     | -----     | 103      | 369    | 77    | 23    | 172  | 40   | 21    |
| 31          | 27           | -----     | 52        | 42     | -----     | 110      | -----  | 77    | ----- | 76   | 29   | ----- |
| TOTAL       | 899          | 1,984     | 2,166     | 1,445  | 1,712     | 3,104    | 13,024 | 6,133 | 1,196 | 776  | 932  | 879   |
| MEAN        | 29.0         | 66.1      | 69.9      | 46.7   | 61.1      | 100      | 434    | 198   | 39.9  | 25.0 | 30.1 | 29.3  |
| MAX         | 73           | 140       | 122       | 62     | 102       | 176      | 770    | 403   | 73    | 172  | 63   | 59    |
| MIN         | 18           | 24        | 52        | 36     | 40        | 66       | 117    | 77    | 23    | 13   | 17   | 18    |
| CFSM        | .43          | .97       | 1.03      | .69    | .90       | 1.47     | 6.37   | 2.91  | .59   | .37  | .44  | .43   |
| IN.         | .49          | 1.08      | 1.18      | .75    | .94       | 1.70     | 7.11   | 3.35  | .65   | .42  | .51  | .48   |
| CAL YR 1970 | TOTAL 46,162 | MEAN 126  | MAX 1,050 | MIN 15 | CFSM 1.85 | IN 25.22 |        |       |       |      |      |       |
| WTR YR 1971 | TOTAL 34,254 | MEAN 93.8 | MAX 770   | MIN 13 | CFSM 1.38 | IN 18.71 |        |       |       |      |      |       |

## PEAK DISCHARGE (BASE, 700 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-13 | 2330 | 3.88  | 830       |      |      |       |           |

01083000 Nubanusit Brook near Peterborough, N.H.

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

DRAINAGE AREA.--46.9 sq mi.

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

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

AVERAGE DISCHARGE.--37 years, 81.0 cfs (23.45 inches per year).

EXTREMES.--Current year: Maximum discharge, 541 cfs Apr. 16 (gage height, 3.93 ft); minimum daily, 5.5 cfs June 8.

Period of record: Maximum discharge, 1,130 cfs Apr. 11, 1931 (gage height, 5.59 ft, site and datum then in use), from rating curve extended above 380 cfs; minimum daily, 0.5 cfs Aug. 1, 1926. Maximum discharge since construction of Edward MacDowell Reservoir in 1950, 699 cfs Apr. 12, 1960 (gage height, 4.54 ft).

REMARKS.--Records excellent except those for winter period, which are fair. Flow regulated by mills and Nubanusit Lake, Edward MacDowell Reservoir since 1950 (see p. 65), and other reservoirs above station.

REVISIONS (WATER YEARS).--WSP 561: 1921(M). WSP 1051: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 42   | 25    | 40    | 31   | 23    | 83    | 98    | 217   | 35    | 20    | 102   | 27    |
| 2     | 36   | 23    | 38    | 31   | 22    | 83    | 108   | 199   | 37    | 23    | 77    | 21    |
| 3     | 34   | 22    | 36    | 21   | 21    | 78    | 174   | 185   | 42    | 20    | 58    | 18    |
| 4     | 37   | 22    | 57    | 31   | 20    | 72    | 264   | 197   | 46    | 17    | 51    | 16    |
| 5     | 27   | 31    | 68    | 34   | 27    | 66    | 301   | 204   | 56    | 15    | 45    | 15    |
| 6     | 33   | 34    | 68    | 35   | 22    | 62    | 303   | 199   | 37    | 14    | 37    | 14    |
| 7     | 29   | 33    | 59    | 38   | 22    | 59    | 315   | 181   | 15    | 14    | 31    | 14    |
| 8     | 27   | 30    | 50    | 35   | 40    | 57    | 303   | 154   | 5.5   | 12    | 25    | 13    |
| 9     | 26   | 18    | 46    | 33   | 31    | 54    | 214   | 146   | 5.8   | 12    | 21    | 12    |
| 10    | 24   | 10    | 46    | 31   | 13    | 51    | 190   | 165   | 31    | 12    | 18    | 11    |
| 11    | 23   | 13    | 42    | 29   | 16    | 49    | 238   | 176   | 48    | 11    | 21    | 11    |
| 12    | 23   | 14    | 41    | 28   | 17    | 46    | 284   | 163   | 50    | 11    | 23    | 21    |
| 13    | 23   | 28    | 41    | 27   | 45    | 44    | 298   | 161   | 23    | 11    | 20    | 21    |
| 14    | 23   | 58    | 41    | 26   | 75    | 43    | 157   | 186   | 16    | 12    | 18    | 24    |
| 15    | 31   | 49    | 39    | 26   | 95    | 46    | 396   | 192   | 13    | 9.4   | 15    | 25    |
| 16    | 52   | 41    | 37    | 25   | 55    | 83    | 446   | 180   | 12    | 13    | 12    | 24    |
| 17    | 47   | 38    | 41    | 25   | 20    | 110   | 513   | 168   | 13    | 13    | 10    | 24    |
| 18    | 37   | 35    | 44    | 25   | 20    | 125   | 474   | 157   | 13    | 14    | 9.8   | 22    |
| 19    | 33   | 34    | 44    | 24   | 19    | 130   | 432   | 125   | 12    | 18    | 9.8   | 18    |
| 20    | 28   | 37    | 43    | 24   | 50    | 123   | 404   | 136   | 11    | 25    | 9.4   | 17    |
| 21    | 25   | 52    | 40    | 23   | 120   | 112   | 399   | 106   | 25    | 24    | 9.4   | 17    |
| 22    | 25   | 51    | 38    | 23   | 130   | 100   | 421   | 145   | 73    | 21    | 9.0   | 16    |
| 23    | 32   | 60    | 37    | 22   | 59    | 80    | 415   | 119   | 49    | 20    | 9.0   | 15    |
| 24    | 42   | 61    | 36    | 22   | 54    | 97    | 380   | 65    | 33    | 20    | 8.6   | 14    |
| 25    | 39   | 53    | 35    | 21   | 62    | 72    | 328   | 89    | 26    | 21    | 8.3   | 13    |
| 26    | 37   | 46    | 34    | 21   | 46    | 82    | 273   | 74    | 35    | 22    | 8.3   | 13    |
| 27    | 34   | 40    | 33    | 21   | 52    | 80    | 253   | 64    | 32    | 23    | 9.4   | 15    |
| 28    | 33   | 38    | 33    | 27   | 67    | 68    | 192   | 59    | 26    | 22    | 27    | 15    |
| 29    | 31   | 37    | 32    | 26   | ----- | 74    | 185   | 53    | 22    | 34    | 44    | 15    |
| 30    | 28   | 39    | 32    | 25   | ----- | 85    | 214   | 48    | 21    | 123   | 43    | 14    |
| 31    | 26   | ----- | 31    | 24   | ----- | 93    | ----- | 46    | ----- | 123   | 34    | ----- |
| TOTAL | 957  | 1,072 | 1,302 | 848  | 1,283 | 2,407 | 8,972 | 4,359 | 863.3 | 749.4 | 823.0 | 515   |
| MEAN  | 32.2 | 35.7  | 42.0  | 27.4 | 45.8  | 77.6  | 299   | 141   | 28.8  | 24.2  | 26.5  | 17.2  |
| MAX   | 52   | 61    | 68    | 35   | 130   | 130   | 513   | 217   | 73    | 123   | 102   | 27    |
| MIN   | 23   | 10    | 31    | 21   | 13    | 43    | 98    | 46    | 5.5   | 9.4   | 8.3   | 11    |
| CFSM  | .69  | .76   | .50   | .58  | .98   | 1.65  | 6.38  | 3.01  | .61   | .52   | .57   | .37   |
| IN.   | .79  | .85   | 1.03  | .67  | 1.02  | 1.91  | 7.12  | 3.46  | .68   | .59   | .65   | .41   |

CAL YR 1970 TOTAL 28,545.0 MEAN 76.2 MAX 375 MIN 10 CFSM 1.67 IN 22.64  
WTR YR 1971 TOTAL 24,190.7 MEAN 66.3 MAX 513 MIN 5.5 CFSM 1.41 IN 19.19

NOTE.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

01085000 Contoocook River near Henniker, N.H.

LOCATION.--Lat 43°09'10", long 71°51'24", Merrimack County, on right bank 1.6 miles downstream from Sand Brook and 2.5 miles southwest of Henniker.

DRAINAGE AREA.--368 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 475 ft (from topographic map). Prior to Dec. 18, 1939, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--32 years, 612 cfs (22.58 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,760 cfs Apr. 14 (gage height, 9.98 ft); maximum gage height, 10.79 ft Jan. 7 (backwater from ice); minimum daily discharge, 41 cfs July 12.

Period of record: Maximum discharge, 9,460 cfs June 26, 1944 (gage height, 13.13 ft); minimum daily, 19 cfs Oct. 29, 1940, July 17, 1965.

Maximum stage since at least 1768, 21.3 ft Sept. 21, 1938, from floodmarks (discharge, 22,200 cfs, from rating curve extended above 7,500 cfs on basis of computations of flow over dams at gage heights 12.72 and 21.3 ft).

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants and by Nubanusit Lake, Edward MacDowell Reservoir (see p. 65) since March 1950, Highland Lake, Lake Franklin Pierce (formerly Jackman Reservoir), and other reservoirs above station.

REVISIONS (WATER YEARS).--WSP 1701: 1944(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC    | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|--------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| 1     | 135   | 150   | 397    | 250   | 230   | 600    | 788    | 2,220  | 410   | 294   | 418   | 155   |
| 2     | 129   | 189   | 412    | 240   | 230   | 560    | 876    | 1,980  | 350   | 228   | 329   | 139   |
| 3     | 128   | 179   | 330    | 240   | 220   | 480    | 1,390  | 1,850  | 250   | 171   | 260   | 131   |
| 4     | 132   | 241   | 404    | 310   | 210   | 520    | 2,200  | 2,650  | 199   | 113   | 235   | 125   |
| 5     | 137   | 224   | 686    | 300   | 200   | 480    | 2,330  | 2,970  | 200   | 86    | 221   | 119   |
| 6     | 134   | 238   | 660    | 350   | 190   | 420    | 2,280  | 2,330  | 264   | 85    | 192   | 113   |
| 7     | 126   | 258   | 520    | 350   | 180   | 390    | 2,190  | 1,970  | 344   | 84    | 163   | 110   |
| 8     | 120   | 233   | 410    | 330   | 210   | 410    | 1,980  | 1,650  | 309   | 89    | 139   | 107   |
| 9     | 111   | 233   | 430    | 260   | 250   | 420    | 1,740  | 1,500  | 282   | 67    | 123   | 104   |
| 10    | 104   | 213   | 420    | 250   | 270   | 380    | 1,680  | 1,570  | 210   | 47    | 116   | 100   |
| 11    | 100   | 184   | 360    | 290   | 280   | 400    | 2,080  | 1,520  | 201   | 42    | 112   | 96    |
| 12    | 95    | 174   | 280    | 280   | 250   | 380    | 2,630  | 1,400  | 180   | 41    | 120   | 103   |
| 13    | 94    | 215   | 250    | 270   | 200   | 310    | 3,110  | 1,200  | 165   | 42    | 114   | 113   |
| 14    | 91    | 197   | 310    | 260   | 300   | 340    | 3,600  | 1,800  | 189   | 46    | 110   | 121   |
| 15    | 90    | 196   | 370    | 240   | 400   | 450    | 3,370  | 1,900  | 160   | 45    | 107   | 130   |
| 16    | 100   | 358   | 360    | 210   | 500   | 600    | 2,860  | 1,500  | 147   | 46    | 103   | 133   |
| 17    | 130   | 364   | 340    | 200   | 450   | 820    | 2,340  | 1,400  | 162   | 42    | 100   | 138   |
| 18    | 150   | 328   | 340    | 240   | 360   | 1,050  | 2,210  | 1,250  | 139   | 49    | 96    | 142   |
| 19    | 145   | 319   | 330    | 220   | 450   | 1,050  | 2,270  | 1,100  | 124   | 74    | 92    | 144   |
| 20    | 210   | 382   | 290    | 230   | 350   | 940    | 2,740  | 960    | 117   | 100   | 90    | 140   |
| 21    | 150   | 387   | 330    | 220   | 300   | 860    | 3,540  | 800    | 153   | 86    | 86    | 137   |
| 22    | 150   | 477   | 320    | 200   | 390   | 780    | 3,690  | 710    | 213   | 84    | 83    | 132   |
| 23    | 200   | 541   | 340    | 170   | 430   | 714    | 3,470  | 740    | 180   | 82    | 81    | 128   |
| 24    | 270   | 603   | 340    | 160   | 420   | 654    | 3,000  | 720    | 187   | 80    | 82    | 123   |
| 25    | 340   | 557   | 300    | 270   | 360   | 610    | 2,670  | 650    | 162   | 74    | 87    | 117   |
| 26    | 290   | 351   | 330    | 260   | 390   | 605    | 2,520  | 700    | 158   | 77    | 85    | 114   |
| 27    | 300   | 298   | 320    | 260   | 340   | 563    | 2,280  | 600    | 161   | 80    | 87    | 110   |
| 28    | 250   | 316   | 330    | 300   | 480   | 565    | 2,090  | 520    | 156   | 75    | 137   | 144   |
| 29    | 200   | 316   | 300    | 230   | ----- | 583    | 2,100  | 480    | 229   | 76    | 187   | 117   |
| 30    | 178   | 342   | 310    | 180   | ----- | 672    | 2,260  | 460    | 281   | 147   | 165   | 102   |
| 31    | 158   | ----- | 290    | 170   | ----- | 767    | -----  | 440    | ----- | 465   | 164   | ----- |
| TOTAL | 4,947 | 9,063 | 11,409 | 7,740 | 8,840 | 18,373 | 72,284 | 41,540 | 6,282 | 3,117 | 4,484 | 3,687 |
| MEAN  | 160   | 302   | 368    | 250   | 316   | 593    | 2,409  | 1,340  | 209   | 101   | 145   | 123   |
| MAX   | 340   | 603   | 686    | 350   | 500   | 1,050  | 3,690  | 2,970  | 410   | 465   | 418   | 155   |
| MIN   | 90    | 150   | 250    | 160   | 180   | 310    | 788    | 440    | 117   | 41    | 81    | 96    |
| CFSM  | .43   | .82   | 1.00   | .68   | .86   | 1.61   | 6.55   | 3.64   | .57   | .27   | .39   | .33   |
| IN.   | .50   | .92   | 1.15   | .78   | .89   | 1.86   | 7.31   | 4.20   | .64   | .32   | .45   | .37   |

CAL YR 1970 TOTAL 235,758 MEAN 646 MAX 4,450 MIN 51 CFSM 1.76 IN 23.83  
 WTR YR 1971 TOTAL 191,766 MEAN 525 MAX 3,690 MIN 41 CFSM 1.43 IN 19.39

NOTE.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

01085500 Contoocook River below Hopkinton Dam, at West Hopkinton, N.H.

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

DRAINAGE AREA.--427 sq mi.

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

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

AVERAGE DISCHARGE.--8 years (1963-71), 604 cfs (19.21 inches per year), adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 3890 cfs Apr. 15 (gage height, 7.08 ft); minimum daily, 20 cfs July 12.

Period of record: Maximum discharge, 5,260 cfs Apr. 24, 1969 (gage height, 8.66 ft); minimum daily, 15 cfs July 22, 1965.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants and by Nubanusit Lake, Edward MacDowell Reservoir since 1950, Highland Lake, Lake Franklin Pierce (formerly Jackman Reservoir), Hopkinton Lake since 1962 (see p. 65), and other reservoirs above station. Diversion from Hopkinton Lake to Everett Lake on Piscataquog River during periods of high flow in March 1968 and April 1969.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC    | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|--------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| 1     | 152   | 113   | 382    | 300   | 240   | 630    | 820    | 2,310  | 496   | 269   | 468   | 161   |
| 2     | 136   | 168   | 435    | 270   | 240   | 700    | 920    | 2,080  | 446   | 291   | 382   | 136   |
| 3     | 116   | 233   | 414    | 240   | 250   | 620    | 1,250  | 1,950  | 367   | 199   | 286   | 113   |
| 4     | 107   | 152   | 377    | 210   | 225   | 600    | 2,010  | 2,430  | 261   | 171   | 220   | 139   |
| 5     | 175   | 282   | 682    | 350   | 220   | 580    | 2,380  | 2,780  | 210   | 110   | 225   | 102   |
| 6     | 130   | 252   | 724    | 310   | 205   | 500    | 2,620  | 2,670  | 236   | 38    | 230   | 80    |
| 7     | 115   | 240   | 634    | 380   | 200   | 430    | 2,600  | 2,230  | 352   | 113   | 189   | 125   |
| 8     | 130   | 214   | 556    | 380   | 230   | 450    | 2,280  | 1,930  | 367   | 71    | 152   | 107   |
| 9     | 130   | 286   | 457    | 300   | 260   | 450    | 2,070  | 1,720  | 387   | 73    | 139   | 100   |
| 10    | 125   | 214   | 457    | 200   | 290   | 440    | 1,960  | 1,740  | 278   | 94    | 142   | 100   |
| 11    | 120   | 203   | 446    | 290   | 310   | 420    | 2,210  | 1,680  | 225   | 41    | 130   | 102   |
| 12    | 110   | 196   | 387    | 290   | 300   | 410    | 2,500  | 1,490  | 221   | 20    | 125   | 102   |
| 13    | 130   | 217   | 309    | 290   | 260   | 390    | 2,870  | 1,190  | 199   | 34    | 136   | 127   |
| 14    | 110   | 225   | 291    | 280   | 230   | 360    | 3,350  | 1,720  | 175   | 35    | 110   | 130   |
| 15    | 100   | 178   | 414    | 290   | 400   | 500    | 3,780  | 1,810  | 206   | 40    | 105   | 130   |
| 16    | 110   | 295   | 357    | 260   | 500   | 750    | 3,680  | 1,490  | 178   | 38    | 122   | 139   |
| 17    | 150   | 419   | 362    | 200   | 550   | 1,000  | 2,900  | 1,420  | 165   | 44    | 107   | 145   |
| 18    | 200   | 337   | 409    | 270   | 500   | 1,200  | 2,550  | 1,270  | 158   | 51    | 100   | 171   |
| 19    | 180   | 309   | 387    | 210   | 490   | 1,200  | 2,450  | 1,120  | 145   | 107   | 107   | 100   |
| 20    | 220   | 377   | 332    | 240   | 480   | 1,050  | 2,740  | 943    | 110   | 122   | 110   | 165   |
| 21    | 220   | 446   | 400    | 230   | 420   | 960    | 3,400  | 892    | 119   | 49    | 105   | 142   |
| 22    | 110   | 508   | 390    | 250   | 450   | 860    | 3,720  | 826    | 214   | 94    | 92    | 136   |
| 23    | 248   | 508   | 400    | 190   | 470   | 800    | 3,640  | 868    | 229   | 116   | 77    | 136   |
| 24    | 372   | 616   | 380    | 180   | 480   | 760    | 3,260  | 832    | 196   | 105   | 73    | 116   |
| 25    | 393   | 586   | 350    | 250   | 440   | 720    | 2,810  | 706    | 165   | 51    | 84    | 113   |
| 26    | 332   | 457   | 370    | 270   | 400   | 680    | 2,720  | 832    | 196   | 94    | 92    | 119   |
| 27    | 352   | 309   | 360    | 270   | 430   | 670    | 2,450  | 676    | 161   | 105   | 102   | 110   |
| 28    | 273   | 337   | 350    | 290   | 460   | 630    | 2,180  | 616    | 168   | 92    | 152   | 116   |
| 29    | 236   | 352   | 340    | 280   | ----- | 640    | 2,150  | 598    | 182   | 87    | 206   | 192   |
| 30    | 206   | 332   | 320    | 210   | ----- | 700    | 2,380  | 550    | 304   | 136   | 199   | 107   |
| 31    | 165   | ----- | 310    | 170   | ----- | 780    | -----  | 514    | ----- | 382   | 133   | ----- |
| TOTAL | 5,653 | 9,361 | 12,782 | 8,150 | 9,930 | 20,880 | 76,650 | 43,883 | 7,116 | 3,272 | 4,900 | 3,761 |
| MEAN  | 182   | 312   | 412    | 263   | 355   | 674    | 2,555  | 1,416  | 237   | 106   | 158   | 125   |
| MAX   | 393   | 616   | 724    | 380   | 550   | 1,200  | 3,780  | 2,780  | 496   | 382   | 468   | 192   |
| MIN   | 100   | 113   | 291    | 170   | 200   | 360    | 820    | 514    | 110   | 20    | 73    | 80    |
| MEAN† | 182   | 315   | 416    | 264   | 359   | 675    | 2,554  | 1,411  | 235   | 104   | 155   | 123   |
| CFSM† | .43   | .74   | .97    | .62   | .84   | 1.58   | 5.98   | 3.30   | .55   | .24   | .36   | .29   |
| IN.†  | .49   | .82   | 1.12   | .71   | .88   | 1.82   | 6.68   | 3.81   | .61   | .28   | .42   | .32   |

CAL YR 1970 TOTAL 257,787 MEAN 706 MAX 3,900 MIN 38 MEAN† 705 CFSM† 1.65 IN† 22.42  
 WTR YR 1971 TOTAL 206,338 MEAN 565 MAX 3,780 MIN 20 MEAN† 565 CFSM† 1.32 IN† 17.97

† Adjusted for change in contents in Hopkinton Lake.

NOTE.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

01085800 West Branch Warner River near Bradford, N. H.

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

DRAINAGE AREA.--5.75 sq mi.

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

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

AVERAGE DISCHARGE.--9 years, 9.71 cfs (22.93 inches per year).

EXTREMES.--Current year: Maximum discharge, 429 cfs May 4 (gage height, 7.97 ft), from rating curve extended above 130 cfs; minimum, 0.36 cfs July 29.

Period of record: Maximum discharge, 481 cfs Apr. 10, 1969 (gage height, 8.23 ft), from rating curve extended above 130 cfs; minimum, about 0.06 cfs about Sept. 20, 1964.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN  | FEB   | MAR   | APR     | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|------|-------|-------|---------|-------|-------|-------|-------|-------|
| 1     | 1.2   | 2.3   | 6.0   | 2.9  | 1.6   | 8.4   | 9.0     | 41    | 4.2   | .70   | 7.8   | 1.0   |
| 2     | .81   | 2.1   | 5.6   | 2.9  | 1.5   | 7.3   | 15      | 40    | 3.5   | .70   | 2.3   | .82   |
| 3     | 1.3   | 2.0   | 5.1   | 2.8  | 1.5   | 6.5   | 60      | 85    | 3.9   | .66   | 3.9   | .70   |
| 4     | 3.8   | 2.0   | 17    | 2.8  | 1.5   | 6.2   | 46      | 194   | 3.5   | .54   | 9.8   | .66   |
| 5     | 1.9   | 2.1   | 12    | 3.0  | 1.5   | 5.8   | 34      | 64    | 3.1   | .48   | 3.3   | .58   |
| 6     | 1.2   | 2.3   | 8.0   | 4.5  | 1.5   | 5.5   | 29      | 41    | 2.5   | .45   | 1.7   | .54   |
| 7     | .95   | 2.2   | 6.0   | 3.9  | 1.5   | 5.4   | 27      | 31    | 2.4   | .45   | 1.1   | .54   |
| 8     | .77   | 2.0   | 5.0   | 3.5  | 1.5   | 5.3   | 20      | 26    | 2.8   | .45   | .91   | .54   |
| 9     | .69   | 1.7   | 4.9   | 3.2  | 2.5   | 5.4   | 18      | 35    | 6.4   | .45   | .74   | .54   |
| 10    | .65   | 1.7   | 4.8   | 3.0  | 3.6   | 5.2   | 30      | 33    | 3.3   | .42   | .66   | .51   |
| 11    | .61   | 2.3   | 4.5   | 2.8  | 3.4   | 5.1   | 63      | 24    | 2.4   | .42   | .74   | .48   |
| 12    | .61   | 3.5   | 4.3   | 2.7  | 3.1   | 4.9   | 82      | 21    | 2.1   | .42   | 1.3   | .86   |
| 13    | .61   | 3.5   | 4.1   | 2.5  | 4.0   | 4.9   | 97      | 35    | 1.9   | .39   | 1.0   | 1.6   |
| 14    | .65   | 3.1   | 4.0   | 2.4  | 20    | 4.9   | 93      | 37    | 1.7   | .39   | .82   | 3.5   |
| 15    | .90   | 3.2   | 3.8   | 2.3  | 12    | 7.5   | 55      | 23    | 1.5   | .39   | .62   | 4.9   |
| 16    | 2.3   | 5.4   | 3.7   | 2.2  | 8.0   | 27    | 38      | 19    | 1.5   | .39   | .51   | 2.7   |
| 17    | 1.9   | 5.6   | 3.8   | 2.1  | 6.5   | 16    | 32      | 17    | 1.2   | .39   | .51   | 2.1   |
| 18    | 1.4   | 4.2   | 3.8   | 2.0  | 5.7   | 13    | 35      | 15    | 1.1   | .42   | .51   | 2.1   |
| 19    | 1.2   | 6.9   | 3.7   | 1.9  | 5.6   | 11    | 85      | 13    | 1.0   | .78   | .48   | 1.8   |
| 20    | 1.1   | 16    | 3.6   | 1.8  | 5.2   | 11    | 121     | 12    | .91   | 1.9   | .45   | 1.3   |
| 21    | .81   | 24    | 3.5   | 1.7  | 5.1   | 9.5   | 95      | 11    | .86   | .96   | .45   | 1.4   |
| 22    | 1.4   | 14    | 3.4   | 1.7  | 4.8   | 8.6   | 80      | 12    | .86   | .66   | .42   | 1.5   |
| 23    | 13    | 16    | 3.3   | 1.6  | 4.6   | 8.2   | 56      | 10    | .86   | .58   | .51   | 1.1   |
| 24    | 11    | 12    | 3.3   | 1.6  | 4.6   | 8.4   | 53      | 9.0   | .86   | .51   | .48   | .96   |
| 25    | 5.7   | 7.8   | 3.3   | 1.5  | 4.8   | 8.8   | 63      | 8.0   | .91   | .45   | .48   | .82   |
| 26    | 4.3   | 5.7   | 3.3   | 1.6  | 4.3   | 8.2   | 50      | 8.0   | 2.4   | .42   | .48   | .78   |
| 27    | 4.3   | 5.7   | 3.2   | 1.9  | 7.5   | 8.0   | 47      | 7.4   | 1.4   | .42   | .51   | .70   |
| 28    | 3.8   | 5.6   | 3.1   | 1.8  | 11    | 7.7   | 45      | 6.8   | 1.0   | .42   | 17    | .66   |
| 29    | 3.1   | 5.2   | 3.0   | 1.7  | ----- | 7.4   | 80      | 6.0   | .78   | .70   | 7.6   | .66   |
| 30    | 2.5   | 5.6   | 2.9   | 1.7  | ----- | 8.2   | 50      | 5.0   | .78   | 3.2   | 2.8   | .66   |
| 31    | 2.3   | ----- | 2.9   | 1.6  | ----- | 8.3   | -----   | 4.9   | ----- | 5.2   | 1.5   | ----- |
| TOTAL | 76.76 | 185.7 | 148.9 | 73.6 | 138.4 | 257.6 | 1,608.0 | 895.1 | 61.62 | 24.71 | 71.38 | 37.01 |
| MEAN  | 2.48  | 6.19  | 4.80  | 2.37 | 4.94  | 8.31  | 53.6    | 28.9  | 2.05  | .80   | 2.30  | 1.23  |
| MAX   | 13    | 34    | 17    | 4.5  | 20    | 27    | 121     | 194   | 6.4   | 5.2   | 17    | 4.9   |
| MIN   | .61   | 1.7   | 2.9   | 1.5  | 1.5   | 4.9   | 9.0     | 4.9   | .78   | .39   | .42   | .48   |
| CFSM  | .43   | 1.08  | .83   | .41  | .86   | 1.45  | 9.32    | 5.03  | .36   | .14   | .40   | .21   |
| IV.   | .50   | 1.20  | .96   | .48  | .90   | 1.67  | 10.40   | 5.79  | .40   | .16   | .46   | .24   |

CAL YR 1970 TOTAL 3,438.09 MEAN 9.42 MAX 165 MIN .25 CFSM 1.64 IN 22.24  
WTR YR 1971 TOTAL 3,578.78 MEAN 9.80 MAX 194 MIN .39 CFSM 1.70 IN 23.15

## PEAK DISCHARGE (BASE, 85 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-13 | 2015 | 6.32  | 152       |      |      |       |           |
| 4-20 | 1800 | 6.73  | 206       |      |      |       |           |
| 4-29 | 1430 | 5.73  | 93        |      |      |       |           |
| 5-4  | 0845 | 7.97  | 429       |      |      |       |           |



## MERRIMACK RIVER BASIN

01086000 Warner River at Davisville, N. H.

LOCATION.--Lat 43°15'06", long 71°43'54", Merrimack County, on left bank 60 ft downstream from bridge on State Highway 127 at Davisville, 2.2 miles northwest of Contoocook, and 2.4 miles upstream from mouth.

DRAINAGE AREA.--146 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 380 ft (from topographic map). Prior to Dec. 22, 1939, chain gage at bridge 60 ft upstream at same datum.

AVERAGE DISCHARGE.--32 years, 229 cfs (21.30 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,620 cfs Apr. 14 (gage height, 7.19 ft); minimum, 7.4 cfs Aug. 27.  
Period of record: Maximum discharge, 4,510 cfs Mar. 27, 1953 (gage height, 9.88 ft); minimum, 2.6 cfs Aug. 17, 18, 1965.  
Flood of September 1938 reached a stage of 12.8 ft, from information by local residents.

REMARKS.--Records good. Prior to 1948, slight diurnal fluctuation at low flow caused by mill above station.

REVISIONS (WATER YEARS).--WSP 1901: 1960.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 28    | 55    | 103   | 75    | 70    | 240   | 276    | 859    | 134   | 23    | 32    | 33    |
| 2     | 25    | 49    | 97    | 76    | 69    | 255   | 314    | 753    | 113   | 23    | 39    | 25    |
| 3     | 24    | 46    | 93    | 76    | 68    | 250   | 522    | 731    | 110   | 21    | 36    | 20    |
| 4     | 29    | 44    | 134   | 75    | 68    | 228   | 823    | 1,300  | 108   | 20    | 70    | 18    |
| 5     | 32    | 47    | 192   | 77    | 68    | 207   | 835    | 1,540  | 96    | 19    | 72    | 17    |
| 6     | 30    | 50    | 176   | 88    | 72    | 198   | 799    | 1,260  | 83    | 20    | 51    | 14    |
| 7     | 28    | 51    | 140   | 91    | 72    | 189   | 775    | 988    | 76    | 20    | 39    | 13    |
| 8     | 26    | 47    | 115   | 86    | 72    | 181   | 705    | 775    | 69    | 19    | 32    | 13    |
| 9     | 23    | 44    | 110   | 79    | 77    | 170   | 611    | 680    | 75    | 16    | 31    | 13    |
| 10    | 22    | 43    | 115   | 76    | 85    | 160   | 620    | 680    | 72    | 15    | 26    | 12    |
| 11    | 21    | 45    | 108   | 75    | 83    | 155   | 889    | 607    | 63    | 13    | 23    | 11    |
| 12    | 21    | 51    | 104   | 76    | 80    | 150   | 1,220  | 526    | 56    | 13    | 22    | 14    |
| 13    | 24    | 52    | 97    | 73    | 82    | 143   | 1,410  | 490    | 52    | 12    | 20    | 20    |
| 14    | 25    | 51    | 97    | 70    | 112   | 148   | 1,580  | 630    | 48    | 13    | 19    | 23    |
| 15    | 25    | 56    | 88    | 72    | 160   | 155   | 1,520  | 589    | 45    | 12    | 17    | 35    |
| 16    | 33    | 69    | 82    | 70    | 167   | 231   | 1,300  | 502    | 40    | 11    | 16    | 39    |
| 17    | 37    | 69    | 82    | 69    | 170   | 366   | 1,060  | 478    | 37    | 10    | 13    | 39    |
| 18    | 34    | 65    | 89    | 69    | 165   | 363   | 949    | 450    | 35    | 11    | 12    | 36    |
| 19    | 35    | 65    | 93    | 68    | 163   | 342   | 943    | 401    | 33    | 12    | 11    | 32    |
| 20    | 33    | 86    | 93    | 68    | 157   | 317   | 1,240  | 352    | 30    | 17    | 11    | 28    |
| 21    | 30    | 167   | 86    | 68    | 155   | 324   | 1,450  | 314    | 28    | 17    | 10    | 27    |
| 22    | 31    | 181   | 75    | 67    | 150   | 301   | 1,460  | 321    | 28    | 14    | 9.8   | 25    |
| 23    | 44    | 173   | 79    | 67    | 145   | 285   | 1,360  | 304    | 26    | 13    | 9.2   | 23    |
| 24    | 115   | 173   | 79    | 67    | 145   | 275   | 1,180  | 261    | 25    | 12    | 8.9   | 21    |
| 25    | 115   | 152   | 82    | 64    | 140   | 260   | 1,050  | 231    | 23    | 10    | 8.6   | 20    |
| 26    | 89    | 123   | 86    | 65    | 134   | 250   | 968    | 213    | 31    | 10    | 8.3   | 18    |
| 27    | 77    | 110   | 83    | 73    | 145   | 240   | 865    | 195    | 30    | 10    | 8.6   | 17    |
| 28    | 76    | 103   | 81    | 76    | 210   | 220   | 770    | 189    | 28    | 9.5   | 17    | 16    |
| 29    | 75    | 101   | 79    | 73    | ----- | 231   | 787    | 173    | 26    | 10    | 64    | 15    |
| 30    | 65    | 101   | 77    | 72    | ----- | 255   | 937    | 160    | 24    | 22    | 65    | 14    |
| 31    | 58    | ----- | 76    | 72    | ----- | 264   | -----  | 150    | ----- | 27    | 44    | ----- |
| TOTAL | 1,330 | 2,469 | 3,091 | 2,273 | 3,284 | 7,353 | 29,218 | 17,102 | 1,644 | 474.5 | 845.4 | 651   |
| MEAN  | 42.9  | 82.3  | 99.7  | 73.3  | 117   | 237   | 974    | 552    | 54.8  | 15.3  | 27.3  | 21.7  |
| MAX   | 115   | 181   | 192   | 91    | 210   | 366   | 1,580  | 1,540  | 134   | 27    | 72    | 39    |
| MIN   | 21    | 43    | 75    | 64    | 68    | 143   | 276    | 150    | 23    | 9.5   | 8.3   | 11    |
| CFSM  | .29   | .56   | .68   | .50   | .80   | 1.62  | 6.67   | 3.78   | .38   | .10   | .19   | .15   |
| IN.   | .34   | .63   | .79   | .58   | .84   | 1.87  | 7.44   | 4.36   | .42   | .12   | .22   | .17   |

CAL YR 1970 TOTAL 83,404.7 MEAN 229 MAX 2,030 MIN 5.7 CFSM 1.57 IN 21.25  
WTR YR 1971 TOTAL 69,734.9 MEAN 191 MAX 1,580 MIN 8.3 CFSM 1.31 IN 17.77

## PEAK DISCHARGE (BASE, 1,200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-14 | 0830 | 7.19  | 1,620     |      |      |       |           |
| 4-22 | 0430 | 7.03  | 1,490     |      |      |       |           |
| 5-5  | 0430 | 7.17  | 1,600     |      |      |       |           |

01087000 Blackwater River near Webster, N. H.

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

DRAINAGE AREA.--129 sq mi.

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

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

AVERAGE DISCHARGE.--46 years, 207 cfs (21.79 inches per year), adjusted to present site.

EXTREMES.--Current year: Maximum discharge, 1,540 cfs May 6 (gage height, 6.24 ft); minimum, 20 cfs July 16-19, Aug. 27.

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

REMARKS.--Records good except those for period of no gage-height record, which are fair. High flow regulated by Blackwater Reservoir since 1941 (see p. 65). Some regulation at low flow prior to 1953 by mill above station.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL  | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|------|-------|-------|
| 1     | 47    | 67    | 114   | 75    | 71    | 170   | 239    | 775    | 130   | 34   | 62    | 57    |
| 2     | 44    | 64    | 119   | 75    | 70    | 197   | 255    | 665    | 125   | 33   | 65    | 46    |
| 3     | 42    | 59    | 114   | 75    | 68    | 191   | 352    | 617    | 120   | 31   | 59    | 39    |
| 4     | 47    | 57    | 130   | 76    | 66    | 179   | 533    | 906    | 115   | 30   | 80    | 34    |
| 5     | 51    | 59    | 191   | 76    | 66    | 168   | 710    | 1,410  | 110   | 28   | 93    | 31    |
| 6     | 57    | 59    | 170   | 78    | 66    | 162   | 755    | 1,450  | 96    | 27   | 77    | 31    |
| 7     | 56    | 58    | 145   | 82    | 68    | 156   | 695    | 928    | 86    | 26   | 62    | 30    |
| 8     | 50    | 56    | 105   | 88    | 70    | 148   | 590    | 655    | 80    | 27   | 50    | 31    |
| 9     | 43    | 53    | 110   | 86    | 74    | 146   | 501    | 547    | 78    | 27   | 42    | 30    |
| 10    | 37    | 51    | 115   | 78    | 78    | 143   | 466    | 522    | 82    | 27   | 38    | 29    |
| 11    | 32    | 53    | 105   | 76    | 76    | 143   | 566    | 505    | 84    | 26   | 36    | 28    |
| 12    | 30    | 58    | 100   | 74    | 74    | 144   | 755    | 432    | 78    | 24   | 36    | 33    |
| 13    | 32    | 63    | 98    | 72    | 78    | 144   | 1,080  | 387    | 70    | 23   | 35    | 42    |
| 14    | 31    | 64    | 93    | 72    | 86    | 144   | 1,250  | 445    | 64    | 22   | 33    | 52    |
| 15    | 30    | 66    | 86    | 70    | 105   | 156   | 1,260  | 519    | 58    | 21   | 32    | 70    |
| 16    | 37    | 75    | 82    | 72    | 150   | 193   | 1,080  | 466    | 54    | 21   | 30    | 76    |
| 17    | 48    | 75    | 86    | 70    | 160   | 258   | 840    | 387    | 50    | 21   | 29    | 76    |
| 18    | 83    | 64    | 92    | 70    | 160   | 305   | 690    | 346    | 46    | 21   | 27    | 74    |
| 19    | 77    | 106   | 94    | 68    | 155   | 322   | 660    | 311    | 43    | 23   | 26    | 66    |
| 20    | 64    | 97    | 92    | 68    | 150   | 308   | 796    | 275    | 40    | 30   | 25    | 57    |
| 21    | 54    | 148   | 83    | 68    | 145   | 291   | 1,120  | 251    | 38    | 32   | 28    | 53    |
| 22    | 50    | 230   | 76    | 66    | 140   | 270   | 1,290  | 258    | 36    | 33   | 25    | 49    |
| 23    | 59    | 243   | 78    | 66    | 135   | 246   | 1,220  | 258    | 34    | 33   | 24    | 45    |
| 24    | 131   | 212   | 80    | 66    | 130   | 225   | 1,030  | 241    | 33    | 30   | 23    | 41    |
| 25    | 205   | 189   | 84    | 66    | 125   | 210   | 851    | 216    | 32    | 29   | 22    | 38    |
| 26    | 185   | 155   | 86    | 68    | 125   | 199   | 780    | 197    | 32    | 28   | 21    | 34    |
| 27    | 143   | 130   | 84    | 70    | 125   | 191   | 730    | 179    | 35    | 27   | 21    | 32    |
| 28    | 114   | 115   | 80    | 73    | 135   | 187   | 650    | 169    | 39    | 26   | 30    | 29    |
| 29    | 94    | 111   | 78    | 76    | ----- | 193   | 622    | 160    | 37    | 27   | 45    | 27    |
| 30    | 81    | 111   | 76    | 75    | ----- | 208   | 700    | 150    | 36    | 42   | 64    | 26    |
| 31    | 74    | ----- | 76    | 73    | ----- | 227   | -----  | 140    | ----- | 45   | 70    | ----- |
| TOTAL | 2,128 | 2,948 | 3,122 | 2,268 | 2,951 | 6,224 | 23,066 | 14,767 | 1,961 | 874  | 1,310 | 1,306 |
| MEAN  | 68.6  | 98.3  | 101   | 73.2  | 105   | 201   | 769    | 476    | 65.4  | 28.2 | 42.3  | 43.5  |
| MAX   | 205   | 243   | 191   | 88    | 160   | 322   | 1,290  | 1,450  | 130   | 45   | 93    | 76    |
| MIN   | 30    | 51    | 76    | 66    | 66    | 143   | 239    | 140    | 32    | 21   | 21    | 26    |
| CFSM  | .53   | .76   | .78   | .57   | .81   | 1.56  | 5.96   | 3.69   | .51   | .22  | .33   | .34   |
| IN.   | .61   | .85   | .90   | .65   | .85   | 1.79  | 6.65   | 4.26   | .57   | .25  | .38   | .38   |

CAL YR 1970 TOTAL 74,168 MEAN 203 MAX 1,510 MIN 14 CFSM 1.57 IN 21.39  
WTR YR 1971 TOTAL 62,925 MEAN 172 MAX 1,450 MIN 21 CFSM 1.33 IN 18.15

NOTE.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation. No gage-height record May 29 to July 15.

## MERRIMACK RIVER BASIN

01088000 Contoocook River at Penacook, N.H.

LOCATION.--Lat 43°17'12", long 71°35'56", Merrimack County, on right bank at Penacook, 0.5 mile upstream from mouth.

DRAINAGE AREA.--766 sq mi.

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October 1928, published in WSP 1301.

GAGE.--Water-stage recorder. Datum of gage is 273.09 ft above mean sea level.

AVERAGE DISCHARGE.--43 years, 1,231 cfs (21.82 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 7,380 cfs Apr. 15 (gage height, 5.56 ft), minimum; 86 cfs July 13; minimum daily, 93 cfs July 13.  
 Period of record: Maximum discharge, 46,800 cfs Mar. 20, 1936 (gage height, 14.26 ft, from floodmarks); minimum, 18 cfs Sept. 7, 1968; minimum daily, 57 cfs Oct. 12, 1964, Aug. 16, 1965. Maximum discharge since construction of Hopkinton and Everett Dams in 1962, 10,300 cfs Apr. 25, 1969 (gage height, 6.29 ft).  
 Stage and discharge of flood of Mar. 20, 1936, are the greatest since at least 1725.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Nubanusit Lake, Edward MacDowell Reservoir since 1950, Highland Lake, Lake Franklin Pierce (formerly Jackman Reservoir), Hopkinton Lake since 1962, Blackwater Reservoir since 1941 (see p. 65 ), and other reservoirs above station. Diversion from Hopkinton Lake to Everett Lake on Piscataquog River at times during periods of high flow in March 1968 and April 1969.

REVISIONS (WATER YEARS).--WSP 756: 1933(M), drainage area. WSP 1231: 1929, 1931. WSP 1901: 1960.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV    | DEC    | JAN    | FEB    | MAR    | APR     | MAY    | JUN    | JUL   | AUG   | SEP   |
|-------|-------|--------|--------|--------|--------|--------|---------|--------|--------|-------|-------|-------|
| 1     | 219   | 307    | 630    | 520    | 410    | 1,150  | 1,550   | 4,480  | 858    | 381   | 599   | 324   |
| 2     | 259   | 285    | 700    | 470    | 450    | 1,250  | 1,710   | 4,070  | 788    | 388   | 572   | 308   |
| 3     | 219   | 354    | 690    | 410    | 430    | 1,160  | 1,950   | 3,740  | 722    | 313   | 489   | 255   |
| 4     | 253   | 301    | 700    | 380    | 410    | 1,070  | 2,550   | 4,830  | 610    | 259   | 444   | 235   |
| 5     | 238   | 409    | 1,050  | 370    | 400    | 995    | 4,380   | 6,050  | 510    | 234   | 465   | 255   |
| 6     | 264   | 395    | 1,230  | 360    | 390    | 940    | 4,780   | 6,020  | 486    | 163   | 430   | 189   |
| 7     | 229   | 395    | 1,090  | 600    | 360    | 858    | 4,850   | 5,030  | 573    | 149   | 359   | 214   |
| 8     | 243   | 381    | 940    | 640    | 400    | 810    | 4,380   | 4,020  | 610    | 196   | 308   | 222   |
| 9     | 200   | 388    | 880    | 620    | 450    | 810    | 3,860   | 3,440  | 640    | 135   | 270   | 205   |
| 10    | 205   | 367    | 810    | 380    | 490    | 780    | 3,630   | 3,330  | 528    | 163   | 255   | 193   |
| 11    | 184   | 360    | 740    | 440    | 520    | 777    | 4,230   | 3,250  | 446    | 145   | 240   | 193   |
| 12    | 167   | 331    | 722    | 480    | 520    | 766    | 5,080   | 2,910  | 402    | 95    | 235   | 210   |
| 13    | 205   | 360    | 610    | 510    | 480    | 770    | 5,880   | 2,390  | 388    | 93    | 230   | 222   |
| 14    | 175   | 367    | 573    | 500    | 480    | 680    | 6,780   | 3,040  | 331    | 111   | 230   | 265   |
| 15    | 167   | 360    | 780    | 480    | 650    | 777    | 7,290   | 3,310  | 354    | 117   | 201   | 275   |
| 16    | 196   | 416    | 700    | 450    | 800    | 1,200  | 7,080   | 2,980  | 331    | 119   | 205   | 308   |
| 17    | 219   | 610    | 650    | 350    | 900    | 1,700  | 5,940   | 2,630  | 307    | 119   | 205   | 335   |
| 18    | 313   | 519    | 680    | 450    | 940    | 2,050  | 4,980   | 2,380  | 290    | 135   | 178   | 341   |
| 19    | 307   | 502    | 660    | 430    | 920    | 2,150  | 4,730   | 2,100  | 280    | 145   | 185   | 347   |
| 20    | 307   | 620    | 580    | 440    | 900    | 1,950  | 5,180   | 1,830  | 248    | 243   | 193   | 302   |
| 21    | 307   | 777    | 700    | 420    | 860    | 1,850  | 6,270   | 1,650  | 224    | 159   | 174   | 313   |
| 22    | 290   | 918    | 700    | 430    | 820    | 1,650  | 6,990   | 1,640  | 307    | 167   | 185   | 280   |
| 23    | 307   | 995    | 660    | 350    | 860    | 1,500  | 6,960   | 1,620  | 325    | 192   | 146   | 265   |
| 24    | 610   | 1,070  | 680    | 340    | 820    | 1,400  | 6,300   | 1,530  | 313    | 188   | 163   | 250   |
| 25    | 744   | 1,050  | 600    | 430    | 780    | 1,250  | 5,470   | 1,340  | 280    | 167   | 146   | 222   |
| 26    | 690   | 882    | 640    | 460    | 722    | 1,200  | 5,080   | 1,360  | 296    | 139   | 156   | 222   |
| 27    | 660   | 640    | 640    | 480    | 755    | 1,200  | 4,700   | 1,220  | 301    | 196   | 185   | 226   |
| 28    | 528   | 620    | 600    | 490    | 858    | 1,150  | 4,190   | 1,100  | 269    | 175   | 280   | 210   |
| 29    | 470   | 640    | 580    | 460    | -----  | 1,220  | 3,990   | 1,060  | 285    | 171   | 365   | 265   |
| 30    | 409   | 610    | 560    | 370    | -----  | 1,330  | 4,430   | 969    | 360    | 260   | 383   | 245   |
| 31    | 354   | -----  | 560    | 320    | -----  | 1,440  | -----   | 906    | -----  | 383   | 365   | ----- |
| TOTAL | 9,938 | 16,229 | 22,335 | 13,830 | 17,775 | 37,833 | 145,190 | 86,225 | 12,662 | 5,900 | 8,841 | 7,696 |
| MEAN  | 321   | 541    | 720    | 446    | 635    | 1,220  | 4,840   | 2,781  | 422    | 190   | 285   | 257   |
| MAX   | 744   | 1,070  | 1,230  | 640    | 940    | 2,150  | 7,290   | 6,050  | 858    | 388   | 599   | 347   |
| MIN   | 167   | 285    | 560    | 320    | 360    | 680    | 1,550   | 906    | 224    | 93    | 146   | 189   |
| CFSM  | .42   | .71    | .94    | .58    | .83    | 1.59   | 6.32    | 3.63   | .55    | .25   | .37   | .34   |
| IN.   | .48   | .79    | 1.08   | .67    | .86    | 1.84   | 7.05    | 4.19   | .61    | .29   | .43   | .37   |

CAL YR 1970 TOTAL 471,509 MEAN 1,292 MAX 6,900 MIN 79 CFSM 1.69 IN 22.90  
 WTR YR 1971 TOTAL 384,454 MEAN 1,053 MAX 7,290 MIN 93 CFSM 1.37 IN 18.67

NOTE.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

01089000 Soucook River near Concord, N.H.

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

DRAINAGE AREA.--76.8 sq mi.

PERIOD OF RECORD.--October 1951 to current year.

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

AVERAGE DISCHARGE.--20 years, 106 cfs (18.74 inches per year).

EXTREMES.--Current year: Maximum discharge, 860 cfs Apr. 14 (gage height, 9.20 ft); minimum not determined; minimum daily, 6.0 cfs Aug. 25, 26.

Period of record: Maximum discharge, 2,880 cfs Apr. 6, 1960 (gage height, 13.34 ft); minimum, 1.5 cfs Aug. 7, 1965.

REMARKS.--Records good except those for winter period and periods of indefinite stage-discharge relation, which are fair. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1331: 1952(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| 1     | 10    | 56    | 98    | 56    | 51    | 200   | 210    | 226   | 78    | 16    | 39    | 10    |
| 2     | 10    | 52    | 90    | 56    | 50    | 180   | 252    | 196   | 70    | 17    | 32    | 9.6   |
| 3     | 12    | 51    | 85    | 56    | 48    | 170   | 524    | 254   | 75    | 16    | 34    | 8.8   |
| 4     | 45    | 54    | 166   | 56    | 48    | 155   | 680    | 635   | 89    | 14    | 39    | 9.6   |
| 5     | 42    | 66    | 246   | 58    | 50    | 150   | 611    | 476   | 77    | 13    | 35    | 8.8   |
| 6     | 31    | 90    | 160   | 62    | 52    | 144   | 530    | 333   | 65    | 12    | 28    | 9.0   |
| 7     | 26    | 77    | 140   | 60    | 52    | 137   | 488    | 262   | 59    | 12    | 23    | 9.2   |
| 8     | 23    | 67    | 110   | 57    | 54    | 133   | 415    | 222   | 54    | 11    | 20    | 9.0   |
| 9     | 21    | 60    | 100   | 54    | 56    | 126   | 343    | 224   | 52    | 10    | 18    | 9.0   |
| 10    | 19    | 55    | 90    | 52    | 62    | 119   | 410    | 228   | 47    | 10    | 15    | 8.6   |
| 11    | 19    | 60    | 85    | 52    | 62    | 115   | 788    | 192   | 42    | 9.5   | 14    | 8.6   |
| 12    | 20    | 90    | 80    | 52    | 61    | 114   | 809    | 167   | 39    | 9.0   | 19    | 14    |
| 13    | 20    | 83    | 77    | 52    | 60    | 109   | 812    | 190   | 36    | 8.5   | 18    | 23    |
| 14    | 30    | 73    | 74    | 50    | 80    | 112   | 833    | 350   | 32    | 9.0   | 14    | 27    |
| 15    | 40    | 74    | 70    | 50    | 110   | 123   | 713    | 252   | 28    | 8.5   | 12    | 32    |
| 16    | 81    | 98    | 62    | 50    | 120   | 177   | 521    | 204   | 26    | 8.0   | 11    | 29    |
| 17    | 71    | 90    | 64    | 48    | 120   | 283   | 415    | 232   | 26    | 7.5   | 10    | 28    |
| 18    | 55    | 80    | 66    | 46    | 120   | 266   | 393    | 200   | 24    | 9.0   | 9.2   | 25    |
| 19    | 48    | 75    | 70    | 44    | 120   | 226   | 413    | 166   | 23    | 11    | 8.5   | 23    |
| 20    | 57    | 87    | 70    | 44    | 115   | 196   | 482    | 147   | 20    | 16    | 8.0   | 20    |
| 21    | 58    | 131   | 62    | 44    | 115   | 198   | 479    | 134   | 21    | 15    | 7.5   | 18    |
| 22    | 50    | 135   | 56    | 44    | 110   | 181   | 433    | 172   | 24    | 13    | 7.0   | 16    |
| 23    | 66    | 128   | 58    | 44    | 110   | 170   | 378    | 176   | 21    | 12    | 6.6   | 14    |
| 24    | 248   | 127   | 60    | 43    | 105   | 159   | 318    | 143   | 20    | 11    | 6.2   | 13    |
| 25    | 177   | 104   | 62    | 44    | 105   | 150   | 283    | 127   | 19    | 10    | 6.0   | 12    |
| 26    | 127   | 90    | 63    | 48    | 100   | 143   | 264    | 119   | 23    | 9.2   | 6.0   | 11    |
| 27    | 102   | 83    | 64    | 55    | 105   | 138   | 264    | 110   | 24    | 8.8   | 8.0   | 10    |
| 28    | 85    | 82    | 65    | 57    | 130   | 140   | 234    | 102   | 19    | 11    | 12    | 9.8   |
| 29    | 73    | 88    | 62    | 54    | ----- | 153   | 250    | 94    | 17    | 11    | 23    | 9.2   |
| 30    | 65    | 94    | 60    | 52    | ----- | 186   | 266    | 86    | 16    | 80    | 16    | 8.5   |
| 31    | 58    | ----- | 57    | 52    | ----- | 194   | -----  | 83    | ----- | 55    | 12    | ----- |
| TOTAL | 1,789 | 2,500 | 2,672 | 1,592 | 2,371 | 5,047 | 13,811 | 6,502 | 1,166 | 463.0 | 517.0 | 441.7 |
| MEAN  | 57.7  | 83.3  | 86.2  | 51.4  | 84.7  | 163   | 460    | 210   | 38.9  | 14.9  | 16.7  | 14.7  |
| MAX   | 248   | 135   | 246   | 62    | 130   | 283   | 833    | 635   | 89    | 80    | 39    | 32    |
| MIN   | 10    | 51    | 56    | 43    | 48    | 109   | 210    | 83    | 16    | 7.5   | 6.0   | 8.5   |
| CFSM  | .75   | 1.08  | 1.12  | .67   | 1.10  | 2.12  | 5.99   | 2.73  | .51   | .19   | .22   | .19   |
| IN.   | .87   | 1.21  | 1.29  | .77   | 1.15  | 2.44  | 6.69   | 3.15  | .56   | .22   | .25   | .21   |

CAL YR 1970 TOTAL 42,347.2 MEAN 116 MAX 1,310 MIN 4.8 CFSM 1.51 IN 20.51  
WTR YR 1971 TOTAL 38,871.7 MEAN 106 MAX 833 MIN 6.0 CFSM 1.38 IN 18.83

## PEAK DISCHARGE (BASE, 700 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-4  | 1100 | 8.74  | 722       |      |      |       |           |
| 4-14 | 1000 | 9.20  | 860       |      |      |       |           |
| 5-4  | 1530 | 8.70  | 710       |      |      |       |           |

NOTE.--Stage-discharge relation indefinite  
Oct. 1-5, July 1-30, Aug. 15 to Sept. 2,  
Sept. 5-8, 18-30.

01090800 Piscataquog River below Everett Dam, near East Weare, N. H.

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

DRAINAGE AREA.--63.1 sq mi.

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

AVERAGE DISCHARGE.--8 years, 82.0 cfs (17.65 inches per year), adjusted for storage and diversion.

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

EXTREMES.--Current year: Maximum discharge, 875 cfs Apr. 15 (gage height, 7.65 ft); minimum daily, 4.9 cfs July 14-17.

Period of record: Maximum discharge, 1,530 cfs May 1, 1969 (gage height, 8.73 ft); no flow for part of Aug. 27, Nov. 18, 1964, Oct. 22, 1968, caused by unusual regulation; minimum daily discharge, 0.39 cfs Sept. 6, 1968.

REMARKS.--Records good. Flow regulated by Everett Lake (see p. 65). Diversion from Hopkinton Lake on Contoocook River to Everett Lake during periods of high flow in the spring of 1968 and 1969. Occasional regulation by small reservoirs above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT            | NOV       | DEC     | JAN     | FEB        | MAR        | APR       | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|----------------|-----------|---------|---------|------------|------------|-----------|-------|-------|-------|-------|-------|
| 1           | 12             | 60        | 44      | 40      | 41         | 89         | 143       | 288   | 63    | 10    | 44    | 25    |
| 2           | 12             | 47        | 44      | 40      | 41         | 108        | 170       | 252   | 58    | 12    | 33    | 18    |
| 3           | 12             | 39        | 44      | 40      | 28         | 114        | 222       | 255   | 54    | 10    | 28    | 15    |
| 4           | 13             | 33        | 62      | 40      | 18         | 114        | 285       | 426   | 58    | 8.0   | 26    | 13    |
| 5           | 14             | 50        | 91      | 40      | 37         | 114        | 362       | 466   | 55    | 8.0   | 24    | 12    |
| 6           | 14             | 59        | 84      | 46      | 47         | 114        | 414       | 482   | 50    | 7.0   | 20    | 10    |
| 7           | 13             | 50        | 62      | 39      | 50         | 100        | 414       | 482   | 45    | 7.7   | 17    | 9.4   |
| 8           | 13             | 41        | 27      | 33      | 33         | 91         | 406       | 482   | 44    | 7.4   | 14    | 8.5   |
| 9           | 13             | 36        | 14      | 33      | 42         | 73         | 387       | 474   | 60    | 7.4   | 12    | 8.5   |
| 10          | 13             | 32        | 46      | 33      | 38         | 58         | 362       | 474   | 55    | 7.4   | 9.8   | 8.1   |
| 11          | 13             | 32        | 40      | 46      | 32         | 82         | 376       | 454   | 44    | 6.7   | 14    | 7.1   |
| 12          | 13             | 32        | 28      | 53      | 41         | 81         | 398       | 185   | 38    | 6.3   | 17    | 9.4   |
| 13          | 13             | 32        | 28      | 35      | 45         | 73         | 390       | 168   | 35    | 5.5   | 16    | 14    |
| 14          | 13             | 32        | 46      | 38      | 45         | 73         | 398       | 219   | 29    | 4.9   | 13    | 17    |
| 15          | 73             | 32        | 40      | 33      | 45         | 73         | 651       | 175   | 26    | 4.9   | 11    | 20    |
| 16          | 50             | 38        | 29      | 26      | 78         | 110        | 825       | 143   | 24    | 4.9   | 8.9   | 20    |
| 17          | 30             | 39        | 44      | 26      | 91         | 170        | 651       | 148   | 23    | 4.9   | 7.7   | 20    |
| 18          | 29             | 39        | 55      | 39      | 91         | 185        | 348       | 129   | 20    | 5.5   | 7.1   | 19    |
| 19          | 38             | 38        | 55      | 34      | 91         | 185        | 345       | 114   | 18    | 7.1   | 6.3   | 17    |
| 20          | 41             | 40        | 55      | 36      | 91         | 185        | 406       | 62    | 17    | 14    | 8.5   | 14    |
| 21          | 40             | 58        | 45      | 39      | 91         | 185        | 434       | 58    | 16    | 14    | 9.8   | 14    |
| 22          | 52             | 63        | 39      | 37      | 91         | 158        | 434       | 71    | 19    | 13    | 8.9   | 13    |
| 23          | 120            | 63        | 39      | 37      | 59         | 131        | 398       | 93    | 20    | 11    | 7.4   | 12    |
| 24          | 148            | 63        | 39      | 37      | 67         | 120        | 341       | 110   | 19    | 9.8   | 6.7   | 11    |
| 25          | 118            | 59        | 39      | 32      | 58         | 110        | 313       | 104   | 17    | 8.9   | 6.3   | 9.8   |
| 26          | 97             | 53        | 39      | 28      | 62         | 104        | 310       | 95    | 15    | 8.1   | 5.9   | 8.5   |
| 27          | 118            | 48        | 39      | 28      | 78         | 98         | 285       | 82    | 18    | 7.7   | 5.5   | 7.7   |
| 28          | 89             | 45        | 39      | 28      | 79         | 98         | 255       | 71    | 15    | 7.7   | 18    | 7.4   |
| 29          | 68             | 44        | 59      | 37      | -----      | 100        | 264       | 70    | 10    | 8.1   | 54    | 7.0   |
| 30          | 104            | 44        | 51      | 41      | -----      | 118        | 313       | 65    | 7.0   | 39    | 50    | 6.8   |
| 31          | 84             | -----     | 40      | 41      | -----      | 129        | -----     | 63    | ----- | 50    | 35    | ----- |
| TOTAL       | 1,480          | 1,340     | 1,406   | 1,135   | 1,610      | 3,543      | 11,300    | 6,760 | 972.0 | 326.9 | 544.8 | 382.2 |
| MEAN        | 47.7           | 44.7      | 45.4    | 36.6    | 57.5       | 114        | 377       | 218   | 32.4  | 10.5  | 17.6  | 12.7  |
| MAX         | 148            | 63        | 91      | 53      | 91         | 185        | 825       | 482   | 63    | 50    | 54    | 25    |
| MIN         | 12             | 32        | 14      | 26      | 18         | 58         | 143       | 58    | 7.0   | 4.9   | 5.5   | 6.8   |
| MEAN†       | 49.6           | 43.6      | 48.5    | 36.8    | 58.2       | 112        | 379       | 217   | 29.6  | 11.4  | 17.2  | 12.1  |
| CFSM†       | .79            | .69       | .77     | .58     | .92        | 1.77       | 6.01      | 3.44  | .47   | .18   | .27   | .19   |
| IN.†        | .91            | .77       | .89     | .67     | .96        | 2.04       | 6.70      | 3.96  | .52   | .21   | .31   | .21   |
| CAL YR 1970 | TOTAL 35,343.1 | MEAN 96.8 | MAX 705 | MIN 2.2 | MEAN† 94.6 | CFSM† 1.50 | IN† 20.36 |       |       |       |       |       |
| WTR YR 1971 | TOTAL 30,799.9 | MEAN 84.4 | MAX 825 | MIN 4.9 | MEAN† 84.4 | CFSM† 1.34 | IN† 18.16 |       |       |       |       |       |

† Adjusted for change in contents in Everett Lake.



01091000 South Branch Piscataquog River near Goffstown, N.H.

LOCATION.--Lat 43°00'49", long 71°38'31", Hillsborough County, on right bank 20 ft upstream from highway bridge, 1.4 miles upstream from mouth, and 2.2 miles west of Goffstown.

DRAINAGE AREA.--104 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 310 ft (from topographic map).

AVERAGE DISCHARGE.--31 years, 161 cfs (21.02 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,280 cfs Apr. 14 (gage height, 6.50 ft); minimum, 7.2 cfs July 16, Aug. 27.  
Period of record: Maximum discharge, 4,100 cfs June 25, 1944 (gage height, 9.47 ft); maximum gage height, 14.33 ft Feb. 11, 1970 (ice jam); minimum discharge, 2.4 cfs Aug. 20-22, 1966.

REMARKS.--Records good except those for winter period, which are fair. Prior to 1954, some regulation at low flow by mill above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|------|-------|-------|
| 1     | 14    | 39    | 93    | 78    | 66    | 200   | 340    | 427   | 100   | 29   | 113   | 29    |
| 2     | 14    | 36    | 84    | 80    | 66    | 190   | 400    | 342   | 86    | 29   | 73    | 23    |
| 3     | 31    | 34    | 81    | 82    | 64    | 180   | 710    | 427   | 82    | 28   | 55    | 19    |
| 4     | 38    | 32    | 143   | 88    | 64    | 170   | 800    | 852   | 89    | 24   | 48    | 16    |
| 5     | 31    | 55    | 193   | 94    | 64    | 160   | 750    | 605   | 89    | 21   | 44    | 15    |
| 6     | 23    | 81    | 150   | 110   | 64    | 150   | 650    | 431   | 79    | 20   | 37    | 14    |
| 7     | 17    | 63    | 130   | 96    | 66    | 145   | 530    | 326   | 69    | 18   | 32    | 13    |
| 8     | 16    | 54    | 120   | 84    | 68    | 135   | 430    | 272   | 64    | 16   | 28    | 12    |
| 9     | 13    | 47    | 105   | 75    | 70    | 130   | 380    | 300   | 82    | 15   | 24    | 12    |
| 10    | 12    | 43    | 110   | 72    | 72    | 125   | 480    | 427   | 75    | 14   | 20    | 11    |
| 11    | 12    | 48    | 105   | 70    | 76    | 125   | 810    | 338   | 60    | 13   | 19    | 11    |
| 12    | 11    | 60    | 100   | 70    | 80    | 120   | 1,040  | 268   | 52    | 12   | 25    | 25    |
| 13    | 12    | 59    | 95    | 68    | 95    | 120   | 1,090  | 314   | 49    | 11   | 24    | 44    |
| 14    | 11    | 52    | 90    | 68    | 120   | 130   | 1,210  | 530   | 43    | 11   | 24    | 42    |
| 15    | 12    | 58    | 85    | 68    | 170   | 145   | 1,010  | 359   | 39    | 11   | 20    | 42    |
| 16    | 29    | 93    | 80    | 66    | 165   | 200   | 753    | 286   | 46    | 11   | 17    | 36    |
| 17    | 39    | 81    | 76    | 66    | 160   | 360   | 600    | 338   | 54    | 11   | 15    | 33    |
| 18    | 33    | 70    | 88    | 64    | 160   | 380   | 566    | 303   | 47    | 15   | 14    | 30    |
| 19    | 36    | 70    | 90    | 64    | 155   | 320   | 615    | 251   | 37    | 18   | 12    | 22    |
| 20    | 33    | 89    | 86    | 66    | 150   | 290   | 786    | 216   | 32    | 30   | 12    | 20    |
| 21    | 35    | 165   | 82    | 66    | 145   | 260   | 810    | 193   | 31    | 28   | 13    | 18    |
| 22    | 32    | 150   | 75    | 64    | 140   | 240   | 720    | 231   | 59    | 23   | 12    | 17    |
| 23    | 63    | 136   | 70    | 64    | 140   | 210   | 615    | 219   | 63    | 20   | 12    | 17    |
| 24    | 190   | 134   | 75    | 64    | 140   | 190   | 503    | 180   | 49    | 16   | 11    | 16    |
| 25    | 130   | 109   | 78    | 62    | 135   | 180   | 494    | 160   | 41    | 15   | 9.9   | 15    |
| 26    | 96    | 102   | 80    | 62    | 135   | 170   | 476    | 150   | 51    | 14   | 9.5   | 14    |
| 27    | 78    | 84    | 80    | 68    | 150   | 165   | 413    | 141   | 50    | 13   | 11    | 14    |
| 28    | 64    | 82    | 76    | 72    | 180   | 160   | 355    | 130   | 41    | 11   | 36    | 13    |
| 29    | 54    | 84    | 74    | 72    | ----- | 180   | 449    | 117   | 36    | 12   | 72    | 13    |
| 30    | 50    | 91    | 72    | 70    | ----- | 210   | 548    | 107   | 32    | 225  | 55    | 13    |
| 31    | 44    | ----- | 75    | 68    | ----- | 240   | -----  | 106   | ----- | 163  | 38    | ----- |
| TOTAL | 1,273 | 2,301 | 2,941 | 2,261 | 3,160 | 5,980 | 19,333 | 9,346 | 1,727 | 897  | 935.4 | 619   |
| MEAN  | 41.1  | 76.7  | 94.9  | 72.9  | 112   | 193   | 644    | 301   | 57.6  | 28.9 | 30.2  | 20.6  |
| MAX   | 190   | 165   | 153   | 110   | 180   | 380   | 1,210  | 852   | 100   | 225  | 113   | 44    |
| MIN   | 11    | 32    | 70    | 62    | 64    | 120   | 340    | 106   | 31    | 11   | 9.5   | 11    |
| CFSM  | .40   | .74   | .51   | .70   | 1.05  | 1.86  | 6.19   | 2.89  | .55   | .28  | .29   | .20   |
| IN.   | .46   | .82   | 1.05  | .81   | 1.13  | 2.14  | 6.92   | 3.34  | .62   | .32  | .33   | .22   |

CAL YR 1970 TOTAL 60,796.3 MEAN 167 MAX 2,000 MIN 9.0 CFSM 1.61 IN 21.75

WTR YR 1971 TOTAL 50,773.4 MEAN 139 MAX 1,210 MIN 9.5 CFSM 1.34 IN 18.16

## PEAK DISCHARGE (BASE, 1,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-14 | 0530 | 6.50  | 1,280     |      |      |       |           |

## MERRIMACK RIVER BASIN

01091500 Piscataquog River near Goffstown, N.H.

LOCATION.--Lat 43°00'58", long 71°33'03", Hillsborough County, on left bank 300 ft upstream from highway bridge, 0.2 mile upstream from Harry Brook, 0.4 mile southwest of Grasmere, 0.9 mile downstream from Glen Lake, and 2.5 miles east of Goffstown.

DRAINAGE AREA.--202 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 185 ft (from topographic map). Prior to Dec. 22, 1939, staff gage at same site and datum.

AVERAGE DISCHARGE.--32 years, 297 cfs (19.97 inches per year), adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 2,040 cfs Apr. 14 (gage height, 7.02 ft); minimum daily, 6.5 cfs Oct. 6.

Period of record: Maximum discharge, 6,840 cfs Apr. 5, 1960 (gage height, 10.85 ft); minimum daily, 2.2 cfs Sept. 7, 1962.

Maximum discharge since at least 1733, 21,900 cfs Sept. 21, 1938 (gage height, 17.52 ft, from floodmarks), by computation of flow over dam. Flood of Mar. 19, 1936, reached a discharge of 19,900 cfs by computation of flow over dam.

REMARKS.--Records excellent except those for winter period, which are fair. Flow regulated by Everett Lake 10 miles upstream since 1962 (see p. 65) and occasionally by Glen Lake since 1966. Prior to October 1966, flow regulated by powerplant at outlet of Glen Lake. Diversion from Hopkinton Lake on Contoocook River to Everett Lake during periods of high flow in the spring of 1968 and 1969.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT     | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|---------|-------|-------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| 1     | 27      | 117   | 161   | 140   | 105   | 350    | 556    | 844    | 206   | 63    | 200   | 63    |
| 2     | 26      | 97    | 151   | 140   | 105   | 360    | 703    | 714    | 163   | 57    | 135   | 49    |
| 3     | 31      | 83    | 144   | 140   | 105   | 360    | 1,320  | 796    | 256   | 52    | 97    | 41    |
| 4     | 68      | 74    | 231   | 140   | 100   | 340    | 1,560  | 1,480  | 163   | 48    | 90    | 33    |
| 5     | 145     | 111   | 338   | 145   | 100   | 330    | 1,440  | 1,240  | 21    | 45    | 82    | 29    |
| 6     | 6.5     | 158   | 289   | 155   | 105   | 320    | 1,340  | 969    | 117   | 42    | 70    | 27    |
| 7     | 9.2     | 133   | 185   | 155   | 110   | 310    | 1,260  | 742    | 138   | 38    | 59    | 27    |
| 8     | 36      | 109   | 150   | 150   | 110   | 275    | 1,160  | 627    | 135   | 33    | 54    | 26    |
| 9     | 36      | 93    | 115   | 145   | 115   | 245    | 1,040  | 627    | 158   | 32    | 47    | 23    |
| 10    | 35      | 87    | 125   | 140   | 120   | 230    | 1,120  | 772    | 161   | 29    | 40    | 20    |
| 11    | 35      | 95    | 150   | 135   | 125   | 235    | 1,580  | 681    | 129   | 27    | 40    | 20    |
| 12    | 34      | 107   | 133   | 130   | 150   | 245    | 1,780  | 561    | 111   | 26    | 37    | 33    |
| 13    | 34      | 106   | 129   | 125   | 180   | 225    | 1,830  | 627    | 104   | 24    | 37    | 63    |
| 14    | 34      | 97    | 133   | 120   | 225   | 230    | 1,940  | 948    | 90    | 24    | 38    | 66    |
| 15    | 45      | 106   | 125   | 120   | 300   | 260    | 1,760  | 703    | 80    | 24    | 39    | 69    |
| 16    | 85      | 146   | 120   | 120   | 305   | 435    | 1,770  | 566    | 80    | 23    | 37    | 63    |
| 17    | 120     | 142   | 127   | 115   | 305   | 649    | 1,500  | 643    | 88    | 25    | 35    | 63    |
| 18    | 100     | 123   | 156   | 115   | 300   | 681    | 1,170  | 537    | 80    | 37    | 33    | 58    |
| 19    | 90      | 123   | 166   | 110   | 295   | 675    | 1,120  | 499    | 67    | 37    | 31    | 45    |
| 20    | 85      | 146   | 166   | 110   | 290   | 586    | 1,340  | 400    | 61    | 45    | 28    | 42    |
| 21    | 85      | 251   | 150   | 105   | 285   | 537    | 1,400  | 338    | 63    | 51    | 24    | 35    |
| 22    | 82      | 254   | 140   | 105   | 280   | 484    | 1,310  | 421    | 95    | 44    | 23    | 32    |
| 23    | 195     | 240   | 145   | 100   | 270   | 453    | 1,180  | 430    | 102   | 37    | 22    | 32    |
| 24    | 400     | 231   | 150   | 100   | 265   | 421    | 997    | 387    | 85    | 32    | 20    | 36    |
| 25    | 303     | 195   | 155   | 100   | 260   | 391    | 948    | 354    | 73    | 40    | 19    | 24    |
| 26    | 225     | 166   | 155   | 105   | 260   | 366    | 927    | 326    | 85    | 56    | 19    | 24    |
| 27    | 215     | 153   | 155   | 105   | 280   | 354    | 826    | 296    | 83    | 15    | 19    | 24    |
| 28    | 184     | 146   | 155   | 110   | 330   | 354    | 736    | 268    | 70    | 15    | 21    | 24    |
| 29    | 142     | 146   | 150   | 110   | ----- | 383    | 814    | 244    | 61    | 16    | 74    | 24    |
| 30    | 149     | 156   | 145   | 105   | ----- | 462    | 1,000  | 222    | 62    | 138   | 117   | 24    |
| 31    | 149     | ----- | 140   | 105   | ----- | 517    | -----  | 215    | ----- | 264   | 87    | ----- |
| TOTAL | 3,210.7 | 4,191 | 4,934 | 3,800 | 5,780 | 12,063 | 37,427 | 18,477 | 3,187 | 1,439 | 1,674 | 1,139 |
| MEAN  | 104     | 140   | 159   | 123   | 206   | 389    | 1,248  | 596    | 106   | 46.4  | 54.0  | 38.0  |
| MAX   | 400     | 254   | 338   | 155   | 330   | 681    | 1,940  | 1,480  | 256   | 264   | 200   | 69    |
| MIN   | 6.5     | 74    | 115   | 100   | 100   | 225    | 556    | 215    | 21    | 15    | 19    | 20    |
| MEAN† | 105     | 139   | 162   | 123   | 207   | 387    | 1,250  | 595    | 103   | 47.2  | 53.6  | 37.3  |
| CFSM† | .52     | .69   | .80   | .61   | 1.02  | 1.92   | 6.19   | 2.95   | .51   | .23   | .27   | .18   |
| IN.†  | .60     | .77   | .93   | .70   | 1.07  | 2.21   | 6.90   | 3.40   | .57   | .27   | .31   | .21   |

CAL YR 1970 TOTAL 116,318.7 MEAN 319 MAX 3,400 MIN 6.5 MEAN† 316 CFSM† 1.57 IN† 21.27  
WTR YR 1971 TOTAL 97,321.7 MEAN 267 MAX 1,940 MIN 6.5 MEAN† 267 CFSM† 1.32 IN† 17.92

† Adjusted for change in contents in Everett Lake.

NOTE.--No gage-height record Jan. 10 to Feb. 12.

01092000 Merrimack River near Goffs Falls, below Manchester, N.H.

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

DRAINAGE AREA.--3,092 sq mi.

PERIOD OF RECORD.--October 1936 to current year. October 1936 monthly discharge only, published in WSP 1301.

GAGE.--Water-stage recorder. Datum of gage is 109.27 ft above mean sea level.

AVERAGE DISCHARGE.--35 years, 5,113 cfs (22.46 inches per year).

EXTREMES.--Current year: Maximum discharge, 26,800 cfs May 5 (gage height, 9.99 ft); minimum daily, 483 cfs Aug. 25.

Period of record: Maximum discharge, 102,500 cfs Sept. 23, 1938 (gage height, 25.87 ft), from rating curve extended above 48,000 cfs on basis of computations of flow over dam at gage heights 25.87 and 35.19 ft; minimum daily, 98 cfs Oct. 11, 1964.

Maximum discharge since at least 1722, 150,000 cfs Mar. 20, 1936 (gage height, 35.19 ft, from floodmarks), from rating curve extended above 48,000 cfs by method explained above.

REMARKS.--Records excellent. Flow regulated by powerplants, by Franklin Falls Reservoir since 1942, and by Squam, Newfound, Winnepesaukee, Winnisquam, and other lakes and reservoirs above station. See page 65 for description and monthend contents of many of these reservoirs. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1231: 1937. WSP 1271: 1937(M, m).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV    | DEC     | JAN    | FEB    | MAR     | APR     | MAY     | JUN    | JUL    | AUG    | SEP    |
|-------|--------|--------|---------|--------|--------|---------|---------|---------|--------|--------|--------|--------|
| 1     | 1,850  | 2,230  | 3,400   | 2,800  | 2,420  | 5,220   | 6,550   | 15,100  | 4,560  | 1,190  | 2,000  | 1,360  |
| 2     | 2,410  | 2,160  | 3,090   | 2,740  | 2,360  | 5,600   | 7,260   | 14,100  | 4,450  | 1,920  | 2,440  | 1,840  |
| 3     | 1,470  | 2,290  | 3,180   | 2,600  | 2,450  | 5,400   | 9,950   | 13,700  | 3,470  | 1,120  | 2,510  | 1,450  |
| 4     | 965    | 2,420  | 3,870   | 2,660  | 2,300  | 4,890   | 13,500  | 19,500  | 3,640  | 1,180  | 2,840  | 789    |
| 5     | 3,130  | 2,230  | 5,790   | 2,800  | 2,300  | 4,550   | 15,500  | 25,800  | 3,360  | 1,650  | 2,600  | 811    |
| 6     | 2,080  | 2,620  | 5,700   | 3,280  | 2,400  | 4,560   | 15,200  | 25,100  | 3,120  | 1,370  | 2,390  | 896    |
| 7     | 2,740  | 2,030  | 4,830   | 3,280  | 2,310  | 4,280   | 15,100  | 20,800  | 2,580  | 925    | 2,200  | 1,150  |
| 8     | 2,480  | 1,300  | 3,390   | 3,050  | 2,460  | 3,950   | 14,700  | 17,300  | 2,560  | 675    | 1,670  | 1,350  |
| 9     | 2,960  | 2,650  | 3,110   | 3,050  | 2,420  | 4,020   | 12,600  | 15,200  | 2,930  | 690    | 1,830  | 1,460  |
| 10    | 1,980  | 2,030  | 3,000   | 2,740  | 2,860  | 4,160   | 11,900  | 14,700  | 2,760  | 875    | 1,580  | 684    |
| 11    | 1,360  | 1,650  | 3,130   | 2,660  | 2,660  | 4,160   | 14,500  | 14,400  | 2,940  | 820    | 2,190  | 744    |
| 12    | 840    | 2,350  | 3,340   | 2,840  | 2,800  | 4,110   | 17,000  | 13,500  | 1,960  | 690    | 1,730  | 1,090  |
| 13    | 1,250  | 2,540  | 3,540   | 2,800  | 2,860  | 3,920   | 15,900  | 14,100  | 2,120  | 580    | 1,590  | 1,650  |
| 14    | 1,500  | 2,070  | 3,450   | 2,680  | 3,270  | 3,880   | 22,900  | 15,900  | 1,980  | 870    | 976    | 2,140  |
| 15    | 1,840  | 2,040  | 3,700   | 2,540  | 4,300  | 3,930   | 23,600  | 15,400  | 1,840  | 1,320  | 944    | 2,410  |
| 16    | 2,160  | 2,620  | 3,510   | 2,660  | 4,370  | 5,250   | 21,800  | 13,200  | 1,920  | 770    | 1,120  | 3,020  |
| 17    | 2,680  | 2,400  | 3,400   | 2,640  | 4,440  | 6,940   | 18,200  | 11,300  | 1,550  | 770    | 1,470  | 1,450  |
| 18    | 1,340  | 2,740  | 2,910   | 2,450  | 4,920  | 8,190   | 15,300  | 10,300  | 1,440  | 1,480  | 1,080  | 2,170  |
| 19    | 1,810  | 2,390  | 3,570   | 2,490  | 4,820  | 8,210   | 14,300  | 10,600  | 1,100  | 1,060  | 753    | 2,070  |
| 20    | 1,520  | 2,950  | 3,270   | 2,500  | 4,460  | 7,670   | 15,900  | 10,500  | 1,420  | 630    | 1,270  | 1,740  |
| 21    | 1,920  | 3,600  | 3,200   | 2,360  | 3,810  | 7,230   | 19,600  | 9,870   | 1,370  | 1,520  | 1,050  | 1,930  |
| 22    | 2,280  | 5,430  | 2,750   | 2,320  | 3,690  | 6,650   | 22,300  | 10,300  | 1,600  | 1,480  | 900    | 1,790  |
| 23    | 2,830  | 6,150  | 3,070   | 2,410  | 3,600  | 6,110   | 21,500  | 5,720   | 1,490  | 1,380  | 1,130  | 1,400  |
| 24    | 4,120  | 5,040  | 3,150   | 2,320  | 3,460  | 5,970   | 19,200  | 9,210   | 1,510  | 585    | 928    | 1,290  |
| 25    | 5,060  | 5,440  | 2,500   | 2,220  | 3,300  | 5,840   | 16,700  | 7,950   | 1,480  | 761    | 483    | 1,390  |
| 26    | 5,120  | 4,730  | 2,920   | 2,320  | 3,470  | 5,320   | 15,700  | 6,230   | 1,810  | 1,070  | 914    | 1,290  |
| 27    | 3,790  | 3,530  | 2,860   | 2,560  | 3,300  | 5,350   | 15,300  | 6,970   | 1,760  | 1,520  | 1,640  | 2,030  |
| 28    | 3,490  | 3,130  | 2,950   | 2,800  | 3,950  | 5,220   | 14,000  | 6,860   | 2,070  | 1,340  | 1,960  | 1,390  |
| 29    | 2,150  | 2,950  | 3,120   | 2,880  | -----  | 5,190   | 13,200  | 5,910   | 1,320  | 1,130  | 2,050  | 971    |
| 30    | 2,590  | 3,240  | 3,030   | 2,860  | -----  | 6,240   | 14,800  | 5,390   | 1,600  | 2,610  | 2,360  | 1,700  |
| 31    | 2,370  | -----  | 2,860   | 2,680  | -----  | 6,240   | -----   | 5,160   | -----  | 2,670  | 2,020  | -----  |
| TOTAL | 74,085 | 88,550 | 105,550 | 82,990 | 92,000 | 169,050 | 477,960 | 394,190 | 67,610 | 36,651 | 50,618 | 45,455 |
| MEAN  | 2,390  | 2,965  | 3,406   | 2,677  | 3,266  | 5,421   | 15,930  | 12,720  | 2,254  | 1,182  | 1,633  | 1,517  |
| MAX   | 5,120  | 6,150  | 5,750   | 3,280  | 4,920  | 8,210   | 23,600  | 25,800  | 4,560  | 2,670  | 2,840  | 3,020  |
| MIN   | 840    | 1,300  | 2,500   | 2,220  | 2,300  | 3,880   | 6,550   | 5,180   | 1,100  | 580    | 483    | 684    |
| CFSM  | .77    | .96    | 1.10    | .87    | 1.06   | 1.75    | 5.15    | 4.11    | .73    | .38    | .53    | .49    |
| IN.   | .89    | 1.07   | 1.27    | 1.00   | 1.11   | 2.02    | 5.75    | 4.74    | .81    | .44    | .61    | .55    |

CAL YR 1970 TOTAL 1,917,944 MEAN 5,254 MAX 26,700 MIN 423 CFSM 1.70 IN 23.07  
WTR YR 1971 TOTAL 1,684,189 MEAN 4,614 MAX 25,800 MIN 483 CFSM 1.49 IN 20.26

## PEAK DISCHARGE (BASE, 22,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-15 | 1115 | 9.40  | 24,000    |      |      |       |           |
| 4-22 | 1500 | 9.21  | 23,000    |      |      |       |           |
| 5-05 | 2030 | 9.99  | 26,800    |      |      |       |           |

NOTE.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

01093800 Stony Brook tributary near Temple, N.H.

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

DRAINAGE AREA.--3.60 sq mi.

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

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

AVERAGE DISCHARGE.--8 years, 6.06 cfs (22.86 inches per year).

EXTREMES.--Current year: Maximum discharge, 85 cfs Apr. 13 (gage height, 5.55 ft); maximum gage height, 6.08 ft Feb. 14 (backwater from ice); minimum discharge, 0.12 cfs Aug. 25, 26.

Period of record: Maximum discharge, 220 cfs Apr. 23, 1969 (gage height, 6.53 ft), from rating curve extended above 90 cfs; minimum, 0.02 cfs Aug. 21, 1966.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | .59   | 1.8   | 4.6   | 2.8  | 1.9   | 7.0   | 11    | 21    | 4.0   | .79   | 2.2   | .39   |
| 2     | .59   | 1.6   | 4.0   | 2.9  | 1.8   | 6.0   | 32    | 18    | 3.5   | 1.3   | 1.4   | .33   |
| 3     | .73   | 1.5   | 3.8   | 3.2  | 1.7   | 5.6   | 47    | 29    | 3.8   | .76   | 1.1   | .31   |
| 4     | 1.7   | 1.3   | 13    | 3.5  | 1.7   | 5.5   | 33    | 29    | 4.1   | .58   | .89   | .30   |
| 5     | 1.1   | 6.2   | 8.6   | 3.8  | 1.7   | 6.4   | 26    | 16    | 3.4   | .49   | .77   | .26   |
| 6     | .83   | 4.8   | 6.5   | 4.5  | 1.7   | 5.2   | 22    | 13    | 3.1   | .44   | .55   | .25   |
| 7     | .73   | 3.4   | 5.6   | 3.8  | 1.7   | 5.2   | 19    | 10    | 2.7   | .38   | .44   | .30   |
| 8     | .73   | 2.8   | 4.6   | 3.4  | 1.7   | 5.0   | 14    | 8.9   | 2.8   | .27   | .36   | .31   |
| 9     | .68   | 2.6   | 4.2   | 3.0  | 2.2   | 4.6   | 17    | 15    | 3.8   | .25   | .29   | .30   |
| 10    | .63   | 2.1   | 4.0   | 2.8  | 3.0   | 4.4   | 35    | 15    | 2.7   | .23   | .23   | .25   |
| 11    | .73   | 2.8   | 3.9   | 2.6  | 2.6   | 4.2   | 37    | 10    | 2.3   | .22   | .95   | .24   |
| 12    | .78   | 3.2   | 3.8   | 2.4  | 2.4   | 4.2   | 48    | 8.6   | 2.0   | .21   | 1.1   | 2.6   |
| 13    | .78   | 3.1   | 3.7   | 2.2  | 4.0   | 4.2   | 61    | 17    | 1.8   | .19   | .49   | 1.8   |
| 14    | .78   | 2.7   | 3.7   | 2.1  | 20    | 4.2   | 35    | 17    | 1.7   | .20   | .31   | 2.9   |
| 15    | .83   | 4.6   | 3.5   | 2.0  | 7.0   | 7.0   | 29    | 11    | 1.5   | .22   | .31   | 2.5   |
| 16    | 1.6   | 6.5   | 3.3   | 1.9  | 5.0   | 25    | 22    | 10    | 1.4   | .18   | .29   | 1.4   |
| 17    | 1.5   | 4.6   | 3.1   | 1.8  | 4.8   | 16    | 18    | 13    | 1.3   | .16   | .24   | 1.6   |
| 18    | 1.2   | 3.7   | 3.2   | 1.7  | 4.4   | 12    | 18    | 9.6   | 1.1   | .35   | .21   | 1.4   |
| 19    | 1.2   | 4.2   | 3.5   | 1.6  | 4.1   | 9.6   | 28    | 8.0   | .92   | .70   | .19   | 1.0   |
| 20    | 1.1   | 8.3   | 3.4   | 1.6  | 4.0   | 8.9   | 42    | 7.4   | .81   | .84   | .16   | .83   |
| 21    | .89   | 19    | 3.2   | 1.5  | 3.9   | 7.1   | 39    | 6.8   | .77   | .40   | .16   | .83   |
| 22    | 1.1   | 8.3   | 3.0   | 1.5  | 3.8   | 6.8   | 32    | 9.2   | .99   | .30   | .16   | .74   |
| 23    | 10    | 9.2   | 2.9   | 1.5  | 3.7   | 6.2   | 24    | 7.1   | .89   | .27   | .15   | .59   |
| 24    | 8.3   | 6.8   | 3.0   | 1.5  | 3.4   | 6.0   | 21    | 6.5   | .85   | .22   | .15   | .51   |
| 25    | 4.0   | 5.4   | 3.1   | 1.5  | 2.6   | 5.8   | 27    | 5.8   | .77   | .20   | .15   | .42   |
| 26    | 3.4   | 4.6   | 3.2   | 2.0  | 2.9   | 5.6   | 18    | 5.4   | 2.1   | .21   | .13   | .41   |
| 27    | 3.4   | 4.4   | 3.2   | 3.0  | 3.5   | 5.4   | 16    | 5.2   | 1.1   | .23   | .38   | .38   |
| 28    | 2.6   | 4.2   | 3.1   | 2.5  | 8.0   | 5.3   | 16    | 5.0   | .84   | .20   | 4.1   | .39   |
| 29    | 2.3   | 4.4   | 3.0   | 2.3  | ----- | 6.5   | 32    | 4.6   | .70   | .63   | 1.8   | .39   |
| 30    | 2.0   | 4.6   | 2.9   | 2.1  | ----- | 8.3   | 26    | 4.4   | .62   | 9.5   | .81   | .39   |
| 31    | 1.8   | ----- | 2.8   | 2.0  | ----- | 8.9   | ----- | 4.4   | ----- | 3.2   | .50   | ----- |
| TOTAL | 58.60 | 142.7 | 127.4 | 75.0 | 109.2 | 222.1 | 845   | 350.9 | 58.36 | 24.12 | 20.97 | 24.32 |
| MEAN  | 1.89  | 4.76  | 4.11  | 2.42 | 3.90  | 7.16  | 28.2  | 11.3  | 1.95  | .78   | .68   | .81   |
| MAX   | 10    | 19    | 13    | 4.5  | 20    | 25    | 61    | 29    | 4.1   | 9.5   | 4.1   | 2.9   |
| MIN   | .59   | 1.3   | 2.8   | 1.5  | 1.7   | 4.2   | 11    | 4.4   | .62   | .16   | .13   | .24   |
| CFSM  | .53   | 1.32  | 1.14  | .67  | 1.08  | 1.99  | 7.83  | 3.14  | .54   | .22   | .19   | .23   |
| IN.   | .61   | 1.47  | 1.32  | .78  | 1.13  | 2.30  | 8.73  | 3.63  | .60   | .25   | .22   | .25   |

CAL YR 1970 TOTAL 2,307.02 MEAN 6.32 MAX 110 MIN .16 CFSM 1.76 IN 23.84  
 WTR YR 1971 TOTAL 2,058.67 MEAN 5.64 MAX 61 MIN .13 CFSM 1.57 IN 21.27

PEAK DISCHARGE (BASE, 110 CFS).--No peak above base.

01094000 Souhegan River at Merrimack, N.H.

LOCATION.--Lat 42°51'27", long 71°30'24", Hillsborough County, on left bank at head of Wildcat Falls at Merrimack, 0.4 mile upstream from bridge on Everett Turnpike, and 1.5 miles upstream from mouth.

DRAINAGE AREA.--171 sq mi.

PERIOD OF RECORD.--July 1909 to current year.

GAGE.--Water-stage recorder. Datum of gage is 160.58 ft above mean sea level (levels by Corps of Engineers). Prior to Apr. 12, 1911, nonrecording gage at site 300 ft downstream at datum 0.38 ft lower. Apr. 12, 1911, to Oct. 14, 1913, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--62 years, 280 cfs (22.24 inches per year).

EXTREMES.--Current year. Maximum discharge, 1,830 cfs Apr. 14 (gage height, 5.94 ft); minimum, 15 cfs Aug. 27.

Period of record: Maximum discharge, 16,900 cfs Mar. 19, 1936 (gage height, 16.2 ft), from rating curve extended above 7,300 cfs on basis of velocity-area studies and computation of flow over dam at gage height 12.78 ft; minimum, 3.8 cfs Aug. 17, Sept. 8, Oct. 1, 1965.

Stage and discharge of the flood of Mar. 19, 1936, are the greatest since 1830.

REMARKS.--Records good except those for winter period, which are fair. Slight diurnal fluctuation at times caused by mill above station. Diversion to Pennichuck Brook basin for municipal supply of Nashua during periods of low flow from August 1965 to October 1966, and July 1969 to September 1971. High flow slightly affected by retarding reservoirs since 1963. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 431: 1909-14. WSP 726: Drainage area. WSP 781: 1924(M). WSP 1231: 1914-15(M), 1917(M), 1919-23(M), 1927-28(M), 1929, 1930-34(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC       | JAN    | FEB       | MAR        | APR       | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------------|---------------|----------|-----------|--------|-----------|------------|-----------|--------|-------|-------|-------|-------|
| 1           | 23            | 61       | 162       | 110    | 84        | 433        | 613       | 746    | 202   | 57    | 100   | 39    |
| 2           | 22            | 52       | 156       | 110    | 84        | 421        | 713       | 628    | 178   | 58    | 90    | 29    |
| 3           | 22            | 52       | 141       | 110    | 82        | 397        | 1,360     | 618    | 162   | 74    | 74    | 36    |
| 4           | 25            | 49       | 170       | 110    | 82        | 357        | 1,690     | 1,030  | 170   | 66    | 70    | 26    |
| 5           | 27            | 64       | 341       | 110    | 80        | 341        | 1,480     | 900    | 164   | 57    | 64    | 22    |
| 6           | 30            | 136      | 287       | 115    | 82        | 321        | 1,270     | 713    | 154   | 50    | 63    | 20    |
| 7           | 28            | 124      | 240       | 120    | 84        | 306        | 1,200     | 598    | 141   | 46    | 43    | 19    |
| 8           | 26            | 100      | 154       | 120    | 86        | 294        | 1,090     | 514    | 126   | 45    | 33    | 18    |
| 9           | 24            | 90       | 159       | 115    | 89        | 272        | 930       | 537    | 134   | 37    | 34    | 17    |
| 10          | 24            | 81       | 173       | 110    | 93        | 254        | 960       | 659    | 144   | 33    | 32    | 17    |
| 11          | 24            | 96       | 155       | 105    | 96        | 254        | 1,390     | 584    | 126   | 30    | 31    | 17    |
| 12          | 22            | 120      | 154       | 100    | 94        | 240        | 1,630     | 505    | 108   | 28    | 45    | 21    |
| 13          | 22            | 113      | 144       | 98     | 130       | 227        | 1,620     | 487    | 92    | 26    | 64    | 51    |
| 14          | 22            | 102      | 150       | 95     | 180       | 231        | 1,760     | 856    | 94    | 23    | 55    | 64    |
| 15          | 22            | 98       | 130       | 92     | 230       | 251        | 1,620     | 657    | 88    | 22    | 39    | 72    |
| 16          | 26            | 144      | 110       | 90     | 350       | 425        | 1,310     | 564    | 79    | 22    | 27    | 70    |
| 17          | 32            | 151      | 105       | 88     | 300       | 829        | 1,100     | 608    | 74    | 21    | 30    | 72    |
| 18          | 36            | 131      | 125       | 86     | 270       | 812        | 1,010     | 551    | 69    | 24    | 25    | 72    |
| 19          | 35            | 126      | 150       | 85     | 250       | 686        | 984       | 464    | 64    | 28    | 21    | 64    |
| 20          | 30            | 144      | 155       | 84     | 230       | 569        | 1,100     | 405    | 57    | 39    | 20    | 60    |
| 21          | 29            | 244      | 145       | 82     | 220       | 560        | 1,120     | 365    | 60    | 54    | 19    | 57    |
| 22          | 27            | 291      | 120       | 80     | 210       | 487        | 1,030     | 397    | 81    | 43    | 18    | 52    |
| 23          | 42            | 247      | 115       | 78     | 210       | 464        | 924       | 421    | 98    | 33    | 17    | 49    |
| 24          | 190           | 247      | 115       | 76     | 200       | 425        | 823       | 361    | 90    | 24    | 17    | 39    |
| 25          | 181           | 211      | 120       | 76     | 200       | 393        | 812       | 317    | 74    | 25    | 16    | 39    |
| 26          | 134           | 170      | 125       | 80     | 195       | 381        | 790       | 291    | 77    | 23    | 16    | 38    |
| 27          | 104           | 154      | 120       | 85     | 195       | 373        | 708       | 272    | 86    | 23    | 16    | 37    |
| 28          | 94            | 146      | 120       | 90     | 250       | 369        | 633       | 254    | 79    | 24    | 22    | 37    |
| 29          | 77            | 144      | 115       | 88     | -----     | 409        | 702       | 227    | 72    | 23    | 51    | 36    |
| 30          | 74            | 154      | 110       | 86     | -----     | 490        | 884       | 208    | 63    | 26    | 54    | 35    |
| 31          | 64            | -----    | 110       | 84     | -----     | 560        | -----     | 202    | ----- | 84    | 47    | ----- |
| TOTAL       | 1,538         | 4,042    | 4,680     | 2,958  | 4,656     | 12,831     | 33,256    | 15,979 | 3,206 | 1,168 | 1,253 | 1,225 |
| MEAN        | 49.6          | 135      | 151       | 95.4   | 166       | 414        | 1,109     | 515    | 107   | 37.7  | 40.4  | 40.8  |
| MAX         | 190           | 291      | 341       | 120    | 350       | 829        | 1,760     | 1,030  | 202   | 84    | 100   | 72    |
| MIN         | 22            | 49       | 105       | 76     | 80        | 227        | 613       | 202    | 57    | 21    | 16    | 17    |
| MEAN†       | 53.0          | 135      | 151       | 95.4   | 166       | 414        | 1,109     | 515    | 107   | 37.7  | 44.4  | 42.2  |
| CFSM†       | .31           | .79      | .88       | .56    | .97       | 2.42       | 6.49      | 3.01   | .63   | .22   | .26   | .25   |
| IN.†        | .36           | .88      | 1.02      | .64    | 1.01      | 2.79       | 7.23      | 3.48   | .70   | .25   | .30   | .28   |
| CAL YR 1970 | TOTAL 100,559 | MEAN 276 | MAX 2,690 | MIN 16 | MEAN† 277 | CFSM† 1.62 | IN† 21.98 |        |       |       |       |       |
| WTR YR 1971 | TOTAL 86,792  | MEAN 238 | MAX 1,760 | MIN 16 | MEAN† 239 | CFSM† 1.40 | IN† 18.94 |        |       |       |       |       |

PEAK DISCHARGE (BASE, 2,250 CFS).--No peak above base.

† Adjusted for diversion to Pennichuck Brook basin for municipal supply of Nashua. Records of diversion furnished by Pennichuck Water Works.



## MERRIMACK RIVER BASIN

01094500 North Nashua River near Leominster, Mass.

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

DRAINAGE AREA.--107 sq mi.

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

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

AVERAGE DISCHARGE.--36 years, 188 cfs (23.86 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,140 cfs Apr. 3 (gage height, 4.24 ft); minimum, 36 cfs June 21; minimum daily, 42 cfs Sept. 6.  
 Period of record: Maximum discharge, 16,300 cfs Mar. 18, 1936 (gage height, 20.53 ft, from floodmarks), by computation of flow over dam; minimum, 11 cfs Aug. 29, 1948; minimum daily, 22 cfs Sept. 27, 1936, Sept. 2, 1957.  
 Maximum discharge since at least 1850, that of Mar. 18, 1936.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Regulation at low flow by mills above station. Discharge includes flow diverted from 2.1 sq mi in Squannacook River basin to North Nashua River basin for municipal supply of Fitchburg.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| 1     | 60    | 65    | 110   | 63    | 80    | 301   | 399    | 400   | 127   | 124   | 109   | 61    |
| 2     | 59    | 68    | 103   | 70    | 75    | 279   | 466    | 330   | 120   | 188   | 90    | 59    |
| 3     | 69    | 73    | 91    | 73    | 72    | 254   | 1,020  | 380   | 119   | 121   | 84    | 61    |
| 4     | 87    | 66    | 177   | 72    | 72    | 266   | 907    | 560   | 127   | 86    | 107   | 56    |
| 5     | 53    | 119   | 149   | 100   | 79    | 248   | 742    | 470   | 109   | 73    | 86    | 46    |
| 6     | 62    | 99    | 114   | 120   | 87    | 213   | 619    | 370   | 93    | 64    | 68    | 42    |
| 7     | 65    | 80    | 100   | 100   | 85    | 201   | 620    | 320   | 90    | 71    | 57    | 49    |
| 8     | 70    | 73    | 85    | 90    | 98    | 206   | 541    | 290   | 104   | 57    | 47    | 57    |
| 9     | 73    | 74    | 86    | 82    | 130   | 182   | 463    | 350   | 121   | 53    | 49    | 57    |
| 10    | 61    | 72    | 92    | 78    | 126   | 171   | 527    | 450   | 99    | 49    | 59    | 56    |
| 11    | 47    | 120   | 82    | 76    | 107   | 173   | 788    | 380   | 86    | 43    | 109   | 50    |
| 12    | 46    | 93    | 80    | 74    | 104   | 172   | 803    | 310   | 77    | 46    | 97    | 233   |
| 13    | 69    | 78    | 77    | 70    | 110   | 163   | 802    | 350   | 75    | 47    | 70    | 99    |
| 14    | 71    | 114   | 88    | 68    | 200   | 174   | 839    | 500   | 73    | 56    | 64    | 114   |
| 15    | 73    | 116   | 80    | 67    | 245   | 215   | 700    | 400   | 73    | 53    | 49    | 84    |
| 16    | 119   | 123   | 76    | 66    | 213   | 620   | 580    | 340   | 77    | 51    | 44    | 73    |
| 17    | 59    | 95    | 87    | 64    | 174   | 662   | 520    | 370   | 73    | 50    | 54    | 82    |
| 18    | 52    | 85    | 91    | 62    | 173   | 458   | 480    | 301   | 70    | 75    | 57    | 64    |
| 19    | 52    | 90    | 91    | 64    | 169   | 379   | 470    | 262   | 61    | 79    | 75    | 51    |
| 20    | 77    | 112   | 96    | 64    | 178   | 361   | 520    | 239   | 51    | 93    | 95    | 54    |
| 21    | 77    | 196   | 92    | 64    | 174   | 317   | 500    | 223   | 102   | 68    | 61    | 70    |
| 22    | 79    | 143   | 85    | 64    | 158   | 281   | 450    | 247   | 186   | 59    | 50    | 62    |
| 23    | 197   | 158   | 89    | 66    | 182   | 280   | 400    | 223   | 114   | 54    | 56    | 61    |
| 24    | 153   | 130   | 88    | 64    | 177   | 265   | 360    | 197   | 93    | 50    | 57    | 59    |
| 25    | 96    | 105   | 88    | 64    | 159   | 247   | 380    | 183   | 86    | 47    | 56    | 54    |
| 26    | 89    | 84    | 81    | 50    | 163   | 246   | 410    | 172   | 221   | 51    | 57    | 46    |
| 27    | 91    | 82    | 76    | 110   | 229   | 252   | 350    | 161   | 121   | 151   | 97    | 51    |
| 28    | 87    | 80    | 82    | 100   | 298   | 264   | 310    | 155   | 93    | 97    | 159   | 59    |
| 29    | 83    | 80    | 83    | 94    | ----- | 311   | 420    | 130   | 82    | 75    | 79    | 59    |
| 30    | 81    | 99    | 79    | 90    | ----- | 370   | 500    | 118   | 77    | 111   | 59    | 56    |
| 31    | 75    | ----- | 75    | 85    | ----- | 402   | -----  | 122   | ----- | 136   | 66    | ----- |
| TOTAL | 2,432 | 2,972 | 2,873 | 2,414 | 4,117 | 8,933 | 16,886 | 9,303 | 3,000 | 2,378 | 2,267 | 2,025 |
| MEAN  | 78.5  | 99.1  | 92.7  | 77.9  | 147   | 288   | 563    | 300   | 100   | 76.7  | 73.1  | 67.5  |
| MAX   | 197   | 196   | 177   | 120   | 298   | 662   | 1,020  | 560   | 221   | 188   | 159   | 233   |
| MIN   | 46    | 65    | 75    | 62    | 72    | 163   | 310    | 118   | 51    | 43    | 44    | 42    |
| CFSM  | .73   | .93   | .87   | .73   | 1.37  | 2.69  | 5.26   | 2.80  | .93   | .72   | .68   | .63   |
| IN.   | .85   | 1.03  | 1.00  | .84   | 1.43  | 3.11  | 5.87   | 3.23  | 1.04  | .83   | .79   | .70   |

CAL YR 1970 TOTAL 69,413 MEAN 190 MAX 2,520 MIN 41 CFSM 1.78 IN 24.13  
 WTR YR 1971 TOTAL 59,600 MEAN 163 MAX 1,020 MIN 42 CFSM 1.52 IN 20.72

## PEAK DISCHARGE (BASE, 1,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-3  | 2230 | 4.24  | 1,140     |      |      |       |           |

NOTE.--No gage-height record Jan. 4 to Feb. 5, Apr. 15 to May 17.

01095500 South Branch Nashua River at Clinton, Mass.

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

DRAINAGE AREA.--107.69 sq mi since July 1937.

PERIOD OF RECORD.--July 1896 to current year.

AVERAGE DISCHARGE.--75 years, 186 cfs (23.45 inches per year), adjusted to present drainage area.

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.

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

REVISIONS (WATER YEARS).--WSP 1051: 1928.

## MONTHLY DISCHARGE AND RAINFALL, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| Month                   | Runoff<br>(millions of<br>gallons) | Discharge per square mile         |                          | Runoff<br>(inches) | Rainfall<br>(inches) |
|-------------------------|------------------------------------|-----------------------------------|--------------------------|--------------------|----------------------|
|                         |                                    | Millions<br>of gallons<br>per day | Cubic feet<br>per second |                    |                      |
| October.....            | 424.8                              | 0.127                             | 0.20                     | 0.23               | 3.01                 |
| November.....           | 817.9                              | .253                              | .39                      | .44                | 4.23                 |
| December.....           | 822.1                              | .246                              | .38                      | .44                | 4.67                 |
| Calendar year 1970..... | 41,453.4                           | 1.055                             | 1.63                     | 22.16              | 44.03                |
| January.....            | 1,008.0                            | .302                              | .47                      | .54                | 2.96                 |
| February.....           | 2,134.0                            | .708                              | 1.10                     | 1.14               | 4.78                 |
| March.....              | 7,130.5                            | 2.136                             | 3.30                     | 3.81               | 2.68                 |
| April.....              | 9,523.6                            | 2.948                             | 4.56                     | 5.09               | 2.16                 |
| May.....                | 6,837.7                            | 2.048                             | 3.17                     | 3.65               | 4.79                 |
| June.....               | 2,122.6                            | .657                              | 1.02                     | 1.13               | 2.49                 |
| July.....               | 726.0                              | .217                              | .34                      | .39                | 4.35                 |
| August.....             | 600.2                              | .180                              | .28                      | .32                | 3.89                 |
| September.....          | 712.9                              | .221                              | .34                      | .38                | 3.58                 |
| Water year 1971.....    | 32,860.3                           | .836                              | 1.29                     | 17.56              | 43.59                |

01096000 Squannacook River near West Groton, Mass.

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

DRAINAGE AREA.--62.8 sq mi, excludes 2.10 sq mi above outlet of Fitchburg Reservoir.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 244.27 ft above mean sea level.

AVERAGE DISCHARGE.--22 years, 105 cfs (22.71 inches per year).

EXTREMES.--Current year: Maximum discharge, 755 cfs Apr. 4 (gage height, 4.99 ft); minimum daily, 4.1 cfs Sept. 10.

Period of record: Maximum discharge, 4,010 cfs Oct. 16, 1955 (gage height, 8.04 ft), from rating curve extended above 2,200 cfs; minimum daily, 2.0 cfs Sept. 7, 1965.

REMARKS.--Records excellent. Occasional regulation at low flow by mill above station; regulation greater prior to 1961. During most years, entire flow from 2.10 sq mi above outlet of Fitchburg Reservoir diverted for municipal supply of Fitchburg; some wastage at times during water years 1964, 1967-71.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------|------|-------|-------|-------|-------|-------|--------|-------|-------|------|-------|-------|
| 1     | 13   | 20    | 45    | 35    | 42    | 160   | 257    | 241   | 78    | 33   | 23    | 13    |
| 2     | 13   | 19    | 41    | 35    | 38    | 161   | 293    | 194   | 68    | 70   | 20    | 12    |
| 3     | 13   | 19    | 38    | 36    | 35    | 144   | 591    | 194   | 64    | 64   | 19    | 12    |
| 4     | 19   | 19    | 50    | 36    | 34    | 126   | 688    | 339   | 68    | 39   | 19    | 11    |
| 5     | 18   | 29    | 100   | 41    | 37    | 130   | 551    | 300   | 64    | 31   | 19    | 9.4   |
| 6     | 15   | 45    | 81    | 53    | 39    | 126   | 457    | 220   | 55    | 26   | 16    | 8.7   |
| 7     | 15   | 41    | 61    | 55    | 39    | 114   | 436    | 185   | 48    | 22   | 14    | 9.4   |
| 8     | 14   | 33    | 46    | 50    | 39    | 111   | 394    | 165   | 47    | 21   | 12    | 12    |
| 9     | 14   | 27    | 42    | 43    | 47    | 100   | 314    | 189   | 70    | 19   | 12    | 11    |
| 10    | 13   | 25    | 42    | 39    | 59    | 93    | 351    | 266   | 66    | 19   | 11    | 4.1   |
| 11    | 16   | 31    | 41    | 39    | 58    | 90    | 584    | 222   | 49    | 18   | 13    | 4.7   |
| 12    | 17   | 41    | 42    | 39    | 51    | 87    | 688    | 180   | 41    | 17   | 21    | 18    |
| 13    | 15   | 38    | 41    | 35    | 56    | 82    | 611    | 180   | 38    | 17   | 17    | 27    |
| 14    | 14   | 38    | 41    | 34    | 76    | 83    | 638    | 327   | 36    | 16   | 15    | 24    |
| 15    | 15   | 40    | 37    | 34    | 99    | 94    | 547    | 261   | 35    | 16   | 13    | 25    |
| 16    | 22   | 50    | 35    | 34    | 120   | 184   | 408    | 200   | 33    | 16   | 12    | 23    |
| 17    | 20   | 49    | 38    | 32    | 121   | 319   | 324    | 212   | 32    | 16   | 11    | 20    |
| 18    | 18   | 40    | 37    | 31    | 105   | 281   | 283    | 198   | 28    | 18   | 10    | 21    |
| 19    | 15   | 37    | 41    | 32    | 93    | 224   | 274    | 163   | 26    | 19   | 10    | 19    |
| 20    | 16   | 44    | 43    | 32    | 89    | 191   | 298    | 140   | 25    | 28   | 11    | 17    |
| 21    | 16   | 78    | 43    | 32    | 87    | 184   | 293    | 132   | 28    | 24   | 11    | 16    |
| 22    | 15   | 84    | 39    | 32    | 83    | 160   | 266    | 146   | 109   | 19   | 10    | 15    |
| 23    | 27   | 66    | 39    | 33    | 83    | 151   | 231    | 148   | 83    | 16   | 9.7   | 14    |
| 24    | 68   | 64    | 40    | 32    | 85    | 146   | 205    | 124   | 53    | 14   | 9.7   | 13    |
| 25    | 58   | 54    | 39    | 32    | 79    | 135   | 218    | 111   | 40    | 14   | 11    | 12    |
| 26    | 37   | 44    | 40    | 36    | 79    | 132   | 239    | 100   | 58    | 14   | 10    | 11    |
| 27    | 30   | 40    | 38    | 45    | 90    | 132   | 202    | 90    | 62    | 16   | 11    | 12    |
| 28    | 26   | 39    | 38    | 56    | 132   | 140   | 178    | 87    | 41    | 14   | 14    | 12    |
| 29    | 23   | 41    | 37    | 57    | ----- | 168   | 209    | 85    | 32    | 13   | 20    | 12    |
| 30    | 22   | 43    | 35    | 48    | ----- | 218   | 300    | 79    | 29    | 16   | 17    | 12    |
| 31    | 20   | ----- | 34    | 47    | ----- | 247   | -----  | 79    | ----- | 21   | 14    | ----- |
| TOTAL | 657  | 1,238 | 1,364 | 1,215 | 1,995 | 4,713 | 11,328 | 5,557 | 1,506 | 706  | 435.4 | 430.3 |
| MEAN  | 21.2 | 41.3  | 44.0  | 39.2  | 71.3  | 152   | 378    | 179   | 50.2  | 22.8 | 14.0  | 14.3  |
| MAX   | 68   | 84    | 100   | 57    | 132   | 319   | 688    | 339   | 109   | 70   | 23    | 27    |
| MIN   | 13   | 19    | 34    | 31    | 34    | 82    | 178    | 79    | 25    | 13   | 9.7   | 4.1   |
| CFSM  | .34  | .66   | .70   | .62   | 1.14  | 2.42  | 6.02   | 2.85  | .80   | .36  | .22   | .23   |
| IN.   | .39  | .73   | .81   | .72   | 1.18  | 2.79  | 6.71   | 3.29  | .89   | .42  | .26   | .25   |

CAL YR 1970 TOTAL 38,409.7 MEAN 105 MAX 1,280 MIN 9.7 CFSM 1.67 IN 22.75  
WTR YR 1971 TOTAL 31,144.7 MEAN 85.3 MAX 688 MIN 4.1 CFSM 1.36 IN 18.45

## PEAK DISCHARGE (BASE, 700 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-4  | 0500 | 4.99  | 755       |      |      |       |           |
| 4-12 | 0800 | 4.93  | 725       |      |      |       |           |

01096500 Nashua River at East Pepperell, Mass.

LOCATION.--Lat 42°40'03", long 71°34'32", Middlesex County, on right bank 200 ft downstream from powerplant of Pepperell (formerly St. Regis) Paper Co. at East Pepperell and 0.8 mile upstream from Nissitissit River.

DRAINAGE AREA.--Total above gage, 433 sq mi; net above gage, 316 sq mi (flow diverted from 117 sq mi for use of Boston metropolitan district and city of Worcester).

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

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

AVERAGE DISCHARGE.--36 years, 515 cfs (22.13 inches per year), adjusted for wastage to Nashua River.

EXTREMES.--Current year: Maximum discharge, 2,970 cfs Apr. 5 (gage height, 5.99 ft); minimum daily, 6.6 cfs Oct. 17.

Period of record: Maximum discharge, 20,900 cfs Mar. 20, 1936 (gage height, 19.1 ft, from floodmarks), from rating curve extended above 12,000 cfs on basis of velocity-area studies; minimum daily, 1.1 cfs Aug. 13, 1939.

REMARKS.--Records good. Extremes and daily discharge include water wasted in diverting drainage from basin of South Branch Nashua River for use of Boston metropolitan district and water diverted around station through plant of Pepperell Paper Co. Flow regulated by powerplant above station.

REVISIONS.--WSP 801: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT     | NOV     | DEC     | JAN     | FEB    | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP     |
|-------|---------|---------|---------|---------|--------|--------|--------|--------|-------|-------|-------|---------|
| 1     | 130     | 17      | 495     | 7.2     | 413    | 1,000  | 1,370  | 690    | 642   | 190   | 16    | 152     |
| 2     | 6.9     | 310     | 220     | 28      | 223    | 940    | 1,420  | 675    | 527   | 350   | 211   | 152     |
| 3     | 7.2     | 363     | 313     | 193     | 223    | 884    | 1,600  | 933    | 359   | 109   | 214   | 152     |
| 4     | 7.2     | 242     | 463     | 540     | 223    | 854    | 2,380  | 1,110  | 358   | 85    | 212   | 192     |
| 5     | 273     | 267     | 193     | 610     | 172    | 570    | 2,550  | 1,280  | 398   | 181   | 248   | 9.4     |
| 6     | 261     | 350     | 236     | 211     | 12     | 610    | 2,130  | 1,080  | 150   | 177   | 252   | 9.8     |
| 7     | 180     | 8.2     | 655     | 217     | 12     | 580    | 1,700  | 890    | 403   | 158   | 245   | 146     |
| 8     | 205     | 155     | 518     | 487     | 299    | 854    | 1,640  | 513    | 342   | 156   | 17    | 146     |
| 9     | 6.9     | 363     | 217     | 177     | 402    | 767    | 1,790  | 640    | 182   | 144   | 221   | 150     |
| 10    | 6.9     | 382     | 475     | 8.6     | 220    | 650    | 1,260  | 1,270  | 370   | 131   | 215   | 143     |
| 11    | 6.9     | 374     | 211     | 422     | 386    | 690    | 1,520  | 1,200  | 378   | 119   | 162   | 144     |
| 12    | 242     | 371     | 7.5     | 217     | 406    | 270    | 2,260  | 959    | 365   | 324   | 169   | 12      |
| 13    | 239     | 104     | 134     | 220     | 14     | 437    | 2,260  | 872    | 11    | 211   | 162   | 378     |
| 14    | 183     | 6.9     | 585     | 251     | 345    | 487    | 2,170  | 1,400  | 177   | 208   | 161   | 450     |
| 15    | 146     | 180     | 513     | 475     | 778    | 800    | 2,080  | 1,130  | 202   | 211   | 12    | 196     |
| 16    | 222     | 442     | 228     | 183     | 665    | 1,050  | 1,780  | 908    | 279   | 170   | 166   | 192     |
| 17    | 6.6     | 455     | 258     | 11      | 665    | 1,780  | 1,170  | 1,230  | 188   | 171   | 158   | 193     |
| 18    | 7.5     | 220     | 254     | 239     | 655    | 1,810  | 1,020  | 1,100  | 203   | 18    | 156   | 193     |
| 19    | 283     | 320     | 425     | 223     | 555    | 1,250  | 1,170  | 940    | 199   | 162   | 127   | 9.4     |
| 20    | 303     | 462     | 7.2     | 223     | 73     | 1,110  | 1,090  | 812    | 12    | 186   | 130   | 189     |
| 21    | 202     | 183     | 220     | 193     | 431    | 1,030  | 1,100  | 749    | 171   | 187   | 138   | 189     |
| 22    | 214     | 214     | 438     | 460     | 718    | 1,200  | 1,040  | 442    | 460   | 187   | 15    | 169     |
| 23    | 11      | 665     | 491     | 230     | 645    | 1,090  | 685    | 584    | 374   | 186   | 161   | 141     |
| 24    | 463     | 670     | 7.8     | 10      | 640    | 1,040  | 670    | 809    | 390   | 180   | 155   | 140     |
| 25    | 415     | 635     | 37      | 227     | 555    | 972    | 655    | 610    | 189   | 15    | 152   | 140     |
| 26    | 418     | 93      | 239     | 230     | 536    | 927    | 979    | 598    | 388   | 152   | 153   | 8.6     |
| 27    | 382     | 7.2     | 251     | 230     | 138    | 660    | 830    | 583    | 42    | 193   | 153   | 143     |
| 28    | 363     | 86      | 615     | 258     | 518    | 762    | 707    | 566    | 509   | 187   | 234   | 144     |
| 29    | 242     | 251     | 414     | 475     | -----  | 1,150  | 756    | 142    | 290   | 187   | 12    | 115     |
| 30    | 259     | 605     | 434     | 175     | -----  | 1,220  | 896    | 144    | 203   | 246   | 152   | 114     |
| 31    | 115     | -----   | 112     | 10      | -----  | 1,330  | -----  | 338    | ----- | 245   | 152   | -----   |
| TOTAL | 5,807.1 | 8,801.3 | 9,666.5 | 7,440.8 | 10,922 | 28,774 | 42,678 | 25,197 | 8,761 | 5,426 | 4,731 | 4,512.2 |
| MEAN  | 187     | 293     | 312     | 240     | 390    | 928    | 1,423  | 813    | 292   | 175   | 153   | 150     |
| MAX   | 463     | 670     | 655     | 610     | 778    | 1,810  | 2,550  | 1,400  | 642   | 350   | 252   | 450     |
| MIN   | 6.6     | 6.9     | 7.2     | 7.2     | 12     | 270    | 655    | 142    | 11    | 15    | 12    | 8.6     |
| MEAN† | 180     | 286     | 304     | 232     | 382    | 920    | 1,415  | 805    | 284   | 167   | 145   | 143     |
| CFSM† | .57     | .91     | .96     | .73     | 1.21   | 2.91   | 4.48   | 2.55   | .90   | .53   | .46   | .45     |
| IN.†  | .66     | 1.01    | 1.11    | .85     | 1.26   | 3.36   | 5.00   | 2.94   | 1.00  | .61   | .53   | .50     |

CAL YR 1970 TOTAL 199,827.9 MEAN 547 MAX 4,380 MIN 6.6 MEAN† 540 CFSM† 1.71 IN† 23.19  
WTR YR 1971 TOTAL 162,716.9 MEAN 446 MAX 2,550 MIN 6.6 MEAN† 438 CFSM† 1.39 IN† 18.82

† Adjusted for water wasted in diverting drainage from basin of South Branch Nashua River for use of Boston metropolitan district (figures represent discharge from net drainage area). Records of wastage furnished by Water Division of Metropolitan District Commission.

## MERRIMACK RIVER BASIN

01097000 Assabet River at Maynard, Mass.

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

DRAINAGE AREA.--116 sq mi.

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

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

AVERAGE DISCHARGE.--30 years, 176 cfs (20.60 inches per year).

EXTREMES.--Current year: Maximum discharge, 899 cfs Mar. 17 (gage height, 4.51 ft); minimum daily, 6.9 cfs July 29.

Period of record: Maximum discharge, 4,250 cfs Aug. 20, 1955 (gage height, 8.94 ft); maximum gage height, 8.96 ft Aug. 20, 1955 (backwater from debris); minimum daily discharge, 0.20 cfs Feb. 7, 1965.

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

REMARKS.--Records fair. Occasional diurnal fluctuation at low flow by mills above station; greater regulation prior to 1969. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1231: 1945-46.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY   | JUN   | JUL   | AUG  | SEP   |
|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|------|-------|
| 1     | 28    | 41    | 131   | 97    | 125   | 448    | 427    | 265   | 176   | 32    | 46   | 27    |
| 2     | 16    | 43    | 131   | 97    | 110   | 545    | 406    | 249   | 169   | 34    | 45   | 22    |
| 3     | 26    | 61    | 122   | 95    | 97    | 574    | 424    | 249   | 165   | 34    | 34   | 19    |
| 4     | 33    | 69    | 130   | 98    | 89    | 505    | 478    | 273   | 174   | 32    | 44   | 17    |
| 5     | 32    | 93    | 169   | 122   | 99    | 493    | 463    | 279   | 165   | 27    | 41   | 16    |
| 6     | 28    | 106   | 179   | 142   | 108   | 485    | 420    | 252   | 137   | 24    | 28   | 17    |
| 7     | 24    | 102   | 160   | 162   | 114   | 445    | 413    | 239   | 122   | 22    | 22   | 18    |
| 8     | 24    | 89    | 137   | 153   | 125   | 441    | 427    | 222   | 116   | 21    | 21   | 17    |
| 9     | 24    | 88    | 124   | 135   | 146   | 424    | 445    | 224   | 129   | 22    | 19   | 18    |
| 10    | 17    | 83    | 122   | 126   | 153   | 403    | 445    | 281   | 126   | 20    | 18   | 18    |
| 11    | 18    | 86    | 120   | 122   | 156   | 377    | 427    | 332   | 110   | 18    | 18   | 18    |
| 12    | 20    | 89    | 118   | 122   | 160   | 349    | 406    | 326   | 93    | 17    | 30   | 43    |
| 13    | 20    | 89    | 114   | 120   | 175   | 337    | 393    | 317   | 84    | 15    | 30   | 68    |
| 14    | 23    | 104   | 110   | 110   | 234   | 329    | 377    | 403   | 77    | 21    | 28   | 91    |
| 15    | 25    | 124   | 97    | 106   | 257   | 349    | 346    | 459   | 72    | 20    | 24   | 93    |
| 16    | 28    | 144   | 86    | 105   | 289   | 521    | 314    | 420   | 67    | 18    | 20   | 78    |
| 17    | 27    | 140   | 108   | 93    | 300   | 790    | 306    | 417   | 62    | 24    | 17   | 57    |
| 18    | 27    | 122   | 120   | 89    | 289   | 833    | 298    | 424   | 64    | 52    | 16   | 46    |
| 19    | 25    | 112   | 122   | 89    | 276   | 730    | 287    | 377   | 46    | 47    | 27   | 41    |
| 20    | 25    | 112   | 131   | 84    | 289   | 682    | 281    | 329   | 49    | 44    | 19   | 42    |
| 21    | 24    | 142   | 137   | 81    | 303   | 646    | 276    | 284   | 49    | 37    | 25   | 39    |
| 22    | 23    | 149   | 133   | 83    | 306   | 592    | 260    | 270   | 52    | 31    | 23   | 34    |
| 23    | 53    | 153   | 124   | 84    | 323   | 549    | 249    | 257   | 50    | 24    | 30   | 33    |
| 24    | 158   | 144   | 120   | 86    | 335   | 525    | 244    | 242   | 49    | 20    | 11   | 39    |
| 25    | 174   | 133   | 118   | 88    | 346   | 485    | 239    | 224   | 50    | 18    | 12   | 34    |
| 26    | 142   | 120   | 122   | 106   | 340   | 452    | 234    | 209   | 54    | 23    | 13   | 35    |
| 27    | 95    | 112   | 116   | 130   | 346   | 427    | 229    | 192   | 51    | 22    | 24   | 33    |
| 28    | 69    | 114   | 110   | 130   | 387   | 420    | 222    | 181   | 44    | 12    | 45   | 31    |
| 29    | 56    | 120   | 106   | 133   | ----- | 417    | 234    | 174   | 39    | 6.9   | 43   | 28    |
| 30    | 64    | 120   | 100   | 140   | ----- | 427    | 260    | 165   | 35    | 27    | 32   | 33    |
| 31    | 41    | ----- | 97    | 135   | ----- | 434    | -----  | 162   | ----- | 42    | 28   | ----- |
| TOTAL | 1,389 | 3,210 | 3,814 | 3,463 | 6,280 | 15,434 | 10,230 | 8,697 | 2,676 | 806.9 | 833  | 1,105 |
| MEAN  | 44.8  | 107   | 123   | 112   | 224   | 498    | 341    | 281   | 89.2  | 26.0  | 26.9 | 36.8  |
| MAX   | 174   | 153   | 179   | 162   | 387   | 833    | 478    | 459   | 176   | 52    | 46   | 93    |
| MIN   | 16    | 41    | 86    | 81    | 89    | 329    | 222    | 162   | 35    | 6.9   | 11   | 16    |
| CFSM  | .39   | .92   | 1.06  | .97   | 1.93  | 4.29   | 2.94   | 2.42  | .77   | .22   | .23  | .32   |
| IN.   | .45   | 1.03  | 1.22  | 1.11  | 2.01  | 4.55   | 3.28   | 2.79  | .86   | .26   | .27  | .35   |

CAL YR 1970 TOTAL 75,722.8 MEAN 207 MAX 1,640 MIN 7.8 CFSM 1.78 IN 24.28  
WTR YR 1971 TOTAL 57,937.9 MEAN 159 MAX 833 MIN 6.9 CFSM 1.37 IN 18.58



01097300 Nashoba Brook near Acton, Mass.

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

DRAINAGE AREA.--12.7 sq mi.

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 (from topographic map).

AVERAGE DISCHARGE.--8 years, 15.2 cfs (16.25 inches per year).

EXTREMES.--Current year: Maximum discharge, about 95 cfs about Mar. 18; minimum, 0.09 cfs July 28.

Period of record: Maximum discharge, 360 cfs Mar. 19, 1968 (gage height, 5.07 ft); minimum, 0.02 cfs Sept. 6, 1968.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| CAY   | OCT    | NOV    | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 1.3    | 3.4    | 8.8   | 8.8   | 9.5   | 36    | 47    | 36    | 20    | 3.6   | 2.0   | .65   |
| 2     | 1.3    | 3.1    | 9.0   | 8.6   | 8.4   | 45    | 44    | 30    | 19    | 3.0   | 2.6   | .89   |
| 3     | 1.3    | 4.5    | 8.2   | 8.2   | 7.6   | 50    | 47    | 27    | 18    | 3.1   | 2.0   | .71   |
| 4     | 2.9    | .80    | 18    | 8.2   | 7.0   | 45    | 52    | 39    | 20    | 3.4   | 5.8   | .75   |
| 5     | .85    | 5.8    | 21    | 9.5   | 7.5   | 42    | 51    | 42    | 20    | 3.1   | 17    | .80   |
| 6     | 1.3    | 12     | 20    | 11    | 8.2   | 40    | 47    | 34    | 16    | 2.6   | 9.2   | .76   |
| 7     | 1.6    | 14     | 14    | 12    | 9.0   | 38    | 45    | 28    | 11    | 2.3   | 5.0   | .73   |
| 8     | 1.6    | 11     | 9.9   | 14    | 10    | 36    | 50    | 25    | 9.0   | 2.1   | 3.3   | .71   |
| 9     | 1.9    | 7.0    | 8.2   | 13    | 11    | 34    | 66    | 24    | 13    | 1.8   | 2.3   | .71   |
| 10    | 1.7    | 5.3    | 7.6   | 12    | 12    | 33    | 68    | 51    | 12    | 1.7   | 1.8   | .71   |
| 11    | 1.4    | 3.2    | 7.6   | 10    | 12    | 31    | 65    | 62    | 9.8   | 1.2   | 1.5   | 1.0   |
| 12    | 11     | 6.2    | 7.4   | 9.0   | 13    | 29    | 49    | 45    | 8.6   | 1.1   | 1.8   | 1.1   |
| 13    | 1.6    | 8.0    | 7.4   | 8.8   | 14    | 27    | 48    | 45    | 7.9   | .93   | 1.8   | 4.4   |
| 14    | .21    | 8.0    | 7.2   | 8.0   | 18    | 27    | 46    | 79    | 7.3   | 1.0   | 1.5   | 6.1   |
| 15    | .61    | 24     | 7.2   | 7.4   | 21    | 29    | 42    | 72    | 7.0   | 1.1   | 1.2   | 5.1   |
| 16    | 1.3    | 16     | 6.8   | 7.2   | 28    | 40    | 39    | 55    | 6.4   | .90   | .99   | 5.6   |
| 17    | 1.3    | 16     | 7.6   | 7.2   | 27    | 80    | 37    | 60    | 5.9   | .95   | .83   | 4.2   |
| 18    | 1.2    | 13     | 7.6   | 7.2   | 25    | 90    | 35    | 49    | 5.6   | 1.0   | .69   | 3.4   |
| 19    | 1.1    | 4.7    | 8.0   | 7.0   | 22    | 80    | 36    | 46    | 5.1   | 1.0   | .60   | 2.9   |
| 20    | 1.1    | 7.4    | 9.5   | 6.8   | 23    | 75    | 36    | 38    | 4.7   | 1.2   | .76   | 2.6   |
| 21    | 1.2    | 13     | 11    | 6.6   | 24    | 70    | 33    | 34    | 4.2   | 1.3   | 1.6   | 2.5   |
| 22    | 1.3    | 17     | 11    | 6.4   | 26    | 65    | 31    | 31    | 5.2   | 1.3   | 1.7   | 2.3   |
| 23    | 5.1    | 16     | 11    | 6.4   | 28    | 60    | 29    | 32    | 7.3   | 1.1   | 1.2   | 2.1   |
| 24    | 14     | 15     | 11    | 6.4   | 30    | 58    | 26    | 27    | 6.4   | .98   | .78   | 1.8   |
| 25    | 15     | 14     | 9.9   | 6.6   | 29    | 54    | 21    | 23    | 5.6   | .93   | .62   | 1.5   |
| 26    | 11     | 11     | 9.5   | 7.6   | 27    | 50    | 32    | 22    | 5.9   | 9.8   | .56   | 1.3   |
| 27    | 7.2    | 9.3    | 9.5   | 9.8   | 26    | 47    | 23    | 18    | 7.0   | .82   | 11    | 1.3   |
| 28    | 1.3    | 8.6    | 9.5   | 11    | 28    | 46    | 21    | 17    | 5.8   | .10   | 2.4   | 1.2   |
| 29    | 2.8    | 6.1    | 9.3   | 12    | ----- | 45    | 29    | 18    | 4.7   | .15   | .48   | 1.2   |
| 30    | 4.9    | 7.0    | 9.3   | 11    | ----- | 46    | 37    | 15    | 4.1   | .27   | .69   | 1.0   |
| 31    | 4.3    | -----  | 9.0   | 10    | ----- | 47    | ----- | 18    | ----- | .41   | .61   | ----- |
| TOTAL | 104.67 | 250.40 | 311.0 | 277.7 | 512.2 | 1,495 | 1,232 | 1,142 | 282.5 | 54.24 | 84.31 | 60.02 |
| MEAN  | 3.38   | 5.68   | 10.0  | 8.96  | 18.3  | 48.2  | 41.1  | 36.8  | 9.42  | 1.75  | 2.72  | 2.00  |
| MAX   | 15     | 24     | 21    | 14    | 30    | 90    | 68    | 79    | 20    | 9.8   | 17    | 6.1   |
| MIN   | .21    | .80    | 6.8   | 6.4   | 7.0   | 27    | 21    | 15    | 4.1   | .10   | .48   | .65   |
| CFSM  | .27    | .76    | .79   | .71   | 1.44  | 3.80  | 3.24  | 2.90  | .74   | .14   | .21   | .16   |
| IN.   | .31    | .85    | .91   | .81   | 1.50  | 4.38  | 3.61  | 3.35  | .83   | .16   | .25   | .18   |

CAL YR 1970 TOTAL 7,373.90 MEAN 20.2 MAX 215 MIN .21 CFSM 1.59 IN 21.60  
WTR YR 1971 TCTAL 5,846.04 MEAN 16.0 MAX 90 MIN .10 CFSM 1.26 IN 17.12

PEAK DISCHARGE (BASE, 90 CFS)

| DATE  | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|-------|------|-------|-----------|------|------|-------|-----------|
| †3-18 | -    | -     | †95       |      |      |       |           |

† About.

NOTE.--No gage-height record Jan. 19 to Feb. 23, Mar. 8 to Apr. 9.

01097500 Sudbury River at Framingham Center, Mass.

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

DRAINAGE AREA.--75.2 sq mi since January 1881.

PERIOD OF RECORD.--January 1875 to current year.

AVERAGE DISCHARGE.--96 years, 112 cfs (20.23 inches per year), adjusted to present drainage area.

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.

REVISIONS (WATER YEARS).--WSP 1051: 1937.

## MONTHLY DISCHARGE AND RAINFALL, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| Month                   | Runoff<br>(millions of<br>gallons) | Discharge per square mile         |                          | Runoff<br>(inches) | Rainfall<br>(inches) |
|-------------------------|------------------------------------|-----------------------------------|--------------------------|--------------------|----------------------|
|                         |                                    | Millions<br>of gallons<br>per day | Cubic feet<br>per second |                    |                      |
| October.....            | 522.2                              | 0.224                             | 0.35                     | 0.40               | 2.84                 |
| November.....           | 1,231.5                            | .546                              | .84                      | .94                | 3.42                 |
| December.....           | 1,895.2                            | .813                              | 1.26                     | 1.45               | 4.81                 |
| Calendar year 1970..... | 30,475.3                           | 1.110                             | 1.72                     | 23.32              | 40.30                |
| January.....            | 1,573.0                            | .675                              | 1.04                     | 1.20               | 1.86                 |
| February.....           | 3,090.1                            | 1.468                             | 2.27                     | 2.36               | 4.51                 |
| March.....              | 7,339.9                            | 3.149                             | 4.87                     | 5.62               | 2.66                 |
| April.....              | 4,102.6                            | 1.819                             | 2.81                     | 3.14               | 2.64                 |
| May.....                | 3,958.1                            | 1.698                             | 2.63                     | 3.03               | 4.20                 |
| June.....               | 580.5                              | .257                              | .40                      | .44                | 1.43                 |
| July.....               | -181.8                             | -.078                             | -.12                     | -.14               | 4.19                 |
| August.....             | -65.7                              | -.028                             | -.04                     | -.05               | 2.74                 |
| September.....          | 70.8                               | .031                              | .05                      | .05                | 2.75                 |
| Water year 1971.....    | 24,116.4                           | .88                               | 1.36                     | 18.44              | 38.05                |

NOTE.--Negative figures indicate that evaporation and seepage from reservoirs exceeded inflow.

01099500 Concord River below River Meadow Brook, at Lowell, Mass.

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

DRAINAGE AREA.--Total above gage, 405 sq mi; net above gage, 312 sq mi (diversion as needed from 92.6 sq mi for use of Boston metropolitan district).

PERIOD OF RECORD.--October 1936 to current year. October, November 1936 monthly discharge only, published in WSP 1301.

GAGE.--Water-stage recorder. Datum of gage is 67.41 ft above mean sea level, datum of 1929.

AVERAGE DISCHARGE.--35 years, 446 cfs (19.41 inches per year), adjusted to net drainage area.

EXTREMES.--Current year: Maximum discharge, 1,970 cfs Mar. 20 (gage height, 6.94 ft); minimum daily, 55 cfs Sept. 6, 10, 11.  
Period of record: Maximum discharge, 4,800 cfs Mar. 22, 1968 (gage height, 9.16 ft); minimum daily, 4.0 cfs Sept. 29, 1957.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Daily discharge includes water wasted from 92.6 sq mi in basins of Sudbury River and Lake Cochituate. Prior to December 1961, water diverted above station for use of city of Lowell. Low flow regulated by mills above station. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC       | JAN    | FEB       | MAR        | APR        | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------------|---------------|----------|-----------|--------|-----------|------------|------------|--------|-------|-------|-------|-------|
| 1           | 110           | 217      | 329       | 434    | 320       | 1,100      | 1,440      | 752    | 656   | 138   | 140   | 102   |
| 2           | 100           | 204      | 334       | 434    | 300       | 1,200      | 1,420      | 758    | 619   | 128   | 154   | 91    |
| 3           | 95            | 214      | 325       | 434    | 290       | 1,300      | 1,420      | 778    | 592   | 115   | 151   | 85    |
| 4           | 100           | 231      | 367       | 434    | 275       | 1,400      | 1,410      | 824    | 580   | 113   | 243   | 75    |
| 5           | 130           | 302      | 424       | 461    | 265       | 1,500      | 1,400      | 824    | 552   | 111   | 201   | 65    |
| 6           | 130           | 325      | 461       | 485    | 269       | 1,500      | 1,360      | 804    | 516   | 100   | 174   | 55    |
| 7           | 120           | 325      | 467       | 494    | 273       | 1,450      | 1,350      | 791    | 475   | 91    | 151   | 56    |
| 8           | 110           | 307      | 445       | 478    | 286       | 1,450      | 1,380      | 771    | 440   | 83    | 128   | 59    |
| 9           | 100           | 286      | 413       | 445    | 320       | 1,400      | 1,410      | 752    | 445   | 83    | 113   | 58    |
| 10          | 95            | 265      | 397       | 413    | 347       | 1,400      | 1,420      | 831    | 430   | 77    | 100   | 55    |
| 11          | 90            | 273      | 377       | 397    | 367       | 1,350      | 1,400      | 859    | 404   | 70    | 93    | 55    |
| 12          | 86            | 273      | 367       | 377    | 387       | 1,350      | 1,370      | 887    | 376   | 65    | 93    | 75    |
| 13          | 82            | 265      | 347       | 360    | 400       | 1,300      | 1,350      | 959    | 344   | 66    | 93    | 106   |
| 14          | 78            | 298      | 357       | 362    | 450       | 1,300      | 1,290      | 1,090  | 314   | 68    | 91    | 189   |
| 15          | 75            | 347      | 367       | 372    | 500       | 1,400      | 1,220      | 1,110  | 294   | 66    | 85    | 240   |
| 16          | 82            | 418      | 347       | 370    | 580       | 1,500      | 1,170      | 1,140  | 270   | 68    | 83    | 255   |
| 17          | 100           | 429      | 329       | 365    | 680       | 1,660      | 1,110      | 1,210  | 247   | 73    | 79    | 240   |
| 18          | 120           | 418      | 382       | 350    | 740       | 1,740      | 1,060      | 1,230  | 225   | 87    | 70    | 212   |
| 19          | 110           | 402      | 450       | 325    | 780       | 1,840      | 1,040      | 1,220  | 208   | 95    | 65    | 177   |
| 20          | 95            | 392      | 483       | 305    | 800       | 1,930      | 1,010      | 1,180  | 186   | 111   | 118   | 157   |
| 21          | 86            | 424      | 511       | 300    | 810       | 1,960      | 978        | 1,130  | 198   | 115   | 85    | 148   |
| 22          | 85            | 434      | 505       | 298    | 820       | 1,940      | 936        | 1,090  | 229   | 113   | 71    | 135   |
| 23          | 127           | 435      | 456       | 298    | 830       | 1,900      | 894        | 1,040  | 192   | 106   | 71    | 125   |
| 24          | 224           | 429      | 413       | 294    | 840       | 1,850      | 852        | 994    | 186   | 95    | 70    | 111   |
| 25          | 320           | 408      | 429       | 286    | 860       | 1,790      | 824        | 957    | 174   | 81    | 66    | 102   |
| 26          | 362           | 377      | 450       | 294    | 880       | 1,730      | 791        | 906    | 192   | 77    | 59    | 97    |
| 27          | 357           | 347      | 460       | 325    | 920       | 1,660      | 771        | 846    | 177   | 102   | 58    | 93    |
| 28          | 329           | 320      | 461       | 335    | 1,000     | 1,590      | 745        | 798    | 162   | 93    | 83    | 95    |
| 29          | 277           | 316      | 456       | 334    | -----     | 1,550      | 752        | 756    | 154   | 79    | 108   | 91    |
| 30          | 246           | 325      | 450       | 325    | -----     | 1,510      | 765        | 703    | 143   | 95    | 123   | 85    |
| 31          | 235           | -----    | 439       | 325    | -----     | 1,470      | -----      | 679    | ----- | 115   | 113   | ----- |
| TOTAL       | 4,656         | 10,010   | 12,793    | 11,513 | 15,589    | 48,020     | 34,338     | 28,669 | 9,980 | 2,879 | 3,332 | 3,489 |
| MEAN        | 150           | 334      | 413       | 371    | 557       | 1,549      | 1,145      | 925    | 333   | 92.9  | 107   | 116   |
| MAX         | 362           | 435      | 511       | 454    | 1,000     | 1,960      | 1,440      | 1,230  | 656   | 138   | 243   | 255   |
| MIN         | 75            | 204      | 325       | 286    | 265       | 1,100      | 745        | 679    | 143   | 65    | 58    | 55    |
| MEAN†       | 132           | 272      | 268       | 234    | 377       | 1,121      | 916        | 702    | 283   | 72.0  | 87.7  | 93.8  |
| CFSMT       | .42           | .87      | .86       | .75    | 1.21      | 3.59       | 2.94       | 2.25   | .91   | .23   | .28   | .30   |
| IN.†        | .49           | .97      | .99       | .86    | 1.26      | 4.14       | 3.28       | 2.59   | 1.01  | .27   | .32   | .34   |
| CAL YR 1970 | TOTAL 242,434 | MEAN 664 | MAX 2,780 | MIN 49 | MEAN† 509 | CFSMT 1.63 | INT† 22.15 |        |       |       |       |       |
| WTR YR 1971 | TOTAL 185,273 | MEAN 508 | MAX 1,960 | MIN 55 | MEAN† 380 | CFSMT 1.22 | INT† 16.53 |        |       |       |       |       |

† Adjusted for water wasted from 92.6 sq mi in basins of Sudbury River and Lake Cochituate (figures represent net discharge from net drainage area).  
Records of wastage furnished by Water Division of Metropolitan District Commission.

NOTE.--No gage-height record Oct. 1-21, Feb. 13 to Mar. 15.

01100000 Merrimack River below Concord River, at Lowell, Mass.

(International Hydrological Decade River Station)

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

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

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

GAGE.--Water-stage recorder. Datum of gage is 5.18 ft above mean sea level. Prior to Mar. 7, 1934, at Booth Mills 1,800 ft upstream and 700 ft 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.

AVERAGE DISCHARGE.--48 years, 7,055 cfs (21.65 inches per year), adjusted for wastage to Merrimack River.

EXTREMES.--Current year: Maximum discharge, 31,700 cfs Apr. 15, May 6 (gage height, 48.93 ft); minimum daily, 337 cfs Sept. 6.  
Period of record: Maximum discharge, 173,000 cfs Mar. 20, 1936 (gage height, 68.4 ft, from floodmarks); minimum daily, 199 cfs Sept. 23, 1923.  
Maximum discharge since 1735, that of Mar. 20, 1936.

REMARKS.--Records excellent. Daily discharge includes water wasted from 210 sq mi in basins of Sudbury and South Branch Nashua Rivers and Lake Cochituate. Flow regulated by powerplants, by Franklin Falls Reservoir since 1942, and by Squam, Newfound, Winnepesaukee, Winnisquam, and other lakes and reservoirs above station. See page 65 for description and monthend usable contents of many of these reservoirs. Records of chemical analyses and suspended-sediment loads for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT    | NOV       | DEC     | JAN     | FEB     | MAR     | APR     | MAY     | JUN     | JUL    | AUG    | SEP    |     |       |
|-------------|--------|-----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|-----|-------|
| 1           | 1,990  | 3,350     | 5,020   | 3,430   | 4,330   | 8,880   | 11,700  | 19,100  | 7,170   | 2,500  | 2,980  | 2,430  |     |       |
| 2           | 2,380  | 3,830     | 4,830   | 4,220   | 3,900   | 9,240   | 12,300  | 18,000  | 6,770   | 2,370  | 2,880  | 2,340  |     |       |
| 3           | 2,080  | 3,200     | 4,450   | 4,070   | 3,750   | 9,520   | 15,300  | 17,400  | 5,990   | 1,920  | 3,100  | 2,370  |     |       |
| 4           | 1,330  | 2,880     | 5,170   | 4,360   | 3,570   | 9,200   | 20,700  | 21,500  | 5,680   | 1,760  | 3,390  | 1,440  |     |       |
| 5           | 2,440  | 3,450     | 7,440   | 4,450   | 3,680   | 8,260   | 23,300  | 29,500  | 5,160   | 782    | 3,760  | 1,080  |     |       |
| 6           | 3,350  | 3,620     | 7,410   | 4,810   | 3,210   | 8,080   | 23,300  | 30,600  | 5,100   | 2,190  | 3,120  | 337    |     |       |
| 7           | 3,130  | 3,010     | 6,880   | 4,990   | 3,350   | 7,960   | 22,300  | 26,200  | 4,720   | 2,240  | 3,040  | 2,180  |     |       |
| 8           | 3,330  | 2,800     | 5,860   | 4,940   | 3,850   | 7,960   | 22,200  | 21,700  | 4,120   | 2,150  | 2,370  | 2,160  |     |       |
| 9           | 3,270  | 3,480     | 4,600   | 4,520   | 3,880   | 7,690   | 20,300  | 19,300  | 4,310   | 1,760  | 2,330  | 2,030  |     |       |
| 10          | 3,060  | 3,640     | 4,710   | 4,230   | 4,080   | 7,640   | 18,300  | 19,000  | 4,370   | 1,160  | 2,340  | 1,760  |     |       |
| 11          | 2,400  | 3,280     | 4,680   | 4,330   | 4,150   | 7,620   | 20,100  | 19,200  | 4,310   | 618    | 2,240  | 960    |     |       |
| 12          | 2,490  | 3,000     | 4,360   | 4,300   | 4,430   | 7,540   | 24,100  | 17,700  | 3,780   | 1,540  | 2,530  | 901    |     |       |
| 13          | 2,440  | 3,330     | 4,690   | 4,330   | 4,250   | 6,920   | 26,700  | 17,800  | 3,250   | 1,610  | 2,260  | 1,780  |     |       |
| 14          | 1,640  | 2,630     | 5,090   | 3,620   | 5,040   | 7,160   | 29,900  | 20,300  | 3,150   | 1,490  | 1,570  | 2,160  |     |       |
| 15          | 1,700  | 2,790     | 5,280   | 3,790   | 5,710   | 7,540   | 31,200  | 21,300  | 2,730   | 1,330  | 806    | 2,510  |     |       |
| 16          | 2,190  | 4,340     | 5,070   | 4,590   | 6,820   | 8,920   | 29,400  | 18,800  | 2,770   | 1,240  | 2,160  | 3,390  |     |       |
| 17          | 2,050  | 4,260     | 4,810   | 4,000   | 6,890   | 12,000  | 25,300  | 17,000  | 2,580   | 588    | 2,090  | 3,070  |     |       |
| 18          | 2,330  | 3,750     | 4,580   | 4,000   | 7,430   | 14,400  | 21,400  | 15,300  | 2,380   | 518    | 2,170  | 1,910  |     |       |
| 19          | 2,390  | 4,040     | 4,320   | 3,630   | 7,400   | 14,400  | 19,600  | 14,600  | 1,740   | 1,420  | 1,870  | 2,560  |     |       |
| 20          | 2,560  | 4,070     | 5,190   | 3,980   | 6,840   | 13,900  | 20,100  | 14,100  | 1,580   | 1,540  | 1,380  | 3,220  |     |       |
| 21          | 2,340  | 4,900     | 4,940   | 3,750   | 6,210   | 13,100  | 23,300  | 13,200  | 2,080   | 1,580  | 1,020  | 2,520  |     |       |
| 22          | 2,360  | 6,480     | 4,640   | 3,480   | 6,550   | 12,400  | 26,400  | 13,100  | 2,180   | 1,550  | 970    | 2,510  |     |       |
| 23          | 3,030  | 8,040     | 4,250   | 3,280   | 6,400   | 11,500  | 26,200  | 12,900  | 2,300   | 1,620  | 1,790  | 2,500  |     |       |
| 24          | 5,490  | 7,270     | 4,500   | 3,310   | 6,280   | 10,900  | 24,100  | 12,300  | 2,340   | 1,220  | 1,700  | 2,310  |     |       |
| 25          | 6,620  | 7,390     | 3,570   | 4,040   | 6,230   | 10,800  | 21,400  | 11,300  | 2,290   | 1,080  | 1,360  | 1,440  |     |       |
| 26          | 6,640  | 6,270     | 4,210   | 3,870   | 6,030   | 10,200  | 19,900  | 9,500   | 2,040   | 1,720  | 1,050  | 1,500  |     |       |
| 27          | 5,720  | 5,220     | 4,810   | 4,840   | 5,830   | 9,720   | 19,300  | 8,960   | 1,860   | 2,100  | 1,070  | 2,380  |     |       |
| 28          | 4,920  | 4,430     | 4,780   | 5,190   | 6,500   | 9,680   | 18,000  | 9,570   | 3,030   | 1,850  | 988    | 2,410  |     |       |
| 29          | 3,980  | 4,000     | 4,670   | 4,440   | -----   | 10,000  | 16,900  | 8,310   | 2,960   | 1,810  | 1,140  | 2,180  |     |       |
| 30          | 3,390  | 4,960     | 4,780   | 4,430   | -----   | 10,600  | 18,000  | 7,180   | 2,590   | 1,780  | 3,240  | 1,870  |     |       |
| 31          | 2,840  | -----     | 4,460   | 4,020   | -----   | 11,400  | -----   | 7,130   | -----   | 1,540  | 2,650  | -----  |     |       |
| TOTAL       | 95,880 | 127,710   | 154,050 | 129,240 | 146,590 | 305,130 | 651,000 | 511,850 | 105,330 | 48,576 | 65,364 | 62,208 |     |       |
| MEAN        | 3,093  | 4,257     | 4,969   | 4,169   | 5,235   | 9,843   | 21,700  | 16,510  | 3,511   | 1,567  | 2,109  | 2,074  |     |       |
| MAX         | 6,640  | 8,040     | 7,440   | 5,190   | 7,430   | 14,400  | 31,200  | 30,600  | 7,170   | 2,590  | 3,760  | 3,390  |     |       |
| MIN         | 1,330  | 2,630     | 3,570   | 3,280   | 3,210   | 6,920   | 11,700  | 7,130   | 1,580   | 518    | 806    | 337    |     |       |
| MEAN†       | 3,067  | 4,188     | 4,818   | 4,024   | 5,047   | 9,407   | 21,460  | 16,280  | 3,453   | 1,538  | 2,081  | 2,043  |     |       |
| CFSM†       | .69    | .95       | 1.09    | .91     | 1.14    | 2.13    | 4.85    | 3.68    | .78     | .35    | .47    | .46    |     |       |
| IN.†        | .80    | 1.06      | 1.26    | 1.05    | 1.19    | 2.45    | 5.41    | 4.24    | .87     | .40    | .54    | .52    |     |       |
| CAL YR 1970 | TOTAL  | 2,857,085 | MEAN    | 7,828   | MAX     | 40,700  | MIN     | 397     | MEAN†   | 7,665  | CFSM†  | 1.73   | IN† | 23.52 |
| WTR YR 1971 | TOTAL  | 2,402,928 | MEAN    | 6,583   | MAX     | 31,200  | MIN     | 337     | MEAN†   | 6,448  | CFSM†  | 1.46   | IN† | 19.78 |

† Adjusted for water wasted from 210 sq mi in basins of Sudbury and South Branch Nashua Rivers and Lake Cochituate (figures represent net discharge from net drainage area). Records of wastage furnished by Water Division of Metropolitan District Commission.

NOTE.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

01100600 Shawsheen River near Wilmington, Mass.

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

DRAINAGE AREA.--36.6 sq mi.

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

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

AVERAGE DISCHARGE.--7 years (1964-71), 48.1 cfs (18.61 inches per year).

EXTREMES.--Current year: Maximum discharge, 329 cfs Mar. 17 (gage height, 5.87 ft); minimum, 4.3 cfs Sept. 6, 7, 11, 12.

Period of record: Maximum discharge, 1,050 cfs Mar. 19, 1968 (gage height, 8.60 ft); minimum, 1.2 cfs Aug. 30, 31, Sept. 1, 2-4, 1966.

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

REVISIONS.--WRD Mass., N.H., R.I., Vt. 1969: Drainage area. Revised figures of discharge in cubic feet per second per square mile and runoff in inches for water year 1970, superseding those published in WRD Mass., N.H., R.I., Vt. 1970, are given herewith:

|      | Oct. | Nov. | Dec. | Cal.<br>Year<br>1969 | Jan. | Feb. | Mar. | Apr. | May  | June | July | Aug. | Sept. | Water<br>Year<br>1970 |
|------|------|------|------|----------------------|------|------|------|------|------|------|------|------|-------|-----------------------|
| CFSM | .46  | 3.17 | 4.18 | 1.78                 | 1.99 | 4.48 | 2.48 | 3.39 | 1.95 | 1.11 | .48  | .36  | .34   | 2.01                  |
| IN.  | .53  | 3.53 | 4.81 | 24.22                | 2.29 | 4.68 | 2.86 | 3.79 | 2.25 | 1.23 | .55  | .42  | .38   | 27.32                 |

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 11    | 19    | 30    | 30   | 28    | 160   | 90    | 78    | 44    | 14    | 29    | 6.5   |
| 2     | 10    | 19    | 29    | 29   | 26    | 170   | 86    | 76    | 47    | 15    | 35    | 5.8   |
| 3     | 8.8   | 23    | 28    | 29   | 24    | 155   | 85    | 71    | 46    | 15    | 31    | 5.2   |
| 4     | 14    | 33    | 35    | 30   | 20    | 145   | 89    | 80    | 48    | 14    | 36    | 4.9   |
| 5     | 19    | 38    | 53    | 31   | 19    | 140   | 90    | 98    | 55    | 12    | 34    | 4.4   |
| 6     | 14    | 48    | 65    | 35   | 20    | 135   | 83    | 87    | 56    | 11    | 23    | 4.3   |
| 7     | 12    | 56    | 61    | 39   | 22    | 130   | 81    | 75    | 49    | 9.6   | 16    | 4.4   |
| 8     | 10    | 52    | 44    | 41   | 24    | 130   | 102   | 67    | 39    | 8.4   | 12    | 5.0   |
| 9     | 9.6   | 40    | 32    | 39   | 27    | 125   | 126   | 63    | 42    | 7.8   | 9.1   | 5.1   |
| 10    | 9.2   | 30    | 29    | 37   | 29    | 119   | 123   | 72    | 57    | 7.2   | 7.6   | 4.5   |
| 11    | 9.1   | 28    | 29    | 34   | 32    | 110   | 111   | 107   | 62    | 6.7   | 7.0   | 4.6   |
| 12    | 9.1   | 33    | 28    | 32   | 35    | 105   | 99    | 108   | 49    | 6.4   | 10    | 5.7   |
| 13    | 9.1   | 34    | 26    | 30   | 40    | 101   | 88    | 92    | 36    | 6.1   | 12    | 14    |
| 14    | 8.8   | 34    | 26    | 28   | 60    | 100   | 81    | 137   | 30    | 6.3   | 8.4   | 19    |
| 15    | 10    | 42    | 27    | 26   | 100   | 109   | 72    | 157   | 25    | 7.7   | 7.0   | 22    |
| 16    | 14    | 49    | 24    | 26   | 130   | 216   | 67    | 115   | 22    | 13    | 6.8   | 17    |
| 17    | 22    | 54    | 24    | 25   | 120   | 314   | 63    | 117   | 20    | 16    | 6.5   | 13    |
| 18    | 18    | 53    | 34    | 23   | 100   | 240   | 63    | 136   | 19    | 27    | 5.8   | 11    |
| 19    | 14    | 44    | 41    | 21   | 92    | 181   | 63    | 111   | 16    | 22    | 5.1   | 9.1   |
| 20    | 13    | 37    | 50    | 19   | 94    | 176   | 67    | 91    | 14    | 20    | 9.4   | 8.0   |
| 21    | 13    | 39    | 52    | 18   | 96    | 201   | 71    | 80    | 14    | 19    | 10    | 8.0   |
| 22    | 13    | 47    | 54    | 18   | 100   | 167   | 66    | 73    | 26    | 16    | 7.6   | 9.1   |
| 23    | 18    | 51    | 48    | 19   | 95    | 146   | 61    | 71    | 32    | 13    | 6.3   | 8.0   |
| 24    | 41    | 48    | 42    | 20   | 100   | 137   | 56    | 67    | 31    | 9.4   | 5.6   | 7.0   |
| 25    | 52    | 41    | 40    | 21   | 105   | 123   | 53    | 61    | 25    | 8.0   | 5.2   | 6.5   |
| 26    | 55    | 33    | 38    | 23   | 95    | 113   | 52    | 54    | 28    | 7.2   | 5.0   | 6.1   |
| 27    | 48    | 29    | 37    | 25   | 92    | 105   | 52    | 51    | 28    | 7.6   | 5.3   | 6.2   |
| 28    | 35    | 29    | 36    | 30   | 110   | 100   | 52    | 48    | 25    | 9.4   | 11    | 6.6   |
| 29    | 27    | 29    | 35    | 32   | ----- | 98    | 56    | 46    | 20    | 8.3   | 14    | 6.6   |
| 30    | 23    | 29    | 33    | 31   | ----- | 96    | 67    | 42    | 17    | 9.6   | 11    | 6.2   |
| 31    | 20    | ----- | 31    | 30   | ----- | 94    | ----- | 41    | ----- | 20    | 7.7   | ----- |
| TOTAL | 589.7 | 1,141 | 1,161 | 871  | 1,835 | 4,441 | 2,315 | 2,572 | 1,021 | 372.7 | 359.4 | 243.8 |
| MEAN  | 19.0  | 38.0  | 37.5  | 28.1 | 65.5  | 143   | 77.2  | 83.0  | 34.0  | 12.0  | 12.9  | 8.13  |
| MAX   | 55    | 56    | 65    | 41   | 130   | 314   | 126   | 157   | 62    | 27    | 36    | 22    |
| MIN   | 8.8   | 19    | 24    | 18   | 19    | 94    | 52    | 41    | 14    | 6.1   | 5.0   | 4.3   |
| CFSM  | .52   | 1.04  | 1.02  | .77  | 1.79  | 3.91  | 2.11  | 2.27  | .93   | .33   | .35   | .22   |
| IN.   | .60   | 1.16  | 1.18  | .89  | 1.87  | 4.51  | 2.35  | 2.61  | 1.04  | .38   | .41   | .25   |

CAL YR 1970 TOTAL 21,042.6 MEAN 57.7 MAX 655 MIN 4.7 CFSM 1.58 IN 21.39  
WTR YR 1971 TOTAL 16,962.6 MEAN 46.5 MAX 314 MIN 4.3 CFSM 1.27 IN 17.24

## PEAK DISCHARGE (BASE, 300 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 3-17 | 0945 | 5.87  | 329       |      |      |       |           |



01100700 East Meadow River near Haverhill, Mass.

LOCATION.--Lat 42°48'41", long 71°01'59", Essex County, on left bank 10 ft downstream from culvert on State Highway 110 and 3.5 miles northeast of Haverhill.

DRAINAGE AREA.--4.93 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 50 ft (from topographic map).

AVERAGE DISCHARGE.--8 years (1963-71), 7.87 cfs (21.68 inches per year).

EXTREMES.--Current year: Maximum discharge, 55 cfs Mar. 17 (gage height, 4.10 ft); minimum, 0.13 cfs Aug. 10.  
Period of record: Maximum discharge, 211 cfs Mar. 19, 1968 (gage height, 5.45 ft); minimum, 0.05 cfs Sept. 5, 6, 1963.

REMARKS.--Records good except those for winter period, which are fair. Recording rain gage at station since March 1963 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR  | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| 1     | 1.5   | 3.2   | 5.7   | 3.9   | 4.0   | 27   | 30    | 20    | 8.8   | 3.2   | 1.9   | .37   |
| 2     | 1.3   | 3.1   | 5.5   | 3.8   | 3.6   | 30   | 30    | 19    | 7.0   | 8.3   | 1.1   | .31   |
| 3     | 1.3   | 3.1   | 5.0   | 3.8   | 3.4   | 27   | 40    | 22    | 6.2   | 5.3   | .88   | .28   |
| 4     | 1.6   | 3.1   | 9.9   | 3.7   | 2.9   | 23   | 42    | 26    | 6.8   | 2.9   | 2.6   | .31   |
| 5     | 1.6   | 8.2   | 16    | 4.0   | 2.6   | 21   | 35    | 20    | 6.2   | 2.2   | 2.6   | .28   |
| 6     | 1.6   | 14    | 11    | 4.8   | 2.7   | 21   | 29    | 16    | 5.3   | 1.9   | .67   | .31   |
| 7     | 1.5   | 10    | 8.0   | 6.0   | 2.9   | 20   | 29    | 13    | 4.8   | 1.7   | .31   | .31   |
| 8     | 1.4   | 6.5   | 5.5   | 6.2   | 3.1   | 20   | 32    | 11    | 5.3   | 1.6   | .20   | .34   |
| 9     | 1.2   | 4.8   | 4.5   | 6.2   | 3.5   | 20   | 32    | 12    | 12    | 1.5   | .15   | .34   |
| 10    | 1.4   | 4.3   | 3.9   | 5.2   | 3.6   | 19   | 34    | 29    | 10    | 1.5   | .14   | .34   |
| 11    | 1.3   | 5.5   | 3.8   | 4.2   | 4.2   | 16   | 36    | 26    | 5.9   | 1.2   | .22   | .31   |
| 12    | 1.3   | 8.0   | 3.7   | 3.9   | 4.6   | 15   | 33    | 17    | 4.5   | 1.1   | 1.2   | .51   |
| 13    | 1.3   | 7.0   | 3.4   | 3.6   | 6.0   | 15   | 28    | 21    | 4.1   | 1.1   | .61   | .67   |
| 14    | 1.3   | 7.0   | 3.4   | 3.4   | 11    | 16   | 25    | 46    | 4.1   | 1.1   | .25   | 2.9   |
| 15    | 1.3   | 9.0   | 3.5   | 3.3   | 21    | 19   | 22    | 31    | 3.8   | 1.1   | .20   | 2.7   |
| 16    | 1.4   | 13    | 3.2   | 3.2   | 23    | 37   | 20    | 22    | 3.6   | 1.1   | .18   | 1.5   |
| 17    | 1.4   | 11    | 4.0   | 3.0   | 25    | 54   | 19    | 30    | 3.3   | 1.1   | .15   | 3.0   |
| 18    | 1.4   | 7.7   | 5.2   | 2.8   | 19    | 48   | 18    | 28    | 3.2   | 2.2   | .15   | 3.5   |
| 19    | 1.4   | 6.5   | 6.2   | 2.6   | 15    | 39   | 21    | 20    | 2.9   | 1.8   | .15   | 1.8   |
| 20    | 1.4   | 6.2   | 7.0   | 2.4   | 13    | 36   | 22    | 16    | 2.6   | 2.1   | 3.6   | 1.1   |
| 21    | 1.4   | 9.6   | 7.8   | 2.3   | 12    | 38   | 19    | 14    | 3.3   | 1.6   | 5.1   | .96   |
| 22    | 1.3   | 10    | 8.0   | 2.3   | 11    | 34   | 16    | 14    | 12    | 1.1   | 1.1   | .88   |
| 23    | 7.2   | 8.5   | 7.0   | 2.3   | 11    | 30   | 14    | 15    | 11    | .88   | .37   | .74   |
| 24    | 27    | 9.0   | 6.0   | 2.3   | 11    | 27   | 13    | 12    | 5.9   | .81   | .28   | .67   |
| 25    | 20    | 7.2   | 5.3   | 2.3   | 11    | 25   | 12    | 9.9   | 4.4   | .81   | .25   | .61   |
| 26    | 11    | 5.2   | 5.0   | 2.8   | 10    | 24   | 15    | 9.1   | 6.1   | .74   | .22   | .61   |
| 27    | 7.5   | 5.0   | 4.8   | 3.7   | 10    | 24   | 14    | 8.0   | 5.0   | .96   | .61   | .67   |
| 28    | 5.5   | 5.2   | 4.6   | 5.0   | 14    | 24   | 12    | 7.3   | 3.5   | 1.1   | 2.1   | .67   |
| 29    | 4.3   | 5.5   | 4.4   | 6.2   | ----- | 27   | 15    | 6.8   | 2.7   | .88   | 1.6   | .74   |
| 30    | 3.9   | 5.7   | 4.3   | 6.5   | ----- | 33   | 21    | 6.4   | 2.5   | 1.6   | .67   | .56   |
| 31    | 3.4   | ----- | 4.1   | 5.0   | ----- | 32   | ----- | 7.0   | ----- | 2.2   | .46   | ----- |
| TOTAL | 120.4 | 212.1 | 179.7 | 120.7 | 264.3 | 841  | 728   | 554.5 | 166.8 | 56.68 | 30.02 | 28.29 |
| MEAN  | 3.88  | 7.07  | 5.80  | 3.89  | 9.44  | 27.1 | 24.3  | 17.9  | 5.56  | 1.83  | .97   | .94   |
| MAX   | 27    | 14    | 16    | 6.5   | 25    | 54   | 42    | 46    | 12    | 8.3   | 5.1   | 3.5   |
| MIN   | 1.2   | 3.1   | 3.2   | 2.3   | 2.6   | 15   | 12    | 6.4   | 2.5   | .74   | .14   | .28   |
| CFSM  | .79   | 1.43  | 1.18  | .79   | 1.91  | 5.50 | 4.93  | 3.63  | 1.13  | .37   | .20   | .19   |
| IN.   | .91   | 1.60  | 1.36  | .91   | 1.99  | 6.35 | 5.49  | 4.18  | 1.26  | .43   | .23   | .21   |

CAL YR 1970 TOTAL 3,349.41 MEAN 9.18 MAX 96 MIN .45 CFSM 1.86 IN 25.27  
WTR YR 1971 TOTAL 3,302.49 MEAN 9.05 MAX 54 MIN .14 CFSM 1.84 IN 24.92

PEAK DISCHARGE (BASE, 65 CFS).--No peaks above base.

## Reservoirs in Merrimack River basin

01077500. NEWFOUND LAKE on Newfound River, 1.7 miles north of Bristol, N.H., used for recreation and for storage of water for power, has usable capacity of 1,690,000,000 cu ft. Records furnished by Public Service Co. of New Hampshire.
01078500. FRANKLIN FALLS RESERVOIR on Pemigewasset River, 2 miles north of Franklin, N.H., completed in 1942, used for flood control, has usable capacity of 6,700,000,000 cu ft. Records furnished by Corps of Engineers.
01079000. MERRYMEETING LAKE on Merrymeeting River, 2.5 miles northeast of Alton, N.H., used for recreation and for storage of water for power, has usable capacity of 368,000,000 cu ft. Records furnished by New Hampshire Fish and Game Department.
01079500. LAKE WENTWORTH above Lake Winnepesaukee at Wolfeboro Falls, N.H., used for recreation and for storage of water for power, has usable capacity of 854,000,000 cu ft. Records furnished by O. P. Berry Co.
01080000. LAKE WINNIPESAUKEE on Winnepesaukee River (see p. 35 ).
01082500. EDWARD MACDOWELL RESERVOIR on Nubanusit Brook, at West Peterborough, N.H., 2 miles northwest of Peterborough, completed in 1950, used for flood control, has usable capacity of 558,000,000 cu ft. Records furnished by Corps of Engineers.
01085400. HOPKINTON LAKE on Contoocook River, at West Hopkinton, N.H., completed in 1962, used for flood control and recreation, has usable capacity of 3,084,000,000 cu ft. Records furnished by Corps of Engineers.
01086500. BLACKWATER RESERVOIR on Blackwater River, at Swett's Mills, 1 mile south of Webster, N.H., completed in 1941, used for flood control, has usable capacity of 2,004,000,000 cu ft. Records furnished by Corps of Engineers.
01090700. EVERETT LAKE on Piscataquog River, 1.3 miles southeast of East Weare, N.H., completed in 1962, used for flood control and recreation, has usable capacity of 3,768,000,000 cu ft. Records furnished by Corps of Engineers.  
Hopkinton and Everett Lakes, connected by a canal, are operated as a unit above elevation 400.00 ft. Diversion from Hopkinton Lake to Everett Lake in March 1968, April 1969.
01092500. TOWER HILL POND on Maple Falls Brook, 2.3 miles north of Auburn, N.H., completed in 1939, used for storage of water for municipal supply and for power, has usable capacity of 182,000,000 cu ft. Records furnished by Manchester Water Works.
01093500. MASSABESIC LAKE on Cohas Brook, 2.5 miles southeast of Manchester, N.H., used for storage of water for municipal supply, has usable capacity of 724,000,000 cu ft. Records furnished by Manchester Water Works.

## MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

|                     | Newfound<br>Lake | Franklin<br>Falls<br>Reservoir | Merrymeeting<br>Lake | Lake<br>Wentworth | Edward<br>MacDowell<br>Reservoir |
|---------------------|------------------|--------------------------------|----------------------|-------------------|----------------------------------|
| Sept. 30, 1970..... | 965              | 135                            | 299                  | 594               | 18.3                             |
| Oct. 31 .....       | 1,080            | 118                            | 310                  | a 620             | 17.5                             |
| Nov. 30 .....       | 1,242            | 122                            | 262                  | a 650             | 18.3                             |
| Dec. 31 .....       | 1,089            | 109                            | 300                  | -                 | 17.5                             |
| Jan. 31, 1971.....  | 865              | 115                            | 306                  | -                 | 17.5                             |
| Feb. 28 .....       | 791              | 122                            | 332                  | -                 | 19.1                             |
| Mar. 31 .....       | 746              | 122                            | 228                  | -                 | 21.6                             |
| Apr. 30 .....       | 1,491            | 316                            | 286                  | a 880             | 32.0                             |
| May 31 .....        | 1,544            | 135                            | 345                  | a 830             | 18.3                             |
| June 30 .....       | 1,350            | 113                            | 332                  | a 770             | 17.5                             |
| July 31 .....       | 1,133            | 105                            | 318                  | a 720             | 24.1                             |
| Aug. 31 .....       | 993              | 107                            | 302                  | a 670             | 18.3                             |
| Sept. 30 .....      | 854              | 118                            | 284                  | 626               | 16.7                             |

|                     | Hopkinton<br>Lake | Blackwater<br>Reservoir | Everett<br>Lake | Tower Hill<br>Pond | Massabesic<br>Lake |
|---------------------|-------------------|-------------------------|-----------------|--------------------|--------------------|
| Sept. 30, 1970..... | 12.9              | 0.2                     | 46.4            | 128.6              | 340                |
| Oct. 31 .....       | 11.3              | .5                      | 51.5            | 75.5               | 371                |
| Nov. 30 .....       | 18.8              | .7                      | 48.7            | 74.1               | 411                |
| Dec. 31 .....       | 27.9              | .8                      | 57.2            | 85.3               | 493                |
| Jan. 31, 1971.....  | 31.7              | .8                      | 57.7            | 48.0               | 396                |
| Feb. 28 .....       | 42.1              | 1.0                     | 59.4            | 61.8               | 351                |
| Mar. 31 .....       | 46.1              | 1.7                     | 52.6            | 92.5               | 359                |
| Apr. 30 .....       | 44.7              | 8.1                     | 57.7            | 174.5              | 657                |
| May 31 .....        | 32.2              | 1.0                     | 54.3            | 173.5              | 692                |
| June 30 .....       | 25.7              | .2                      | 47.0            | 172.6              | 598                |
| July 31 .....       | 22.7              | .2                      | 49.2            | 174.5              | 492                |
| Aug. 31 .....       | 15.5              | .5                      | 48.1            | 171.8              | 387                |
| Sept. 30 .....      | 8.5               | .2                      | 46.4            | 171.8              | 336                |

a Estimated.

## PARKER RIVER BASIN

01101000 Parker River at Byfield, Mass.

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

DRAINAGE AREA.--21.6 sq mi.

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

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

AVERAGE DISCHARGE.--26 years, 34.5 cfs (21.69 inches per year).

EXTREMES.--Current year: Maximum discharge, 164 cfs Mar. 19 (gage height, 3.39 ft); minimum daily, 1.8 cfs Sept. 15, 29, 30.  
Period of record: Maximum discharge, 489 cfs Mar. 19, 1968 (gage height, 5.61 ft); minimum daily, 0.09 cfs Sept. 25-30, Oct. 3-6, 1957.

REMARKS.--Records excellent except those below 10 cfs, which are good. Some regulation at low flow by mill and ponds above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT            | NOV       | DEC     | JAN     | FEB       | MAR      | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|----------------|-----------|---------|---------|-----------|----------|-------|-------|-------|-------|-------|-------|
| 1           | 3.2            | 16        | 23      | 29      | 20        | 74       | 106   | 56    | 40    | 7.7   | 5.8   | 3.0   |
| 2           | 3.0            | 15        | 22      | 28      | 19        | 82       | 103   | 56    | 38    | 8.0   | 6.0   | 2.7   |
| 3           | 3.0            | 14        | 21      | 27      | 19        | 88       | 105   | 57    | 37    | 8.0   | 5.8   | 2.5   |
| 4           | 3.4            | 13        | 25      | 26      | 18        | 86       | 106   | 60    | 36    | 7.7   | 11    | 2.3   |
| 5           | 3.2            | 20        | 27      | 28      | 18        | 88       | 104   | 62    | 35    | 7.2   | 11    | 2.3   |
| 6           | 3.4            | 25        | 30      | 28      | 18        | 89       | 98    | 61    | 33    | 6.3   | 13    | 2.2   |
| 7           | 3.4            | 30        | 30      | 28      | 18        | 91       | 104   | 57    | 31    | 5.5   | 14    | 2.3   |
| 8           | 3.4            | 33        | 27      | 27      | 18        | 91       | 109   | 54    | 31    | 4.7   | 13    | 2.3   |
| 9           | 3.2            | 32        | 24      | 27      | 20        | 89       | 110   | 54    | 32    | 4.2   | 12    | 2.2   |
| 10          | 3.2            | 29        | 23      | 28      | 20        | 86       | 112   | 62    | 31    | 3.8   | 10    | 2.2   |
| 11          | 3.2            | 28        | 22      | 27      | 20        | 82       | 112   | 71    | 31    | 3.4   | 10    | 2.0   |
| 12          | 3.2            | 27        | 21      | 26      | 20        | 77       | 107   | 72    | 29    | 3.0   | 9.8   | 2.0   |
| 13          | 3.2            | 26        | 21      | 24      | 23        | 74       | 101   | 75    | 27    | 2.8   | 9.1   | 2.0   |
| 14          | 3.4            | 27        | 20      | 24      | 27        | 72       | 95    | 89    | 26    | 2.8   | 8.4   | 2.0   |
| 15          | 3.0            | 29        | 20      | 24      | 27        | 75       | 88    | 99    | 23    | 2.5   | 7.4   | 1.8   |
| 16          | 3.4            | 32        | 20      | 23      | 29        | 94       | 82    | 96    | 21    | 2.3   | 6.6   | 2.2   |
| 17          | 3.2            | 34        | 23      | 23      | 32        | 124      | 77    | 103   | 19    | 3.4   | 6.0   | 2.3   |
| 18          | 3.2            | 34        | 26      | 23      | 34        | 153      | 72    | 104   | 17    | 3.4   | 5.2   | 2.3   |
| 19          | 3.2            | 32        | 27      | 22      | 38        | 161      | 72    | 99    | 15    | 4.0   | 4.5   | 2.3   |
| 20          | 3.2            | 31        | 29      | 21      | 42        | 163      | 71    | 90    | 13    | 4.5   | 5.0   | 2.2   |
| 21          | 3.2            | 32        | 31      | 20      | 46        | 159      | 68    | 82    | 12    | 4.5   | 4.2   | 2.3   |
| 22          | 3.2            | 32        | 31      | 20      | 49        | 155      | 63    | 77    | 13    | 4.2   | 4.0   | 2.2   |
| 23          | 6.0            | 34        | 30      | 19      | 53        | 151      | 60    | 73    | 12    | 3.4   | 4.0   | 2.0   |
| 24          | 10             | 34        | 29      | 19      | 54        | 145      | 56    | 68    | 12    | 2.7   | 3.6   | 1.9   |
| 25          | 15             | 32        | 28      | 19      | 56        | 137      | 54    | 64    | 11    | 2.7   | 3.2   | 1.9   |
| 26          | 19             | 29        | 29      | 19      | 58        | 129      | 52    | 59    | 12    | 2.5   | 2.7   | 1.9   |
| 27          | 20             | 26        | 29      | 20      | 61        | 121      | 50    | 54    | 11    | 4.5   | 3.4   | 1.9   |
| 28          | 20             | 25        | 29      | 20      | 67        | 115      | 49    | 50    | 10    | 3.6   | 3.4   | 1.9   |
| 29          | 19             | 24        | 30      | 21      | -----     | 112      | 51    | 47    | 9.4   | 3.8   | 3.4   | 1.8   |
| 30          | 18             | 24        | 30      | 21      | -----     | 109      | 53    | 44    | 8.0   | 5.0   | 3.4   | 1.8   |
| 31          | 17             | -----     | 30      | 20      | -----     | 108      | ----- | 42    | ----- | 5.2   | 3.4   | ----- |
| TOTAL       | 215.0          | 819       | 807     | 731     | 924       | 3,380    | 2,490 | 2,137 | 675.4 | 137.3 | 212.3 | 64.7  |
| MEAN        | 6.94           | 27.3      | 26.0    | 23.6    | 33.0      | 109      | 83.0  | 68.9  | 22.5  | 4.43  | 6.85  | 2.16  |
| MAX         | 20             | 34        | 31      | 29      | 67        | 163      | 112   | 104   | 40    | 8.0   | 14    | 3.0   |
| MIN         | 3.0            | 13        | 20      | 19      | 18        | 72       | 49    | 42    | 8.0   | 2.3   | 2.7   | 1.8   |
| CFSM        | .32            | 1.26      | 1.20    | 1.09    | 1.53      | 5.05     | 3.84  | 3.19  | 1.04  | .21   | .32   | .10   |
| IN.         | .37            | 1.41      | 1.39    | 1.26    | 1.59      | 5.82     | 4.29  | 3.68  | 1.16  | .24   | .37   | .11   |
| CAL YR 1970 | TOTAL 13,193.2 | MEAN 36.1 | MAX 180 | MIN 1.6 | CFSM 1.67 | IN 22.72 |       |       |       |       |       |       |
| WTR YR 1971 | TOTAL 12,592.7 | MEAN 34.5 | MAX 163 | MIN 1.8 | CFSM 1.60 | IN 21.69 |       |       |       |       |       |       |

01101300 Maple Meadow Brook at Wilmington, Mass.

LOCATION.--Lat 42°32'15", long 71°09'41", Middlesex County, on right bank 10 ft upstream from culvert on State Highway 38 and 0.9 mile southeast of Wilmington.

DRAINAGE AREA.--3.99 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 75.71 ft above mean sea level.

AVERAGE DISCHARGE.--8 years (1963-71), 6.70 cfs (22.80 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 41 cfs Mar. 17 (gage height, 3.90 ft); no flow for many days during year.

Period of record: Maximum discharge, 119 cfs Mar. 19, 1968 (gage height, 5.63 ft), from rating curve extended above 47 cfs on basis of measurements of flow through culvert at gage heights 5.33 and 5.63 ft; no flow for many days each year.

REMARKS.--Records good except those for winter period, which are fair. Water diverted above station for municipal supply of Wilmington since January 1964 (see table below). Recording rain gage at station since March 1963 (no winter records).

REVISIONS (WATER YEARS).--WRD Mass., N.H., R.I., Vt., 1968: 1964-67 (monthly and yearly runoff and diversions).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN  | FEB   | MAR  | APR   | MAY   | JUN   | JUL  | AUG  | SEP  |
|-------|------|-------|-------|------|-------|------|-------|-------|-------|------|------|------|
| 1     |      | 0     | 2.8   | 2.6  | 2.2   | 17   | 12    | 9.6   | 5.9   | .89  |      |      |
| 2     |      | 0     | 2.6   | 2.5  | 1.8   | 23   | 11    | 8.7   | 5.8   | .84  |      |      |
| 3     |      | .21   | 2.5   | 2.5  | 1.6   | 21   | 11    | 9.2   | 5.3   | .79  |      |      |
| 4     |      | .46   | 3.8   | 2.4  | 1.4   | 19   | 11    | 11    | 6.1   | .63  |      |      |
| 5     |      | .94   | 5.2   | 2.4  | 1.2   | 18   | 11    | 11    | 6.1   | .46  |      |      |
| 6     |      | 1.4   | 5.3   | 2.9  | 1.4   | 17   | 9.8   | 9.8   | 5.0   | .36  |      |      |
| 7     |      | 1.5   | 4.6   | 3.3  | 1.6   | 17   | 11    | 8.7   | 4.2   | .31  |      |      |
| 8     |      | 2.4   | 3.5   | 3.7  | 1.7   | 17   | 13    | 7.5   | 3.8   | .20  |      |      |
| 9     |      | 2.2   | 3.0   | 3.4  | 2.0   | 17   | 14    | 7.8   | 5.6   | .13  |      |      |
| 10    |      | 1.9   | 2.9   | 2.7  | 2.2   | 17   | 14    | 11    | 6.2   | .09  |      |      |
| 11    |      | 1.9   | 2.8   | 2.3  | 2.6   | 16   | 14    | 13    | 5.4   | .04  |      |      |
| 12    |      | 2.2   | 2.8   | 2.0  | 3.2   | 16   | 13    | 12    | 4.2   | .01  |      |      |
| 13    |      | 2.2   | 2.7   | 1.9  | 4.7   | 16   | 12    | 12    | 3.2   | 0    |      |      |
| 14    |      | 2.1   | 2.8   | 1.8  | 7.4   | 18   | 11    | 18    | 2.4   | 0    |      |      |
| 15    |      | 2.1   | 2.6   | 1.7  | 14    | 21   | 9.6   | 17    | 1.9   | 0    |      |      |
| 16    |      | 3.0   | 2.2   | 1.6  | 17    | 32   | 8.9   | 15    | 1.6   | 0    |      |      |
| 17    |      | 3.1   | 2.9   | 1.5  | 15    | 40   | 8.4   | 18    | 1.4   | 0    |      |      |
| 18    |      | 3.0   | 3.4   | 1.4  | 13    | 35   | 8.1   | 18    | 1.1   | 0    |      |      |
| 19    |      | 2.8   | 4.0   | 1.3  | 12    | 28   | 8.7   | 15    | .79   | 0    |      |      |
| 20    |      | 2.7   | 4.5   | 1.2  | 12    | 28   | 9.3   | 13    | .56   | 0    |      |      |
| 21    |      | 3.3   | 4.9   | 1.2  | 12    | 29   | 9.3   | 11    | .53   | .01  |      |      |
| 22    |      | 3.6   | 5.2   | 1.2  | 13    | 26   | 8.6   | 11    | 1.3   | 0    |      |      |
| 23    |      | 3.7   | 4.6   | 1.2  | 12    | 23   | 7.5   | 11    | 2.0   | 0    |      |      |
| 24    |      | 3.5   | 4.1   | 1.2  | 12    | 21   | 7.8   | 9.8   | 2.0   | 0    |      |      |
| 25    |      | 3.0   | 3.6   | 1.2  | 12    | 19   | 10    | 8.9   | 1.6   | 0    |      |      |
| 26    |      | 2.6   | 3.3   | 1.3  | 12    | 17   | 9.3   | 7.8   | 2.2   | 0    |      |      |
| 27    |      | 2.5   | 3.2   | 1.6  | 12    | 16   | 9.0   | 6.9   | 2.8   | 0    |      |      |
| 28    |      | 2.5   | 3.1   | 2.2  | 14    | 15   | 8.3   | 6.3   | 2.4   | 0    |      |      |
| 29    |      | 2.6   | 3.0   | 2.8  | ----- | 15   | 8.6   | 5.8   | 1.7   | 0    |      |      |
| 30    |      | 2.7   | 2.8   | 3.1  | ----- | 14   | 10    | 5.3   | 1.3   | 0    |      |      |
| 31    |      | ----- | 2.7   | 2.5  | ----- | 13   | ----- | 5.4   | ----- | 0    |      |      |
| TOTAL | 0    | 66.11 | 107.4 | 64.6 | 217.0 | 641  | 309.2 | 334.5 | 94.38 | 4.76 | 0    | 0    |
| MEAN  | 0    | 2.20  | 3.46  | 2.08 | 7.75  | 20.7 | 10.3  | 10.8  | 3.15  | .15  | 0    | 0    |
| MAX   | 0    | 3.7   | 5.3   | 3.7  | 17    | 40   | 14    | 18    | 6.2   | .89  | 0    | 0    |
| MIN   | 0    | 0     | 2.2   | 1.2  | 1.2   | 13   | 7.5   | 5.3   | .53   | 0    | 0    | 0    |
| (†)   | 1.33 | 1.23  | 1.14  | 1.61 | 1.61  | 1.60 | 1.68  | 1.61  | 1.96  | 1.49 | 1.52 | 1.47 |

CAL YR 1970 TOTAL 2,210.71 MEAN 6.06 MAX 54 MIN 0 MEAN† 7.62 CFSM† 1.91 IN† 25.93  
WTR YR 1971 TOTAL 1,838.95 MEAN 5.04 MAX 40 MIN 0 MEAN† 6.56 CFSM† 1.64 IN† 22.32

PEAK DISCHARGE (BASE, 45 CFS, REVISED).--No peaks above base.

† Diversion, in cubic feet per second, for municipal supply of Wilmington. Records furnished by town of Wilmington.

‡ Adjusted for diversion.

01101500 Ipswich River at South Middleton, Mass.

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

DRAINAGE AREA. --43.4 sq mi.

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

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

AVERAGE DISCHARGE. --33 years, 69.0 cfs (21.59 inches per year), adjusted for diversions.

EXTREMES. --Current year: Maximum discharge, 263 cfs Mar. 20 (gage height, 4.28 ft); minimum, 1.0 cfs Sept. 11, 12.

Period of record: Maximum discharge, 833 cfs Mar. 19, 1968 (gage height, 7.09 ft); minimum, 0.1 cfs Sept. 24, Oct. 1, 1957.

REMARKS. --Records good. Diversions above station for municipal supply of Reading, Lynn, and Peabody (see table below). Occasional regulation by mill above station.

REVISIONS (WATER YEARS). --WSP 1301: 1942(M). WSP 1621: 1938-58 (monthly runoff).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB     | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 8.4   | 2.7   | 16    | 31    | 9.4     | 160   | 121   | 81    | 49    | 9.9   | 13    | 2.0   |
| 2     | 8.4   | 1.8   | 14    | 29    | 7.2     | 179   | 116   | 77    | 43    | 4.3   | 8.0   | 1.8   |
| 3     | 8.4   | 3.7   | 17    | 28    | 5.3     | 180   | 120   | 81    | 42    | 7.6   | 1.5   | 1.8   |
| 4     | 12    | 6.4   | 44    | 28    | 3.4     | 167   | 126   | 91    | 42    | 1.8   | 13    | 1.6   |
| 5     | 10    | 15    | 48    | 32    | 2.9     | 162   | 112   | 87    | 39    | 4.6   | 14    | 1.8   |
| 6     | 9.9   | 22    | 66    | 37    | 4.0     | 156   | 101   | 84    | 34    | 1.6   | 12    | 1.6   |
| 7     | 9.4   | 20    | 52    | 39    | 5.0     | 149   | 130   | 81    | 30    | 2.9   | 12    | 1.6   |
| 8     | 8.9   | 16    | 23    | 36    | 6.4     | 152   | 155   | 77    | 30    | 6.0   | 11    | 1.6   |
| 9     | 8.4   | 14    | 19    | 32    | 9.9     | 147   | 151   | 78    | 50    | 5.7   | 9.9   | 1.5   |
| 10    | 8.0   | 12    | 16    | 28    | 12      | 135   | 148   | 95    | 46    | 5.3   | 8.0   | 1.3   |
| 11    | 7.2   | 12    | 15    | 27    | 12      | 131   | 130   | 99    | 42    | 4.3   | 7.2   | 1.2   |
| 12    | 7.2   | 14    | 14    | 26    | 13      | 126   | 123   | 89    | 39    | 3.7   | 7.6   | 1.2   |
| 13    | 7.2   | 13    | 13    | 25    | 20      | 115   | 117   | 95    | 37    | 3.4   | 6.8   | 1.3   |
| 14    | 7.2   | 16    | 14    | 19    | 42      | 115   | 106   | 136   | 35    | 2.9   | 5.7   | 8.4   |
| 15    | 6.4   | 22    | 22    | 21    | 53      | 125   | 108   | 124   | 29    | 2.2   | 5.3   | 7.2   |
| 16    | 7.6   | 33    | 13    | 34    | 58      | 184   | 89    | 121   | 8.9   | 2.2   | 5.0   | 5.3   |
| 17    | 8.4   | 32    | 36    | 15    | 60      | 233   | 90    | 148   | 3.7   | 1.8   | 4.3   | 4.6   |
| 18    | 8.4   | 27    | 60    | 13    | 64      | 232   | 87    | 145   | 3.4   | 2.2   | 3.7   | 4.6   |
| 19    | 8.4   | 24    | 58    | 12    | 74      | 235   | 95    | 139   | 5.3   | 3.2   | 3.4   | 4.3   |
| 20    | 7.6   | 23    | 46    | 8.9   | 82      | 253   | 85    | 129   | 16    | 5.7   | 4.3   | 3.7   |
| 21    | 7.2   | 35    | 45    | 7.2   | 87      | 248   | 81    | 121   | 17    | 1.5   | 3.4   | 4.3   |
| 22    | 6.8   | 38    | 42    | 7.2   | 91      | 224   | 78    | 115   | 31    | 3.4   | 2.9   | 3.7   |
| 23    | 7.6   | 35    | 39    | 6.0   | 97      | 213   | 80    | 109   | 22    | 5.0   | 2.9   | 2.9   |
| 24    | 19    | 31    | 37    | 5.3   | 105     | 197   | 83    | 101   | 5.7   | 3.2   | 2.7   | 2.7   |
| 25    | 16    | 25    | 48    | 5.3   | 108     | 178   | 83    | 94    | 5.3   | 2.5   | 2.5   | 2.5   |
| 26    | 14    | 21    | 34    | 8.0   | 108     | 162   | 75    | 82    | 5.7   | 3.7   | 2.0   | 2.2   |
| 27    | 14    | 19    | 46    | 12    | 122     | 151   | 64    | 67    | 4.6   | 6.4   | 2.5   | 2.0   |
| 28    | 12    | 17    | 35    | 13    | 137     | 141   | 63    | 61    | 3.2   | 4.6   | 3.4   | 2.0   |
| 29    | 9.4   | 16    | 39    | 12    | -----   | 137   | 72    | 56    | 7.2   | 3.2   | 3.2   | 2.0   |
| 30    | 7.2   | 19    | 33    | 12    | -----   | 134   | 84    | 52    | 18    | 11    | 2.7   | 1.8   |
| 31    | 4.3   | ----- | 31    | 11    | -----   | 128   | ----- | 50    | ----- | 19    | 2.5   | ----- |
| TOTAL | 284.9 | 585.6 | 1,035 | 619.9 | 1,398.5 | 5,249 | 3,073 | 2,965 | 744.0 | 144.8 | 186.4 | 84.5  |
| MEAN  | 9.19  | 19.5  | 33.4  | 20.0  | 49.9    | 169   | 102   | 95.6  | 24.8  | 4.67  | 6.01  | 2.82  |
| MAX   | 19    | 38    | 66    | 39    | 137     | 253   | 155   | 148   | 50    | 19    | 14    | 8.4   |
| MIN   | 4.3   | 1.8   | 13    | 5.3   | 2.9     | 115   | 63    | 50    | 3.2   | 1.5   | 1.5   | 1.2   |
| (†)   | 8.51  | 23.4  | 19.2  | 23.3  | 23.8    | 21.7  | 16.8  | 17.5  | 17.2  | 8.25  | 5.20  | 4.44  |

CAL YR 1970 TOTAL 23,156.1 MEAN 63.4 MAX 421 MIN 1.8 MEAN† 76.3 CFSM† 1.76 IN† 23.87  
WTR YR 1971 TOTAL 16,370.6 MEAN 44.9 MAX 253 MIN 1.2 MEAN† 60.6 CFSM† 1.40 IN† 18.95

† Diversions, in cubic feet per second, for municipal supply of Reading, Lynn, and Peabody; records furnished by municipalities.

‡ Adjusted for diversions.



01102000 Ipswich River near Ipswich, Mass.

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

DRAINAGE AREA.--124 sq mi.

PERIOD OF RECORD.--June 1930 to current year. Prior to October 1930, published as "at Willowdale."

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

AVERAGE DISCHARGE.--41 years, 198 cfs (21.68 inches per year), adjusted for diversions.

EXTREMES.--Current year: Maximum discharge, 762 cfs Mar. 20 (gage height, 4.91 ft); minimum, 5.0 cfs Sept. 12.  
Period of record: Maximum discharge, 2,680 cfs Mar. 20, 21, 1968 (gage height, 8.41 ft); minimum, 0.8 cfs Aug. 20, 1965.  
Maximum discharge since 1886, that of Mar. 20, 21, 1968.

REMARKS.--Records excellent. Diversions above station for municipal supply of Reading, Lynn, Peabody, Danvers, Salem, and Beverly (see table below).  
Some regulation by reservoirs.

REVISIONS (WATER YEARS).--WSP 781: Drainage area. WSP 1621: 1930-58 (monthly runoff).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------|------|-------|-------|-------|-------|--------|--------|-------|-------|------|-------|-------|
| 1     | 18   | 39    | 84    | 127   | 81    | 394    | 461    | 236   | 197   | 35   | 43    | 10    |
| 2     | 17   | 35    | 81    | 121   | 81    | 436    | 443    | 241   | 185   | 39   | 41    | 9.1   |
| 3     | 17   | 40    | 78    | 116   | 81    | 470    | 433    | 255   | 176   | 35   | 34    | 8.0   |
| 4     | 19   | 44    | 85    | 113   | 86    | 464    | 425    | 269   | 170   | 30   | 40    | 6.9   |
| 5     | 21   | 56    | 93    | 115   | 78    | 488    | 419    | 273   | 163   | 27   | 49    | 6.7   |
| 6     | 21   | 70    | 102   | 118   | 69    | 496    | 408    | 279   | 155   | 23   | 53    | 6.4   |
| 7     | 20   | 77    | 105   | 121   | 64    | 484    | 442    | 276   | 147   | 21   | 51    | 6.1   |
| 8     | 19   | 78    | 101   | 125   | 64    | 474    | 474    | 264   | 143   | 19   | 45    | 6.7   |
| 9     | 18   | 78    | 105   | 126   | 72    | 453    | 492    | 255   | 143   | 17   | 38    | 6.2   |
| 10    | 17   | 75    | 103   | 122   | 75    | 430    | 507    | 276   | 137   | 17   | 31    | 5.6   |
| 11    | 16   | 72    | 96    | 117   | 77    | 399    | 505    | 294   | 132   | 17   | 26    | 5.3   |
| 12    | 16   | 69    | 90    | 112   | 80    | 373    | 494    | 307   | 127   | 16   | 25    | 5.3   |
| 13    | 15   | 67    | 79    | 110   | 88    | 365    | 467    | 328   | 122   | 14   | 25    | 5.7   |
| 14    | 14   | 74    | 83    | 109   | 108   | 352    | 432    | 361   | 117   | 14   | 23    | 7.7   |
| 15    | 13   | 86    | 80    | 104   | 105   | 355    | 398    | 373   | 111   | 14   | 20    | 18    |
| 16    | 15   | 97    | 72    | 98    | 115   | 440    | 374    | 395   | 104   | 13   | 18    | 20    |
| 17    | 18   | 101   | 86    | 96    | 136   | 542    | 351    | 440   | 95    | 13   | 16    | 19    |
| 18    | 19   | 102   | 106   | 98    | 163   | 637    | 330    | 454   | 80    | 20   | 15    | 15    |
| 19    | 18   | 102   | 116   | 95    | 196   | 703    | 321    | 450   | 61    | 21   | 13    | 14    |
| 20    | 17   | 101   | 128   | 91    | 218   | 751    | 309    | 435   | 48    | 22   | 13    | 13    |
| 21    | 16   | 105   | 140   | 87    | 221   | 744    | 300    | 412   | 44    | 22   | 14    | 13    |
| 22    | 16   | 105   | 144   | 79    | 221   | 732    | 289    | 392   | 62    | 21   | 13    | 13    |
| 23    | 28   | 108   | 141   | 72    | 228   | 697    | 277    | 375   | 69    | 17   | 12    | 14    |
| 24    | 61   | 109   | 135   | 67    | 229   | 657    | 264    | 353   | 70    | 14   | 10    | 14    |
| 25    | 80   | 110   | 134   | 63    | 234   | 618    | 252    | 330   | 65    | 14   | 9.0   | 9.4   |
| 26    | 84   | 106   | 134   | 64    | 243   | 581    | 242    | 307   | 61    | 13   | 8.1   | 6.4   |
| 27    | 80   | 102   | 135   | 68    | 272   | 550    | 235    | 284   | 59    | 15   | 9.2   | 6.7   |
| 28    | 72   | 97    | 136   | 77    | 326   | 530    | 227    | 266   | 51    | 19   | 13    | 7.2   |
| 29    | 62   | 93    | 136   | 83    | ----- | 508    | 228    | 245   | 43    | 20   | 15    | 7.0   |
| 30    | 53   | 88    | 135   | 85    | ----- | 490    | 231    | 227   | 35    | 21   | 15    | 6.5   |
| 31    | 45   | ----- | 131   | 81    | ----- | 474    | -----  | 210   | ----- | 34   | 12    | ----- |
| TOTAL | 945  | 2,486 | 3,374 | 3,060 | 4,011 | 16,087 | 11,030 | 9,862 | 3,172 | 637  | 749.3 | 291.9 |
| MEAN  | 30.5 | 82.9  | 109   | 98.7  | 143   | 519    | 368    | 318   | 106   | 20.5 | 24.2  | 9.73  |
| MAX   | 84   | 110   | 144   | 127   | 326   | 751    | 507    | 454   | 197   | 39   | 53    | 20    |
| MIN   | 13   | 35    | 72    | 63    | 64    | 352    | 227    | 210   | 35    | 13   | 8.1   | 5.3   |
| (†)   | 12.0 | 26.9  | 15.4  | 18.1  | 47.4  | 55.5   | 9.22   | 19.9  | 20.4  | 11.4 | 8.68  | 7.83  |

CAL YR 1970 TOTAL 66,562.1 MEAN 182 MAX 1,120 MIN 9.4 MEAN† 197 CFSM† 1.59 IN† 21.59  
WTR YR 1971 TOTAL 55,705.2 MEAN 153 MAX 751 MIN 5.3 MEAN† 174 CFSM† 1.40 IN† 19.00

† Diversions, in cubic feet per second, for municipal supply of Reading, Lynn, Peabody, Danvers, Salem, and Beverly; records furnished by municipalities.  
‡ Adjusted for diversions.

01102500 Aberjona River at Winchester, Mass.

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

DRAINAGE AREA.--23.3 sq mi (excludes 1.4 sq mi drained by Winchester Reservoirs).

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

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

AVERAGE DISCHARGE.--32 years, 26.7 cfs.

EXTREMES.--Current year: Maximum discharge, 134 cfs Feb. 13 (gage height, 11.77 ft); minimum, 0.46 cfs Aug. 25, 26; minimum daily, 0.51 cfs Aug. 25, 26, Sept. 25.

Period of record: Maximum discharge, 835 cfs Aug. 19, 1955 (gage height, 13.64 ft), from rating curve extended above 330 cfs; maximum gage height, 14.43 ft 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 cfs Oct. 10, 1950.

Maximum discharge since 1886, that of Aug. 19, 1955.

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 Reservoirs. Some regulation by Winchester at dam 1,800 ft upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV   | DEC   | JAN   | FEB     | MAR   | APR   | MAY   | JUN   | JUL    | AUG    | SEP   |
|-------|--------|-------|-------|-------|---------|-------|-------|-------|-------|--------|--------|-------|
| 1     | 2.0    | 3.0   | 5.3   | 8.4   | 7.3     | 90    | 36    | 32    | 17    | 8.8    | 21     | .93   |
| 2     | 2.5    | 13    | 7.3   | 10    | 5.6     | 97    | 35    | 28    | 12    | 10     | 11     | .70   |
| 3     | 5.6    | 24    | 8.1   | 9.9   | 5.0     | 97    | 40    | 38    | 19    | 5.3    | 5.0    | .77   |
| 4     | 12     | 12    | 29    | 10    | 4.5     | 105   | 31    | 39    | 20    | 4.0    | 31     | .70   |
| 5     | 5.0    | 45    | 15    | 18    | 5.9     | 84    | 26    | 36    | 20    | 3.4    | 13     | .70   |
| 6     | 4.5    | 15    | 14    | 15    | 10      | 75    | 32    | 26    | 12    | 3.0    | 8.1    | .57   |
| 7     | 11     | 10    | 11    | 14    | 8.1     | 86    | 67    | 22    | 8.8   | 2.6    | 4.8    | .57   |
| 8     | 4.0    | 9.5   | 9.9   | 13    | 12      | 84    | 47    | 20    | 23    | 1.9    | 3.2    | .63   |
| 9     | 3.0    | 13    | 9.2   | 11    | 33      | 71    | 39    | 29    | 44    | 2.0    | 2.3    | .93   |
| 10    | .70    | 2.5   | 9.9   | 11    | 18      | 59    | 42    | 43    | 25    | 2.1    | 1.9    | .77   |
| 11    | .63    | 11    | 8.4   | 9.9   | 17      | 60    | 38    | 35    | 17    | 2.1    | 3.6    | .85   |
| 12    | 1.6    | 19    | 7.7   | 9.9   | 19      | 60    | 37    | 34    | 13    | 1.7    | 9.9    | 3.0   |
| 13    | 10     | 11    | 7.7   | 9.5   | 50      | 58    | 34    | 63    | 12    | 1.4    | 3.6    | 2.5   |
| 14    | 3.2    | 17    | 8.4   | 9.2   | 71      | 62    | 33    | 68    | 10    | 20     | 2.6    | 29    |
| 15    | 1.7    | 23    | 7.3   | 9.5   | 48      | 69    | 28    | 48    | 9.9   | 6.2    | 2.3    | 7.7   |
| 16    | 2.3    | 20    | 6.6   | 8.8   | 47      | 97    | 26    | 64    | 9.9   | 3.6    | 1.6    | 6.9   |
| 17    | 4.0    | 15    | 45    | 8.1   | 48      | 117   | 24    | 60    | 11    | 4.5    | 1.1    | 3.0   |
| 18    | 3.2    | 11    | 35    | 7.3   | 45      | 101   | 28    | 54    | 13    | 8.1    | 1.0    | 1.6   |
| 19    | 2.8    | 9.2   | 23    | 6.6   | 46      | 86    | 29    | 38    | 5.3   | 8.1    | 1.1    | 1.1   |
| 20    | 2.1    | 4.3   | 24    | 5.9   | 58      | 107   | 27    | 36    | 6.9   | 8.4    | 2.0    | .93   |
| 21    | 9.2    | 23    | 23    | 5.0   | 56      | 92    | 31    | 31    | 7.7   | 4.5    | 1.0    | 2.1   |
| 22    | 2.8    | 15    | 20    | 5.6   | 48      | 77    | 28    | 35    | 18    | 3.0    | .70    | 1.2   |
| 23    | 30     | 14    | 15    | 5.9   | 64      | 69    | 22    | 36    | 14    | 4.8    | .77    | 1.1   |
| 24    | 31     | 12    | 10    | 5.6   | 58      | 63    | 23    | 20    | 9.9   | .57    | .63    | 1.2   |
| 25    | 21     | 9.2   | 11    | 6.6   | 54      | 56    | 20    | 21    | 8.4   | 1.2    | .51    | .51   |
| 26    | 16     | 6.6   | 12    | 14    | 47      | 52    | 20    | 17    | 18    | 1.4    | .51    | .57   |
| 27    | 9.5    | 6.9   | 11    | 10    | 69      | 56    | 21    | 17    | 11    | 1.0    | 6.9    | .63   |
| 28    | 7.3    | 6.9   | 10    | 9.9   | 84      | 47    | 20    | 15    | 7.7   | 1.0    | 5.6    | 1.1   |
| 29    | 5.9    | 6.9   | 10    | 9.9   | -----   | 44    | 42    | 15    | 6.2   | 1.3    | 2.0    | 1.3   |
| 30    | 3.4    | 6.6   | 15    | 10    | -----   | 41    | 44    | 14    | 6.2   | 29     | 1.3    | 4.0   |
| 31    | .63    | ----- | 9.9   | 8.4   | -----   | 39    | ----- | 14    | ----- | 30     | .85    | ----- |
| TOTAL | 218.56 | 394.6 | 438.7 | 295.9 | 1,038.4 | 2,301 | 970   | 1,048 | 415.9 | 184.97 | 150.87 | 77.56 |
| MEAN  | 7.05   | 13.2  | 14.2  | 9.55  | 37.1    | 74.2  | 32.3  | 33.8  | 13.9  | 5.97   | 4.87   | 2.59  |
| MAX   | 31     | 45    | 45    | 18    | 84      | 117   | 67    | 68    | 44    | 30     | 31     | 29    |
| MIN   | .63    | 2.5   | 5.3   | 5.0   | 4.5     | 39    | 20    | 14    | 5.3   | .57    | .51    | .51   |

CAL YR 1970 TOTAL 10,349.93 MEAN 28.4 MAX 271 MIN .56

WTR YR 1971 TOTAL 7,534.46 MEAN 20.6 MAX 117 MIN .51

PEAK DISCHARGE (BASE, 170 CFS).--No peak above base.

## CHARLES RIVER BASIN

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01103500 Charles River at Charles River Village, Mass.

LOCATION.--Lat 42°15'22", long 71°15'38", Norfolk County, on right bank 0.3 mile downstream from highway bridge at Charles River Village, 0.8 mile downstream from Noanet Brook, and 1.3 miles northeast of Dover.

DRAINAGE AREA.--184 sq mi.

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

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

AVERAGE DISCHARGE.--34 years, 294 cfs (21.70 inches per year), adjusted for diversions.

EXTREMES.--Current year: Maximum discharge, 981 cfs Mar. 4 (gage height, 3.77 ft); minimum, 12 cfs Aug. 26, 27.

Period of record: Maximum discharge, 3,220 cfs Aug. 23, 1955 (gage height, 9.24 ft) and Mar. 22, 1968 (gage height, 8.72 ft); minimum, 0.5 cfs Oct. 24, 1952 (caused by unusual regulation); minimum daily, 0.9 cfs Oct. 24, 1952.

Maximum discharge since flood of 1886, that of August 1955 and March 1968. Flood of March 1936 reached a discharge of 3,170 cfs, by computation of flow over dam at site 0.2 mile above station.

REMARKS.--Records good. Diversions above station for municipal supply of Wellesley and Needham. Occasional diversion since 1951 from Sudbury River basin to Charles River; no diversion during year. Chemical analyses of miscellaneous samples for the water year 1971 are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB    | MAR    | APR    | MAY    | JUN   | JUL   | AUG  | SEP   |
|-------|-------|-------|-------|-------|--------|--------|--------|--------|-------|-------|------|-------|
| 1     | 37    | 80    | 152   | 192   | 170    | 793    | 500    | 325    | 223   | 56    | 60   | 31    |
| 2     | 37    | 78    | 150   | 186   | 160    | 869    | 471    | 336    | 217   | 67    | 63   | 28    |
| 3     | 43    | 155   | 144   | 181   | 150    | 893    | 461    | 364    | 216   | 61    | 57   | 25    |
| 4     | 50    | 195   | 180   | 179   | 135    | 933    | 436    | 387    | 216   | 57    | 52   | 23    |
| 5     | 43    | 243   | 205   | 198   | 128    | 927    | 424    | 403    | 204   | 54    | 45   | 20    |
| 6     | 42    | 235   | 228   | 217   | 131    | 907    | 416    | 413    | 193   | 51    | 40   | 17    |
| 7     | 42    | 219   | 216   | 230   | 138    | 895    | 470    | 405    | 179   | 49    | 36   | 18    |
| 8     | 37    | 196   | 189   | 234   | 163    | 883    | 511    | 383    | 173   | 44    | 33   | 18    |
| 9     | 37    | 175   | 168   | 225   | 212    | 837    | 548    | 373    | 190   | 41    | 32   | 17    |
| 10    | 36    | 159   | 154   | 209   | 238    | 796    | 574    | 394    | 183   | 38    | 29   | 14    |
| 11    | 33    | 155   | 145   | 199   | 251    | 767    | 570    | 403    | 178   | 35    | 30   | 15    |
| 12    | 32    | 146   | 138   | 190   | 259    | 723    | 560    | 415    | 164   | 33    | 34   | 20    |
| 13    | 29    | 145   | 124   | 182   | 308    | 684    | 539    | 448    | 150   | 32    | 28   | 23    |
| 14    | 29    | 174   | 155   | 168   | 475    | 662    | 510    | 478    | 138   | 34    | 24   | 44    |
| 15    | 32    | 222   | 147   | 165   | 494    | 656    | 471    | 475    | 130   | 30    | 23   | 51    |
| 16    | 43    | 266   | 135   | 155   | 548    | 708    | 443    | 506    | 121   | 29    | 23   | 64    |
| 17    | 50    | 275   | 188   | 145   | 554    | 745    | 416    | 560    | 112   | 30    | 23   | 64    |
| 18    | 54    | 262   | 290   | 140   | 612    | 795    | 388    | 569    | 102   | 32    | 21   | 56    |
| 19    | 50    | 239   | 328   | 135   | 608    | 825    | 375    | 580    | 92    | 35    | 20   | 44    |
| 20    | 48    | 219   | 367   | 135   | 610    | 808    | 362    | 572    | 86    | 44    | 21   | 37    |
| 21    | 44    | 250   | 383   | 141   | 609    | 905    | 356    | 544    | 81    | 44    | 19   | 36    |
| 22    | 41    | 253   | 365   | 128   | 591    | 901    | 355    | 503    | 79    | 46    | 18   | 31    |
| 23    | 85    | 260   | 341   | 120   | 622    | 890    | 350    | 458    | 76    | 47    | 18   | 29    |
| 24    | 136   | 246   | 333   | 120   | 633    | 860    | 327    | 416    | 74    | 44    | 15   | 26    |
| 25    | 167   | 222   | 307   | 121   | 616    | 814    | 303    | 375    | 70    | 38    | 14   | 24    |
| 26    | 177   | 190   | 287   | 136   | 614    | 768    | 280    | 332    | 71    | 36    | 13   | 24    |
| 27    | 160   | 169   | 266   | 163   | 658    | 719    | 267    | 293    | 65    | 35    | 21   | 22    |
| 28    | 138   | 159   | 248   | 175   | 711    | 669    | 260    | 267    | 57    | 32    | 32   | 22    |
| 29    | 118   | 153   | 231   | 170   | -----  | 624    | 278    | 243    | 55    | 32    | 29   | 22    |
| 30    | 103   | 151   | 215   | 176   | -----  | 571    | 305    | 230    | 52    | 51    | 33   | 20    |
| 31    | 89    | ----- | 200   | 175   | -----  | 531    | -----  | 225    | ----- | 60    | 33   | ----- |
| TOTAL | 2,062 | 5,891 | 6,979 | 5,290 | 11,438 | 24,458 | 12,526 | 12,675 | 3,947 | 1,317 | 939  | 885   |
| MEAN  | 66.5  | 196   | 225   | 171   | 409    | 780    | 418    | 409    | 132   | 42.5  | 30.3 | 29.5  |
| MAX   | 177   | 275   | 383   | 234   | 711    | 933    | 574    | 580    | 223   | 67    | 63   | 64    |
| MIN   | 29    | 78    | 124   | 120   | 128    | 531    | 260    | 225    | 52    | 29    | 13   | 14    |
| MEAN† | 72.8  | 201   | 230   | 176   | 415    | 796    | 425    | 416    | 139   | 50.0  | 37.3 | 36.2  |
| CFSM† | .40   | 1.09  | 1.25  | .96   | 2.26   | 4.33   | 2.31   | 2.26   | .76   | .27   | .20  | .20   |
| IN.†  | .46   | 1.22  | 1.44  | 1.11  | 2.35   | 4.99   | 2.58   | 2.61   | .84   | .31   | .23  | .22   |

CAL YR 1970 TOTAL 117,303 MEAN 321 MAX 1,560 MIN 27 MEAN† 328 CFSM† 1.78 IN† 24.21  
WTR YR 1971 TOTAL 88,407 MEAN 242 MAX 933 MIN 13 MEAN† 249 CFSM† 1.35 IN† 18.36

† Adjusted for diversions for municipal supply of Wellesley and Needham. Records of diversion furnished by municipalities and Water Division of Metropolitan District Commission.

01104000 Mother Brook at Dedham, Mass.

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

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

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

AVERAGE DISCHARGE.--40 years, 77.5 cfs.

EXTREMES.--Current year: Maximum discharge, 402 cfs Mar. 5 (gage height, 83.75 ft); minimum, 0.12 cfs Aug. 26, 27.

Period of record: Maximum discharge, 1,040 cfs Mar. 21, 1968 (gage height, 87.18 ft); maximum gage height, 92.90 ft Aug. 24, 1955, from graph based on gage readings; no flow at times.

REMARKS.--Records good except those for period of no gage-height record and period of backwater from scum, which are fair. Mother Brook is a diversion from Charles River to Neponset River through Dedham and Hyde Park.

REVISIONS (WATER YEARS).--WSP 1301: 1932(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV     | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG    | SEP   |
|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|------|--------|-------|
| 1     | 3.2   | 9.0     | 25    | 47    | 33    | 290   | 183   | 69    | 44    | 3.7  | 3.3    | 1.0   |
| 2     | 2.9   | 10      | 31    | 44    | 25    | 298   | 166   | 69    | 40    | 4.8  | 2.9    | .77   |
| 3     | 2.8   | 20      | 40    | 42    | 22    | 307   | 164   | 81    | 41    | 4.1  | 2.3    | .77   |
| 4     | 5.1   | 35      | 46    | 41    | 22    | 339   | 156   | 89    | 44    | 3.5  | 4.1    | .88   |
| 5     | 4.2   | 80      | 56    | 51    | 22    | 302   | 145   | 92    | 40    | 2.7  | 2.3    | .67   |
| 6     | 3.6   | 60      | 80    | 57    | 26    | 344   | 139   | 95    | 29    | 2.5  | 1.7    | .48   |
| 7     | 3.5   | 45      | 60    | 59    | 29    | 326   | 177   | 97    | 22    | 2.5  | 1.3    | .40   |
| 8     | 3.3   | 27      | 40    | 59    | 41    | 320   | 183   | 80    | 23    | 2.3  | 1.1    | .26   |
| 9     | 3.1   | 16      | 29    | 57    | 67    | 302   | 174   | 85    | 28    | 2.0  | 1.0    | .26   |
| 10    | 3.0   | 13      | 26    | 53    | 69    | 283   | 179   | 95    | 25    | 1.7  | .88    | .32   |
| 11    | 2.8   | 12      | 25    | 49    | 69    | 270   | 184   | 90    | 22    | 1.6  | .38    | .20   |
| 12    | 2.6   | 18      | 25    | 45    | 70    | 266   | 179   | 87    | 18    | 1.7  | .25    | .67   |
| 13    | 2.6   | 27      | 21    | 40    | 97    | 254   | 169   | 100   | 16    | 1.4  | 14     | .48   |
| 14    | 2.3   | 40      | 26    | 37    | 179   | 239   | 163   | 148   | 14    | 1.9  | 15     | 5.4   |
| 15    | 3.1   | 55      | 27    | 33    | 166   | 228   | 155   | 144   | 13    | 1.7  | 11     | 3.5   |
| 16    | 6.7   | 65      | 23    | 31    | 170   | 220   | 136   | 158   | 12    | 1.3  | 5.7    | 4.3   |
| 17    | 6.9   | 60      | 58    | 21    | 180   | 257   | 123   | 190   | 10    | 1.3  | .57    | 4.5   |
| 18    | 6.2   | 48      | 112   | 18    | 188   | 285   | 113   | 169   | 8.7   | 1.4  | .40    | 4.3   |
| 19    | 5.6   | 35      | 109   | 16    | 192   | 294   | 105   | 144   | 6.9   | 2.5  | .32    | 3.3   |
| 20    | 3.6   | 40      | 117   | 15    | 200   | 333   | 97    | 145   | 5.1   | 3.5  | .77    | 2.3   |
| 21    | 3.0   | 63      | 120   | 15    | 203   | 341   | 91    | 139   | 4.8   | 2.9  | .26    | 2.5   |
| 22    | 2.8   | 58      | 111   | 16    | 195   | 336   | 92    | 131   | 5.4   | 2.3  | .26    | 2.2   |
| 23    | 11    | 62      | 97    | 18    | 210   | 331   | 92    | 115   | 4.8   | 2.0  | .32    | 1.7   |
| 24    | 22    | 54      | 85    | 18    | 220   | 323   | 76    | 97    | 4.3   | 1.9  | .26    | 1.4   |
| 25    | 21    | 45      | 86    | 19    | 214   | 309   | 70    | 83    | 4.1   | 1.9  | .26    | 1.0   |
| 26    | 25    | 32      | 84    | 24    | 214   | 287   | 64    | 72    | 5.4   | 1.4  | .16    | .67   |
| 27    | 24    | 28      | 77    | 32    | 233   | 271   | 60    | 77    | 4.8   | 1.4  | .88    | .57   |
| 28    | 23    | 27      | 70    | 25    | 266   | 252   | 55    | 69    | 3.7   | 1.4  | .40    | .48   |
| 29    | 19    | 26      | 63    | 24    | ----- | 233   | 64    | 52    | 3.1   | 1.3  | 1.7    | .40   |
| 30    | 15    | 25      | 57    | 33    | ----- | 217   | 67    | 50    | 3.1   | 4.1  | 1.3    | .40   |
| 31    | 10    | -----   | 50    | 37    | ----- | 201   | ----- | 47    | ----- | 5.1  | .77    | ----- |
| TOTAL | 252.9 | 1,135.0 | 1,876 | 1,076 | 3,622 | 8,858 | 3,821 | 3,149 | 505.2 | 73.8 | 138.21 | 46.08 |
| MEAN  | 8.16  | 37.8    | 60.5  | 34.7  | 129   | 286   | 127   | 102   | 16.8  | 2.38 | 4.46   | 1.54  |
| MAX   | 25    | 80      | 120   | 59    | 266   | 344   | 184   | 190   | 44    | 5.1  | .38    | 5.4   |
| MIN   | 2.3   | 9.0     | 21    | 15    | 22    | 201   | 55    | 47    | 3.1   | 1.3  | .16    | .20   |

CAL YR 1970 TOTAL 35,833.50 MEAN 98.2 MAX 528 MIN 1.3  
WTR YR 1971 TOTAL 24,553.19 MEAN 67.3 MAX 344 MIN .16

NOTE.--No gage-height record Oct. 29 to Dec. 11. Backwater from scum May 17 to Sept. 30.

## 01104200 Charles River at Wellesley, Mass.

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

DRAINAGE AREA.--211 sq mi.

PERIOD OF RECORD.--August 1959 to current year.

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

AVERAGE DISCHARGE.--12 years, 320 cfs (20.60 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 820 cfs Mar. 5 (gage height, 4.48 ft); minimum, 5.8 cfs Aug. 16; minimum daily, 7.6 cfs Aug. 16. Period of record: Maximum discharge, 2,410 cfs Mar. 21, 1968 (gage height, 6.20 ft); no flow Sept. 15, Oct. 6, 1959 (caused by closing of gates at dam at gage); minimum daily discharge, 1.0 cfs Aug. 24, 31, Sept. 8, 1965.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow affected by diversions for municipal supplies of Wellesley, Needham, and Dedham, by diversion to Mother Brook (see sta. 01104000), and at times by diversion from Sudbury River basin. No diversion from Sudbury River basin during year. Occasional regulation at dam 0.2 mile above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| 1     | 41    | 83    | 148   | 180   | 162   | 606    | 397    | 287    | 210   | 45    | 65    | 29    |
| 2     | 39    | 80    | 141   | 176   | 155   | 645    | 377    | 292    | 205   | 60    | 63    | 31    |
| 3     | 41    | 180   | 128   | 169   | 141   | 684    | 367    | 310    | 200   | 51    | 63    | 29    |
| 4     | 51    | 176   | 162   | 166   | 125   | 718    | 347    | 328    | 195   | 49    | 56    | 27    |
| 5     | 47    | 215   | 180   | 187   | 119   | 718    | 328    | 333    | 190   | 47    | 45    | 24    |
| 6     | 45    | 210   | 183   | 198   | 128   | 746    | 324    | 342    | 185   | 41    | 40    | 23    |
| 7     | 45    | 205   | 183   | 202   | 128   | 718    | 367    | 342    | 180   | 37    | 35    | 21    |
| 8     | 45    | 200   | 176   | 202   | 148   | 711    | 413    | 342    | 175   | 37    | 31    | 21    |
| 9     | 39    | 185   | 169   | 198   | 209   | 677    | 424    | 337    | 190   | 31    | 28    | 23    |
| 10    | 37    | 170   | 155   | 195   | 206   | 651    | 424    | 367    | 185   | 30    | 27    | 22    |
| 11    | 37    | 160   | 145   | 183   | 206   | 625    | 424    | 367    | 175   | 30    | 40    | 22    |
| 12    | 33    | 150   | 135   | 176   | 206   | 606    | 419    | 362    | 165   | 26    | 50    | 22    |
| 13    | 31    | 140   | 122   | 166   | 253   | 573    | 419    | 387    | 155   | 28    | 28    | 27    |
| 14    | 31    | 160   | 138   | 159   | 392   | 554    | 419    | 424    | 145   | 25    | 17    | 65    |
| 15    | 37    | 200   | 141   | 148   | 367   | 536    | 392    | 430    | 135   | 28    | 15    | 60    |
| 16    | 58    | 240   | 128   | 141   | 367   | 548    | 377    | 430    | 125   | 26    | 7.6   | 57    |
| 17    | 53    | 257   | 209   | 140   | 382   | 548    | 362    | 440    | 120   | 25    | 13    | 62    |
| 18    | 53    | 253   | 314   | 140   | 397   | 560    | 342    | 460    | 110   | 26    | 16    | 55    |
| 19    | 53    | 241   | 310   | 135   | 413   | 599    | 337    | 500    | 100   | 33    | 19    | 49    |
| 20    | 51    | 213   | 319   | 135   | 429   | 658    | 324    | 490    | 94    | 51    | 26    | 41    |
| 21    | 51    | 225   | 324   | 130   | 440   | 658    | 314    | 470    | 90    | 41    | 26    | 37    |
| 22    | 47    | 233   | 310   | 125   | 429   | 651    | 305    | 440    | 90    | 41    | 23    | 39    |
| 23    | 83    | 237   | 283   | 120   | 451   | 645    | 310    | 410    | 86    | 37    | 20    | 35    |
| 24    | 141   | 229   | 262   | 120   | 473   | 625    | 314    | 370    | 80    | 37    | 21    | 27    |
| 25    | 141   | 209   | 262   | 120   | 462   | 606    | 292    | 340    | 77    | 39    | 20    | 27    |
| 26    | 155   | 187   | 262   | 138   | 467   | 573    | 275    | 310    | 72    | 35    | 21    | 25    |
| 27    | 152   | 166   | 249   | 145   | 512   | 542    | 266    | 280    | 64    | 33    | 17    | 25    |
| 28    | 135   | 155   | 229   | 159   | 560   | 506    | 257    | 230    | 58    | 33    | 16    | 24    |
| 29    | 115   | 152   | 217   | 166   | ----- | 473    | 275    | 230    | 54    | 31    | 23    | 22    |
| 30    | 103   | 148   | 206   | 166   | ----- | 440    | 283    | 225    | 51    | 51    | 26    | 25    |
| 31    | 92    | ----- | 191   | 162   | ----- | 408    | -----  | 220    | ----- | 92    | 27    | ----- |
| TOTAL | 2,082 | 5,659 | 6,381 | 4,947 | 8,727 | 18,808 | 10,474 | 11,095 | 3,961 | 1,196 | 924.6 | 996   |
| MEAN  | 67.2  | 189   | 206   | 160   | 312   | 607    | 349    | 358    | 132   | 38.6  | 29.8  | 33.2  |
| MAX   | 155   | 257   | 324   | 202   | 560   | 746    | 424    | 500    | 210   | 92    | 65    | 65    |
| MIN   | 31    | 80    | 122   | 120   | 119   | 408    | 257    | 220    | 51    | 25    | 7.6   | 21    |
| MEAN† | 86.0  | 236   | 276   | 205   | 452   | 904    | 488    | 472    | 164   | 56.3  | 48.6  | 47.7  |
| CFSM† | .41   | 1.12  | 1.31  | .97   | 2.14  | 4.28   | 2.31   | 2.24   | .78   | .27   | .23   | .23   |
| IN.†  | .47   | 1.25  | 1.51  | 1.12  | 2.23  | 4.94   | 2.58   | 2.58   | .87   | .31   | .27   | .25   |

CAL YR 1970 TOTAL 97,770 MEAN 268 MAX 1,120 MIN 31 MEAN† 378 CFSM† 1.79 IN† 24.32  
WTR YR 1971 TOTAL 75,250.6 MEAN 206 MAX 746 MIN 7.6 MEAN† 286 CFSM† 1.36 IN† 18.37

† Adjusted for diversion to Mother Brook and diversions for municipal supplies of Wellesley, Needham, and Dedham. Records of diversion furnished by Water Division of Metropolitan District Commission and by municipalities.

NOTE.--No gage-height record May 15 to July 2.

## 01104500 Charles River at Waltham, Mass.

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

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

PERIOD OF RECORD.--October 1903 to October 1909 (figures of average weekly discharge, equivalent to records of unadjusted discharge at present site), August 1931 to current year.

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

AVERAGE DISCHARGE.--40 years (1931-71), 370 cfs (22.13 inches per year), adjusted for diversion, wastage, and leakage.

EXTREMES.--Current year: Maximum discharge, 1,110 cfs Mar. 3 (gage height, 3.38 ft); minimum, 18 cfs Aug. 29; minimum daily, 20 cfs Aug. 17, 26, 29.

Period of record: Maximum discharge, 2,670 cfs Mar. 22, 1968 (gage height, 5.15 ft); maximum gage height, 5.39 ft Mar. 22, 1968 (backwater from debris); minimum discharge, 0.1 cfs Oct. 1, 12, 1943; minimum daily, 0.2 cfs Oct. 4, 1943.

Maximum discharge since 1886, that of Mar. 22, 1968.

REMARKS.--Records good. Flow affected at times by wastage from Stony Brook Reservoir, wastage and leakage from Norumbega Reservoir, diversion at times prior to 1963 from Lake Cochituate and at times since 1951 from Sudbury River basin, diversion to Mother Brook (see sta. 01104000), and diversions for municipal supplies of Wellesley, Needham, and Dedham, all above station. Some regulation by mills upstream. No diversion from Sudbury River basin during year. Low flow completely regulated by Boston Edison Co. powerplant above station prior to 1954.

REVISIONS (WATER YEARS).--WSP 781: 1933(M). WSP 851: Drainage area. WSP 971: 1942.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC       | JAN    | FEB       | MAR        | APR        | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------------|---------------|----------|-----------|--------|-----------|------------|------------|--------|-------|-------|-------|-------|
| 1           | 52            | 103      | 160       | 210    | 162       | 628        | 430        | 306    | 232   | 72    | 86    | 31    |
| 2           | 50            | 103      | 162       | 200    | 157       | 666        | 410        | 314    | 224   | 91    | 70    | 32    |
| 3           | 53            | 229      | 146       | 195    | 149       | 782        | 410        | 359    | 197   | 82    | 67    | 31    |
| 4           | 72            | 213      | 197       | 190    | 136       | 782        | 382        | 380    | 214   | 75    | 68    | 29    |
| 5           | 61            | 334      | 197       | 210    | 131       | 746        | 359        | 390    | 209   | 70    | 65    | 27    |
| 6           | 56            | 197      | 210       | 220    | 144       | 794        | 355        | 390    | 200   | 66    | 58    | 24    |
| 7           | 54            | 226      | 203       | 230    | 144       | 776        | 440        | 380    | 193   | 62    | 50    | 25    |
| 8           | 54            | 213      | 194       | 230    | 154       | 776        | 490        | 370    | 190   | 57    | 45    | 27    |
| 9           | 52            | 194      | 191       | 225    | 233       | 728        | 505        | 360    | 216   | 56    | 42    | 31    |
| 10          | 50            | 182      | 182       | 220    | 229       | 694        | 510        | 390    | 197   | 51    | 40    | 28    |
| 11          | 50            | 182      | 168       | 210    | 216       | 683        | 500        | 400    | 187   | 47    | 51    | 22    |
| 12          | 48            | 168      | 165       | 200    | 220       | 661        | 495        | 410    | 178   | 43    | 66    | 31    |
| 13          | 45            | 157      | 151       | 190    | 247       | 628        | 480        | 450    | 167   | 43    | 47    | 33    |
| 14          | 49            | 191      | 154       | 179    | 465       | 617        | 455        | 465    | 155   | 47    | 36    | 77    |
| 15          | 50            | 236      | 162       | 170    | 415       | 611        | 420        | 448    | 143   | 43    | 29    | 71    |
| 16          | 71            | 276      | 154       | 165    | 386       | 666        | 405        | 468    | 135   | 41    | 24    | 62    |
| 17          | 71            | 280      | 272       | 157    | 391       | 699        | 391        | 539    | 125   | 41    | 20    | 65    |
| 18          | 65            | 276      | 386       | 149    | 415       | 699        | 368        | 529    | 119   | 45    | 23    | 66    |
| 19          | 63            | 268      | 368       | 144    | 435       | 722        | 382        | 525    | 112   | 46    | 35    | 60    |
| 20          | 62            | 247      | 368       | 139    | 460       | 837        | 364        | 523    | 106   | 65    | 39    | 52    |
| 21          | 60            | 276      | 373       | 131    | 475       | 818        | 350        | 507    | 104   | 62    | 34    | 55    |
| 22          | 59            | 254      | 338       | 126    | 450       | 794        | 334        | 486    | 109   | 57    | 29    | 46    |
| 23          | 123           | 261      | 306       | 124    | 485       | 758        | 326        | 450    | 98    | 56    | 26    | 41    |
| 24          | 182           | 258      | 302       | 121    | 515       | 694        | 326        | 417    | 93    | 54    | 22    | 35    |
| 25          | 162           | 233      | 295       | 124    | 495       | 666        | 310        | 387    | 89    | 51    | 21    | 31    |
| 26          | 173           | 216      | 295       | 144    | 485       | 661        | 291        | 347    | 93    | 49    | 20    | 31    |
| 27          | 170           | 197      | 280       | 162    | 535       | 628        | 280        | 316    | 87    | 50    | 31    | 29    |
| 28          | 160           | 185      | 260       | 160    | 595       | 589        | 268        | 253    | 86    | 44    | 35    | 28    |
| 29          | 141           | 176      | 250       | 162    | -----     | 551        | 299        | 253    | 81    | 41    | 20    | 29    |
| 30          | 124           | 162      | 230       | 170    | -----     | 505        | 306        | 245    | 70    | 65    | 24    | 25    |
| 31          | 114           | -----    | 220       | 170    | -----     | 460        | -----      | 241    | ----- | 106   | 28    | ----- |
| TOTAL       | 2,596         | 6,493    | 7,339     | 5,427  | 9,324     | 21,319     | 11,641     | 12,298 | 4,409 | 1,778 | 1,251 | 1,174 |
| MEAN        | 83.7          | 216      | 237       | 175    | 333       | 688        | 388        | 397    | 147   | 57.4  | 40.4  | 39.1  |
| MAX         | 182           | 334      | 386       | 230    | 595       | 837        | 510        | 539    | 232   | 106   | 86    | 77    |
| MIN         | 45            | 103      | 146       | 121    | 131       | 460        | 268        | 241    | 70    | 41    | 20    | 22    |
| MEAN†       | 102           | 263      | 307       | 220    | 473       | 982        | 522        | 508    | 179   | 74.8  | 58.8  | 53.3  |
| CFSM†       | .45           | 1.16     | 1.35      | .97    | 2.08      | 4.33       | 2.30       | 2.24   | .79   | .33   | .26   | .23   |
| IN.†        | .52           | 1.29     | 1.56      | 1.12   | 2.17      | 4.99       | 2.57       | 2.58   | .88   | .38   | .30   | .26   |
| CAL YR 1970 | TOTAL 117,533 | MEAN 322 | MAX 1,570 | MIN 35 | MEAN† 428 | CFSM† 1.89 | INT† 25.63 |        |       |       |       |       |
| WTR YR 1971 | TOTAL 85,049  | MEAN 233 | MAX 837   | MIN 20 | MEAN† 311 | CFSM† 1.37 | INT† 18.63 |        |       |       |       |       |

† Adjusted for diversion to Mother Brook, diversions for municipal supplies of Wellesley, Needham, and Dedham, wastage from Stony Brook Reservoir, and wastage and leakage from Norumbega Reservoir. Records of diversions, wastage, and leakage furnished by Water Division of Metropolitan District Commission and by municipalities.



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

Period of record: Maximum discharge, 1,490 cfs Aug. 19, 1955 (gage height, 14.65 ft, from floodmarks); minimum daily, 1.4 cfs Oct. 20, 1963. Maximum discharge since 1886, that of Aug. 19, 1955. Flood of July 24, 1938, reached a stage of 11.05 ft, from floodmarks.

| DAY         | OCT            | NOV     | DEC       | JAN     | FEB     | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|----------------|---------|-----------|---------|---------|-------|-------|-------|-------|-------|-------|-------|
| 1           | 8.4            | 5.0     | 16        | 38      | 26      | 158   | 74    | 64    | 41    | 5.8   | 17    | 6.3   |
| 2           | 6.3            | 16      | 13        | 40      | 29      | 155   | 74    | 59    | 37    | 6.7   | 12    | 6.3   |
| 3           | 9.2            | 117     | 20        | 41      | 20      | 141   | 83    | 66    | 44    | 5.4   | 9.7   | 7.1   |
| 4           | 18             | 80      | 43        | 33      | 15      | 179   | 83    | 77    | 43    | 6.7   | 9.7   | 7.1   |
| 5           | 13             | 94      | 34        | 48      | 20      | 173   | 73    | 70    | 36    | 6.3   | 8.4   | 7.5   |
| 6           | 12             | 57      | 34        | 58      | 30      | 158   | 64    | 58    | 31    | 5.4   | 7.1   | 8.4   |
| 7           | 10             | 34      | 26        | 47      | 39      | 149   | 118   | 54    | 25    | 4.4   | 5.8   | 8.4   |
| 8           | 8.4            | 28      | 22        | 40      | 62      | 153   | 133   | 47    | 27    | 4.4   | 5.0   | 7.1   |
| 9           | 8.4            | 21      | 18        | 40      | 118     | 136   | 126   | 73    | 40    | 4.0   | 5.0   | 12    |
| 10          | 8.8            | 14      | 22        | 37      | 90      | 120   | 112   | 96    | 32    | 3.4   | 5.0   | 5.4   |
| 11          | 8.8            | 21      | 23        | 33      | 73      | 114   | 102   | 80    | 24    | 3.1   | 10    | 5.4   |
| 12          | 11             | 22      | 23        | 29      | 68      | 109   | 90    | 68    | 26    | 3.1   | 11    | 9.7   |
| 13          | 12             | 23      | 29        | 28      | 114     | 112   | 79    | 77    | 15    | 2.8   | 9.7   | 15    |
| 14          | 8.8            | 51      | 27        | 29      | 233     | 114   | 78    | 86    | 17    | 3.4   | 9.2   | 24    |
| 15          | 9.2            | 69      | 29        | 28      | 170     | 120   | 73    | 73    | 14    | 3.7   | 7.9   | 16    |
| 16          | 17             | 65      | 24        | 25      | 126     | 144   | 64    | 96    | 12    | 3.4   | 10    | 7.9   |
| 17          | 28             | 45      | 99        | 22      | 103     | 157   | 69    | 130   | 11    | 4.4   | 9.2   | 7.5   |
| 18          | 18             | 38      | 111       | 20      | 57      | 142   | 73    | 117   | 12    | 7.9   | 9.2   | 7.1   |
| 19          | 15             | 29      | 100       | 18      | 90      | 139   | 69    | 99    | 7.5   | 15    | 7.5   | 8.8   |
| 20          | 11             | 27      | 96        | 18      | 115     | 172   | 66    | 82    | 5.0   | 22    | 12    | 8.8   |
| 21          | 11             | 47      | 83        | 16      | 117     | 160   | 69    | 68    | 8.4   | 12    | 6.3   | 8.4   |
| 22          | 10             | 41      | 68        | 16      | 99      | 153   | 60    | 69    | 5.8   | 7.1   | 6.3   | 6.3   |
| 23          | 73             | 34      | 63        | 18      | 115     | 141   | 54    | 69    | 5.0   | 5.8   | 5.4   | 6.3   |
| 24          | 102            | 27      | 66        | 21      | 109     | 134   | 49    | 68    | 5.0   | 4.7   | 5.0   | 5.8   |
| 25          | 58             | 23      | 65        | 21      | 53      | 114   | 49    | 51    | 4.4   | 5.0   | 5.4   | 5.8   |
| 26          | 30             | 28      | 60        | 29      | 91      | 105   | 46    | 46    | 4.7   | 6.3   | 5.4   | 5.8   |
| 27          | 20             | 29      | 59        | 37      | 133     | 96    | 42    | 44    | 5.0   | 7.5   | 11    | 6.7   |
| 28          | 15             | 26      | 57        | 33      | 148     | 89    | 43    | 45    | 5.8   | 5.4   | 15    | 6.3   |
| 29          | 11             | 22      | 42        | 26      | -----   | 83    | 60    | 34    | 3.7   | 4.7   | 10    | 5.8   |
| 30          | 9.2            | 20      | 39        | 29      | -----   | 80    | 68    | 41    | 3.4   | 16    | 10    | 4.7   |
| 31          | 20             | -----   | 37        | 30      | -----   | 79    | ----- | 49    | ----- | 41    | 7.5   | ----- |
| TOTAL       | 606.5          | 1,153.0 | 1,448     | 948     | 2,561   | 4,079 | 2,243 | 2,156 | 550.7 | 236.8 | 267.7 | 247.7 |
| MEAN        | 19.4           | 38.4    | 46.7      | 30.6    | 91.5    | 132   | 74.8  | 69.5  | 18.4  | 7.64  | 8.64  | 8.26  |
| MAX         | 102            | 117     | 111       | 58      | 233     | 179   | 133   | 130   | 44    | 41    | 17    | 24    |
| MIN         | 6.3            | 5.0     | 13        | 16      | 15      | 79    | 42    | 34    | 3.4   | 2.8   | 5.0   | 4.7   |
| CAL YR 1970 | TOTAL 22,107.8 |         | MEAN 60.6 | MAX 576 | MIN 5.0 |       |       |       |       |       |       |       |
| WTR YR 1971 | TOTAL 16,491.4 |         | MEAN 45.2 | MAX 233 | MIN 2.8 |       |       |       |       |       |       |       |

## NEPONSET RIVER BASIN

01105500 East Branch Neponset River at Canton, Mass.

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

DRAINAGE AREA.--27.2 sq mi.

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

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

AVERAGE DISCHARGE.--19 years, 50.1 cfs.

EXTREMES.--Current year: Maximum discharge, 408 cfs Feb. 14 (gage height, 3.83 ft); minimum daily, 2.0 cfs Oct. 9, July 11.

Period of record: Maximum discharge, 1,790 cfs Aug. 19, 1955 (gage height, 8.18 ft), from rating curve extended above 690 cfs; minimum daily, 0.6 cfs July 7, Sept. 1, 1957.

REMARKS.--Records good except those for period of shifting control, which are fair. Flow regulated by Forge, Bolivar, Massapoag, and Reservoir Ponds, and other ponds above station. Diversion above station for municipal supply of Canton and Stoughton.

REVISIONS.--WSP 1901: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 7.1   | 11    | 28    | 49    | 33    | 121   | 59    | 41    | 61    | 6.3   | 5.4   | 6.0   |
| 2     | 7.3   | 17    | 25    | 51    | 29    | 108   | 53    | 34    | 45    | 9.2   | 4.9   | 6.0   |
| 3     | 5.4   | 111   | 28    | 49    | 25    | 102   | 58    | 31    | 33    | 6.7   | 4.5   | 7.8   |
| 4     | 7.6   | 89    | 49    | 48    | 22    | 152   | 55    | 74    | 33    | 5.6   | 4.2   | 9.2   |
| 5     | 9.2   | 79    | 47    | 74    | 26    | 155   | 50    | 51    | 28    | 4.9   | 4.0   | 7.1   |
| 6     | 5.4   | 65    | 38    | 82    | 45    | 132   | 50    | 41    | 23    | 4.4   | 3.8   | 6.3   |
| 7     | 7.3   | 52    | 30    | 65    | 43    | 128   | 96    | 40    | 21    | 4.0   | 3.4   | 11    |
| 8     | 8.7   | 44    | 24    | 56    | 58    | 133   | 108   | 34    | 16    | 5.0   | 2.9   | 16    |
| 9     | 2.0   | 39    | 20    | 43    | 109   | 119   | 75    | 60    | 35    | 3.5   | 4.2   | 25    |
| 10    | 4.7   | 36    | 24    | 46    | 54    | 108   | 53    | 82    | 30    | 2.9   | 5.0   | 22    |
| 11    | 4.9   | 37    | 32    | 45    | 67    | 105   | 52    | 79    | 26    | 2.0   | 5.4   | 17    |
| 12    | 5.0   | 35    | 40    | 45    | 57    | 108   | 48    | 67    | 21    | 2.6   | 4.2   | 17    |
| 13    | 8.9   | 34    | 35    | 41    | 112   | 105   | 49    | 76    | 20    | 5.2   | 3.8   | 28    |
| 14    | 6.3   | 68    | 30    | 39    | 296   | 105   | 38    | 47    | 16    | 3.8   | 4.2   | 21    |
| 15    | 8.7   | 68    | 28    | 39    | 154   | 103   | 39    | 42    | 15    | 3.8   | 4.4   | 18    |
| 16    | 28    | 70    | 29    | 37    | 119   | 111   | 41    | 61    | 15    | 9.2   | 4.5   | 14    |
| 17    | 29    | 58    | 70    | 33    | 107   | 108   | 47    | 118   | 13    | 4.2   | 4.2   | 10    |
| 18    | 20    | 52    | 120   | 30    | 105   | 101   | 46    | 89    | 9.7   | 2.9   | 4.5   | 5.8   |
| 19    | 14    | 45    | 94    | 28    | 107   | 99    | 47    | 62    | 17    | 4.0   | 4.9   | 6.3   |
| 20    | 10    | 44    | 97    | 25    | 108   | 141   | 47    | 57    | 9.2   | 8.9   | 7.8   | 11    |
| 21    | 7.8   | 53    | 78    | 23    | 109   | 114   | 48    | 65    | 10    | 6.7   | 4.7   | 12    |
| 22    | 10    | 47    | 68    | 26    | 99    | 96    | 43    | 63    | 9.7   | 5.0   | 3.2   | 9.7   |
| 23    | 37    | 44    | 67    | 27    | 120   | 87    | 39    | 64    | 10    | 4.2   | 5.2   | 8.1   |
| 24    | 67    | 40    | 73    | 27    | 120   | 80    | 37    | 57    | 10    | 3.2   | 6.0   | 8.7   |
| 25    | 37    | 33    | 73    | 27    | 105   | 76    | 38    | 64    | 9.7   | 2.5   | 5.9   | 6.5   |
| 26    | 33    | 32    | 69    | 39    | 99    | 71    | 38    | 63    | 9.2   | 2.6   | 5.8   | 4.9   |
| 27    | 24    | 29    | 65    | 51    | 123   | 70    | 36    | 56    | 7.8   | 3.1   | 37    | 8.4   |
| 28    | 19    | 28    | 61    | 39    | 139   | 67    | 35    | 41    | 6.9   | 3.4   | 8.4   | 9.7   |
| 29    | 18    | 28    | 57    | 33    | ----- | 65    | 51    | 44    | 5.8   | 3.1   | 3.4   | 9.7   |
| 30    | 17    | 38    | 53    | 36    | ----- | 59    | 58    | 65    | 6.0   | 5.8   | 5.4   | 10    |
| 31    | 15    | ----- | 50    | 37    | ----- | 61    | ----- | 68    | ----- | 7.3   | 6.3   | ----- |
| TOTAL | 484.3 | 1,426 | 1,592 | 1,296 | 2,630 | 3,190 | 1,534 | 1,836 | 572.0 | 146.0 | 181.4 | 352.2 |
| MEAN  | 15.6  | 47.5  | 51.4  | 41.8  | 93.9  | 103   | 51.1  | 59.2  | 19.1  | 4.71  | 5.85  | 11.7  |
| MAX   | 67    | 111   | 120   | 82    | 296   | 155   | 108   | 118   | 61    | 9.2   | 37    | 28    |
| MIN   | 2.0   | 11    | 20    | 23    | 22    | 59    | 35    | 31    | 5.8   | 2.0   | 2.9   | 4.9   |

CAL YR 1970 TOTAL 18,580.1 MEAN 50.9 MAX 385 MIN 2.0  
WTR YR 1971 TOTAL 15,239.9 MEAN 41.8 MAX 296 MIN 2.0

NOTE.--Shifting-control method used May 3 to Sept. 30.

01105600 Old Swamp River near South Weymouth, Mass.

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

DRAINAGE AREA.--4.29 sq mi.

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

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

AVERAGE DISCHARGE.--5 years, 9.51 cfs (30.10 inches per year).

EXTREMES.--Current year: Maximum discharge, 103 cfs Feb. 14 (gage height, 3.73 ft); maximum gage height, 5.35 ft Feb. 15 (ice jam); minimum discharge, 0.11 cfs Sept. 5, 6, 9, 10.

Period of record: Maximum discharge, 566 cfs Mar. 18, 1968 (gage height, 5.22 ft); maximum gage height, 5.35 ft Feb. 15, 1971 (ice jam); minimum discharge, 0.11 cfs Sept. 5, 6, 9, 10, 1971.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN    | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|
| 1     | .79   | 1.7   | 3.7   | 5.6   | 4.1   | 24    | 6.2   | 9.0   | 8.0    | 1.2   | 2.5   | .17   |
| 2     | .73   | 5.6   | 3.6   | 5.6   | 3.7   | 18    | 6.2   | 7.0   | 6.5    | 1.9   | 1.5   | .15   |
| 3     | .73   | 31    | 3.4   | 4.8   | 3.5   | 15    | 8.7   | 13    | 6.0    | 1.0   | .94   | .14   |
| 4     | 1.9   | 19    | 7.3   | 4.8   | 4.0   | 33    | 8.4   | 15    | 5.7    | .86   | .78   | .14   |
| 5     | 1.2   | 15    | 6.3   | 13    | 6.0   | 36    | 7.0   | 10    | 5.0    | .78   | .71   | .12   |
| 6     | .99   | 9.7   | 5.1   | 17    | 7.0   | 21    | 6.5   | 8.4   | 4.5    | .64   | .58   | .11   |
| 7     | .92   | 6.5   | 4.4   | 13    | 5.3   | 19    | 36    | 7.0   | 4.0    | .53   | .48   | .14   |
| 8     | .85   | 4.8   | 3.7   | 9.7   | 8.5   | 20    | 38    | 7.4   | 6.0    | .43   | .39   | .12   |
| 9     | .85   | 4.3   | 3.4   | 7.9   | 24    | 16    | 20    | 16    | 9.0    | .39   | .32   | .12   |
| 10    | .79   | 3.7   | 3.6   | 6.3   | 22    | 13    | 14    | 25    | 6.0    | .39   | .26   | .14   |
| 11    | .79   | 3.6   | 3.7   | 6.0   | 15    | 13    | 11    | 16    | 4.7    | .39   | .26   | .15   |
| 12    | .79   | 3.4   | 3.7   | 5.6   | 8.8   | 15    | 9.7   | 11    | 3.8    | .35   | .35   | .94   |
| 13    | .73   | 4.8   | 3.7   | 5.0   | 28    | 15    | 9.0   | 10    | 3.4    | .32   | .32   | .43   |
| 14    | .73   | 19    | 3.7   | 4.7   | 72    | 15    | 8.7   | 13    | 3.4    | .48   | .23   | 2.5   |
| 15    | .73   | 18    | 3.7   | 4.4   | 39    | 16    | 7.7   | 9.7   | 3.3    | .39   | .21   | .64   |
| 16    | 3.4   | 16    | 3.6   | 4.0   | 21    | 21    | 7.0   | 20    | 3.1    | .32   | .21   | .53   |
| 17    | 4.0   | 11    | 25    | 3.7   | 15    | 18    | 7.0   | 39    | 2.9    | .29   | .21   | .48   |
| 18    | 2.5   | 7.9   | 40    | 3.6   | 13    | 13    | 7.0   | 23    | 2.5    | .43   | .19   | .48   |
| 19    | 1.6   | 6.3   | 25    | 3.5   | 13    | 13    | 7.0   | 14    | 2.2    | 2.3   | .15   | .35   |
| 20    | 1.3   | 5.6   | 16    | 3.4   | 16    | 23    | 6.7   | 10    | 2.0    | 2.9   | 1.2   | .32   |
| 21    | 1.2   | 9.1   | 13    | 3.4   | 18    | 18    | 6.2   | 9.0   | 1.6    | .94   | .32   | .32   |
| 22    | 1.1   | 7.3   | 10    | 3.6   | 13    | 13    | 5.7   | 9.0   | 1.6    | .78   | .23   | .29   |
| 23    | 10    | 5.8   | 8.2   | 3.8   | 22    | 11    | 5.5   | 8.0   | 1.5    | .64   | .23   | .23   |
| 24    | 10    | 5.1   | 9.7   | 3.6   | 25    | 9.7   | 5.2   | 7.0   | 1.5    | .58   | .19   | .21   |
| 25    | 6.3   | 4.6   | 10    | 3.4   | 18    | 8.7   | 6.2   | 6.5   | 1.4    | .48   | .15   | .19   |
| 26    | 4.6   | 4.3   | 9.1   | 6.0   | 13    | 8.4   | 5.7   | 6.0   | 1.2    | .48   | .14   | .19   |
| 27    | 3.4   | 3.9   | 8.2   | 7.0   | 23    | 8.0   | 5.7   | 5.7   | .94    | 1.4   | 1.0   | .19   |
| 28    | 2.7   | 3.7   | 7.6   | 6.0   | 31    | 7.4   | 5.5   | 6.2   | .94    | .71   | .78   | .17   |
| 29    | 2.5   | 3.7   | 6.5   | 4.8   | ----- | 7.4   | 11    | 6.0   | .94    | .48   | .39   | .17   |
| 30    | 2.2   | 3.7   | 6.3   | 5.0   | ----- | 7.0   | 12    | 9.3   | .86    | 5.0   | .23   | .17   |
| 31    | 2.0   | ----- | 6.0   | 4.5   | ----- | 6.7   | ----- | 10    | -----  | 4.5   | .19   | ----- |
| TOTAL | 72.32 | 248.1 | 267.2 | 182.7 | 491.9 | 482.3 | 300.5 | 366.2 | 104.48 | 32.28 | 15.64 | 10.30 |
| MEAN  | 2.33  | 8.27  | 8.62  | 5.89  | 17.6  | 15.6  | 10.0  | 11.8  | 3.48   | 1.04  | .50   | .34   |
| MAX   | 10    | 31    | 40    | 17    | 72    | 36    | 38    | 39    | 9.0    | 5.0   | 2.5   | 2.5   |
| MIN   | .73   | 1.7   | 3.4   | 3.4   | 3.5   | 6.7   | 5.2   | 5.7   | .86    | .29   | .14   | .11   |
| CFSM  | .54   | 1.93  | 2.01  | 1.37  | 4.10  | 3.64  | 2.33  | 2.75  | .81    | .24   | .12   | .08   |
| IN.   | .63   | 2.15  | 2.32  | 1.58  | 4.27  | 4.18  | 2.61  | 3.18  | .91    | .28   | .14   | .09   |

CAL YR 1970 TOTAL 2,793.92 MEAN 7.65 MAX 153 MIN .23 CFSM 1.78 IN 24.23  
WTR YR 1971 TCTAL 2,573.92 MEAN 7.05 MAX 72 MIN .11 CFSM 1.64 IN 22.32

## PEAK DISCHARGE (BASE, 90 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 2-14 | 0630 | 3.73  | 103       |      |      |       |           |

## BOUND BROOK BASIN

01105660 Bound Brook near Cohasset, Mass.

LOCATION.--Lat 42°12'44", long 70°49'18", Norfolk County, on right bank at upstream side of culvert on Doane Street and 2.2 miles southwest of Cohasset.

DRAINAGE AREA.--4.88 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1969-70. July 1970 to September 1971 (discontinued).

GAGE.--Nonrecording gage, and since Dec. 11, 1970, crest-stage gage. Altitude of gage is 45 ft (from topographic map).

EXTREMES.--July to September 1970: Maximum discharge observed, 2.4 cfs Aug. 21 (gage height, 0.95 ft); minimum, 0.08 cfs Aug. 16.  
Water year 1971: Maximum discharge, 63 cfs Feb. 14 (gage height, 3.01 ft); minimum, 0.01 cfs Sept. 21-30.

REMARKS.--Records fair. Records of chemical analyses for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, JULY TO SEPTEMBER 1970

| DAY   | AUG. | SEPT. | DAY | AUG. | SEPT. | DAY | AUG. | SEPT. | DAY | JULY | AUG.  | SEPT. |
|-------|------|-------|-----|------|-------|-----|------|-------|-----|------|-------|-------|
| 1     | .30  | .71   | 9   | .11  | .25   | 17  | .15  | .71   | 25  | -    | 1.2   | .50   |
| 2     | .27  | .32   | 10  | .15  | .40   | 18  | .25  | .50   | 26  | -    | 1.1   | .71   |
| 3     | .25  | .32   | 11  | 2.0  | .83   | 19  | .25  | .40   | 27  | -    | 1.1   | .60   |
| 4     | .25  | .32   | 12  | .71  | .83   | 20  | .71  | .32   | 28  | -    | 1.1   | .50   |
| 5     | .15  | .40   | 13  | .32  | .83   | 21  | 1.8  | .19   | 29  | -    | .83   | .50   |
| 6     | .15  | .32   | 14  | .25  | .96   | 22  | 1.6  | .15   | 30  | -    | .83   | .60   |
| 7     | .11  | .25   | 15  | .15  | .96   | 23  | 1.2  | .08   | 31  | .32  | .71   | -     |
| 8     | .11  | .19   | 16  | .08  | .83   | 24  | 1.4  | .11   |     |      |       |       |
| TOTAL |      |       |     |      |       |     |      |       |     | -    | 19.59 | 14.59 |
| MEAN  |      |       |     |      |       |     |      |       |     | -    | .63   | .49   |
| MAX   |      |       |     |      |       |     |      |       |     | -    | 2.0   | .96   |
| MIN   |      |       |     |      |       |     |      |       |     | -    | .08   | .08   |
| CFSM  |      |       |     |      |       |     |      |       |     | -    | .13   | .10   |
| IN    |      |       |     |      |       |     |      |       |     | -    | .15   | .11   |

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN    | JUL  | AUG  | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|------|-------|
| 1     | .60   | 1.1   | 6.3   | 14    | 9.0   | 30    | 7.7   | 20    | 8.4    | .50  | .60  | .08   |
| 2     | .50   | 1.2   | 5.8   | 15    | 8.0   | 30    | 7.7   | 19    | 7.7    | .71  | .40  | .08   |
| 3     | .50   | 2.0   | 5.6   | 16    | 7.0   | 24    | 8.4   | 19    | 7.7    | .71  | .32  | .06   |
| 4     | .60   | 1.9   | 7.5   | 16    | 7.0   | 29    | 9.4   | 20    | 7.0    | .60  | .32  | .04   |
| 5     | .60   | 1.8   | 8.2   | 16    | 8.0   | 30    | 8.2   | 17    | 6.0    | .40  | .32  | .04   |
| 6     | .50   | 1.8   | 8.2   | 16    | 11    | 29    | 7.7   | 18    | 5.6    | .40  | .32  | .03   |
| 7     | .50   | 1.6   | 7.7   | 15    | 14    | 24    | 17    | 12    | 5.1    | .32  | .25  | .02   |
| 8     | .40   | 1.4   | 6.8   | 12    | 18    | 21    | 30    | 10    | 5.1    | .25  | .19  | .02   |
| 9     | .40   | 9.4   | 6.5   | 11    | 21    | 19    | 26    | 11    | 5.3    | .25  | .11  | .02   |
| 10    | .32   | 7.5   | 7.0   | 10    | 22    | 18    | 26    | 13    | 5.3    | .15  | .15  | .03   |
| 11    | .25   | 7.2   | 7.2   | 9.6   | 22    | 18    | 26    | 19    | 4.8    | .11  | .15  | .03   |
| 12    | .32   | 6.8   | 7.7   | 9.4   | 23    | 18    | 26    | 18    | 4.8    | .11  | .15  | .03   |
| 13    | .50   | 6.3   | 8.2   | 9.2   | 31    | 18    | 24    | 14    | 4.8    | .11  | .15  | .03   |
| 14    | .50   | 6.8   | 7.2   | 8.6   | 59    | 18    | 13    | 13    | 4.8    | .08  | .15  | .03   |
| 15    | .40   | 12    | 7.0   | 8.2   | 45    | 16    | 10    | 13    | 4.4    | .08  | .19  | .03   |
| 16    | .40   | 11    | 6.3   | 7.6   | 35    | 26    | 9.4   | 13    | 4.1    | .08  | .19  | .03   |
| 17    | .40   | 10    | 19    | 7.2   | 26    | 27    | 8.4   | 20    | 3.9    | .08  | .19  | .03   |
| 18    | .50   | 9.2   | 43    | 6.8   | 21    | 20    | 7.7   | 13    | 3.9    | .09  | .15  | .03   |
| 19    | .50   | 8.4   | 35    | 6.6   | 19    | 15    | 7.2   | 11    | 3.4    | .20  | .11  | .02   |
| 20    | .32   | 8.0   | 28    | 6.4   | 20    | 18    | 6.5   | 9.4   | 2.8    | .40  | .11  | .02   |
| 21    | .40   | 8.2   | 23    | 6.2   | 20    | 18    | 6.3   | 8.9   | 1.6    | .50  | .11  | .01   |
| 22    | .40   | 8.2   | 20    | 6.6   | 20    | 18    | 5.6   | 8.7   | 1.4    | .40  | .08  | .01   |
| 23    | .83   | 8.2   | 18    | 7.0   | 23    | 18    | 5.1   | 8.7   | 1.2    | .25  | .04  | .01   |
| 24    | 1.1   | 8.0   | 20    | 6.6   | 29    | 17    | 5.1   | 8.2   | 1.1    | .17  | .03  | .01   |
| 25    | 1.1   | 7.7   | 15    | 6.3   | 28    | 15    | 5.8   | 7.5   | 1.1    | .14  | .03  | .01   |
| 26    | 4.4   | 7.5   | 17    | 7.0   | 22    | 13    | 6.3   | 6.5   | 1.1    | .14  | .02  | .01   |
| 27    | 4.8   | 7.2   | 16    | 11    | 21    | 11    | 5.3   | 6.5   | .96    | .17  | .02  | .01   |
| 28    | 3.4   | 7.0   | 16    | 12    | 21    | 10    | 5.3   | 5.8   | .96    | .19  | .03  | .01   |
| 29    | 1.8   | 7.0   | 15    | 12    | ----- | 9.0   | 8.2   | 4.8   | .83    | .15  | .04  | .01   |
| 30    | 1.4   | 6.8   | 15    | 11    | ----- | 8.2   | 18    | 4.8   | .60    | .30  | .04  | .01   |
| 31    | 1.2   | ----- | 14    | 10    | ----- | 7.8   | ----- | 8.2   | -----  | 1.0  | .08  | ----- |
| TOTAL | 29.84 | 285.7 | 431.2 | 316.3 | 610.0 | 599.0 | 357.3 | 381.0 | 115.75 | 9.04 | 5.04 | .80   |
| MEAN  | .96   | 9.52  | 13.9  | 10.2  | 21.8  | 19.3  | 11.9  | 12.3  | 3.86   | .29  | .16  | .027  |
| MAX   | 4.8   | 20    | 43    | 16    | 59    | 30    | 30    | 20    | 8.4    | 1.0  | .60  | .08   |
| MIN   | .25   | 1.1   | 5.6   | 6.2   | 7.0   | 7.8   | 5.1   | 4.8   | .60    | .08  | .02  | .01   |
| CFSM  | .20   | 1.95  | 2.85  | 2.09  | 4.47  | 3.95  | 2.44  | 2.52  | .79    | .06  | .03  | .006  |
| IN    | .23   | 2.18  | 3.20  | 2.41  | 4.65  | 4.57  | 2.72  | 2.50  | .88    | .07  | .04  | .006  |

WTR YR 1971 TOTAL 3,140.97 MEAN 8.61 MAX 59 MIN .01 CFSM 1.76 IN 23.94

01105730 Indian Head River at Hanover, Mass.

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

DRAINAGE AREA. --30.3 sq mi.

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

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

AVERAGE DISCHARGE. --5 years, 59.5 cfs (26.67 inches per year).

EXTREMES. --Current year: Maximum discharge, 478 cfs Feb. 14 (gage height, 4.76 ft); minimum, 0.18 cfs July 13, 14; minimum daily, 0.23 cfs July 14. Period of record: Maximum discharge, 1,390 cfs Mar. 18, 1968 (gage height, 7.13 ft); minimum, 0.18 cfs July 13, 14, 1971; minimum daily, 0.23 cfs July 14, 1971.

REMARKS. --Records good. Some regulation by mills and by Wampatuck, Indian Head, Maquan, and other ponds above station. Records of chemical analysis and suspended-sediment loads for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL    | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| 1     | 5.4   | 15    | 24    | 47    | 32    | 157   | 48    | 64    | 61    | 7.0    | 18    | 3.3   |
| 2     | 5.3   | 14    | 32    | 46    | 26    | 134   | 47    | 54    | 47    | 9.7    | 10    | 3.0   |
| 3     | 7.8   | 162   | 30    | 46    | 22    | 118   | 58    | 79    | 42    | 10     | 8.3   | 2.7   |
| 4     | 10    | 131   | 40    | 45    | 20    | 184   | 61    | 107   | 40    | 9.0    | 8.3   | 2.7   |
| 5     | 9.2   | 95    | 50    | 84    | 24    | 212   | 53    | 81    | 34    | 7.0    | 7.6   | 2.8   |
| 6     | 7.9   | 72    | 41    | 128   | 45    | 163   | 48    | 62    | 28    | 6.0    | 6.2   | 2.4   |
| 7     | 7.0   | 50    | 35    | 100   | 54    | 141   | 170   | 56    | 26    | 4.9    | 4.9   | 2.4   |
| 8     | 6.4   | 40    | 29    | 71    | 70    | 159   | 211   | 52    | 27    | 4.6    | 3.7   | 2.4   |
| 9     | 5.9   | 34    | 27    | 55    | 177   | 130   | 145   | 98    | 64    | 4.1    | 3.5   | 2.6   |
| 10    | 5.5   | 30    | 28    | 48    | 153   | 108   | 107   | 116   | 41    | 3.7    | 3.0   | 2.4   |
| 11    | 5.3   | 28    | 28    | 46    | 103   | 104   | 88    | 97    | 27    | 3.5    | 4.1   | 1.8   |
| 12    | 5.1   | 27    | 30    | 45    | 80    | 109   | 77    | 74    | 23    | 3.2    | 10    | 2.6   |
| 13    | 4.2   | 28    | 32    | 38    | 143   | 115   | 69    | 65    | 21    | 2.3    | 6.3   | 4.9   |
| 14    | 4.2   | 118   | 31    | 36    | 440   | 114   | 65    | 79    | 19    | .23    | 5.4   | 12    |
| 15    | 7.5   | 116   | 30    | 35    | 258   | 114   | 58    | 58    | 18    | 4.8    | 4.4   | 12    |
| 16    | 15    | 103   | 27    | 34    | 161   | 129   | 54    | 81    | 17    | 2.3    | 3.9   | 8.3   |
| 17    | 23    | 72    | 97    | 29    | 118   | 121   | 54    | 176   | 17    | 2.8    | 3.0   | 6.0   |
| 18    | 16    | 57    | 205   | 26    | 103   | 101   | 51    | 134   | 15    | 3.9    | 2.7   | 5.7   |
| 19    | 11    | 48    | 160   | 25    | 99    | 87    | 52    | 94    | 12    | 4.2    | 2.7   | 5.1   |
| 20    | 8.2   | 44    | 119   | 24    | 107   | 142   | 48    | 75    | 13    | 13     | 3.5   | 4.4   |
| 21    | 7.1   | 65    | 98    | 24    | 124   | 131   | 45    | 64    | 12    | 8.7    | 3.5   | 10    |
| 22    | 6.8   | 64    | 77    | 26    | 99    | 99    | 44    | 60    | 12    | 6.0    | 2.8   | 13    |
| 23    | 25    | 47    | 67    | 28    | 130   | 83    | 41    | 56    | 11    | 4.4    | 2.7   | 6.0   |
| 24    | 72    | 43    | 81    | 28    | 166   | 73    | 38    | 48    | 11    | 3.3    | 2.2   | 3.6   |
| 25    | 41    | 37    | 94    | 28    | 124   | 66    | 45    | 45    | 10    | 3.2    | 1.8   | 3.0   |
| 26    | 24    | 33    | 80    | 38    | 100   | 62    | 46    | 41    | 9.7   | 3.0    | 4.2   | 2.4   |
| 27    | 21    | 32    | 72    | 55    | 125   | 60    | 44    | 38    | 9.3   | 3.2    | 7.0   | 2.2   |
| 28    | 17    | 34    | 62    | 43    | 178   | 57    | 39    | 43    | 8.7   | 3.0    | 17    | 2.2   |
| 29    | 15    | 34    | 56    | 32    | ----- | 55    | 65    | 38    | 7.6   | 2.8    | 11    | 2.4   |
| 30    | 20    | 27    | 52    | 34    | ----- | 54    | 84    | 53    | 7.3   | 5.7    | 6.5   | 1.4   |
| 31    | 19    | ----- | 47    | 38    | ----- | 51    | ----- | 82    | ----- | 31     | 4.4   | ----- |
| TOTAL | 437.8 | 1,700 | 1,881 | 1,386 | 3,281 | 3,433 | 2,055 | 2,270 | 690.6 | 176.21 | 182.6 | 135.7 |
| MEAN  | 14.1  | 56.7  | 60.7  | 44.7  | 117   | 111   | 68.5  | 73.2  | 23.0  | 5.68   | 5.89  | 4.52  |
| MAX   | 72    | 162   | 205   | 128   | 440   | 212   | 211   | 176   | 64    | 31     | 18    | 13    |
| MIN   | 4.2   | 14    | 24    | 24    | 20    | 51    | 38    | 38    | 7.3   | .23    | 1.8   | 1.4   |
| CFSM  | .47   | 1.87  | 2.00  | 1.48  | 3.86  | 3.66  | 2.26  | 2.42  | .76   | .19    | .19   | .15   |
| IN.   | .54   | 2.09  | 2.31  | 1.70  | 4.03  | 4.21  | 2.52  | 2.79  | .85   | .22    | .22   | .17   |

CAL YR 1970 TOTAL 19,015.80 MEAN 52.1 MAX 590 MIN 2.7 CFSM 1.72 IN 23.35  
WTR YR 1971 TOTAL 17,628.91 MEAN 48.3 MAX 440 MIN .23 CFSM 1.59 IN 21.64

## PEAK DISCHARGE (BASE, 280 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 2-14 | 1445 | 4.76  | 478       |      |      |       |           |
| 3-5  | 1015 | 4.63  | 439       |      |      |       |           |

## JONES RIVER BASIN

01105870 Jones River at Kingston, Mass.

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

DRAINAGE AREA.--15.8 sq mi, excludes 4.09 sq mi above outlet of Silver Lake from which flow is diverted for municipal supply of Brockton and Whitman.

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

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

AVERAGE DISCHARGE.--5 years, 29.7 cfs.

EXTREMES.--Current year: Maximum discharge, 139 cfs Feb. 14 (gage height, 3.34 ft); maximum gage height, 3.90 ft Mar. 28 (backwater from tide); minimum daily discharge, 4.9 cfs July 12, 13, 17.

Period of record: Maximum discharge, 575 cfs Mar. 19, 1968 (gage height, 4.60 ft); maximum gage height, 4.65 ft May 26, 1967 (backwater from tide); minimum daily discharge, 0.59 cfs Aug. 11, 1966.

REMARKS.--Records good. Flow regulated by pond above station. Flow affected at times during springs of 1968-71 by wastage from 4.09 sq mi above outlet of Silver Lake. Surface flow may be affected by ground water that enters from or moves into adjacent basins. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT   | NOV      | DEC  | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|-------|----------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1           | 8.5   | 9.0      | 15   | 22   | 18    | 53    | 26    | 57    | 25    | 7.2   | 6.2   | 7.2   |
| 2           | 8.5   | 9.0      | 15   | 23   | 17    | 48    | 26    | 51    | 20    | 7.6   | 5.8   | 6.2   |
| 3           | 8.5   | 28       | 15   | 23   | 15    | 44    | 26    | 57    | 17    | 7.6   | 5.8   | 6.2   |
| 4           | 9.8   | 37       | 16   | 26   | 14    | 58    | 29    | 72    | 15    | 7.6   | 9.8   | 6.2   |
| 5           | 9.8   | 41       | 18   | 34   | 17    | 72    | 29    | 66    | 15    | 7.6   | 12    | 5.8   |
| 6           | 9.8   | 37       | 15   | 42   | 23    | 60    | 29    | 57    | 15    | 7.6   | 8.5   | 5.8   |
| 7           | 9.8   | 29       | 15   | 39   | 24    | 55    | 49    | 51    | 15    | 7.6   | 6.7   | 5.8   |
| 8           | 9.8   | 26       | 15   | 36   | 32    | 55    | 64    | 44    | 14    | 6.7   | 6.7   | 5.8   |
| 9           | 9.8   | 23       | 15   | 31   | 70    | 53    | 55    | 53    | 16    | 5.8   | 6.7   | 5.8   |
| 10          | 9.8   | 20       | 15   | 28   | 68    | 46    | 51    | 76    | 17    | 5.8   | 6.2   | 5.8   |
| 11          | 9.8   | 19       | 15   | 25   | 49    | 49    | 44    | 72    | 15    | 5.8   | 6.2   | 5.8   |
| 12          | 9.8   | 18       | 15   | 24   | 39    | 46    | 42    | 53    | 14    | 4.9   | 6.2   | 6.2   |
| 13          | 9.8   | 19       | 17   | 21   | 49    | 51    | 37    | 41    | 12    | 4.9   | 6.2   | 7.6   |
| 14          | 5.8   | 30       | 19   | 20   | 123   | 58    | 36    | 41    | 11    | 5.8   | 6.2   | 9.0   |
| 15          | 9.8   | 35       | 19   | 20   | 104   | 58    | 36    | 37    | 11    | 5.8   | 6.2   | 9.8   |
| 16          | 12    | 30       | 17   | 20   | 68    | 53    | 34    | 36    | 11    | 5.3   | 6.7   | 9.8   |
| 17          | 13    | 27       | 34   | 18   | 51    | 53    | 31    | 68    | 9.8   | 4.9   | 6.2   | 9.8   |
| 18          | 9.8   | 25       | 51   | 18   | 46    | 49    | 31    | 57    | 9.8   | 5.3   | 5.8   | 9.8   |
| 19          | 8.5   | 22       | 51   | 17   | 41    | 46    | 29    | 41    | 9.8   | 6.2   | 5.8   | 9.8   |
| 20          | 11    | 22       | 48   | 15   | 37    | 53    | 32    | 31    | 8.5   | 9.0   | 21    | 9.0   |
| 21          | 9.0   | 22       | 41   | 15   | 37    | 57    | 32    | 26    | 8.5   | 11    | 46    | 9.0   |
| 22          | 9.0   | 22       | 29   | 15   | 37    | 57    | 32    | 23    | 8.5   | 7.2   | 34    | 9.0   |
| 23          | 14    | 22       | 24   | 15   | 44    | 48    | 31    | 22    | 8.5   | 6.2   | 24    | 9.8   |
| 24          | 21    | 22       | 26   | 15   | 57    | 36    | 29    | 19    | 8.5   | 5.8   | 15    | 9.0   |
| 25          | 20    | 23       | 32   | 15   | 51    | 34    | 36    | 17    | 8.5   | 5.8   | 12    | 8.5   |
| 26          | 16    | 21       | 31   | 18   | 44    | 34    | 36    | 17    | 8.5   | 5.8   | 11    | 8.5   |
| 27          | 15    | 20       | 31   | 23   | 41    | 32    | 36    | 17    | 8.1   | 5.3   | 8.5   | 8.5   |
| 28          | 14    | 16       | 28   | 21   | 58    | 31    | 32    | 17    | 8.1   | 5.3   | 14    | 8.5   |
| 29          | 13    | 15       | 25   | 19   | ----- | 29    | 39    | 16    | 7.2   | 5.3   | 12    | 8.5   |
| 30          | 12    | 15       | 25   | 19   | ----- | 29    | 58    | 19    | 7.2   | 6.7   | 8.5   | 8.5   |
| 31          | 9.8   | -----    | 23   | 20   | ----- | 29    | ----- | 26    | ----- | 7.6   | 7.6   | ----- |
| TOTAL       | 350.2 | 704.0    | 755  | 697  | 1,274 | 1,476 | 1,097 | 1,280 | 362.5 | 201.0 | 343.5 | 235.0 |
| MEAN        | 11.3  | 23.5     | 24.4 | 22.5 | 45.5  | 47.6  | 36.6  | 41.3  | 12.1  | 6.48  | 11.1  | 7.83  |
| MAX         | 21    | 41       | 51   | 42   | 123   | 72    | 64    | 76    | 25    | 11    | 46    | 9.8   |
| MIN         | 8.5   | 9.0      | 15   | 15   | 14    | 29    | 26    | 16    | 7.2   | 4.9   | 5.8   | 5.8   |
| CAL YR 1970 | TOTAL | 11,176.2 | MEAN | 30.6 | MAX   | 220   | MIN   | 8.5   |       |       |       |       |
| WTR YR 1971 | TOTAL | 8,775.2  | MEAN | 24.0 | MAX   | 123   | MIN   | 4.9   |       |       |       |       |



01105876 Eel River near Plymouth, Mass.

LOCATION.--Lat 41°56'30", long 70°37'23", Plymouth County, on right bank 10 ft upstream from bridge on State Highway 3A, 0.6 mile upstream from mouth, and 2.9 miles southeast of Plymouth.

DRAINAGE AREA.--14.7 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1969-70. December 1969 to September 1971 (discontinued).

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

EXTREMES.--Current year: Maximum discharge, 61 cfs Feb. 8 (gage height, 1.16 ft); maximum gage height not determined; minimum discharge, 17 cfs Sept. 11, 12.

Period of record: Maximum discharge, 61 cfs Feb. 8, 1971 (gage height, 1.16 ft); maximum gage height, 3.15 ft Dec. 27, 1969; minimum discharge, 17 cfs Sept. 11, 12, 1971.

REMARKS.--Records good. Surface flow may be affected by ground water that enters from or moves into adjacent basins. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC  | JAN  | FEB   | MAR  | APR   | MAY  | JUN   | JUL  | AUG  | SEP   |
|-------|------|-------|------|------|-------|------|-------|------|-------|------|------|-------|
| 1     | 24   | 26    | 23   | 24   | 22    | 29   | 25    | 27   | 28    | 24   | 20   | 19    |
| 2     | 23   | 27    | 22   | 24   | 22    | 27   | 25    | 29   | 27    | 24   | 19   | 19    |
| 3     | 23   | 30    | 24   | 25   | 22    | 26   | 25    | 32   | 27    | 24   | 18   | 21    |
| 4     | 23   | 33    | 27   | 27   | 22    | 42   | 26    | 32   | 27    | 24   | 23   | 21    |
| 5     | 23   | 41    | 27   | 35   | 26    | 32   | 26    | 28   | 26    | 24   | 26   | 18    |
| 6     | 23   | 34    | 27   | 35   | 34    | 24   | 26    | 25   | 25    | 24   | 23   | 18    |
| 7     | 22   | 29    | 26   | 29   | 27    | 24   | 34    | 24   | 26    | 23   | 20   | 18    |
| 8     | 20   | 26    | 28   | 25   | 47    | 26   | 33    | 24   | 26    | 23   | 23   | 18    |
| 9     | 25   | 26    | 27   | 24   | 52    | 29   | 29    | 28   | 28    | 23   | 22   | 18    |
| 10    | 27   | 25    | 26   | 23   | 34    | 34   | 27    | 34   | 27    | 22   | 18   | 18    |
| 11    | 25   | 25    | 26   | 23   | 27    | 34   | 25    | 32   | 27    | 21   | 25   | 17    |
| 12    | 23   | 25    | 27   | 23   | 25    | 34   | 26    | 28   | 27    | 21   | 29   | 17    |
| 13    | 23   | 31    | 30   | 23   | 28    | 31   | 25    | 25   | 27    | 24   | 26   | 18    |
| 14    | 23   | 50    | 29   | 23   | 45    | 30   | 25    | 26   | 26    | 23   | 24   | 20    |
| 15    | 23   | 41    | 28   | 24   | 40    | 30   | 25    | 24   | 26    | 22   | 23   | 20    |
| 16    | 25   | 34    | 27   | 24   | 27    | 33   | 24    | 26   | 26    | 24   | 22   | 19    |
| 17    | 27   | 29    | 30   | 23   | 28    | 34   | 24    | 37   | 26    | 25   | 22   | 18    |
| 18    | 29   | 27    | 50   | 22   | 28    | 36   | 25    | 32   | 27    | 24   | 22   | 18    |
| 19    | 28   | 26    | 47   | 21   | 27    | 37   | 26    | 28   | 27    | 31   | 21   | 18    |
| 20    | 28   | 25    | 44   | 21   | 27    | 42   | 26    | 26   | 24    | 31   | 21   | 18    |
| 21    | 30   | 25    | 40   | 21   | 28    | 36   | 26    | 26   | 24    | 29   | 21   | 18    |
| 22    | 32   | 25    | 37   | 22   | 28    | 31   | 25    | 26   | 24    | 27   | 21   | 19    |
| 23    | 44   | 25    | 34   | 22   | 36    | 29   | 25    | 27   | 25    | 25   | 22   | 20    |
| 24    | 56   | 25    | 32   | 22   | 36    | 28   | 25    | 26   | 25    | 23   | 21   | 20    |
| 25    | 44   | 24    | 30   | 22   | 31    | 27   | 24    | 25   | 24    | 22   | 19   | 19    |
| 26    | 34   | 24    | 28   | 24   | 28    | 26   | 24    | 25   | 24    | 21   | 19   | 19    |
| 27    | 31   | 24    | 27   | 26   | 29    | 25   | 24    | 25   | 24    | 20   | 20   | 20    |
| 28    | 28   | 24    | 26   | 25   | 33    | 25   | 24    | 26   | 23    | 20   | 22   | 20    |
| 29    | 27   | 23    | 26   | 24   | ----- | 25   | 25    | 26   | 22    | 19   | 20   | 20    |
| 30    | 26   | 23    | 25   | 23   | ----- | 25   | 26    | 27   | 25    | 19   | 15   | 19    |
| 31    | 26   | ----- | 25   | 22   | ----- | 25   | ----- | 29   | ----- | 22   | 18   | ----- |
| TOTAL | 865  | 852   | 926  | 751  | 859   | 936  | 775   | 855  | 770   | 728  | 669  | 565   |
| MEAN  | 27.9 | 28.4  | 29.5 | 24.2 | 30.7  | 30.2 | 25.8  | 27.6 | 25.7  | 23.5 | 21.6 | 18.8  |
| MAX   | 56   | 50    | 50   | 35   | 52    | 42   | 34    | 37   | 28    | 31   | 29   | 21    |
| MIN   | 20   | 23    | 23   | 21   | 22    | 24   | 24    | 24   | 22    | 19   | 18   | 17    |

CAL YR 1970 TOTAL 10,689 MEAN 29.3 MAX 56 MIN 20  
 WTR YR 1971 TOTAL 5,551 MEAN 26.2 MAX 56 MIN 17

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

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

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

AVERAGE DISCHARGE.--5 years, 10.0 cfs.

EXTREMES.--Current year: Maximum discharge, 28 cfs May 24 (gage height, 3.70 ft); minimum, 1.9 cfs Sept. 24, 25, 29, 30.  
Period of record: Maximum discharge, 54 cfs June 6, 1967 (gage height, 4.88 ft); minimum, 0.85 cfs Oct. 4-9, 1966.

REMARKS.--Records good. Flow regulated by many ponds above station--some with no outlets. Surface flow may be affected by ground water that enters from or moves into adjacent basins.

| DAY         | OCT   | NOV     | DEC   | JAN   | FEB   | MAR   | APR   | MAY  | JUN   | JUL   | AUG   | SEP   |
|-------------|-------|---------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| 1           | 5.1   | 5.1     | 8.0   | 9.4   | 4.6   | 12    | 11    | 15   | 15    | 8.5   | 6.2   | 2.2   |
| 2           | 5.1   | 6.0     | 8.0   | 11    | 4.4   | 11    | 11    | 15   | 16    | 8.7   | 6.2   | 2.2   |
| 3           | 4.9   | 12      | 8.0   | 10    | 4.4   | 11    | 12    | 16   | 15    | 8.7   | 6.2   | 2.1   |
| 4           | 4.9   | 9.2     | 8.2   | 9.4   | 4.4   | 13    | 15    | 16   | 15    | 8.5   | 5.4   | 2.1   |
| 5           | 4.7   | 9.4     | 8.0   | 11    | 6.0   | 12    | 17    | 15   | 14    | 8.5   | 7.6   | 2.2   |
| 6           | 4.7   | 8.9     | 8.2   | 8.9   | 6.3   | 11    | 17    | 15   | 13    | 8.5   | 6.7   | 2.2   |
| 7           | 4.7   | 8.7     | 7.8   | 8.7   | 6.0   | 11    | 19    | 14   | 13    | 8.0   | 6.2   | 2.2   |
| 8           | 5.4   | 8.5     | 7.4   | 8.7   | 8.7   | 11    | 19    | 14   | 13    | 7.8   | 5.1   | 2.1   |
| 9           | 5.4   | 8.5     | 7.1   | 8.7   | 8.5   | 9.9   | 18    | 15   | 13    | 7.4   | 4.9   | 2.1   |
| 10          | 4.4   | 8.2     | 7.1   | 8.5   | 8.2   | 9.7   | 18    | 16   | 14    | 3.2   | 4.7   | 2.1   |
| 11          | 4.4   | 6.7     | 6.9   | 8.5   | 7.1   | 11    | 17    | 16   | 13    | 2.7   | 4.7   | 2.1   |
| 12          | 4.3   | 6.3     | 7.4   | 8.9   | 6.5   | 11    | 17    | 15   | 13    | 2.5   | 4.9   | 2.1   |
| 13          | 4.7   | 8.7     | 8.0   | 8.9   | 7.4   | 11    | 16    | 15   | 13    | 2.1   | 4.6   | 2.0   |
| 14          | 6.3   | 10      | 7.8   | 8.9   | 8.9   | 11    | 14    | 18   | 13    | 2.0   | 4.4   | 2.0   |
| 15          | 6.3   | 11      | 7.4   | 9.2   | 8.0   | 11    | 13    | 17   | 12    | 2.0   | 3.5   | 2.0   |
| 16          | 6.3   | 11      | 6.7   | 8.9   | 7.6   | 11    | 13    | 17   | 12    | 2.1   | 2.2   | 2.1   |
| 17          | 5.8   | 10      | 7.6   | 8.9   | 7.1   | 11    | 14    | 16   | 12    | 2.1   | 2.2   | 2.1   |
| 18          | 5.3   | 9.7     | 6.7   | 8.2   | 7.4   | 11    | 14    | 18   | 11    | 2.2   | 2.1   | 2.0   |
| 19          | 4.9   | 9.4     | 6.2   | 6.0   | 7.6   | 11    | 14    | 17   | 11    | 2.9   | 2.1   | 2.0   |
| 20          | 4.7   | 9.2     | 6.0   | 3.5   | 8.0   | 15    | 14    | 17   | 11    | 3.2   | 2.9   | 2.0   |
| 21          | 4.6   | 9.4     | 6.0   | 3.2   | 8.0   | 13    | 14    | 17   | 11    | 3.1   | 2.9   | 2.0   |
| 22          | 4.6   | 9.2     | 6.2   | 3.5   | 7.8   | 12    | 13    | 17   | 10    | 3.0   | 2.9   | 2.0   |
| 23          | 7.1   | 9.2     | 6.5   | 3.7   | 7.6   | 12    | 13    | 17   | 9.7   | 3.2   | 2.9   | 2.0   |
| 24          | 7.6   | 9.2     | 8.0   | 3.7   | 6.5   | 11    | 12    | 19   | 8.5   | 3.4   | 2.6   | 1.9   |
| 25          | 8.5   | 8.7     | 7.8   | 3.8   | 6.9   | 11    | 12    | 18   | 10    | 5.8   | 2.6   | 1.9   |
| 26          | 6.0   | 8.5     | 9.4   | 4.4   | 8.2   | 10    | 12    | 17   | 10    | 7.4   | 2.6   | 2.0   |
| 27          | 5.4   | 8.2     | 9.4   | 4.6   | 9.4   | 10    | 12    | 17   | 9.9   | 7.1   | 2.6   | 2.0   |
| 28          | 5.3   | 8.0     | 9.2   | 5.8   | 11    | 10    | 12    | 16   | 9.7   | 6.9   | 2.6   | 2.0   |
| 29          | 5.3   | 8.2     | 8.9   | 4.1   | ----- | 10    | 15    | 16   | 8.9   | 6.5   | 2.4   | 1.9   |
| 30          | 5.4   | 8.2     | 8.5   | 4.6   | ----- | 11    | 15    | 16   | 8.7   | 6.5   | 2.2   | 1.9   |
| 31          | 5.1   | -----   | 8.2   | 4.7   | ----- | 11    | ----- | 16   | ----- | 6.3   | 2.2   | ----- |
| TOTAL       | 167.2 | 263.3   | 236.6 | 220.3 | 202.5 | 346.6 | 433   | 503  | 358.4 | 160.8 | 121.3 | 61.5  |
| MEAN        | 5.39  | 8.78    | 7.63  | 7.11  | 7.23  | 11.2  | 14.4  | 16.2 | 11.9  | 5.19  | 3.91  | 2.05  |
| MAX         | 8.5   | 12      | 9.4   | 11    | 11    | 15    | 19    | 19   | 16    | 8.7   | 7.6   | 2.2   |
| MIN         | 4.3   | 5.1     | 6.0   | 3.2   | 4.4   | 9.7   | 11    | 14   | 8.5   | 2.0   | 2.1   | 1.9   |
| CAL YR 1970 | TOTAL | 4,298.3 | MEAN  | 11.8  | MAX   | 22    | MIN   | 4.3  |       |       |       |       |
| WTR YR 1971 | TOTAL | 3,074.5 | MEAN  | 8.42  | MAX   | 19    | MIN   | 1.9  |       |       |       |       |

## WEWEANTIC RIVER BASIN

83

01105895 Weweantic River at South Wareham, Mass.

LOCATION.--Lat 41°46'12", long 70°45'18", Plymouth County, on left bank at upstream side of bridge on Squire Island Road at South Wareham and 0.2 mile upstream from Horseshoe Pond.

DRAINAGE AREA.--56.1 sq mi.

PERIOD OF RECORD.--December 1969 to September 1971 (discontinued).

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

EXTREMES.--Current year: Maximum discharge, 320 cfs Mar. 17 (gage height, 3.84 ft); minimum, 8.5 cfs Aug. 19; minimum daily, 9.6 cfs Sept. 25, 26. Period of record: Maximum discharge, 856 cfs Dec. 29, 1969 (gage height, 5.86 ft); minimum, 8.5 cfs Aug. 19, 1971; minimum daily, 9.6 cfs Sept. 25, 26, 1971.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Some regulation by ponds above station. Records of chemical analyses for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG  | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|
| 1     | 20    | 52    | 65    | 56    | 49    | 130   | 112   | 78    | 102   | 20   | 25   | 15    |
| 2     | 19    | 64    | 63    | 53    | 45    | 126   | 114   | 86    | 95    | 22   | 22   | 12    |
| 3     | 18    | 120   | 62    | 52    | 42    | 114   | 124   | 95    | 108   | 25   | 21   | 13    |
| 4     | 20    | 134   | 64    | 61    | 40    | 146   | 129   | 100   | 120   | 25   | 20   | 12    |
| 5     | 10    | 151   | 57    | 87    | 46    | 178   | 124   | 111   | 108   | 26   | 18   | 12    |
| 6     | 20    | 164   | 54    | 96    | 60    | 207   | 117   | 115   | 91    | 20   | 16   | 11    |
| 7     | 23    | 148   | 48    | 105   | 70    | 199   | 147   | 106   | 81    | 21   | 15   | 13    |
| 8     | 25    | 126   | 47    | 101   | 105   | 188   | 162   | 95    | 73    | 25   | 14   | 14    |
| 9     | 26    | 114   | 38    | 80    | 176   | 182   | 173   | 101   | 66    | 21   | 14   | 11    |
| 10    | 26    | 110   | 40    | 66    | 215   | 170   | 168   | 116   | 56    | 23   | 13   | 12    |
| 11    | 25    | 105   | 36    | 63    | 207   | 168   | 151   | 126   | 48    | 25   | 14   | 12    |
| 12    | 26    | 89    | 35    | 61    | 162   | 156   | 137   | 155   | 51    | 22   | 17   | 12    |
| 13    | 27    | 83    | 38    | 58    | 158   | 199   | 125   | 155   | 51    | 19   | 17   | 12    |
| 14    | 29    | 115   | 39    | 54    | 218   | 185   | 110   | 148   | 45    | 19   | 16   | 16    |
| 15    | 26    | 144   | 33    | 58    | 262   | 182   | 100   | 124   | 45    | 21   | 15   | 17    |
| 16    | 26    | 205   | 25    | 64    | 250   | 209   | 92    | 130   | 44    | 18   | 15   | 16    |
| 17    | 28    | 204   | 46    | 55    | 202   | 270   | 84    | 164   | 44    | 17   | 14   | 15    |
| 18    | 25    | 175   | 56    | 49    | 184   | 304   | 78    | 154   | 40    | 18   | 12   | 14    |
| 19    | 26    | 154   | 61    | 46    | 140   | 262   | 72    | 186   | 38    | 19   | 11   | 13    |
| 20    | 34    | 140   | 66    | 44    | 124   | 261   | 66    | 167   | 36    | 50   | 16   | 12    |
| 21    | 35    | 141   | 61    | 42    | 114   | 268   | 62    | 147   | 36    | 51   | 21   | 12    |
| 22    | 33    | 136   | 52    | 41    | 107   | 261   | 58    | 124   | 36    | 46   | 20   | 11    |
| 23    | 50    | 126   | 46    | 40    | 120   | 233   | 55    | 108   | 34    | 37   | 20   | 11    |
| 24    | 94    | 119   | 49    | 40    | 129   | 204   | 52    | 100   | 38    | 30   | 18   | 11    |
| 25    | 85    | 111   | 45    | 55    | 133   | 198   | 50    | 124   | 36    | 25   | 15   | 9.6   |
| 26    | 87    | 102   | 47    | 89    | 125   | 172   | 49    | 105   | 35    | 21   | 14   | 9.6   |
| 27    | 80    | 94    | 51    | 93    | 126   | 154   | 48    | 91    | 32    | 22   | 14   | 11    |
| 28    | 69    | 84    | 54    | 85    | 126   | 146   | 47    | 68    | 28    | 21   | 19   | 12    |
| 29    | 59    | 73    | 54    | 74    | ----- | 144   | 56    | 61    | 28    | 20   | 18   | 12    |
| 30    | 54    | 65    | 55    | 62    | ----- | 133   | 68    | 83    | 28    | 21   | 16   | 11    |
| 31    | 45    | ----- | 56    | 54    | ----- | 120   | ----- | 110   | ----- | 26   | 18   | ----- |
| TOTAL | 1,180 | 3,660 | 1,548 | 1,584 | 3,715 | 5,899 | 2,930 | 3,683 | 1,677 | 776  | 518  | 374.2 |
| MEAN  | 38.1  | 122   | 49.9  | 64.0  | 133   | 190   | 97.7  | 119   | 55.5  | 25.0 | 16.7 | 12.5  |
| MAX   | 92    | 205   | 66    | 105   | 262   | 304   | 173   | 194   | 120   | 51   | 25   | 17    |
| MIN   | 16    | 52    | 25    | 40    | 40    | 114   | 47    | 61    | 28    | 17   | 11   | 9.6   |
| CFSM  | .69   | 2.17  | .89   | 1.14  | 2.37  | 3.39  | 1.74  | 2.12  | 1.00  | .45  | .30  | .22   |
| IN.   | .78   | 2.43  | 1.03  | 1.32  | 2.47  | 3.51  | 1.94  | 2.44  | 1.11  | .51  | .34  | .25   |

CAL YR 1970 TOTAL 34,335.0 MEAN 54.1 MAX 540 MIN 16 CFSM 1.68 IN 22.77  
WTR YR 1971 TOTAL 27,948.2 MEAN 76.6 MAX 304 MIN 9.6 CFSM 1.37 IN 18.53

## PEAK DISCHARGE (BASE, 300 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 3-17 | 2300 | 3.84  | 320       |      |      |       |           |

NOTE.-- No gage-height record Jan. 9 to Feb. 8.

01106000 Adamsville Brook at Adamsville, R.I.

LOCATION. --Lat 41°33'30", long 71°07'47", Newport County, on right bank 0.2 mile upstream from milldam at Adamsville and 0.7 mile upstream from mouth.

DRAINAGE AREA. --7.91 sq mi (revised).

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

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

AVERAGE DISCHARGE. --31 years, 13.9 cfs (23.86 inches per year).

EXTREMES. --Current year: Maximum discharge, 173 cfs Feb. 14 (gage height, 5.62 ft); minimum, 0.03 cfs Sept. 24, 25, 29.

Period of record: Maximum discharge, 316 cfs Dec. 27, 1969 (gage height, 7.65 ft); maximum gage height, 7.70 ft Mar. 18, 1968; minimum, 0.03 cfs Sept. 23, 24, Oct. 3, 4, 1950, Sept. 24, 25, 29, 1971.

REMARKS. --Records good.

REVISIONS (WATER YEARS). --WSP 1701: 1955-59.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB     | MAR  | APR   | MAY   | JUN    | JUL   | AUG  | SEP   |
|-------|-------|-------|-------|-------|---------|------|-------|-------|--------|-------|------|-------|
| 1     | 1.7   | 8.2   | 11    | 10    | 8.8     | 47   | 11    | 14    | 17     | 1.2   | .15  | .07   |
| 2     | 1.7   | 10    | 10    | 10    | 8.0     | 33   | 11    | 13    | 15     | 1.3   | .15  | .07   |
| 3     | 2.1   | 54    | 10    | 10    | 7.2     | 27   | 14    | 22    | 15     | 1.2   | .15  | .07   |
| 4     | 4.0   | 64    | 11    | 10    | 6.5     | 51   | 14    | 36    | 13     | 1.2   | .15  | .09   |
| 5     | 3.5   | 46    | 11    | 33    | 10      | 69   | 14    | 31    | 12     | .93   | .19  | .09   |
| 6     | 2.7   | 33    | 12    | 68    | 35      | 49   | 14    | 22    | 11     | .71   | .19  | .09   |
| 7     | 2.4   | 25    | 12    | 53    | 32      | 38   | 38    | 18    | 11     | .61   | .15  | .12   |
| 8     | 2.2   | 18    | 9.9   | 33    | 82      | 40   | 50    | 16    | 9.2    | .52   | .12  | .09   |
| 9     | 2.0   | 15    | 9.5   | 22    | 142     | 35   | 37    | 27    | 8.3    | .44   | .12  | .07   |
| 10    | 2.0   | 14    | 9.9   | 17    | 67      | 27   | 26    | 30    | 7.5    | .37   | .09  | .07   |
| 11    | 2.5   | 13    | 9.5   | 15    | 35      | 27   | 20    | 28    | 6.7    | .30   | .09  | .07   |
| 12    | 2.7   | 12    | 9.5   | 14    | 23      | 36   | 17    | 23    | 6.0    | .30   | .12  | .07   |
| 13    | 2.8   | 13    | 10    | 12    | 35      | 38   | 14    | 19    | 6.0    | .30   | .09  | .07   |
| 14    | 2.8   | 27    | 11    | 11    | 130     | 33   | 14    | 22    | 5.7    | .30   | .09  | .09   |
| 15    | 2.8   | 33    | 10    | 10    | 74      | 28   | 13    | 19    | 4.4    | .24   | .09  | .05   |
| 16    | 4.0   | 33    | 9.5   | 9.6   | 40      | 26   | 12    | 25    | 4.1    | .19   | .09  | .05   |
| 17    | 5.2   | 27    | 22    | 8.8   | 28      | 24   | 11    | 55    | 3.6    | .19   | .07  | .05   |
| 18    | 4.9   | 21    | 54    | 7.8   | 23      | 21   | 11    | 48    | 3.3    | .15   | .07  | .07   |
| 19    | 4.9   | 18    | 55    | 7.2   | 23      | 20   | 11    | 33    | 3.1    | .15   | .07  | .07   |
| 20    | 4.9   | 15    | 41    | 6.8   | 24      | 36   | 10    | 24    | 2.8    | .15   | .09  | .07   |
| 21    | 4.6   | 20    | 32    | 6.4   | 27      | 41   | 9.7   | 20    | 2.6    | .12   | .07  | .09   |
| 22    | 4.6   | 21    | 24    | 6.4   | 25      | 32   | 9.7   | 17    | 2.4    | .12   | .07  | .05   |
| 23    | 14    | 20    | 19    | 6.4   | 32      | 24   | 9.2   | 15    | 2.2    | .12   | .07  | .07   |
| 24    | 41    | 18    | 21    | 6.4   | 43      | 20   | 8.8   | 13    | 1.8    | .12   | .07  | .05   |
| 25    | 43    | 15    | 22    | 6.6   | 35      | 17   | 8.8   | 12    | 2.0    | .09   | .07  | .05   |
| 26    | 29    | 13    | 20    | 9.5   | 27      | 16   | 8.3   | 11    | 1.8    | .09   | .07  | .07   |
| 27    | 20    | 12    | 17    | 12    | 35      | 14   | 8.3   | 11    | 1.5    | .09   | .12  | .09   |
| 28    | 15    | 12    | 15    | 10    | 59      | 13   | 8.3   | 10    | 1.2    | .09   | .12  | .09   |
| 29    | 12    | 11    | 13    | 8.6   | -----   | 13   | 11    | 9.2   | 1.1    | .09   | .09  | .05   |
| 30    | 9.9   | 11    | 11    | 9.5   | -----   | 13   | 13    | 13    | .93    | .15   | .09  | .05   |
| 31    | 9.1   | ----- | 10    | 10    | -----   | 12   | ----- | 17    | -----  | .12   | .09  | ----- |
| TOTAL | 264.0 | 652.2 | 541.8 | 460.0 | 1,116.5 | 920  | 457.1 | 673.2 | 182.23 | 11.95 | 3.26 | 2.15  |
| MEAN  | 8.52  | 21.7  | 17.5  | 14.8  | 39.9    | 29.7 | 15.2  | 21.7  | 6.07   | .39   | .11  | .072  |
| MAX   | 43    | 64    | 55    | 68    | 142     | 69   | 50    | 55    | 17     | 1.3   | .19  | .12   |
| MIN   | 1.7   | 8.2   | 9.5   | 6.4   | 6.5     | 12   | 8.3   | 9.2   | .93    | .09   | .07  | .05   |
| CFSM  | 1.08  | 2.74  | 2.21  | 1.87  | 5.04    | 3.75 | 1.92  | 2.74  | .77    | .05   | .01  | .009  |
| IN.   | 1.24  | 3.07  | 2.55  | 2.16  | 5.25    | 4.33 | 2.15  | 3.17  | .86    | .06   | .02  | .01   |

CAL YR 1970 TOTAL 6,158.10 MEAN 16.9 MAX 260 MIN 1.1 CFSM 2.14 IN 28.96  
WTR YR 1971 TOTAL 5,284.39 MEAN 14.5 MAX 142 MIN .05 CFSM 1.83 IN 24.85

## PEAK DISCHARGE (BASE, 120 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 2-9  | 0715 | 5.55  | 169       |      |      |       |           |
| 2-14 | 0630 | 5.62  | 173       |      |      |       |           |

01107000 Dorchester Brook near Brockton, Mass.

LOCATION.--Lat 42°03'41", long 71°03'59", Plymouth County, on right bank 20 ft upstream from bridge on Pearl Street and 3 miles southwest of Brockton.

DRAINAGE AREA.--4.67 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 100 ft (from topographic map).

AVERAGE DISCHARGE.--8 years (1963-71), 7.61 cfs (22.13 inches per year).

EXTREMES.--Current year: Maximum discharge, 107 cfs Feb. 14 (gage height, 3.46 ft); minimum, 0.02 cfs several days in August and September.  
Period of record: Maximum discharge, 359 cfs Mar. 18, 1968 (gage height, 5.86 ft); no flow for part of Sept. 8, 9, 1964.

REMARKS.--Records good except those for periods of no gage-height record or indefinite stage-discharge relation, which are fair. Recording rain gage at station since April 1963 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV    | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG  | SEP   |
|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|
| 1     | .11   | .71    | 4.4   | 6.7   | 6.2   | 27    | 6.3   | 8.7   | 7.1   | .67   | .41  | .07   |
| 2     | .11   | 4.0    | 4.2   | 7.2   | 5.1   | 21    | 6.1   | 7.9   | 6.2   | 1.2   | .26  | .05   |
| 3     | .11   | 18     | 4.0   | 7.7   | 4.6   | 18    | 7.9   | 10    | 5.6   | .60   | .19  | .04   |
| 4     | .39   | 11     | 5.6   | 7.7   | 4.2   | 31    | 8.6   | 17    | 6.0   | .45   | .17  | .03   |
| 5     | .22   | 11     | 5.4   | 10    | 4.6   | 37    | 8.0   | 14    | 5.6   | .38   | .16  | .03   |
| 6     | .18   | 9.7    | 5.8   | 16    | 5.3   | 25    | 7.0   | 10    | 4.6   | .34   | .13  | .03   |
| 7     | .14   | 7.6    | 4.9   | 15    | 5.3   | 22    | 25    | 8.2   | 3.9   | .26   | .10  | .04   |
| 8     | .12   | 6.3    | 4.3   | 10    | 11    | 26    | 35    | 8.4   | 3.4   | .17   | .08  | .03   |
| 9     | .11   | 5.2    | 3.6   | 8.2   | 25    | 22    | 18    | 10    | 4.0   | .15   | .06  | .02   |
| 10    | .10   | 4.6    | 4.4   | 7.4   | 29    | 18    | 18    | 14    | 3.0   | .12   | .05  | .03   |
| 11    | .18   | 4.8    | 4.2   | 7.2   | 21    | 17    | 20    | 14    | 2.1   | .13   | .11  | .03   |
| 12    | .18   | 5.4    | 3.9   | 6.7   | 13    | 19    | 15    | 13    | 1.5   | .12   | .10  | .19   |
| 13    | .25   | 6.4    | 3.9   | 6.9   | 49    | 20    | 12    | 12    | 1.7   | .13   | .07  | .30   |
| 14    | .39   | 12     | 4.4   | 5.7   | 95    | 20    | 10    | 17    | 2.4   | .21   | .06  | 2.4   |
| 15    | .47   | 11     | 4.2   | 6.2   | 44    | 20    | 11    | 15    | 2.5   | .22   | .08  | 1.1   |
| 16    | 1.3   | 11     | 4.0   | 6.9   | 21    | 22    | 11    | 22    | 2.5   | .20   | .08  | .36   |
| 17    | .52   | 9.0    | 12    | 5.9   | 16    | 21    | 9.4   | 35    | 2.2   | .17   | .04  | .26   |
| 18    | .62   | 7.1    | 31    | 5.9   | 14    | 18    | 8.4   | 23    | 1.9   | .28   | .03  | .21   |
| 19    | .57   | 6.4    | 26    | 5.9   | 14    | 16    | 8.2   | 16    | 1.7   | .38   | .02  | .20   |
| 20    | .47   | 6.1    | 21    | 5.7   | 17    | 27    | 7.9   | 13    | 1.5   | 1.6   | .11  | .17   |
| 21    | .47   | 9.1    | 16    | 4.9   | 20    | 26    | 8.7   | 11    | 1.3   | .60   | .05  | .22   |
| 22    | .47   | 8.2    | 12    | 4.6   | 17    | 21    | 6.9   | 9.5   | 1.2   | .34   | .03  | .22   |
| 23    | 3.8   | 7.1    | 10    | 4.9   | 21    | 17    | 6.5   | 8.4   | 1.1   | .22   | .06  | .20   |
| 24    | 5.1   | 6.1    | 11    | 5.7   | 24    | 14    | 7.4   | 7.9   | 1.0   | .19   | .04  | .17   |
| 25    | 2.5   | 5.5    | 11    | 5.1   | 18    | 12    | 7.7   | 7.4   | .91   | .18   | .03  | .14   |
| 26    | 1.5   | 5.1    | 11    | 6.2   | 15    | 11    | 6.7   | 6.9   | .82   | .19   | .03  | .12   |
| 27    | 1.2   | 4.9    | 9.7   | 6.2   | 21    | 9.0   | 6.7   | 6.4   | .77   | .20   | .11  | .13   |
| 28    | 1.0   | 4.7    | 8.4   | 6.2   | 31    | 8.7   | 6.7   | 6.1   | .71   | .17   | .11  | .13   |
| 29    | .90   | 4.6    | 7.7   | 6.4   | ----- | 7.7   | 7.7   | 6.0   | .65   | .14   | .20  | .13   |
| 30    | .80   | 4.5    | 7.4   | 6.2   | ----- | 7.2   | 8.7   | 7.0   | .54   | .49   | .15  | .13   |
| 31    | .75   | -----  | 6.4   | 6.4   | ----- | 6.9   | ----- | 7.9   | ----- | 1.4   | .10  | ----- |
| TOTAL | 25.03 | 217.11 | 271.8 | 221.7 | 571.3 | 587.5 | 326.9 | 372.7 | 78.40 | 11.90 | 3.22 | 7.18  |
| MEAN  | .81   | 7.24   | 8.77  | 7.15  | 20.4  | 19.0  | 10.9  | 12.0  | 2.61  | .38   | .10  | .24   |
| MAX   | 5.1   | 18     | 31    | 16    | 95    | 37    | 35    | 35    | 7.1   | 1.6   | .41  | 2.4   |
| MIN   | .10   | .71    | 3.6   | 4.6   | 4.2   | 6.9   | 6.1   | 6.0   | .54   | .12   | .02  | .02   |
| CFSM  | .17   | 1.55   | 1.88  | 1.53  | 4.37  | 4.07  | 2.33  | 2.57  | .56   | .08   | .02  | .05   |
| IN.   | .20   | 1.73   | 2.17  | 1.77  | 4.55  | 4.68  | 2.60  | 2.97  | .62   | .09   | .03  | .06   |

CAL YR 1970 TOTAL 2,708.71 MEAN 7.42 MAX 127 MIN .01 CFSM 1.59 IN 21.58  
WTR YR 1971 TOTAL 2,694.74 MEAN 7.38 MAX 95 MIN .02 CFSM 1.58 IN 21.47

PEAK DISCHARGE (BASE, 55 CFS, REVISED)

NOTE.-- No gage-height record May 16 to June 29.  
Stage-discharge relation indefinite Nov. 7 to Dec. 18.

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 2-14 | 0630 | 3.46  | 107       |      |      |       |           |

01108000 Taunton River at State Farm, near Bridgewater, Mass.

LOCATION.--Lat 41°56'05", long 70°57'18", Plymouth County, on right bank at State Farm, 1 mile upstream from Sawmill Brook, 3.5 miles northwest of Middleboro, and 4 miles southeast of Bridgewater.

DRAINAGE AREA.--260 sq mi.

PERIOD OF RECORD.--October 1929 to current year. Prior to October 1969, published as "at State Farm."

GAGE.--Water-stage recorder. Datum of gage is 9.61 ft above mean sea level. Prior to Oct. 1, 1931, inverted nonrecording gage at site 40 ft downstream with zero of gage at 10.02 ft 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 downstream at present datum.

AVERAGE DISCHARGE.--42 years, 475 cfs (24.81 inches per year), adjusted for diversions.

EXTREMES.--Current year: Maximum discharge, 2,240 cfs Feb. 15 (gage height, 8.27 ft); minimum, 44 cfs Sept. 7; minimum daily, 45 cfs Sept. 30. Period of record: Maximum discharge, 4,980 cfs Mar. 20, 1968 (gage height, 14.48 ft); minimum, 8 cfs Sept. 10, 1944; minimum daily, 9 cfs Sept. 9-12, 1944.

REMARKS.--Records good. Diversions to and from basin above station for municipal supplies: to the basin from Silver Lake for Brockton and other towns and from Great Sandy Bottom Pond for Abington; from the basin from ponds at head of Nemasket River for New Bedford, Taunton, and other towns. Flow regulated by reservoirs and small powerplants above station. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC       | JAN    | FEB       | MAR        | APR       | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------------|---------------|----------|-----------|--------|-----------|------------|-----------|--------|-------|-------|-------|-------|
| 1           | 69            | 134      | 245       | 376    | 286       | 1,120      | 510       | 483    | 448   | 73    | 111   | 64    |
| 2           | 69            | 137      | 259       | 368    | 263       | 1,070      | 483       | 501    | 364   | 77    | 97    | 59    |
| 3           | 69            | 501      | 274       | 368    | 238       | 1,030      | 501       | 543    | 360   | 83    | 87    | 53    |
| 4           | 87            | 686      | 293       | 364    | 220       | 1,150      | 488       | 721    | 360   | 77    | 101   | 50    |
| 5           | 102           | 641      | 332       | 497    | 231       | 1,410      | 456       | 716    | 328   | 73    | 107   | 48    |
| 6           | 96            | 616      | 321       | 711    | 364       | 1,340      | 435       | 656    | 297   | 69    | 98    | 46    |
| 7           | 85            | 515      | 301       | 666    | 422       | 1,250      | 656       | 582    | 274   | 67    | 90    | 46    |
| 8           | 102           | 426      | 267       | 611    | 519       | 1,280      | 1,010     | 519    | 241   | 62    | 86    | 49    |
| 9           | 81            | 356      | 252       | 524    | 1,130     | 1,200      | 966       | 591    | 259   | 59    | 80    | 51    |
| 10          | 73            | 305      | 267       | 456    | 1,260     | 1,060      | 856       | 776    | 263   | 59    | 74    | 50    |
| 11          | 69            | 271      | 263       | 405    | 951       | 956        | 756       | 796    | 227   | 56    | 68    | 47    |
| 12          | 69            | 249      | 263       | 388    | 771       | 931        | 671       | 731    | 203   | 54    | 70    | 48    |
| 13          | 69            | 241      | 271       | 356    | 866       | 951        | 611       | 651    | 184   | 53    | 70    | 52    |
| 14          | 81            | 439      | 271       | 332    | 1,910     | 966        | 567       | 671    | 171   | 53    | 67    | 74    |
| 15          | 73            | 567      | 271       | 328    | 2,160     | 971        | 519       | 641    | 159   | 56    | 64    | 86    |
| 16          | 100           | 621      | 256       | 340    | 1,770     | 981        | 474       | 621    | 148   | 54    | 62    | 76    |
| 17          | 174           | 562      | 368       | 297    | 1,360     | 976        | 456       | 961    | 142   | 52    | 61    | 70    |
| 18          | 107           | 488      | 831       | 278    | 1,120     | 916        | 435       | 1,020  | 132   | 59    | 56    | 67    |
| 19          | 105           | 422      | 836       | 263    | 996       | 846        | 414       | 926    | 122   | 64    | 53    | 65    |
| 20          | 100           | 380      | 806       | 245    | 946       | 991        | 401       | 826    | 114   | 103   | 62    | 59    |
| 21          | 94            | 418      | 781       | 231    | 956       | 1,090      | 388       | 726    | 102   | 114   | 78    | 60    |
| 22          | 94            | 426      | 691       | 227    | 896       | 1,010      | 388       | 646    | 98    | 95    | 83    | 68    |
| 23          | 124           | 397      | 586       | 227    | 931       | 926        | 348       | 586    | 91    | 86    | 81    | 68    |
| 24          | 348           | 364      | 567       | 227    | 1,110     | 861        | 336       | 515    | 89    | 81    | 81    | 68    |
| 25          | 249           | 328      | 596       | 227    | 1,030     | 781        | 324       | 488    | 89    | 77    | 81    | 78    |
| 26          | 241           | 297      | 572       | 267    | 911       | 716        | 324       | 461    | 89    | 72    | 73    | 74    |
| 27          | 238           | 271      | 562       | 380    | 921       | 666        | 321       | 426    | 91    | 68    | 70    | 62    |
| 28          | 203           | 256      | 515       | 309    | 1,120     | 621        | 317       | 405    | 89    | 67    | 81    | 58    |
| 29          | 181           | 252      | 479       | 293    | -----     | 591        | 364       | 380    | 79    | 67    | 80    | 54    |
| 30          | 162           | 252      | 435       | 290    | -----     | 572        | 474       | 372    | 73    | 67    | 70    | 45    |
| 31          | 145           | -----    | 401       | 317    | -----     | 543        | -----     | 435    | ----- | 93    | 67    | ----- |
| TOTAL       | 3,859         | 11,818   | 13,432    | 11,168 | 25,658    | 29,772     | 15,249    | 19,372 | 5,686 | 2,190 | 2,409 | 1,795 |
| MEAN        | 124           | 394      | 433       | 360    | 916       | 960        | 508       | 625    | 190   | 70.6  | 77.7  | 59.8  |
| MAX         | 348           | 686      | 836       | 711    | 2,160     | 1,410      | 1,010     | 1,020  | 448   | 114   | 111   | 86    |
| MIN         | 69            | 134      | 245       | 227    | 220       | 543        | 317       | 372    | 73    | 52    | 53    | 45    |
| MEAN†       | 148           | 416      | 454       | 377    | 933       | 978        | 525       | 643    | 215   | 94.0  | 113   | 93.1  |
| CFSM†       | .57           | 1.60     | 1.75      | 1.45   | 3.59      | 3.76       | 2.02      | 2.47   | .83   | .36   | .43   | .36   |
| IN.†        | .66           | 1.79     | 2.02      | 1.67   | 3.74      | 4.34       | 2.26      | 2.85   | .92   | .42   | .50   | .40   |
| CAL YR 1970 | TOTAL 174,936 | MEAN 479 | MAX 2,990 | MIN 47 | MEAN† 503 | CFSM† 1.93 | IN† 26.26 |        |       |       |       |       |
| WTR YR 1971 | TOTAL 142,408 | MEAN 390 | MAX 2,160 | MIN 45 | MEAN† 413 | CFSM† 1.59 | IN† 21.55 |        |       |       |       |       |

† Adjusted for diversions to and from basin for municipal supplies of New Bedford, Taunton, Brockton, Abington, and other towns. Records of diversion furnished by municipalities.



01108500 Wading River at West Mansfield, Mass.

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

DRAINAGE AREA.--19.2 sq mi.

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

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

AVERAGE DISCHARGE.--18 years, 33.7 cfs (23.84 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 115 cfs Mar. 4 (gage height, 4.90 ft); minimum daily, 0.12 cfs Sept. 8-11.

Period of record: Maximum discharge, 541 cfs Mar. 19, 1968 (gage height, 6.60 ft); no flow Oct. 22-24, 1957 (caused by temporary storage upstream).

REVISIONS.--The minimum daily discharge for the water year 1970 has been revised to 1.2 cfs July 12, 1970.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Lake Mirimichi and other lakes and reservoirs above station. Diversion above station for municipal supply of Attleboro (see table below for figures of diversion) and small diversions to and from basin for other municipal supplies.

REVISIONS (WATER YEARS).--WSP 1621: 1953-58 (monthly runoff). Revised figures of daily discharge, in cubic feet per second, for August and September 1970, superseding figures published in WRD Mass., N.H., R.I., and Vt., 1970, are given herewith:

| Date                 | Discharge | Date     | Discharge | Date     | Discharge | Date     | Discharge | Date             | Discharge         |
|----------------------|-----------|----------|-----------|----------|-----------|----------|-----------|------------------|-------------------|
| 1970                 |           | Sept. 5  | 2.6       | Sept. 12 | 2.1       | Sept. 19 | 2.8       | Sept. 26         | 2.0               |
| Aug. 30              | 2.2       | 6        | 2.7       | 13       | 2.1       | 20       | 2.5       | 27               | 1.9               |
| 31                   | 2.6       | 7        | 2.1       | 14       | 2.0       | 21       | 2.4       | 28               | 1.6               |
| Sept. 1              | 2.5       | 8        | 2.0       | 15       | 2.2       | 22       | 2.3       | 29               | 1.6               |
| 2                    | 2.3       | 9        | 2.0       | 16       | 2.7       | 23       | 2.2       | 30               | 1.5               |
| 3                    | 2.1       | 10       | 2.0       | 17       | 2.6       | 24       | 2.1       |                  |                   |
| 4                    | 2.2       | 11       | 2.3       | 18       | 2.6       | 25       | 2.0       |                  |                   |
|                      |           | Cfs-days | Maximum   | Minimum  | (†)       | Mean     | Mean‡     | Per square mile‡ | Runoff in inches‡ |
| August 1970.....     |           | 128.9    | 7.6       | 2.2      | 3.96      | 4.16     | -         | -                | -                 |
| September 1970.....  |           | 66.0     | 2.8       | 1.5      | 3.87      | 2.20     | -         | -                | -                 |
| Water year 1970..... |           | 13,868.6 | 221       | 1.2      | -         | 38.0     | 40.8      | 2.12             | 28.86             |

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 1.4  | 2.4   | 10    | 23   | 16    | 97    | 40    | 33    | 24    | 2.4   | 1.7   | .31   |
| 2     | 1.3  | 3.1   | 6.6   | 25   | 15    | 97    | 37    | 31    | 19    | 2.3   | 1.6   | .25   |
| 3     | 1.4  | 15    | 4.7   | 23   | 14    | 97    | 42    | 39    | 20    | 2.2   | 1.5   | .18   |
| 4     | 1.6  | 11    | 6.0   | 21   | 12    | 110   | 47    | 49    | 22    | 2.1   | 1.4   | .16   |
| 5     | 1.7  | 10    | 6.9   | 31   | 16    | 112   | 45    | 49    | 17    | 2.0   | 1.3   | .14   |
| 6     | 1.8  | 8.3   | 7.0   | 36   | 22    | 102   | 43    | 47    | 15    | 1.8   | 1.2   | .14   |
| 7     | 1.8  | 7.0   | 7.0   | 34   | 23    | 99    | 58    | 44    | 14    | 1.6   | 1.1   | .14   |
| 8     | 1.9  | 9.1   | 5.8   | 31   | 30    | 104   | 67    | 40    | 13    | 1.3   | 1.0   | .12   |
| 9     | 1.9  | 6.1   | 5.7   | 28   | 50    | 105   | 59    | 42    | 18    | 1.1   | .95   | .12   |
| 10    | 1.9  | 5.5   | 6.5   | 25   | 50    | 97    | 58    | 42    | 18    | .89   | 1.0   | .12   |
| 11    | 2.0  | 5.5   | 6.9   | 24   | 45    | 93    | 53    | 39    | 14    | .72   | 1.6   | .12   |
| 12    | 1.9  | 5.2   | 8.0   | 21   | 40    | 90    | 49    | 41    | 12    | .67   | 1.6   | .14   |
| 13    | 2.0  | 5.4   | 10    | 19   | 46    | 83    | 49    | 43    | 9.9   | .57   | .89   | .18   |
| 14    | 2.0  | 7.9   | 15    | 19   | 100   | 79    | 49    | 39    | 10    | .49   | .67   | .37   |
| 15    | 2.0  | 8.6   | 13    | 19   | 90    | 76    | 46    | 35    | 9.0   | .49   | .67   | .72   |
| 16    | 3.5  | 9.0   | 9.8   | 16   | 85    | 79    | 41    | 39    | 7.5   | .53   | .62   | 1.0   |
| 17    | 3.8  | 7.8   | 23    | 18   | 83    | 79    | 33    | 58    | 7.1   | .62   | .53   | 1.0   |
| 18    | 3.1  | 7.0   | 42    | 17   | 73    | 76    | 28    | 65    | 6.4   | .72   | .49   | 1.1   |
| 19    | 2.8  | 6.8   | 44    | 16   | 66    | 74    | 30    | 62    | 6.2   | .89   | .49   | 1.4   |
| 20    | 2.5  | 5.5   | 44    | 15   | 68    | 90    | 32    | 59    | 5.8   | 1.1   | .89   | 1.2   |
| 21    | 2.8  | 6.7   | 42    | 15   | 75    | 83    | 32    | 45    | 4.8   | 1.5   | 1.5   | 1.2   |
| 22    | 2.8  | 6.2   | 38    | 13   | .75   | 74    | 31    | 32    | 4.5   | 1.7   | 1.2   | 1.2   |
| 23    | 8.6  | 5.7   | 39    | 14   | 88    | 70    | 28    | 39    | 4.1   | 1.7   | 1.3   | 1.2   |
| 24    | 13   | 5.2   | 38    | 15   | 92    | 69    | 27    | 34    | 4.5   | 1.7   | .77   | 1.2   |
| 25    | 10   | 4.5   | 37    | 14   | 83    | 68    | 26    | 32    | 3.4   | 1.6   | .57   | 1.0   |
| 26    | 5.0  | 4.1   | 34    | 17   | 78    | 64    | 26    | 30    | 2.8   | 1.6   | .49   | 1.1   |
| 27    | 3.7  | 4.0   | 32    | 19   | 83    | 60    | 26    | 28    | 2.8   | 1.6   | .77   | 1.4   |
| 28    | 3.1  | 4.1   | 29    | 20   | 96    | 57    | 23    | 27    | 2.7   | 1.6   | 1.4   | 1.2   |
| 29    | 2.8  | 4.0   | 26    | 20   | ----- | 54    | 28    | 23    | 2.6   | 1.5   | .67   | .91   |
| 30    | 2.5  | 6.6   | 24    | 19   | ----- | 51    | 34    | 23    | 2.4   | 1.5   | .67   | .95   |
| 31    | 2.5  | ----- | 23    | 18   | ----- | 46    | ----- | 26    | ----- | 1.6   | .41   | ----- |
| TOTAL | 99.1 | 197.3 | 643.9 | 645  | 1,614 | 2,535 | 1,187 | 1,235 | 302.5 | 42.09 | 31.48 | 20.46 |
| MEAN  | 3.20 | 6.58  | 20.8  | 20.8 | 57.6  | 81.8  | 39.6  | 39.8  | 10.1  | 1.36  | 1.02  | .68   |
| MAX   | 13   | 15    | 44    | 36   | 100   | 112   | 67    | 65    | 24    | 2.4   | 1.7   | 1.4   |
| MIN   | 1.3  | 2.4   | 4.7   | 13   | 12    | 46    | 23    | 23    | 2.4   | .49   | .41   | .12   |
| (†)   | 3.74 | 3.34  | 2.52  | 2.32 | 2.33  | 2.40  | 2.45  | 2.64  | 3.54  | 3.51  | 3.16  | 3.35  |

CAL YR 1970 TOTAL 11,063.80 MEAN 30.3 MAX 205 MIN 1.2 MEAN‡ 33.2 CFSM‡ 1.73 INF‡ 23.47  
WTR YR 1971 TOTAL 8,552.83 MEAN 23.4 MAX 112 MIN .12 MEAN‡ 26.4 CFSM‡ 1.38 INF‡ 18.65

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

‡ Adjusted for diversion.

## TAUNTON RIVER BASIN

01109000 Wading River near Norton, Mass.

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

DRAINAGE AREA.--42.4 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 49.63 ft above mean sea level. Prior to May 5, 1933, nonrecording gage at same site (at datum 0.62 ft higher prior to Oct. 1, 1930, and at present datum thereafter).

AVERAGE DISCHARGE.--46 years, 71.4 cfs (22.87 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 363 cfs Feb. 14 (gage height, 8.31 ft); maximum gage height, 8.34 ft Feb. 14 (backwater from ice); minimum discharge, 2.1 cfs Sept. 30; minimum daily, 2.4 cfs Aug. 15, 29, Sept. 4-6.  
Period of record: Maximum discharge, 1,460 cfs Mar. 19, 1968 (gage height, 11.47 ft); minimum, 0.3 cfs Sept. 10, 1926.

REMARKS.--Records good. Flow regulated to some extent by Lake Mirimichi and other lakes and reservoirs above station. Diversion above station for municipal supply of Attleboro (see table below for figures of diversion) and small diversions to and from basin for other municipal supplies.

REVISIONS (WATER YEARS).--WSP 871: 1938. WSP 1301: 1929-33(M). WSP 1621: 1925-58 (monthly runoff).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT            | NOV       | DEC     | JAN     | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|----------------|-----------|---------|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1           | 3.9            | 9.5       | 22      | 47      | 36    | 233   | 87    | 86    | 58    | 4.7   | 5.2   | 3.1   |
| 2           | 3.1            | 13        | 28      | 46      | 32    | 213   | 82    | 79    | 52    | 5.8   | 4.9   | 3.1   |
| 3           | 2.6            | 66        | 24      | 45      | 27    | 201   | 84    | 96    | 44    | 6.4   | 4.2   | 2.6   |
| 4           | 3.3            | 65        | 26      | 46      | 23    | 228   | 90    | 126   | 47    | 6.1   | 4.2   | 2.4   |
| 5           | 4.2            | 68        | 31      | 67      | 25    | 260   | 91    | 125   | 44    | 5.5   | 3.9   | 2.4   |
| 6           | 3.9            | 58        | 31      | 93      | 34    | 243   | 87    | 112   | 38    | 5.2   | 3.7   | 2.4   |
| 7           | 3.7            | 61        | 30      | 93      | 41    | 220   | 126   | 101   | 36    | 4.7   | 2.9   | 3.1   |
| 8           | 3.7            | 44        | 26      | 78      | 56    | 236   | 169   | 94    | 33    | 2.9   | 2.7   | 3.3   |
| 9           | 3.1            | 38        | 23      | 71      | 100   | 221   | 157   | 112   | 36    | 2.9   | 3.3   | 3.3   |
| 10          | 3.3            | 33        | 24      | 66      | 120   | 201   | 137   | 127   | 39    | 2.9   | 3.3   | 3.3   |
| 11          | 3.9            | 32        | 24      | 62      | 120   | 189   | 124   | 119   | 34    | 2.9   | 3.3   | 2.6   |
| 12          | 4.4            | 30        | 26      | 58      | 111   | 184   | 114   | 105   | 29    | 3.1   | 3.5   | 2.6   |
| 13          | 5.5            | 31        | 28      | 54      | 138   | 183   | 106   | 99    | 27    | 4.9   | 3.3   | 3.3   |
| 14          | 5.5            | 47        | 30      | 51      | 335   | 177   | 101   | 104   | 24    | 3.9   | 2.7   | 4.7   |
| 15          | 5.2            | 51        | 31      | 48      | 280   | 175   | 95    | 94    | 22    | 2.7   | 2.4   | 3.9   |
| 16          | 7.1            | 55        | 31      | 48      | 215   | 181   | 90    | 97    | 20    | 2.6   | 2.9   | 3.9   |
| 17          | 7.8            | 48        | 46      | 36      | 185   | 180   | 83    | 155   | 18    | 2.6   | 3.3   | 3.7   |
| 18          | 8.5            | 42        | 82      | 44      | 170   | 166   | 76    | 162   | 16    | 2.7   | 3.1   | 2.9   |
| 19          | 9.2            | 38        | 100     | 42      | 158   | 154   | 71    | 143   | 14    | 3.3   | 2.9   | 2.7   |
| 20          | 8.1            | 36        | 115     | 40      | 160   | 197   | 71    | 128   | 13    | 5.5   | 5.8   | 3.3   |
| 21          | 7.1            | 43        | 106     | 36      | 173   | 213   | 71    | 116   | 13    | 4.4   | 3.5   | 3.9   |
| 22          | 6.7            | 41        | 92      | 37      | 166   | 181   | 68    | 98    | 11    | 4.2   | 2.9   | 3.9   |
| 23          | 17             | 39        | 85      | 38      | 184   | 158   | 66    | 83    | 9.9   | 3.9   | 3.1   | 3.7   |
| 24          | 37             | 35        | 82      | 38      | 211   | 144   | 61    | 79    | 7.8   | 3.1   | 2.9   | 3.1   |
| 25          | 31             | 31        | 78      | 39      | 153   | 136   | 61    | 72    | 4.7   | 2.9   | 2.9   | 10    |
| 26          | 25             | 27        | 74      | 48      | 182   | 128   | 59    | 66    | 4.7   | 3.7   | 2.7   | 4.7   |
| 27          | 18             | 25        | 65      | 46      | 189   | 120   | 60    | 61    | 5.2   | 3.9   | 2.7   | 3.9   |
| 28          | 14             | 26        | 57      | 40      | 233   | 115   | 58    | 49    | 5.8   | 3.9   | 2.6   | 2.9   |
| 29          | 12             | 24        | 54      | 36      | ----- | 108   | 68    | 53    | 5.5   | 3.9   | 2.4   | 2.7   |
| 30          | 11             | 24        | 51      | 37      | ----- | 83    | 85    | 53    | 5.2   | 4.7   | 3.3   | 2.6   |
| 31          | 9.9            | -----     | 48      | 38      | ----- | 93    | ----- | 57    | ----- | 6.1   | 3.3   | ----- |
| TOTAL       | 288.7          | 1,180.5   | 1,570   | 1,568   | 3,897 | 5,521 | 2,698 | 3,051 | 716.8 | 126.0 | 103.8 | 104.0 |
| MEAN        | 9.31           | 39.4      | 50.6    | 50.6    | 139   | 178   | 89.9  | 98.4  | 23.9  | 4.06  | 3.35  | 3.47  |
| MAX         | 37             | 68        | 115     | 93      | 325   | 260   | 169   | 162   | 58    | 6.4   | 5.8   | 10    |
| MIN         | 2.6            | 9.5       | 22      | 36      | 23    | 83    | 58    | 49    | 4.7   | 2.6   | 2.4   | 2.4   |
| (†)         | 3.74           | 3.34      | 2.52    | 2.32    | 2.33  | 2.40  | 2.45  | 2.64  | 3.54  | 3.51  | 3.16  | 3.35  |
| CAL YR 1970 | TOTAL 25,700.2 | MEAN 70.4 | MAX 580 | MIN 2.6 | MEAN† | 73.3  | CFSM† | 1.73  | IN†   | 23.47 |       |       |
| WTR YR 1971 | TOTAL 20,824.8 | MEAN 57.1 | MAX 335 | MIN 2.4 | MEAN† | 60.0  | CFSM† | 1.42  | IN†   | 19.21 |       |       |

## PEAK DISCHARGE (BASE, 280 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 2-14 | 1800 | 8.31  | 363       |      |      |       |           |
| 3-5  | 2300 | 7.75  | 280       |      |      |       |           |

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

‡ Adjusted for diversion.

01109060 Threemile River at North Dighton, Mass.

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

DRAINAGE AREA.--83.8 sq mi.

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

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

AVERAGE DISCHARGE.--5 years, 157 cfs.

EXTREMES.--Current year: Maximum discharge, 637 cfs Feb. 15 (gage height, 4.75 ft); minimum, 9.3 cfs Oct. 6, 7, July 13, Sept. 2, 3, 7, 8.  
Period of record: Maximum discharge, 2,490 cfs Mar. 19, 1968 (gage height, 8.30 ft); minimum, 5.6 cfs Aug. 16, 17, 21, 22, 1966.

REMARKS.--Records good. Flow regulated by Lake Mirimichi and other lakes and reservoirs above station. Diversions to and from basin above station for municipal supplies may be compensating.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR    | APR   | MAY   | JUN   | JUL  | AUG  | SEP   |
|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|------|------|-------|
| 1     | 11    | 22    | 59    | 100   | 85    | 521    | 185   | 163   | 108   | 24   | 24   | 11    |
| 2     | 10    | 23    | 56    | 97    | 81    | 497    | 180   | 160   | 105   | 24   | 19   | 9.7   |
| 3     | 10    | 119   | 57    | 97    | 76    | 461    | 191   | 176   | 97    | 20   | 24   | 9.7   |
| 4     | 16    | 132   | 64    | 97    | 69    | 529    | 189   | 204   | 91    | 17   | 36   | 11    |
| 5     | 12    | 132   | 67    | 136   | 74    | 577    | 189   | 228   | 86    | 16   | 35   | 11    |
| 6     | 10    | 116   | 72    | 178   | 104   | 553    | 189   | 225   | 81    | 15   | 29   | 11    |
| 7     | 9.6   | 94    | 69    | 182   | 109   | 521    | 263   | 199   | 73    | 14   | 27   | 11    |
| 8     | 9.7   | 84    | 64    | 167   | 146   | 529    | 328   | 179   | 69    | 13   | 24   | 9.7   |
| 9     | 9.7   | 73    | 58    | 152   | 240   | 513    | 366   | 196   | 71    | 12   | 22   | 11    |
| 10    | 9.7   | 62    | 58    | 140   | 237   | 464    | 342   | 239   | 69    | 12   | 22   | 11    |
| 11    | 9.7   | 56    | 58    | 130   | 226   | 433    | 291   | 247   | 68    | 12   | 22   | 11    |
| 12    | 11    | 54    | 58    | 125   | 232   | 419    | 266   | 227   | 61    | 11   | 31   | 13    |
| 13    | 11    | 56    | 61    | 112   | 307   | 412    | 237   | 200   | 57    | 10   | 24   | 15    |
| 14    | 11    | 84    | 64    | 109   | 569   | 405    | 219   | 201   | 53    | 15   | 22   | 29    |
| 15    | 11    | 94    | 67    | 100   | 593   | 394    | 201   | 190   | 49    | 14   | 21   | 29    |
| 16    | 24    | 99    | 65    | 102   | 533   | 391    | 189   | 197   | 47    | 11   | 19   | 21    |
| 17    | 22    | 94    | 112   | 76    | 426   | 394    | 180   | 252   | 44    | 11   | 18   | 18    |
| 18    | 17    | 81    | 169   | 53    | 408   | 380    | 165   | 314   | 49    | 17   | 17   | 16    |
| 19    | 15    | 72    | 164   | 50    | 373   | 356    | 154   | 310   | 48    | 21   | 15   | 15    |
| 20    | 14    | 68    | 221   | 81    | 359   | 394    | 146   | 272   | 46    | 36   | 28   | 13    |
| 21    | 14    | 79    | 237   | 77    | 370   | 450    | 144   | 236   | 45    | 23   | 32   | 17    |
| 22    | 14    | 85    | 219   | 81    | 373   | 454    | 142   | 212   | 43    | 17   | 23   | 19    |
| 23    | 35    | 87    | 201   | 81    | 405   | 398    | 134   | 184   | 41    | 15   | 19   | 16    |
| 24    | 72    | 85    | 196   | 81    | 447   | 352    | 130   | 156   | 40    | 14   | 16   | 15    |
| 25    | 64    | 78    | 178   | 82    | 450   | 317    | 125   | 144   | 41    | 13   | 13   | 15    |
| 26    | 51    | 70    | 160   | 97    | 412   | 291    | 121   | 133   | 36    | 12   | 12   | 18    |
| 27    | 42    | 65    | 144   | 116   | 426   | 269    | 118   | 122   | 33    | 12   | 15   | 16    |
| 28    | 35    | 62    | 144   | 77    | 478   | 251    | 114   | 113   | 32    | 13   | 20   | 13    |
| 29    | 29    | 59    | 128   | 102   | ----- | 237    | 132   | 101   | 32    | 11   | 17   | 13    |
| 30    | 25    | 59    | 114   | 102   | ----- | 226    | 150   | 105   | 32    | 15   | 12   | 12    |
| 31    | 23    | ----- | 104   | 102   | ----- | 194    | ----- | 112   | ----- | 27   | 11   | ----- |
| TOTAL | 657.4 | 2,349 | 3,518 | 3,362 | 8,608 | 12,582 | 5,780 | 5,997 | 1,747 | 497  | 669  | 440.1 |
| MEAN  | 21.2  | 78.3  | 113   | 108   | 307   | 406    | 193   | 193   | 58.2  | 16.0 | 21.6 | 14.7  |
| MAX   | 72    | 132   | 237   | 182   | 593   | 577    | 366   | 314   | 108   | 36   | 36   | 29    |
| MIN   | 9.6   | 22    | 56    | 76    | 69    | 194    | 114   | 101   | 32    | 10   | 11   | 9.7   |

CAL YR 1970 TOTAL 53,289.1 MEAN 146 MAX 1,020 MIN 9.6  
WTR YR 1971 TOTAL 46,206.5 MEAN 127 MAX 593 MIN 9.6

## PEAK DISCHARGE (BASE, 600 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 2-15 | 2100 | 4.75  | 637       |      |      |       |           |

## TAUNTON RIVER BASIN

01109070 Segreganset River near Dighton, Mass.

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

DRAINAGE AREA.--10.6 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 30 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 20.6 cfs (26.39 inches per year).

EXTREMES.--Current year: Maximum discharge, 282 cfs Feb. 14 (gage height, 4.80 ft); minimum, 0.01 cfs Sept. 11-13.

Period of record: Maximum discharge, 867 cfs Mar. 18, 1968 (gage height, 7.51 ft); no flow Aug. 13-22, 1966, Oct. 2, 3, 1968, Sept. 5, 6, 1969.

REMARKS.--Records good. Occasional regulation by ponds above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV   | DEC   | JAN  | FEB   | MAR   | APR   | MAY   | JUN    | JUL   | AUG   | SEP   |
|-------|--------|-------|-------|------|-------|-------|-------|-------|--------|-------|-------|-------|
| 1     | .33    | 3.6   | 9.1   | 11   | 15    | 76    | 16    | 33    | 14     | .33   | .54   | .27   |
| 2     | .33    | 5.2   | 8.4   | 11   | 13    | 56    | 14    | 29    | 11     | .47   | .47   | .20   |
| 3     | .33    | 43    | 8.8   | 11   | 11    | 46    | 22    | 38    | 9.1    | .47   | .44   | .23   |
| 4     | .47    | 51    | 8.4   | 11   | 10    | 88    | 27    | 59    | 8.4    | .47   | .44   | .16   |
| 5     | .54    | 40    | 9.8   | 26   | 12    | 121   | 24    | 45    | 7.4    | .47   | .40   | .13   |
| 6     | .76    | 30    | 10    | 45   | 24    | 66    | 22    | 30    | 6.2    | .40   | .44   | .13   |
| 7     | .69    | 23    | 9.5   | 43   | 26    | 65    | 58    | 25    | 5.7    | .30   | .40   | .11   |
| 8     | .62    | 16    | 7.7   | 29   | 43    | 88    | 82    | 21    | 4.9    | .23   | .40   | .09   |
| 9     | .47    | 13    | 7.0   | 20   | 127   | 65    | 55    | 33    | 6.0    | .23   | .40   | .05   |
| 10    | .40    | 11    | 7.0   | 16   | 99    | 47    | 38    | 52    | 6.0    | .23   | .40   | .02   |
| 11    | .37    | 9.3   | 7.4   | 14   | 65    | 40    | 30    | 48    | 4.7    | .23   | .37   | .01   |
| 12    | .37    | 9.5   | 7.4   | 14   | 39    | 44    | 25    | 34    | 3.8    | .20   | .47   | .01   |
| 13    | .37    | 11    | 7.4   | 14   | 89    | 49    | 22    | 26    | 3.3    | .16   | .37   | .02   |
| 14    | .37    | 23    | 9.1   | 11   | 255   | 48    | 20    | 29    | 2.5    | .27   | .33   | .30   |
| 15    | .37    | 32    | 8.8   | 11   | 130   | 46    | 19    | 29    | 1.3    | .16   | .30   | .33   |
| 16    | 1.1    | 32    | 8.1   | 11   | 61    | 43    | 17    | 34    | 2.1    | .11   | .30   | .47   |
| 17    | 1.7    | 25    | 20    | 11   | 42    | 39    | 16    | 78    | 2.1    | .09   | .30   | .47   |
| 18    | 2.4    | 19    | 48    | 12   | 40    | 33    | 15    | 63    | 1.9    | .16   | .23   | .44   |
| 19    | 2.0    | 15    | 56    | 13   | 44    | 30    | 15    | 40    | 1.5    | .44   | .20   | .37   |
| 20    | 1.9    | 14    | 46    | 14   | 46    | 52    | 15    | 29    | 1.1    | 2.4   | .83   | .33   |
| 21    | 1.7    | 16    | 36    | 14   | 55    | 58    | 14    | 20    | 1.1    | 4.9   | .62   | .33   |
| 22    | 1.6    | 19    | 30    | 11   | 49    | 42    | 14    | 20    | .98    | 2.4   | .98   | .33   |
| 23    | 8.4    | 17    | 21    | 11   | 65    | 34    | 13    | 18    | .91    | 1.5   | .98   | .37   |
| 24    | 22     | 15    | 21    | 11   | 83    | 28    | 12    | 15    | .91    | .98   | .62   | .33   |
| 25    | 19     | 13    | 24    | 11   | 64    | 25    | 12    | 14    | .76    | .91   | .40   | .20   |
| 26    | 13     | 11    | 23    | 14   | 46    | 22    | 13    | 12    | .54    | .91   | .37   | .13   |
| 27    | 8.8    | 9.3   | 20    | 22   | 63    | 20    | 12    | 11    | .54    | .76   | 2.9   | .13   |
| 28    | 6.5    | 9.5   | 16    | 20   | 99    | 19    | 12    | 9.5   | .47    | .62   | .62   | .11   |
| 29    | 5.2    | 9.1   | 14    | 14   | ----- | 18    | 19    | 9.1   | .40    | .47   | .20   | .11   |
| 30    | 4.4    | 9.1   | 13    | 13   | ----- | 13    | 30    | 9.5   | .37    | .54   | .27   | .11   |
| 31    | 3.8    | ----- | 11    | 15   | ----- | 16    | ----- | 14    | -----  | .62   | .23   | ----- |
| TOTAL | 110.29 | 554.6 | 532.9 | 504  | 1,715 | 1,437 | 703   | 927.1 | 109.98 | 22.43 | 16.22 | 6.29  |
| MEAN  | 3.56   | 18.5  | 17.2  | 16.3 | 61.3  | 46.4  | 23.4  | 29.9  | 3.67   | .72   | .52   | .21   |
| MAX   | 22     | 51    | 56    | 45   | 255   | 121   | 82    | 78    | 14     | 4.9   | 2.9   | .47   |
| MIN   | .33    | 3.6   | 7.0   | 11   | 10    | 13    | 12    | 9.1   | .37    | .09   | .20   | .01   |
| CFSM  | .34    | 1.75  | 1.62  | 1.54 | 5.78  | 4.38  | 2.21  | 2.82  | .35    | .07   | .05   | .02   |
| IN.   | .39    | 1.95  | 1.87  | 1.77 | 6.02  | 5.04  | 2.47  | 3.25  | .39    | .08   | .06   | .02   |

CAL YR 1970 TOTAL 6,709.98 MEAN 18.4 MAX 377 MIN .15 CFSM 1.74 IN 23.55

WTR YR 1971 TOTAL 6,638.81 MEAN 18.2 MAX 255 MIN .01 CFSM 1.72 IN 23.30

## PEAK DISCHARGE (BASE, 170 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 2-14 | 1045 | 4.80  | 282       |      |      |       |           |
| 3-5  | 1200 | 4.50  | 231       |      |      |       |           |

01109200 West Branch Palmer River near Rehoboth, Mass.  
(Formerly published as Bliss Brook near Rehoboth)

LOCATION.--Lat 41°52'46", long 71°15'18", Bristol County, on left bank 20 ft downstream from culvert on Homestead Avenue and 2.6 miles north of Rehoboth.

DRAINAGE AREA.--4.96 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 100 ft (from topographic map).

AVERAGE DISCHARGE.--8 years (1963-71), 7.37 cfs (20.18 inches per year).

EXTREMES.--Current year: Maximum discharge, 146 cfs Feb. 14 (gage height, 4.53 ft); no flow for part of July 15-17, Aug. 18, 19.  
Period of record: Maximum discharge, 441 cfs Mar. 18, 1968 (gage height, 5.43 ft); no flow Sept. 7-9, 1964, July 29 to Aug. 1, Aug. 6-13, 16-18, Sept. 8, 9, 1965, Aug. 16, 1966, and part of Aug. 10, 1970, July 15-17, Aug. 18, 19, 1971.

REMARKS.--Records good except those for winter period or period of no gage-height record, which are fair. Recording rain gage at station since April 1963 (no winter records).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV    | DEC   | JAN  | FEB    | MAR   | APR   | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------|-------|--------|-------|------|--------|-------|-------|-------|-------|------|-------|-------|
| 1     | .03   | .33    | 2.5   | 3.0  | 1.9    | 34    | 5.9   | 9.6   | 5.7   | .11  | .66   | .16   |
| 2     | .08   | 1.0    | 2.3   | 3.0  | 1.7    | 25    | 5.7   | 8.3   | 4.3   | .18  | .39   | .10   |
| 3     | .20   | 1.5    | 2.2   | 3.0  | 1.3    | 20    | 7.3   | 17    | 3.7   | .14  | .31   | .08   |
| 4     | .29   | 6.6    | 3.0   | 3.0  | 1.0    | 42    | 7.5   | 26    | 4.7   | .13  | .48   | .07   |
| 5     | .14   | 6.9    | 3.1   | 9.5  | .90    | 29    | 7.1   | 17    | 3.9   | .13  | .52   | .06   |
| 6     | .04   | 5.5    | 2.9   | 10   | 3.6    | 25    | 6.1   | 12    | 2.5   | .11  | .33   | .04   |
| 7     | .01   | 4.4    | 2.5   | 7.0  | 3.6    | 28    | 21    | 9.4   | 1.7   | .08  | .17   | .04   |
| 8     | .01   | 3.7    | 2.1   | 5.0  | 5.7    | 36    | 27    | 8.3   | 1.5   | .08  | .13   | .04   |
| 9     | .02   | 3.1    | 1.9   | 4.1  | 26     | 24    | 18    | 16    | 1.9   | .07  | .07   | .04   |
| 10    | .03   | 2.8    | 2.2   | 3.7  | 21     | 18    | 14    | 20    | 1.4   | .07  | .05   | .04   |
| 11    | .03   | 2.8    | 2.1   | 3.4  | 16     | 17    | 11    | 16    | .71   | .07  | .05   | .04   |
| 12    | .04   | 2.8    | 2.0   | 3.2  | 9.2    | 18    | 9.4   | 12    | .48   | .04  | .11   | .14   |
| 13    | .05   | 3.1    | 2.0   | 3.0  | 30     | 19    | 8.3   | 10    | .52   | .02  | .07   | .17   |
| 14    | .05   | 7.3    | 2.2   | 2.6  | 98     | 19    | 7.5   | 10    | .77   | .06  | .06   | .82   |
| 15    | .05   | 6.6    | 2.1   | 2.3  | 51     | 18    | 7.1   | 9.1   | .71   | .02  | .05   | 1.1   |
| 16    | .17   | 6.6    | 1.9   | 2.1  | 26     | 18    | 6.4   | 13    | .71   | .01  | .06   | .77   |
| 17    | .24   | 5.3    | 5.7   | 1.8  | 16     | 15    | 6.4   | 32    | .61   | .01  | .04   | .56   |
| 18    | .17   | 4.3    | 14    | 1.6  | 14     | 13    | 5.9   | 22    | .56   | .07  | .03   | .42   |
| 19    | .14   | 3.8    | 11    | 1.5  | 15     | 13    | 6.1   | 15    | .48   | .18  | .01   | .33   |
| 20    | .11   | 3.7    | 11    | 1.4  | 19     | 28    | 6.1   | 12    | .39   | 1.4  | 3.4   | .28   |
| 21    | .10   | 5.8    | 8.9   | 1.3  | 25     | 23    | 5.7   | 9.4   | .39   | .94  | 2.1   | .36   |
| 22    | .10   | 4.9    | 7.2   | 1.4  | 18     | 17    | 5.1   | 8.3   | .39   | .56  | .61   | .42   |
| 23    | 1.5   | 4.3    | 5.4   | 1.6  | 30     | 15    | 4.7   | 7.5   | .36   | .31  | .36   | .33   |
| 24    | 4.9   | 3.7    | 5.6   | 1.5  | 30     | 13    | 4.5   | 6.6   | .28   | .20  | .28   | .20   |
| 25    | 2.0   | 3.3    | 6.5   | 1.6  | 21     | 9.9   | 4.9   | 5.9   | .24   | .20  | .20   | .16   |
| 26    | 1.1   | 2.8    | 5.5   | 2.0  | 18     | 9.1   | 4.9   | 5.5   | .24   | .22  | .16   | .14   |
| 27    | .86   | 2.8    | 4.5   | 4.0  | 33     | 8.3   | 4.9   | 4.9   | .22   | .28  | .20   | .13   |
| 28    | .61   | 2.7    | 3.9   | 2.0  | 45     | 8.0   | 4.9   | 4.7   | .20   | .31  | .61   | .13   |
| 29    | .45   | 2.6    | 3.6   | 1.6  | -----  | 7.8   | 7.3   | 4.5   | .16   | .24  | .56   | .13   |
| 30    | .41   | 2.5    | 3.3   | 1.8  | -----  | 7.1   | 9.6   | 5.1   | .14   | .36  | .31   | .10   |
| 31    | .37   | -----  | 3.1   | 2.1  | -----  | 6.6   | ----- | 6.8   | ----- | 1.0  | .20   | ----- |
| TOTAL | 14.30 | 131.03 | 136.2 | 95.1 | 580.90 | 583.8 | 250.3 | 363.9 | 39.86 | 7.60 | 12.58 | 7.40  |
| MEAN  | .46   | 4.37   | 4.39  | 3.07 | 20.7   | 18.8  | 8.34  | 11.7  | 1.33  | .25  | .41   | .25   |
| MAX   | 4.9   | 15     | 14    | 10   | 98     | 42    | 27    | 32    | 5.7   | 1.4  | 3.4   | 1.1   |
| MIN   | .01   | .33    | 1.9   | 1.3  | .90    | 6.6   | 4.5   | 4.5   | .14   | .01  | .01   | .04   |
| CFSM  | .09   | .88    | .89   | .62  | 4.17   | 3.79  | 1.68  | 2.36  | .27   | .05  | .08   | .05   |
| IN.   | .11   | .98    | 1.02  | .71  | 4.36   | 4.38  | 1.88  | 2.73  | .30   | .06  | .09   | .06   |

CAL YR 1970 TOTAL 2,500.40 MEAN 6.85 MAX 162 MIN .01 CFSM 1.38 IN 18.75  
WTR YR 1971 TOTAL 2,222.97 MEAN 6.09 MAX 93 MIN .01 CFSM 1.23 IN 16.67

PEAK DISCHARGE (BASE, 75 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 2-24 | 0045 | 4.53  | 146       |      |      |       |           |

NOTE.--No gage-height record Dec. 22 to Jan. 19.

01109500 Kettle Brook at Worcester, Mass.

LOCATION.--Lat 42°13'55", long 71°50'07", Worcester County, on right bank 75 ft downstream from Webster Street Bridge at Worcester, 1 mile upstream from Beaver Brook.

DRAINAGE AREA.--31.3 sq mi.

PERIOD OF RECORD.--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.

GAGE.--Water-stage recorder. Concrete control since Oct. 28, 1937. Datum of gage is 472.86 ft above mean sea level, datum of 1929.

AVERAGE DISCHARGE.--48 years, 52.0 cfs (22.56 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum daily discharge, 181 cfs Mar. 17; minimum discharge, 2.8 cfs Apr. 14.

Period of record: Maximum discharge, 3,970 cfs Aug. 19, 1955 (gage height, 12.78 ft, from floodmark), from rating curve extended above 1,700 cfs on basis of computation of peak flow over dam; maximum daily, 2,720 cfs Aug. 19, 1955; minimum discharge, 0.2 cfs May 17, 1940.

REMARKS.--Records excellent. City of Worcester diverts flow for municipal use from about 7.0 sq mi of drainage area above station; see table below for figures of diversion. Since October 1959, city diverts flow through tunnel during periods of high flow; this flow included in daily discharge. No diversion during year. Flow regulated by reservoirs above station.

REVISIONS (WATER YEARS).--WSP 1301: 1927(M). See also PERIOD OF RECORD.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG  | SEP   |
|-------|-------|-------|------|------|-------|-------|-------|-------|-------|------|------|-------|
| 1     | 8.7   | 10    | 22   | 26   | 22    | 101   | 93    | 42    | 38    | 21   | 28   | 10    |
| 2     | 8.4   | 10    | 21   | 26   | 20    | 95    | 91    | 37    | 31    | 27   | 22   | 12    |
| 3     | 9.2   | 16    | 20   | 25   | 19    | 88    | 113   | 50    | 35    | 22   | 19   | 13    |
| 4     | 14    | 14    | 50   | 26   | 18    | 86    | 124   | 80    | 42    | 22   | 22   | 12    |
| 5     | 10    | 27    | 45   | 44   | 21    | 79    | 99    | 74    | 32    | 21   | 23   | 11    |
| 6     | 8.7   | 24    | 34   | 47   | 26    | 71    | 82    | 55    | 25    | 20   | 21   | 10    |
| 7     | 8.4   | 20    | 28   | 40   | 26    | 68    | 91    | 45    | 22    | 22   | 20   | 10    |
| 8     | 8.1   | 17    | 24   | 34   | 28    | 69    | 97    | 39    | 23    | 19   | 18   | 10    |
| 9     | 7.8   | 16    | 24   | 30   | 38    | 60    | 93    | 54    | 35    | 19   | 16   | 12    |
| 10    | 7.3   | 16    | 25   | 28   | 35    | 55    | 101   | 97    | 24    | 19   | 16   | 14    |
| 11    | 7.8   | 39    | 24   | 28   | 31    | 52    | 103   | 101   | 19    | 18   | 26   | 14    |
| 12    | 8.1   | 33    | 26   | 29   | 28    | 50    | 93    | 76    | 16    | 18   | 44   | 94    |
| 13    | 7.8   | 27    | 25   | 26   | 38    | 47    | 105   | 88    | 15    | 19   | 21   | 68    |
| 14    | 7.5   | 40    | 24   | 25   | 86    | 51    | 55    | 171   | 15    | 23   | 17   | 42    |
| 15    | 8.4   | 38    | 22   | 24   | 71    | 65    | 65    | 137   | 14    | 20   | 15   | 30    |
| 16    | 20    | 37    | 21   | 23   | 59    | 147   | 60    | 105   | 14    | 19   | 13   | 21    |
| 17    | 11    | 29    | 29   | 21   | 51    | 181   | 57    | 123   | 13    | 27   | 12   | 17    |
| 18    | 8.1   | 25    | 32   | 20   | 52    | 166   | 56    | 107   | 19    | 42   | 12   | 15    |
| 19    | 7.3   | 24    | 31   | 19   | 56    | 140   | 54    | 81    | 19    | 32   | 11   | 14    |
| 20    | 6.7   | 29    | 33   | 18   | 52    | 135   | 50    | 65    | 18    | 34   | 18   | 14    |
| 21    | 6.7   | 45    | 33   | 18   | 51    | 128   | 47    | 56    | 18    | 28   | 13   | 19    |
| 22    | 7.3   | 33    | 32   | 19   | 45    | 105   | 44    | 59    | 24    | 26   | 11   | 16    |
| 23    | 31    | 33    | 32   | 20   | 60    | 99    | 39    | 54    | 22    | 24   | 10   | 14    |
| 24    | 51    | 30    | 33   | 20   | 56    | 95    | 34    | 46    | 19    | 22   | 10   | 13    |
| 25    | 27    | 24    | 30   | 20   | 50    | 86    | 33    | 41    | 18    | 22   | 11   | 12    |
| 26    | 20    | 21    | 28   | 28   | 50    | 82    | 31    | 37    | 29    | 22   | 12   | 12    |
| 27    | 16    | 21    | 27   | 36   | 71    | 77    | 32    | 34    | 19    | 20   | 20   | 12    |
| 28    | 14    | 21    | 26   | 30   | 93    | 77    | 33    | 32    | 17    | 18   | 46   | 12    |
| 29    | 12    | 21    | 26   | 28   | ----- | 82    | 45    | 30    | 17    | 18   | 26   | 12    |
| 30    | 11    | 24    | 24   | 28   | ----- | 93    | 48    | 29    | 16    | 35   | 15   | 11    |
| 31    | 10    | ----- | 24   | 26   | ----- | 97    | ----- | 33    | ----- | 42   | 12   | ----- |
| TOTAL | 389.3 | 764   | 875  | 832  | 1,253 | 2,827 | 2,068 | 2,078 | 668   | 741  | 580  | 576   |
| MEAN  | 12.6  | 25.5  | 28.2 | 26.8 | 44.8  | 91.2  | 68.9  | 67.0  | 22.3  | 23.9 | 18.7 | 19.2  |
| MAX   | 51    | 45    | 50   | 47   | 93    | 181   | 124   | 171   | 42    | 42   | 46   | 94    |
| MIN   | 6.7   | 10    | 20   | 18   | 18    | 47    | 31    | 29    | 13    | 18   | 10   | 10    |
| (†)   | 6.53  | 4.14  | 5.19 | 5.00 | 5.14  | 6.28  | 6.61  | 6.30  | 7.77  | 7.07 | 6.42 | 6.56  |

CAL YR 1970 TOTAL 15,037.0 MEAN 41.2 MAX 360 MIN 6.7 MEAN† 49.7 CFSM† 1.59 IN† 21.56  
WTR YR 1971 TOTAL 13,651.3 MEAN 37.4 MAX 181 MIN 6.7 MEAN† 43.5 CFSM† 1.39 IN† 18.87

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

‡ Adjusted for diversion.



01110000 Quinsigamond River at North Grafton, Mass.

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

DRAINAGE AREA.--25.5 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 335 ft (from topographic map). Prior to Dec. 7, 1939, staff gage at same site and datum.

AVERAGE DISCHARGE.--32 years, 40.3 cfs (21.62 inches per year).

EXTREMES.--Current year: Maximum discharge, 136 cfs Mar. 17 (gage height, 2.39 ft); minimum daily, 1.1 cfs Aug. 10, 26, Sept. 11.

Period of record: Maximum discharge, 820 cfs Aug. 20, 1955 (gage height, 5.15 ft); no flow Aug. 6-9, 22, 1966, caused by unusual regulation.

REMARKS.--Records good. Some regulation by Lake Quinsigamond 2.3 miles upstream and by ponds above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 3.4   | 11    | 22   | 17   | 19    | 78    | 71    | 44    | 39    | 8.2   | 18    | 7.6   |
| 2     | 2.8   | 11    | 19   | 18   | 18    | 80    | 69    | 42    | 35    | 12    | 15    | 5.9   |
| 3     | 2.9   | 14    | 17   | 17   | 16    | 83    | 74    | 45    | 35    | 10    | 3.4   | 4.6   |
| 4     | 6.3   | 13    | 29   | 16   | 16    | 92    | 82    | 54    | 33    | 8.2   | 3.4   | 4.1   |
| 5     | 5.4   | 20    | 30   | 22   | 18    | 89    | 76    | 53    | 4.3   | 6.9   | 4.1   | 3.5   |
| 6     | 3.9   | 21    | 29   | 24   | 20    | 80    | 71    | 48    | 3.5   | 5.9   | 3.2   | 2.9   |
| 7     | 3.2   | 17    | 16   | 24   | 20    | 79    | 83    | 46    | 4.8   | 10    | 2.8   | 2.2   |
| 8     | 3.4   | 16    | 23   | 22   | 26    | 79    | 84    | 43    | 6.9   | 8.9   | 2.2   | 1.8   |
| 9     | 3.1   | 14    | 22   | 21   | 32    | 76    | 79    | 49    | 14    | 7.9   | 1.6   | 1.8   |
| 10    | 2.9   | 13    | 22   | 20   | 30    | 69    | 79    | 62    | 15    | 7.3   | 1.1   | 1.3   |
| 11    | 3.1   | 17    | 20   | 19   | 27    | 68    | 79    | 61    | 14    | 6.3   | 2.5   | 1.1   |
| 12    | 2.8   | 19    | 22   | 19   | 27    | 65    | 79    | 55    | 14    | 5.6   | 17    | 24    |
| 13    | 2.8   | 19    | 23   | 17   | 33    | 63    | 76    | 63    | 14    | 4.8   | 14    | 35    |
| 14    | 3.1   | 24    | 22   | 18   | 57    | 62    | 68    | 84    | 13    | 7.3   | 11    | 44    |
| 15    | 3.4   | 28    | 21   | 19   | 56    | 69    | 65    | 77    | 11    | 7.6   | 10    | 38    |
| 16    | 7.3   | 32    | 19   | 19   | 54    | 105   | 59    | 82    | 11    | 5.9   | 7.9   | 30    |
| 17    | 7.6   | 26    | 27   | 17   | 56    | 131   | 56    | 90    | 11    | 6.6   | 5.6   | 25    |
| 18    | 5.2   | 22    | 31   | 15   | 53    | 132   | 55    | 78    | 10    | 18    | 4.6   | 21    |
| 19    | 3.4   | 21    | 29   | 15   | 52    | 119   | 54    | 69    | 9.3   | 18    | 3.7   | 19    |
| 20    | 2.5   | 22    | 29   | 14   | 54    | 120   | 51    | 64    | 8.6   | 20    | 5.9   | 15    |
| 21    | 2.3   | 30    | 26   | 14   | 56    | 117   | 47    | 60    | 8.6   | 19    | 5.9   | 15    |
| 22    | 2.8   | 22    | 25   | 13   | 51    | 110   | 49    | 61    | 11    | 17    | 5.2   | 14    |
| 23    | 18    | 24    | 25   | 13   | 58    | 120   | 47    | 57    | 11    | 15    | 4.3   | 11    |
| 24    | 40    | 25    | 28   | 14   | 60    | 103   | 41    | 52    | 11    | 14    | 3.1   | 11    |
| 25    | 33    | 22    | 26   | 13   | 56    | 92    | 42    | 47    | 9.8   | 13    | 1.6   | 7.6   |
| 26    | 31    | 20    | 24   | 17   | 54    | 99    | 40    | 46    | 14    | 11    | 1.1   | 6.9   |
| 27    | 27    | 19    | 24   | 22   | 63    | 91    | 39    | 44    | 13    | 11    | 2.9   | 6.3   |
| 28    | 22    | 22    | 24   | 22   | 73    | 80    | 37    | 42    | 10    | 10    | 14    | 5.6   |
| 29    | 19    | 25    | 21   | 20   | ----- | 73    | 42    | 40    | 7.9   | 8.6   | 16    | 5.2   |
| 30    | 16    | 24    | 20   | 20   | ----- | 73    | 45    | 39    | 7.3   | 14    | 13    | 5.2   |
| 31    | 14    | ----- | 17   | 20   | ----- | 72    | ----- | 39    | ----- | 19    | 10    | ----- |
| TOTAL | 303.6 | 613   | 732  | 561  | 1,155 | 2,769 | 1,839 | 1,736 | 410.0 | 337.0 | 214.1 | 375.6 |
| MEAN  | 9.79  | 20.4  | 23.6 | 18.1 | 41.3  | 89.3  | 61.3  | 56.0  | 13.7  | 10.9  | 6.91  | 12.5  |
| MAX   | 40    | 32    | 31   | 24   | 73    | 132   | 84    | 90    | 39    | 20    | 18    | 44    |
| MIN   | 2.3   | 11    | 16   | 13   | 16    | 62    | 37    | 39    | 3.5   | 4.8   | 1.1   | 1.1   |
| CFSM  | .38   | .80   | .93  | .71  | 1.62  | 3.50  | 2.40  | 2.20  | .54   | .43   | .27   | .49   |
| IN.   | .44   | .80   | 1.07 | .82  | 1.68  | 6.04  | 2.68  | 2.53  | .60   | .49   | .31   | .55   |

CAL YR 1970 TOTAL 14,711.72 MEAN 40.3 MAX 349 MIN .03 CFSM 1.58 IN 21.46  
WTR YR 1971 TOTAL 11,045.30 MEAN 30.3 MAX 132 MIN 1.1 CFSM 1.19 IN 16.11

NOTE.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

## BLACKSTONE RIVER BASIN

01110500 Blackstone River at Northbridge, Mass.

LOCATION.--Lat 42°09'13", long 71°39'09", Worcester County, on left bank 800 ft downstream from Paul Whitin Co. dam at Northbridge and 3 miles downstream from Quinsigamond River.

DRAINAGE AREA.--139 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 260 ft (from topographic map).

AVERAGE DISCHARGE.--32 years, 236 cfs (23.06 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 1,290 cfs Mar. 17 (gage height, 6.17 ft); minimum daily, 50 cfs Oct. 12.

Period of record: Maximum discharge, 16,900 cfs Aug. 20, 1955 (gage height, 16.74 ft), from rating curve extended above 3,800 cfs on basis of computation of flow over dam at gage height 13.7 ft and slope-area measurement at gage height 16.74 ft; maximum gage height, 17.53 ft Aug. 20, 1955 (backwater from debris); minimum daily discharge, 2 cfs Aug. 29, 1941, Sept. 5, 1942, Aug. 28, 1957.

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, from floodmarks (discharge, 7,510 cfs, by computation of flow over dam 800 ft above station).

REMARKS.--Records good except those for period of indefinite stage-discharge relation, which are fair. Flow regulated by mills and reservoirs above station. Daily discharge includes flow diverted from Nashua River basin and, at times since January 1966, from Quabbin Reservoir to Blackstone River basin for municipal supply of Worcester. No diversion from Quabbin Reservoir during year.

REVISIONS (WATER YEARS).--WSP 1301: 1940(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| 1     | 74    | 78    | 135   | 119   | 126   | 728    | 474    | 239    | 217   | 110   | 110   | 64    |
| 2     | 80    | 86    | 125   | 121   | 131   | 704    | 459    | 221    | 203   | 160   | 85    | 68    |
| 3     | 74    | 143   | 156   | 118   | 129   | 665    | 522    | 292    | 222   | 110   | 74    | 56    |
| 4     | 127   | 113   | 318   | 123   | 126   | 675    | 533    | 384    | 233   | 96    | 82    | 62    |
| 5     | 71    | 186   | 231   | 216   | 123   | 618    | 489    | 319    | 200   | 90    | 70    | 56    |
| 6     | 74    | 158   | 184   | 242   | 139   | 550    | 449    | 273    | 195   | 110   | 64    | 59    |
| 7     | 73    | 115   | 161   | 202   | 144   | 514    | 484    | 243    | 185   | 130   | 70    | 62    |
| 8     | 73    | 96    | 138   | 174   | 155   | 523    | 560    | 223    | 175   | 94    | 60    | 64    |
| 9     | 73    | 102   | 143   | 158   | 235   | 462    | 538    | 284    | 270   | 80    | 65    | 68    |
| 10    | 61    | 98    | 146   | 140   | 192   | 433    | 539    | 508    | 180   | 76    | 74    | 60    |
| 11    | 69    | 211   | 137   | 139   | 170   | 443    | 483    | 451    | 160   | 72    | 100   | 70    |
| 12    | 50    | 164   | 131   | 143   | 167   | 400    | 471    | 364    | 145   | 74    | 150   | 420   |
| 13    | 72    | 135   | 123   | 139   | 254   | 370    | 441    | 470    | 130   | 76    | 100   | 312   |
| 14    | 69    | 227   | 129   | 135   | 607   | 389    | 447    | 746    | 125   | 100   | 75    | 258   |
| 15    | 71    | 216   | 130   | 136   | 428   | 454    | 347    | 598    | 125   | 80    | 62    | 198   |
| 16    | 141   | 214   | 119   | 131   | 363   | 996    | 311    | 523    | 120   | 90    | 58    | 156   |
| 17    | 76    | 182   | 150   | 130   | 330   | 1,190  | 317    | 624    | 125   | 100   | 62    | 138   |
| 18    | 54    | 161   | 182   | 130   | 322   | 966    | 292    | 531    | 125   | 140   | 58    | 120   |
| 19    | 58    | 141   | 164   | 140   | 348   | 854    | 287    | 431    | 130   | 100   | 58    | 108   |
| 20    | 68    | 165   | 174   | 140   | 389   | 867    | 284    | 369    | 120   | 110   | 90    | 99    |
| 21    | 82    | 256   | 162   | 135   | 350   | 830    | 268    | 324    | 130   | 95    | 70    | 127   |
| 22    | 72    | 191   | 125   | 125   | 344   | 717    | 258    | 348    | 170   | 90    | 52    | 105   |
| 23    | 293   | 200   | 123   | 115   | 453   | 682    | 242    | 299    | 130   | 80    | 54    | 102   |
| 24    | 342   | 182   | 140   | 107   | 441   | 673    | 225    | 293    | 120   | 75    | 56    | 96    |
| 25    | 185   | 167   | 143   | 112   | 390   | 609    | 215    | 281    | 120   | 62    | 52    | 103   |
| 26    | 147   | 141   | 136   | 164   | 373   | 556    | 214    | 214    | 160   | 66    | 65    | 69    |
| 27    | 131   | 136   | 133   | 199   | 537   | 533    | 218    | 205    | 115   | 70    | 85    | 84    |
| 28    | 111   | 124   | 137   | 212   | 672   | 511    | 212    | 220    | 110   | 66    | 150   | 127   |
| 29    | 103   | 121   | 134   | 153   | ----- | 489    | 289    | 200    | 105   | 62    | 110   | 131   |
| 30    | 98    | 140   | 128   | 120   | ----- | 502    | 278    | 195    | 105   | 120   | 90    | 103   |
| 31    | 88    | ----- | 123   | 130   | ----- | 501    | -----  | 198    | ----- | 130   | 75    | ----- |
| TOTAL | 3,160 | 4,649 | 4,660 | 4,548 | 8,478 | 19,404 | 11,146 | 10,870 | 4,650 | 2,914 | 2,426 | 3,545 |
| MEAN  | 102   | 155   | 150   | 147   | 303   | 626    | 372    | 351    | 155   | 94.0  | 78.3  | 118   |
| MAX   | 342   | 256   | 318   | 242   | 672   | 1,190  | 560    | 746    | 270   | 160   | 150   | 420   |
| MIN   | 50    | 78    | 119   | 107   | 123   | 370    | 212    | 155    | 105   | 62    | 52    | 56    |
| MEAN† | 72.3  | 133   | 130   | 126   | 278   | 615    | 366    | 345    | 144   | 67.5  | 40.6  | 84.5  |
| CFSM† | .52   | .96   | .94   | .91   | 2.00  | 4.42   | 2.63   | 2.48   | 1.04  | .49   | .29   | .61   |
| IN.†  | .60   | 1.07  | 1.08  | 1.04  | 2.08  | 5.11   | 2.94   | 2.86   | 1.16  | .56   | .34   | .68   |

CAL YR 1970 TOTAL 58,003 MEAN 269 MAX 2,930 MIN 46 MEAN† 249 CFSM† 1.79 IN† 24.35  
WTR YR 1971 TOTAL 80,450 MEAN 220 MAX 1,190 MIN 50 MEAN† 200 CFSM† 1.44 IN† 19.51

† Adjusted for diversion from Nashua River basin to Blackstone River basin for municipal supply of Worcester. Records of diversion furnished by city of Worcester.

NOTE.--Stage-discharge relation indefinite June 5 to Sept. 12. Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

## BLACKSTONE RIVER BASIN

95

01111200 West River below West Hill Dam, near Uxbridge, Mass.

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

DRAINAGE AREA.--27.9 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 240 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 38.3 cfs (18.64 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 202 cfs Mar. 18 (gage height, 2.78 ft); minimum, 1.8 cfs Sept. 10-12; minimum daily, 1.8 cfs Sept. 11. Period of record: Maximum discharge, about 370 cfs Mar. 26, 1968 (gage height, about 3.45 ft); no flow for part of Aug. 17, 1967 (caused by unusual regulation); minimum daily discharge, 1.1 cfs Sept. 12, 1963, Aug. 12, 1965.

REMARKS.--Records good. Flow regulated by West Hill Reservoir (usable capacity, 542,000,000 cu ft). See table below for figures of monthend contents.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| CAY         | OCT            | NOV       | DEC     | JAN     | FEB        | MAR        | APR       | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|----------------|-----------|---------|---------|------------|------------|-----------|-------|-------|-------|-------|-------|
| 1           | 5.0            | 10        | 21      | 24      | 27         | 162        | 104       | 56    | 42    | 7.3   | 11    | 3.2   |
| 2           | 4.6            | 10        | 21      | 24      | 26         | 171        | 98        | 53    | 42    | 9.1   | 8.1   | 2.7   |
| 3           | 4.0            | 18        | 21      | 24      | 22         | 162        | 100       | 53    | 38    | 9.4   | 6.3   | 2.6   |
| 4           | 4.2            | 22        | 27      | 23      | 23         | 149        | 110       | 65    | 37    | 8.5   | 5.5   | 2.6   |
| 5           | 4.6            | 23        | 36      | 29      | 22         | 158        | 100       | 71    | 35    | 7.3   | 5.0   | 2.4   |
| 6           | 4.6            | 25        | 35      | 38      | 23         | 149        | 89        | 64    | 30    | 6.5   | 4.6   | 2.4   |
| 7           | 4.6            | 24        | 33      | 41      | 24         | 127        | 91        | 56    | 27    | 6.0   | 4.2   | 2.4   |
| 8           | 4.4            | 21        | 27      | 40      | 27         | 123        | 112       | 49    | 25    | 5.5   | 3.6   | 2.4   |
| 9           | 4.2            | 18        | 25      | 35      | 32         | 123        | 117       | 50    | 30    | 5.0   | 3.4   | 2.4   |
| 10          | 4.2            | 16        | 24      | 32      | 37         | 110        | 119       | 71    | 31    | 4.6   | 3.4   | 2.1   |
| 11          | 4.2            | 15        | 22      | 31      | 42         | 100        | 121       | 89    | 25    | 4.2   | 3.2   | 1.8   |
| 12          | 4.4            | 15        | 22      | 31      | 45         | 88         | 112       | 86    | 22    | 4.2   | 4.4   | 2.6   |
| 13          | 4.2            | 15        | 22      | 28      | 45         | 86         | 100       | 78    | 19    | 3.8   | 4.6   | 5.0   |
| 14          | 4.0            | 21        | 23      | 26      | 59         | 81         | 89        | 104   | 18    | 3.8   | 4.2   | 7.8   |
| 15          | 4.0            | 28        | 22      | 27      | 79         | 86         | 81        | 119   | 15    | 3.8   | 3.6   | 8.8   |
| 16          | 4.0            | 33        | 19      | 25      | 104        | 131        | 74        | 108   | 14    | 3.8   | 3.2   | 7.5   |
| 17          | 4.0            | 35        | 21      | 25      | 121        | 191        | 65        | 123   | 14    | 3.8   | 2.9   | 6.0   |
| 18          | 4.2            | 31        | 32      | 25      | 100        | 202        | 60        | 129   | 14    | 4.0   | 2.6   | 5.0   |
| 19          | 4.0            | 28        | 40      | 24      | 86         | 200        | 59        | 110   | 12    | 4.0   | 2.4   | 4.4   |
| 20          | 4.0            | 25        | 41      | 24      | 84         | 196        | 60        | 91    | 10    | 6.3   | 2.4   | 4.2   |
| 21          | 4.0            | 30        | 39      | 24      | 82         | 196        | 59        | 78    | 9.4   | 6.3   | 2.6   | 3.8   |
| 22          | 3.8            | 33        | 34      | 23      | 86         | 189        | 55        | 70    | 12    | 5.3   | 2.7   | 3.8   |
| 23          | 7.3            | 31        | 31      | 22      | 86         | 175        | 49        | 68    | 18    | 4.8   | 2.6   | 3.8   |
| 24          | 22             | 31        | 31      | 21      | 93         | 160        | 46        | 63    | 17    | 4.4   | 2.4   | 3.6   |
| 25          | 24             | 27        | 31      | 21      | 106        | 145        | 43        | 55    | 14    | 4.0   | 2.1   | 3.4   |
| 26          | 21             | 24        | 30      | 22      | 100        | 131        | 43        | 50    | 13    | 3.8   | 2.1   | 3.4   |
| 27          | 19             | 23        | 28      | 27      | 95         | 119        | 41        | 42    | 12    | 3.8   | 2.7   | 3.4   |
| 28          | 17             | 21        | 27      | 34      | 123        | 110        | 40        | 40    | 10    | 3.6   | 5.0   | 3.4   |
| 29          | 14             | 21        | 26      | 33      | -----      | 106        | 43        | 40    | 8.8   | 3.4   | 5.5   | 3.2   |
| 30          | 13             | 21        | 25      | 31      | -----      | 106        | 53        | 37    | 7.5   | 4.8   | 4.4   | 3.2   |
| 31          | 12             | -----     | 25      | 30      | -----      | 106        | -----     | 38    | ----- | 11    | 3.6   | ----- |
| TOTAL       | 242.5          | 695       | 861     | 864     | 1,799      | 4,338      | 2,333     | 2,206 | 621.7 | 166.1 | 124.3 | 113.3 |
| MEAN        | 7.82           | 23.2      | 27.8    | 27.5    | 64.2       | 140        | 77.8      | 71.2  | 20.7  | 5.36  | 4.01  | 3.78  |
| MAX         | 24             | 35        | 41      | 41      | 123        | 202        | 121       | 129   | 42    | 11    | 11    | 8.8   |
| MIN         | 3.8            | 10        | 19      | 21      | 22         | 81         | 40        | 37    | 7.5   | 3.4   | 2.1   | 1.8   |
| (†)         | 1.5            | 2.0       | 2.2     | 2.2     | 6.2        | 5.8        | 3.0       | 2.6   | 1.1   | 1.5   | .8    | .8    |
| MEAN‡       | 8.07           | 23.3      | 27.8    | 27.9    | 65.9       | 140        | 76.7      | 71.0  | 20.1  | 5.52  | 3.74  | 3.78  |
| CFSM‡       | .29            | .84       | 1.00    | 1.00    | 2.36       | 5.02       | 2.75      | 2.54  | .72   | .20   | .13   | .14   |
| IN.‡        | .33            | .93       | 1.15    | 1.15    | 2.46       | 5.78       | 3.07      | 2.93  | .81   | .23   | .15   | .15   |
| CAL YR 1970 | TOTAL 16,545.4 | MEAN 46.4 | MAX 285 | MIN 2.4 | MEAN‡ 45.3 | CFSM‡ 1.62 | IN‡ 22.06 |       |       |       |       |       |
| WTR YR 1971 | TOTAL 14,363.9 | MEAN 39.4 | MAX 202 | MIN 1.8 | MEAN‡ 39.3 | CFSM‡ 1.41 | IN‡ 19.15 |       |       |       |       |       |

† Monthend contents, in millions of cubic feet, in West Hill Reservoir.

‡ Adjusted for change in contents in West Hill Reservoir.

## BLACKSTONE RIVER BASIN

01111300 Nipmuc River near Harrisville, R.I.

LOCATION.--Lat 41°58'52", long 71°41'11", Providence County, on left bank 1 mile upstream from mouth and 1.2 miles northwest of Harrisville.

DRAINAGE AREA.--16.0 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 340 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 23.4 cfs (19.86 inches per year).

EXTREMES.--Current year: Maximum discharge, 203 cfs Mar. 16 (gage height, 4.59 ft); maximum gage height, 5.19 ft Feb. 14 (backwater from ice); minimum discharge, 0.51 cfs Sept. 10-12.

Period of record: Maximum discharge, 1,020 cfs Mar. 18, 1968 (gage height, 7.42 ft), from rating curve extended above 530 cfs; minimum, 0.09 cfs Sept. 10, 1964.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| 1     | .86   | 2.0   | 7.1   | 10    | 9.5   | 80    | 46    | 45    | 27    | 2.1  | 4.2   | .90   |
| 2     | .86   | 2.0   | 7.1   | 10    | 9.0   | 70    | 45    | 35    | 24    | 3.8  | 2.5   | .81   |
| 3     | .86   | 18    | 6.6   | 10    | 8.5   | 60    | 62    | 49    | 26    | 3.4  | 1.9   | .73   |
| 4     | 1.0   | 14    | 20    | 10    | 8.0   | 70    | 54    | 64    | 33    | 2.5  | 1.7   | .73   |
| 5     | 1.4   | 13    | 24    | 23    | 9.0   | 68    | 45    | 45    | 26    | 1.9  | 1.7   | .73   |
| 6     | 1.4   | 11    | 16    | 30    | 11    | 60    | 41    | 36    | 19    | 1.7  | 1.5   | .65   |
| 7     | 1.3   | 7.6   | 12    | 24    | 12    | 56    | 60    | 32    | 17    | 1.5  | 1.4   | .65   |
| 8     | 1.3   | 5.1   | 9.4   | 17    | 17    | 58    | 70    | 29    | 16    | 1.4  | 1.2   | .65   |
| 9     | 1.3   | 3.9   | 8.2   | 15    | 25    | 50    | 69    | 37    | 40    | 1.2  | 1.1   | .65   |
| 10    | 1.2   | 3.9   | 7.6   | 14    | 25    | 47    | 89    | 70    | 28    | 1.2  | 1.0   | .58   |
| 11    | 1.2   | 3.6   | 7.9   | 13    | 21    | 45    | 72    | 58    | 18    | 1.2  | .90   | .51   |
| 12    | 1.2   | 3.6   | 8.4   | 13    | 19    | 42    | 56    | 43    | 15    | 1.2  | 1.1   | .65   |
| 13    | 1.4   | 4.3   | 9.0   | 17    | 25    | 41    | 48    | 60    | 13    | 1.1  | 1.0   | .90   |
| 14    | 1.6   | 15    | 8.5   | 12    | 80    | 42    | 44    | 101   | 12    | 1.2  | 1.0   | 2.1   |
| 15    | 2.2   | 19    | 11    | 11    | 55    | 60    | 39    | 59    | 10    | 1.4  | 1.0   | 2.5   |
| 16    | 4.7   | 22    | 11    | 11    | 43    | 167   | 36    | 68    | 8.9   | 1.2  | .90   | 2.3   |
| 17    | 5.1   | 14    | 17    | 10    | 35    | 158   | 36    | 116   | 8.3   | 1.1  | .81   | 1.7   |
| 18    | 3.9   | 11    | 25    | 10    | 30    | 112   | 34    | 68    | 7.2   | 1.1  | .73   | 1.4   |
| 19    | 3.3   | 8.2   | 23    | 9.5   | 29    | 90    | 34    | 52    | 5.6   | 1.2  | .73   | 1.2   |
| 20    | 3.0   | 8.2   | 20    | 9.0   | 32    | 151   | 33    | 45    | 5.0   | 1.9  | .81   | 1.2   |
| 21    | 3.0   | 19    | 18    | 8.5   | 36    | 120   | 31    | 41    | 4.2   | 1.7  | .81   | 1.2   |
| 22    | 3.0   | 16    | 16    | 9.0   | 34    | 90    | 29    | 49    | 3.4   | 1.5  | .73   | 1.1   |
| 23    | 12    | 13    | 14    | 9.5   | 42    | 84    | 26    | 44    | 3.1   | 1.4  | .65   | 1.0   |
| 24    | 15    | 13    | 13    | 9.2   | 55    | 77    | 25    | 37    | 2.8   | 1.2  | .65   | 1.0   |
| 25    | 7.1   | 10    | 12    | 9.2   | 45    | 63    | 25    | 35    | 2.8   | 1.2  | .58   | .81   |
| 26    | 4.7   | 7.6   | 12    | 11    | 40    | 57    | 24    | 32    | 2.8   | 1.2  | .58   | .81   |
| 27    | 3.6   | 7.6   | 11    | 15    | 60    | 54    | 25    | 29    | 2.8   | 1.2  | .65   | .81   |
| 28    | 3.0   | 7.1   | 11    | 13    | 100   | 52    | 24    | 26    | 2.5   | 1.2  | 1.4   | .81   |
| 29    | 2.7   | 7.1   | 10    | 12    | ----- | 52    | 37    | 25    | 2.3   | 1.1  | 1.4   | .81   |
| 30    | 2.2   | 7.1   | 10    | 11    | ----- | 53    | 46    | 24    | 2.1   | 4.6  | 1.1   | .91   |
| 31    | 2.2   | ----- | 10    | 11    | ----- | 50    | ----- | 25    | ----- | 6.7  | 1.0   | ----- |
| TOTAL | 97.58 | 296.9 | 355.8 | 391.9 | 915.0 | 2,279 | 1,305 | 1,479 | 387.8 | 56.3 | 36.73 | 30.70 |
| MEAN  | 3.15  | 9.90  | 12.8  | 12.6  | 32.7  | 73.5  | 43.5  | 47.7  | 12.9  | 1.82 | 1.18  | 1.02  |
| MAX   | 15    | 22    | 25    | 30    | 100   | 167   | 89    | 116   | 40    | 6.7  | 4.2   | 2.5   |
| MIN   | .66   | 2.0   | 6.6   | 8.5   | 8.0   | 41    | 24    | 24    | 2.1   | 1.1  | .58   | .51   |
| CFSM  | .20   | .62   | .80   | .79   | 2.04  | 4.59  | 2.72  | 2.98  | .81   | .11  | .07   | .06   |
| IN.   | .23   | .69   | .92   | .91   | 2.13  | 5.30  | 3.03  | 3.44  | .90   | .13  | .09   | .07   |

CAL YR 1970 TCTAL 9,650.09 MEAN 26.4 MAX 411 MIN .63 CFSM 1.65 IN 22.44

WTR YR 1971 TCTAL 7,671.71 MEAN 21.0 MAX 167 MIN .51 CFSM 1.31 IN 17.84

PEAK DISCHARGE (BASE, 270 CFS).--No peak above base.

01111400 Chepachet River at Chepachet, R.I.

LOCATION.--Lat 41°55'22", long 71°39'29", Providence County, on right bank 10 ft downstream from Mower Pond Outlet, 450 ft downstream from old gristmill dam, and 0.9 mile northeast of Chepachet.

DRAINAGE AREA.--17.4 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 355 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 28.9 cfs (22.56 inches per year).

EXTREMES.--Current year: Maximum discharge, about 180 cfs Mar. 16; minimum, 3.3 cfs Sept. 1, 2, 3, 4.

Period of record: Maximum discharge, 1,080 cfs Mar. 18, 1968 (gage height, 8.85 ft), from rating curve extended above 380 cfs on basis of computation of peak flow over dam 450 ft upstream; minimum, 1.9 cfs Aug. 31, Sept. 1, 1965.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Occasional regulation by ponds above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| CAY   | CCT   | NOV   | DEC  | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 4.3   | 9.4   | 17   | 17   | 15    | 130   | 42    | 52    | 19    | 5.7   | 8.2   | 3.3   |
| 2     | 4.3   | 12    | 16   | 17   | 15    | 120   | 41    | 46    | 16    | 7.2   | 6.4   | 3.4   |
| 3     | 4.1   | 41    | 15   | 17   | 14    | 105   | 59    | 61    | 20    | 6.4   | 5.7   | 3.3   |
| 4     | 5.1   | 25    | 25   | 17   | 13    | 110   | 54    | 74    | 30    | 6.4   | 5.5   | 3.3   |
| 5     | 4.6   | 23    | 26   | 34   | 15    | 120   | 47    | 63    | 24    | 6.1   | 5.3   | 3.4   |
| 6     | 3.9   | 27    | 23   | 39   | 17    | 95    | 44    | 61    | 21    | 4.8   | 4.5   | 3.6   |
| 7     | 4.4   | 22    | 20   | 31   | 17    | 85    | 69    | 52    | 17    | 4.8   | 4.9   | 3.6   |
| 8     | 6.2   | 19    | 16   | 27   | 25    | 90    | 82    | 45    | 14    | 4.4   | 4.8   | 3.4   |
| 9     | 8.6   | 17    | 15   | 25   | 37    | 70    | 78    | 46    | 27    | 4.4   | 4.6   | 3.6   |
| 10    | 9.7   | 16    | 15   | 24   | 34    | 58    | 91    | 58    | 22    | 4.4   | 4.4   | 3.4   |
| 11    | 10    | 17    | 14   | 23   | 31    | 52    | 83    | 59    | 18    | 4.3   | 4.3   | 3.4   |
| 12    | 10    | 16    | 15   | 23   | 29    | 50    | 70    | 51    | 15    | 4.4   | 4.9   | 5.9   |
| 13    | 13    | 17    | 15   | 21   | 47    | 48    | 61    | 54    | 13    | 3.3   | 4.4   | 5.7   |
| 14    | 11    | 28    | 14   | 21   | 122   | 52    | 54    | 66    | 12    | 3.9   | 4.3   | 19    |
| 15    | 10    | 28    | 13   | 20   | 88    | 80    | 48    | 55    | 11    | 3.7   | 3.9   | 11    |
| 16    | 11    | 29    | 11   | 19   | 72    | 170   | 44    | 64    | 10    | 3.9   | 3.7   | 7.0   |
| 17    | 9.4   | 23    | 21   | 19   | 59    | 160   | 42    | 113   | 9.4   | 4.1   | 3.9   | 5.9   |
| 18    | 8.4   | 20    | 29   | 18   | 51    | 130   | 39    | 94    | 8.6   | 5.7   | 3.7   | 5.1   |
| 19    | 7.8   | 19    | 25   | 17   | 48    | 110   | 42    | 71    | 8.0   | 5.7   | 3.6   | 4.8   |
| 20    | 8.0   | 20    | 24   | 17   | 50    | 150   | 32    | 58    | 7.5   | 8.8   | 5.3   | 4.6   |
| 21    | 7.4   | 36    | 21   | 16   | 55    | 130   | 21    | 50    | 7.5   | 5.3   | 4.8   | 5.1   |
| 22    | 6.6   | 29    | 19   | 16   | 50    | 100   | 22    | 50    | 8.5   | 4.4   | 4.3   | 4.8   |
| 23    | 26    | 25    | 19   | 15   | 62    | 80    | 24    | 44    | 7.5   | 4.3   | 3.7   | 4.6   |
| 24    | 23    | 23    | 20   | 15   | 67    | 70    | 25    | 38    | 6.8   | 4.3   | 3.4   | 4.4   |
| 25    | 15    | 20    | 19   | 15   | 58    | 60    | 26    | 35    | 6.2   | 6.1   | 3.6   | 4.1   |
| 26    | 12    | 18    | 19   | 19   | 54    | 55    | 26    | 32    | 6.1   | 5.3   | 3.6   | 3.9   |
| 27    | 11    | 18    | 18   | 22   | 70    | 50    | 27    | 29    | 5.7   | 4.9   | 4.9   | 3.9   |
| 28    | 10    | 17    | 18   | 19   | 120   | 48    | 27    | 26    | 5.3   | 4.6   | 9.4   | 3.9   |
| 29    | 10    | 17    | 17   | 18   | ----- | 46    | 40    | 22    | 5.3   | 4.6   | 12    | 3.6   |
| 30    | 9.9   | 18    | 17   | 17   | ----- | 45    | 47    | 20    | 5.1   | 13    | 4.3   | 3.4   |
| 31    | 9.9   | ----- | 16   | 17   | ----- | 43    | ----- | 20    | ----- | 20    | 3.6   | ----- |
| TOTAL | 294.6 | 659.4 | 572  | 635  | 1,335 | 2,712 | 1,407 | 1,609 | 386.5 | 179.2 | 154.3 | 152.4 |
| MEAN  | 9.50  | 22.0  | 18.5 | 20.5 | 47.7  | 87.5  | 46.9  | 51.9  | 12.9  | 5.78  | 4.98  | 5.08  |
| MAX   | 26    | 41    | 29   | 39   | 122   | 170   | 91    | 113   | 30    | 20    | 12    | 19    |
| MIN   | 3.9   | 9.4   | 11   | 15   | 13    | 43    | 21    | 20    | 5.1   | 3.3   | 3.4   | 3.3   |
| CFSM  | .55   | 1.26  | 1.06 | 1.18 | 2.74  | 5.03  | 2.70  | 2.98  | .74   | .33   | .29   | .29   |
| IN.   | .63   | 1.41  | 1.22 | 1.36 | 2.85  | 5.80  | 3.01  | 3.44  | .83   | .38   | .33   | .33   |

CAL YR 1970 TOTAL 12,128.0 MEAN 33.2 MAX 416 MIN 3.9 CFSM 1.91 IN 25.93  
WTR YR 1971 TOTAL 10,056.4 MEAN 27.7 MAX 170 MIN 3.3 CFSM 1.59 IN 21.59

PEAK DISCHARGE (BASE, 160 CFS)

NOTE.--No gage-height record Feb. 27 to Mar. 10, Mar. 14-28.

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
|------|------|-------|-----------|------|------|-------|-----------|

|      |   |   |      |  |  |  |  |
|------|---|---|------|--|--|--|--|
| 3-16 | - | - | †180 |  |  |  |  |
|------|---|---|------|--|--|--|--|

† About.

01111500 Branch River at Forestdale, R. I.

LOCATION.--Lat 41°59'47", long 71°33'47", Providence County, on left bank 20 ft upstream from abandoned bridge site, 400 ft downstream from milldam at Forestdale, 1 mile east of Slatersville, and 1.6 miles upstream from mouth.

DRAINAGE AREA.--91.2 sq mi.

PERIOD OF RECORD.--September to December 1909 and January 1912 to July 1913 (gage heights only; published as "at Branch Village"), January 1940 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 180 ft (from topographic map). Prior to July 28, 1913, nonrecording gage at site 1 mile downstream at different datum.

AVERAGE DISCHARGE.--31 years, 160 cfs (23.82 inches per year).

EXTREMES.--Current year: Maximum discharge, 784 cfs Mar. 17 (gage height, 4.96 ft); minimum daily, 13 cfs Aug. 26.

Period of record: Maximum discharge, 4,980 cfs Mar. 18, 1968 (gage height, 11.90 ft), from rating curve extended above 2,100 cfs on basis of computation of peak flow over dam 400 ft above station; minimum daily, 5.2 cfs Oct. 7, 1948.

Maximum discharge since at least 1886, about 5,800 cfs Mar. 19, 1936, by computation of flow over dam 1 mile above station.

REMARKS.--Records good. Prior to 1957, flow regulated by mills and reservoirs above station.

REVISIONS.--WRD Mass., N.H., R.I., Vt. 1968: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR    | APR   | MAY   | JUN   | JUL  | AUG  | SEP   |
|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|------|------|-------|
| 1     | 30    | 36    | 73    | 80    | 33    | 584    | 242   | 218   | 129   | 24   | 61   | 38    |
| 2     | 30    | 46    | 72    | 81    | 72    | 506    | 221   | 196   | 112   | 43   | 44   | 28    |
| 3     | 33    | 141   | 67    | 78    | 65    | 495    | 272   | 233   | 119   | 40   | 32   | 28    |
| 4     | 40    | 122   | 97    | 80    | 63    | 506    | 280   | 322   | 162   | 33   | 26   | 25    |
| 5     | 34    | 120   | 127   | 129   | 72    | 523    | 228   | 270   | 152   | 30   | 25   | 20    |
| 6     | 30    | 109   | 108   | 200   | 85    | 434    | 209   | 230   | 124   | 30   | 22   | 18    |
| 7     | 29    | 87    | 88    | 164   | 94    | 405    | 286   | 205   | 103   | 30   | 20   | 19    |
| 8     | 29    | 72    | 73    | 129   | 124   | 447    | 364   | 182   | 91    | 23   | 19   | 20    |
| 9     | 31    | 83    | 70    | 108   | 166   | 386    | 340   | 202   | 156   | 20   | 18   | 18    |
| 10    | 32    | 84    | 72    | 99    | 174   | 337    | 361   | 277   | 145   | 18   | 17   | 17    |
| 11    | 35    | 97    | 75    | 96    | 158   | 331    | 349   | 302   | 112   | 17   | 18   | 16    |
| 12    | 35    | 99    | 81    | 94    | 145   | 305    | 308   | 245   | 94    | 17   | 22   | 28    |
| 13    | 36    | 102   | 81    | 88    | 172   | 294    | 262   | 247   | 81    | 20   | 19   | 66    |
| 14    | 37    | 137   | 77    | 87    | 457   | 296    | 230   | 383   | 72    | 32   | 16   | 93    |
| 15    | 38    | 150   | 94    | 84    | 383   | 325    | 207   | 325   | 69    | 34   | 16   | 81    |
| 16    | 46    | 160   | 87    | 83    | 296   | 636    | 189   | 299   | 66    | 25   | 16   | 56    |
| 17    | 34    | 131   | 108   | 71    | 242   | 736    | 180   | 513   | 64    | 23   | 15   | 43    |
| 18    | 28    | 111   | 147   | 70    | 216   | 572    | 174   | 454   | 69    | 27   | 15   | 41    |
| 19    | 25    | 103   | 164   | 70    | 212   | 485    | 185   | 367   | 60    | 30   | 15   | 36    |
| 20    | 24    | 103   | 147   | 67    | 230   | 672    | 180   | 308   | 47    | 47   | 16   | 30    |
| 21    | 24    | 134   | 129   | 65    | 260   | 628    | 156   | 267   | 42    | 36   | 20   | 34    |
| 22    | 26    | 122   | 112   | 67    | 240   | 495    | 145   | 272   | 43    | 28   | 18   | 30    |
| 23    | 88    | 100   | 106   | 75    | 288   | 434    | 127   | 250   | 52    | 24   | 17   | 28    |
| 24    | 129   | 91    | 106   | 72    | 361   | 399    | 122   | 214   | 46    | 22   | 14   | 27    |
| 25    | 80    | 78    | 97    | 72    | 311   | 355    | 122   | 172   | 34    | 21   | 14   | 25    |
| 26    | 61    | 73    | 94    | 87    | 277   | 340    | 120   | 145   | 32    | 22   | 13   | 25    |
| 27    | 50    | 72    | 90    | 114   | 361   | 319    | 124   | 139   | 29    | 22   | 21   | 25    |
| 28    | 44    | 72    | 84    | 103   | 564   | 280    | 124   | 147   | 26    | 20   | 71   | 28    |
| 29    | 41    | 71    | 83    | 94    | ----- | 267    | 160   | 143   | 25    | 19   | 61   | 37    |
| 30    | 38    | 73    | 78    | 87    | ----- | 265    | 221   | 137   | 23    | 44   | 57   | 30    |
| 31    | 37    | ----- | 76    | 91    | ----- | 255    | ----- | 141   | ----- | 102  | 50   | ----- |
| TOTAL | 1,274 | 2,979 | 2,963 | 2,885 | 6,171 | 13,312 | 6,488 | 7,805 | 2,379 | 923  | 808  | 1,010 |
| MEAN  | 41.1  | 99.3  | 95.6  | 93.1  | 220   | 429    | 216   | 252   | 79.3  | 29.8 | 26.1 | 33.7  |
| MAX   | 129   | 160   | 164   | 200   | 564   | 736    | 364   | 513   | 162   | 102  | 71   | 93    |
| MIN   | 24    | 36    | 67    | 65    | 63    | 255    | 120   | 137   | 23    | 17   | 13   | 16    |
| CFSM  | .45   | 1.09  | 1.05  | 1.02  | 2.41  | 4.70   | 2.37  | 2.76  | .87   | .33  | .29  | .37   |
| IN.   | .52   | 1.22  | 1.21  | 1.18  | 2.52  | 5.43   | 2.65  | 3.18  | .97   | .38  | .33  | .41   |

CAL YR 1970 TOTAL 59,969 MEAN 164 MAX 2,290 MIN 13 CFSM 1.80 IN 24.46  
WTR YR 1971 TOTAL 48,997 MEAN 134 MAX 736 MIN 13 CFSM 1.47 IN 19.99

PEAK DISCHARGE (BASE, 880 CFS).--No peak above base.



01112500 Blackstone River at Woonsocket, R.I.

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

DRAINAGE AREA.--416 sq mi.

PERIOD OF RECORD.--February 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 107.42 ft above mean sea level.

AVERAGE DISCHARGE.--42 years, 709 cfs (23. 14 inches per year), adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 3,090 cfs Mar. 17 (gage height, 5.79 ft); minimum daily, 90 cfs Aug. 26.

Period of record: Maximum discharge, 32,900 cfs Aug. 19, 1955 (gage height, 21.8 ft, from floodmarks), from rating curve extended above 15,000 cfs on basis of slope-area measurement of peak flow, affected by failure of Horseshoe Dam on Mill River; minimum daily, 21 cfs Aug. 11, 1934, flow diverted around station in Hamlet Trench no included.  
Maximum discharge since at least 1645, that of Aug. 19, 1955.

REMARKS.--Records good except those below 150 cfs and those for period of no gage-height record, which are fair. Flow regulated by powerplants, by West Hill Reservoir since May 1961, and by other reservoirs above station. 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, Mass., and prior to July 1964, flow diverted around station in Hamlet Trench. No diversion from Quabbin Reservoir during year. See table below for figures of diversion and table with station 0111200 for month-end contents of West Hill Reservoir.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 781: 1931(M). WSP 871: 1938. WSP 1051: 1931.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC       | JAN    | FEB       | MAR        | APR       | MAY    | JUN    | JUL   | AUG   | SEP   |
|-------------|---------------|----------|-----------|--------|-----------|------------|-----------|--------|--------|-------|-------|-------|
| 1           | 130           | 164      | 332       | 325    | 420       | 2,200      | 1,320     | 866    | 640    | 184   | 304   | 180   |
| 2           | 125           | 189      | 321       | 332    | 400       | 2,110      | 1,220     | 776    | 585    | 232   | 235   | 165   |
| 3           | 135           | 446      | 321       | 325    | 370       | 1,960      | 1,350     | 884    | 585    | 218   | 200   | 150   |
| 4           | 156           | 426      | 600       | 321    | 335       | 2,050      | 1,420     | 1,240  | 665    | 179   | 175   | 140   |
| 5           | 164           | 406      | 576       | 486    | 349       | 2,090      | 1,300     | 1,120  | 605    | 161   | 160   | 130   |
| 6           | 140           | 438      | 500       | 740    | 430       | 1,810      | 1,210     | 955    | 504    | 297   | 150   | 120   |
| 7           | 147           | 339      | 426       | 655    | 442       | 1,670      | 1,440     | 848    | 446    | 184   | 140   | 110   |
| 8           | 140           | 273      | 367       | 558    | 527       | 1,740      | 1,660     | 752    | 442    | 194   | 130   | 105   |
| 9           | 135           | 244      | 342       | 482    | 724       | 1,600      | 1,610     | 848    | 670    | 160   | 120   | 100   |
| 10          | 130           | 263      | 346       | 434    | 740       | 1,440      | 1,620     | 1,240  | 600    | 145   | 130   | 120   |
| 11          | 130           | 276      | 346       | 410    | 645       | 1,410      | 1,530     | 1,380  | 468    | 140   | 150   | 100   |
| 12          | 125           | 406      | 353       | 406    | 595       | 1,330      | 1,440     | 1,170  | 406    | 135   | 215   | 150   |
| 13          | 120           | 356      | 349       | 394    | 752       | 1,270      | 1,320     | 1,140  | 342    | 140   | 210   | 665   |
| 14          | 120           | 482      | 335       | 374    | 1,660     | 1,280      | 1,220     | 1,740  | 318    | 155   | 150   | 486   |
| 15          | 115           | 536      | 342       | 385    | 1,490     | 1,380      | 1,060     | 1,650  | 311    | 189   | 130   | 438   |
| 16          | 156           | 625      | 325       | 370    | 1,260     | 2,260      | 941       | 1,500  | 297    | 165   | 120   | 328   |
| 17          | 184           | 513      | 459       | 350    | 1,090     | 2,940      | 860       | 1,950  | 230    | 152   | 115   | 266   |
| 18          | 140           | 434      | 510       | 345    | 997       | 2,650      | 848       | 1,790  | 269    | 217   | 110   | 232   |
| 19          | 130           | 330      | 625       | 370    | 997       | 2,310      | 884       | 1,520  | 263    | 232   | 105   | 202   |
| 20          | 120           | 410      | 605       | 370    | 1,070     | 2,610      | 872       | 1,300  | 232    | 238   | 130   | 179   |
| 21          | 115           | 572      | 549       | 370    | 1,170     | 2,570      | 824       | 1,150  | 210    | 204   | 140   | 181   |
| 22          | 115           | 540      | 473       | 356    | 1,050     | 2,220      | 764       | 1,170  | 269    | 165   | 115   | 197   |
| 23          | 283           | 446      | 426       | 356    | 1,220     | 2,010      | 691       | 1,050  | 280    | 157   | 105   | 166   |
| 24          | 707           | 450      | 430       | 355    | 1,460     | 1,870      | 645       | 914    | 257    | 145   | 95    | 156   |
| 25          | 464           | 386      | 426       | 335    | 1,290     | 1,720      | 615       | 848    | 227    | 140   | 92    | 150   |
| 26          | 321           | 346      | 402       | 398    | 1,180     | 1,610      | 595       | 735    | 251    | 135   | 90    | 140   |
| 27          | 276           | 318      | 400       | 605    | 1,450     | 1,530      | 595       | 655    | 247    | 130   | 130   | 135   |
| 28          | 232           | 321      | 330       | 570    | 2,060     | 1,450      | 595       | 655    | 191    | 130   | 250   | 135   |
| 29          | 204           | 311      | 355       | 510    | -----     | 1,390      | 718       | 625    | 184    | 125   | 350   | 185   |
| 30          | 189           | 318      | 340       | 459    | -----     | 1,400      | 934       | 585    | 174    | 229   | 250   | 166   |
| 31          | 179           | -----    | 335       | 435    | -----     | 1,370      | -----     | 600    | -----  | 390   | 200   | ----- |
| TOTAL       | 5,827         | 11,624   | 12,996    | 13,181 | 26,163    | 57,250     | 32,101    | 33,606 | 11,218 | 5,667 | 4,996 | 5,977 |
| MEAN        | 188           | 387      | 419       | 425    | 934       | 1,847      | 1,070     | 1,084  | 374    | 183   | 161   | 199   |
| MAX         | 707           | 625      | 625       | 740    | 2,060     | 2,940      | 1,660     | 1,950  | 670    | 390   | 350   | 665   |
| MIN         | 115           | 164      | 321       | 321    | 325       | 1,270      | 595       | 585    | 174    | 125   | 90    | 100   |
| (†)         | 29.7          | 22.1     | 20.7      | 20.9   | 24.7      | 10.4       | 5.54      | 5.59   | 10.8   | 26.5  | 37.7  | 33.7  |
| MEAN‡       | 159           | 366      | 399       | 404    | 911       | 1,836      | 1,063     | 1,078  | 362    | 156   | 123   | 166   |
| CFSM‡       | .38           | .88      | .96       | .97    | 2.19      | 4.41       | 2.56      | 2.59   | .87    | .38   | .30   | .40   |
| IN.‡        | .44           | .98      | 1.10      | 1.12   | 2.28      | 5.09       | 2.85      | 2.99   | .97    | .43   | .34   | .44   |
| CAL YR 1970 | TOTAL 271,998 | MEAN 745 | MAX 7,140 | MIN 29 | MEAN‡ 725 | CFSM‡ 1.74 | IN‡ 23.66 |        |        |       |       |       |
| WTR YR 1971 | TOTAL 220,606 | MEAN 604 | MAX 2,940 | MIN 90 | MEAN‡ 584 | CFSM‡ 1.40 | IN‡ 19.05 |        |        |       |       |       |

PEAK DISCHARGE (BASE, 3,400 CFS).--No peak above base.

† Diversion, in cubic feet per second, from Nashua River basin for municipal supply of Worcester, Mass.; records furnished by city of Worcester.

‡ Adjusted for diversion and for change in contents in West Hill Reservoir.

NOTE.--No gage-height record Aug. 3 to Sept. 12.

## BLACKSTONE RIVER BASIN

01112700 Blackstone River tributary at Woonsocket, R.I.

LOCATION.--Lat 42°00'18", long 71°29'23", Providence County, on left bank at edge of parking lot in Cass Park just off Cass Avenue, at Woonsocket, and 0.5 mile upstream from mouth. Prior to Dec. 8, 1970, at site 0.25 mile upstream.

DRAINAGE AREA.--2.31 sq mi.

PERIOD OF RECORD.--June 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 150 ft (from topographic map). Prior to Dec. 8, 1970, at site 0.25 mile upstream at different datum.

AVERAGE DISCHARGE.--6 years, 3.02 cfs (18.47 inches per year).

EXTREMES.--Current year: Maximum discharge, 69 cfs July 30 (gage height, 2.82 ft); no flow for many days during October.

Period of record: Maximum discharge, 285 cfs Mar. 18, 1968 (gage height, 3.52 ft, site and datum then in use), from rating curve extended above 52 cfs on basis of slope-area measurement at gage height 3.35 ft; no flow for many days during 1965, 1966, 1969, 1970.

REMARKS.--Records good. Recording rain gage at station since June 1966 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG  | SEP   |
|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|------|-------|
| 1     | 0     | .06   | 1.0   | 1.6  | 1.4   | 12    | 3.5   | 3.6   | 2.6   | 1.4   | .19  | .12   |
| 2     | 0     | 3.4   | .98   | 1.7  | 1.3   | 10    | 3.7   | 3.6   | 2.2   | .85   | .17  | .12   |
| 3     | .22   | 7.6   | .88   | 1.7  | 1.1   | 8.7   | 5.5   | 7.1   | 3.5   | .44   | .15  | .13   |
| 4     | .31   | 2.9   | 3.6   | 2.0  | 1.1   | 14    | 4.3   | 6.4   | 2.4   | .36   | .15  | .15   |
| 5     | .02   | 3.3   | 2.1   | 5.0  | 2.4   | 11    | 3.6   | 4.4   | 1.8   | .36   | .15  | .17   |
| 6     | .01   | 1.7   | 1.7   | 4.6  | 4.3   | 8.8   | 3.4   | 3.7   | 1.6   | .32   | .13  | .17   |
| 7     | 0     | 1.2   | 1.2   | 3.4  | 2.6   | 11    | 8.0   | 3.1   | 1.5   | .24   | .13  | .17   |
| 8     | 0     | .85   | 1.1   | 2.5  | 6.8   | 10    | 7.3   | 3.3   | 2.0   | .21   | .15  | .17   |
| 9     | 0     | .82   | 1.1   | 2.1  | 9.0   | 7.9   | 5.9   | 4.2   | 3.6   | .24   | .15  | .13   |
| 10    | 0     | .56   | 1.2   | 2.0  | 4.8   | 6.7   | 5.3   | 6.0   | 2.1   | .19   | .17  | .13   |
| 11    | 0     | 1.2   | 1.2   | 2.0  | 4.1   | 6.9   | 4.4   | 4.2   | 1.5   | .19   | .13  | .13   |
| 12    | 0     | .64   | 1.2   | 2.0  | 4.9   | 6.7   | 4.0   | 3.5   | 1.4   | .17   | .24  | .85   |
| 13    | 0     | 2.6   | 1.1   | 1.7  | 17    | 6.5   | 3.6   | 4.9   | 1.1   | .15   | .13  | 3.9   |
| 14    | 0     | 5.5   | 1.2   | 1.7  | 15    | 7.0   | 4.0   | 4.3   | 1.1   | .19   | .10  | 1.6   |
| 15    | 0     | 3.6   | 1.2   | 1.6  | 8.3   | 7.4   | 3.4   | 3.3   | 1.1   | .15   | .10  | .21   |
| 16    | .47   | 2.6   | 1.1   | 1.5  | 6.6   | 9.2   | 3.2   | 8.2   | .99   | .15   | .10  | .15   |
| 17    | .03   | 1.7   | 7.1   | 1.5  | 5.3   | 8.4   | 3.1   | 8.4   | .92   | .36   | .12  | .15   |
| 18    | 0     | 1.4   | 5.4   | 1.4  | 6.0   | 6.9   | 3.4   | 5.4   | .71   | .28   | .12  | .15   |
| 19    | 0     | 1.3   | 5.0   | 1.3  | 6.5   | 7.9   | 4.0   | 4.4   | .71   | 2.2   | .13  | .15   |
| 20    | 0     | 3.3   | 5.1   | 1.2  | 8.2   | 12    | 2.9   | 3.8   | .64   | .60   | .52  | .15   |
| 21    | 0     | 6.5   | 4.1   | 1.2  | 7.1   | 8.2   | 2.7   | 3.7   | .64   | .15   | .12  | .19   |
| 22    | .01   | 2.8   | 3.2   | 1.3  | 5.4   | 6.4   | 2.7   | 4.1   | .56   | .10   | .12  | .17   |
| 23    | 6.0   | 2.5   | 2.7   | 1.4  | 11    | 5.9   | 2.8   | 3.3   | .48   | .12   | .13  | .17   |
| 24    | 1.5   | 2.0   | 2.5   | 1.4  | 8.6   | 5.3   | 2.3   | 2.8   | .56   | .13   | .12  | .17   |
| 25    | .66   | 1.6   | 2.4   | 1.5  | 6.8   | 4.6   | 2.3   | 2.6   | .52   | .17   | .10  | .17   |
| 26    | .39   | 1.3   | 2.3   | 1.8  | 6.4   | 4.3   | 2.4   | 2.5   | .60   | .15   | .09  | .17   |
| 27    | .23   | 1.2   | 2.2   | 2.2  | 14    | 4.2   | 2.4   | 2.4   | .40   | .17   | .99  | .17   |
| 28    | .17   | 1.2   | 1.9   | 1.8  | 14    | 3.9   | 2.5   | 2.4   | .36   | .19   | .60  | .17   |
| 29    | .11   | 1.2   | 1.8   | 1.6  | ----- | 4.4   | 4.8   | 2.2   | .36   | .19   | .15  | .17   |
| 30    | .08   | 1.3   | 1.8   | 1.7  | ----- | 4.3   | 4.5   | 3.0   | .36   | 2.1   | .12  | .19   |
| 31    | .08   | ----- | 1.6   | 1.6  | ----- | 3.9   | ----- | 3.1   | ----- | .64   | .12  | ----- |
| TOTAL | 10.29 | 67.83 | 70.96 | 60.0 | 190.0 | 234.4 | 115.9 | 127.9 | 38.31 | 13.16 | 5.89 | 10.64 |
| MEAN  | .33   | 2.26  | 2.29  | 1.94 | 6.75  | 7.56  | 3.86  | 4.13  | 1.28  | .42   | .19  | .35   |
| MAX   | 6.0   | 7.6   | 7.1   | 5.0  | 17    | 14    | 8.0   | 8.4   | 3.6   | 2.2   | .99  | 3.9   |
| MIN   | 0     | .06   | .88   | 1.2  | 1.1   | 3.9   | 2.3   | 2.2   | .36   | .10   | .09  | .12   |
| CFSM  | .14   | .98   | .99   | .84  | 2.94  | 3.27  | 1.67  | 1.79  | .55   | .18   | .08  | .15   |
| IN.   | .17   | 1.09  | 1.14  | .57  | 3.06  | 3.77  | 1.87  | 2.06  | .62   | .21   | .09  | .17   |

CAL YR 1970 TOTAL 1,152.39 MEAN 3.16 MAX 51 MIN 0 CFSM 1.37 IN 18.56  
WTR YR 1971 TOTAL 945.28 MEAN 2.59 MAX 17 MIN 0 CFSM 1.12 IN 15.22

## PEAK DISCHARGE (BASE, 55 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 2-13 | 1845 | 2.79  | 65        |      |      |       |           |
| 7-30 | 1615 | 2.82  | 69        |      |      |       |           |

01114000 Moshassuck River at Providence, R.I.

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

DRAINAGE AREA.--23.1 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 7.31 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 34.8 cfs (20.46 inches per year).

EXTREMES.--Current year: Maximum discharge, 607 cfs Aug. 20 (gage height, 2.98 ft); minimum, 4.2 cfs Oct. 11; minimum daily, 4.3 cfs Oct. 11.  
Period of record: Maximum discharge, 2,390 cfs Mar. 18, 1968 (gage height, 4.34 ft), from rating curve extended above 460 cfs; maximum gage height, 4.40 ft Aug. 1, 1967; minimum, 1.3 cfs Aug. 23, 1970; minimum daily, 1.7 cfs Aug. 10, 1970.

REMARKS.--Records good except those for periods of no gage-height record or backwater from tree, which are fair. Occasional regulation at low flow.  
Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Mass., N.H., R.I., Vt., 1970: 1969.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT            | NOV       | DEC     | JAN     | FEB       | MAR      | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|----------------|-----------|---------|---------|-----------|----------|-------|-------|-------|-------|-------|-------|
| 1           | 4.8            | 10        | 19      | 21      | 17        | 82       | 39    | 43    | 37    | 24    | 7.3   | 5.7   |
| 2           | 5.0            | 71        | 18      | 23      | 16        | 71       | 41    | 39    | 32    | 20    | 7.3   | 5.3   |
| 3           | 5.5            | 129       | 17      | 22      | 14        | 66       | 59    | 87    | 44    | 12    | 7.3   | 5.7   |
| 4           | 12             | 42        | 29      | 25      | 13        | 139      | 46    | 74    | 41    | 9.3   | 15    | 5.3   |
| 5           | 5.3            | 58        | 21      | 53      | 30        | 95       | 39    | 56    | 28    | 8.5   | 9.3   | 5.1   |
| 6           | 6.2            | 35        | 19      | 49      | 60        | 72       | 38    | 46    | 24    | 8.5   | 7.7   | 5.3   |
| 7           | 5.7            | 25        | 18      | 34      | 40        | 102      | 113   | 42    | 24    | 8.5   | 6.9   | 5.7   |
| 8           | 5.6            | 22        | 15      | 30      | 60        | 103      | 87    | 58    | 47    | 10    | 5.7   | 7.3   |
| 9           | 5.1            | 21        | 16      | 27      | 130       | 74       | 69    | 76    | 47    | 9.3   | 5.7   | 6.9   |
| 10          | 4.9            | 20        | 19      | 25      | 50        | 62       | 56    | 76    | 28    | 8.5   | 6.1   | 6.5   |
| 11          | 4.3            | 30        | 18      | 26      | 40        | 68       | 50    | 64    | 23    | 7.3   | 7.7   | 6.1   |
| 12          | 4.5            | 24        | 19      | 26      | 35        | 64       | 48    | 51    | 20    | 7.7   | 21    | 18    |
| 13          | 5.5            | 48        | 19      | 23      | 180       | 61       | 47    | 51    | 19    | 7.7   | 6.9   | 7.3   |
| 14          | 6.2            | 41        | 19      | 22      | 130       | 63       | 44    | 51    | 19    | 12    | 5.7   | 35    |
| 15          | 6.2            | 37        | 18      | 21      | 80        | 64       | 42    | 43    | 18    | 8.1   | 5.7   | 9.9   |
| 16          | 26             | 31        | 17      | 19      | 60        | 79       | 42    | 95    | 17    | 7.7   | 5.7   | 7.7   |
| 17          | 11             | 28        | 123     | 17      | 50        | 67       | 46    | 104   | 17    | 19    | 6.5   | 7.3   |
| 18          | 7.4            | 26        | 85      | 17      | 45        | 57       | 42    | 70    | 17    | 18    | 6.5   | 6.9   |
| 19          | 6.9            | 24        | 53      | 16      | 50        | 98       | 44    | 56    | 14    | 50    | 6.9   | 5.7   |
| 20          | 6.7            | 30        | 44      | 15      | 70        | 137      | 43    | 50    | 13    | 28    | 78    | 5.7   |
| 21          | 6.8            | 38        | 37      | 15      | 55        | 78       | 41    | 47    | 13    | 13    | 12    | 18    |
| 22          | 7.0            | 25        | 32      | 16      | 45        | 62       | 42    | 47    | 14    | 9.9   | 8.9   | 7.7   |
| 23          | 122            | 22        | 29      | 18      | 80        | 59       | 38    | 44    | 13    | 9.3   | 12    | 6.9   |
| 24          | 50             | 22        | 30      | 16      | 70        | 55       | 35    | 38    | 13    | 7.7   | 6.1   | 7.3   |
| 25          | 21             | 20        | 28      | 18      | 59        | 56       | 38    | 37    | 13    | 7.3   | 6.1   | 6.5   |
| 26          | 17             | 20        | 25      | 30      | 56        | 55       | 33    | 36    | 14    | 9.3   | 6.1   | 5.7   |
| 27          | 16             | 19        | 25      | 25      | 115       | 51       | 37    | 41    | 10    | 30    | 47    | 6.1   |
| 28          | 14             | 18        | 24      | 20      | 110       | 44       | 36    | 39    | 11    | 9.9   | 15    | 7.3   |
| 29          | 13             | 18        | 23      | 16      | -----     | 42       | 56    | 35    | 11    | 8.1   | 6.9   | 7.7   |
| 30          | 12             | 20        | 21      | 24      | -----     | 42       | 52    | 46    | 11    | 44    | 5.7   | 7.3   |
| 31          | 11             | -----     | 20      | 22      | -----     | 43       | ----- | 42    | ----- | 14    | 6.5   | ----- |
| TOTAL       | 434.6          | 974       | 900     | 731     | 1,760     | 2,211    | 1,443 | 1,684 | 652   | 446.6 | 361.2 | 248.9 |
| MEAN        | 14.0           | 32.5      | 29.0    | 23.6    | 62.9      | 71.3     | 48.1  | 54.3  | 21.7  | 14.4  | 11.7  | 8.30  |
| MAX         | 122            | 129       | 123     | 53      | 180       | 139      | 113   | 104   | 47    | 50    | 78    | 35    |
| MIN         | 4.3            | 10        | 15      | 15      | 13        | 42       | 33    | 35    | 10    | 7.3   | 5.7   | 5.1   |
| CFSM        | .61            | 1.41      | 1.26    | 1.02    | 2.72      | 3.09     | 2.08  | 2.35  | .94   | .62   | .51   | .36   |
| IN.         | .70            | 1.57      | 1.45    | 1.18    | 2.83      | 3.56     | 2.32  | 2.71  | 1.05  | .72   | .58   | .40   |
| CAL YR 1970 | TOTAL 11,656.0 | MEAN 31.9 | MAX 339 | MIN 1.7 | CFSM 1.38 | IN 18.77 |       |       |       |       |       |       |
| WTR YR 1971 | TOTAL 11,846.3 | MEAN 32.5 | MAX 180 | MIN 4.3 | CFSM 1.41 | IN 19.08 |       |       |       |       |       |       |

PEAK DISCHARGE (BASE, 500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 2-13 | -    | -     | Unknown   |      |      |       |           |
| 8-20 | 0645 | 2.98  | 607       |      |      |       |           |

NOTE.--No gage-height record Jan. 13 to Feb. 24.  
Backwater from tree Aug. 23 to Sept. 30.

01114500 Woonasquatucket River at Centerdale, R.I.

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

DRAINAGE AREA.--38.3 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 95 ft (from topographic map).

AVERAGE DISCHARGE.--30 years, 68.4 cfs (24.25 inches per year).

EXTREMES.--Current year: Maximum discharge, 342 cfs Mar. 4 (gage height, 3.89 ft); minimum daily, 15 cfs Oct. 19-22, Sept. 5, 6.  
Period of record: Maximum discharge, 1,440 cfs Mar. 18, 1968 (gage height, 7.75 ft, from floodmarks); minimum daily, 2.1 cfs Aug. 26, 1963.  
Flood of March 1936 reached a discharge of 1,000 cfs, by computation of flow over dam 0.7 mile below station.

REMARKS.--Records good. Some regulation by reservoirs above station; regulation greater prior to 1956. Negligible leakage through bypass canal.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG  | SEP   |
|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|
| 1     | 17   | 17    | 18    | 42    | 35    | 252   | 85    | 77    | 59    | 21   | 20   | 16    |
| 2     | 17   | 26    | 18    | 44    | 32    | 239   | 82    | 74    | 50    | 22   | 19   | 16    |
| 3     | 17   | 42    | 18    | 42    | 29    | 233   | 95    | 107   | 55    | 20   | 19   | 16    |
| 4     | 19   | 25    | 21    | 39    | 28    | 296   | 89    | 118   | 62    | 20   | 20   | 16    |
| 5     | 17   | 28    | 19    | 73    | 37    | 274   | 85    | 104   | 52    | 19   | 19   | 15    |
| 6     | 17   | 22    | 19    | 79    | 48    | 231   | 82    | 94    | 47    | 19   | 19   | 15    |
| 7     | 17   | 20    | 25    | 63    | 44    | 226   | 138   | 87    | 48    | 19   | 19   | 16    |
| 8     | 17   | 19    | 27    | 55    | 73    | 237   | 149   | 86    | 53    | 19   | 18   | 16    |
| 9     | 17   | 18    | 28    | 51    | 105   | 200   | 138   | 102   | 64    | 18   | 18   | 16    |
| 10    | 17   | 18    | 30    | 48    | 85    | 172   | 128   | 113   | 51    | 18   | 17   | 16    |
| 11    | 17   | 19    | 29    | 46    | 66    | 166   | 116   | 106   | 41    | 18   | 18   | 17    |
| 12    | 17   | 18    | 33    | 44    | 63    | 155   | 109   | 97    | 32    | 18   | 19   | 18    |
| 13    | 17   | 21    | 36    | 40    | 113   | 149   | 103   | 94    | 30    | 18   | 17   | 19    |
| 14    | 17   | 23    | 34    | 41    | 225   | 147   | 98    | 99    | 27    | 19   | 17   | 22    |
| 15    | 17   | 22    | 31    | 40    | 131   | 151   | 89    | 88    | 26    | 18   | 18   | 19    |
| 16    | 20   | 20    | 31    | 39    | 108   | 184   | 85    | 115   | 24    | 18   | 18   | 18    |
| 17    | 16   | 19    | 86    | 37    | 98    | 200   | 81    | 169   | 24    | 20   | 17   | 17    |
| 18    | 16   | 19    | 112   | 36    | 99    | 203   | 77    | 141   | 23    | 20   | 17   | 17    |
| 19    | 15   | 19    | 80    | 34    | 103   | 189   | 81    | 125   | 22    | 22   | 17   | 17    |
| 20    | 15   | 20    | 75    | 33    | 125   | 274   | 80    | 111   | 21    | 20   | 20   | 17    |
| 21    | 15   | 23    | 68    | 31    | 138   | 240   | 76    | 100   | 20    | 19   | 18   | 20    |
| 22    | 15   | 20    | 63    | 32    | 118   | 208   | 73    | 98    | 26    | 19   | 18   | 17    |
| 23    | 40   | 19    | 60    | 33    | 167   | 184   | 69    | 89    | 25    | 20   | 17   | 17    |
| 24    | 26   | 18    | 61    | 32    | 169   | 164   | 64    | 81    | 22    | 20   | 17   | 17    |
| 25    | 20   | 18    | 55    | 32    | 144   | 147   | 64    | 76    | 21    | 20   | 17   | 17    |
| 26    | 19   | 17    | 52    | 43    | 135   | 134   | 60    | 71    | 21    | 20   | 17   | 17    |
| 27    | 18   | 18    | 49    | 51    | 208   | 120   | 60    | 67    | 20    | 20   | 23   | 17    |
| 28    | 17   | 18    | 46    | 44    | 255   | 109   | 56    | 63    | 19    | 19   | 20   | 17    |
| 29    | 17   | 18    | 43    | 37    | ----- | 103   | 68    | 60    | 19    | 20   | 17   | 17    |
| 30    | 17   | 19    | 41    | 39    | ----- | 95    | 76    | 61    | 19    | 22   | 16   | 16    |
| 31    | 17   | ----- | 39    | 38    | ----- | 91    | ----- | 64    | ----- | 20   | 16   | ----- |
| TOTAL | 560  | 623   | 1,347 | 1,338 | 2,981 | 5,773 | 2,656 | 2,937 | 1,023 | 605  | 562  | 511   |
| MEAN  | 18.1 | 20.8  | 43.5  | 43.2  | 106   | 186   | 88.5  | 94.7  | 34.1  | 19.5 | 18.1 | 17.0  |
| MAX   | 40   | 42    | 112   | 79    | 255   | 296   | 149   | 169   | 64    | 22   | 23   | 22    |
| MIN   | 15   | 17    | 18    | 31    | 28    | 91    | 56    | 60    | 19    | 18   | 16   | 15    |
| CFSM  | .47  | .54   | 1.14  | 1.13  | 2.77  | 4.86  | 2.31  | 2.47  | .89   | .51  | .47  | .44   |
| IN.   | .54  | .61   | 1.31  | 1.30  | 2.90  | 5.61  | 2.58  | 2.85  | .99   | .59  | .55  | .50   |

CAL YR 1970 TOTAL 25,924 MEAN 71.0 MAX 700 MIN 15 CFSM 1.85 IN 25.18  
WTR YR 1971 TOTAL 20,916 MEAN 57.3 MAX 296 MIN 15 CFSM 1.50 IN 20.32

NOTE.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

0115100 Masquithawk Brook near North Scituate, R.I.

LOCATION.--Lat 41°51'05", long 71°37'24", Providence County, on right bank 10 ft downstream from culvert on Rocky Hill Road, 0.2 mile upstream from mouth, and 2.2 miles northwest of North Scituate.

DRAINAGE AREA.--3.06 sq mi.

PERIOD OF RECORD.--June 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 350 ft (from topographic map).

AVERAGE DISCHARGE.--6 years (1966-71), 5.39 cfs (23.92 inches per year).

EXTREMES.--Current year: Maximum discharge, 78 cfs Feb. 27 (gage height, 2.50 ft); no flow many days in July, August, and September.

Period of record: Maximum discharge, 630 cfs Mar. 18, 1968 (gage height, 3.40 ft), from rating curve extended above 250 cfs; no flow many days during most years.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are fair. Recording rain gage at station since June 1966 (no winter records).

REVISIONS (WATER YEARS).--WRD Mass., N.H., R.I., Vt. 1968: 1967.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV    | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG  | SEP   |
|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|
| 1     | .03   | .50    | 3.0   | 3.4   | 2.9   | 31    | 6.0   | 6.6   | 3.7   | .05  | .04  | 0     |
| 2     | .03   | .82    | 2.9   | 3.4   | 2.4   | 24    | 6.2   | 6.2   | 2.7   | .36  | .02  | 0     |
| 3     | .03   | 8.0    | 2.8   | 3.6   | 2.1   | 19    | 8.0   | 9.0   | 3.0   | .12  | .01  | 0     |
| 4     | .12   | 5.4    | 3.8   | 3.6   | 1.8   | 23    | 11    | 14    | 5.9   | .06  | 0    | 0     |
| 5     | .10   | 5.0    | 5.0   | 9.2   | 2.1   | 22    | 8.0   | 10    | 3.9   | .05  | 0    | 0     |
| 6     | .07   | 4.6    | 4.1   | 24    | 3.0   | 16    | 6.8   | 7.6   | 2.7   | .03  | 0    | 0     |
| 7     | .06   | 3.0    | 3.4   | 10    | 3.7   | 17    | 12    | 6.4   | 2.2   | .03  | 0    | 0     |
| 8     | .05   | 2.3    | 2.8   | 6.2   | 7.0   | 21    | 17    | 6.0   | 2.0   | .01  | 0    | 0     |
| 9     | .04   | 2.0    | 2.8   | 4.8   | 20    | 14    | 14    | 8.2   | 7.1   | 0    | 0    | 0     |
| 10    | .04   | 1.8    | 3.3   | 4.4   | 12    | 11    | 11    | 12    | 4.5   | 0    | 0    | 0     |
| 11    | .04   | 1.9    | 3.3   | 3.8   | 9.0   | 11    | 9.2   | 10    | 2.6   | 0    | 0    | 0     |
| 12    | .05   | 2.1    | 2.9   | 3.5   | 12    | 10    | 7.8   | 7.8   | 1.9   | 0    | 0    | 0     |
| 13    | .05   | 2.5    | 3.0   | 3.3   | 17    | 11    | 7.0   | 7.0   | 1.5   | 0    | 0    | .27   |
| 14    | .05   | 5.6    | 3.4   | 3.1   | 35    | 11    | 6.8   | 8.0   | 1.4   | 0    | 0    | 1.2   |
| 15    | .05   | 5.6    | 3.3   | 3.0   | 25    | 16    | 6.4   | 6.6   | 1.1   | 0    | 0    | .40   |
| 16    | .24   | 5.6    | 2.8   | 2.8   | 17    | 38    | 6.2   | 9.0   | .94   | 0    | 0    | .14   |
| 17    | .27   | 4.1    | 4.1   | 2.7   | 13    | 27    | 5.9   | 16    | .74   | 0    | 0    | .07   |
| 18    | .19   | 3.3    | 5.2   | 2.6   | 10    | 18    | 5.8   | 13    | .57   | 0    | 0    | .05   |
| 19    | .19   | 2.9    | 11    | 2.4   | 10    | 15    | 6.4   | 10    | .44   | 0    | 0    | .04   |
| 20    | .15   | 2.9    | 10    | 2.2   | 14    | 37    | 7.4   | 7.9   | .33   | .09  | 0    | .03   |
| 21    | .14   | 7.6    | 8.0   | 2.2   | 20    | 21    | 5.8   | 7.1   | .27   | .04  | 0    | .09   |
| 22    | .14   | 6.4    | 5.6   | 2.3   | 15    | 15    | 5.2   | 7.6   | .25   | .02  | 0    | .08   |
| 23    | 2.6   | 4.8    | 4.8   | 2.4   | 15    | 12    | 5.0   | 7.6   | .22   | .01  | 0    | .05   |
| 24    | 4.1   | 4.3    | 4.4   | 2.5   | 25    | 11    | 5.2   | 5.7   | .19   | 0    | 0    | .03   |
| 25    | 2.1   | 3.6    | 4.4   | 2.6   | 15    | 9.0   | 4.6   | 4.9   | .14   | 0    | 0    | .02   |
| 26    | 1.3   | 3.1    | 4.3   | 3.1   | 13    | 8.3   | 4.4   | 4.3   | .14   | 0    | 0    | .02   |
| 27    | .95   | 3.0    | 4.1   | 4.3   | 34    | 7.6   | 4.3   | 3.7   | .09   | 0    | 0    | .02   |
| 28    | .76   | 3.0    | 4.0   | 4.0   | 42    | 7.1   | 4.2   | 3.5   | .06   | 0    | .01  | .02   |
| 29    | .65   | 2.9    | 3.7   | 3.6   | ----- | 6.8   | 8.0   | 3.0   | .04   | 0    | .02  | .02   |
| 30    | .60   | 3.0    | 3.7   | 3.0   | ----- | 6.4   | 9.0   | 3.2   | .05   | .01  | 0    | .01   |
| 31    | .50   | -----  | 3.7   | 3.0   | ----- | 6.2   | ----- | 4.3   | ----- | .08  | 0    | ----- |
| TOTAL | 15.69 | 111.62 | 133.6 | 135.0 | 398.0 | 502.4 | 224.6 | 236.2 | 50.67 | .96  | .10  | 2.56  |
| MEAN  | .51   | 3.72   | 4.31  | 4.35  | 14.2  | 16.2  | 7.49  | 7.62  | 1.69  | .031 | .003 | .085  |
| MAX   | 4.1   | 8.0    | 11    | 24    | 42    | 38    | 17    | 16    | 7.1   | .36  | .04  | 1.2   |
| MIN   | .03   | .50    | 2.8   | 2.2   | 1.8   | 6.2   | 4.2   | 3.0   | .04   | 0    | 0    | 0     |
| CFSM  | .17   | 1.22   | 1.41  | 1.42  | 4.64  | 5.29  | 2.45  | 2.49  | .55   | .01  | .001 | .03   |
| IN.   | .19   | 1.36   | 1.62  | 1.64  | 4.84  | 6.11  | 2.73  | 2.87  | .62   | .01  | .001 | .03   |

CAL YR 1970 TOTAL 1,964.34 MEAN 5.38 MAX 117 MIN 0 CFSM 1.76 IN 23.88  
WTR YR 1971 TOTAL 1,811.40 MEAN 4.96 MAX 42 MIN 0 CFSM 1.62 IN 22.02

PEAK DISCHARGE (BASE, 60 CFS, REVISED)

NOTE.--No gage-height record Mar. 30 to May 19.

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 2-27 | 2015 | 2.50  | 78        |      |      |       |           |

01115630 Nooseneck River at Nooseneck, R.I.

LOCATION.--Lat 41°37'36", long 71°37'59", Kent County, on right bank at upstream side of bridge on State Highway 3 at Nooseneck and 5.5 miles southwest of Washington.

DRAINAGE AREA.--8.23 sq mi.

PERIOD OF RECORD.--1961-63 (occasional low-flow measurements), November 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 265 ft (from topographic map).

AVERAGE DISCHARGE.--7 years (1964-71), 15.7 cfs (25.91 inches per year).

EXTREMES.--Current year: Maximum discharge, 102 cfs Feb. 14 (gage height, 4.15 ft); minimum, not determined; minimum daily, 2.0 cfs Sept. 5-7. Period of record: Maximum discharge, 318 cfs Mar. 18, 1968 (gage height, 6.13 ft); minimum, 0.81 cfs Sept. 8, 9, 1964.

REMARKS.--Records good except those for period of no gage-height record, which are fair.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY  | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| 1     | 3.0   | 5.8   | 9.8   | 10    | 8.7   | 43    | 20    | 20   | 16    | 5.3   | 6.6   | 2.4   |
| 2     | 2.8   | 11    | 9.4   | 10    | 8.4   | 37    | 19    | 19   | 14    | 8.0   | 5.6   | 2.3   |
| 3     | 2.8   | 52    | 9.0   | 10    | 8.0   | 34    | 30    | 33   | 14    | 6.3   | 5.1   | 2.2   |
| 4     | 3.9   | 20    | 11    | 10    | 7.7   | 52    | 25    | 33   | 14    | 5.5   | 5.4   | 2.1   |
| 5     | 3.4   | 22    | 11    | 35    | 8.4   | 45    | 22    | 25   | 13    | 5.2   | 5.7   | 2.0   |
| 6     | 3.4   | 16    | 10    | 37    | 23    | 36    | 20    | 22   | 12    | 4.8   | 5.0   | 2.0   |
| 7     | 3.3   | 13    | 9.5   | 22    | 17    | 44    | 51    | 21   | 11    | 4.5   | 4.3   | 2.0   |
| 8     | 3.3   | 12    | 9.0   | 17    | 29    | 51    | 50    | 21   | 11    | 4.2   | 4.1   | 2.2   |
| 9     | 3.3   | 11    | 8.5   | 14    | 36    | 37    | 35    | 30   | 14    | 3.8   | 3.8   | 3.0   |
| 10    | 3.3   | 9.4   | 9.0   | 13    | 23    | 33    | 30    | 26   | 13    | 3.6   | 3.4   | 3.0   |
| 11    | 3.3   | 10    | 8.8   | 12    | 17    | 33    | 28    | 23   | 11    | 3.4   | 3.4   | 2.7   |
| 12    | 3.3   | 10    | 9.0   | 12    | 17    | 33    | 26    | 22   | 11    | 3.4   | 4.7   | 3.9   |
| 13    | 3.4   | 15    | 9.6   | 12    | 33    | 32    | 26    | 20   | 10    | 3.1   | 3.9   | 10    |
| 14    | 3.4   | 35    | 9.6   | 11    | 65    | 31    | 23    | 20   | 9.7   | 3.8   | 3.5   | 13    |
| 15    | 3.6   | 20    | 9.0   | 11    | 32    | 33    | 23    | 18   | 9.3   | 3.4   | 3.2   | 7.4   |
| 16    | 8.4   | 19    | 8.4   | 10    | 26    | 39    | 23    | 25   | 8.8   | 3.3   | 3.1   | 6.1   |
| 17    | 7.1   | 15    | 20    | 9.4   | 24    | 34    | 22    | 38   | 8.5   | 3.3   | 2.9   | 5.6   |
| 18    | 5.3   | 13    | 50    | 8.6   | 23    | 30    | 21    | 26   | 8.0   | 3.1   | 2.7   | 5.1   |
| 19    | 5.1   | 12    | 30    | 8.0   | 24    | 29    | 21    | 23   | 7.3   | 11    | 2.6   | 4.6   |
| 20    | 4.6   | 12    | 22    | 7.5   | 27    | 57    | 20    | 21   | 7.1   | 38    | 4.6   | 4.1   |
| 21    | 4.6   | 19    | 18    | 7.2   | 28    | 38    | 19    | 20   | 7.0   | 11    | 3.6   | 5.1   |
| 22    | 4.6   | 14    | 16    | 8.0   | 24    | 32    | 18    | 21   | 6.8   | 8.7   | 3.2   | 4.8   |
| 23    | 24    | 13    | 15    | 8.6   | 39    | 30    | 18    | 19   | 6.8   | 7.7   | 2.7   | 4.1   |
| 24    | 30    | 12    | 15    | 8.8   | 33    | 28    | 17    | 17   | 6.4   | 7.0   | 2.5   | 3.9   |
| 25    | 11    | 11    | 14    | 8.7   | 27    | 26    | 17    | 16   | 5.7   | 6.8   | 2.2   | 3.6   |
| 26    | 8.7   | 11    | 13    | 13    | 26    | 25    | 17    | 16   | 5.8   | 6.8   | 2.4   | 3.3   |
| 27    | 8.0   | 10    | 12    | 13    | 58    | 24    | 16    | 15   | 5.4   | 6.7   | 3.5   | 3.3   |
| 28    | 7.4   | 10    | 12    | 9.8   | 56    | 23    | 16    | 14   | 5.0   | 5.8   | 4.0   | 3.1   |
| 29    | 6.8   | 10    | 11    | 9.6   | ----- | 23    | 22    | 14   | 5.0   | 5.6   | 3.2   | 3.0   |
| 30    | 6.4   | 10    | 10    | 13    | ----- | 22    | 22    | 16   | 4.9   | 7.4   | 2.9   | 2.8   |
| 31    | 6.1   | ----- | 10    | 11    | ----- | 21    | ----- | 17   | ----- | 8.1   | 2.6   | ----- |
| TOTAL | 197.6 | 453.2 | 418.6 | 390.2 | 748.2 | 1,055 | 717   | 671  | 281.5 | 208.6 | 116.4 | 122.7 |
| MEAN  | 6.37  | 15.1  | 13.5  | 12.6  | 26.7  | 34.0  | 23.9  | 21.6 | 9.38  | 6.73  | 3.75  | 4.09  |
| MAX   | 30    | 52    | 50    | 37    | 65    | 57    | 51    | 38   | 16    | 38    | 6.6   | 13    |
| MIN   | 2.8   | 5.8   | 8.4   | 7.2   | 7.7   | 21    | 16    | 14   | 4.9   | 3.1   | 2.2   | 2.0   |
| CFSM  | .77   | 1.83  | 1.64  | 1.53  | 3.24  | 4.13  | 2.90  | 2.62 | 1.14  | .82   | .46   | .50   |
| IN.   | .89   | 2.05  | 1.85  | 1.76  | 3.38  | 4.77  | 3.24  | 3.03 | 1.27  | .94   | .53   | .55   |

CAL YR 1970 TOTAL 6,713.8 MEAN 18.4 MAX 145 MIN 2.5 CFSM 2.24 IN 30.35  
 WTR YR 1971 TOTAL 5,380.0 MEAN 14.7 MAX 65 MIN 2.0 CFSM 1.79 IN 24.32

PEAK DISCHARGE (BASE, 130 CFS).--No peak above base.

NOTE.--No gage-height record Nov. 25 to Jan. 15.



01115770 Carr River near Nooseneck, R.I.

LOCATION.--Lat 41°38'35", long 71°36'30", Kent County, on left bank at upstream side of bridge on Burnt Sawmill Road, 1.5 miles northeast of Nooseneck, and 4 miles southwest of Washington.

DRAINAGE AREA.--6.73 sq mi.

PERIOD OF RECORD.--1961-63 (occasional low-flow measurements), November 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 250 ft (from topographic map). Prior to Nov. 27, 1963, reference point at site 75 ft upstream at datum 9 ft higher.

AVERAGE DISCHARGE.--7 years (1964-71), 10.0 cfs (20.18 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 56 cfs Apr. 7 (gage height, 4.47 ft); maximum gage height, 4.61 ft Feb. 14 (backwater from debris); minimum discharge, 0.84 cfs Sept. 7, 10; minimum daily, 0.84 cfs Sept. 7.  
Period of record: Maximum discharge, 221 cfs Mar. 18, 1968 (gage height, 6.50 ft); minimum, 0.30 cfs Aug. 25, 26, 1968; minimum daily, 0.36 cfs Aug. 18, Sept. 12, 1965.

REMARKS.--Records good. Flow regulated by Carr Pond and other ponds above station. Diversion from Carr Pond for municipal supply of Coventry, Warwick, and West Warwick.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR  | APR   | MAY   | JUN   | JUL   | AUG  | SEP   |
|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|------|-------|
| 1     | 3.2   | 4.3   | 6.4   | 7.4   | 6.4   | 32   | 13    | 13    | 11    | 3.2   | 3.9  | 1.1   |
| 2     | 2.9   | 8.8   | 6.4   | 6.9   | 5.9   | 25   | 13    | 12    | 10    | 5.2   | 3.2  | 1.1   |
| 3     | 2.5   | 41    | 5.9   | 7.2   | 5.4   | 22   | 18    | 16    | 9.5   | 4.9   | 2.8  | 1.0   |
| 4     | 2.5   | 33    | 7.2   | 7.7   | 4.7   | 30   | 18    | 22    | 9.5   | 4.4   | 2.8  | 1.0   |
| 5     | 2.5   | 24    | 7.2   | 22    | 5.4   | 33   | 15    | 18    | 8.9   | 3.9   | 3.0  | 1.0   |
| 6     | 2.3   | 14    | 6.7   | 26    | 9.1   | 27   | 14    | 14    | 8.2   | 3.9   | 3.0  | 1.0   |
| 7     | 2.3   | 9.5   | 6.4   | 19    | 9.3   | 27   | 33    | 12    | 7.8   | 3.6   | 2.7  | .94   |
| 8     | 2.3   | 7.9   | 5.7   | 12    | 17    | 32   | 39    | 12    | 8.2   | 3.4   | 2.4  | .90   |
| 9     | 2.2   | 6.9   | 5.4   | 9.3   | 31    | 28   | 26    | 16    | 10    | 3.4   | 2.2  | .95   |
| 10    | 2.2   | 6.4   | 5.9   | 7.9   | 24    | 23   | 20    | 16    | 9.8   | 3.4   | 1.9  | .95   |
| 11    | 2.2   | 6.7   | 5.9   | 8.1   | 13    | 22   | 18    | 14    | 8.2   | 3.4   | 1.7  | .90   |
| 12    | 2.2   | 7.2   | 5.9   | 8.1   | 9.1   | 22   | 16    | 13    | 7.4   | 3.4   | 2.1  | 1.1   |
| 13    | 2.0   | 10    | 6.4   | 7.4   | 21    | 22   | 30    | 12    | 7.4   | 3.2   | 1.9  | 1.7   |
| 14    | 1.9   | 25    | 6.4   | 6.9   | 49    | 21   | 24    | 12    | 7.0   | 3.4   | 1.8  | 4.6   |
| 15    | 1.9   | 22    | 5.9   | 6.9   | 34    | 22   | 15    | 12    | 6.6   | 3.2   | 1.7  | 3.6   |
| 16    | 3.2   | 16    | 5.4   | 6.9   | 22    | 26   | 13    | 13    | 5.6   | 2.8   | 1.7  | 2.7   |
| 17    | 3.9   | 11    | 21    | 6.4   | 15    | 25   | 12    | 22    | 5.6   | 2.8   | 1.6  | 2.4   |
| 18    | 3.6   | 8.6   | 33    | 5.7   | 14    | 21   | 11    | 19    | 4.9   | 4.4   | 1.6  | 2.1   |
| 19    | 3.2   | 7.9   | 35    | 5.4   | 15    | 20   | 11    | 15    | 4.9   | 8.2   | 1.5  | 1.8   |
| 20    | 2.8   | 7.7   | 30    | 5.0   | 17    | 33   | 8.8   | 13    | 4.9   | 20    | 1.8  | 1.8   |
| 21    | 2.6   | 10    | 23    | 4.7   | 19    | 30   | 11    | 12    | 4.6   | 12    | 1.9  | 2.1   |
| 22    | 2.6   | 8.8   | 21    | 5.2   | 15    | 25   | 11    | 12    | 4.6   | 7.0   | 1.8  | 2.1   |
| 23    | 16    | 8.1   | 20    | 5.9   | 23    | 21   | 10    | 12    | 4.6   | 4.6   | 1.6  | 1.8   |
| 24    | 26    | 7.4   | 16    | 6.2   | 25    | 18   | 4.4   | 11    | 4.6   | 3.9   | 1.3  | 1.6   |
| 25    | 15    | 6.9   | 12    | 6.4   | 20    | 17   | 8.2   | 11    | 4.6   | 3.6   | 1.1  | 1.5   |
| 26    | 9.1   | 6.7   | 9.7   | 7.7   | 16    | 16   | 9.5   | 10    | 3.5   | 3.9   | 1.1  | 1.4   |
| 27    | 7.2   | 6.4   | 8.6   | 8.1   | 28    | 16   | 10    | 10    | 2.1   | 4.4   | 1.2  | 1.4   |
| 28    | 5.9   | 6.4   | 7.9   | 6.9   | 37    | 15   | 10    | 9.5   | 2.7   | 3.4   | 1.8  | 1.4   |
| 29    | 5.4   | 6.4   | 7.4   | 6.2   | ----- | 15   | 12    | 9.5   | 3.0   | 3.0   | 1.9  | 1.3   |
| 30    | 4.7   | 6.4   | 6.9   | 6.4   | ----- | 15   | 15    | 10    | 3.0   | 3.4   | 1.6  | 1.3   |
| 31    | 4.3   | ----- | 6.9   | 6.7   | ----- | 14   | ----- | 11    | ----- | 4.1   | 1.4  | ----- |
| TOTAL | 150.6 | 351.4 | 357.5 | 262.6 | 510.3 | 715  | 468.9 | 414.0 | 192.7 | 147.4 | 62.0 | 48.44 |
| MEAN  | 4.86  | 11.7  | 11.5  | 8.47  | 18.2  | 23.1 | 15.6  | 13.4  | 6.42  | 4.75  | 2.00 | 1.61  |
| MAX   | 26    | 41    | 35    | 26    | 49    | 33   | 39    | 22    | 11    | 20    | 3.9  | 4.6   |
| MIN   | 1.9   | 4.3   | 5.4   | 4.7   | 4.7   | 14   | 4.4   | 9.5   | 2.1   | 2.8   | 1.1  | .84   |
| MEAN† | 6.25  | 13.0  | 12.9  | 9.78  | 19.5  | 24.3 | 16.9  | 14.4  | 7.47  | 5.91  | 2.87 | 2.47  |
| CFSM† | .93   | 1.93  | 1.92  | 1.45  | 2.90  | 3.61 | 2.51  | 2.14  | 1.11  | .88   | .43  | .37   |
| IN†   | 1.07  | 2.16  | 2.20  | 1.68  | 3.01  | 4.16 | 2.80  | 2.46  | 1.24  | 1.01  | .49  | .41   |

CAL YR 1970 TOTAL 4,320.0 MEAN 11.8 MAX 75 MIN 1.7 MEAN† 13.0 CFSM† 1.93 IN† 26.25  
WTR YR 1971 TOTAL 3,680.84 MEAN 10.1 MAX 49 MIN .84 MEAN† 11.2 CFSM† 1.66 IN† 22.70

PEAK DISCHARGE (BASE, 65 CFS).--No peak above base.

† Adjusted for diversion from Carr Pond for municipal supply of Coventry, Warwick, and West Warwick. Records of diversion furnished by Kent County Water Authority.

01116000 South Branch Pawtuxet River at Washington, R. I.

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

DRAINAGE AREA.--63.8 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 217.76 ft above mean sea level.

AVERAGE DISCHARGE.--31 years, 125 cfs (26.61 inches per year), adjusted for diversion and storage.

EXTREMES.--Current year: Maximum discharge, 337 cfs Mar. 5 (gage height, 2.54 ft); minimum daily, 3.4 cfs Oct. 11.

Period of record: Maximum discharge, 1,860 cfs Mar. 18, 1968 (gage height, 5.13 ft); minimum daily, 2.8 cfs Aug. 27, 1944.

Flood in March 1936 reached a discharge of 1,810 cfs, by computation of flow over dam just above gage.

REMARKS.--Records good except those below 30 cfs, which are fair. Flow regulated by Flat River Reservoir 2 miles upstream (usable capacity, 250,000,000 cu ft) and smaller reservoirs. Diversion above station from Carr Pond for municipal supply of Coventry, Warwick, and West Warwick. See table below for figures of diversion and monthend contents.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT            | NOV       | DEC     | JAN     | FEB        | MAR         | APR         | MAY   | JUN   | JUL     | AUG     | SEP     |
|-------------|----------------|-----------|---------|---------|------------|-------------|-------------|-------|-------|---------|---------|---------|
| 1           | 49             | 12        | 74      | 128     | 114        | 257         | 134         | 108   | 131   | 64      | 12      | 51      |
| 2           | 47             | 67        | 123     | 128     | 114        | 270         | 120         | 134   | 102   | 66      | 76      | 49      |
| 3           | 4.5            | 91        | 135     | 128     | 113        | 268         | 127         | 211   | 93    | 10      | 60      | 49      |
| 4           | 11             | 71        | 138     | 125     | 111        | 300         | 175         | 232   | 90    | 6.7     | 60      | 6.7     |
| 5           | 58             | 73        | 135     | 142     | 115        | 328         | 186         | 182   | 49    | 17      | 62      | 3.7     |
| 6           | 45             | 15        | 135     | 139     | 89         | 308         | 167         | 159   | 76    | 78      | 60      | 9.7     |
| 7           | 45             | 11        | 84      | 135     | 37         | 287         | 253         | 141   | 102   | 44      | 9.1     | 60      |
| 8           | 47             | 34        | 76      | 132     | 126        | 317         | 317         | 102   | 93    | 40      | 4.5     | 49      |
| 9           | 45             | 96        | 77      | 132     | 138        | 308         | 304         | 182   | 117   | 40      | 10      | 47      |
| 10          | 5.3            | 58        | 77      | 128     | 128        | 274         | 232         | 232   | 111   | 7.9     | 71      | 47      |
| 11          | 3.4            | 23        | 79      | 128     | 125        | 257         | 178         | 167   | 96    | 13      | 57      | 6.3     |
| 12          | 11             | 71        | 11      | 128     | 67         | 244         | 194         | 155   | 47    | 73      | 58      | 10      |
| 13          | 56             | 67        | 48      | 125     | 86         | 236         | 175         | 152   | 71    | 46      | 55      | 60      |
| 14          | 49             | 25        | 132     | 125     | 159        | 232         | 171         | 145   | 96    | 47      | 7.9     | 60      |
| 15          | 49             | 29        | 132     | 125     | 143        | 232         | 163         | 96    | 73    | 44      | 11      | 49      |
| 16          | 50             | 78        | 132     | 125     | 139        | 236         | 138         | 141   | 66    | 46      | 66      | 49      |
| 17          | 6.0            | 69        | 152     | 122     | 135        | 249         | 93          | 270   | 62    | 8.5     | 55      | 49      |
| 18          | 12             | 67        | 157     | 122     | 137        | 249         | 127         | 215   | 60    | 9.1     | 53      | 6.0     |
| 19          | 56             | 69        | 147     | 122     | 137        | 244         | 152         | 182   | 11    | 85      | 53      | 10      |
| 20          | 47             | 76        | 144     | 119     | 140        | 274         | 131         | 153   | 26    | 73      | 57      | 55      |
| 21          | 47             | 16        | 139     | 119     | 141        | 300         | 127         | 148   | 83    | 62      | 7.9     | 50      |
| 22          | 45             | 33        | 136     | 66      | 149        | 278         | 120         | 114   | 66    | 60      | 10      | 46      |
| 23          | 65             | 93        | 135     | 9.3     | 213        | 253         | 108         | 141   | 62    | 62      | 64      | 46      |
| 24          | 22             | 73        | 142     | 30      | 210        | 240         | 62          | 145   | 62    | 11      | 49      | 46      |
| 25          | 19             | 67        | 139     | 111     | 208        | 219         | 105         | 124   | 64    | 13      | 53      | 5.0     |
| 26          | 67             | 26        | 139     | 117     | 195        | 90          | 120         | 111   | 10    | 78      | 55      | 10      |
| 27          | 50             | 74        | 135     | 115     | 238        | 34          | 105         | 102   | 15    | 60      | 55      | 50      |
| 28          | 52             | 9.9       | 135     | 110     | 247        | 108         | 105         | 93    | 78    | 60      | 10      | 44      |
| 29          | 52             | 32        | 132     | 77      | -----      | 159         | 120         | 53    | 62    | 60      | 11      | 44      |
| 30          | 52             | 83        | 132     | 11      | -----      | 138         | 138         | 76    | 62    | 71      | 64      | 44      |
| 31          | 6.8            | -----     | 132     | 33      | -----      | 138         | -----       | 114   | ----- | 13      | 51      | -----   |
| TOTAL       | 1,174.0        | 1,603.9   | 3,684   | 3,356.3 | 3,954      | 7,327       | 4,647       | 4,590 | 2,136 | 1,368.2 | 1,327.4 | 1,111.4 |
| MEAN        | 37.9           | 53.5      | 119     | 108     | 141        | 236         | 155         | 148   | 71.2  | 44.1    | 42.8    | 37.0    |
| MAX         | 67             | 96        | 157     | 142     | 247        | 328         | 317         | 270   | 131   | 85      | 76      | 60      |
| MIN         | 3.4            | 9.9       | 11      | 9.3     | 37         | 34          | 62          | 53    | 10    | 6.7     | 4.5     | 3.7     |
| (†)         | 1.39           | 1.30      | 1.33    | 1.31    | 1.25       | 1.18        | 1.28        | 1.00  | 1.05  | 1.15    | .87     | .85     |
| (‡)         | 106.0          | 229.5     | 206.5   | 102.0   | 240.0      | 257.5       | 261.0       | 257.5 | 229.5 | 210.0   | 149.0   | 96.0    |
| MEAN††      | 36.8           | 102       | 112     | 70.6    | 200        | 244         | 158         | 148   | 61.4  | 38.0    | 20.9    | 17.4    |
| CFSM††      | .58            | 1.60      | 1.76    | 1.11    | 3.13       | 3.82        | 2.48        | 2.32  | .96   | .60     | .33     | .27     |
| IN.††       | .67            | 1.79      | 2.02    | 1.28    | 3.26       | 4.41        | 2.76        | 2.67  | 1.07  | .69     | .38     | .31     |
| CAL YR 1970 | TOTAL 45,035.0 | MEAN 123  | MAX 971 | MIN 3.4 | MEAN†† 123 | CFSM†† 1.93 | INT†† 26.22 |       |       |         |         |         |
| WTR YR 1971 | TOTAL 36,279.2 | MEAN 99.4 | MAX 328 | MIN 3.4 | MEAN†† 100 | CFSM†† 1.57 | INT†† 21.29 |       |       |         |         |         |

† Diversion, in cubic feet per second, from Carr Pond for municipal supply of Coventry, Warwick, and West Warwick; records furnished by Kent County Water Authority.

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

†† Adjusted for diversion and change in reservoir contents.

01116300 Furnace Hill Brook at Cranston, R.I.

LOCATION.--Lat 41°45'23", long 71°29'52", Providence County, on left bank 30 ft downstream from bridge on Phenix Avenue at Cranston and 1.0 mile upstream from mouth.

DRAINAGE AREA.--4.19 sq mi.

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 145 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 7.20 cfs (23.34 inches per year).

EXTREMES.--Current year: Maximum discharge, 78 cfs Feb. 27 (gage height, 3.10 ft); minimum, 0.01 cfs Oct. 1, 2.

Period of record: Maximum discharge, 586 cfs Mar. 18, 1968 (gage height, 4.67 ft); no flow Aug. 18, 1965, and many days during summer of 1966.

REMARKS.--Records good. Recording rain gage at station since June 1966 (no winter records).

REVISIONS (WATER YEARS).--WRD Mass., N.H., R.I., Vt. 1968: 1967.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | .02   | 1.1   | 3.5   | 4.1   | 2.7   | 28    | 4.2   | 10    | 3.5   | .66   | .73   | .55   |
| 2     | .13   | 3.5   | 3.5   | 4.3   | 2.3   | 23    | 4.0   | 9.6   | 2.7   | .80   | .41   | .45   |
| 3     | .22   | 30    | 3.4   | 4.5   | 2.1   | 18    | 12    | 28    | 2.5   | .59   | .30   | .45   |
| 4     | .41   | 12    | 5.1   | 4.5   | 1.9   | 41    | 8.9   | 21    | 2.5   | .55   | .41   | .52   |
| 5     | .32   | 14    | 4.9   | 20    | 2.5   | 27    | 6.4   | 13    | 2.0   | .48   | .41   | .41   |
| 6     | .32   | 9.4   | 4.5   | 19    | 3.5   | 20    | 5.6   | 9.6   | 1.7   | .45   | .27   | .30   |
| 7     | .36   | 6.5   | 3.7   | 11    | 5.0   | 32    | 30    | 8.1   | 1.4   | .37   | .21   | .34   |
| 8     | .41   | 5.4   | 2.7   | 7.9   | 10    | 29    | 25    | 9.3   | 8.9   | .27   | .20   | .52   |
| 9     | .41   | 4.7   | 2.7   | 6.5   | 23    | 18    | 18    | 23    | 30    | .21   | .15   | .45   |
| 10    | .41   | 4.5   | 3.2   | 6.0   | 16    | 14    | 13    | 20    | 11    | .21   | .15   | .44   |
| 11    | .41   | 6.3   | 3.4   | 5.8   | 11    | 12    | 10    | 15    | 5.3   | .20   | .17   | .50   |
| 12    | .41   | 6.0   | 3.5   | 5.8   | 14    | 12    | 8.5   | 11    | 3.5   | .20   | .41   | .90   |
| 13    | .41   | 8.4   | 3.5   | 4.4   | 34    | 14    | 7.3   | 9.6   | 2.7   | .18   | .21   | 1.7   |
| 14    | .41   | 21    | 3.5   | 3.8   | 32    | 15    | 7.0   | 11    | 2.1   | .27   | .18   | .90   |
| 15    | .48   | 11    | 3.5   | 3.6   | 21    | 18    | 6.1   | 7.7   | 1.9   | .20   | .37   | .28   |
| 16    | .82   | 9.4   | 3.2   | 3.4   | 15    | 29    | 5.6   | 23    | 1.7   | .17   | .73   | .14   |
| 17    | .55   | 6.5   | 23    | 3.1   | 12    | 19    | 5.3   | 34    | 1.3   | .23   | 1.2   | .12   |
| 18    | .62   | 5.1   | 29    | 3.1   | 12    | 14    | 5.2   | 18    | 1.2   | .23   | 1.2   | .10   |
| 19    | .69   | 4.7   | 18    | 2.7   | 15    | 17    | 6.4   | 12    | 1.0   | 1.0   | 1.3   | .10   |
| 20    | .75   | 4.9   | 17    | 2.4   | 19    | 37    | 5.2   | 9.6   | .87   | .66   | 2.0   | .12   |
| 21    | .75   | 9.4   | 12    | 2.1   | 15    | 19    | 4.7   | 7.7   | .80   | .37   | .94   | .16   |
| 22    | .75   | 6.8   | 8.4   | 2.1   | 13    | 13    | 4.5   | 8.1   | .73   | .27   | 1.1   | .14   |
| 23    | 11    | 6.0   | 7.6   | 2.2   | 30    | 11    | 4.3   | 6.4   | .73   | .23   | 1.0   | .13   |
| 24    | 11    | 4.7   | 7.6   | 2.5   | 23    | 8.9   | 4.5   | 5.0   | .66   | .21   | 1.0   | .13   |
| 25    | 4.1   | 4.1   | 6.8   | 2.8   | 16    | 7.0   | 4.2   | 4.2   | .59   | .20   | .94   | .13   |
| 26    | 2.9   | 3.7   | 6.0   | 3.3   | 17    | 6.7   | 4.1   | 3.8   | .66   | .18   | .87   | .13   |
| 27    | 2.0   | 3.5   | 5.6   | 3.8   | 45    | 6.1   | 4.0   | 3.3   | .55   | .30   | 1.0   | .13   |
| 28    | 1.7   | 3.4   | 5.1   | 4.0   | 39    | 5.6   | 3.9   | 3.1   | .48   | .20   | 1.2   | .13   |
| 29    | 1.4   | 3.2   | 4.5   | 4.0   | ----- | 5.6   | 15    | 2.5   | .45   | .17   | .94   | .13   |
| 30    | 1.3   | 3.5   | 4.5   | 3.6   | ----- | 5.3   | 13    | 3.6   | .45   | .87   | .73   | .15   |
| 31    | 1.1   | ----- | 4.1   | 3.1   | ----- | 4.7   | ----- | 4.4   | ----- | 1.2   | .73   | ----- |
| TOTAL | 46.56 | 222.7 | 217.0 | 159.4 | 452.0 | 529.9 | 255.9 | 354.6 | 93.87 | 12.13 | 21.46 | 10.65 |
| MEAN  | 1.50  | 7.42  | 7.00  | 5.14  | 16.1  | 17.1  | 8.53  | 11.4  | 3.13  | .39   | .69   | .36   |
| MAX   | 11    | 30    | 29    | 20    | 45    | 41    | 30    | 34    | 30    | 1.2   | 2.0   | 1.7   |
| MIN   | .02   | 1.1   | 2.7   | 2.1   | 1.9   | 4.7   | 3.9   | 2.5   | .45   | .17   | .15   | .10   |
| CFSM  | .36   | 1.77  | 1.67  | 1.23  | 3.84  | 4.08  | 2.04  | 2.72  | .75   | .09   | .16   | .09   |
| IV.   | .41   | 1.98  | 1.93  | 1.42  | 4.01  | 4.70  | 2.27  | 3.15  | .83   | .11   | .19   | .09   |

CAL YR 1970 TOTAL 2,341.21 MEAN 6.41 MAX 165 MIN .02 CFSM 1.53 IN 20.79  
 WTR YR 1971 TOTAL 2,376.17 MEAN 6.51 MAX 45 MIN .02 CFSM 1.55 IN 21.10

PEAK DISCHARGE (BASE, 135 CFS, REVISED).--No peaks above base.

01116500 Pawtuxet River at Cranston, R. I.

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

DRAINAGE AREA.--200 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 8.00 ft above mean sea level.

AVERAGE DISCHARGE.--31 years (1940-71), 393 cfs (26.68 inches per year), adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 1,190 cfs Feb. 14 (gage height, 6.96 ft); minimum daily, 53 cfs July 12.

Period of record: Maximum discharge, 3,110 cfs Mar. 18, 1968 (gage height, 11.53 ft); minimum daily, 22 cfs Sept. 4, 1944.

REMARKS.--Records good. Flow regulated by powerplants and by Scituate Reservoir 13 miles upstream, Flat River Reservoir, and other reservoirs (combined usable capacity, about 6 billion cubic feet). Diversion above station 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. Records of chemical analyses and water temperature for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 971: 1940-42. WSP 1381: 1940-41(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY    | OCT   | NOV   | DEC   | JAN   | FEB    | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|--------|-------|-------|-------|-------|--------|--------|--------|--------|-------|-------|-------|-------|
| 1      | 124   | 71    | 202   | 262   | 189    | 498    | 396    | 256    | 262   | 126   | 84    | 116   |
| 2      | 121   | 370   | 205   | 248   | 230    | 491    | 362    | 240    | 219   | 164   | 75    | 114   |
| 3      | 95    | 540   | 255   | 240   | 225    | 473    | 386    | 475    | 195   | 124   | 106   | 119   |
| 4      | 82    | 305   | 293   | 255   | 220    | 737    | 332    | 737    | 198   | 67    | 167   | 116   |
| 5      | 78    | 347   | 262   | 407   | 305    | 701    | 413    | 697    | 144   | 59    | 129   | 88    |
| 6      | 114   | 243   | 240   | 403   | 354    | 606    | 394    | 614    | 136   | 55    | 119   | 80    |
| 7      | 116   | 173   | 233   | 328   | 186    | 631    | 652    | 523    | 183   | 93    | 109   | 73    |
| 8      | 116   | 139   | 189   | 305   | 437    | 695    | 909    | 257    | 205   | 86    | 80    | 84    |
| 9      | 119   | 212   | 195   | 278   | 641    | 599    | 844    | 351    | 433   | 84    | 67    | 116   |
| 10     | 111   | 170   | 202   | 259   | 381    | 543    | 763    | 445    | 251   | 88    | 61    | 124   |
| 11     | 71    | 126   | 205   | 270   | 301    | 519    | 548    | 406    | 212   | 59    | 97    | 111   |
| 12     | 65    | 180   | 167   | 274   | 293    | 502    | 445    | 322    | 153   | 53    | 153   | 93    |
| 13     | 59    | 266   | 134   | 266   | 455    | 487    | 613    | 320    | 134   | 78    | 124   | 88    |
| 14     | 97    | 233   | 192   | 266   | 836    | 451    | 594    | 327    | 176   | 88    | 111   | 328   |
| 15     | 116   | 153   | 255   | 270   | 385    | 466    | 409    | 249    | 153   | 84    | 80    | 186   |
| 16     | 147   | 226   | 251   | 248   | 332    | 550    | 382    | 293    | 142   | 78    | 71    | 131   |
| 17     | 129   | 202   | 628   | 230   | 309    | 553    | 320    | 625    | 134   | 82    | 100   | 124   |
| 18     | 69    | 195   | 603   | 235   | 316    | 540    | 273    | 814    | 134   | 63    | 114   | 129   |
| 19     | 71    | 189   | 396   | 240   | 332    | 533    | 357    | 671    | 106   | 126   | 116   | 106   |
| 20     | 104   | 222   | 358   | 235   | 358    | 808    | 361    | 599    | 86    | 370   | 236   | 84    |
| 21     | 80    | 195   | 339   | 240   | 362    | 567    | 349    | 560    | 111   | 131   | 126   | 134   |
| 22     | 106   | 131   | 324   | 233   | 320    | 546    | 343    | 289    | 121   | 104   | 88    | 111   |
| 23     | 619   | 219   | 316   | 142   | 543    | 546    | 332    | 259    | 124   | 104   | 86    | 106   |
| 24     | 161   | 205   | 339   | 119   | 480    | 516    | 219    | 301    | 121   | 95    | 129   | 106   |
| 25     | 97    | 198   | 301   | 176   | 411    | 498    | 202    | 255    | 126   | 71    | 119   | 116   |
| 26     | 150   | 150   | 282   | 289   | 403    | 414    | 271    | 240    | 111   | 69    | 114   | 95    |
| 27     | 136   | 173   | 270   | 278   | 580    | 286    | 248    | 219    | 84    | 100   | 170   | 75    |
| 28     | 131   | 153   | 278   | 255   | 580    | 248    | 241    | 219    | 78    | 102   | 150   | 95    |
| 29     | 131   | 126   | 278   | 235   | -----  | 377    | 296    | 164    | 109   | 104   | 102   | 95    |
| 30     | 136   | 164   | 274   | 180   | -----  | 381    | 321    | 186    | 142   | 139   | 90    | 97    |
| 31     | 86    | ----- | 270   | 129   | -----  | 373    | -----  | 198    | ----- | 134   | 114   | ----- |
| TOTAL  | 3,837 | 6,281 | 8,736 | 7,795 | 10,764 | 16,135 | 12,575 | 12,111 | 4,783 | 3,180 | 3,487 | 3,440 |
| MEAN   | 124   | 209   | 282   | 251   | 384    | 520    | 419    | 391    | 159   | 103   | 112   | 115   |
| MAX    | 619   | 540   | 628   | 407   | 836    | 808    | 909    | 814    | 433   | 370   | 236   | 328   |
| MIN    | 59    | 71    | 134   | 119   | 186    | 248    | 202    | 164    | 78    | 53    | 61    | 73    |
| (†)    | 86.1  | 79.8  | 82.8  | 83.9  | 87.5   | 87.7   | 85.6   | 86.5   | 118   | 116   | 108   | 101   |
| (‡)    | 4,078 | 4,130 | 4,175 | 4,194 | 4,723  | 5,355  | 5,391  | 5,456  | 5,228 | 4,868 | 4,488 | 4,214 |
| MEAN†† | 119   | 357   | 373   | 303   | 748    | 851    | 520    | 500    | 178   | 77.0  | 55.8  | 90.0  |
| CFSM†† | .60   | 1.78  | 1.86  | 1.52  | 3.74   | 4.26   | 2.60   | 2.50   | .89   | .38   | .28   | .45   |
| IN.††  | .69   | 1.99  | 2.15  | 1.75  | 3.89   | 4.90   | 2.90   | 2.89   | 1.00  | .44   | .32   | .50   |

CAL YR 1970 TOTAL 127,957 MEAN 351 MAX 2,590 MIN 59 MEAN†† 403 CFSM†† 2.02 IN†† 27.38  
WTR YR 1971 TOTAL 93,124 MEAN 255 MAX 909 MIN 53 MEAN†† 345 CFSM†† 1.72 IN†† 23.43

† Diversion, in cubic feet per second, from Scituate Reservoir for municipal supply of Providence, North Providence, Cranston, Johnston, Smithfield, Warwick, West Warwick, and Coventry.

‡ Monthend contents, in millions of cubic feet, in Scituate Reservoir and 5 smaller reservoirs.

†† Adjusted for diversion and change in contents in Flat River Reservoir and in Scituate Reservoir and 5 smaller reservoirs. Records of diversion and monthend contents furnished by Providence Water Supply Board and Quidnick Reservoir Co.

01117000 Potowomut River near East Greenwich, R.I.

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

DRAINAGE AREA.--23.0 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 5.42 ft above mean sea level, datum of 1929.

AVERAGE DISCHARGE.--31 years, 42.0 cfs.

EXTREMES.--Current year: Maximum discharge, 297 cfs Feb. 14 (gage height, 2.25 ft); minimum not determined, occurred June 18 (due to closing of gate at Old Forge Dam).

Period of record: Maximum discharge, 866 cfs Mar. 18, 1968 (gage height, 3.36 ft), from rating curve extended above 440 cfs; maximum gage height, 6.78 ft Aug. 31, 1954 (backwater from hurricane tidal wave); no flow Oct. 24-26, 1947, Aug. 28-30, 1960 (due to closing of gate at Old Forge Dam).

Maximum stage since at least 1915, about 8.5 ft Sept. 21, 1938 (backwater from hurricane tidal wave), from information by resident of area since 1915.

REMARKS.--Records good prior to Mar. 15, fair thereafter. Diversions above station for supply of East Greenwich, North Kingstown, Warwick, and U.S. Naval establishments; see table below for figures of diversion.

REVISIONS (WATER YEARS).--WSP 1621: 1957-58.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT            | NOV       | DEC     | JAN     | FEB      | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|----------------|-----------|---------|---------|----------|-------|-------|-------|-------|-------|-------|-------|
| 1           | 4.2            | 5.1       | 29      | 35      | 27       | 114   | 41    | 46    | 36    | 9.5   | 12    | 5.1   |
| 2           | 3.4            | 16        | 26      | 35      | 23       | 94    | 40    | 39    | 31    | 11    | 9.2   | 2.8   |
| 3           | 4.2            | 114       | 25      | 36      | 21       | 85    | 60    | 72    | 28    | 11    | 7.4   | 1.6   |
| 4           | 9.1            | 80        | 32      | 36      | 19       | 153   | 55    | 91    | 25    | 9.5   | 7.4   | 1.6   |
| 5           | 6.0            | 71        | 34      | 55      | 42       | 156   | 52    | 69    | 23    | 8.4   | 8.2   | 2.8   |
| 6           | 4.2            | 57        | 23      | 114     | 83       | 116   | 47    | 54    | 21    | 7.4   | 7.0   | 3.8   |
| 7           | 3.8            | 40        | 29      | 78      | 58       | 119   | 109   | 46    | 20    | 7.4   | 6.4   | 1.7   |
| 8           | 3.5            | 31        | 25      | 56      | 128      | 152   | 123   | 43    | 28    | 6.4   | 5.9   | 1.6   |
| 9           | 3.3            | 25        | 24      | 47      | 187      | 115   | 87    | 74    | 21    | 6.4   | 5.4   | 1.6   |
| 10          | 3.6            | 21        | 25      | 43      | 110      | 93    | 69    | 70    | 19    | 6.4   | 5.8   | 1.6   |
| 11          | 4.2            | 25        | 24      | 43      | 63       | 94    | 61    | 60    | 18    | 6.4   | 6.2   | 1.6   |
| 12          | 4.6            | 26        | 27      | 43      | 55       | 100   | 55    | 51    | 17    | 5.4   | 8.3   | 1.6   |
| 13          | 5.1            | 34        | 28      | 38      | 97       | 100   | 51    | 45    | 16    | 5.4   | 6.4   | 3.3   |
| 14          | 4.8            | 52        | 27      | 34      | 236      | 93    | 48    | 48    | 15    | 6.4   | 7.2   | 11    |
| 15          | 5.7            | 73        | 25      | 34      | 124      | 87    | 46    | 44    | 13    | 6.4   | 6.8   | 11    |
| 16          | 14             | 61        | 23      | 31      | 80       | 83    | 43    | 53    | 12    | 17    | 6.9   | 7.8   |
| 17          | 13             | 47        | 75      | 27      | 66       | 78    | 43    | 113   | 11    | 7.2   | 7.9   | 4.4   |
| 18          | 9.8            | 38        | 149     | 27      | 64       | 74    | 42    | 82    | 5.0   | 5.6   | 7.4   | 4.4   |
| 19          | 6.8            | 33        | 102     | 24      | 68       | 72    | 41    | 62    | 10    | 14    | 4.2   | 4.4   |
| 20          | 5.6            | 33        | 81      | 23      | 76       | 100   | 41    | 54    | 12    | 94    | 1.6   | 3.3   |
| 21          | 4.9            | 53        | 65      | 22      | 85       | 120   | 40    | 47    | 14    | 45    | 1.7   | 3.8   |
| 22          | 5.2            | 46        | 54      | 24      | 70       | 95    | 39    | 47    | 12    | 19    | 6.8   | 2.8   |
| 23          | 44             | 39        | 48      | 27      | 123      | 80    | 38    | 46    | 12    | 12    | 3.8   | 2.8   |
| 24          | 87             | 34        | 52      | 26      | 125      | 70    | 37    | 41    | 12    | 9.0   | 2.4   | 2.8   |
| 25          | 39             | 30        | 50      | 28      | 89       | 62    | 36    | 37    | 12    | 8.0   | 2.8   | 1.6   |
| 26          | 23             | 27        | 45      | 44      | 77       | 58    | 35    | 35    | 12    | 8.2   | 5.1   | 1.6   |
| 27          | 16             | 27        | 42      | 46      | 119      | 52    | 34    | 34    | 11    | 8.5   | 5.9   | 1.7   |
| 28          | 13             | 27        | 39      | 30      | 156      | 49    | 34    | 32    | 9.5   | 7.9   | 7.8   | 1.6   |
| 29          | 11             | 27        | 37      | 25      | -----    | 46    | 47    | 30    | 9.5   | 7.4   | 7.8   | 1.6   |
| 30          | 9.8            | 25        | 35      | 35      | -----    | 44    | 57    | 35    | 9.5   | 13    | 7.8   | 1.6   |
| 31          | 10             | -----     | 33      | 35      | -----    | 42    | ----- | 42    | ----- | 14    | 5.1   | ----- |
| TOTAL       | 381.8          | 1,265.1   | 1,342   | 1,253   | 2,471    | 2,796 | 1,551 | 1,642 | 494.5 | 403.2 | 194.9 | 98.9  |
| MEAN        | 12.3           | 42.2      | 43.3    | 40.4    | 88.3     | 90.2  | 51.7  | 53.0  | 16.5  | 13.0  | 6.29  | 3.30  |
| MAX         | 87             | 114       | 149     | 114     | 236      | 156   | 123   | 113   | 36    | 94    | 12    | 11    |
| MIN         | 3.3            | 9.1       | 23      | 22      | 19       | 42    | 34    | 30    | 5.0   | 5.4   | 1.6   | 1.6   |
| (†)         | 6.93           | 6.24      | 6.27    | 6.93    | 6.68     | 7.03  | 6.82  | 7.23  | 10.6  | 11.0  | 9.26  | 8.10  |
| CAL YR 1970 | TOTAL 17,844.2 | MEAN 46.5 | MAX 520 | MIN 2.8 | (†) 7.40 |       |       |       |       |       |       |       |
| WTR YR 1971 | TOTAL 13,893.4 | MEAN 38.1 | MAX 236 | MIN 1.6 | (†) 7.77 |       |       |       |       |       |       |       |

## PEAK DISCHARGE (BASE, 190 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 2-9  | 0700 | 2.00  | 206       |      |      |       |           |
| 2-14 | 0200 | 2.25  | 297       |      |      |       |           |
| 3-4  | 1700 | 1.96  | 194       |      |      |       |           |

† Diversions, in cubic feet per second, for supplies of East Greenwich, North Kingstown, Warwick, and U.S. Naval establishments; records furnished by U.S. Navy and Kent County Water Authority.

01117500 Pawcatuck River at Wood River Junction, R. I.

LOCATION.--Lat 41°26' 42", long 71°40' 53", Washington County, on right bank at downstream side of bridge on Alton-Carolina road, 0.8 mile northeast of Wood River Junction, 1.5 miles southwest of Carolina, and 2.9 miles upstream from Wood River.

DRAINAGE AREA.--100 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 43.84 ft above mean sea level.

AVERAGE DISCHARGE.--31 years, 186 cfs (25.26 inches per year).

EXTREMES.--Current year: Maximum discharge, 521 cfs Mar. 6 (gage height, 4.55 ft); minimum, 25 cfs Aug. 12; minimum daily, 32 cfs Sept. 30.  
Period of record: Maximum discharge, 1,700 cfs Mar. 19, 1968 (gage height, 7.80 ft); minimum, 7.4 cfs Oct. 10, 1947; minimum daily, 15 cfs Oct. 11, 1947.

REMARKS.--Records good. Occasional regulation at low flow by powerplant and mills above station; regulation greater prior to 1969.

REVISIONS (WATER YEARS).--WSP 1051: Drainage area. WSP 1201: 1948.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT   | NOV    | DEC   | JAN   | FEB   | MAR    | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|-------|--------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|
| 1           | 64    | 95     | 174   | 184   | 151   | 507    | 235   | 219   | 177   | 77    | 77    | 43    |
| 2           | 62    | 102    | 172   | 184   | 143   | 490    | 230   | 211   | 169   | 78    | 72    | 41    |
| 3           | 62    | 204    | 167   | 187   | 134   | 453    | 240   | 253   | 167   | 80    | 68    | 40    |
| 4           | 68    | 268    | 172   | 189   | 130   | 480    | 255   | 305   | 165   | 77    | 66    | 40    |
| 5           | 68    | 316    | 174   | 282   | 147   | 507    | 255   | 317   | 162   | 74    | 69    | 39    |
| 6           | 67    | 307    | 174   | 354   | 192   | 521    | 240   | 297   | 150   | 71    | 66    | 39    |
| 7           | 64    | 273    | 167   | 369   | 199   | 514    | 310   | 267   | 145   | 68    | 64    | 37    |
| 8           | 62    | 236    | 156   | 345   | 339   | 510    | 400   | 245   | 139   | 65    | 59    | 37    |
| 9           | 59    | 204    | 151   | 305   | 441   | 502    | 420   | 279   | 143   | 63    | 56    | 40    |
| 10          | 58    | 187    | 153   | 273   | 408   | 482    | 380   | 297   | 139   | 61    | 55    | 39    |
| 11          | 58    | 184    | 151   | 256   | 367   | 461    | 350   | 297   | 131   | 59    | 50    | 36    |
| 12          | 58    | 184    | 147   | 246   | 316   | 451    | 320   | 279   | 126   | 59    | 49    | 37    |
| 13          | 56    | 197    | 147   | 231   | 311   | 437    | 299   | 255   | 122   | 56    | 60    | 41    |
| 14          | 55    | 282    | 151   | 218   | 451   | 424    | 279   | 245   | 126   | 57    | 55    | 45    |
| 15          | 56    | 326    | 151   | 210   | 462   | 408    | 259   | 229   | 122   | 57    | 52    | 46    |
| 16          | 67    | 347    | 143   | 202   | 448   | 390    | 247   | 239   | 115   | 54    | 50    | 45    |
| 17          | 74    | 326    | 207   | 182   | 400   | 370    | 237   | 311   | 112   | 51    | 49    | 43    |
| 18          | 76    | 296    | 300   | 174   | 354   | 360    | 227   | 339   | 107   | 51    | 48    | 42    |
| 19          | 74    | 268    | 358   | 163   | 333   | 340    | 223   | 331   | 103   | 57    | 48    | 40    |
| 20          | 71    | 246    | 400   | 153   | 328   | 410    | 219   | 301   | 102   | 90    | 60    | 37    |
| 21          | 67    | 261    | 380   | 149   | 347   | 440    | 211   | 267   | 100   | 126   | 63    | 39    |
| 22          | 64    | 256    | 339   | 149   | 347   | 430    | 203   | 251   | 97    | 128   | 57    | 37    |
| 23          | 99    | 253    | 300   | 153   | 374   | 410    | 195   | 239   | 95    | 109   | 54    | 36    |
| 24          | 184   | 234    | 280   | 158   | 400   | 370    | 189   | 225   | 92    | 86    | 50    | 35    |
| 25          | 199   | 210    | 265   | 158   | 409   | 340    | 185   | 211   | 92    | 77    | 48    | 33    |
| 26          | 187   | 194    | 265   | 169   | 390   | 310    | 183   | 197   | 87    | 72    | 46    | 33    |
| 27          | 158   | 189    | 241   | 184   | 417   | 290    | 181   | 189   | 84    | 68    | 50    | 34    |
| 28          | 128   | 184    | 226   | 163   | 486   | 275    | 179   | 183   | 83    | 65    | 55    | 34    |
| 29          | 112   | 179    | 210   | 158   | ----- | 260    | 191   | 175   | 80    | 63    | 50    | 33    |
| 30          | 104   | 177    | 157   | 156   | ----- | 250    | 211   | 173   | 78    | 66    | 46    | 32    |
| 31          | 99    | -----  | 187   | 163   | ----- | 240    | ----- | 177   | ----- | 75    | 44    | ----- |
| TOTAL       | 2,680 | 6,985  | 6,705 | 6,467 | 9,224 | 12,632 | 7,553 | 7,803 | 3,610 | 2,240 | 1,736 | 1,153 |
| MEAN        | 86.5  | 233    | 216   | 209   | 329   | 407    | 252   | 252   | 120   | 72.3  | 56.0  | 38.4  |
| MAX         | 199   | 347    | 400   | 369   | 486   | 521    | 420   | 339   | 177   | 128   | 77    | 46    |
| MIN         | 55    | 95     | 143   | 149   | 130   | 240    | 179   | 173   | 78    | 51    | 44    | 32    |
| CFSM        | .87   | 2.33   | 2.16  | 2.05  | 3.29  | 4.07   | 2.52  | 2.52  | 1.20  | .72   | .56   | .38   |
| IN.         | 1.00  | 2.60   | 2.49  | 2.41  | 3.43  | 4.70   | 2.81  | 2.90  | 1.34  | .83   | .65   | .43   |
| CAL YR 1970 | TOTAL | 82,761 | MEAN  | 227   | MAX   | 588    | MIN   | 51    | CFSM  | 2.27  | IN    | 30.79 |
| WTR YR 1971 | TOTAL | 68,788 | MEAN  | 188   | MAX   | 521    | MIN   | 32    | CFSM  | 1.88  | IN    | 25.59 |



01117600 Meadow Brook near Carolina, R. I.

LOCATION.--Lat 41°27'59", long 71°41'26", Washington County, on right bank 50 ft upstream from culvert on Pine Hill Road and 1.5 miles northwest of Carolina.

DRAINAGE AREA.--5.53 sq mi.

PERIOD OF RECORD.--June 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 75 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 8.62 cfs (21.17 inches per year).

EXTREMES.--Current year: Maximum discharge, 35 cfs Feb. 27 (gage height, 3.79 ft); minimum, 0.14 cfs Sept. 30.

Period of record: Maximum discharge, 164 cfs Mar. 18, 1968 (gage height, 6.07 ft), from rating curve extended above 84 cfs; minimum, 0.07 cfs Sept. 12, 13, 1965, Sept. 19, 1968.

REMARKS.--Records good. Recording rain gage at station since June 1966 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR  | APR   | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|------|-------|-------|
| 1     | .96   | 2.4   | 7.9   | 8.0   | 6.4   | 28   | 12    | 9.9   | 7.7   | 2.2  | 1.6   | .52   |
| 2     | .96   | 3.2   | 7.7   | 8.0   | 5.9   | 24   | 12    | 9.2   | 7.2   | 3.5  | 1.3   | .49   |
| 3     | .91   | 13    | 7.4   | 8.0   | 5.4   | 22   | 13    | 14    | 7.2   | 3.0  | 1.1   | .46   |
| 4     | 1.1   | 16    | 8.3   | 8.2   | 5.2   | 28   | 13    | 18    | 7.5   | 2.5  | 1.5   | .46   |
| 5     | 1.1   | 15    | 8.6   | 18    | 6.2   | 31   | 12    | 16    | 6.9   | 2.2  | 1.8   | .46   |
| 6     | .91   | 14    | 8.2   | 23    | 9.5   | 27   | 12    | 13    | 6.4   | 2.0  | 1.4   | .43   |
| 7     | .86   | 11    | 7.5   | 19    | 9.2   | 26   | 22    | 11    | 5.9   | 1.8  | 1.1   | .43   |
| 8     | .82   | 9.0   | 6.8   | 15    | 19    | 31   | 26    | 11    | 5.3   | 1.7  | .96   | .43   |
| 9     | .82   | 7.7   | 6.6   | 12    | 27    | 27   | 22    | 15    | 5.9   | 1.6  | .86   | .40   |
| 10    | .82   | 6.9   | 6.6   | 11    | 20    | 24   | 19    | 15    | 5.7   | 1.5  | .77   | .37   |
| 11    | .82   | 7.2   | 6.5   | 10    | 13    | 23   | 17    | 13    | 5.0   | 1.4  | .73   | .37   |
| 12    | .82   | 7.7   | 6.5   | 9.5   | 11    | 23   | 15    | 12    | 4.6   | 1.4  | 1.6   | .37   |
| 13    | .73   | 8.8   | 6.5   | 9.0   | 15    | 23   | 15    | 11    | 4.6   | 1.3  | 1.1   | .46   |
| 14    | .73   | 17    | 6.5   | 9.2   | 31    | 22   | 14    | 11    | 5.5   | 1.4  | .91   | .91   |
| 15    | .68   | 18    | 6.4   | 7.7   | 24    | 21   | 13    | 10    | 5.4   | 1.4  | .82   | .77   |
| 16    | 1.5   | 17    | 5.7   | 7.3   | 18    | 21   | 13    | 12    | 4.8   | 1.3  | .77   | .64   |
| 17    | 2.0   | 15    | 14    | 6.5   | 14    | 20   | 12    | 18    | 4.4   | 1.2  | .68   | .55   |
| 18    | 1.5   | 13    | 26    | 6.2   | 14    | 18   | 11    | 17    | 4.2   | 1.2  | .61   | .52   |
| 19    | 1.3   | 12    | 23    | 5.7   | 15    | 17   | 11    | 14    | 3.8   | 3.2  | .58   | .46   |
| 20    | 1.1   | 11    | 20    | 5.5   | 15    | 25   | 11    | 12    | 3.7   | 15   | 1.1   | .43   |
| 21    | 1.1   | 13    | 17    | 5.3   | 18    | 25   | 11    | 11    | 3.6   | 9.2  | 1.0   | .43   |
| 22    | 1.1   | 13    | 15    | 5.6   | 18    | 22   | 10    | 11    | 3.5   | 4.2  | .77   | .43   |
| 23    | 4.8   | 12    | 13    | 6.2   | 21    | 20   | 9.7   | 10    | 3.3   | 2.5  | .68   | .37   |
| 24    | 10    | 10    | 13    | 6.0   | 24    | 18   | 9.3   | 9.7   | 3.2   | 1.8  | .61   | .31   |
| 25    | 9.2   | 9.4   | 13    | 6.4   | 20    | 17   | 9.3   | 9.2   | 2.9   | 1.6  | .58   | .28   |
| 26    | 6.1   | 8.7   | 12    | 7.4   | 18    | 16   | 9.2   | 9.0   | 2.6   | 1.6  | .55   | .26   |
| 27    | 4.5   | 8.5   | 11    | 8.8   | 25    | 15   | 8.8   | 8.5   | 2.4   | 1.6  | .61   | .24   |
| 28    | 3.6   | 8.3   | 9.9   | 7.2   | 34    | 15   | 8.6   | 8.5   | 2.2   | 1.4  | .86   | .22   |
| 29    | 3.0   | 8.1   | 9.0   | 6.9   | ----- | 14   | 9.9   | 8.2   | 2.0   | 1.1  | .77   | .20   |
| 30    | 2.7   | 7.9   | 8.5   | 7.2   | ----- | 13   | 11    | 8.0   | 1.9   | 1.9  | .58   | .16   |
| 31    | 2.5   | ----- | 8.0   | 7.2   | ----- | 13   | ----- | 8.0   | ----- | 2.2  | .55   | ----- |
| TOTAL | 69.04 | 323.8 | 326.1 | 280.0 | 461.8 | 669  | 391.8 | 363.2 | 139.3 | 79.9 | 28.85 | 12.83 |
| MEAN  | 2.23  | 10.8  | 10.5  | 9.03  | 16.5  | 21.6 | 13.1  | 11.7  | 4.64  | 2.58 | .93   | .43   |
| MAX   | 10    | 18    | 26    | 23    | 34    | 31   | 26    | 18    | 7.7   | 15   | 1.8   | .91   |
| MIN   | .68   | 2.4   | 5.7   | 5.3   | 5.2   | 13   | 8.6   | 8.0   | 1.9   | 1.1  | .55   | .16   |
| CFSM  | .40   | 1.95  | 1.90  | 1.63  | 2.98  | 3.91 | 2.37  | 2.12  | .84   | .47  | .17   | .09   |
| IN.   | .46   | 2.18  | 2.19  | 1.88  | 3.11  | 4.50 | 2.64  | 2.44  | .94   | .54  | .19   | .09   |

CAL YR 1970 TOTAL 3,760.98 MEAN 10.3 MAX 86 MIN .55 CFSM 1.86 IN 25.30  
 WTR YR 1971 TOTAL 3,145.62 MEAN 8.62 MAX 34 MIN .16 CFSM 1.56 IN 21.16

PEAK DISCHARGE (BASE, 36 CFS, REVISED).--No peak above base.

01117800 Wood River near Arcadia, R.I.

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

DRAINAGE AREA.--35.2 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 130 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 62.5 cfs (24.11 inches per year).

EXTREMES.--Current year: Maximum discharge, 233 cfs Feb. 14 (gage height, 5.02 ft); minimum, 10 cfs Aug. 24, 25, 26, 27, Sept. 4, 5, 6, 7, 8, 9. Period of record: Maximum discharge, 896 cfs Mar. 18, 1968 (gage height, 8.64 ft); minimum, about 5.8 cfs about Sept. 8, 9, 1964.

REMARKS.--Records good. Records of suspended-sediment loads for the water year 1971 are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG  | SEP   |
|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|
| 1     | 15   | 17    | 41    | 42    | 37    | 196   | 80    | 82    | 57    | 23   | 26   | 12    |
| 2     | 15   | 26    | 40    | 43    | 34    | 171   | 82    | 80    | 53    | 30   | 23   | 11    |
| 3     | 14   | 111   | 37    | 42    | 31    | 150   | 105   | 115   | 53    | 26   | 21   | 11    |
| 4     | 17   | 81    | 45    | 42    | 29    | 175   | 115   | 124   | 65    | 23   | 21   | 11    |
| 5     | 15   | 84    | 47    | 84    | 36    | 171   | 105   | 110   | 57    | 22   | 22   | 10    |
| 6     | 14   | 68    | 45    | 95    | 48    | 157   | 96    | 100   | 43    | 21   | 20   | 10    |
| 7     | 13   | 57    | 41    | 82    | 47    | 166   | 160   | 91    | 41    | 20   | 18   | 11    |
| 8     | 13   | 47    | 35    | 76    | 73    | 186   | 190   | 87    | 40    | 19   | 17   | 10    |
| 9     | 13   | 40    | 35    | 66    | 99    | 165   | 160   | 105   | 47    | 19   | 16   | 11    |
| 10    | 12   | 35    | 36    | 62    | 99    | 146   | 140   | 104   | 46    | 17   | 15   | 14    |
| 11    | 12   | 36    | 35    | 57    | 82    | 139   | 125   | 101   | 41    | 17   | 15   | 12    |
| 12    | 12   | 36    | 37    | 53    | 82    | 133   | 115   | 94    | 38    | 17   | 18   | 15    |
| 13    | 12   | 46    | 39    | 48    | 107   | 129   | 110   | 89    | 38    | 17   | 17   | 30    |
| 14    | 12   | 94    | 37    | 48    | 219   | 125   | 102   | 88    | 38    | 18   | 16   | 42    |
| 15    | 12   | 86    | 35    | 45    | 183   | 127   | 97    | 80    | 35    | 17   | 15   | 30    |
| 16    | 17   | 81    | 32    | 41    | 141   | 139   | 93    | 94    | 34    | 16   | 14   | 23    |
| 17    | 18   | 73    | 75    | 39    | 111   | 140   | 90    | 129   | 32    | 16   | 13   | 20    |
| 18    | 15   | 63    | 97    | 38    | 102   | 131   | 86    | 118   | 29    | 16   | 13   | 18    |
| 19    | 14   | 56    | 85    | 36    | 100   | 124   | 87    | 106   | 28    | 33   | 12   | 16    |
| 20    | 14   | 53    | 82    | 33    | 107   | 190   | 84    | 93    | 27    | 79   | 16   | 15    |
| 21    | 13   | 72    | 76    | 32    | 117   | 174   | 81    | 86    | 27    | 41   | 14   | 18    |
| 22    | 13   | 78    | 69    | 34    | 111   | 155   | 78    | 84    | 26    | 30   | 13   | 19    |
| 23    | 46   | 73    | 64    | 36    | 134   | 138   | 75    | 80    | 25    | 25   | 12   | 19    |
| 24    | 76   | 65    | 65    | 35    | 138   | 124   | 73    | 74    | 25    | 22   | 11   | 16    |
| 25    | 51   | 56    | 59    | 35    | 127   | 114   | 74    | 71    | 24    | 22   | 11   | 14    |
| 26    | 37   | 49    | 55    | 42    | 119   | 108   | 72    | 68    | 24    | 22   | 10   | 14    |
| 27    | 30   | 45    | 52    | 48    | 172   | 104   | 70    | 62    | 22    | 22   | 13   | 13    |
| 28    | 24   | 42    | 47    | 44    | 213   | 100   | 69    | 54    | 22    | 20   | 16   | 13    |
| 29    | 22   | 42    | 44    | 39    | ----- | 97    | 83    | 53    | 22    | 19   | 15   | 12    |
| 30    | 20   | 42    | 42    | 42    | ----- | 88    | 86    | 56    | 21    | 23   | 13   | 12    |
| 31    | 18   | ----- | 41    | 40    | ----- | 82    | ----- | 59    | ----- | 29   | 13   | ----- |
| TOTAL | 629  | 1,754 | 1,571 | 1,499 | 2,888 | 4,345 | 2,983 | 2,738 | 1,080 | 741  | 489  | 481   |
| MEAN  | 20.3 | 58.5  | 50.7  | 48.4  | 103   | 140   | 99.4  | 88.3  | 36.0  | 23.9 | 15.8 | 16.0  |
| MAX   | 76   | 111   | 97    | 95    | 219   | 196   | 190   | 129   | 65    | 79   | 26   | 42    |
| MIN   | 12   | 17    | 32    | 32    | 29    | 82    | 69    | 53    | 21    | 16   | 10   | 10    |
| CFSM  | .58  | 1.66  | 1.44  | 1.38  | 2.93  | 3.98  | 2.82  | 2.51  | 1.02  | .68  | .45  | .45   |
| IN.   | .66  | 1.85  | 1.66  | 1.58  | 3.05  | 4.59  | 3.15  | 2.89  | 1.14  | .78  | .52  | .51   |

CAL YR 1970 TOTAL 27,149 MEAN 74.4 MAX 504 MIN 12 CFSM 2.11 IN 28.69  
WTR YR 1971 TOTAL 21,198 MEAN 58.1 MAX 219 MIN 10 CFSM 1.65 IN 22.40

PEAK DISCHARGE (BASE, 250 CFS).--No peak above base.

01118000 Wood River at Hope Valley, R. I.

LOCATION.--Lat 41°29'53", long 71°43'01", Washington County, on right bank 0.2 mile downstream from highway bridge at Hope Valley and 6.6 miles upstream from mouth.

DRAINAGE AREA.--72.4 sq mi.

PERIOD OF RECORD.--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.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 65 ft (from topographic map). August to December 1909, nonrecording gage at site 1,000 ft upstream at different datum.

AVERAGE DISCHARGE.--30 years, 145 cfs (27.20 inches per year).

EXTREMES.--Current year: Maximum discharge, 483 cfs Feb. 14, 28 (gage height, 4.06 ft); minimum, 16 cfs Oct. 15, 16.

Period of record: Maximum discharge, 1,720 cfs Mar. 18, 1968 (gage height, 8.26 ft), from rating curve extended above 970 cfs; minimum, 4.4 cfs Oct. 18, 1941; minimum daily, 10 cfs Oct. 13, 1941.

Maximum stage since 1711, at least 12.4 ft in February 1886. Flood of November 1927 reached a stage of 11.7 ft, and flood of March 1936 reached a discharge of 1,540 cfs.

REMARKS.--Records excellent. Some regulation at low flow by mills and ponds above station until 1952; regulation greater prior to 1948.

REVISIONS (WATER YEARS).--WSP 1201: 1948(P). See also PERIOD OF RECORD.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 77    | 49    | 107   | 107   | 94    | 400   | 161   | 166   | 122   | 43    | 63    | 26    |
| 2     | 48    | 54    | 103   | 109   | 89    | 340   | 166   | 157   | 114   | 54    | 51    | 26    |
| 3     | 42    | 238   | 99    | 107   | 80    | 306   | 208   | 222   | 114   | 51    | 45    | 26    |
| 4     | 41    | 225   | 111   | 107   | 75    | 359   | 227   | 282   | 128   | 44    | 44    | 26    |
| 5     | 56    | 195   | 118   | 192   | 92    | 393   | 206   | 234   | 122   | 42    | 44    | 25    |
| 6     | 43    | 179   | 114   | 246   | 124   | 336   | 190   | 202   | 101   | 41    | 41    | 25    |
| 7     | 38    | 142   | 103   | 206   | 124   | 338   | 308   | 183   | 94    | 39    | 38    | 26    |
| 8     | 44    | 109   | 94    | 179   | 197   | 405   | 389   | 175   | 90    | 36    | 36    | 25    |
| 9     | 40    | 116   | 92    | 161   | 253   | 349   | 313   | 220   | 96    | 36    | 34    | 25    |
| 10    | 36    | 109   | 92    | 150   | 220   | 301   | 272   | 225   | 94    | 36    | 32    | 24    |
| 11    | 34    | 107   | 92    | 142   | 181   | 286   | 246   | 211   | 85    | 34    | 34    | 24    |
| 12    | 33    | 111   | 96    | 135   | 172   | 279   | 225   | 190   | 79    | 34    | 42    | 24    |
| 13    | 33    | 124   | 98    | 124   | 208   | 272   | 211   | 179   | 80    | 33    | 38    | 27    |
| 14    | 29    | 204   | 94    | 124   | 435   | 260   | 199   | 183   | 90    | 37    | 35    | 45    |
| 15    | 18    | 202   | 90    | 118   | 363   | 253   | 190   | 168   | 83    | 36    | 31    | 56    |
| 16    | 21    | 197   | 83    | 114   | 289   | 267   | 181   | 183   | 75    | 37    | 29    | 45    |
| 17    | 24    | 168   | 166   | 103   | 234   | 265   | 175   | 274   | 72    | 36    | 29    | 37    |
| 18    | 23    | 150   | 255   | 99    | 215   | 250   | 170   | 248   | 68    | 36    | 29    | 33    |
| 19    | 23    | 137   | 215   | 94    | 211   | 241   | 170   | 213   | 63    | 68    | 28    | 31    |
| 20    | 29    | 193   | 192   | 87    | 222   | 359   | 168   | 190   | 61    | 282   | 30    | 30    |
| 21    | 28    | 172   | 177   | 83    | 250   | 361   | 164   | 175   | 59    | 175   | 31    | 29    |
| 22    | 23    | 179   | 164   | 87    | 236   | 306   | 157   | 172   | 56    | 92    | 30    | 30    |
| 23    | 80    | 166   | 153   | 92    | 262   | 272   | 150   | 166   | 55    | 68    | 28    | 30    |
| 24    | 208   | 150   | 153   | 92    | 296   | 248   | 146   | 150   | 55    | 58    | 26    | 29    |
| 25    | 150   | 135   | 146   | 92    | 262   | 229   | 148   | 144   | 53    | 53    | 26    | 27    |
| 26    | 101   | 122   | 137   | 105   | 253   | 215   | 146   | 142   | 50    | 51    | 26    | 26    |
| 27    | 79    | 118   | 128   | 120   | 333   | 206   | 144   | 133   | 48    | 53    | 27    | 26    |
| 28    | 66    | 114   | 120   | 103   | 460   | 199   | 139   | 122   | 45    | 47    | 27    | 25    |
| 29    | 59    | 109   | 114   | 99    | ----- | 195   | 161   | 116   | 43    | 41    | 27    | 25    |
| 30    | 54    | 109   | 109   | 105   | ----- | 175   | 175   | 120   | 42    | 54    | 27    | 25    |
| 31    | 51    | ----- | 103   | 105   | ----- | 164   | ----- | 126   | ----- | 71    | 27    | ----- |
| TOTAL | 1,631 | 4,343 | 3,918 | 3,787 | 6,230 | 8,829 | 5,905 | 5,671 | 2,337 | 1,818 | 1,055 | 878   |
| MEAN  | 52.6  | 145   | 126   | 122   | 223   | 285   | 197   | 183   | 77.9  | 58.6  | 34.0  | 29.3  |
| MAX   | 208   | 238   | 255   | 246   | 460   | 405   | 389   | 282   | 128   | 282   | 63    | 56    |
| MIN   | 18    | 49    | 83    | 83    | 75    | 164   | 139   | 116   | 42    | 33    | 26    | 24    |
| CFSM  | .73   | 2.00  | 1.74  | 1.69  | 3.08  | 3.94  | 2.72  | 2.53  | 1.08  | .81   | .47   | .40   |
| IN.   | .84   | 2.23  | 2.01  | 1.95  | 3.20  | 4.54  | 3.03  | 2.91  | 1.20  | .93   | .54   | .45   |

CAL YR 1970 TOTAL 57,690 MEAN 158 MAX 1,260 MIN 18 CFSM 2.18 IN 29.64  
WTR YR 1971 TOTAL 46,402 MEAN 127 MAX 460 MIN 18 CFSM 1.75 IN 23.84

PEAK DISCHARGE (BASE, 550 CFS).--No peak above base.

01118500 Pawcatuck River at Westerly, R.I.

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

DRAINAGE AREA.--295 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1.76 ft below mean sea level, datum of 1929.

AVERAGE DISCHARGE.--31 years, 549 cfs (25.27 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 1,490 cfs Feb. 28 (gage height, 6.12 ft); maximum gage height, 6.70 ft Mar. 4 (backwater from tide); minimum daily discharge, 88 cfs Sept. 11, 12.

Period of record: Maximum discharge, 4,470 cfs Mar. 18, 1968 (gage height, 10.49 ft); maximum gage height, 12.16 ft Aug. 31, 1954 (backwater from tide); minimum daily discharge, 25 cfs Aug. 17, 1941.

Flood of March 1936 reached a discharge of 3,150 cfs, by computation of flow over dam 1.5 miles upstream from station. Maximum discharge since 1886 occurred in November 1927 and was possibly more than twice that of March 1936. Maximum stage since at least 1635, 15.0 ft Sept. 21, 1938 (due to hurricane tidal wave).

REMARKS.--Records good. Diurnal fluctuation at low flow prior to 1962 by mills above station; regulation much greater prior to 1958. Diversion above station for municipal supply of Westerly.

REVISIONS.--WSP 1051: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC       | JAN     | FEB       | MAR        | APR       | MAY    | JUN    | JUL   | AUG   | SEP   |
|-------------|---------------|----------|-----------|---------|-----------|------------|-----------|--------|--------|-------|-------|-------|
| 1           | 150           | 273      | 495       | 450     | 388       | 1,440      | 609       | 567    | 508    | 217   | 217   | 113   |
| 2           | 145           | 273      | 492       | 456     | 376       | 1,320      | 595       | 554    | 482    | 226   | 205   | 110   |
| 3           | 145           | 735      | 469       | 443     | 336       | 1,210      | 623       | 644    | 469    | 226   | 188   | 104   |
| 4           | 160           | 917      | 488       | 450     | 320       | 1,310      | 665       | 840    | 482    | 226   | 192   | 104   |
| 5           | 160           | 910      | 508       | 714     | 336       | 1,400      | 665       | 868    | 476    | 213   | 192   | 104   |
| 6           | 155           | 847      | 508       | 1,030   | 450       | 1,360      | 630       | 770    | 443    | 213   | 184   | 104   |
| 7           | 150           | 721      | 495       | 889     | 450       | 1,330      | 805       | 700    | 412    | 222   | 172   | 99    |
| 8           | 145           | 637      | 462       | 707     | 749       | 1,390      | 1,040     | 658    | 406    | 205   | 169   | 99    |
| 9           | 145           | 547      | 436       | 700     | 1,170     | 1,330      | 1,070     | 728    | 412    | 192   | 159   | 96    |
| 10          | 145           | 495      | 430       | 609     | 1,070     | 1,240      | 986       | 751    | 412    | 184   | 146   | 94    |
| 11          | 150           | 469      | 430       | 574     | 868       | 1,150      | 882       | 770    | 394    | 184   | 143   | 88    |
| 12          | 150           | 482      | 436       | 547     | 742       | 1,120      | 784       | 721    | 382    | 176   | 158   | 89    |
| 13          | 146           | 495      | 443       | 521     | 770       | 1,100      | 728       | 672    | 364    | 172   | 154   | 94    |
| 14          | 150           | 952      | 436       | 502     | 1,210     | 1,040      | 693       | 651    | 382    | 176   | 154   | 107   |
| 15          | 150           | 1,000    | 430       | 476     | 1,220     | 1,000      | 665       | 637    | 376    | 172   | 143   | 107   |
| 16          | 184           | 945      | 430       | 462     | 1,080     | 959        | 644       | 644    | 353    | 172   | 139   | 110   |
| 17          | 205           | 861      | 567       | 443     | 952       | 945        | 616       | 833    | 331    | 161   | 129   | 107   |
| 18          | 192           | 763      | 966       | 430     | 833       | 903        | 595       | 868    | 314    | 158   | 126   | 104   |
| 19          | 184           | 693      | 938       | 400     | 758       | 861        | 574       | 805    | 304    | 172   | 123   | 96    |
| 20          | 180           | 651      | 875       | 400     | 751       | 1,090      | 567       | 735    | 299    | 430   | 150   | 91    |
| 21          | 180           | 707      | 840       | 382     | 889       | 1,160      | 560       | 686    | 288    | 450   | 143   | 91    |
| 22          | 180           | 721      | 770       | 359     | 889       | 1,120      | 540       | 658    | 278    | 382   | 136   | 94    |
| 23          | 254           | 686      | 700       | 364     | 973       | 1,040      | 528       | 644    | 273    | 294   | 126   | 91    |
| 24          | 742           | 651      | 665       | 370     | 1,060     | 952        | 508       | 609    | 263    | 245   | 120   | 94    |
| 25          | 700           | 581      | 644       | 370     | 1,010     | 868        | 508       | 574    | 258    | 217   | 117   | 94    |
| 26          | 567           | 554      | 609       | 388     | 959       | 805        | 508       | 554    | 245    | 201   | 113   | 94    |
| 27          | 450           | 528      | 560       | 412     | 1,120     | 749        | 502       | 534    | 240    | 192   | 113   | 91    |
| 28          | 370           | 508      | 540       | 400     | 1,480     | 721        | 495       | 508    | 235    | 184   | 129   | 91    |
| 29          | 320           | 495      | 508       | 406     | -----     | 686        | 521       | 488    | 222    | 180   | 129   | 94    |
| 30          | 294           | 488      | 476       | 382     | -----     | 665        | 560       | 488    | 217    | 192   | 117   | 94    |
| 31          | 273           | -----    | 462       | 376     | -----     | 630        | -----     | 502    | -----  | 217   | 113   | ----- |
| TOTAL       | 7,561         | 19,585   | 17,498    | 15,412  | 23,269    | 32,894     | 19,666    | 20,701 | 10,520 | 6,851 | 4,598 | 2,947 |
| MEAN        | 244           | 653      | 564       | 497     | 832       | 1,061      | 656       | 668    | 351    | 221   | 148   | 98.2  |
| MAX         | 742           | 1,000    | 966       | 1,030   | 1,480     | 1,440      | 1,070     | 868    | 508    | 450   | 217   | 113   |
| MIN         | 145           | 273      | 430       | 359     | 320       | 630        | 495       | 488    | 217    | 158   | 113   | 88    |
| MEAN†       | 247           | 656      | 568       | 500     | 835       | 1,065      | 659       | 671    | 355    | 226   | 153   | 102   |
| CFSM†       | .84           | 2.22     | 1.93      | 1.69    | 2.83      | 3.61       | 2.23      | 2.27   | 1.20   | .77   | .52   | .35   |
| IN.†        | .97           | 2.48     | 2.22      | 1.96    | 2.95      | 4.16       | 2.49      | 2.62   | 1.34   | .88   | .60   | .39   |
| CAL YR 1970 | TOTAL 215,875 | MEAN 591 | MAX 3,030 | MIN 127 | MEAN† 595 | CFSM† 2.02 | IN† 27.39 |        |        |       |       |       |
| WTR YR 1971 | TOTAL 181,522 | MEAN 497 | MAX 1,480 | MIN 88  | MEAN† 501 | CFSM† 1.70 | IN† 23.07 |        |        |       |       |       |

† Adjusted for diversion for municipal supply of Westerly. Diversion records furnished by Westerly Department of Public Works.

01123600 Quinebaug River below Westville Dam, near Southbridge, Mass.

LOCATION.--Lat 42°04' 58", long 72°03' 27", Worcester County, on right bank 200 ft downstream from Westville Dam, 1 mile upstream from McKinstry Brook, and 1.3 miles west of Southbridge.

DRAINAGE AREA.--99.1 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 510 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 137 cfs (18.77 inches per year).

EXTREMES.--Current year: Maximum discharge, 463 cfs Apr. 5-8 (gage height, 5.16 ft); minimum daily, 8.3 cfs July 21.

Period of record: Maximum discharge, 1,060 cfs Feb. 10, 1970 (gage height, 6.09 ft); minimum daily, 7.3 cfs Nov. 21, 28, 1964, July 30, 1965.

REMARKS.--Records good except those for period of doubtful gage-height record, which are fair. Flow regulated by mills, by East Brimfield and Westville Lakes (see p. 122), and by other reservoirs above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG  | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|
| 1     | 25    | 37    | 70    | 67    | 92    | 264   | 290   | 213   | 149   | 36    | 19   | 33    |
| 2     | 23    | 36    | 79    | 67    | 84    | 274   | 284   | 209   | 138   | 47    | 17   | 25    |
| 3     | 22    | 40    | 99    | 67    | 73    | 261   | 360   | 211   | 136   | 47    | 16   | 22    |
| 4     | 25    | 39    | 128   | 67    | 64    | 252   | 424   | 247   | 170   | 45    | 21   | 19    |
| 5     | 32    | 44    | 170   | 83    | 63    | 255   | 460   | 256   | 174   | 39    | 50   | 18    |
| 6     | 36    | 47    | 162   | 89    | 65    | 248   | 463   | 257   | 177   | 34    | 49   | 18    |
| 7     | 36    | 47    | 134   | 84    | 69    | 247   | 463   | 238   | 156   | 35    | 48   | 16    |
| 8     | 36    | 42    | 112   | 82    | 75    | 248   | 458   | 210   | 136   | 33    | 46   | 16    |
| 9     | 36    | 36    | 117   | 82    | 83    | 243   | 439   | 208   | 132   | 29    | 36   | 15    |
| 10    | 34    | 33    | 123   | 82    | 84    | 236   | 422   | 248   | 117   | 25    | 21   | 15    |
| 11    | 32    | 38    | 125   | 87    | 85    | 230   | 417   | 255   | 101   | 22    | 15   | 12    |
| 12    | 30    | 42    | 123   | 94    | 89    | 225   | 401   | 250   | 86    | 20    | 22   | 115   |
| 13    | 33    | 43    | 115   | 91    | 99    | 225   | 385   | 272   | 76    | 19    | 25   | 138   |
| 14    | 104   | 70    | 94    | 97    | 136   | 225   | 353   | 380   | 72    | 18    | 25   | 172   |
| 15    | 128   | 83    | 67    | 97    | 130   | 231   | 312   | 397   | 65    | 18    | 22   | 158   |
| 16    | 182   | 93    | 48    | 94    | 136   | 304   | 277   | 392   | 62    | 16    | 19   | 123   |
| 17    | 158   | 83    | 48    | 84    | 156   | 365   | 256   | 409   | 58    | 16    | 17   | 96    |
| 18    | 121   | 77    | 70    | 75    | 156   | 366   | 240   | 395   | 54    | 18    | 16   | 72    |
| 19    | 97    | 68    | 79    | 72    | 161   | 405   | 226   | 353   | 49    | 20    | 15   | 58    |
| 20    | 91    | 67    | 77    | 58    | 178   | 437   | 212   | 314   | 44    | 13    | 15   | 47    |
| 21    | 76    | 77    | 113   | 31    | 182   | 457   | 202   | 277   | 39    | 8.3   | 15   | 46    |
| 22    | 63    | 75    | 65    | 42    | 181   | 458   | 192   | 258   | 35    | 11    | 15   | 42    |
| 23    | 45    | 80    | 62    | 44    | 189   | 441   | 180   | 238   | 36    | 31    | 15   | 39    |
| 24    | 48    | 147   | 59    | 49    | 194   | 419   | 169   | 217   | 35    | 12    | 14   | 36    |
| 25    | 53    | 149   | 55    | 50    | 191   | 389   | 165   | 204   | 27    | 10    | 11   | 32    |
| 26    | 52    | 151   | 50    | 58    | 187   | 350   | 165   | 199   | 39    | 9.7   | 10   | 29    |
| 27    | 46    | 202   | 48    | 73    | 196   | 315   | 165   | 187   | 37    | 9.7   | 10   | 26    |
| 28    | 48    | 123   | 54    | 69    | 216   | 302   | 165   | 179   | 36    | 8.9   | 26   | 24    |
| 29    | 58    | 75    | 67    | 71    | ----- | 300   | 187   | 170   | 35    | 8.6   | 42   | 23    |
| 30    | 40    | 73    | 67    | 106   | ----- | 314   | 210   | 158   | 35    | 13    | 43   | 21    |
| 31    | 39    | ----- | 68    | 114   | ----- | 320   | ----- | 153   | ----- | 21    | 41   | ----- |
| TOTAL | 1,849 | 2,217 | 2,748 | 2,326 | 3,618 | 9,606 | 8,942 | 7,954 | 2,506 | 693.2 | 756  | 1,506 |
| MEAN  | 59.6  | 73.9  | 88.6  | 75.0  | 129   | 310   | 298   | 257   | 83.5  | 22.4  | 24.4 | 50.2  |
| MAX   | 182   | 202   | 170   | 114   | 216   | 458   | 463   | 409   | 177   | 47    | 50   | 172   |
| MIN   | 22    | 33    | 48    | 31    | 63    | 225   | 165   | 153   | 27    | 8.3   | 10   | 12    |
| MEAN† | 60.3  | 64.3  | 68.9  | 75.6  | 139   | 330   | 301   | 256   | 80.6  | 24.2  | 23.2 | 48.9  |
| CFSM† | .61   | .65   | .70   | .76   | 1.40  | 3.33  | 3.04  | 2.58  | .81   | .24   | .23  | .49   |
| IN.†  | .70   | .72   | .80   | .88   | 1.47  | 3.84  | 3.39  | 2.98  | .91   | .28   | .27  | .55   |

CAL YR 1970 TOTAL 64,903.0 MEAN 178 MAX 948 MIN 15 MEAN† 175 CFSM† 1.77 IN† 23.95  
WTR YR 1971 TOTAL 44,721.2 MEAN 123 MAX 463 MIN 8.3 MEAN† 123 CFSM† 1.24 IN† 16.79

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

NOTE.--Doubtful gage-height record July 18 to Aug. 17. Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

## 01124000 Quinebaug River at Quinebaug, Conn.

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

DRAINAGE AREA.--157 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 341.52 ft above mean sea level.

AVERAGE DISCHARGE.--40 years, 261 cfs (22.58 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 893 cfs Mar. 16 (gage height, 4.11 ft); minimum, 10 cfs July 29, 30 (gage height, 2.10 ft).

Period of record: Maximum discharge, 49,300 cfs Aug. 19, 1955 (gage height, 18.96 ft, from floodmarks), from rating curve extended above 5,100 cfs on basis of slope-area measurement of peak flow; minimum, about 1 cfs Sept. 9, 1943, July 12, 1949, Sept. 17, 18, 1950, July 9, 1951, Sept. 4, Oct. 29, 1956; minimum daily, about 1 cfs Sept. 4, 1956; minimum gage height, 1.74 ft Aug. 20, 1940.

REMARKS.--Records good. Flow regulated by East Brimfield and Westville Lakes (see p. 122), and by smaller reservoirs upstream. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL  | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|------|-------|-------|
| 1     | 35    | 41    | 92    | 90    | 100   | 533    | 470    | 309    | 207   | 53   | 39    | 45    |
| 2     | 33    | 43    | 92    | 125   | 90    | 531    | 444    | 294    | 185   | 61   | 34    | 32    |
| 3     | 33    | 51    | 121   | 178   | 70    | 479    | 637    | 330    | 210   | 52   | 30    | 27    |
| 4     | 43    | 48    | 210   | 164   | 65    | 462    | 693    | 404    | 266   | 48   | 34    | 23    |
| 5     | 41    | 68    | 241   | 151   | 60    | 428    | 681    | 389    | 249   | 43   | 85    | 22    |
| 6     | 47    | 60    | 224   | 164   | 75    | 396    | 663    | 367    | 229   | 40   | 86    | 21    |
| 7     | 47    | 55    | 187   | 164   | 100   | 399    | 703    | 330    | 199   | 51   | 84    | 21    |
| 8     | 48    | 50    | 148   | 162   | 111   | 410    | 683    | 295    | 189   | 42   | 80    | 21    |
| 9     | 46    | 48    | 154   | 198   | 151   | 373    | 653    | 322    | 195   | 34   | 67    | 20    |
| 10    | 42    | 44    | 160   | 157   | 151   | 353    | 656    | 418    | 165   | 28   | 37    | 20    |
| 11    | 41    | 60    | 161   | 131   | 137   | 343    | 646    | 399    | 150   | 24   | 30    | 19    |
| 12    | 39    | 74    | 160   | 115   | 130   | 326    | 605    | 367    | 130   | 23   | 42    | 323   |
| 13    | 40    | 76    | 154   | 100   | 172   | 318    | 566    | 482    | 111   | 20   | 42    | 262   |
| 14    | 93    | 125   | 133   | 90    | 309   | 323    | 516    | 690    | 99    | 23   | 39    | 312   |
| 15    | 147   | 146   | 101   | 85    | 276   | 386    | 458    | 627    | 87    | 19   | 31    | 285   |
| 16    | 194   | 152   | 94    | 80    | 264   | 701    | 414    | 633    | 76    | 22   | 26    | 220   |
| 17    | 166   | 139   | 87    | 80    | 271   | 775    | 393    | 687    | 68    | 20   | 23    | 173   |
| 18    | 129   | 118   | 106   | 80    | 260   | 675    | 362    | 605    | 64    | 23   | 20    | 138   |
| 19    | 104   | 110   | 121   | 80    | 263   | 673    | 337    | 513    | 57    | 24   | 18    | 106   |
| 20    | 106   | 106   | 123   | 80    | 291   | 780    | 315    | 445    | 51    | 25   | 22    | 75    |
| 21    | 91    | 150   | 145   | 70    | 292   | 747    | 297    | 393    | 47    | 14   | 21    | 73    |
| 22    | 91    | 132   | 114   | 65    | 277   | 690    | 283    | 384    | 45    | 11   | 19    | 63    |
| 23    | 93    | 130   | 99    | 60    | 322   | 663    | 264    | 347    | 44    | 32   | 19    | 55    |
| 24    | 71    | 191   | 102   | 55    | 314   | 616    | 243    | 306    | 43    | 21   | 17    | 47    |
| 25    | 63    | 189   | 134   | 60    | 295   | 562    | 249    | 284    | 39    | 15   | 16    | 41    |
| 26    | 62    | 182   | 110   | 90    | 295   | 512    | 245    | 272    | 45    | 15   | 15    | 35    |
| 27    | 59    | 217   | 100   | 115   | 387   | 473    | 242    | 253    | 42    | 17   | 20    | 32    |
| 28    | 52    | 170   | 90    | 161   | 478   | 455    | 244    | 241    | 41    | 14   | 59    | 30    |
| 29    | 68    | 96    | 80    | 179   | ----- | 465    | 297    | 223    | 39    | 11   | 60    | 28    |
| 30    | 48    | 96    | 80    | 141   | ----- | 491    | 316    | 208    | 38    | 29   | 61    | 27    |
| 31    | 43    | ----- | 90    | 110   | ----- | 505    | -----  | 208    | ----- | 50   | 54    | ----- |
| TOTAL | 2,205 | 3,167 | 4,003 | 3,580 | 6,006 | 15,843 | 13,575 | 12,025 | 3,410 | 904  | 1,230 | 2,596 |
| MEAN  | 71.1  | 106   | 129   | 115   | 215   | 511    | 453    | 388    | 114   | 29.2 | 39.7  | 86.5  |
| MAX   | 194   | 217   | 241   | 198   | 478   | 780    | 703    | 690    | 266   | 61   | 86    | 323   |
| MIN   | 33    | 41    | 80    | 55    | 60    | 318    | 242    | 208    | 38    | 11   | 15    | 19    |
| MEAN† | 71.7  | 96.4  | 109   | 116   | 225   | 231    | 456    | 387    | 111   | 31.0 | 38.5  | 85.2  |
| CFSM† | .46   | .61   | .69   | .74   | 1.43  | 1.47   | 2.90   | 2.47   | .71   | .20  | .25   | .54   |
| IN.†  | .53   | .68   | .80   | .85   | 1.49  | 1.70   | 3.24   | 2.85   | .79   | .23  | .29   | .60   |

CAL YR 1970 TOTAL 93,576 MEAN 256 MAX 1,540 MIN 20 MEAN† 253 CFSM† 1.61 IN† 21.90  
WTR YR 1971 TOTAL 68,544 MEAN 188 MAX 780 MIN 11 MEAN† 188 CFSM† 1.20 IN† 14.05

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



01124350 French River below Hodges Village Dam, at Hodges Village, Mass.

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

DRAINAGE AREA.--31.0 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 480 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 43.0 cfs (18.84 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 278 cfs Mar. 17 (gage height, 2.64 ft); minimum, 5.8 cfs Oct. 2-4; minimum daily, 5.8 cfs Oct. 2, 3. Period of record: Maximum discharge, 486 cfs Mar. 28, 1963 (gage height, 3.24 ft); no flow July 17, 1968 (caused by unusual regulation); minimum daily discharge, 2.0 cfs Aug. 7, 1963.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Hodges Village Reservoir (see p. 122).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 6.3   | 9.1   | 27    | 42    | 40    | 122   | 128   | 67    | 37    | 15    | 29    | 19    |
| 2     | 5.8   | 9.0   | 27    | 42    | 36    | 126   | 128   | 60    | 38    | 17    | 22    | 17    |
| 3     | 5.8   | 11    | 26    | 42    | 33    | 116   | 151   | 59    | 35    | 18    | 18    | 13    |
| 4     | 6.6   | 11    | 35    | 42    | 31    | 105   | 197   | 85    | 42    | 15    | 16    | 9.9   |
| 5     | 8.1   | 13    | 56    | 52    | 33    | 97    | 165   | 94    | 41    | 14    | 14    | 9.6   |
| 6     | 8.1   | 16    | 48    | 65    | 38    | 86    | 124   | 87    | 31    | 13    | 13    | 9.0   |
| 7     | 7.1   | 16    | 38    | 65    | 37    | 78    | 110   | 73    | 25    | 15    | 12    | 8.7   |
| 8     | 7.3   | 14    | 33    | 57    | 41    | 78    | 113   | 64    | 22    | 15    | 9.9   | 8.7   |
| 9     | 15    | 12    | 28    | 52    | 44    | 74    | 110   | 64    | 31    | 12    | 8.7   | 9.0   |
| 10    | 17    | 11    | 28    | 51    | 47    | 68    | 120   | 91    | 33    | 11    | 8.7   | 8.7   |
| 11    | 11    | 14    | 28    | 50    | 44    | 66    | 137   | 110   | 24    | 10    | 9.0   | 8.4   |
| 12    | 7.9   | 19    | 28    | 48    | 41    | 61    | 139   | 99    | 20    | 9.9   | 19    | 43    |
| 13    | 7.3   | 20    | 28    | 42    | 43    | 60    | 128   | 90    | 20    | 9.3   | 20    | 79    |
| 14    | 7.1   | 30    | 28    | 42    | 72    | 60    | 110   | 160   | 22    | 9.0   | 13    | 62    |
| 15    | 7.1   | 37    | 25    | 42    | 84    | 65    | 99    | 181   | 37    | 9.9   | 9.9   | 61    |
| 16    | 9.5   | 40    | 22    | 38    | 80    | 139   | 90    | 139   | 24    | 9.9   | 9.0   | 31    |
| 17    | 10    | 39    | 26    | 34    | 74    | 254   | 80    | 135   | 15    | 10    | 8.4   | 22    |
| 18    | 8.6   | 34    | 41    | 34    | 70    | 231   | 74    | 130   | 12    | 15    | 7.8   | 19    |
| 19    | 7.5   | 32    | 42    | 34    | 65    | 186   | 69    | 108   | 11    | 17    | 7.6   | 16    |
| 20    | 7.1   | 33    | 42    | 33    | 72    | 167   | 64    | 93    | 9.9   | 17    | 9.0   | 15    |
| 21    | 7.1   | 46    | 42    | 32    | 71    | 164   | 61    | 78    | 9.3   | 16    | 11    | 15    |
| 22    | 7.1   | 49    | 37    | 31    | 69    | 143   | 58    | 71    | 12    | 14    | 9.3   | 16    |
| 23    | 10    | 47    | 37    | 31    | 71    | 129   | 53    | 65    | 12    | 12    | 8.1   | 15    |
| 24    | 26    | 46    | 41    | 32    | 72    | 95    | 50    | 56    | 11    | 12    | 7.6   | 18    |
| 25    | 25    | 38    | 48    | 34    | 70    | 75    | 46    | 50    | 9.9   | 11    | 6.8   | 19    |
| 26    | 17    | 33    | 48    | 38    | 69    | 72    | 46    | 47    | 11    | 11    | 6.6   | 19    |
| 27    | 14    | 30    | 46    | 45    | 78    | 82    | 46    | 45    | 16    | 11    | 7.3   | 19    |
| 28    | 13    | 29    | 46    | 39    | 103   | 89    | 45    | 41    | 18    | 11    | 18    | 21    |
| 29    | 11    | 28    | 44    | 42    | ----- | 98    | 50    | 39    | 16    | 12    | 38    | 21    |
| 30    | 10    | 27    | 43    | 50    | ----- | 115   | 65    | 35    | 15    | 14    | 28    | 19    |
| 31    | 9.9   | ----- | 41    | 43    | ----- | 126   | ----- | 34    | ----- | 30    | 22    | ----- |
| TOTAL | 320.3 | 793.1 | 1,133 | 1,324 | 1,632 | 3,427 | 2,856 | 2,550 | 660.1 | 416.0 | 426.7 | 651.0 |
| MEAN  | 10.3  | 26.4  | 36.5  | 42.7  | 58.3  | 111   | 95.2  | 82.3  | 22.0  | 13.4  | 13.8  | 21.7  |
| MAX   | 26    | 49    | 56    | 65    | 103   | 254   | 197   | 181   | 42    | 30    | 38    | 79    |
| MIN   | 5.8   | 9.0   | 22    | 31    | 31    | 60    | 45    | 34    | 9.3   | 9.0   | 6.6   | 8.4   |
| MEAN† | 10.3  | 26.6  | 36.6  | 42.8  | 58.4  | 111   | 95.0  | 82.1  | 21.9  | 13.4  | 13.9  | 21.7  |
| CFSM† | .33   | .86   | 1.18  | 1.38  | 1.88  | 3.58  | 3.06  | 2.65  | .71   | .43   | .45   | .70   |
| IN.†  | .38   | .96   | 1.36  | 1.59  | 1.96  | 4.12  | 3.42  | 3.05  | .79   | .50   | .52   | .78   |

CAL YR 1970 TOTAL 19,107.3 MEAN 52.3 MAX 387 MIN 4.1 MEAN† 52.3 CFSM† 1.69 IN† 22.91  
WTR YR 1971 TOTAL 16,189.2 MEAN 44.4 MAX 254 MIN 5.8 MEAN† 44.4 CFSM† 1.43 IN† 19.43

† Adjusted for change in contents in Hodges Village Reservoir.

01124500 Little River at Buffumville, Mass.

LOCATION.--Lat 42°06'57", long 71°53'26", Worcester County, on left bank 0.6 mile upstream from mouth, 0.8 mile east of Buffumville, 1.1 miles downstream from Buffumville Dam, and 1.5 miles west of Oxford.

DRAINAGE AREA.--27.7 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 457.00 ft above mean sea level, unadjusted (levels by Corps of Engineers).

AVERAGE DISCHARGE.--32 years, 45.1 cfs (22.11 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 182 cfs Mar. 18 (gage height, 3.91 ft); minimum, 1.5 cfs Aug. 26, 27.

Period of record: Maximum discharge, 8,340 cfs Aug. 19, 1955 (gage height, 15.53 ft), from rating curve extended above 1,200 cfs on basis of computation of peak flow over dam; minimum, 0.1 cfs Sept. 25, 26, 1957. Maximum discharge since construction of Buffumville Dam in 1958, 429 cfs Apr. 7, 1959 (gage height, 5.04 ft).

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow regulated by Buffumville Lake since 1958 (see p. 122) and occasionally by other reservoirs upstream. Prior to 1958, flow regulated by mill above station.

REVISIONS (WATER YEARS).--WSP 1201: 1940, 1948.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT            | NOV       | DEC     | JAN     | FEB        | MAR        | APR       | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|----------------|-----------|---------|---------|------------|------------|-----------|-------|-------|-------|-------|-------|
| 1           | 13             | 7.7       | 1.5     | 13      | 15         | 104        | 115       | 55    | 33    | 4.2   | 6.5   | 4.8   |
| 2           | 15             | 7.5       | 14      | 13      | 15         | 115        | 115       | 52    | 33    | 7.9   | 6.2   | 4.6   |
| 3           | 17             | 9.0       | 13      | 13      | 14         | 115        | 131       | 53    | 34    | 7.1   | 5.7   | 4.4   |
| 4           | 19             | 8.4       | 19      | 13      | 14         | 114        | 153       | 67    | 37    | 6.5   | 5.5   | 4.2   |
| 5           | 19             | 11        | 23      | 17      | 15         | 102        | 148       | 73    | 37    | 5.7   | 5.1   | 3.8   |
| 6           | 18             | 9.7       | 27      | 24      | 16         | 90         | 129       | 67    | 34    | 5.5   | 4.6   | 3.5   |
| 7           | 18             | 8.7       | 25      | 27      | 17         | 82         | 127       | 59    | 30    | 6.8   | 4.0   | 3.3   |
| 8           | 18             | 7.7       | 21      | 26      | 19         | 79         | 124       | 52    | 29    | 6.0   | 3.7   | 3.3   |
| 9           | 18             | 7.2       | 19      | 25      | 27         | 76         | 121       | 52    | 31    | 5.7   | 3.4   | 3.3   |
| 10          | 18             | 7.0       | 17      | 23      | 27         | 70         | 124       | 64    | 30    | 5.3   | 3.1   | 2.9   |
| 11          | 18             | 10        | 16      | 21      | 25         | 65         | 131       | 76    | 27    | 4.9   | 3.1   | 2.7   |
| 12          | 19             | 12        | 17      | 20      | 23         | 60         | 143       | 73    | 23    | 4.6   | 4.8   | 26    |
| 13          | 19             | 14        | 17      | 19      | 25         | 57         | 139       | 77    | 21    | 4.0   | 3.5   | 39    |
| 14          | 19             | 18        | 16      | 17      | 40         | 56         | 115       | 109   | 19    | 4.6   | 3.3   | 48    |
| 15          | 21             | 21        | 16      | 17      | 65         | 60         | 98        | 121   | 16    | 3.8   | 3.1   | 47    |
| 16          | 26             | 24        | 14      | 16      | 67         | 98         | 86        | 112   | 14    | 3.5   | 2.9   | 41    |
| 17          | 24             | 24        | 19      | 16      | 65         | 161        | 79        | 112   | 13    | 3.5   | 2.6   | 34    |
| 18          | 21             | 21        | 18      | 15      | 51         | 180        | 71        | 109   | 12    | 3.8   | 2.3   | 28    |
| 19          | 16             | 19        | 18      | 15      | 57         | 166        | 65        | 94    | 11    | 4.2   | 2.1   | 23    |
| 20          | 11             | 19        | 19      | 15      | 56         | 160        | 62        | 80    | 9.6   | 4.4   | 3.0   | 19    |
| 21          | 8.7            | 24        | 19      | 14      | 57         | 155        | 60        | 68    | 8.8   | 4.2   | 2.6   | 19    |
| 22          | 7.2            | 26        | 19      | 14      | 56         | 141        | 57        | 64    | 9.6   | 3.8   | 2.4   | 16    |
| 23          | 11             | 27        | 19      | 14      | 59         | 129        | 35        | 60    | 9.2   | 3.7   | 2.6   | 14    |
| 24          | 19             | 26        | 19      | 14      | 60         | 122        | 9.2       | 53    | 8.8   | 3.4   | 2.1   | 12    |
| 25          | 24             | 23        | 10      | 14      | 59         | 114        | 20        | 48    | 8.1   | 3.4   | 1.8   | 10    |
| 26          | 22             | 20        | 17      | 16      | 56         | 106        | 29        | 44    | 8.8   | 3.3   | 1.8   | 8.1   |
| 27          | 16             | 18        | 16      | 18      | 64         | 98         | 34        | 40    | 8.1   | 3.3   | 2.6   | 7.1   |
| 28          | 13             | 16        | 15      | 18      | 82         | 93         | 36        | 38    | 7.3   | 3.0   | 6.2   | 6.2   |
| 29          | 11             | 15        | 15      | 17      | -----      | 96         | 41        | 36    | 6.5   | 2.9   | 5.3   | 5.7   |
| 30          | 9.4            | 15        | 14      | 16      | -----      | 106        | 51        | 34    | 8.8   | 5.3   | 5.3   | 5.5   |
| 31          | 8.0            | -----     | 13      | 16      | -----      | 114        | -----     | 32    | ----- | 6.5   | 5.1   | ----- |
| TOTAL       | 516.3          | 475.9     | 549     | 536     | 1,156      | 3,284      | 2,648.2   | 2,074 | 577.6 | 144.8 | 116.3 | 449.4 |
| MEAN        | 16.7           | 15.8      | 17.7    | 17.3    | 41.3       | 106        | 88.3      | 66.9  | 19.3  | 4.67  | 3.75  | 15.0  |
| MAX         | 26             | 27        | 27      | 27      | 62         | 180        | 153       | 121   | 37    | 7.9   | 6.5   | 48    |
| MIN         | 7.2            | 7.0       | 13      | 13      | 14         | 56         | 9.2       | 32    | 6.5   | 2.9   | 1.8   | 2.7   |
| MEAN†       | 16.0           | 14.9      | 18.4    | 18.3    | 42.0       | 109        | 85.8      | 65.9  | 16.6  | 4.34  | 5.39  | 15.0  |
| CFSM†       | .58            | .54       | .66     | .66     | 1.52       | 3.94       | 3.10      | 2.38  | .60   | .16   | .19   | .54   |
| IN.†        | .67            | .60       | .76     | .76     | 1.58       | 4.54       | 3.46      | 2.74  | .67   | .18   | .22   | .60   |
| CAL YR 1970 | TOTAL 15,851.4 | MEAN 43.4 | MAX 261 | MIN 1.5 | MEAN† 43.1 | CFSM† 1.56 | IN† 21.11 |       |       |       |       |       |
| WTR YR 1971 | TOTAL 12,526.5 | MEAN 34.3 | MAX 180 | MIN 1.8 | MEAN† 34.2 | CFSM† 1.23 | IN† 16.78 |       |       |       |       |       |

† Adjusted for change in contents in Buffumville Lake.

NOTE.--No gage-height record Jan. 6 to Feb. 15.

01124750 Browns Brook near Webster, Mass.

LOCATION.--Lat 42°03'24", long 71°49'51", Worcester County, on left bank 15 ft downstream from culvert on State Highway 16 and 1.8 miles east of Webster.

DRAINAGE AREA.--0.49 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 630 ft (from topographic map).

AVERAGE DISCHARGE.--8 years (1963-71), 0.97 cfs (26.88 inches per year).

EXTREMES.--Current year: Maximum discharge, 4.9 cfs Mar. 16 (gage height, 1.79 ft); no flow Aug. 10, 18-26, Sept. 2-11.

Period of record: Maximum discharge, 125 cfs Mar. 18, 1968 (gage height, 2.46 ft); no flow for many days during water years 1963-65, 1968-71.

REMARKS.--Records good. Recording rain gage at station since April 1963 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN   | FEB   | MAR  | APR   | MAY   | JUN   | JUL  | AUG  | SEP   |
|-------|------|-------|-------|-------|-------|------|-------|-------|-------|------|------|-------|
| 1     | .06  | .09   | .84   | .44   | .33   | 2.6  | 1.5   | .64   | .74   | .19  | .12  | .01   |
| 2     | .06  | .09   | .77   | .36   | .33   | 2.6  | 1.5   | .56   | .56   | .27  | .08  | 0     |
| 3     | .06  | .40   | .77   | .36   | .29   | 2.2  | 1.5   | .74   | .64   | .19  | .06  | 0     |
| 4     | .09  | .29   | 1.2   | .36   | .29   | 2.2  | 1.6   | 1.0   | .74   | .14  | .05  | 0     |
| 5     | .09  | .36   | 1.1   | .64   | .29   | 2.1  | 1.3   | .88   | .56   | .12  | .04  | 0     |
| 6     | .07  | .33   | 1.1   | .64   | .40   | 1.8  | 1.2   | .74   | .49   | .12  | .03  | 0     |
| 7     | .07  | .26   | 1.0   | .64   | .40   | 1.7  | 1.2   | .74   | .42   | .12  | .03  | 0     |
| 8     | .04  | .26   | .92   | .58   | .33   | 1.8  | 1.2   | .64   | .64   | .10  | .02  | 0     |
| 9     | .04  | .26   | .92   | .58   | .44   | 1.5  | 1.3   | .74   | 1.3   | .08  | .01  | 0     |
| 10    | .03  | .26   | .92   | .58   | .44   | 1.3  | 1.6   | 1.2   | .64   | .07  | 0    | 0     |
| 11    | .03  | .36   | .92   | .53   | .40   | 1.4  | 1.9   | 1.2   | .56   | .06  | .01  | 0     |
| 12    | .03  | .40   | .84   | .48   | .40   | 1.3  | 1.8   | 1.2   | .56   | .06  | .08  | .37   |
| 13    | .04  | .40   | .84   | .48   | .64   | 1.1  | 1.8   | 1.8   | .49   | .05  | .07  | .21   |
| 14    | .03  | .64   | .84   | .44   | 1.5   | 1.1  | 1.8   | 2.4   | .49   | .07  | .03  | .16   |
| 15    | .04  | .64   | .70   | .44   | 1.4   | 1.3  | 1.6   | 2.2   | .42   | .07  | .02  | .24   |
| 16    | .15  | .77   | .64   | .44   | 1.4   | 2.8  | 1.6   | 2.6   | .37   | .06  | .01  | .12   |
| 17    | .15  | .70   | .77   | .44   | 1.4   | 3.8  | 1.5   | 3.0   | .37   | .05  | .01  | .08   |
| 18    | .15  | .70   | .84   | .44   | 1.4   | 3.3  | 1.3   | 2.6   | .33   | .08  | 0    | .07   |
| 19    | .13  | .70   | .77   | .40   | 1.4   | 3.0  | 1.3   | 2.4   | .30   | .10  | 0    | .06   |
| 20    | .11  | .64   | .77   | .40   | 1.4   | 3.8  | 1.2   | 2.1   | .27   | .14  | 0    | .05   |
| 21    | .09  | 1.1   | .70   | .36   | 1.4   | 3.0  | 1.2   | 2.1   | .27   | .08  | 0    | .07   |
| 22    | .07  | .92   | .58   | .36   | 1.4   | 2.8  | 1.2   | 1.9   | .24   | .05  | 0    | .08   |
| 23    | .53  | .92   | .58   | .36   | 1.4   | 2.6  | 1.0   | 1.8   | .24   | .03  | 0    | .07   |
| 24    | .40  | .92   | .58   | .36   | 1.4   | 2.6  | .88   | 1.6   | .24   | .03  | 0    | .05   |
| 25    | .20  | .92   | .58   | .33   | 1.4   | 2.4  | .88   | 1.5   | .21   | .03  | 0    | .04   |
| 26    | .13  | .84   | .58   | .40   | 1.4   | 2.1  | .88   | 1.5   | .24   | .03  | 0    | .04   |
| 27    | .13  | .84   | .48   | .48   | 1.8   | 1.9  | .88   | 1.2   | .21   | .03  | .01  | .04   |
| 28    | .13  | .84   | .48   | .40   | 2.1   | 1.8  | .74   | 1.2   | .19   | .03  | .08  | .04   |
| 29    | .13  | .84   | .48   | .40   | ----- | 1.8  | .74   | .88   | .16   | .03  | .07  | .04   |
| 30    | .11  | .84   | .48   | .40   | ----- | 1.6  | .74   | .74   | .14   | .19  | .03  | .03   |
| 31    | .11  | ----- | .44   | .40   | ----- | 1.5  | ----- | .74   | ----- | .24  | .02  | ----- |
| TOTAL | 3.50 | 17.53 | 23.43 | 13.92 | 27.18 | 66.8 | 38.84 | 44.54 | 13.03 | 2.91 | .88  | 1.87  |
| MEAN  | .11  | .58   | .76   | .45   | .97   | 2.15 | 1.29  | 1.44  | .43   | .094 | .028 | .062  |
| MAX   | .53  | 1.1   | 1.2   | .64   | 2.1   | 3.8  | 1.9   | 3.0   | 1.3   | .27  | .12  | .37   |
| MIN   | .03  | .09   | .44   | .33   | .29   | 1.1  | .74   | .56   | .14   | .03  | 0    | 0     |
| CFSM  | .22  | 1.18  | 1.55  | .92   | 1.98  | 4.39 | 2.63  | 2.94  | .88   | .19  | .06  | .13   |
| IV.   | .27  | 1.33  | 1.78  | 1.06  | 2.06  | 5.07 | 2.95  | 3.38  | .99   | .22  | .07  | .14   |

CAL YR 1970 TOTAL 341.79 MEAN .94 MAX 13 MIN 0 CFSM 1.92 IN 25.95

WTR YR 1971 TOTAL 254.43 MEAN .70 MAX 3.8 MIN 0 CFSM 1.43 IN 19.32

PEAK DISCHARGE (BASE, 5.0 CFS).--No peak above base.

01125000 French River at Webster, Mass.

LOCATION.--Lat 42°03'03", long 71°53'08", Worcester County, on right bank in Dudley, 50 ft upstream from Pleasant Street Bridge at Webster, and 1.1 miles upstream from Potash Brook.

DRAINAGE AREA.--85.3 sq mi.

PERIOD OF RECORD.--December 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 406.74 ft above mean sea level.

AVERAGE DISCHARGE.--22 years (1949-71), 149 cfs (23.72 inches per year), adjusted for storage in flood-control reservoirs.

EXTREMES.--Current year: Maximum discharge, 660 cfs Mar. 17 (gage height, 7.11 ft); minimum daily, 19 cfs Aug. 27.

Period of record: Maximum discharge, 14,400 cfs Aug. 19, 1955 (gage height, 26.05 ft, from floodmarks), from rating curve extended above 2,400 cfs on basis of computation of peak flow over dam; minimum daily, 2.2 cfs Aug. 15, 1965. Maximum discharge since construction of Buffumville Reservoir in 1958, 1,020 cfs Apr. 2, 1960 (gage height, 7.56 ft); maximum gage height, 7.92 ft Mar. 21, 1968.

Flood of Mar. 19, 1936, reached a discharge of 4,700 cfs, by computation of flow over dam about 0.5 mile upstream.

REMARKS.--Records good. Flow regulated by mills, by Lake Chaubunagungamaug (estimated usable capacity, 207,000,000 cu ft), by Buffumville Lake and Hodges Village Reservoir (see p. 122), and by smaller reservoirs above station.

REVISIONS (WATER YEARS).--WSP 1721: 1959 (adjusted monthly and yearly figures only). WRD Mass., N.H., R.I., Vt. 1969: 1960.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT          | NOV      | DEC     | JAN    | FEB       | MAR        | APR       | MAY   | JUN   | JUL   | AUG  | SEP   |
|-------------|--------------|----------|---------|--------|-----------|------------|-----------|-------|-------|-------|------|-------|
| 1           | 22           | 31       | 58      | 79     | 90        | 394        | 372       | 169   | 128   | 45    | 42   | 32    |
| 2           | 32           | 33       | 56      | 79     | 82        | 403        | 365       | 162   | 128   | 48    | 39   | 31    |
| 3           | 37           | 34       | 54      | 77     | 73        | 397        | 400       | 167   | 134   | 43    | 37   | 29    |
| 4           | 47           | 37       | 98      | 79     | 68        | 378        | 482       | 199   | 142   | 37    | 36   | 26    |
| 5           | 42           | 47       | 120     | 113    | 73        | 336        | 487       | 223   | 140   | 32    | 34   | 23    |
| 6           | 43           | 45       | 118     | 134    | 84        | 291        | 424       | 216   | 124   | 34    | 33   | 20    |
| 7           | 44           | 43       | 98      | 134    | 84        | 255        | 397       | 196   | 109   | 40    | 32   | 20    |
| 8           | 43           | 40       | 81      | 124    | 99        | 251        | 391       | 175   | 111   | 40    | 29   | 20    |
| 9           | 46           | 36       | 75      | 116    | 116       | 230        | 372       | 175   | 124   | 37    | 27   | 20    |
| 10          | 53           | 35       | 70      | 109    | 111       | 213        | 378       | 206   | 116   | 33    | 26   | 20    |
| 11          | 51           | 51       | 70      | 103    | 105       | 199        | 403       | 244   | 105   | 30    | 27   | 20    |
| 12          | 45           | 51       | 73      | 101    | 105       | 193        | 412       | 240   | 96    | 29    | 32   | 54    |
| 13          | 44           | 56       | 68      | 94     | 132       | 181        | 421       | 240   | 84    | 29    | 31   | 152   |
| 14          | 43           | 72       | 68      | 94     | 181       | 181        | 352       | 291   | 75    | 33    | 33   | 175   |
| 15          | 46           | 119      | 65      | 92     | 193       | 190        | 283       | 403   | 92    | 32    | 32   | 172   |
| 16          | 57           | 109      | 60      | 90     | 199       | 325        | 247       | 409   | 96    | 31    | 30   | 138   |
| 17          | 50           | 103      | 77      | 81     | 196       | 568        | 223       | 445   | 68    | 31    | 28   | 103   |
| 18          | 46           | 87       | 94      | 77     | 190       | 594        | 199       | 400   | 49    | 30    | 26   | 82    |
| 19          | 40           | 79       | 96      | 77     | 172       | 535        | 190       | 339   | 42    | 33    | 25   | 61    |
| 20          | 34           | 85       | 96      | 73     | 181       | 504        | 181       | 283   | 37    | 36    | 24   | 48    |
| 21          | 32           | 108      | 94      | 70     | 184       | 484        | 169       | 240   | 36    | 36    | 23   | 61    |
| 22          | 30           | 110      | 92      | 70     | 175       | 442        | 162       | 219   | 40    | 33    | 23   | 56    |
| 23          | 49           | 112      | 94      | 72     | 190       | 397        | 149       | 196   | 42    | 32    | 22   | 48    |
| 24          | 72           | 109      | 94      | 70     | 196       | 349        | 109       | 181   | 40    | 30    | 21   | 45    |
| 25          | 70           | 93       | 97      | 72     | 190       | 294        | 107       | 167   | 40    | 28    | 21   | 42    |
| 26          | 61           | 73       | 96      | 92     | 184       | 294        | 115       | 159   | 42    | 26    | 20   | 37    |
| 27          | 51           | 61       | 90      | 105    | 230       | 298        | 124       | 154   | 37    | 28    | 19   | 37    |
| 28          | 46           | 60       | 90      | 96     | 298       | 301        | 124       | 147   | 40    | 27    | 21   | 39    |
| 29          | 41           | 58       | 90      | 94     | -----     | 312        | 140       | 134   | 40    | 28    | 20   | 37    |
| 30          | 37           | 57       | 86      | 97     | -----     | 342        | 164       | 126   | 40    | 36    | 29   | 36    |
| 31          | 34           | -----    | 81      | 103    | -----     | 369        | -----     | 120   | ----- | 36    | 34   | ----- |
| TOTAL       | 1,388        | 2,034    | 2,599   | 2,867  | 4,181     | 10,500     | 8,342     | 7,025 | 2,397 | 1,043 | 876  | 1,684 |
| MEAN        | 44.8         | 67.8     | 83.8    | 92.5   | 149       | 339        | 278       | 227   | 79.9  | 33.6  | 28.3 | 56.1  |
| MAX         | 72           | 119      | 120     | 134    | 298       | 594        | 487       | 445   | 142   | 48    | 42   | 175   |
| MIN         | 22           | 31       | 54      | 70     | 68        | 181        | 107       | 120   | 36    | 26    | 19   | 20    |
| MEAN†       | 44.1         | 67.0     | 84.5    | 93.5   | 150       | 342        | 275       | 225   | 77.2  | 33.3  | 30.0 | 56.1  |
| CFSM†       | .52          | .79      | .99     | 1.10   | 1.76      | 4.01       | 3.22      | 2.64  | .91   | .39   | .35  | .66   |
| IN.†        | .60          | .88      | 1.14    | 1.26   | 1.83      | 4.62       | 3.60      | 3.05  | 1.01  | .45   | .41  | .73   |
| CAL YR 1970 | TOTAL 55,383 | MEAN 152 | MAX 750 | MIN 14 | MEAN† 151 | CFSM† 1.77 | IN† 24.09 |       |       |       |      |       |
| WTR YR 1971 | TOTAL 44,936 | MEAN 123 | MAX 594 | MIN 19 | MEAN† 123 | CFSM† 1.44 | IN† 19.58 |       |       |       |      |       |

† Adjusted for change in contents in Buffumville and Hodges Village Reservoirs.

NOTE.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

01126200 Bucks Horn Brook at Greene, R.I.

LOCATION.--Lat 41°41'35", long 71°44'38", Kent County, on left bank 35 ft upstream from culvert on State Highway 117 at Greene and 0.5 mile upstream from Warwick Brook.

DRAINAGE AREA.--5.52 sq mi.

PERIOD OF RECORD.--June 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 410 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 10.0 cfs (24.60 inches per year).

EXTREMES.--Current year: Maximum discharge, 62 cfs Feb. 28 (gage height, 2.97 ft); minimum, 0.34 cfs Sept. 12.

Period of record: Maximum discharge, 353 cfs Mar. 18, 1968 (gage height, 5.49 ft), from rating curve extended above 79 cfs on basis of measurement of peak flow through culvert; minimum, 0.27 cfs Aug. 17-19, Sept. 10-13, 1965.

REMARKS.--Records good. Recording rain gage at station since June 1966 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR  | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| 1     | .83   | 1.7   | 5.0   | 5.4   | 5.1   | 4.0  | 11    | 13    | 8.2   | 1.8   | 2.1   | .48   |
| 2     | .78   | 3.0   | 4.5   | 5.4   | 3.7   | 31   | 11    | 11    | 6.8   | 4.9   | 1.3   | .48   |
| 3     | .73   | 22    | 4.3   | 5.6   | 3.1   | 24   | 19    | 18    | 7.0   | 2.9   | 1.0   | .41   |
| 4     | 1.1   | 18    | 6.9   | 6.0   | 2.7   | 24   | 20    | 27    | 11    | 2.0   | .98   | .41   |
| 5     | 1.0   | 12    | 8.3   | 20    | 6.0   | 35   | 14    | 19    | 8.4   | 1.7   | 1.4   | .39   |
| 6     | .83   | 10    | 6.0   | 16    | 7.0   | 28   | 12    | 14    | 6.0   | 1.6   | 1.1   | .39   |
| 7     | .78   | 6.1   | 5.1   | 11    | 7.6   | 26   | 25    | 12    | 5.1   | 1.4   | .86   | .39   |
| 8     | .78   | 4.7   | 3.9   | 8.8   | 13    | 34   | 37    | 12    | 5.3   | 1.3   | .78   | .39   |
| 9     | .78   | 4.0   | 3.8   | 7.8   | 20    | 27   | 27    | 19    | 13    | 1.2   | .69   | .39   |
| 10    | .78   | 3.7   | 4.7   | 7.0   | 15    | 20   | 21    | 23    | 10    | 1.2   | .61   | .39   |
| 11    | .78   | 4.2   | 5.0   | 6.4   | 12    | 18   | 16    | 20    | 6.0   | 1.0   | .57   | .36   |
| 12    | .93   | 4.7   | 4.4   | 6.0   | 15    | 19   | 15    | 15    | 4.9   | 1.1   | 1.2   | .57   |
| 13    | 1.0   | 7.0   | 4.7   | 5.6   | 20    | 19   | 14    | 13    | 4.5   | .92   | .98   | 1.9   |
| 14    | .93   | 20    | 5.0   | 5.3   | 35    | 19   | 13    | 13    | 4.5   | .98   | .69   | 5.3   |
| 15    | .93   | 15    | 4.7   | 5.3   | 28    | 20   | 12    | 12    | 4.0   | .92   | .61   | 3.7   |
| 16    | 1.6   | 10    | 3.9   | 5.1   | 21    | 33   | 11    | 16    | 3.7   | .82   | .57   | 1.5   |
| 17    | 1.8   | 7.2   | 13    | 4.5   | 16    | 31   | 11    | 33    | 3.4   | .73   | .48   | 1.0   |
| 18    | 1.4   | 5.6   | 20    | 3.7   | 15    | 23   | 11    | 24    | 3.1   | .78   | .44   | .86   |
| 19    | 1.2   | 5.0   | 15    | 3.4   | 15    | 20   | 11    | 16    | 2.7   | 1.5   | .41   | .78   |
| 20    | 1.1   | 5.2   | 13    | 2.9   | 17    | 40   | 11    | 13    | 2.6   | 6.4   | .65   | .61   |
| 21    | 1.1   | 13    | 11    | 2.9   | 20    | 35   | 11    | 12    | 2.4   | 2.6   | .73   | 1.0   |
| 22    | 1.1   | 11    | 10    | 3.2   | 18    | 22   | 10    | 13    | 2.2   | 1.3   | .57   | 1.3   |
| 23    | 5.2   | 7.6   | 9.0   | 3.6   | 25    | 19   | 9.4   | 13    | 2.2   | 1.0   | .48   | .92   |
| 24    | 13    | 6.1   | 9.4   | 3.9   | 23    | 17   | 9.1   | 10    | 2.2   | .92   | .41   | .73   |
| 25    | 6.3   | 5.0   | 8.2   | 4.2   | 22    | 16   | 9.4   | 9.6   | 2.0   | .92   | .39   | .65   |
| 26    | 3.3   | 4.3   | 7.4   | 5.7   | 20    | 15   | 9.1   | 9.1   | 1.9   | .98   | .36   | .61   |
| 27    | 2.4   | 4.2   | 6.8   | 7.3   | 32    | 14   | 8.9   | 8.4   | 1.9   | 1.2   | .44   | .61   |
| 28    | 3.0   | 4.3   | 6.2   | 7.0   | 55    | 14   | 8.9   | 8.2   | 1.7   | 1.0   | 1.2   | .57   |
| 29    | 4.2   | 4.3   | 5.8   | 6.2   | ----- | 13   | 14    | 7.7   | 1.6   | .86   | 1.2   | .57   |
| 30    | 2.2   | 4.7   | 5.6   | 5.1   | ----- | 13   | 17    | 8.4   | 1.6   | 2.1   | .69   | .57   |
| 31    | 1.8   | ----- | 5.4   | 5.1   | ----- | 12   | ----- | 9.4   | ----- | 4.5   | .57   | ----- |
| TOTAL | 63.66 | 233.6 | 226.0 | 195.4 | 492.2 | 721  | 428.8 | 451.8 | 139.9 | 52.53 | 24.46 | 28.23 |
| MEAN  | 2.05  | 7.79  | 7.29  | 6.30  | 17.6  | 23.3 | 14.3  | 14.6  | 4.66  | 1.69  | .79   | .94   |
| MAX   | 13    | 22    | 20    | 20    | 55    | 40   | 37    | 33    | 13    | 6.4   | 2.1   | 5.3   |
| MIN   | .73   | 1.7   | 3.8   | 2.9   | 2.7   | 12   | 8.9   | 7.7   | 1.6   | .73   | .36   | .36   |
| CFSM  | .37   | 1.41  | 1.32  | 1.14  | 3.19  | 4.22 | 2.59  | 2.64  | .84   | .31   | .14   | .17   |
| IN.   | .43   | 1.57  | 1.52  | 1.32  | 3.32  | 4.86 | 2.89  | 3.04  | .94   | .35   | .16   | .19   |

CAL YR 1970 TOTAL 3,854.25 MEAN 10.6 MAX 140 MIN .69 CFSM 1.92 IN 25.97

WTR YR 1971 TOTAL 3,057.58 MEAN 8.38 MAX 55 MIN .36 CFSM 1.52 IN 20.61

## PEAK DISCHARGE (BASE, 60 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 2-28 | 0215 | 2.97  | 62        |      |      |       |           |

## THAMES RIVER BASIN

## Reservoirs in Thames River basin

01123350. EAST BRIMFIELD LAKE on Quinebaug River, 0.7 mile southwest of Fiskdale, Mass., 1.2 miles east of East Brimfield, completed in 1960, used for flood control, conservation, and recreation, has usable capacity of 1,400,000,000 cu ft. Records furnished by Corps of Engineers.
01123550. WESTVILLE LAKE on Quinebaug River, 1.3 miles west of Southbridge, Mass., completed in 1962, used for flood control and recreation, has usable capacity of 484,000,000 cu ft. Records furnished by Corps of Engineers.
01124300. HODGES VILLAGE RESERVOIR on French River at Hodges Village, Mass., 0.8 mile west of Oxford, completed in 1960 for flood control, has usable capacity of 577,000,000 cu ft. Records furnished by Corps of Engineers.
01124400. BUFFUMVILLE LAKE on Little River at Buffumville, Mass., 2.2 miles west of Oxford, completed in 1958, used for flood control and recreation, has usable capacity of 555,000,000 cu ft. Records furnished by Corps of Engineers.

## MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

|                     | East Brimfield<br>Lake | Westville<br>Lake | Hodges Village<br>Reservoir | Buffumville<br>Lake |
|---------------------|------------------------|-------------------|-----------------------------|---------------------|
| Sept. 30, 1970..... | 102.7                  | 4.8               | 0.3                         | 64.5                |
| Oct. 31.....        | 104.4                  | 4.8               | .3                          | 62.7                |
| Nov. 30.....        | 78.6                   | 5.8               | .7                          | 60.1                |
| Dec. 31.....        | 26.4                   | 5.0               | .8                          | 61.9                |
| Jan. 31, 1971.....  | 27.4                   | 5.6               | 1.0                         | 64.5                |
| Feb. 28.....        | 49.2                   | 8.5               | 1.2                         | 66.2                |
| Mar. 31.....        | 104.4                  | 7.3               | 1.5                         | 74.3                |
| Apr. 30.....        | 112.6                  | 6.1               | 1.1                         | 68.0                |
| May 31.....         | 111.0                  | 5.7               | .7                          | 65.3                |
| June 30.....        | 104.4                  | 4.8               | .5                          | 58.4                |
| July 31.....        | 109.3                  | 4.8               | .4                          | 57.5                |
| Aug. 31.....        | 106.0                  | 4.9               | .7                          | 61.9                |
| Sept. 30.....       | 102.7                  | 4.8               | .6                          | 61.9                |



01127880 Big Brook near Pittsburg, N.H.

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

DRAINAGE AREA.--6.36 sq mi.

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

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

AVERAGE DISCHARGE.--7 years (1964-71), 14.2 cfs (30.32 inches per year).

EXTREMES.--Current year: Maximum discharge, 233 cfs May 11 (gage height, 3.49 ft); minimum not determined; minimum daily, 1.4 cfs Aug. 21, 22.

Period of record: Maximum discharge, 441 cfs May 3, 1967 (gage height, 3.61 ft), from rating curve extended above 110 cfs; maximum gage height, 5.02 ft Dec. 27, 1969 (ice jam); minimum discharge not determined (occurred during period of ice effect in 1968 water year); minimum daily, 1.3 cfs Mar. 8, 12, 15, 1968.

REMARKS.--Records good except those for winter period, which are fair, and those for periods of no gage-height record, which are poor.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 25    | 6.4   | 10    | 3.5   | 3.6   | 4.2   | 3.3   | 48    | 11    | 6.2   | 1.7   | 9.0   |
| 2     | 20    | 6.2   | 9.0   | 3.5   | 3.6   | 4.0   | 4.0   | 46    | 9.4   | 6.2   | 10    | 6.9   |
| 3     | 25    | 6.1   | 8.5   | 3.5   | 3.5   | 3.2   | 8.0   | 51    | 15    | 3.6   | 8.0   | 5.5   |
| 4     | 35    | 6.1   | 14    | 3.5   | 3.5   | 3.2   | 7.0   | 114   | 11    | 3.1   | 15    | 5.2   |
| 5     | 21    | 6.1   | 10    | 7.0   | 3.5   | 3.2   | 6.2   | 91    | 9.4   | 2.6   | 9.0   | 5.2   |
| 6     | 16    | 6.4   | 7.5   | 6.0   | 3.5   | 3.2   | 5.6   | 74    | 7.7   | 2.4   | 13    | 7.3   |
| 7     | 13    | 6.0   | 6.2   | 5.2   | 3.3   | 3.2   | 6.2   | 93    | 9.8   | 2.4   | 25    | 5.8   |
| 8     | 11    | 5.6   | 5.5   | 4.8   | 3.3   | 3.2   | 5.6   | 103   | 30    | 2.2   | 11    | 4.9   |
| 9     | 9.5   | 5.4   | 7.5   | 4.5   | 3.3   | 3.2   | 5.0   | 134   | 19    | 5.8   | 5.0   | 6.5   |
| 10    | 8.4   | 5.4   | 7.0   | 4.6   | 3.3   | 3.1   | 6.0   | 146   | 13    | 6.9   | 4.0   | 4.9   |
| 11    | 7.4   | 6.0   | 6.5   | 4.5   | 3.2   | 3.1   | 20    | 160   | 11    | 4.1   | 5.0   | 4.3   |
| 12    | 7.0   | 5.6   | 6.2   | 4.3   | 3.1   | 3.1   | 30    | 136   | 9.0   | 3.1   | 5.0   | 5.5   |
| 13    | 8.0   | 5.3   | 5.8   | 4.1   | 3.5   | 3.1   | 35    | 117   | 7.7   | 2.0   | 3.8   | 13    |
| 14    | 9.0   | 5.0   | 5.4   | 3.9   | 5.0   | 3.3   | 32    | 66    | 6.5   | 7.3   | 2.8   | 11    |
| 15    | 45    | 5.4   | 5.0   | 3.8   | 8.0   | 5.0   | 27    | 51    | 5.8   | 13    | 2.3   | 6.2   |
| 16    | 30    | 5.6   | 4.0   | 3.7   | 7.0   | 9.0   | 22    | 59    | 5.5   | 4.9   | 1.9   | 4.9   |
| 17    | 20    | 5.3   | 4.0   | 3.6   | 5.8   | 10    | 18    | 61    | 4.9   | 6.2   | 1.7   | 6.2   |
| 18    | 15    | 5.0   | 4.5   | 3.5   | 5.0   | 8.5   | 21    | 58    | 4.6   | 6.2   | 2.0   | 10    |
| 19    | 12    | 4.8   | 4.0   | 3.4   | 4.5   | 6.5   | 35    | 59    | 4.6   | 3.3   | 1.8   | 6.2   |
| 20    | 10    | 6.0   | 4.2   | 3.4   | 4.0   | 5.4   | 47    | 54    | 4.3   | 3.3   | 1.7   | 8.1   |
| 21    | 9.4   | 33    | 3.8   | 3.3   | 4.0   | 4.6   | 64    | 45    | 6.2   | 2.4   | 1.4   | 12    |
| 22    | 9.0   | 30    | 3.8   | 3.3   | 4.0   | 4.2   | 58    | 48    | 5.2   | 2.4   | 1.4   | 9.4   |
| 23    | 10    | 30    | 3.8   | 3.2   | 3.4   | 3.9   | 41    | 35    | 4.3   | 2.0   | 17    | 11    |
| 24    | 15    | 23    | 4.5   | 3.2   | 3.4   | 3.7   | 30    | 24    | 4.1   | 1.7   | 13    | 9.4   |
| 25    | 12    | 15    | 5.0   | 3.2   | 3.4   | 3.6   | 31    | 21    | 5.2   | 1.5   | 7.3   | 8.5   |
| 26    | 10    | 12    | 4.6   | 3.2   | 3.4   | 3.5   | 30    | 28    | 5.5   | 1.5   | 4.6   | 7.7   |
| 27    | 9.0   | 9.0   | 4.3   | 5.0   | 3.4   | 3.4   | 29    | 24    | 3.8   | 12    | 4.3   | 6.9   |
| 28    | 8.0   | 10    | 4.1   | 4.2   | 3.4   | 3.4   | 33    | 21    | 3.3   | 12    | 24    | 6.2   |
| 29    | 7.5   | 15    | 3.9   | 4.0   | ----- | 3.3   | 40    | 18    | 2.8   | 6.0   | 33    | 6.2   |
| 30    | 7.0   | 12    | 3.7   | 3.8   | ----- | 3.3   | 44    | 15    | 2.8   | 3.5   | 17    | 5.2   |
| 31    | 6.6   | ----- | 3.6   | 3.7   | ----- | 3.3   | ----- | 13    | ----- | 2.3   | 13    | ----- |
| TOTAL | 450.8 | 303.1 | 179.9 | 124.4 | 111.9 | 130.9 | 743.9 | 2,013 | 242.4 | 142.1 | 265.7 | 219.1 |
| MEAN  | 14.5  | 10.1  | 5.80  | 4.01  | 4.00  | 4.22  | 24.8  | 64.9  | 8.08  | 4.58  | 8.57  | 7.30  |
| MAX   | 45    | 33    | 14    | 7.0   | 8.0   | 10    | 64    | 160   | 30    | 13    | 33    | 13    |
| MIN   | 6.6   | 4.8   | 3.6   | 3.2   | 3.1   | 3.1   | 3.3   | 13    | 2.8   | 1.5   | 1.4   | 4.3   |
| CFSM  | 2.28  | 1.59  | .91   | .63   | .63   | .66   | 3.90  | 10.2  | 1.27  | .72   | 1.35  | 1.15  |
| IN.   | 2.64  | 1.77  | 1.05  | .73   | .65   | .77   | 4.35  | 11.77 | 1.42  | .83   | 1.55  | 1.28  |

CAL YR 1970 TOTAL 5,110.2 MEAN 14.0 MAX 126 MIN 1.8 CFSM 2.20 IN 29.89  
WTR YR 1971 TOTAL 4,927.2 MEAN 13.5 MAX 160 MIN 1.4 CFSM 2.12 IN 29.82

## PEAK DISCHARGE (BASE, 180 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-11 | 1845 | 3.49  | 233       |      |      |       |           |

NOTE.--No gage-height record Oct. 1 to Nov. 3, Nov. 6 to Dec. 14, Mar. 6 to Apr. 19, July 24 to Aug. 24.

01128500 Connecticut River at First Connecticut Lake, near Pittsburg, N. H.

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

DRAINAGE AREA.--83.0 sq mi.

PERIOD OF RECORD.--April 1917 to September 1971.

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

AVERAGE DISCHARGE.--54 years, 194 cfs (31.74 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 553 cfs Mar. 8 (gage height, 3.15 ft); minimum daily, 4.8 cfs Apr. 10.

Period of record: Maximum discharge, 7,200 cfs June 16, 1943 (gage height, 6.25 ft), from rating curve extended above 1,900 cfs on basis of computation of flow over dam at gage height 6.12 ft; maximum gage height, 6.35 ft May 5, 1925 (backwater from logging operations); minimum daily discharge, 3.1 cfs Mar. 17, 18, 1929.

REMARKS.--Records good. Flow completely regulated by First Connecticut and Second Connecticut Lakes (see p. 209).

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1001: 1931-39. WSP 1231: 1921-23(M), 1925-26.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV    | DEC   | JAN   | FEB   | MAR    | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|--------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|
| 1     | 152   | 312    | 308   | 271   | 252   | 490    | 137   | 7.4   | 14    | 100   | 155   | 152   |
| 2     | 152   | 311    | 307   | 271   | 252   | 519    | 131   | 7.4   | 15    | 100   | 155   | 152   |
| 3     | 152   | 310    | 307   | 271   | 252   | 529    | 131   | 8.2   | 16    | 98    | 155   | 152   |
| 4     | 155   | 310    | 137   | 271   | 252   | 522    | 128   | 9.0   | 17    | 98    | 155   | 152   |
| 5     | 155   | 309    | 14    | 267   | 248   | 516    | 71    | 9.0   | 17    | 98    | 155   | 152   |
| 6     | 248   | 308    | 105   | 267   | 248   | 508    | 5.4   | 9.0   | 16    | 100   | 155   | 152   |
| 7     | 420   | 308    | 308   | 267   | 248   | 496    | 5.4   | 9.8   | 16    | 67    | 155   | 152   |
| 8     | 417   | 307    | 308   | 267   | 248   | 522    | 5.4   | 9.8   | 15    | 48    | 155   | 152   |
| 9     | 414   | 308    | 307   | 267   | 248   | 533    | 5.4   | 11    | 15    | 46    | 155   | 152   |
| 10    | 411   | 452    | 307   | 267   | 248   | 520    | 4.8   | 11    | 16    | 48    | 155   | 152   |
| 11    | 410   | 522    | 307   | 267   | 244   | 508    | 5.4   | 11    | 17    | 48    | 155   | 152   |
| 12    | 410   | 520    | 307   | 263   | 252   | 527    | 6.0   | 12    | 16    | 48    | 155   | 152   |
| 13    | 411   | 516    | 306   | 263   | 260   | 527    | 6.0   | 12    | 17    | 48    | 155   | 152   |
| 14    | 408   | 512    | 305   | 263   | 256   | 514    | 6.0   | 12    | 115   | 48    | 152   | 152   |
| 15    | 283   | 511    | 304   | 263   | 256   | 502    | 6.0   | 13    | 226   | 48    | 155   | 152   |
| 16    | 17    | 506    | 304   | 260   | 256   | 490    | 6.0   | 13    | 226   | 48    | 152   | 152   |
| 17    | 17    | 503    | 303   | 256   | 256   | 478    | 6.0   | 13    | 222   | 48    | 152   | 152   |
| 18    | 18    | 502    | 303   | 256   | 256   | 455    | 6.0   | 13    | 222   | 48    | 152   | 152   |
| 19    | 74    | 519    | 302   | 260   | 256   | 444    | 6.7   | 13    | 222   | 48    | 152   | 152   |
| 20    | 218   | 532    | 303   | 260   | 252   | 427    | 7.4   | 13    | 222   | 48    | 152   | 152   |
| 21    | 218   | 529    | 303   | 256   | 252   | 411    | 7.4   | 13    | 222   | 48    | 152   | 152   |
| 22    | 218   | 244    | 301   | 256   | 252   | 395    | 7.4   | 13    | 218   | 48    | 152   | 152   |
| 23    | 218   | 14     | 303   | 256   | 252   | 355    | 6.7   | 14    | 222   | 48    | 152   | 152   |
| 24    | 218   | 14     | 303   | 256   | 252   | 307    | 6.0   | 15    | 168   | 48    | 152   | 152   |
| 25    | 218   | 14     | 303   | 256   | 389   | 271    | 6.7   | 15    | 100   | 48    | 152   | 152   |
| 26    | 248   | 14     | 301   | 252   | 509   | 244    | 6.7   | 16    | 100   | 131   | 152   | 152   |
| 27    | 315   | 14     | 299   | 256   | 500   | 222    | 6.7   | 18    | 100   | 196   | 152   | 152   |
| 28    | 315   | 200    | 299   | 256   | 495   | 200    | 6.7   | 16    | 98    | 155   | 152   | 152   |
| 29    | 314   | 309    | 296   | 256   | ----- | 182    | 7.4   | 14    | 100   | 155   | 152   | 152   |
| 30    | 314   | 308    | 295   | 252   | ----- | 165    | 7.4   | 14    | 100   | 155   | 152   | 152   |
| 31    | 312   | -----  | 280   | 252   | ----- | 146    | ----- | 14    | ----- | 155   | 152   | ----- |
| TOTAL | 7,850 | 10,038 | 8,735 | 8,101 | 7,941 | 12,925 | 755.0 | 378.6 | 3,090 | 2,470 | 4,754 | 4,560 |
| MEAN  | 253   | 335    | 282   | 261   | 284   | 417    | 25.2  | 12.2  | 103   | 79.7  | 153   | 152   |
| MAX   | 420   | 532    | 308   | 271   | 509   | 533    | 137   | 18    | 226   | 196   | 155   | 152   |
| MIN   | 17    | 14     | 14    | 252   | 244   | 146    | 4.8   | 7.4   | 14    | 46    | 152   | 152   |
| MEAN† | 204   | 112    | 98.1  | 66.0  | 43.5  | 59.8   | 335   | 961   | 125   | 52.4  | 96.6  | 148   |
| CFSM† | 2.46  | 1.35   | 1.18  | .80   | .52   | .72    | 4.04  | 11.6  | 1.51  | .63   | 1.16  | 1.78  |
| IN.†  | 2.84  | 1.51   | 1.36  | .92   | .55   | .83    | 4.50  | 13.35 | 1.69  | .73   | 1.34  | 1.99  |

CAL YR 1970 TOTAL 79,379.0 MEAN 217 MAX 640 MIN 5.2 MEAN† 194 CFSM† 2.34 IN† 31.77  
WTR YR 1971 TOTAL 71,597.6 MEAN 196 MAX 533 MIN 4.8 MEAN† 193 CFSM† 2.33 IN† 31.60

† Adjusted for change in contents in First Connecticut and Second Connecticut Lakes.

01129200 Connecticut River below Indian Stream, near Pittsburg, N. H.

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

DRAINAGE AREA.--254 sq mi.

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

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

AVERAGE DISCHARGE.--15 years, 546 cfs (29.19 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 1,950 cfs May 5 (gage height, 4.90 ft); minimum daily, 42 cfs July 25.

Period of record: Maximum discharge, 4,580 cfs Nov. 29, 1959 (gage height, 7.07 ft), from rating curve extended above 2,000 cfs; minimum daily, 30 cfs Aug. 6, 1965.

REMARKS.--Records excellent. Flow regulated by First Connecticut and Second Connecticut Lakes and by Lake Francis 3.7 miles upstream (see p. 209).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC       | JAN    | FEB       | MAR         | APR       | MAY    | JUN   | JUL   | AUG    | SEP    |
|-------------|---------------|----------|-----------|--------|-----------|-------------|-----------|--------|-------|-------|--------|--------|
| 1           | 618           | 556      | 1,140     | 686    | 632       | 816         | 235       | 871    | 132   | 97    | 314    | 429    |
| 2           | 542           | 550      | 1,140     | 682    | 567       | 826         | 241       | 797    | 119   | 127   | 335    | 389    |
| 3           | 535           | 547      | 1,180     | 680    | 562       | 829         | 327       | 847    | 121   | 126   | 355    | 368    |
| 4           | 669           | 544      | 735       | 675    | 557       | 823         | 401       | 1,410  | 124   | 105   | 338    | 357    |
| 5           | 584           | 542      | 345       | 680    | 555       | 819         | 276       | 1,690  | 115   | 97    | 331    | 352    |
| 6           | 516           | 540      | 565       | 692    | 550       | 833         | 140       | 1,120  | 99    | 94    | 328    | 372    |
| 7           | 511           | 538      | 1,070     | 718    | 550       | 813         | 140       | 1,280  | 95    | 91    | 482    | 381    |
| 8           | 629           | 538      | 1,030     | 729    | 554       | 814         | 135       | 1,290  | 512   | 87    | 413    | 362    |
| 9           | 612           | 536      | 1,030     | 719    | 563       | 852         | 135       | 1,430  | 393   | 87    | 358    | 377    |
| 10          | 597           | 821      | 735       | 705    | 562       | 962         | 144       | 1,480  | 223   | 81    | 338    | 378    |
| 11          | 587           | 1,010    | 1,060     | 702    | 558       | 1,010       | 291       | 1,480  | 162   | 77    | 333    | 355    |
| 12          | 590           | 1,020    | 1,040     | 655    | 556       | 1,020       | 437       | 1,410  | 133   | 364   | 342    | 353    |
| 13          | 602           | 1,010    | 1,040     | 685    | 551       | 1,000       | 590       | 1,290  | 118   | 402   | 336    | 415    |
| 14          | 627           | 1,010    | 1,050     | 678    | 558       | 984         | 682       | 890    | 106   | 52    | 328    | 518    |
| 15          | 624           | 1,010    | 1,050     | 672    | 562       | 977         | 553       | 566    | 88    | 48    | 322    | 487    |
| 16          | 426           | 1,010    | 1,040     | 670    | 567       | 1,030       | 408       | 580    | 80    | 45    | 315    | 437    |
| 17          | 309           | 1,010    | 1,030     | 680    | 609       | 1,100       | 326       | 590    | 75    | 50    | 317    | 405    |
| 18          | 232           | 998      | 1,030     | 682    | 610       | 1,090       | 306       | 476    | 75    | 76    | 313    | 444    |
| 19          | 261           | 994      | 1,030     | 677    | 604       | 1,060       | 415       | 466    | 69    | 64    | 313    | 442    |
| 20          | 444           | 1,010    | 1,030     | 671    | 554       | 1,020       | 867       | 420    | 75    | 59    | 310    | 420    |
| 21          | 428           | 1,220    | 1,030     | 666    | 588       | 972         | 1,060     | 342    | 85    | 56    | 308    | 476    |
| 22          | 418           | 867      | 1,030     | 660    | 580       | 930         | 995       | 417    | 159   | 51    | 308    | 506    |
| 23          | 422           | 421      | 1,020     | 656    | 576       | 688         | 714       | 410    | 103   | 46    | 431    | 434    |
| 24          | 432           | 392      | 1,030     | 667    | 572       | 480         | 523       | 264    | 81    | 44    | 630    | 401    |
| 25          | 432           | 314      | 1,020     | 670    | 584       | 481         | 587       | 193    | 80    | 42    | 449    | 385    |
| 26          | 442           | 451      | 1,020     | 668    | 736       | 425         | 577       | 248    | 114   | 480   | 378    | 373    |
| 27          | 588           | 449      | 1,010     | 664    | 823       | 410         | 556       | 237    | 104   | 793   | 281    | 362    |
| 28          | 578           | 845      | 1,030     | 658    | 819       | 370         | 662       | 245    | 91    | 320   | 148    | 357    |
| 29          | 571           | 1,190    | 1,030     | 653    | -----     | 345         | 834       | 210    | 88    | 318   | 512    | 349    |
| 30          | 564           | 1,150    | 1,020     | 649    | -----     | 326         | 797       | 173    | 87    | 317   | 289    | 346    |
| 31          | 560           | -----    | 834       | 660    | -----     | 270         | -----     | 147    | ----- | 317   | 222    | -----  |
| TOTAL       | 15,950        | 23,093   | 30,452    | 21,053 | 16,699    | 24,375      | 14,354    | 23,269 | 3,906 | 5,013 | 10,781 | 12,030 |
| MEAN        | 515           | 770      | 982       | 679    | 596       | 786         | 478       | 751    | 130   | 162   | 348    | 401    |
| MAX         | 669           | 1,220    | 1,180     | 725    | 823       | 1,100       | 1,060     | 1,690  | 512   | 793   | 630    | 518    |
| MIN         | 232           | 314      | 349       | 649    | 550       | 270         | 135       | 147    | 69    | 42    | 148    | 346    |
| MEAN†       | 609           | 383      | 286       | 175    | 139       | 241         | 1,199     | 2,483  | 312   | 125   | 263    | 327    |
| CFSMT       | 2.40          | 1.51     | 1.13      | .69    | .55       | .95         | 4.72      | 9.78   | 1.23  | .49   | 1.04   | 1.29   |
| IN.†        | 2.76          | 1.68     | 1.30      | .79    | .57       | 1.10        | 5.27      | 11.27  | 1.37  | .57   | 1.19   | 1.44   |
| CAL YR 1970 | TOTAL 232,382 | MEAN 637 | MAX 2,430 | MIN 43 | MEAN† 558 | CFSMT† 2.20 | IN† 29.82 |        |       |       |        |        |
| WTR YR 1971 | TOTAL 200,975 | MEAN 551 | MAX 1,690 | MIN 42 | MEAN† 548 | CFSMT† 2.16 | IN† 29.32 |        |       |       |        |        |

† Adjusted for change in contents in First Connecticut and Second Connecticut Lakes and Lake Francis.

## CONNECTICUT RIVER BASIN

01129300 Halls Stream near East Hereford, Quebec

(International gaging station)

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

DRAINAGE AREA.--85 sq mi.

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

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

AVERAGE DISCHARGE.--23 years, 165 cfs (26.36 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,250 cfs May 5 (gage height, 9.50 ft), minimum, 6.7 cfs Aug. 22, 23.

Period of record: Maximum discharge observed, 4,150 cfs June 29, 1959 (gage height, 12.64 ft); minimum observed, 4 cfs Sept. 10, 1960. Flood in June 1943 reached a discharge of 21,000 cfs, by slope-area method at site 0.5 mile downstream.

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

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG     | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|---------|-------|
| 1     | 209   | 56    | 205   | 49    | 47    | 62    | 83     | 1,020  | 74    | 25    | 9.0     | 70    |
| 2     | 158   | 52    | 211   | 50    | 46    | 58    | 88     | 903    | 64    | 47    | 32      | 48    |
| 3     | 154   | 50    | 258   | 51    | 45    | 52    | 152    | 1,010  | 64    | 34    | 46      | 37    |
| 4     | 251   | 47    | 170   | 52    | 44    | 52    | 212    | 1,590  | 68    | 25    | 30      | 31    |
| 5     | 165   | 47    | 130   | 54    | 45    | 58    | 172    | 1,670  | 64    | 21    | 24      | 28    |
| 6     | 126   | 43    | 105   | 140   | 46    | 66    | 162    | 1,110  | 54    | 18    | 18      | 46    |
| 7     | 104   | 45    | 88    | 150   | 45    | 67    | 171    | 1,240  | 48    | 17    | 107     | 54    |
| 8     | 90    | 54    | 74    | 130   | 44    | 63    | 147    | 1,170  | 404   | 15    | 58      | 39    |
| 9     | 79    | 45    | 72    | 135   | 41    | 62    | 136    | 1,190  | 224   | 14    | 31      | 63    |
| 10    | 69    | 36    | 69    | 140   | 39    | 58    | 174    | 1,060  | 120   | 13    | 21      | 57    |
| 11    | 64    | 48    | 68    | 97    | 37    | 57    | 456    | 939    | 83    | 12    | 17      | 38    |
| 12    | 58    | 70    | 66    | 84    | 36    | 55    | 723    | 773    | 66    | 11    | 24      | 39    |
| 13    | 93    | 60    | 62    | 82    | 35    | 55    | 911    | 698    | 52    | 11    | 22      | 125   |
| 14    | 117   | 52    | 60    | 78    | 50    | 56    | 903    | 445    | 46    | 11    | 18      | 185   |
| 15    | 226   | 56    | 56    | 74    | 81    | 69    | 589    | 311    | 40    | 13    | 13      | 169   |
| 16    | 343   | 72    | 54    | 70    | 140   | 232   | 409    | 271    | 36    | 13    | 12      | 109   |
| 17    | 205   | 70    | 52    | 67    | 145   | 363   | 330    | 246    | 32    | 12    | 11      | 84    |
| 18    | 130   | 60    | 51    | 65    | 92    | 306   | 359    | 210    | 29    | 21    | 9.5     | 84    |
| 19    | 100   | 56    | 48    | 62    | 78    | 254   | 707    | 176    | 26    | 21    | 8.4     | 85    |
| 20    | 79    | 68    | 47    | 59    | 71    | 190   | 1,410  | 145    | 24    | 19    | 7.2     | 75    |
| 21    | 73    | 551   | 46    | 57    | 66    | 158   | 1,470  | 127    | 34    | 17    | 7.2     | 152   |
| 22    | 70    | 391   | 45    | 55    | 63    | 134   | 1,220  | 236    | 95    | 13    | 7.2     | 126   |
| 23    | 86    | 391   | 48    | 54    | 66    | 124   | 772    | 218    | 48    | 12    | 48      | 83    |
| 24    | 105   | 299   | 52    | 52    | 66    | 112   | 578    | 143    | 34    | 10    | 114     | 65    |
| 25    | 130   | 202   | 58    | 51    | 56    | 101   | 741    | 114    | 32    | 9.0   | 58      | 53    |
| 26    | 110   | 152   | 55    | 50    | 52    | 97    | 744    | 166    | 83    | 9.0   | 34      | 46    |
| 27    | 84    | 145   | 52    | 49    | 50    | 100   | 752    | 150    | 55    | 14    | 24      | 40    |
| 28    | 73    | 171   | 51    | 48    | 60    | 103   | 975    | 178    | 36    | 14    | 208     | 36    |
| 29    | 64    | 285   | 50    | 47    | ----- | 94    | 1,170  | 136    | 28    | 10    | 449     | 34    |
| 30    | 58    | 220   | 49    | 48    | ----- | 90    | 1,000  | 103    | 24    | 9.0   | 162     | 32    |
| 31    | 54    | ----- | 48    | 49    | ----- | 82    | -----  | 85     | ----- | 9.0   | 112     | ----- |
| TOTAL | 3,727 | 3,889 | 2,500 | 2,249 | 1,686 | 3,430 | 17,716 | 17,834 | 2,087 | 499.0 | 1,741.5 | 2,133 |
| MEAN  | 120   | 130   | 80.6  | 72.5  | 60.2  | 111   | 591    | 575    | 69.6  | 16.1  | 56.2    | 71.1  |
| MAX   | 343   | 551   | 258   | 150   | 145   | 363   | 1,470  | 1,670  | 404   | 47    | 449     | 185   |
| MIN   | 54    | 36    | 45    | 47    | 35    | 52    | 83     | 86     | 24    | 9.0   | 7.2     | 28    |
| CFSM  | 1.41  | 1.53  | .95   | .85   | .71   | 1.31  | 6.95   | 6.76   | .82   | .19   | .66     | .84   |
| IN.   | 1.63  | 1.70  | 1.09  | .98   | .74   | 1.50  | 7.75   | 7.80   | .91   | .22   | .76     | .93   |

CAL YR 1970 TOTAL 55,813.3 MEAN 153 MAX 2,520 MIN 5.4 CFSM 1.80 IN 24.43  
 WTR YR 1971 TOTAL 59,491.5 MEAN 153 MAX 1,670 MIN 7.2 CFSM 1.92 IN 26.04

PEAK DISCHARGE (BASE, 2,300 CFS).--No peak above base.

01129500 Connecticut River at North Stratford, N.H.

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

DRAINAGE AREA.--799 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 880.17 ft above mean sea level.

AVERAGE DISCHARGE.--41 years, 1,547 cfs (26.29 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 10,400 cfs May 5 (gage height, 8.91 ft); maximum gage height, 9.60 ft Dec. 24 (backwater from ice); minimum daily discharge, 165 cfs July 25.

Period of record: Maximum discharge, 28,700 cfs June 16, 1943 (gage height, 14.67 ft), from rating curve extended above 15,000 cfs; maximum gage height, 16.66 ft Mar. 13, 1936 (ice jam); minimum daily discharge, 108 cfs Sept. 29, 1960.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes and Lake Francis (see p. 209) 36 miles upstream.

REVISIONS (WATER YEARS).--WSP 781: 1934(M). WSP 891: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY     | JUN    | JUL    | AUG    | SEP    |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|
| 1     | 1,680  | 1,010  | 2,260  | 1,050  | 880    | 1,200  | 722    | 6,050   | 875    | 316    | 541    | 832    |
| 2     | 1,340  | 985    | 2,160  | 1,000  | 800    | 1,200  | 760    | 5,750   | 756    | 553    | 625    | 764    |
| 3     | 1,480  | 968    | 2,450  | 1,000  | 800    | 1,200  | 1,080  | 6,000   | 757    | 463    | 921    | 647    |
| 4     | 2,380  | 947    | 2,160  | 1,050  | 780    | 1,150  | 1,490  | 9,020   | 791    | 357    | 1,100  | 590    |
| 5     | 1,800  | 935    | 1,250  | 1,050  | 780    | 1,150  | 1,380  | 10,000  | 684    | 303    | 713    | 564    |
| 6     | 1,410  | 934    | 1,100  | 1,050  | 780    | 1,150  | 1,080  | 8,050   | 603    | 278    | 575    | 724    |
| 7     | 1,190  | 927    | 1,400  | 1,100  | 790    | 1,150  | 1,100  | 7,890   | 564    | 262    | 714    | 819    |
| 8     | 1,140  | 932    | 1,500  | 1,100  | 800    | 1,150  | 954    | 8,040   | 1,390  | 239    | 819    | 674    |
| 9     | 1,120  | 909    | 1,600  | 1,050  | 820    | 1,200  | 893    | 8,220   | 1,810  | 217    | 600    | 603    |
| 10    | 1,040  | 927    | 1,500  | 1,000  | 820    | 1,250  | 1,070  | 8,310   | 1,100  | 206    | 503    | 634    |
| 11    | 592    | 1,430  | 1,450  | 1,000  | 810    | 1,300  | 1,770  | 8,160   | 767    | 196    | 484    | 575    |
| 12    | 586    | 1,550  | 1,450  | 1,050  | 810    | 1,300  | 3,070  | 7,710   | 637    | 182    | 450    | 604    |
| 13    | 1,000  | 1,500  | 1,500  | 1,050  | 810    | 1,300  | 4,260  | 7,060   | 547    | 437    | 480    | 1,150  |
| 14    | 1,220  | 1,450  | 1,500  | 1,000  | 840    | 1,300  | 4,820  | 5,260   | 478    | 465    | 458    | 1,580  |
| 15    | 3,390  | 1,470  | 1,500  | 920    | 500    | 1,400  | 3,710  | 3,560   | 431    | 338    | 443    | 1,720  |
| 16    | 4,030  | 1,580  | 1,450  | 950    | 950    | 1,600  | 2,760  | 3,170   | 403    | 235    | 420    | 1,210  |
| 17    | 2,380  | 1,560  | 1,400  | 960    | 1,100  | 1,900  | 2,250  | 3,110   | 375    | 185    | 413    | 934    |
| 18    | 1,680  | 1,480  | 1,400  | 950    | 1,050  | 2,200  | 2,220  | 2,790   | 356    | 316    | 382    | 993    |
| 19    | 1,280  | 1,460  | 1,450  | 920    | 1,050  | 2,100  | 2,970  | 2,660   | 333    | 303    | 353    | 1,050  |
| 20    | 1,190  | 1,550  | 1,450  | 900    | 1,050  | 2,000  | 5,990  | 2,450   | 312    | 333    | 389    | 883    |
| 21    | 1,150  | 2,950  | 1,450  | 890    | 1,000  | 1,850  | 7,420  | 2,080   | 320    | 299    | 393    | 1,070  |
| 22    | 1,080  | 3,310  | 1,400  | 900    | 960    | 1,700  | 7,370  | 2,450   | 526    | 239    | 434    | 1,250  |
| 23    | 1,170  | 2,230  | 1,300  | 900    | 940    | 1,400  | 5,770  | 2,420   | 523    | 206    | 855    | 961    |
| 24    | 1,450  | 2,050  | 1,300  | 910    | 940    | 1,210  | 4,030  | 1,750   | 393    | 175    | 1,330  | 789    |
| 25    | 1,370  | 1,410  | 1,400  | 930    | 950    | 1,110  | 4,340  | 1,390   | 382    | 165    | 924    | 700    |
| 26    | 1,190  | 1,080  | 1,400  | 940    | 1,050  | 1,040  | 4,660  | 1,760   | 743    | 171    | 652    | 651    |
| 27    | 1,160  | 1,350  | 1,400  | 940    | 1,150  | 950    | 4,240  | 1,700   | 593    | 804    | 551    | 612    |
| 28    | 1,150  | 1,330  | 1,350  | 900    | 1,200  | 957    | 4,960  | 1,800   | 428    | 652    | 852    | 561    |
| 29    | 1,100  | 2,440  | 1,350  | 910    | -----  | 915    | 6,000  | 1,550   | 342    | 457    | 2,290  | 548    |
| 30    | 1,060  | 2,330  | 1,300  | 920    | -----  | 877    | 5,850  | 1,230   | 312    | 414    | 1,520  | 548    |
| 31    | 1,030  | -----  | 1,200  | 900    | -----  | 809    | -----  | 1,020   | -----  | 440    | 595    | -----  |
| TOTAL | 45,638 | 44,984 | 46,800 | 30,190 | 25,610 | 41,018 | 59,029 | 142,450 | 18,531 | 10,206 | 22,317 | 25,240 |
| MEAN  | 1,472  | 1,499  | 1,510  | 974    | 815    | 1,323  | 3,301  | 4,596   | 618    | 329    | 720    | 841    |
| MAX   | 4,030  | 3,310  | 2,450  | 1,100  | 1,200  | 2,200  | 7,420  | 10,000  | 1,810  | 804    | 2,290  | 1,720  |
| MIN   | 586    | 909    | 1,100  | 890    | 780    | 809    | 722    | 1,020   | 312    | 165    | 382    | 548    |
| MEAN† | 1,567  | 1,113  | 814    | 469    | 457    | 778    | 4,022  | 6,329   | 800    | 293    | 635    | 767    |
| CFSM† | 1.96   | 1.39   | 1.02   | .59    | .57    | .97    | 5.03   | 7.92    | 1.00   | .37    | .79    | .96    |
| IN.†  | 2.26   | 1.55   | 1.17   | .68    | .60    | 1.12   | 5.62   | 9.13    | 1.12   | .42    | .92    | 1.07   |

CAL YR 1970 TOTAL 601,232 MEAN 1,647 MAX 15,300 MIN 183 MEAN† 1,568 CFSM† 1.96 IN† 26.65  
WTR YR 1971 TOTAL 552,053 MEAN 1,512 MAX 10,000 MIN 165 MEAN† 1,510 CFSM† 1.89 IN† 25.66

† Adjusted for change in contents in First Connecticut and Second Connecticut Lakes and Lake Francis.

01130000 Upper Ammonoosuc River near Groveton, N. H.

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

DRAINAGE AREA. --232 sq mi.

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

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

AVERAGE DISCHARGE. --31 years, 469 cfs (27.45 inches per year), adjusted for diversion.

EXTREMES. --Current year: Maximum discharge, 4,320 cfs May 5 (gage height, 6.56 ft); minimum, 59 cfs Aug. 23.

Period of record: Maximum discharge, 24,100 cfs May 20, 1969 (gage height, 12.01 ft in gage well, 12.85 ft, from floodmarks), from rating curve extended above 5,600 cfs on basis of contracted-opening measurement of peak flow, caused by failure of dam on Nash Stream; minimum, 32 cfs Sept. 14, 1948.

Flood in March 1936 reached a stage of about 10.6 ft, from information by local residents.

REMARKS. --Records good except those for winter period, which are fair. Prior to May 21, 1969, some regulation by pond 9 miles upstream on Nash Stream. Small diversion above station for municipal supply of Berlin.

## DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|--------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 295    | 199   | 280   | 150   | 93    | 125   | 125    | 1,840  | 563   | 175   | 143   | 189   |
| 2     | 229    | 189   | 272   | 150   | 92    | 120   | 125    | 1,850  | 486   | 689   | 195   | 147   |
| 3     | 402    | 183   | 307   | 145   | 92    | 115   | 180    | 2,110  | 464   | 388   | 312   | 123   |
| 4     | 972    | 177   | 243   | 140   | 90    | 110   | 250    | 3,290  | 453   | 229   | 651   | 110   |
| 5     | 570    | 168   | 210   | 140   | 90    | 110   | 240    | 4,020  | 390   | 171   | 328   | 108   |
| 6     | 384    | 165   | 180   | 160   | 96    | 105   | 225    | 3,040  | 336   | 142   | 204   | 108   |
| 7     | 299    | 156   | 160   | 160   | 92    | 105   | 220    | 2,710  | 311   | 131   | 185   | 123   |
| 8     | 257    | 153   | 150   | 150   | 93    | 100   | 200    | 2,780  | 687   | 118   | 168   | 115   |
| 9     | 226    | 147   | 220   | 145   | 96    | 100   | 190    | 2,870  | 739   | 107   | 128   | 100   |
| 10    | 202    | 145   | 250   | 135   | 95    | 100   | 210    | 2,860  | 477   | 103   | 106   | 89    |
| 11    | 186    | 147   | 220   | 130   | 94    | 98    | 300    | 3,190  | 356   | 103   | 111   | 79    |
| 12    | 180    | 153   | 205   | 125   | 93    | 98    | 600    | 3,560  | 302   | 101   | 187   | 84    |
| 13    | 177    | 147   | 195   | 125   | 94    | 98    | 1,200  | 3,790  | 264   | 96    | 139   | 162   |
| 14    | 205    | 142   | 190   | 120   | 120   | 100   | 1,450  | 3,320  | 233   | 113   | 107   | 353   |
| 15    | 344    | 145   | 185   | 120   | 140   | 120   | 1,220  | 2,250  | 213   | 132   | 94    | 582   |
| 16    | 588    | 162   | 180   | 115   | 150   | 250   | 835    | 1,890  | 201   | 109   | 87    | 340   |
| 17    | 470    | 159   | 185   | 115   | 150   | 350   | 680    | 1,820  | 184   | 107   | 78    | 229   |
| 18    | 340    | 147   | 190   | 110   | 145   | 350   | 684    | 1,790  | 163   | 152   | 71    | 199   |
| 19    | 276    | 142   | 185   | 110   | 140   | 250   | 950    | 1,870  | 152   | 135   | 65    | 177   |
| 20    | 240    | 153   | 175   | 105   | 135   | 200   | 1,710  | 1,880  | 141   | 164   | 63    | 153   |
| 21    | 229    | 430   | 165   | 105   | 130   | 180   | 2,130  | 1,650  | 154   | 157   | 63    | 168   |
| 22    | 233    | 642   | 155   | 105   | 125   | 160   | 2,230  | 1,540  | 219   | 114   | 62    | 189   |
| 23    | 229    | 548   | 155   | 100   | 120   | 150   | 1,860  | 1,400  | 188   | 94    | 150   | 153   |
| 24    | 430    | 532   | 160   | 100   | 115   | 140   | 1,390  | 1,020  | 151   | 81    | 228   | 131   |
| 25    | 485    | 344   | 170   | 98    | 110   | 135   | 1,430  | 837    | 154   | 80    | 148   | 115   |
| 26    | 353    | 250   | 165   | 96    | 115   | 135   | 1,580  | 1,290  | 345   | 90    | 104   | 105   |
| 27    | 295    | 261   | 160   | 96    | 120   | 130   | 1,540  | 1,230  | 254   | 83    | 88    | 100   |
| 28    | 261    | 276   | 155   | 96    | 130   | 130   | 1,710  | 1,070  | 172   | 85    | 279   | 95    |
| 29    | 236    | 307   | 155   | 96    | ----- | 125   | 1,790  | 894    | 139   | 80    | 818   | 93    |
| 30    | 222    | 291   | 150   | 95    | ----- | 125   | 1,770  | 746    | 126   | 113   | 415   | 93    |
| 31    | 209    | ----- | 150   | 94    | ----- | 125   | -----  | 653    | ----- | 115   | 272   | ----- |
| TOTAL | 10,024 | 7,060 | 5,922 | 3,731 | 3,155 | 4,539 | 29,024 | 65,060 | 9,017 | 4,557 | 6,049 | 4,812 |
| MEAN  | 323    | 235   | 191   | 120   | 113   | 146   | 967    | 2,099  | 301   | 147   | 195   | 160   |
| MAX   | 972    | 642   | 307   | 160   | 150   | 350   | 2,230  | 4,020  | 739   | 689   | 818   | 582   |
| MIN   | 177    | 142   | 150   | 94    | 90    | 98    | 125    | 653    | 126   | 80    | 62    | 79    |
| MEAN† | 326    | 238   | 194   | 123   | 116   | 149   | 970    | 2,101  | 303   | 150   | 198   | 163   |
| CFSM† | 1.41   | 1.03  | .84   | .53   | .50   | .64   | 4.18   | 9.06   | 1.31  | .65   | .85   | .70   |
| IN.†  | 1.62   | 1.14  | .96   | .61   | .52   | .74   | 4.67   | 10.45  | 1.46  | .74   | .98   | .78   |

CAL YR 1970 TOTAL 192,532 MEAN 527 MAX 6,070 MIN 46 MEAN† 530 CFSM† 2.28 IN† 31.03  
WTR YR 1971 TOTAL 152,950 MEAN 419 MAX 4,020 MIN 62 MEAN† 422 CFSM† 1.82 IN† 24.68

PEAK DISCHARGE (BASE, 2,900 CFS)

† Adjusted for diversion for municipal supply of Berlin. Records of diversion furnished by city of Berlin.

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-5  | 0400 | 6.56  | 4,320     |      |      |       |           |
| 5-13 | 2000 | 6.36  | 3,950     |      |      |       |           |



## 01131500 Connecticut River near Dalton, N.H.

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

DRAINAGE AREA.--1,514 sq mi.

PERIOD OF RECORD.--March 1927 to current year. Published as "at Waterford, Vt." 1927-35. Records published for both sites January to September 1935.

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

AVERAGE DISCHARGE.--44 years, 2,838 cfs (25.46 inches per year), adjusted to drainage area at present site and for storage.

EXTREMES.--Current year: Maximum discharge, 17,200 cfs May 5 (gage height, 16.81 ft); minimum daily, 150 cfs July 27.  
Period of record: Maximum discharge, 48,300 cfs Mar. 20, 1936 (gage height, 25.6 ft); minimum daily, 115 cfs Oct. 3, 1937.

REMARKS.--Records good. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis (see p. 209), and other reservoirs. These reservoirs have a combined usable capacity of about 8.3 billion cubic feet. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 891: Drainage area. WSP 1231: 1935. WSP 1301: 1928-35(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR     | MAY     | JUN    | JUL    | AUG    | SEP    |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|
| 1     | 2,930  | 1,530  | 3,040  | 1,600  | 1,200  | 1,700  | 1,540   | 10,300  | 2,550  | 819    | 840    | 1,660  |
| 2     | 2,520  | 1,450  | 3,060  | 1,500  | 1,200  | 1,700  | 1,480   | 10,300  | 2,240  | 1,520  | 1,160  | 1,230  |
| 3     | 2,190  | 1,460  | 3,100  | 1,450  | 1,150  | 1,650  | 1,630   | 10,500  | 1,990  | 1,730  | 1,510  | 1,240  |
| 4     | 3,450  | 1,450  | 3,230  | 1,500  | 1,100  | 1,650  | 2,380   | 12,300  | 2,050  | 1,290  | 3,170  | 1,270  |
| 5     | 3,780  | 1,420  | 2,780  | 1,450  | 1,100  | 1,600  | 2,860   | 15,700  | 1,940  | 833    | 2,780  | 1,320  |
| 6     | 2,880  | 1,380  | 1,890  | 1,550  | 1,100  | 1,600  | 2,800   | 16,800  | 1,720  | 854    | 1,780  | 717    |
| 7     | 2,490  | 1,260  | 1,690  | 1,650  | 1,100  | 1,600  | 2,700   | 15,400  | 1,440  | 826    | 1,100  | 917    |
| 8     | 2,000  | 1,370  | 1,870  | 1,650  | 1,150  | 1,600  | 2,510   | 14,100  | 1,700  | 692    | 1,020  | 1,420  |
| 9     | 1,950  | 1,300  | 1,870  | 1,500  | 1,150  | 1,600  | 2,230   | 13,900  | 3,890  | 640    | 1,290  | 1,270  |
| 10    | 1,630  | 1,240  | 1,940  | 1,450  | 1,150  | 1,600  | 2,150   | 13,900  | 3,490  | 569    | 1,300  | 938    |
| 11    | 1,590  | 1,380  | 2,060  | 1,400  | 1,150  | 1,600  | 2,630   | 14,100  | 2,810  | 516    | 1,090  | 882    |
| 12    | 1,510  | 1,790  | 1,990  | 1,550  | 1,150  | 1,650  | 4,460   | 14,400  | 1,930  | 497    | 1,170  | 996    |
| 13    | 1,520  | 1,870  | 1,980  | 1,500  | 1,150  | 1,700  | 6,930   | 14,700  | 1,540  | 339    | 1,060  | 1,200  |
| 14    | 1,530  | 1,870  | 2,060  | 1,400  | 1,200  | 1,700  | 8,480   | 14,000  | 1,450  | 660    | 908    | 1,740  |
| 15    | 1,880  | 1,830  | 2,100  | 1,250  | 1,350  | 1,850  | 8,220   | 10,900  | 1,240  | 980    | 817    | 2,500  |
| 16    | 4,580  | 1,910  | 2,060  | 1,350  | 1,450  | 2,100  | 6,600   | 7,850   | 1,230  | 819    | 850    | 2,660  |
| 17    | 4,810  | 1,960  | 1,880  | 1,350  | 1,700  | 2,920  | 5,300   | 6,960   | 1,060  | 634    | 799    | 1,930  |
| 18    | 3,380  | 1,950  | 1,890  | 1,300  | 1,650  | 3,620  | 4,840   | 6,570   | 976    | 645    | 778    | 1,530  |
| 19    | 2,640  | 1,930  | 2,010  | 1,250  | 1,650  | 3,580  | 5,250   | 6,350   | 924    | 724    | 788    | 1,520  |
| 20    | 2,280  | 1,870  | 2,000  | 1,200  | 1,650  | 3,320  | 8,500   | 6,280   | 943    | 876    | 685    | 1,640  |
| 21    | 2,050  | 2,070  | 1,950  | 1,200  | 1,500  | 3,110  | 12,200  | 5,890   | 971    | 1,070  | 696    | 1,330  |
| 22    | 1,900  | 4,550  | 1,900  | 1,250  | 1,450  | 2,840  | 13,400  | 5,490   | 826    | 847    | 704    | 1,600  |
| 23    | 1,710  | 3,990  | 1,600  | 1,250  | 1,400  | 2,630  | 13,300  | 6,030   | 812    | 640    | 963    | 1,800  |
| 24    | 1,650  | 3,430  | 1,500  | 1,250  | 1,400  | 2,440  | 11,500  | 5,000   | 973    | 542    | 1,550  | 1,370  |
| 25    | 2,120  | 2,960  | 1,900  | 1,250  | 1,350  | 2,090  | 8,500   | 3,870   | 917    | 601    | 1,850  | 1,160  |
| 26    | 2,230  | 2,230  | 1,800  | 1,300  | 1,400  | 1,810  | 8,800   | 4,060   | 1,130  | 530    | 1,290  | 1,160  |
| 27    | 2,080  | 1,710  | 1,900  | 1,350  | 1,450  | 1,740  | 8,700   | 4,850   | 1,460  | 150    | 995    | 926    |
| 28    | 1,910  | 1,970  | 1,900  | 1,300  | 1,650  | 1,640  | 8,600   | 4,540   | 1,280  | 939    | 1,190  | 924    |
| 29    | 1,760  | 2,180  | 1,800  | 1,250  | -----  | 1,640  | 9,420   | 4,270   | 917    | 1,080  | 2,450  | 903    |
| 30    | 1,630  | 2,810  | 1,700  | 1,250  | -----  | 1,640  | 10,100  | 3,570   | 826    | 826    | 3,150  | 899    |
| 31    | 1,580  | -----  | 1,700  | 1,200  | -----  | 1,690  | -----   | 2,970   | -----  | 826    | 2,440  | -----  |
| TOTAL | 72,160 | 60,120 | 64,150 | 42,700 | 37,100 | 63,510 | 187,010 | 285,850 | 47,225 | 24,514 | 42,173 | 40,472 |
| MEAN  | 2,328  | 2,004  | 2,069  | 1,377  | 1,325  | 2,049  | 6,234   | 9,221   | 1,574  | 791    | 1,360  | 1,349  |
| MAX   | 4,810  | 4,550  | 3,230  | 1,650  | 1,700  | 3,620  | 13,400  | 16,800  | 3,890  | 1,730  | 3,170  | 2,660  |
| MIN   | 1,510  | 1,240  | 1,500  | 1,200  | 1,100  | 1,590  | 1,480   | 2,970   | 812    | 150    | 685    | 717    |
| MEAN† | 2,422  | 1,617  | 1,373  | 873    | 868    | 1,504  | 6,954   | 10,950  | 1,756  | 754    | 1,275  | 1,275  |
| CFSM† | 1.60   | 1.07   | .91    | .58    | .57    | .99    | 4.59    | 7.23    | 1.16   | .50    | .84    | .84    |
| IN.†  | 1.84   | 1.19   | 1.05   | .66    | .60    | 1.15   | 5.13    | 8.34    | 1.29   | .57    | .97    | .94    |

CAL YR 1970 TOTAL 1,042,958 MEAN 2,857 MAX 23,300 MIN 277 MEAN† 2,779 CFSM† 1.84 IN† 24.92  
WTR YR 1971 TOTAL 966,984 MEAN 2,649 MAX 16,800 MIN 150 MEAN† 2,647 CFSM† 1.75 IN† 23.74

† Adjusted for change in contents in First Connecticut and Second Connecticut Lakes and Lake Francis.

## CONNECTICUT RIVER BASIN

01133000 East Branch Passumpsic River near East Haven, Vt.

LOCATION.--Lat 44°38'02", long 71°53'53", Caledonia County, on right bank in Burke, 2.1 miles south of East Haven.

DRAINAGE AREA.--53.8 sq mi.

PERIOD OF RECORD.--July 1939 to October 1945, October 1948 to current year. Prior to October 1951, published as Passumpsic River near East Haven.

GAGE.--Water-stage recorder. Datum of gage is 945.88 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--29 years, 100 cfs (25.24 inches per year).

EXTREMES.--Current year: Maximum discharge, 935 cfs May 3 (gage height, 4.26 ft); minimum, 23 cfs Apr. 1, Aug. 20.

Period of record: Maximum discharge, 2,200 cfs Apr. 18, 1960 (gage height, 6.28 ft), from rating curve extended above 1,300 cfs; maximum gage height, 6.58 ft Mar. 5, 1964 (ice jam); minimum discharge, 13 cfs Sept. 1-5, 1953.

Flood in November 1927 reached a stage of about 12.6 ft, from information by local resident.

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

REVISIONS.--WSP 1141: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| 1     | 49    | 44    | 75    | 42    | 35    | 46    | 40    | 432    | 101   | 106   | 72    | 61    |
| 2     | 44    | 43    | 78    | 41    | 35    | 42    | 40    | 414    | 91    | 135   | 102   | 50    |
| 3     | 51    | 42    | 89    | 41    | 34    | 40    | 79    | 633    | 117   | 63    | 262   | 45    |
| 4     | 75    | 41    | 74    | 41    | 34    | 38    | 85    | 736    | 111   | 47    | 218   | 42    |
| 5     | 62    | 41    | 63    | 45    | 34    | 38    | 67    | 623    | 88    | 41    | 89    | 41    |
| 6     | 52    | 41    | 57    | 50    | 35    | 39    | 61    | 549    | 78    | 38    | 63    | 42    |
| 7     | 47    | 42    | 52    | 45    | 35    | 39    | 63    | 633    | 73    | 40    | 53    | 42    |
| 8     | 43    | 43    | 46    | 40    | 35    | 38    | 58    | 621    | 176   | 37    | 45    | 39    |
| 9     | 41    | 41    | 54    | 42    | 40    | 38    | 55    | 644    | 132   | 34    | 40    | 36    |
| 10    | 39    | 40    | 60    | 45    | 41    | 37    | 65    | 611    | 90    | 32    | 36    | 33    |
| 11    | 38    | 59    | 55    | 45    | 39    | 36    | 129   | 603    | 75    | 29    | 38    | 31    |
| 12    | 39    | 62    | 52    | 44    | 36    | 36    | 194   | 545    | 67    | 27    | 44    | 71    |
| 13    | 39    | 52    | 50    | 42    | 37    | 37    | 232   | 524    | 61    | 27    | 36    | 134   |
| 14    | 55    | 48    | 49    | 41    | 65    | 40    | 244   | 385    | 57    | 52    | 33    | 97    |
| 15    | 270   | 54    | 47    | 40    | 90    | 54    | 173   | 305    | 54    | 46    | 31    | 100   |
| 16    | 240   | 68    | 46    | 39    | 75    | 120   | 129   | 284    | 51    | 37    | 31    | 71    |
| 17    | 120   | 57    | 46    | 39    | 64    | 68    | 112   | 277    | 48    | 47    | 27    | 58    |
| 18    | 90    | 50    | 45    | 38    | 56    | 65    | 118   | 252    | 45    | 75    | 26    | 64    |
| 19    | 75    | 50    | 45    | 37    | 52    | 60    | 211   | 227    | 42    | 46    | 25    | 58    |
| 20    | 62    | 61    | 44    | 36    | 47    | 48    | 408   | 203    | 40    | 59    | 24    | 51    |
| 21    | 55    | 150   | 43    | 35    | 45    | 45    | 475   | 188    | 68    | 43    | 27    | 72    |
| 22    | 52    | 108   | 42    | 35    | 43    | 44    | 464   | 233    | 87    | 35    | 29    | 64    |
| 23    | 60    | 88    | 44    | 35    | 41    | 45    | 301   | 194    | 56    | 31    | 121   | 52    |
| 24    | 80    | 73    | 45    | 35    | 40    | 45    | 238   | 156    | 47    | 29    | 103   | 48    |
| 25    | 70    | 62    | 48    | 34    | 39    | 43    | 301   | 142    | 62    | 30    | 58    | 43    |
| 26    | 60    | 57    | 46    | 37    | 38    | 41    | 299   | 240    | 119   | 28    | 44    | 41    |
| 27    | 56    | 55    | 45    | 40    | 41    | 40    | 291   | 189    | 61    | 38    | 39    | 38    |
| 28    | 52    | 71    | 44    | 40    | 51    | 40    | 362   | 244    | 48    | 35    | 208   | 38    |
| 29    | 49    | 98    | 43    | 39    | ----- | 42    | 427   | 169    | 42    | 29    | 197   | 38    |
| 30    | 47    | 80    | 42    | 37    | ----- | 40    | 422   | 136    | 39    | 35    | 101   | 38    |
| 31    | 45    | ----- | 42    | 36    | ----- | 39    | ----- | 117    | ----- | 32    | 86    | ----- |
| TOTAL | 2,157 | 1,821 | 1,611 | 1,236 | 1,257 | 1,423 | 6,143 | 11,509 | 2,226 | 1,383 | 2,308 | 1,638 |
| MEAN  | 69.6  | 60.7  | 52.0  | 39.9  | 44.9  | 45.9  | 205   | 371    | 74.2  | 44.6  | 74.5  | 54.6  |
| MAX   | 270   | 150   | 89    | 50    | 90    | 120   | 475   | 736    | 176   | 135   | 262   | 134   |
| MIN   | 38    | 40    | 42    | 34    | 34    | 36    | 40    | 117    | 39    | 27    | 24    | 31    |
| CFSM  | 1.29  | 1.13  | .97   | .74   | .83   | .85   | 3.81  | 6.90   | 1.38  | .83   | 1.38  | 1.01  |
| IN.   | 1.49  | 1.26  | 1.11  | .85   | .87   | .98   | 4.25  | 7.96   | 1.54  | .96   | 1.60  | 1.13  |

CAL YR 1970 TOTAL 32,537 MEAN 89.1 MAX 1,120 MIN 17 CFSM 1.66 IN 22.50  
WTR YR 1971 TOTAL 34,712 MEAN 95.1 MAX 736 MIN 24 CFSM 1.77 IN 24.00

## PEAK DISCHARGE (BASE, 800 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-3  | 2400 | 4.26  | 935       |      |      |       |           |

01134500 Moose River at Victory, Vt.

LOCATION.--Lat 44°30'42", long 72°50'13", Essex County, on right bank at Victory, 2.7 miles upstream from highway bridge.

DRAINAGE AREA.--75.2 sq mi.

PERIOD OF RECORD.--January 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,103.99 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--24 years, 136 cfs (24.56 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,490 cfs May 4 (gage height, 8.52 ft); minimum, 9.0 cfs Aug. 20.

Period of record: Maximum discharge, 3,010 cfs Apr. 25, 1970 (gage height, 10.61 ft); maximum gage height, 10.89 ft Apr. 21, 1950; minimum discharge, 3.6 cfs Aug. 20, 1970.

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

REVISIONS.--WSP 1381: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN  | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG     | SEP   |
|-------|-------|-------|-------|------|-------|-------|--------|--------|-------|-------|---------|-------|
| 1     | 40    | 28    | 103   | 32   | 24    | 56    | 56     | 736    | 102   | 42    | 51      | 51    |
| 2     | 30    | 27    | 95    | 32   | 23    | 54    | 57     | 725    | 85    | 280   | 86      | 34    |
| 3     | 51    | 26    | 123   | 30   | 23    | 52    | 81     | 838    | 93    | 103   | 140     | 27    |
| 4     | 176   | 25    | 97    | 30   | 24    | 51    | 133    | 1,350  | 98    | 52    | 556     | 23    |
| 5     | 102   | 24    | 85    | 30   | 25    | 50    | 133    | 1,140  | 79    | 34    | 312     | 22    |
| 6     | 65    | 24    | 67    | 33   | 25    | 49    | 128    | 926    | 65    | 27    | 99      | 23    |
| 7     | 47    | 24    | 56    | 32   | 24    | 48    | 125    | 984    | 62    | 26    | 63      | 25    |
| 8     | 37    | 24    | 41    | 30   | 24    | 47    | 115    | 1,030  | 252   | 22    | 44      | 22    |
| 9     | 31    | 23    | 52    | 29   | 27    | 47    | 106    | 974    | 266   | 19    | 32      | 20    |
| 10    | 26    | 22    | 56    | 29   | 29    | 46    | 108    | 959    | 129   | 17    | 25      | 16    |
| 11    | 24    | 28    | 54    | 29   | 29    | 45    | 144    | 968    | 88    | 14    | 23      | 14    |
| 12    | 26    | 41    | 52    | 28   | 28    | 45    | 234    | 942    | 69    | 12    | 30      | 17    |
| 13    | 26    | 35    | 51    | 28   | 27    | 44    | 352    | 854    | 57    | 10    | 22      | 40    |
| 14    | 46    | 31    | 49    | 27   | 30    | 44    | 450    | 716    | 47    | 28    | 18      | 45    |
| 15    | 121   | 32    | 47    | 27   | 45    | 49    | 463    | 468    | 42    | 49    | 16      | 72    |
| 16    | 188   | 46    | 46    | 27   | 70    | 70    | 385    | 380    | 37    | 28    | 14      | 47    |
| 17    | 119   | 48    | 44    | 27   | 63    | 110   | 295    | 347    | 33    | 22    | 13      | 32    |
| 18    | 80    | 40    | 43    | 26   | 56    | 105   | 273    | 305    | 29    | 33    | 11      | 69    |
| 19    | 64    | 35    | 41    | 26   | 51    | 92    | 330    | 295    | 26    | 28    | 10      | 62    |
| 20    | 51    | 44    | 37    | 26   | 48    | 82    | 606    | 265    | 23    | 41    | 9.2     | 42    |
| 21    | 44    | 181   | 35    | 26   | 45    | 78    | 884    | 218    | 22    | 35    | 11      | 45    |
| 22    | 40    | 205   | 33    | 26   | 43    | 73    | 967    | 261    | 52    | 22    | 12      | 61    |
| 23    | 47    | 143   | 35    | 25   | 42    | 68    | 772    | 268    | 35    | 17    | 66      | 41    |
| 24    | 60    | 117   | 38    | 25   | 41    | 64    | 523    | 180    | 26    | 14    | 108     | 30    |
| 25    | 55    | 81    | 40    | 25   | 40    | 60    | 481    | 146    | 24    | 12    | 48      | 27    |
| 26    | 47    | 58    | 38    | 25   | 40    | 58    | 534    | 247    | 123   | 12    | 28      | 23    |
| 27    | 41    | 58    | 36    | 28   | 40    | 57    | 498    | 238    | 64    | 12    | 22      | 20    |
| 28    | 35    | 65    | 34    | 28   | 45    | 57    | 539    | 259    | 34    | 12    | 88      | 19    |
| 29    | 32    | 146   | 33    | 28   | ----- | 57    | 674    | 206    | 25    | 11    | 292     | 18    |
| 30    | 30    | 117   | 32    | 26   | ----- | 57    | 700    | 152    | 21    | 21    | 132     | 19    |
| 31    | 29    | ----- | 32    | 25   | ----- | 56    | -----  | 124    | ----- | 19    | 79      | ----- |
| TOTAL | 1,810 | 1,798 | 1,625 | 865  | 1,031 | 1,871 | 11,146 | 17,501 | 2,108 | 1,074 | 2,460.2 | 1,006 |
| MEAN  | 58.4  | 59.9  | 52.4  | 27.9 | 36.8  | 60.4  | 372    | 565    | 70.3  | 34.6  | 79.4    | 33.5  |
| MAX   | 188   | 205   | 123   | 33   | 70    | 110   | 967    | 1,350  | 266   | 280   | 556     | 72    |
| MIN   | 24    | 22    | 32    | 25   | 23    | 44    | 56     | 124    | 21    | 10    | 9.2     | 14    |
| CFSM  | .78   | .80   | .70   | .37  | .49   | .80   | 4.95   | 7.51   | .93   | .46   | 1.06    | .45   |
| IN.   | .90   | .89   | .80   | .43  | .51   | .93   | 5.51   | 8.66   | 1.04  | .53   | 1.22    | .50   |

|             |                |          |           |         |           |          |
|-------------|----------------|----------|-----------|---------|-----------|----------|
| CAL YR 1970 | TOTAL 41,473.3 | MEAN 114 | MAX 2,470 | MIN 3.6 | CFSM 1.52 | IN 20.52 |
| WTR YR 1971 | TOTAL 44,295.2 | MEAN 121 | MAX 1,350 | MIN 9.2 | CFSM 1.61 | IN 21.91 |

## PEAK DISCHARGE (BASE, 1,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | 1100 | 8.52  | 1,490     |      |      |       |           |

## CONNECTICUT RIVER BASIN

01134800 Kirby Brook at Concord, Vt.

LOCATION.--Lat 44°26'31", long 71°52'45", Essex County, on right bank 30 ft downstream from culvert on U.S. Highway 2, 700 ft upstream from mouth, and 1 mile north of Concord.

DRAINAGE AREA.--8.05 sq mi.

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

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

AVERAGE DISCHARGE.--8 years, 10.7 cfs (18.07 inches per year).

EXTREMES.--Current year: Maximum discharge, 196 cfs Apr. 19 (gage height, 3.96 ft); maximum gage height, 7.21 ft Dec. 9 (backwater from ice); minimum discharge, 0.18 cfs July 13.

Period of record: Maximum discharge, 615 cfs Apr. 24, 1970 (gage height, 4.85 ft), from rating curve extended above 140 cfs; maximum gage height, 7.21 ft Dec. 9, 1970 (backwater from ice); no flow Aug. 19, 1970.

REMARKS.--Records good except those for winter period, which are fair. Recording rain gage at station since April 1964 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN  | FEB   | MAR   | APR     | MAY     | JUN    | JUL   | AUG    | SEP   |
|-------|------|-------|-------|------|-------|-------|---------|---------|--------|-------|--------|-------|
| 1     | 2.0  | 1.5   | 7.8   | 2.2  | 1.7   | 4.7   | 5.8     | 60      | 5.5    | 9.4   | 2.3    | 2.3   |
| 2     | 1.6  | 1.4   | 8.1   | 2.2  | 1.7   | 4.3   | 6.0     | 60      | 4.6    | 8.7   | 11     | 1.8   |
| 3     | 9.4  | 1.4   | 7.8   | 2.2  | 1.7   | 4.1   | 10      | 124     | 7.1    | 2.3   | 39     | 1.5   |
| 4     | 11   | 1.3   | 6.5   | 2.1  | 1.7   | 4.0   | 19      | 113     | 5.3    | 1.3   | 29     | 1.4   |
| 5     | 4.3  | 1.2   | 5.4   | 2.3  | 1.7   | 3.9   | 17      | 80      | 4.6    | .93   | 8.1    | 1.3   |
| 6     | 2.6  | 1.3   | 4.6   | 2.5  | 1.7   | 3.7   | 15      | 65      | 3.6    | .78   | 3.9    | 1.4   |
| 7     | 2.1  | 1.2   | 3.7   | 2.3  | 1.7   | 3.7   | 14      | 60      | 3.3    | .93   | 2.4    | 1.4   |
| 8     | 1.9  | 1.2   | 3.0   | 2.1  | 1.8   | 3.7   | 13      | 51      | 2.4    | .69   | 1.7    | 1.1   |
| 9     | 1.6  | 1.3   | 3.7   | 2.0  | 1.9   | 3.6   | 15      | 49      | 12     | .57   | 1.3    | 1.0   |
| 10    | 1.3  | 1.3   | 4.2   | 1.9  | 2.0   | 3.5   | 20      | 39      | 6.3    | .47   | 1.0    | .88   |
| 11    | 1.2  | 2.2   | 4.1   | 1.9  | 2.0   | 3.5   | 44      | 35      | 4.3    | .35   | 1.6    | .78   |
| 12    | 1.6  | 2.2   | 3.8   | 1.9  | 1.9   | 3.5   | 66      | 28      | 3.3    | .27   | 1.8    | 1.0   |
| 13    | 1.5  | 1.9   | 3.6   | 1.9  | 1.9   | 3.6   | 69      | 30      | 2.6    | .22   | 1.1    | 1.7   |
| 14    | 2.9  | 1.7   | 3.6   | 1.9  | 2.4   | 3.7   | 69      | 24      | 2.1    | 1.7   | .88    | 2.0   |
| 15    | 7.5  | 2.6   | 3.6   | 1.8  | 6.0   | 5.0   | 39      | 18      | 1.9    | 1.4   | .73    | 2.6   |
| 16    | 8.1  | 4.8   | 3.3   | 1.8  | 5.4   | 12    | 31      | 15      | 1.8    | .78   | .73    | 1.8   |
| 17    | 4.6  | 3.6   | 3.1   | 1.8  | 4.7   | 10    | 30      | 16      | 1.5    | 1.2   | .57    | 1.3   |
| 18    | 3.4  | 2.7   | 3.1   | 1.7  | 4.2   | 9.1   | 42      | 14      | 1.2    | 2.4   | .50    | 2.0   |
| 19    | 2.6  | 2.7   | 3.0   | 1.7  | 3.8   | 8.4   | 94      | 12      | .98    | 1.1   | .44    | 1.9   |
| 20    | 2.2  | 4.1   | 2.8   | 1.7  | 3.6   | 7.8   | 132     | 10      | .83    | 2.7   | .41    | 1.2   |
| 21    | 1.9  | 12    | 2.5   | 1.7  | 3.4   | 7.2   | 109     | 10      | 1.6    | 1.4   | 1.0    | 2.1   |
| 22    | 2.0  | 7.1   | 2.4   | 1.6  | 3.3   | 6.8   | 91      | 17      | 3.9    | .88   | 1.0    | 2.0   |
| 23    | 3.3  | 6.5   | 2.4   | 1.6  | 3.2   | 6.4   | 52      | 13      | 1.7    | .60   | 8.7    | 1.4   |
| 24    | 3.6  | 4.8   | 2.4   | 1.6  | 3.1   | 6.2   | 45      | 9.4     | 1.1    | .53   | 4.3    | 1.1   |
| 25    | 2.7  | 3.4   | 2.6   | 1.7  | 3.0   | 6.0   | 59      | 8.4     | 1.4    | .57   | 1.7    | .88   |
| 26    | 2.3  | 2.6   | 2.6   | 1.8  | 2.9   | 5.8   | 55      | 14      | 5.1    | .53   | 1.1    | .98   |
| 27    | 2.0  | 2.7   | 2.5   | 1.9  | 3.0   | 5.8   | 52      | 12      | 1.9    | .41   | .98    | .78   |
| 28    | 1.9  | 7.8   | 2.4   | 2.0  | 5.5   | 5.6   | 58      | 20      | 1.1    | .41   | 26     | .78   |
| 29    | 1.7  | 11    | 2.3   | 1.9  | ----- | 5.6   | 65      | 12      | .78    | .47   | 15     | .78   |
| 30    | 1.5  | 8.7   | 2.3   | 1.9  | ----- | 5.6   | 60      | 8.7     | .69    | 2.0   | 6.3    | .83   |
| 31    | 1.5  | ----- | 2.3   | 1.8  | ----- | 5.6   | -----   | 6.8     | -----  | .98   | 3.8    | ----- |
| TOTAL | 97.8 | 108.2 | 115.5 | 59.4 | 80.9  | 172.4 | 1,396.8 | 1,034.3 | 117.08 | 46.97 | 178.34 | 41.89 |
| MEAN  | 3.15 | 3.61  | 3.73  | 1.92 | 2.89  | 5.56  | 46.6    | 33.4    | 3.90   | 1.52  | 5.75   | 1.40  |
| MAX   | 11   | 12    | 8.1   | 2.5  | 6.0   | 12    | 132     | 124     | 24     | 9.4   | 39     | 2.6   |
| MIN   | 1.2  | 1.2   | 2.3   | 1.6  | 1.7   | 3.5   | 5.8     | 6.8     | .69    | .22   | .41    | .78   |
| CFSM  | .39  | .45   | .46   | .24  | .36   | .69   | 5.79    | 4.15    | .48    | .19   | .71    | .17   |
| IN.   | .45  | .50   | .53   | .27  | .37   | .80   | 6.45    | 4.78    | .54    | .22   | .82    | .19   |

CAL YR 1970 TOTAL 3,453.49 MEAN 9.46 MAX 159 MIN 0 CFSM 1.18 IN 15.96  
WTR YR 1971 TOTAL 3,449.58 MEAN 9.45 MAX 132 MIN .22 CFSM 1.17 IN 15.94

## PEAK DISCHARGE (BASE, 150 CFS, REVISED)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-19 | 2000 | 3.96  | 196       |      |      |       |           |
| 5-3  | 2230 | 3.90  | 177       |      |      |       |           |
| 8-3  | 2100 | 3.94  | 189       |      |      |       |           |

01135000 Moose River at St. Johnsbury, Vt.

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

DRAINAGE AREA.--128 sq mi.

PERIOD OF RECORD.--August 1928 to current year.

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

AVERAGE DISCHARGE.--43 years, 215 cfs (22.81 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,120 cfs May 4 (gage height, 4.09 ft); minimum, 12 cfs July 28, 29, Aug. 20.

Period of record: Maximum discharge, 5,800 cfs Apr. 30, 1929 (gage height, 8.3 ft, from graph based on gage readings, site and datum then in use), from rating curve extended above 3,400 cfs; minimum, 6.2 cfs Sept. 17, 18, 1948, Aug. 27, 28, 1949.

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

REVISIONS (WATER YEARS).--WSP 1231: 1929-30, 1931-34(M). WSP 1381: Drainage area. WSP 1701: 1959.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 67    | 43    | 154   | 59    | 42    | 82    | 100    | 1,120  | 150   | 65    | 42    | 83    |
| 2     | 51    | 42    | 139   | 58    | 43    | 96    | 105    | 1,090  | 127   | 305   | 107   | 56    |
| 3     | 70    | 41    | 154   | 53    | 44    | 88    | 165    | 1,150  | 130   | 171   | 247   | 42    |
| 4     | 205   | 39    | 156   | 54    | 45    | 84    | 236    | 1,700  | 142   | 85    | 576   | 36    |
| 5     | 154   | 38    | 110   | 56    | 45    | 82    | 239    | 1,520  | 119   | 57    | 429   | 32    |
| 6     | 103   | 38    | 95    | 58    | 44    | 80    | 236    | 1,340  | 101   | 42    | 144   | 32    |
| 7     | 74    | 38    | 80    | 56    | 44    | 77    | 236    | 1,390  | 93    | 37    | 90    | 32    |
| 8     | 59    | 37    | 50    | 54    | 43    | 76    | 202    | 1,390  | 305   | 32    | 65    | 31    |
| 9     | 50    | 37    | 60    | 52    | 46    | 76    | 186    | 1,430  | 429   | 27    | 47    | 27    |
| 10    | 44    | 35    | 90    | 50    | 49    | 75    | 220    | 1,390  | 212   | 23    | 35    | 24    |
| 11    | 40    | 41    | 100   | 49    | 52    | 75    | 437    | 1,250  | 135   | 19    | 36    | 22    |
| 12    | 41    | 54    | 95    | 48    | 54    | 74    | 741    | 1,220  | 108   | 16    | 38    | 23    |
| 13    | 42    | 56    | 90    | 47    | 49    | 72    | 962    | 1,090  | 92    | 14    | 34    | 34    |
| 14    | 50    | 50    | 87    | 47    | 56    | 70    | 1,060  | 994    | 77    | 20    | 25    | 57    |
| 15    | 117   | 54    | 83    | 47    | 80    | 90    | 930    | 720    | 68    | 55    | 21    | 75    |
| 16    | 236   | 74    | 80    | 46    | 110   | 140   | 846    | 560    | 64    | 42    | 19    | 70    |
| 17    | 171   | 79    | 78    | 46    | 100   | 165   | 688    | 514    | 62    | 32    | 17    | 50    |
| 18    | 121   | 68    | 76    | 46    | 88    | 180   | 704    | 445    | 49    | 37    | 15    | 60    |
| 19    | 95    | 60    | 71    | 45    | 82    | 160   | 994    | 413    | 42    | 41    | 13    | 81    |
| 20    | 77    | 65    | 65    | 45    | 76    | 145   | 1,390  | 373    | 37    | 45    | 15    | 62    |
| 21    | 69    | 143   | 62    | 45    | 72    | 140   | 1,520  | 317    | 38    | 51    | 19    | 51    |
| 22    | 61    | 290   | 58    | 44    | 68    | 130   | 1,520  | 373    | 65    | 34    | 19    | 69    |
| 23    | 67    | 188   | 62    | 44    | 66    | 125   | 1,520  | 405    | 64    | 23    | 54    | 61    |
| 24    | 85    | 171   | 68    | 44    | 64    | 115   | 1,030  | 280    | 43    | 18    | 138   | 42    |
| 25    | 81    | 121   | 70    | 44    | 63    | 110   | 994    | 223    | 38    | 17    | 78    | 34    |
| 26    | 72    | 81    | 66    | 48    | 62    | 105   | 962    | 317    | 110   | 15    | 44    | 30    |
| 27    | 63    | 80    | 62    | 50    | 62    | 100   | 962    | 359    | 105   | 14    | 32    | 27    |
| 28    | 56    | 95    | 60    | 47    | 74    | 100   | 962    | 381    | 61    | 13    | 122   | 25    |
| 29    | 51    | 167   | 58    | 44    | ----- | 100   | 1,090  | 323    | 40    | 15    | 341   | 24    |
| 30    | 47    | 175   | 62    | 42    | ----- | 100   | 1,120  | 231    | 31    | 24    | 202   | 23    |
| 31    | 45    | ----- | 61    | 41    | ----- | 100   | -----  | 186    | ----- | 27    | 114   | ----- |
| TOTAL | 2,564 | 2,500 | 2,602 | 1,509 | 1,723 | 3,212 | 22,357 | 24,494 | 3,137 | 1,416 | 3,178 | 1,315 |
| MEAN  | 82.7  | 83.3  | 83.9  | 48.7  | 61.5  | 104   | 745    | 790    | 105   | 45.7  | 103   | 43.8  |
| MAX   | 236   | 290   | 156   | 59    | 110   | 180   | 1,520  | 1,700  | 429   | 305   | 576   | 83    |
| MIN   | 40    | 35    | 50    | 41    | 42    | 70    | 100    | 186    | 31    | 13    | 13    | 22    |
| CFSM  | .65   | .65   | .66   | .38   | .48   | .81   | 5.82   | 6.17   | .82   | .36   | .80   | .34   |
| IN.   | .75   | .73   | .76   | .44   | .50   | .93   | 6.50   | 7.12   | .91   | .41   | .92   | .38   |

CAL YR 1970 TOTAL 63,049.2 MEAN 173 MAX 3,030 MIN 8.2 CFSM 1.35 IN 18.32  
WTR YR 1971 TOTAL 70,007.0 MEAN 192 MAX 1,700 MIN 13 CFSM 1.50 IN 20.35

## PEAK DISCHARGE (BASE, 1,700 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | 1700 | 4.09  | 2,120     |      |      |       |           |

01135500 Passumpsic River at Passumpsic, Vt.

LOCATION.--Lat 44°21'56", long 72°02'23", Caledonia County, on right bank 0.7 mile upstream from Water Andric, 1 mile downstream from dam and village of Passumpsic, and 4.0 miles upstream from mouth.

DRAINAGE AREA.--436 sq mi.

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only October 1928, published in WSP 1301.

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

AVERAGE DISCHARGE.--43 years, 711 cfs (22.15 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,960 cfs May 4 (gage height, 11.40 ft); minimum daily, 57 cfs Aug. 15.

Period of record: Maximum discharge, 16,000 cfs Mar. 18, 1936 (gage height, 21.23 ft), from rating curve extended above 12,000 cfs on basis of computation of peak flow over dam; minimum daily, 13 cfs Sept. 12, 1948.

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

REMARKS.--Records excellent except those for winter period, which are fair. Low flow regulated by powerplants above station. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 781: 1933(M). WSP 871: Drainage area. WSP 1231: 1929, 1930-31(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN    | JUL   | AUG    | SEP   |
|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|-------|--------|-------|
| 1     | 265   | 168   | 497   | 250   | 220   | 340    | 300    | 3,540  | 640    | 252   | 195    | 460   |
| 2     | 228   | 238   | 443   | 250   | 215   | 320    | 350    | 3,450  | 547    | 1,140 | 475    | 327   |
| 3     | 218   | 218   | 508   | 250   | 210   | 290    | 500    | 4,700  | 585    | 569   | 1,180  | 315   |
| 4     | 449   | 209   | 454   | 260   | 215   | 270    | 1,300  | 6,400  | 646    | 342   | 2,470  | 279   |
| 5     | 438   | 182   | 400   | 240   | 220   | 260    | 1,300  | 5,000  | 541    | 269   | 1,100  | 193   |
| 6     | 293   | 196   | 330   | 270   | 215   | 270    | 1,080  | 4,180  | 465    | 235   | 547    | 258   |
| 7     | 258   | 185   | 300   | 280   | 210   | 270    | 1,070  | 4,240  | 445    | 239   | 323    | 315   |
| 8     | 228   | 171   | 300   | 270   | 230   | 270    | 875    | 4,240  | 935    | 220   | 279    | 220   |
| 9     | 206   | 202   | 330   | 250   | 230   | 270    | 657    | 4,070  | 1,160  | 187   | 265    | 249   |
| 10    | 168   | 177   | 340   | 250   | 250   | 260    | 845    | 3,920  | 690    | 187   | 226    | 195   |
| 11    | 138   | 166   | 310   | 270   | 270   | 250    | 1,440  | 3,790  | 508    | 81    | 217    | 132   |
| 12    | 199   | 320   | 260   | 260   | 270   | 250    | 1,870  | 3,550  | 420    | 195   | 217    | 134   |
| 13    | 193   | 265   | 270   | 250   | 270   | 280    | 2,160  | 3,270  | 397    | 157   | 232    | 503   |
| 14    | 187   | 224   | 280   | 250   | 300   | 340    | 2,220  | 2,740  | 363    | 181   | 179    | 445   |
| 15    | 407   | 215   | 280   | 245   | 450   | 400    | 1,810  | 2,000  | 300    | 330   | 57     | 519   |
| 16    | 1,120 | 359   | 280   | 245   | 540   | 470    | 1,510  | 1,690  | 319    | 272   | 226    | 450   |
| 17    | 684   | 346   | 280   | 240   | 500   | 600    | 1,270  | 1,630  | 286    | 165   | 165    | 338   |
| 18    | 470   | 305   | 260   | 240   | 400   | 520    | 1,440  | 1,510  | 258    | 342   | 140    | 338   |
| 19    | 387   | 247   | 250   | 225   | 370   | 460    | 2,260  | 1,280  | 223    | 297   | 114    | 363   |
| 20    | 297   | 279   | 270   | 220   | 340   | 420    | 3,880  | 1,190  | 239    | 308   | 105    | 354   |
| 21    | 282   | 569   | 300   | 215   | 320   | 390    | 4,460  | 1,070  | 226    | 290   | 184    | 300   |
| 22    | 238   | 809   | 290   | 215   | 300   | 370    | 4,250  | 1,290  | 411    | 207   | 63     | 420   |
| 23    | 289   | 595   | 240   | 220   | 280   | 360    | 3,390  | 1,250  | 359    | 184   | 519    | 315   |
| 24    | 407   | 508   | 270   | 220   | 270   | 340    | 2,480  | 981    | 269    | 181   | 701    | 262   |
| 25    | 332   | 363   | 300   | 220   | 260   | 330    | 2,810  | 839    | 242    | 73    | 379    | 249   |
| 26    | 312   | 309   | 280   | 215   | 260   | 320    | 2,920  | 1,250  | 563    | 220   | 258    | 201   |
| 27    | 286   | 286   | 290   | 240   | 260   | 310    | 2,720  | 1,180  | 481    | 150   | 223    | 283   |
| 28    | 241   | 320   | 270   | 240   | 300   | 300    | 2,920  | 1,300  | 315    | 136   | 1,520  | 207   |
| 29    | 275   | 585   | 290   | 230   | ----- | 300    | 3,550  | 1,070  | 223    | 193   | 2,370  | 184   |
| 30    | 218   | 563   | 250   | 225   | ----- | 300    | 3,400  | 845    | 201    | 179   | 955    | 187   |
| 31    | 218   | ----- | 270   | 220   | ----- | 300    | -----  | 719    | -----  | 160   | 596    | ----- |
| TOTAL | 9,931 | 9,580 | 9,692 | 7,475 | 8,175 | 10,430 | 61,037 | 78,184 | 13,257 | 7,941 | 16,480 | 8,995 |
| MEAN  | 320   | 319   | 313   | 241   | 292   | 336    | 2,035  | 2,522  | 442    | 256   | 532    | 300   |
| MAX   | 1,120 | 809   | 508   | 280   | 540   | 600    | 4,460  | 6,400  | 1,160  | 1,140 | 2,470  | 519   |
| MIN   | 138   | 166   | 240   | 215   | 210   | 250    | 300    | 719    | 201    | 73    | 57     | 132   |
| CFSM  | .73   | .73   | .72   | .55   | .67   | .77    | 4.67   | 5.78   | 1.01   | .59   | 1.22   | .69   |
| IN.   | .85   | .82   | .83   | .64   | .70   | .89    | 5.21   | 6.67   | 1.13   | .68   | 1.41   | .77   |

CAL YR 1970 TOTAL 220,379 MEAN 604 MAX 8,550 MIN 49 CFSM 1.39 IN 18.80  
WTR YR 1971 TOTAL 241,177 MEAN 661 MAX 6,400 MIN 57 CFSM 1.52 IN 20.58

## PEAK DISCHARGE (BASE, 5,000 CFS)

DATE TIME G. H. DISCHARGE DATE TIME G. H. DISCHARGE

5-4 †0800 11.40 6,960

† About.



01137500 Ammonoosuc River at Bethlehem Junction, N.H.

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

DRAINAGE AREA.--87.6 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,180.74 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--32 years, 205 cfs (31.78 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,440 cfs May 26 (gage height, 6.35 ft); minimum, 36 cfs July 12, 13.

Period of record: Maximum discharge, 10,800 cfs Oct. 24, 1959 (gage height, 12.09 ft), from rating curve extended above 4,100 cfs on basis of slope-area measurement of peak flow; minimum, 16 cfs Nov. 14, 1952 (caused by anchor ice upstream).

REMARKS.--Records excellent except those for winter period, which are fair. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1701: 1951(M), 1953-54(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| 1     | 118   | 91    | 115   | 55    | 46    | 65    | 68    | 459    | 365   | 68    | 107   | 91    |
| 2     | 97    | 87    | 110   | 56    | 46    | 60    | 73    | 424    | 296   | 99    | 90    | 79    |
| 3     | 299   | 84    | 111   | 56    | 46    | 55    | 230   | 752    | 313   | 72    | 187   | 72    |
| 4     | 457   | 81    | 133   | 54    | 46    | 50    | 240   | 1,560  | 309   | 61    | 330   | 69    |
| 5     | 210   | 79    | 105   | 60    | 48    | 51    | 155   | 1,020  | 268   | 55    | 158   | 67    |
| 6     | 152   | 79    | 90    | 70    | 47    | 53    | 145   | 769    | 219   | 51    | 110   | 208   |
| 7     | 126   | 74    | 70    | 64    | 47    | 52    | 146   | 859    | 202   | 49    | 92    | 122   |
| 8     | 110   | 73    | 52    | 56    | 47    | 51    | 125   | 871    | 721   | 46    | 90    | 88    |
| 9     | 99    | 70    | 110   | 58    | 49    | 50    | 112   | 963    | 895   | 44    | 71    | 73    |
| 10    | 90    | 66    | 100   | 60    | 52    | 49    | 147   | 998    | 390   | 41    | 64    | 65    |
| 11    | 86    | 63    | 85    | 58    | 49    | 49    | 213   | 1,270  | 275   | 39    | 66    | 59    |
| 12    | 86    | 69    | 76    | 55    | 46    | 49    | 299   | 1,410  | 228   | 37    | 85    | 70    |
| 13    | 82    | 66    | 76    | 52    | 48    | 50    | 471   | 1,720  | 198   | 36    | 62    | 187   |
| 14    | 83    | 64    | 70    | 51    | 70    | 52    | 616   | 978    | 172   | 77    | 55    | 157   |
| 15    | 100   | 64    | 64    | 52    | 110   | 60    | 376   | 692    | 155   | 96    | 51    | 178   |
| 16    | 211   | 69    | 60    | 51    | 85    | 100   | 264   | 740    | 140   | 56    | 51    | 127   |
| 17    | 151   | 65    | 63    | 49    | 74    | 150   | 218   | 783    | 126   | 55    | 46    | 102   |
| 18    | 115   | 61    | 66    | 48    | 66    | 120   | 213   | 926    | 113   | 108   | 43    | 98    |
| 19    | 103   | 61    | 67    | 48    | 61    | 105   | 304   | 1,130  | 103   | 68    | 41    | 91    |
| 20    | 92    | 66    | 65    | 47    | 57    | 95    | 564   | 1,250  | 96    | 212   | 40    | 79    |
| 21    | 87    | 500   | 60    | 47    | 54    | 88    | 643   | 901    | 104   | 97    | 54    | 95    |
| 22    | 85    | 257   | 56    | 49    | 54    | 84    | 633   | 1,200  | 155   | 67    | 48    | 97    |
| 23    | 94    | 291   | 61    | 49    | 52    | 76    | 422   | 746    | 106   | 54    | 75    | 80    |
| 24    | 287   | 212   | 61    | 48    | 51    | 70    | 325   | 504    | 92    | 48    | 71    | 74    |
| 25    | 222   | 141   | 63    | 47    | 51    | 65    | 402   | 494    | 85    | 181   | 50    | 69    |
| 26    | 158   | 114   | 60    | 47    | 50    | 65    | 387   | 1,620  | 111   | 92    | 43    | 64    |
| 27    | 135   | 119   | 59    | 50    | 54    | 66    | 353   | 769    | 91    | 72    | 39    | 61    |
| 28    | 119   | 114   | 58    | 50    | 70    | 68    | 400   | 629    | 77    | 66    | 239   | 58    |
| 29    | 109   | 135   | 57    | 48    | ----- | 70    | 455   | 506    | 69    | 59    | 284   | 56    |
| 30    | 101   | 122   | 56    | 47    | ----- | 69    | 433   | 465    | 66    | 113   | 144   | 55    |
| 31    | 96    | ----- | 56    | 47    | ----- | 68    | ----- | 434    | ----- | 96    | 113   | ----- |
| TOTAL | 4,360 | 3,442 | 2,335 | 1,629 | 1,576 | 2,155 | 9,432 | 27,842 | 6,540 | 2,315 | 2,989 | 2,791 |
| MEAN  | 141   | 115   | 75.3  | 52.5  | 56.3  | 69.5  | 314   | 898    | 218   | 74.7  | 96.4  | 93.0  |
| MAX   | 457   | 500   | 133   | 70    | 110   | 150   | 643   | 1,720  | 895   | 212   | 330   | 208   |
| MIN   | 82    | 61    | 52    | 47    | 46    | 49    | 68    | 424    | 66    | 36    | 39    | 55    |
| CFSM  | 1.61  | 1.31  | .86   | .60   | .64   | .79   | 3.58  | 10.3   | 2.49  | .85   | 1.10  | 1.06  |
| IN.   | 1.85  | 1.46  | .99   | .69   | .67   | .92   | 4.01  | 11.82  | 2.78  | .98   | 1.27  | 1.19  |

CAL YR 1970 TOTAL 77,587 MEAN 213 MAX 2,760 MIN 24 CFSM 2.43 IN 32.95

WTR YR 1971 TOTAL 67,406 MEAN 185 MAX 1,720 MIN 36 CFSM 2.11 IN 28.62

PEAK DISCHARGE (BASE, 2,700 CFS).--No peak above base.

## CONNECTICUT RIVER BASIN

01138000 Ammonoosuc River near Bath, N.H.

LOCATION.--Lat 44°09'14", long 71°59'10", Grafton County, on left bank 0.4 mile downstream from Wild Ammonoosuc River, 1.5 miles downstream from Bath, and 3.3 miles upstream from mouth.

DRAINAGE AREA.--395 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 454.14 ft above mean sea level (levels by Connecticut River Power Co.).

AVERAGE DISCHARGE.--36 years, 641 cfs (22.04 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,200 cfs May 4 (gage height, 7.59 ft); minimum daily, 76 cfs July 13.

Period of record: Maximum discharge, 27,900 cfs Mar. 18, 1936 (gage height, 15.40 ft), from rating curve extended above 13,000 cfs on basis of slope-area measurement at gage height 14.28 ft; minimum daily, 35 cfs Sept. 15, 1957.

REMARKS.--Records good except those for winter period, which are fair. Occasional diurnal fluctuation at low flow caused by small powerplants above station; greater fluctuation prior to 1968.

REVISIONS.--WSP 871: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN    | JUL   | AUG   | SEP   |
|-------|--------|-------|-------|-------|-------|--------|--------|--------|--------|-------|-------|-------|
| 1     | 370    | 267   | 378   | 240   | 200   | 540    | 307    | 1,730  | 763    | 156   | 286   | 267   |
| 2     | 295    | 244   | 356   | 240   | 200   | 450    | 306    | 1,620  | 627    | 202   | 238   | 215   |
| 3     | 387    | 233   | 353   | 230   | 200   | 400    | 656    | 2,540  | 615    | 194   | 313   | 193   |
| 4     | 1,360  | 227   | 370   | 230   | 200   | 370    | 1,230  | 4,560  | 634    | 156   | 754   | 173   |
| 5     | 657    | 223   | 390   | 230   | 205   | 350    | 900    | 3,360  | 575    | 137   | 465   | 162   |
| 6     | 456    | 215   | 300   | 230   | 205   | 335    | 773    | 2,320  | 482    | 125   | 308   | 164   |
| 7     | 364    | 209   | 220   | 240   | 200   | 335    | 749    | 2,170  | 428    | 121   | 236   | 216   |
| 8     | 318    | 202   | 190   | 245   | 200   | 335    | 706    | 2,050  | 595    | 111   | 196   | 199   |
| 9     | 286    | 196   | 220   | 245   | 220   | 330    | 578    | 2,230  | 1,570  | 103   | 173   | 164   |
| 10    | 258    | 190   | 270   | 240   | 230   | 330    | 707    | 2,010  | 768    | 95    | 152   | 139   |
| 11    | 233    | 189   | 300   | 235   | 210   | 310    | 1,200  | 2,310  | 543    | 86    | 151   | 127   |
| 12    | 229    | 189   | 290   | 230   | 200   | 300    | 1,800  | 2,600  | 451    | 79    | 221   | 145   |
| 13    | 229    | 189   | 280   | 225   | 210   | 290    | 2,520  | 3,290  | 394    | 76    | 184   | 394   |
| 14    | 227    | 189   | 270   | 225   | 300   | 320    | 2,970  | 2,290  | 344    | 120   | 146   | 428   |
| 15    | 281    | 192   | 260   | 220   | 540   | 350    | 2,080  | 1,510  | 314    | 232   | 128   | 420   |
| 16    | 582    | 229   | 250   | 215   | 600   | 550    | 1,460  | 1,390  | 290    | 173   | 120   | 339   |
| 17    | 578    | 255   | 250   | 210   | 560   | 750    | 1,170  | 1,500  | 264    | 138   | 114   | 269   |
| 18    | 419    | 242   | 260   | 205   | 500   | 650    | 1,210  | 1,580  | 237    | 210   | 105   | 238   |
| 19    | 356    | 227   | 270   | 205   | 450   | 550    | 1,620  | 1,890  | 216    | 208   | 96    | 234   |
| 20    | 313    | 223   | 260   | 205   | 410   | 460    | 2,850  | 2,160  | 199    | 489   | 88    | 209   |
| 21    | 288    | 802   | 250   | 205   | 380   | 420    | 3,260  | 1,850  | 203    | 343   | 110   | 217   |
| 22    | 265    | 786   | 240   | 200   | 360   | 380    | 3,170  | 1,900  | 386    | 216   | 127   | 285   |
| 23    | 281    | 602   | 240   | 200   | 350   | 350    | 2,360  | 1,760  | 305    | 165   | 145   | 226   |
| 24    | 449    | 648   | 250   | 200   | 345   | 330    | 1,680  | 1,090  | 231    | 136   | 233   | 202   |
| 25    | 606    | 425   | 270   | 200   | 340   | 310    | 1,860  | 897    | 212    | 191   | 163   | 183   |
| 26    | 452    | 310   | 260   | 200   | 340   | 290    | 1,860  | 3,410  | 354    | 236   | 127   | 169   |
| 27    | 375    | 337   | 260   | 200   | 360   | 300    | 1,680  | 2,120  | 280    | 172   | 113   | 160   |
| 28    | 342    | 234   | 250   | 200   | 460   | 310    | 1,640  | 1,440  | 214    | 149   | 545   | 159   |
| 29    | 316    | 390   | 250   | 200   | ----- | 330    | 1,900  | 1,160  | 182    | 147   | 943   | 154   |
| 30    | 298    | 397   | 250   | 200   | ----- | 330    | 1,770  | 981    | 167    | 306   | 483   | 140   |
| 31    | 278    | ----- | 240   | 200   | ----- | 320    | -----  | 877    | -----  | 281   | 358   | ----- |
| TOTAL | 12,148 | 9,361 | 8,497 | 6,750 | 8,975 | 11,975 | 46,942 | 62,595 | 12,843 | 5,553 | 7,821 | 6,590 |
| MEAN  | 392    | 312   | 274   | 218   | 321   | 386    | 1,565  | 2,019  | 428    | 179   | 252   | 220   |
| MAX   | 1,360  | 802   | 390   | 245   | 600   | 750    | 3,260  | 4,560  | 1,570  | 489   | 943   | 428   |
| MIN   | 227    | 189   | 190   | 200   | 200   | 290    | 306    | 877    | 167    | 76    | 88    | 127   |
| CFSM  | .99    | .79   | .69   | .55   | .81   | .98    | 3.96   | 5.11   | 1.08   | .45   | .64   | .56   |
| IN.   | 1.14   | .88   | .80   | .64   | .85   | 1.13   | 4.42   | 5.90   | 1.21   | .52   | .74   | .62   |

CAL YR 1970 TOTAL 226,675 MEAN 621 MAX 6,840 MIN 51 CFSM 1.57 IN 21.35  
WTR YR 1971 TOTAL 200,050 MEAN 548 MAX 4,560 MIN 76 CFSM 1.39 IN 18.84

PEAK DISCHARGE (BASE, 6,500 CFS).--No peak above base.

## 01138500 Connecticut River at Wells River, Vt.

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

DRAINAGE AREA.--2,644 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 399.75 ft above mean sea level.

AVERAGE DISCHARGE.--22 years, 4,644 cfs (23.85 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 27,000 cfs May 4 (gage height, 9.58 ft); minimum daily, 246 cfs Aug. 15.  
Period of record: Maximum discharge, 54,000 cfs Mar. 27, 1953 (gage height, 15.96 ft); minimum daily, 152 cfs Aug. 28, 1960.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants, by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs (see p. 209), and other reservoirs (combined usable capacity, about 14.8 billion cubic feet).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV    | DEC    | JAN    | FEB    | MAR     | APR     | MAY     | JUN    | JUL    | AUG    | SEP    |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|--------|--------|--------|--------|
| 1     | 3,080  | 1,720  | 5,400  | 750    | 2,800  | 2,750   | 3,720   | 17,400  | 4,970  | 2,590  | 575    | 3,970  |
| 2     | 3,210  | 2,000  | 4,300  | 540    | 3,300  | 4,170   | 3,460   | 17,300  | 3,800  | 2,510  | 2,200  | 2,730  |
| 3     | 953    | 1,900  | 5,100  | 580    | 3,000  | 3,930   | 3,200   | 19,700  | 4,750  | 1,190  | 2,030  | 2,660  |
| 4     | 3,000  | 2,240  | 5,500  | 1,900  | 2,300  | 4,050   | 4,260   | 25,600  | 4,420  | 708    | 6,650  | 1,080  |
| 5     | 4,060  | 2,060  | 4,100  | 2,640  | 2,300  | 4,030   | 5,770   | 23,000  | 2,200  | 679    | 4,460  | 1,390  |
| 6     | 4,180  | 1,810  | 1,500  | 2,410  | 600    | 2,790   | 6,010   | 20,700  | 1,260  | 1,560  | 3,830  | 978    |
| 7     | 4,510  | 1,280  | 3,300  | 2,930  | 550    | 1,130   | 7,220   | 20,200  | 3,780  | 1,700  | 1,490  | 2,720  |
| 8     | 4,900  | 1,060  | 4,000  | 3,300  | 1,500  | 3,590   | 5,400   | 15,600  | 5,300  | 2,040  | 800    | 2,350  |
| 9     | 4,490  | 1,820  | 3,200  | 966    | 1,900  | 3,900   | 5,430   | 17,100  | 7,950  | 1,090  | 3,340  | 3,390  |
| 10    | 3,780  | 2,330  | 3,000  | 691    | 2,200  | 4,000   | 4,640   | 18,100  | 4,320  | 423    | 2,890  | 2,510  |
| 11    | 1,320  | 1,960  | 3,100  | 2,200  | 1,800  | 4,890   | 3,330   | 19,700  | 3,620  | 337    | 1,950  | 672    |
| 12    | 2,190  | 2,560  | 1,310  | 2,920  | 1,930  | 4,720   | 8,570   | 19,700  | 2,780  | 621    | 1,490  | 471    |
| 13    | 2,520  | 3,090  | 1,730  | 3,340  | 1,530  | 2,470   | 14,400  | 20,000  | 1,800  | 1,100  | 1,220  | 2,690  |
| 14    | 1,940  | 1,730  | 2,130  | 3,580  | 762    | 1,880   | 15,000  | 18,800  | 2,640  | 1,090  | 354    | 2,800  |
| 15    | 2,550  | 1,350  | 3,510  | 1,860  | 911    | 3,190   | 13,500  | 16,300  | 2,790  | 1,670  | 246    | 3,800  |
| 16    | 4,060  | 2,620  | 2,790  | 1,100  | 2,590  | 4,270   | 12,800  | 10,800  | 2,930  | 1,380  | 1,760  | 3,710  |
| 17    | 4,420  | 3,200  | 3,290  | 889    | 3,820  | 6,850   | 11,100  | 8,580   | 1,760  | 375    | 1,350  | 3,320  |
| 18    | 3,330  | 2,800  | 2,300  | 2,860  | 3,450  | 5,960   | 6,380   | 11,200  | 1,920  | 453    | 1,800  | 2,770  |
| 19    | 4,480  | 2,800  | 1,760  | 2,680  | 1,990  | 6,020   | 9,260   | 8,760   | 1,710  | 1,450  | 1,190  | 1,530  |
| 20    | 4,470  | 3,100  | 602    | 2,960  | 1,670  | 6,310   | 16,400  | 11,300  | 490    | 2,130  | 1,130  | 2,110  |
| 21    | 4,270  | 2,000  | 3,000  | 2,910  | 960    | 6,430   | 21,400  | 9,510   | 2,350  | 1,920  | 466    | 2,680  |
| 22    | 3,230  | 3,000  | 3,400  | 2,020  | 2,710  | 5,020   | 21,900  | 9,640   | 3,150  | 1,310  | 442    | 2,480  |
| 23    | 2,630  | 4,800  | 3,600  | 1,800  | 3,280  | 4,920   | 19,700  | 7,760   | 3,370  | 2,040  | 2,290  | 2,610  |
| 24    | 1,600  | 5,600  | 3,400  | 600    | 2,910  | 4,470   | 16,900  | 8,790   | 3,380  | 567    | 2,530  | 3,060  |
| 25    | 1,510  | 5,800  | 1,400  | 2,300  | 4,200  | 3,880   | 15,300  | 7,700   | 2,570  | 403    | 2,350  | 1,410  |
| 26    | 3,060  | 2,500  | 1,800  | 1,900  | 2,260  | 4,450   | 15,300  | 10,000  | 1,950  | 1,560  | 2,040  | 650    |
| 27    | 3,320  | 3,500  | 1,600  | 4,190  | 1,900  | 2,440   | 15,200  | 8,580   | 1,050  | 1,960  | 2,930  | 1,930  |
| 28    | 3,640  | 2,500  | 2,800  | 4,710  | 873    | 1,850   | 15,000  | 8,210   | 1,590  | 644    | 3,220  | 2,080  |
| 29    | 3,740  | 2,200  | 4,000  | 2,100  | -----  | 3,940   | 16,600  | 7,840   | 1,450  | 670    | 5,790  | 1,810  |
| 30    | 3,030  | 5,300  | 4,100  | 900    | -----  | 3,800   | 17,100  | 4,830   | 2,240  | 1,520  | 5,420  | 1,350  |
| 31    | 995    | -----  | 2,500  | 500    | -----  | 3,200   | -----   | 3,790   | -----  | 683    | 4,240  | -----  |
| TOTAL | 98,468 | 80,530 | 93,522 | 65,026 | 59,996 | 125,300 | 334,250 | 426,490 | 88,290 | 39,373 | 72,473 | 67,491 |
| MEAN  | 3,176  | 2,684  | 3,017  | 2,098  | 2,143  | 4,042   | 11,140  | 13,760  | 2,943  | 1,238  | 2,338  | 2,250  |
| MAX   | 4,900  | 5,800  | 5,500  | 4,710  | 4,200  | 6,850   | 21,900  | 25,600  | 7,950  | 2,590  | 6,650  | 3,970  |
| MIN   | 953    | 1,060  | 602    | 500    | 550    | 1,130   | 3,200   | 3,790   | 490    | 337    | 246    | 471    |
| MEAN† | 3,391  | 2,437  | 2,112  | 1,409  | 1,571  | 2,478   | 12,020  | 16,810  | 2,927  | 1,237  | 2,453  | 1,954  |
| CFSM† | 1.28   | .92    | .80    | .53    | .59    | .94     | 4.55    | 6.36    | 1.11   | .47    | .93    | .74    |
| IN.†  | 1.48   | 1.03   | .92    | .61    | .62    | 1.08    | 5.07    | 7.33    | 1.24   | .54    | 1.07   | .82    |

|             |       |           |      |       |     |        |     |     |       |       |       |      |     |       |
|-------------|-------|-----------|------|-------|-----|--------|-----|-----|-------|-------|-------|------|-----|-------|
| CAL YR 1970 | TOTAL | 1,654,042 | MEAN | 4,532 | MAX | 29,000 | MIN | 316 | MEAN† | 4,447 | CFSM† | 1.68 | INT | 22.84 |
| WTR YR 1971 | TOTAL | 1,550,209 | MEAN | 4,247 | MAX | 25,600 | MIN | 246 | MEAN† | 4,248 | CFSM† | 1.61 | INT | 21.82 |

## PEAK DISCHARGE (BASE, 23,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | 1200 | 9.58  | 27,000    |      |      |       |           |

† Adjusted for change in contents in First Connecticut and Second Connecticut Lakes, Lake Francis, and Moore and Comerford Reservoirs.

01139000 Wells River at Wells River, Vt.

LOCATION.--Lat 44°09'03", long 72°03'55", Orange County, on right bank 800 ft upstream from railroad bridge, 0.8 mile west of village of Wells River, and 1.5 miles upstream from mouth.

DRAINAGE AREA.--98.4 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 505.53 ft above mean sea level (levels by Connecticut River Power Co.).

AVERAGE DISCHARGE.--31 years, 133 cfs (18.36 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,040 cfs May 4 (gage height, 6.07 ft); minimum, 13 cfs July 13.

Period of record: Maximum discharge, 3,230 cfs June 2, 1952 (gage height, 8.12 ft), from rating curve extended above 1,400 cfs on basis of computation of peak flow over dam; minimum, 5.1 cfs Oct. 6, 1948; minimum daily, 8.3 cfs Sept. 5, 1953.

REMARKS.--Records good except those for winter period, which are fair. Some diurnal fluctuation at low flow prior to 1958 caused by small power-plant above station. Flow partly regulated by Groton and Ricker Ponds.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN  | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 40    | 32    | 52    | 32   | 25    | 78    | 62     | 741    | 109   | 29    | 49    | 79    |
| 2     | 35    | 29    | 48    | 31   | 25    | 72    | 62     | 725    | 95    | 35    | 93    | 60    |
| 3     | 46    | 29    | 45    | 31   | 24    | 66    | 140    | 1,200  | 97    | 30    | 126   | 50    |
| 4     | 89    | 27    | 44    | 31   | 23    | 65    | 190    | 1,780  | 94    | 26    | 310   | 45    |
| 5     | 54    | 26    | 55    | 32   | 23    | 68    | 160    | 1,180  | 86    | 25    | 136   | 40    |
| 6     | 43    | 25    | 46    | 37   | 23    | 64    | 150    | 940    | 78    | 23    | 79    | 38    |
| 7     | 38    | 24    | 41    | 36   | 22    | 61    | 145    | 830    | 73    | 25    | 57    | 36    |
| 8     | 39    | 23    | 38    | 35   | 25    | 58    | 130    | 762    | 70    | 22    | 44    | 34    |
| 9     | 73    | 22    | 44    | 34   | 33    | 56    | 116    | 707    | 77    | 20    | 37    | 30    |
| 10    | 67    | 23    | 46    | 34   | 31    | 54    | 143    | 611    | 70    | 19    | 32    | 28    |
| 11    | 78    | 27    | 43    | 36   | 30    | 52    | 215    | 557    | 64    | 16    | 30    | 26    |
| 12    | 69    | 33    | 40    | 35   | 31    | 51    | 344    | 499    | 59    | 16    | 39    | 30    |
| 13    | 59    | 30    | 38    | 34   | 50    | 50    | 436    | 506    | 55    | 14    | 28    | 53    |
| 14    | 56    | 26    | 37    | 34   | 65    | 50    | 466    | 469    | 52    | 38    | 25    | 55    |
| 15    | 64    | 27    | 35    | 32   | 90    | 58    | 372    | 366    | 48    | 52    | 23    | 69    |
| 16    | 88    | 45    | 33    | 33   | 80    | 100   | 315    | 315    | 48    | 30    | 22    | 55    |
| 17    | 64    | 47    | 34    | 32   | 75    | 120   | 276    | 317    | 46    | 26    | 20    | 49    |
| 18    | 53    | 39    | 37    | 32   | 70    | 96    | 313    | 298    | 42    | 33    | 19    | 63    |
| 19    | 47    | 34    | 36    | 31   | 65    | 86    | 450    | 259    | 41    | 29    | 18    | 52    |
| 20    | 48    | 46    | 35    | 31   | 62    | 80    | 733    | 228    | 37    | 75    | 16    | 44    |
| 21    | 40    | 62    | 34    | 31   | 58    | 75    | 860    | 218    | 39    | 44    | 17    | 49    |
| 22    | 36    | 75    | 33    | 30   | 55    | 71    | 818    | 292    | 56    | 32    | 17    | 49    |
| 23    | 52    | 61    | 33    | 28   | 52    | 68    | 656    | 255    | 43    | 27    | 29    | 43    |
| 24    | 58    | 64    | 36    | 27   | 50    | 66    | 507    | 202    | 38    | 25    | 40    | 39    |
| 25    | 47    | 40    | 39    | 26   | 49    | 64    | 614    | 175    | 36    | 25    | 24    | 35    |
| 26    | 42    | 34    | 38    | 26   | 48    | 62    | 576    | 210    | 50    | 25    | 20    | 32    |
| 27    | 41    | 37    | 37    | 26   | 60    | 61    | 571    | 211    | 42    | 24    | 19    | 30    |
| 28    | 40    | 36    | 36    | 29   | 84    | 60    | 593    | 203    | 36    | 24    | 460   | 29    |
| 29    | 41    | 52    | 35    | 26   | ----- | 59    | 752    | 173    | 32    | 24    | 543   | 29    |
| 30    | 38    | 53    | 34    | 26   | ----- | 60    | 749    | 142    | 31    | 136   | 214   | 29    |
| 31    | 36    | ----- | 33    | 25   | ----- | 61    | -----  | 123    | ----- | 56    | 123   | ----- |
| TOTAL | 1,641 | 1,128 | 1,215 | 566  | 1,328 | 2,092 | 11,914 | 15,494 | 1,744 | 1,025 | 2,709 | 1,300 |
| MEAN  | 52.9  | 37.6  | 39.2  | 31.2 | 47.4  | 67.5  | 397    | 500    | 58.1  | 33.1  | 87.4  | 43.3  |
| MAX   | 89    | 75    | 55    | 37   | 90    | 120   | 860    | 1,780  | 109   | 136   | 543   | 79    |
| MIN   | 35    | 22    | 33    | 25   | 22    | 50    | 62     | 123    | 31    | 14    | 16    | 26    |
| CFSM  | .54   | .38   | .40   | .32  | .48   | .69   | 4.03   | 5.08   | .59   | .34   | .89   | .44   |
| IN.   | .62   | .42   | .46   | .37  | .50   | .79   | 4.50   | 5.86   | .66   | .39   | 1.02  | .49   |

CAL YR 1970 TOTAL 45,562 MEAN 125 MAX 1,380 MIN 11 CFSM 1.27 IN 17.22  
WTR YR 1971 TOTAL 42,556 MEAN 117 MAX 1,780 MIN 14 CFSM 1.19 IN 16.09

## PEAK DISCHARGE (BASE, 980 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-21 | 0200 | 4.47  | 1,000     |      |      |       |           |
| 5-4  | 0900 | 6.07  | 2,040     |      |      |       |           |
| 8-28 | 2130 | 4.94  | 1,310     |      |      |       |           |

01139800 East Orange Branch at East Orange, Vt.

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

DRAINAGE AREA.--8.95 sq mi.

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

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

AVERAGE DISCHARGE.--13 years, 13.0 cfs (19.72 inches per year).

EXTREMES.--Current year: Maximum discharge, 465 cfs May 3 (gage height, 4.53 ft, from peak-stage indicator), from rating curve extended above 190 cfs; minimum, 0.55 cfs Aug. 20.

Period of record: Maximum discharge, 465 cfs May 3, 1971 (gage height, 4.53 ft, from peak-stage indicator), from rating curve extended above 190 cfs; maximum gage height, 6.35 ft Jan. 22, 1959 (ice jam); minimum discharge, 0.1 cfs Sept. 9, 19, 1963.

REMARKS.--Records good except those for winter period, which are fair. Occasional diurnal fluctuation at low flow caused by mill upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC  | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG    | SEP   |
|-------|------|-------|------|------|-------|-------|-------|-------|-------|------|--------|-------|
| 1     | 2.1  | 1.8   | 4.4  | 2.6  | 1.9   | 4.3   | 5.6   | 43    | 18    | 4.6  | 2.9    | 3.3   |
| 2     | 1.8  | 1.8   | 4.4  | 2.6  | 1.9   | 4.0   | 7.0   | 42    | 17    | 5.2  | 3.3    | 2.7   |
| 3     | 7.0  | 1.8   | 4.1  | 2.6  | 1.9   | 3.8   | 16    | 100   | 18    | 3.3  | 13     | 2.3   |
| 4     | 6.0  | 1.7   | 6.0  | 2.7  | 1.9   | 3.7   | 14    | 263   | 16    | 2.9  | 8.8    | 2.2   |
| 5     | 2.8  | 1.7   | 5.0  | 3.1  | 1.8   | 3.6   | 12    | 151   | 14    | 2.5  | 3.8    | 2.2   |
| 6     | 2.1  | 1.7   | 3.5  | 3.1  | 1.8   | 3.8   | 12    | 153   | 13    | 2.2  | 2.5    | 3.3   |
| 7     | 2.0  | 1.7   | 3.0  | 3.0  | 1.8   | 4.0   | 12    | 146   | 12    | 2.2  | 2.0    | 2.9   |
| 8     | 1.7  | 1.6   | 2.8  | 2.8  | 1.9   | 3.8   | 10    | 131   | 14    | 1.9  | 1.6    | 2.3   |
| 9     | 1.6  | 1.6   | 3.0  | 2.9  | 2.1   | 3.9   | 11    | 128   | 15    | 1.8  | 1.4    | 2.0   |
| 10    | 1.6  | 1.7   | 3.2  | 3.1  | 2.6   | 3.7   | 14    | 121   | 11    | 1.6  | 1.2    | 1.9   |
| 11    | 1.7  | 3.6   | 2.9  | 2.9  | 2.5   | 3.6   | 20    | 112   | 9.7   | 1.4  | 1.4    | 1.8   |
| 12    | 2.0  | 3.0   | 2.9  | 2.7  | 2.4   | 3.5   | 29    | 100   | 8.8   | 1.3  | 1.4    | 2.9   |
| 13    | 2.3  | 2.3   | 2.9  | 2.6  | 2.7   | 3.5   | 31    | 104   | 7.9   | 1.3  | 1.1    | 4.3   |
| 14    | 3.6  | 2.1   | 2.8  | 2.7  | 3.0   | 3.5   | 28    | 76    | 7.4   | 4.9  | .95    | 5.5   |
| 15    | 6.3  | 3.2   | 2.6  | 2.6  | 7.5   | 4.0   | 25    | 65    | 7.4   | 2.5  | .95    | 5.6   |
| 16    | 7.9  | 4.4   | 2.5  | 2.5  | 6.0   | 11    | 22    | 59    | 7.0   | 2.0  | 1.0    | 3.5   |
| 17    | 3.9  | 3.4   | 2.8  | 2.5  | 5.2   | 9.0   | 27    | 64    | 6.3   | 2.9  | .87    | 10    |
| 18    | 3.0  | 2.8   | 3.0  | 2.7  | 4.8   | 7.5   | 26    | 53    | 5.6   | 3.3  | .79    | 5.5   |
| 19    | 2.4  | 4.4   | 2.8  | 2.7  | 4.5   | 6.4   | 46    | 47    | 4.9   | 9.2  | .63    | 4.6   |
| 20    | 2.1  | 5.6   | 2.7  | 2.5  | 4.2   | 6.2   | 66    | 43    | 6.3   | 8.8  | .63    | 3.5   |
| 21    | 2.1  | 8.8   | 2.6  | 2.4  | 3.9   | 6.0   | 57    | 44    | 12    | 3.1  | 1.9    | 5.6   |
| 22    | 2.4  | 4.4   | 2.6  | 2.3  | 3.6   | 5.7   | 52    | 44    | 10    | 2.2  | 1.6    | 3.5   |
| 23    | 9.9  | 7.4   | 2.7  | 2.2  | 3.4   | 5.4   | 42    | 36    | 5.9   | 1.9  | 5.6    | 2.7   |
| 24    | 4.7  | 4.4   | 3.0  | 2.1  | 3.4   | 5.3   | 49    | 32    | 4.6   | 1.8  | 2.7    | 2.3   |
| 25    | 3.2  | 3.6   | 2.9  | 2.0  | 4.0   | 5.2   | 37    | 32    | 9.2   | 2.3  | 1.5    | 2.0   |
| 26    | 2.6  | 3.6   | 2.9  | 2.1  | 3.7   | 5.1   | 34    | 37    | 11    | 1.9  | 1.3    | 1.8   |
| 27    | 2.6  | 2.8   | 2.8  | 2.3  | 4.1   | 5.0   | 37    | 30    | 5.6   | 1.9  | 1.8    | 1.8   |
| 28    | 2.3  | 5.3   | 2.8  | 2.1  | 4.6   | 5.1   | 40    | 28    | 4.3   | 1.5  | .79    | 1.6   |
| 29    | 2.1  | 5.6   | 2.7  | 2.0  | ----- | 5.2   | 50    | 25    | 3.8   | 4.6  | 11     | 1.8   |
| 30    | 2.3  | 4.7   | 2.7  | 2.0  | ----- | 5.3   | 40    | 22    | 3.5   | 5.6  | 5.6    | 1.6   |
| 31    | 1.8  | ----- | 2.7  | 2.0  | ----- | 5.4   | ----- | 20    | ----- | 3.5  | 4.6    | ----- |
| TOTAL | 99.9 | 102.5 | 97.7 | 78.4 | 93.1  | 155.5 | 871.6 | 2,348 | 289.2 | 96.1 | 166.82 | 99.2  |
| MEAN  | 3.22 | 3.42  | 3.15 | 2.53 | 3.33  | 5.02  | 29.1  | 75.7  | 9.64  | 3.10 | 5.38   | 3.31  |
| MAX   | 9.9  | 8.8   | 6.0  | 3.1  | 7.5   | 11    | 66    | 260   | 18    | 9.2  | 7.9    | 10    |
| MIN   | 1.6  | 1.6   | 2.5  | 2.0  | 1.8   | 3.5   | 5.6   | 20    | 3.5   | 1.3  | .63    | 1.6   |
| CFSM  | .36  | .38   | .35  | .28  | .37   | .56   | 3.25  | 8.46  | 1.08  | .35  | .60    | .37   |
| IN.   | .42  | .43   | .41  | .33  | .39   | .65   | 3.62  | 9.76  | 1.20  | .40  | .69    | .41   |

CAL YR 1970 TOTAL 4,534.40 MEAN 12.4 MAX 155 MIN .24 CFSM 1.39 IN 18.85  
WTR YR 1971 TOTAL 4,498.02 MEAN 12.3 MAX 260 MIN .63 CFSM 1.37 IN 18.70

## PEAK DISCHARGE (BASE, 140 CFS)

| DATE | TIME    | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|---------|-------|-----------|------|------|-------|-----------|
| 5-3  | unknown | 4.53  | 465       |      |      |       |           |
| 8-28 | 1245    | 4.33  | 406       |      |      |       |           |

## 01141500 Ompompanoosuc River at Union Village, Vt.

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

DRAINAGE AREA.--130 sq mi.

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

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

AVERAGE DISCHARGE.--31 years, 187 cfs (19.53 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 1,730 cfs May 7 (gage height, 7.26 ft); minimum, 20 cfs July 12, 13; minimum daily, 20 cfs July 13. Period of record: Maximum discharge, 4,800 cfs June 3, 1947 (gage height, 9.65 ft), from rating curve extended above 2,400 cfs on basis of slope-area measurement of peak flow; minimum, 1.7 cfs Oct. 14, 1949; minimum daily, 2.0 cfs Oct. 20, 1949. Maximum discharge since construction of Union Village Reservoir in 1949, 2,350 cfs Apr. 20, 1950 (gage height, 7.62 ft); maximum gage height, 7.67 ft Mar. 22, 1968. Maximum stage since at least 1869, about 14.5 ft in November 1927, from information by local resident (discharge not determined).

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Union Village Reservoir (see p. 209) since October 1949. Some regulation by Lake Fairlee.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT          | NOV      | DEC       | JAN    | FEB       | MAR        | APR       | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------------|--------------|----------|-----------|--------|-----------|------------|-----------|--------|-------|-------|-------|-------|
| 1           | 39           | 38       | 67        | 63     | 42        | 100        | 123       | 915    | 135   | 35    | 91    | 106   |
| 2           | 38           | 38       | 70        | 63     | 42        | 80         | 145       | 875    | 123   | 37    | 65    | 82    |
| 3           | 45           | 37       | 71        | 64     | 42        | 73         | 282       | 1,310  | 133   | 33    | 80    | 76    |
| 4           | 75           | 37       | 73        | 66     | 42        | 76         | 413       | 307    | 123   | 30    | 112   | 65    |
| 5           | 56           | 37       | 98        | 68     | 41        | 79         | 350       | 930    | 107   | 28    | 73    | 59    |
| 6           | 47           | 36       | 112       | 70     | 40        | 81         | 317       | 1,520  | 97    | 27    | 52    | 66    |
| 7           | 42           | 35       | 112       | 67     | 40        | 82         | 347       | 1,550  | 91    | 27    | 42    | 81    |
| 8           | 38           | 34       | 57        | 65     | 41        | 84         | 293       | 1,260  | 86    | 26    | 39    | 71    |
| 9           | 36           | 32       | 76        | 63     | 42        | 85         | 261       | 1,130  | 96    | 25    | 36    | 62    |
| 10          | 34           | 32       | 76        | 61     | 45        | 86         | 342       | 1,120  | 79    | 21    | 32    | 56    |
| 11          | 32           | 38       | 78        | 58     | 47        | 78         | 486       | 995    | 71    | 22    | 34    | 52    |
| 12          | 32           | 43       | 80        | 57     | 45        | 78         | 840       | 553    | 71    | 21    | 39    | 54    |
| 13          | 34           | 40       | 78        | 55     | 51        | 78         | 1,060     | 507    | 62    | 20    | 35    | 74    |
| 14          | 39           | 38       | 76        | 54     | 54        | 78         | 1,240     | 460    | 57    | 27    | 31    | 83    |
| 15          | 52           | 42       | 74        | 52     | 65        | 91         | 850       | 376    | 53    | 31    | 28    | 88    |
| 16          | 76           | 58       | 70        | 52     | 50        | 166        | 677       | 339    | 53    | 26    | 26    | 77    |
| 17          | 56           | 55       | 75        | 51     | 150       | 227        | 585       | 338    | 50    | 28    | 25    | 67    |
| 18          | 47           | 47       | 77        | 51     | 110       | 210        | 632       | 306    | 43    | 34    | 24    | 64    |
| 19          | 43           | 47       | 76        | 50     | 55        | 169        | 570       | 270    | 42    | 43    | 24    | 61    |
| 20          | 40           | 56       | 72        | 49     | 83        | 145        | 1,370     | 245    | 39    | 111   | 22    | 59    |
| 21          | 38           | 64       | 70        | 48     | 75        | 140        | 1,280     | 242    | 39    | 47    | 22    | 64    |
| 22          | 39           | 67       | 71        | 47     | 74        | 130        | 1,370     | 268    | 52    | 35    | 23    | 60    |
| 23          | 71           | 71       | 74        | 47     | 74        | 125        | 1,290     | 227    | 44    | 30    | 23    | 55    |
| 24          | 67           | 70       | 70        | 46     | 73        | 120        | 570       | 203    | 38    | 31    | 27    | 52    |
| 25          | 55           | 65       | 65        | 46     | 73        | 115        | 955       | 198    | 43    | 35    | 24    | 53    |
| 26          | 50           | 62       | 67        | 45     | 72        | 115        | 905       | 347    | 113   | 32    | 22    | 48    |
| 27          | 47           | 61       | 65        | 45     | 72        | 110        | 875       | 264    | 58    | 28    | 23    | 42    |
| 28          | 45           | 61       | 64        | 45     | 55        | 110        | 890       | 231    | 45    | 27    | 446   | 41    |
| 29          | 42           | 64       | 63        | 45     | -----     | 115        | 1,160     | 207    | 40    | 42    | 284   | 41    |
| 30          | 40           | 65       | 63        | 45     | -----     | 115        | 1,030     | 185    | 37    | 108   | 152   | 41    |
| 31          | 35           | -----    | 63        | 44     | -----     | 120        | -----     | 169    | ----- | 91    | 142   | ----- |
| TOTAL       | 1,438        | 1,470    | 2,347     | 1,683  | 1,822     | 3,461      | 22,352    | 17,847 | 2,120 | 1,158 | 2,059 | 1,904 |
| MEAN        | 46.4         | 45.0     | 75.7      | 54.3   | 65.1      | 112        | 745       | 576    | 70.7  | 37.4  | 67.7  | 63.5  |
| MAX         | 79           | 71       | 112       | 70     | 150       | 227        | 1,370     | 1,550  | 135   | 111   | 446   | 106   |
| MIN         | 32           | 32       | 63        | 44     | 40        | 73         | 123       | 169    | 37    | 20    | 22    | 41    |
| MEAN†       | 46.4         | 51.5     | 79.9      | 53.7   | 63.9      | 110        | 746       | 572    | 70.4  | 37.4  | 67.9  | 63.3  |
| CFSM†       | .36          | .40      | .61       | .41    | .49       | .85        | 5.74      | 4.40   | .54   | .29   | .52   | .49   |
| IN.†        | .41          | .44      | .71       | .48    | .51       | .98        | 6.40      | 5.07   | .60   | .33   | .60   | .54   |
| CAL YR 1970 | TOTAL 61,365 | MEAN 168 | MAX 1,750 | MIN 16 | MEAN† 168 | CFSM† 1.29 | IN† 17.56 |        |       |       |       |       |
| WTR YR 1971 | TOTAL 59,701 | MEAN 164 | MAX 1,550 | MIN 20 | MEAN† 164 | CFSM† 1.26 | IN† 17.08 |        |       |       |       |       |

† Adjusted for change in contents in Union Village Reservoir.



01141800 Mink Brook near Etna, N.H.

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

DRAINAGE AREA.--4.60 sq mi.

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

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

AVERAGE DISCHARGE.--9 years, 5.66 cfs (16.71 inches per year).

EXTREMES.--Current year: Maximum discharge, 181 cfs May 3 (gage height, 2.83 ft), minimum, 0.06 cfs Aug. 19-21.

Period of record: Maximum discharge, 515 cfs July 29, 1969 (gage height, 3.71 ft), from rating curve extended above 130 cfs; maximum gage height, 4.19 ft Mar. 26, 1963 (backwater from ice); minimum discharge, 0.01 cfs Aug. 11, 1964.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are fair.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 1.9   | 1.8   | 4.2  | 1.9  | 1.4   | 3.8   | 5.0   | 28    | 5.3   | .63   | .73   | .42   |
| 2     | 1.3   | 1.8   | 3.6  | 1.9  | 1.3   | 3.5   | 8.0   | 30    | 4.2   | .58   | .58   | .33   |
| 3     | 6.9   | 1.6   | 3.6  | 1.8  | 1.3   | 3.3   | 15    | 68    | 5.0   | .57   | .73   | .24   |
| 4     | 6.9   | 1.5   | 12   | 1.8  | 1.3   | 3.3   | 19    | 92    | 4.6   | .48   | 1.2   | .21   |
| 5     | 3.0   | 1.5   | 6.9  | 3.0  | 1.1   | 3.3   | 16    | 43    | 3.6   | .39   | .72   | .18   |
| 6     | 1.9   | 1.5   | 4.0  | 2.5  | 1.4   | 3.0   | 15    | 30    | 3.0   | .30   | .52   | .42   |
| 7     | 1.6   | 1.3   | 3.0  | 2.0  | 1.3   | 2.7   | 14    | 23    | 2.5   | .24   | .38   | .43   |
| 8     | 1.3   | 1.3   | 2.7  | 2.0  | 1.3   | 2.5   | 13    | 19    | 2.1   | .17   | .27   | .32   |
| 9     | 1.2   | 1.3   | 2.5  | 1.9  | 1.4   | 2.3   | 12    | 20    | 2.5   | .13   | .17   | .22   |
| 10    | .96   | 1.3   | 2.9  | 1.9  | 1.4   | 2.3   | 15    | 17    | 1.9   | .12   | .15   | .19   |
| 11    | .96   | 1.5   | 2.9  | 2.0  | 1.4   | 2.3   | 21    | 14    | 1.5   | .10   | .14   | .13   |
| 12    | .96   | 1.6   | 2.9  | 2.0  | 1.4   | 2.3   | 35    | 13    | 1.2   | .08   | .14   | .46   |
| 13    | 1.9   | 1.6   | 2.7  | 1.7  | 1.8   | 2.3   | 45    | 17    | 1.2   | .08   | .12   | 1.0   |
| 14    | 2.3   | 1.6   | 2.4  | 1.7  | 4.0   | 2.5   | 50    | 16    | 1.2   | .17   | .10   | .85   |
| 15    | 2.3   | 3.6   | 2.5  | 1.6  | 6.0   | 5.0   | 40    | 12    | .96   | .13   | .09   | .85   |
| 16    | 3.9   | 4.2   | 2.4  | 1.5  | 5.0   | 14    | 25    | 10    | .96   | .13   | .09   | .58   |
| 17    | 2.5   | 2.8   | 2.4  | 1.5  | 4.0   | 8.5   | 21    | 10    | .85   | .12   | .08   | .58   |
| 18    | 2.1   | 2.3   | 2.4  | 1.5  | 3.5   | 8.0   | 22    | 9.1   | .85   | .11   | .07   | .58   |
| 19    | 1.6   | 3.3   | 2.4  | 1.5  | 3.0   | 6.8   | 27    | 7.6   | .75   | .76   | .07   | .43   |
| 20    | 1.5   | 5.0   | 2.4  | 1.5  | 3.0   | 5.6   | 50    | 6.5   | .66   | 1.2   | .06   | .37   |
| 21    | 1.5   | 9.1   | 2.1  | 1.4  | 3.0   | 5.0   | 60    | 6.1   | .58   | .59   | .06   | .66   |
| 22    | 1.8   | 5.7   | 2.1  | 1.4  | 3.0   | 5.0   | 50    | 9.7   | 1.1   | .36   | .15   | .58   |
| 23    | 6.1   | 5.3   | 2.1  | 1.4  | 3.0   | 5.0   | 33    | 7.2   | .75   | .22   | .12   | .31   |
| 24    | 5.0   | 3.9   | 2.3  | 1.4  | 3.0   | 4.6   | 33    | 6.1   | .58   | .14   | .09   | .26   |
| 25    | 3.3   | 2.8   | 2.5  | 1.4  | 2.5   | 4.6   | 34    | 10    | 3.3   | .21   | .08   | .15   |
| 26    | 2.8   | 2.1   | 2.2  | 1.4  | 2.5   | 4.6   | 31    | 28    | 6.1   | .20   | .07   | .13   |
| 27    | 2.3   | 2.3   | 1.9  | 1.6  | 3.5   | 4.6   | 29    | 12    | 1.6   | .75   | .10   | .12   |
| 28    | 2.1   | 3.0   | 1.9  | 1.6  | 5.0   | 4.6   | 26    | 9.7   | 1.1   | .49   | 2.1   | .11   |
| 29    | 1.9   | 3.6   | 1.9  | 1.6  | ----- | 4.6   | 44    | 7.6   | .80   | .65   | 1.9   | .11   |
| 30    | 1.8   | 4.2   | 1.9  | 1.7  | ----- | 5.0   | 32    | 6.9   | .72   | 1.0   | .87   | .10   |
| 31    | 1.8   | ----- | 1.9  | 1.6  | ----- | 4.6   | ----- | 6.1   | ----- | .78   | .64   | ----- |
| TOTAL | 77.38 | 84.4  | 93.6 | 53.7 | 71.8  | 139.5 | 840.0 | 594.6 | 61.46 | 11.88 | 12.59 | 11.32 |
| MEAN  | 2.50  | 2.81  | 3.02 | 1.73 | 2.56  | 4.50  | 28.0  | 19.2  | 2.05  | .38   | .41   | .38   |
| MAX   | 6.9   | 9.1   | 12   | 3.0  | 6.0   | 14    | 60    | 92    | 6.1   | 1.2   | 2.1   | 1.0   |
| MIN   | .96   | 1.3   | 1.9  | 1.4  | 1.1   | 2.3   | 5.0   | 6.1   | .58   | .08   | .06   | .10   |
| CFSM  | .54   | .61   | .66  | .38  | .56   | .98   | 5.09  | 4.17  | .45   | .08   | .09   | .08   |
| IN.   | .63   | .68   | .76  | .43  | .58   | 1.13  | 6.79  | 4.81  | .50   | .10   | .10   | .09   |

CAL YR 1970 TOTAL 2,175.40 MEAN 5.96 MAX 65 MIN .05 CFSM 1.30 IN 17.59  
WTR YR 1971 TOTAL 2,052.23 MEAN 5.62 MAX 92 MIN .06 CFSM 1.22 IN 16.60

## PEAK DISCHARGE (BASE, 55 CFS)

NOTE.--No gage-height record Apr. 3-22.

| DATE       | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------------|------|-------|-----------|------|------|-------|-----------|
| 4-13 or 14 | -    | -     | † -       |      |      |       |           |
| 4-20 or 21 | -    | -     | † -       |      |      |       |           |
| 5-3        | 2345 | 2.83  | 181       |      |      |       |           |
| 5-25       | 2400 | 2.26  | 66        |      |      |       |           |

† Unknown

## 01142500 Ayers Brook at Randolph, Vt.

LOCATION.--Lat 43°56'03", long 72°39'30", Orange County, on right bank 55 ft upstream from bridge on State Highway 12, just north of village limits of Randolph, 0.4 mile upstream from Adams Brook, and 1.2 miles upstream from mouth.

DRAINAGE AREA.--30.5 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 631.75 ft above mean sea level (levels by Corps of Engineers); prior to Oct. 1, 1964, datum was 1.00 ft higher.

AVERAGE DISCHARGE.--32 years, 43.9 cfs (19.55 inches per year).

EXTREMES.--Current year: Maximum discharge, 656 cfs May 4 (gage height, 4.86 ft); minimum, 2.7 cfs July 12, 13, Aug. 19.

Period of record: Maximum discharge, 3,490 cfs June 1, 1952 (gage height, 8.58 ft, present datum), from rating curve extended above 500 cfs; minimum, 0.6 cfs July 27, 1965.

Maximum stage since at least 1830, about 17 ft (present datum) in November 1927.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN  | FEB   | MAR  | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|------|------|-------|------|-------|-------|-------|-------|-------|-------|
| 1     | 7.7   | 8.5   | 21   | 15   | 10    | 22   | 28    | 232   | 37    | 8.8   | 14    | 14    |
| 2     | 7.1   | 8.2   | 19   | 15   | 10    | 20   | 33    | 227   | 34    | 12    | 27    | 12    |
| 3     | 8.8   | 7.9   | 19   | 15   | 9.8   | 19   | 60    | 369   | 35    | 9.1   | 29    | 11    |
| 4     | 11    | 7.7   | 26   | 15   | 9.6   | 18   | 90    | 508   | 33    | 7.7   | 35    | 9.5   |
| 5     | 9.1   | 7.7   | 24   | 16   | 9.5   | 18   | 72    | 328   | 30    | 6.6   | 19    | 17    |
| 6     | 8.5   | 7.7   | 21   | 17   | 9.4   | 19   | 75    | 277   | 28    | 6.0   | 13    | 70    |
| 7     | 7.7   | 7.7   | 17   | 15   | 9.4   | 20   | 81    | 241   | 27    | 6.4   | 10    | 28    |
| 8     | 7.4   | 9.4   | 14   | 13   | 9.8   | 19   | 73    | 208   | 25    | 5.6   | 8.2   | 21    |
| 9     | 7.1   | 7.7   | 18   | 13   | 11    | 19   | 68    | 195   | 28    | 4.8   | 7.2   | 17    |
| 10    | 6.4   | 7.4   | 19   | 14   | 12    | 19   | 87    | 167   | 23    | 4.4   | 6.4   | 15    |
| 11    | 6.0   | 9.3   | 17   | 15   | 13    | 19   | 95    | 147   | 21    | 3.8   | 7.4   | 14    |
| 12    | 6.4   | 12    | 18   | 14   | 12    | 19   | 158   | 127   | 20    | 3.5   | 8.2   | 27    |
| 13    | 6.6   | 10    | 17   | 13   | 12    | 18   | 203   | 120   | 19    | 3.2   | 6.1   | 30    |
| 14    | 7.4   | 9.6   | 17   | 12   | 15    | 19   | 193   | 107   | 17    | 8.5   | 5.2   | 30    |
| 15    | 9.2   | 11    | 16   | 12   | 25    | 20   | 162   | 89    | 17    | 7.9   | 4.8   | 29    |
| 16    | 10    | 17    | 15   | 12   | 23    | 43   | 152   | 80    | 18    | 5.6   | 4.6   | 24    |
| 17    | 8.8   | 14    | 16   | 11   | 22    | 50   | 135   | 79    | 16    | 5.2   | 4.0   | 32    |
| 18    | 7.9   | 12    | 17   | 11   | 22    | 40   | 156   | 72    | 14    | 7.4   | 3.6   | 29    |
| 19    | 7.4   | 14    | 17   | 11   | 21    | 36   | 229   | 64    | 13    | 7.4   | 3.3   | 25    |
| 20    | 7.1   | 27    | 17   | 11   | 20    | 35   | 385   | 58    | 12    | 20    | 3.0   | 22    |
| 21    | 7.1   | 30    | 16   | 11   | 19    | 33   | 396   | 70    | 11    | 9.5   | 3.3   | 25    |
| 22    | 7.7   | 23    | 13   | 11   | 18    | 30   | 335   | 84    | 15    | 6.6   | 3.5   | 22    |
| 23    | 26    | 23    | 17   | 11   | 17    | 28   | 270   | 62    | 17    | 5.4   | 12    | 19    |
| 24    | 17    | 20    | 16   | 11   | 17    | 27   | 234   | 55    | 10    | 5.4   | 7.7   | 17    |
| 25    | 13    | 17    | 16   | 11   | 17    | 26   | 241   | 54    | 11    | 9.5   | 5.6   | 15    |
| 26    | 11    | 14    | 16   | 12   | 16    | 25   | 224   | 67    | 29    | 6.6   | 4.8   | 15    |
| 27    | 10    | 14    | 16   | 17   | 17    | 25   | 232   | 61    | 16    | 7.2   | 9.5   | 14    |
| 28    | 9.6   | 15    | 16   | 11   | 23    | 26   | 245   | 55    | 12    | 6.9   | 159   | 14    |
| 29    | 9.1   | 22    | 15   | 11   | ----- | 27   | 291   | 50    | 10    | 16    | 37    | 14    |
| 30    | 8.8   | 20    | 15   | 11   | ----- | 27   | 241   | 45    | 9.3   | 25    | 24    | 13    |
| 31    | 8.5   | ----- | 15   | 11   | ----- | 28   | ----- | 41    | ----- | 17    | 18    | ----- |
| TOTAL | 284.4 | 412.8 | 536  | 393  | 429.5 | 794  | 5,244 | 4,340 | 602.3 | 259.0 | 503.4 | 644.5 |
| MEAN  | 9.17  | 13.8  | 17.3 | 12.7 | 15.3  | 25.6 | 175   | 140   | 20.1  | 8.35  | 16.2  | 21.5  |
| MAX   | 26    | 30    | 26   | 17   | 25    | 50   | 396   | 508   | 37    | 25    | 159   | 70    |
| MIN   | 6.0   | 7.4   | 13   | 11   | 9.4   | 18   | 28    | 41    | 9.3   | 3.2   | 3.0   | 9.5   |
| CFSM  | .30   | .45   | .57  | .42  | .50   | .84  | 5.74  | 4.59  | .56   | .27   | .53   | .70   |
| IN.   | .35   | .50   | .65  | .48  | .52   | .97  | 6.40  | 5.29  | .73   | .32   | .61   | .79   |

CAL YR 1970 TOTAL 15,747.2 MEAN 43.1 MAX 454 MIN 3.0 CFSM 1.41 IN 19.21  
WTR YR 1971 TOTAL 14,442.9 MEAN 39.6 MAX 508 MIN 3.0 CFSM 1.30 IN 17.62

## PEAK DISCHARGE (BASE, 350 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-20 | 2300 | 4.71  | 604       |      |      |       |           |
| 5-4  | 0800 | 4.86  | 656       |      |      |       |           |

01144000 White River at West Hartford, Vt.

LOCATION.--Lat 43°42' 51", long 72°25' 07", Windsor County, on left bank 700 ft upstream from highway bridge at West Hartford and 7.4 miles upstream from mouth.

DRAINAGE AREA.--690 sq mi.

PERIOD OF RECORD.--June 1915 to current year. October 1927 to September 1928 monthly discharge only, published in WSP 1301.

GAGE.--Water-stage recorder. Datum of gage is 374.53 ft above mean sea level. Prior to Oct. 30, 1927, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--56 years, 1,150 cfs (22.63 inches per year).

EXTREMES.--Current year: Maximum discharge, 14,300 cfs May 4 (gage height, 11.72 ft); minimum, 114 cfs Aug. 21.

Period of record: Maximum discharge, 120,000 cfs Nov. 4, 1927 (gage height, 29.3 ft, from floodmarks), from rating curve extended above 29,000 cfs on basis of slope-area measurement of peak flow; minimum observed, about 35 cfs Aug. 4, 1918; minimum daily, 54 cfs Sept. 27, 28, 1963. Stage and discharge of the flood of Nov. 4, 1927, are the greatest since at least 1760.

REMARKS.--Records good except those for winter period, which are fair. Some diurnal fluctuation at low flow during period 1934-50 caused by powerplant above station. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 781: 1928(M). WSP 1031: 1916(m), 1923. WSP 1301: 1916-26(M), 1929(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV    | DEC    | JAN   | FEB    | MAR    | APR     | MAY     | JUN    | JUL   | AUG    | SEP    |
|-------|--------|--------|--------|-------|--------|--------|---------|---------|--------|-------|--------|--------|
| 1     | 275    | 291    | 705    | 330   | 240    | 600    | 600     | 5,690   | 1,020  | 232   | 419    | 599    |
| 2     | 240    | 275    | 633    | 345   | 235    | 500    | 640     | 5,850   | 910    | 246   | 343    | 471    |
| 3     | 229    | 264    | 599    | 360   | 230    | 470    | 1,500   | 8,610   | 882    | 268   | 538    | 392    |
| 4     | 322    | 257    | 701    | 330   | 225    | 450    | 2,400   | 12,900  | 882    | 223   | 1,290  | 319    |
| 5     | 347    | 250    | 805    | 340   | 225    | 400    | 1,880   | 9,020   | 784    | 203   | 750    | 306    |
| 6     | 302    | 246    | 705    | 370   | 220    | 450    | 1,790   | 7,890   | 699    | 191   | 476    | 467    |
| 7     | 260    | 236    | 520    | 390   | 220    | 480    | 1,820   | 6,830   | 657    | 179   | 352    | 587    |
| 8     | 236    | 229    | 390    | 350   | 230    | 460    | 1,660   | 6,250   | 616    | 167   | 294    | 452    |
| 9     | 216    | 223    | 433    | 300   | 250    | 480    | 1,560   | 5,890   | 633    | 164   | 246    | 369    |
| 10    | 203    | 216    | 570    | 310   | 270    | 450    | 2,000   | 5,020   | 610    | 153   | 219    | 310    |
| 11    | 194    | 229    | 520    | 330   | 280    | 450    | 2,410   | 5,090   | 532    | 142   | 194    | 275    |
| 12    | 188    | 279    | 481    | 350   | 290    | 450    | 3,700   | 4,640   | 506    | 136   | 207    | 272    |
| 13    | 191    | 275    | 460    | 310   | 300    | 440    | 5,040   | 4,360   | 476    | 132   | 207    | 491    |
| 14    | 203    | 260    | 420    | 280   | 330    | 420    | 5,710   | 3,560   | 443    | 139   | 182    | 548    |
| 15    | 236    | 260    | 390    | 265   | 500    | 450    | 4,290   | 2,760   | 419    | 200   | 164    | 587    |
| 16    | 425    | 343    | 320    | 260   | 650    | 750    | 3,640   | 2,440   | 387    | 197   | 156    | 543    |
| 17    | 433    | 392    | 310    | 255   | 600    | 1,300  | 3,000   | 2,340   | 383    | 173   | 142    | 447    |
| 18    | 365    | 347    | 340    | 250   | 510    | 920    | 3,290   | 2,160   | 365    | 194   | 132    | 570    |
| 19    | 322    | 335    | 360    | 250   | 500    | 920    | 4,310   | 1,950   | 339    | 216   | 126    | 452    |
| 20    | 314    | 512    | 375    | 245   | 470    | 780    | 7,660   | 1,760   | 314    | 481   | 122    | 396    |
| 21    | 294    | 913    | 350    | 240   | 440    | 760    | 8,670   | 1,680   | 302    | 356   | 122    | 333    |
| 22    | 279    | 1,130  | 300    | 245   | 420    | 680    | 7,710   | 2,240   | 339    | 240   | 119    | 424    |
| 23    | 611    | 910    | 260    | 255   | 400    | 650    | 6,070   | 1,770   | 335    | 197   | 136    | 361    |
| 24    | 970    | 875    | 330    | 260   | 400    | 620    | 4,950   | 1,500   | 272    | 182   | 257    | 322    |
| 25    | 651    | 645    | 360    | 265   | 390    | 600    | 5,440   | 1,390   | 275    | 164   | 226    | 294    |
| 26    | 517    | 532    | 350    | 265   | 380    | 580    | 4,820   | 1,770   | 570    | 185   | 182    | 272    |
| 27    | 438    | 527    | 350    | 270   | 390    | 570    | 4,920   | 1,910   | 452    | 188   | 161    | 260    |
| 28    | 387    | 491    | 350    | 265   | 510    | 580    | 5,440   | 1,640   | 335    | 176   | 2,340  | 246    |
| 29    | 352    | 645    | 340    | 260   | -----  | 590    | 6,700   | 1,440   | 275    | 188   | 3,410  | 246    |
| 30    | 327    | 681    | 340    | 250   | -----  | 600    | 6,030   | 1,270   | 254    | 484   | 1,280  | 250    |
| 31    | 302    | -----  | 330    | 240   | -----  | 600    | -----   | 1,140   | -----  | 457   | 826    | -----  |
| TOTAL | 10,629 | 13,068 | 13,687 | 9,035 | 10,105 | 18,350 | 119,650 | 122,760 | 15,266 | 6,853 | 15,618 | 11,931 |
| MEAN  | 343    | 436    | 442    | 291   | 361    | 592    | 3,988   | 3,960   | 509    | 221   | 504    | 398    |
| MAX   | 970    | 1,130  | 805    | 390   | 650    | 1,300  | 8,670   | 12,900  | 1,020  | 484   | 3,410  | 599    |
| MIN   | 188    | 216    | 260    | 240   | 220    | 400    | 600     | 1,140   | 254    | 132   | 119    | 246    |
| CFSM  | .50    | .63    | .64    | .42   | .52    | .86    | 5.78    | 5.74    | .74    | .32   | .73    | .58    |
| IN.   | .57    | .70    | .74    | .49   | .54    | .99    | 6.45    | 6.62    | .82    | .37   | .84    | .64    |

CAL YR 1970 TOTAL 383,924 MEAN 1,052 MAX 14,200 MIN 80 CFSM 1.52 IN 20.70  
WTR YR 1971 TOTAL 366,952 MEAN 1,005 MAX 12,900 MIN 119 CFSM 1.46 IN 19.78

## PEAK DISCHARGE (BASE, 11,600 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | 1030 | 11.72 | 14,300    |      |      |       |           |

01144500 Connecticut River at White River Junction, Vt.

LOCATION.--Lat 43°38'49", long 72°18'53", Windsor County, on right bank 50 ft downstream from railroad bridge at White River Junction, 500 ft downstream from White River, and at mile 215.0.

DRAINAGE AREA.--4,092 sq mi.

PERIOD OF RECORD.--October 1911 to current year.

GAGE.--Water-stage recorder. Datum of gage is 321.52 ft above mean sea level. Prior to June 16, 1918, nonrecording gage on downstream side of pier of railroad bridge 50 ft upstream at same datum. June 16, 1918, to Nov. 2, 1930, nonrecording gage at various locations on upstream and downstream sides of railroad bridge at same datum.

AVERAGE DISCHARGE.--60 years, 7,014 cfs (23.28 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 45,300 cfs May 4 (gage height, 18.34 ft); minimum daily, 170 cfs Aug. 22.

Period of record: Maximum discharge, 136,000 cfs Nov. 4, 1927 (gage height, 35.0 ft, present site), from rating curve extended above 70,000 cfs; minimum daily, 82 cfs Aug. 8, 1965.

Stage and discharge of the flood of Nov. 4, 1927, are the greatest since at least 1760.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, Union Village Reservoir (see p. 209), and other reservoirs (combined usable capacity, about 17.2 billion cubic feet).

REVISIONS (WATER YEARS).--WSP 741: 1932 (adjusted monthly and yearly figures only). WSP 781: 1928(M). WSP 891: Drainage area. WSP 1301: 1922-26(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT     | NOV    | DEC     | JAN    | FEB    | MAR     | APR     | MAY     | JUN     | JUL    | AUG    | SEP    |
|-------|---------|--------|---------|--------|--------|---------|---------|---------|---------|--------|--------|--------|
| 1     | 5,300   | 391    | 6,850   | 800    | 3,900  | 3,800   | 5,300   | 27,000  | 6,800   | 2,570  | 1,630  | 3,510  |
| 2     | 3,200   | 3,050  | 5,480   | 1,200  | 4,500  | 5,200   | 5,800   | 27,300  | 6,610   | 2,610  | 2,790  | 3,730  |
| 3     | 1,100   | 2,870  | 6,090   | 600    | 2,400  | 5,000   | 7,570   | 32,200  | 5,550   | 670    | 2,980  | 5,530  |
| 4     | 3,150   | 2,550  | 7,670   | 3,000  | 2,400  | 5,400   | 9,780   | 43,200  | 5,290   | 762    | 6,630  | 1,360  |
| 5     | 5,550   | 2,480  | 5,370   | 2,600  | 4,200  | 6,000   | 5,600   | 40,500  | 3,230   | 990    | 7,160  | 1,330  |
| 6     | 6,140   | 2,230  | 2,560   | 2,500  | 1,200  | 2,200   | 9,400   | 36,700  | 2,340   | 2,160  | 4,310  | 592    |
| 7     | 7,190   | 1,430  | 5,000   | 4,000  | 1,100  | 2,200   | 11,200  | 33,100  | 6,170   | 1,310  | 1,460  | 3,750  |
| 8     | 4,660   | 1,010  | 4,200   | 3,200  | 3,200  | 5,800   | 8,980   | 25,800  | 5,700   | 2,100  | 1,010  | 3,710  |
| 9     | 6,060   | 2,480  | 4,100   | 1,300  | 3,200  | 5,600   | 9,540   | 25,900  | 5,770   | 1,530  | 4,050  | 4,810  |
| 10    | 2,640   | 2,780  | 3,700   | 1,400  | 3,000  | 5,200   | 8,950   | 26,500  | 6,450   | 1,600  | 3,580  | 1,750  |
| 11    | 313     | 2,660  | 4,100   | 3,600  | 2,500  | 4,800   | 8,960   | 27,900  | 4,780   | 188    | 2,880  | 685    |
| 12    | 2,540   | 3,280  | 2,070   | 3,500  | 2,500  | 6,600   | 13,500  | 27,700  | 4,260   | 1,380  | 1,860  | 1,610  |
| 13    | 3,450   | 3,270  | 1,410   | 4,500  | 400    | 2,500   | 23,600  | 27,300  | 2,720   | 1,100  | 1,370  | 3,570  |
| 14    | 2,720   | 2,380  | 4,610   | 3,100  | 350    | 2,000   | 26,400  | 26,700  | 3,500   | 2,340  | 837    | 4,250  |
| 15    | 3,720   | 2,490  | 3,500   | 2,200  | 1,500  | 5,400   | 22,500  | 23,600  | 3,700   | 1,430  | 245    | 4,780  |
| 16    | 5,620   | 5,400  | 4,100   | 1,800  | 4,700  | 7,600   | 20,500  | 18,400  | 2,890   | 1,660  | 1,740  | 4,760  |
| 17    | 5,340   | 4,790  | 3,980   | 300    | 5,000  | 7,600   | 17,700  | 12,200  | 2,370   | 990    | 1,740  | 4,200  |
| 18    | 2,620   | 4,060  | 3,210   | 5,000  | 4,200  | 9,000   | 14,700  | 13,900  | 2,980   | 708    | 3,340  | 2,100  |
| 19    | 4,610   | 2,670  | 1,670   | 4,600  | 3,600  | 8,600   | 16,100  | 12,600  | 1,590   | 2,610  | 1,130  | 2,490  |
| 20    | 5,130   | 2,070  | 1,720   | 3,700  | 1,800  | 8,400   | 27,000  | 14,000  | 346     | 2,650  | 1,230  | 2,500  |
| 21    | 4,710   | 1,510  | 4,200   | 2,600  | 1,100  | 7,800   | 33,900  | 13,200  | 4,940   | 2,530  | 221    | 3,000  |
| 22    | 4,610   | 5,650  | 4,200   | 2,700  | 5,000  | 7,400   | 35,000  | 13,000  | 2,700   | 1,860  | 170    | 4,600  |
| 23    | 3,660   | 7,150  | 4,400   | 1,400  | 4,700  | 6,600   | 33,000  | 12,400  | 2,200   | 2,330  | 2,840  | 4,400  |
| 24    | 3,950   | 5,640  | 3,700   | 300    | 3,200  | 6,000   | 28,300  | 11,000  | 4,900   | 864    | 2,350  | 3,300  |
| 25    | 1,270   | 6,270  | 2,000   | 3,200  | 4,100  | 5,600   | 26,200  | 10,600  | 3,320   | 202    | 2,910  | 384    |
| 26    | 4,450   | 2,580  | 4,000   | 2,600  | 4,100  | 5,400   | 24,300  | 12,700  | 3,360   | 2,080  | 2,590  | 330    |
| 27    | 5,370   | 5,280  | 4,100   | 4,300  | 3,300  | 4,000   | 24,200  | 13,200  | 1,340   | 3,180  | 5,390  | 2,140  |
| 28    | 5,730   | 2,020  | 3,700   | 5,000  | 2,700  | 2,200   | 24,200  | 11,500  | 2,310   | 837    | 4,600  | 2,040  |
| 29    | 4,580   | 2,890  | 4,700   | 2,500  | -----  | 5,300   | 26,900  | 10,800  | 2,190   | 1,420  | 12,100 | 1,770  |
| 30    | 2,980   | 6,470  | 4,500   | 1,100  | -----  | 5,600   | 27,300  | 9,810   | 3,660   | 2,060  | 6,780  | 1,910  |
| 31    | 1,460   | -----  | 3,000   | 650    | -----  | 3,800   | -----   | 6,500   | -----   | 1,110  | 5,400  | -----  |
| TOTAL | 124,463 | 59,801 | 123,850 | 79,250 | 83,850 | 168,600 | 560,380 | 651,610 | 113,966 | 49,831 | 97,363 | 64,801 |
| MEAN  | 4,015   | 3,327  | 3,956   | 2,556  | 2,995  | 5,439   | 18,680  | 21,030  | 3,799   | 1,607  | 3,141  | 2,827  |
| MAX   | 7,190   | 7,150  | 7,670   | 5,000  | 5,000  | 9,000   | 35,000  | 43,200  | 6,800   | 3,180  | 12,100 | 5,530  |
| MIN   | 313     | 391    | 1,410   | 300    | 350    | 2,000   | 5,300   | 6,500   | 346     | 188    | 170    | 330    |
| MEAN† | 4,229   | 3,082  | 3,095   | 1,868  | 2,421  | 3,874   | 19,560  | 24,070  | 3,783   | 1,606  | 3,256  | 2,531  |
| CFSM† | 1.03    | .75    | .76     | .46    | .59    | .95     | 4.78    | 5.88    | .92     | .39    | .80    | .62    |
| IN.†  | 1.19    | .84    | .87     | .53    | .62    | 1.09    | 5.33    | 6.78    | 1.03    | .45    | .92    | .69    |

CAL YR 1970 TOTAL 2,389,155 MEAN 6,546 MAX 44,700 MIN 109 MEAN† 6,461 CFSM† 1.58 IN† 21.44  
WTR YR 1971 TOTAL 2,238,105 MEAN 6,132 MAX 43,200 MIN 170 MEAN† 6,133 CFSM† 1.50 IN† 20.35

## PEAK DISCHARGE (BASE, 34,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-22 | 0100 | 15.96 | 35,700    |      |      |       |           |
| 5-4  | 1330 | 18.34 | 45,300    |      |      |       |           |

† Adjusted for change in contents in First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, and Union Village Reservoir.

01145000 Mascoma River at West Canaan, N.H.

LOCATION.--Lat 43°39'00", long 72°04'50", Grafton County, on right bank 45 ft downstream from Boston and Maine Railroad bridge, 0.9 mile east of West Canaan, 1.2 miles downstream from Indian River, 3.5 miles west of Canaan, and at mile 19.3.

DRAINAGE AREA.--80.5 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 835 ft (from topographic map).

AVERAGE DISCHARGE.--32 years, 114 cfs (19.23 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,470 cfs May 4 (gage height, 5.83 ft); minimum, 5.5 cfs Aug. 21.

Period of record: Maximum discharge, 3,780 cfs Mar. 27, 1953 (gage height, 8.94 ft), from rating curve extended above 1,900 cfs on basis of slope-area measurement at gage height 9.6 ft; minimum, 2.9 cfs Aug. 8, 17, 18, 19, 1965.

Flood in September 1938 reached a stage of 9.6 ft, from floodmarks (discharge, 4,310 cfs, from rating curve extended above 1,900 cfs as explained above).

REMARKS.--Records good except those for winter period or period of no gage-height record, which are fair.

REVISIONS (WATER YEARS).--WSP 1901: 1960.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| 1     | 58    | 47    | 62    | 37    | 28    | 82    | 77     | 441   | 72    | 14    | 37    | 16    |
| 2     | 50    | 46    | 60    | 36    | 27    | 74    | 87     | 423   | 61    | 13    | 27    | 13    |
| 3     | 70    | 45    | 62    | 35    | 26    | 66    | 191    | 570   | 64    | 12    | 25    | 11    |
| 4     | 130   | 44    | 120   | 39    | 26    | 64    | 267    | 1,310 | 65    | 11    | 55    | 9.4   |
| 5     | 120   | 42    | 150   | 45    | 26    | 62    | 243    | 939   | 54    | 9.4   | 38    | 8.8   |
| 6     | 85    | 40    | 90    | 52    | 27    | 61    | 224    | 629   | 43    | 8.8   | 25    | 19    |
| 7     | 64    | 37    | 70    | 47    | 27    | 60    | 216    | 483   | 39    | 8.6   | 19    | 14    |
| 8     | 52    | 44    | 52    | 43    | 27    | 59    | 183    | 409   | 35    | 7.7   | 15    | 11    |
| 9     | 47    | 38    | 50    | 41    | 29    | 58    | 164    | 387   | 38    | 7.4   | 13    | 9.4   |
| 10    | 43    | 35    | 58    | 39    | 32    | 55    | 206    | 332   | 33    | 6.9   | 11    | 8.3   |
| 11    | 42    | 35    | 58    | 38    | 28    | 54    | 300    | 285   | 28    | 6.6   | 11    | 7.7   |
| 12    | 43    | 37    | 55    | 37    | 27    | 52    | 453    | 256   | 25    | 6.2   | 11    | 9.1   |
| 13    | 45    | 36    | 52    | 36    | 28    | 51    | 622    | 247   | 24    | 5.7   | 10    | 38    |
| 14    | 50    | 35    | 49    | 35    | 60    | 51    | 689    | 300   | 22    | 6.4   | 9.1   | 32    |
| 15    | 56    | 37    | 47    | 35    | 110   | 58    | 528    | 226   | 20    | 7.7   | 8.3   | 32    |
| 16    | 80    | 53    | 44    | 34    | 140   | 100   | 403    | 191   | 19    | 8.3   | 7.7   | 24    |
| 17    | 76    | 52    | 44    | 33    | 110   | 130   | 317    | 183   | 18    | 7.7   | 7.2   | 21    |
| 18    | 66    | 45    | 45    | 32    | 95    | 110   | 322    | 168   | 16    | 8.8   | 6.6   | 20    |
| 19    | 58    | 44    | 44    | 31    | 85    | 98    | 376    | 141   | 14    | 10    | 6.2   | 18    |
| 20    | 53    | 57    | 43    | 30    | 80    | 92    | 671    | 125   | 13    | 40    | 5.9   | 15    |
| 21    | 51    | 128   | 42    | 29    | 76    | 92    | 881    | 109   | 12    | 24    | 5.7   | 14    |
| 22    | 50    | 107   | 42    | 29    | 72    | 86    | 764    | 140   | 14    | 15    | 9.1   | 13    |
| 23    | 76    | 101   | 42    | 29    | 67    | 82    | 605    | 123   | 13    | 12    | 8.8   | 12    |
| 24    | 93    | 92    | 44    | 28    | 66    | 78    | 453    | 96    | 11    | 11    | 7.4   | 11    |
| 25    | 81    | 69    | 45    | 28    | 64    | 75    | 486    | 86    | 11    | 29    | 6.6   | 10    |
| 26    | 74    | 58    | 44    | 28    | 60    | 73    | 456    | 168   | 69    | 17    | 6.2   | 9.6   |
| 27    | 66    | 58    | 42    | 35    | 64    | 72    | 423    | 153   | 40    | 21    | 6.2   | 9.2   |
| 28    | 60    | 56    | 41    | 38    | 95    | 71    | 406    | 121   | 25    | 22    | 48    | 8.8   |
| 29    | 54    | 60    | 40    | 32    | ----- | 72    | 471    | 101   | 19    | 17    | 73    | 8.8   |
| 30    | 50    | 64    | 39    | 31    | ----- | 75    | 507    | 86    | 15    | 73    | 30    | 8.8   |
| 31    | 48    | ----- | 38    | 30    | ----- | 75    | -----  | 83    | ----- | 41    | 20    | ----- |
| TOTAL | 1,991 | 1,642 | 1,714 | 1,092 | 1,602 | 2,288 | 11,991 | 9,311 | 932   | 488.2 | 569.0 | 441.9 |
| MEAN  | 64.2  | 54.7  | 55.3  | 35.2  | 57.2  | 73.8  | 400    | 300   | 31.1  | 15.7  | 18.4  | 14.7  |
| MAX   | 130   | 128   | 150   | 52    | 140   | 130   | 881    | 1,310 | 72    | 73    | 73    | 38    |
| MIN   | 42    | 35    | 38    | 28    | 26    | 51    | 77     | 83    | 11    | 5.7   | 5.7   | 7.7   |
| CFSM  | .90   | .68   | .69   | .44   | .71   | .92   | 4.97   | 3.73  | .39   | .20   | .23   | .18   |
| IN.   | .92   | .76   | .79   | .50   | .74   | 1.06  | 5.54   | 4.30  | .43   | .23   | .26   | .20   |

CAL YR 1970 TOTAL 42,026.6 MEAN 115 MAX 1,030 MIN 3.6 CFSM 1.43 IN 19.42  
WTP YR 1971 TOTAL 34,062.1 MEAN 93.3 MAX 1,310 MIN 5.7 CFSM 1.16 IN 15.74

## PEAK DISCHARGE (BASE, 950 CFS)

NOTE.--No gage-height record Nov. 28 to Jan. 6.

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | 1430 | 5.83  | 1,470     |      |      |       |           |

## CONNECTICUT RIVER BASIN

01150500 Mascoma River at Mascoma, N.H.

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

DRAINAGE AREA.--153 sq mi.

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

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

AVERAGE DISCHARGE.--48 years, 210 cfs (18.64 inches per year), adjusted for storage since October 1928.

EXTREMES.--Current year: Maximum discharge, 1,540 cfs May 5 (gage height, 3.92 ft); minimum daily, 37 cfs Sept. 7.

Period of record: Maximum discharge, 5,840 cfs Mar. 19, 1936 (gage height, 7.50 ft), from rating curve extended above 2,500 cfs on basis of computations of flow over dams at gage heights 6.85 and 7.50 ft; minimum daily, 2 cfs Feb. 3, 1939, Sept. 1, 1940.

REMARKS.--Records excellent except those for period of no gage-height record, which are fair. Flow regulated by Mascoma and Crystal Lakes and Goose and Grafton Ponds (see p. 209).

REVISIONS (WATER YEARS).--WSP 726: Drainage area. WSP 801: 1925(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 39    | 199   | 46    | 68    | 83    | 200   | 144    | 720    | 147   | 50    | 48    | 38    |
| 2     | 127   | 193   | 46    | 68    | 83    | 220   | 147    | 725    | 135   | 50    | 48    | 38    |
| 3     | 129   | 187   | 47    | 67    | 83    | 210   | 163    | 742    | 125   | 50    | 49    | 38    |
| 4     | 133   | 176   | 48    | 66    | 83    | 200   | 214    | 998    | 123   | 50    | 52    | 38    |
| 5     | 137   | 121   | 57    | 67    | 83    | 190   | 275    | 1,480  | 121   | 50    | 55    | 38    |
| 6     | 156   | 104   | 74    | 67    | 83    | 185   | 326    | 1,450  | 119   | 52    | 55    | 38    |
| 7     | 241   | 92    | 81    | 68    | 83    | 180   | 362    | 1,250  | 113   | 52    | 54    | 37    |
| 8     | 241   | 71    | 86    | 68    | 83    | 175   | 380    | 1,060  | 73    | 52    | 54    | 38    |
| 9     | 252   | 49    | 92    | 68    | 83    | 170   | 380    | 902    | 71    | 52    | 53    | 38    |
| 10    | 241   | 49    | 99    | 68    | 89    | 170   | 380    | 720    | 71    | 52    | 52    | 38    |
| 11    | 238   | 50    | 97    | 68    | 94    | 185   | 411    | 495    | 71    | 50    | 50    | 38    |
| 12    | 238   | 50    | 94    | 70    | 94    | 200   | 525    | 375    | 71    | 50    | 49    | 38    |
| 13    | 256   | 50    | 92    | 83    | 92    | 200   | 720    | 211    | 71    | 48    | 48    | 38    |
| 14    | 238   | 49    | 92    | 81    | 92    | 195   | 890    | 211    | 71    | 47    | 47    | 49    |
| 15    | 202   | 49    | 91    | 81    | 92    | 195   | 992    | 196    | 74    | 47    | 46    | 57    |
| 16    | 202   | 50    | 87    | 83    | 94    | 193   | 986    | 202    | 101   | 47    | 43    | 57    |
| 17    | 205   | 52    | 87    | 84    | 97    | 217   | 896    | 202    | 101   | 46    | 42    | 62    |
| 18    | 208   | 52    | 86    | 94    | 102   | 279   | 791    | 166    | 99    | 46    | 41    | 70    |
| 19    | 208   | 52    | 83    | 106   | 250   | 268   | 725    | 110    | 94    | 46    | 42    | 70    |
| 20    | 208   | 52    | 81    | 104   | 320   | 260   | 764    | 110    | 87    | 46    | 42    | 68    |
| 21    | 208   | 53    | 80    | 102   | 290   | 245   | 896    | 111    | 64    | 46    | 41    | 68    |
| 22    | 205   | 50    | 78    | 95    | 250   | 228   | 1,050  | 111    | 46    | 46    | 41    | 67    |
| 23    | 205   | 42    | 78    | 78    | 220   | 214   | 1,100  | 113    | 46    | 46    | 40    | 67    |
| 24    | 208   | 43    | 80    | 78    | 200   | 202   | 1,030  | 115    | 46    | 46    | 39    | 67    |
| 25    | 208   | 44    | 78    | 78    | 185   | 187   | 932    | 117    | 47    | 46    | 39    | 66    |
| 26    | 224   | 44    | 77    | 78    | 170   | 176   | 863    | 117    | 47    | 46    | 39    | 66    |
| 27    | 234   | 46    | 75    | 80    | 155   | 166   | 791    | 151    | 48    | 46    | 38    | 66    |
| 28    | 234   | 46    | 74    | 83    | 170   | 158   | 659    | 184    | 48    | 46    | 38    | 64    |
| 29    | 234   | 47    | 73    | 83    | ----- | 151   | 610    | 187    | 48    | 46    | 38    | 64    |
| 30    | 228   | 47    | 71    | 83    | ----- | 149   | 670    | 176    | 49    | 47    | 38    | 63    |
| 31    | 217   | ----- | 70    | 83    | ----- | 144   | -----  | 158    | ----- | 48    | 38    | ----- |
| TOTAL | 6,354 | 2,209 | 2,400 | 2,450 | 3,803 | 6,112 | 19,072 | 13,865 | 2,427 | 1,492 | 1,399 | 1,584 |
| MEAN  | 205   | 73.6  | 77.4  | 79.0  | 136   | 197   | 636    | 447    | 80.9  | 48.1  | 45.1  | 52.8  |
| MAX   | 256   | 199   | 99    | 106   | 320   | 279   | 1,100  | 1,480  | 147   | 52    | 55    | 70    |
| MIN   | 89    | 42    | 46    | 66    | 83    | 144   | 144    | 110    | 46    | 46    | 38    | 37    |
| MEAN† | 94.0  | 85.4  | 107   | 67.0  | 96.2  | 133   | 862    | 526    | 42.8  | 19.9  | 22.6  | 15.4  |
| CFSMT | .61   | .56   | .70   | .44   | .63   | .87   | 5.63   | 3.44   | .28   | .13   | .15   | .10   |
| IN.†  | .71   | .62   | .80   | .50   | .66   | 1.00  | 6.29   | 3.96   | .31   | .15   | .17   | .11   |

CAL YR 1970 TOTAL 83,640 MEAN 229 MAX 1,340 MIN 24 MEAN† 216 CFSMT† 1.41 IN† 19.17  
WTR YR 1971 TOTAL 63,167 MEAN 173 MAX 1,480 MIN 37 MEAN† 172 CFSMT† 1.12 IN† 15.29

† Adjusted for change in contents in Mascoma and Crystal Lakes and Goose and Grafton Ponds.

NOTE.--No gage-height record Feb. 19 to Mar. 15.



01150800 Kent Brook near Sherburne, Vt.

LOCATION.--Lat 43°40'24", long 72°48'33", Rutland County, on left bank 40 ft downstream from bridge on State Highway 100, 1.4 miles upstream from mouth, and 2 miles northwest of Sherburne.

DRAINAGE AREA.--3.31 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 1,560 ft (from topographic map). Prior to Sept. 13, 1967, at site 25 ft upstream at same datum.

AVERAGE DISCHARGE.--8 years, 7.40 cfs (30.36 inches per year).

EXTREMES.--Current year: Maximum discharge, 85 cfs May 5 (gage height, 2.27 ft); minimum, 0.76 cfs July 13.

Period of record: Maximum discharge, 302 cfs Mar. 23, 1968 (gage height, 3.44 ft), from rating curve extended above 140 cfs on basis of measurement of flow through culvert at gage height 3.44 ft; maximum gage height, 4.42 ft Apr. 3, 1967, at former site; minimum discharge, 0.27 cfs Aug. 7, 8, 1965.

REMARKS.--Records good except those for winter period or periods of no gage-height record, which are fair. Recording rain gage at station since April 1964 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN  | FEB   | MAR  | APR   | MAY     | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|------|-------|------|-------|---------|-------|-------|-------|-------|
| 1     | 3.4   | 3.9   | 7.3   | 2.8  | 1.6   | 2.5  | 2.9   | 36      | 7.5   | 1.4   | 4.6   | 4.6   |
| 2     | 2.9   | 3.8   | 6.6   | 2.7  | 1.6   | 2.1  | 6.0   | 42      | 6.6   | 3.0   | 10    | 3.6   |
| 3     | 5.3   | 3.5   | 6.1   | 2.7  | 1.5   | 1.9  | 13    | 62      | 7.9   | 1.5   | 12    | 3.2   |
| 4     | 7.3   | 3.5   | 15    | 2.6  | 1.5   | 1.7  | 11    | 55      | 6.6   | 1.3   | 10    | 3.0   |
| 5     | 5.3   | 3.5   | 9.3   | 4.0  | 1.5   | 1.7  | 9.4   | 61      | 5.6   | 1.2   | 5.6   | 2.8   |
| 6     | 4.3   | 3.5   | 7.0   | 3.1  | 1.5   | 1.7  | 8.4   | 53      | 4.8   | 1.1   | 3.4   | 2.8   |
| 7     | 3.8   | 3.4   | 6.0   | 2.8  | 1.6   | 1.6  | 7.4   | 52      | 4.4   | 1.1   | 2.6   | 2.6   |
| 8     | 3.2   | 3.0   | 5.3   | 2.5  | 1.7   | 1.6  | 6.5   | 49      | 5.1   | 1.1   | 2.1   | 2.5   |
| 9     | 2.9   | 3.0   | 6.0   | 2.8  | 1.8   | 1.6  | 6.1   | 54      | 5.1   | 1.2   | 1.9   | 2.5   |
| 10    | 3.5   | 3.1   | 5.8   | 2.9  | 1.7   | 1.6  | 8.2   | 52      | 3.8   | 1.3   | 1.5   | 2.1   |
| 11    | 3.1   | 5.6   | 5.1   | 2.7  | 1.6   | 1.6  | 11    | 51      | 3.2   | .98   | 3.8   | 2.1   |
| 12    | 3.6   | 4.3   | 4.8   | 2.5  | 1.7   | 1.6  | 19    | 48      | 3.2   | .98   | 2.5   | 3.8   |
| 13    | 4.3   | 3.6   | 4.6   | 2.3  | 1.8   | 1.5  | 22    | 48      | 2.8   | .83   | 1.8   | 8.2   |
| 14    | 4.3   | 3.5   | 4.5   | 2.3  | 2.5   | 1.5  | 18    | 32      | 2.6   | 2.6   | 1.5   | 5.1   |
| 15    | 11    | 4.8   | 4.3   | 2.2  | 2.2   | 1.6  | 16    | 26      | 2.3   | 1.8   | 1.4   | 7.5   |
| 16    | 7.3   | 7.1   | 4.1   | 2.1  | 2.4   | 5.2  | 13    | 25      | 2.3   | 1.4   | 1.4   | 4.8   |
| 17    | 5.6   | 5.0   | 3.8   | 2.1  | 2.2   | 4.2  | 12    | 26      | 2.3   | 2.5   | 1.2   | 3.8   |
| 18    | 5.1   | 4.3   | 4.1   | 2.1  | 1.9   | 3.6  | 11    | 24      | 2.1   | 1.7   | 1.2   | 3.8   |
| 19    | 4.6   | 7.8   | 3.6   | 2.1  | 1.8   | 3.3  | 32    | 25      | 2.1   | 10    | 1.2   | 3.2   |
| 20    | 4.1   | 11    | 3.6   | 2.0  | 1.7   | 2.9  | 40    | 24      | 1.8   | 7.5   | 1.1   | 2.8   |
| 21    | 3.9   | 27    | 3.3   | 2.0  | 1.6   | 2.7  | 41    | 29      | 2.1   | 2.5   | 1.2   | 6.1   |
| 22    | 12    | 13    | 2.7   | 2.0  | 1.5   | 2.5  | 31    | 26      | 2.2   | 1.7   | 1.8   | 3.4   |
| 23    | 20    | 22    | 3.3   | 2.0  | 1.5   | 2.4  | 19    | 17      | 1.9   | 1.3   | 4.6   | 2.5   |
| 24    | 9.7   | 10    | 3.5   | 1.9  | 1.4   | 2.3  | 17    | 14      | 1.5   | 1.2   | 1.9   | 2.5   |
| 25    | 7.3   | 7.6   | 3.2   | 1.9  | 1.4   | 2.2  | 17    | 15      | 6.1   | 1.1   | 2.3   | 2.2   |
| 26    | 6.3   | 7.5   | 3.0   | 1.9  | 1.4   | 2.2  | 15    | 22      | 6.1   | 1.1   | 1.3   | 2.2   |
| 27    | 5.6   | 5.8   | 2.9   | 2.3  | 1.5   | 2.2  | 22    | 16      | 2.3   | 1.7   | 2.6   | 2.2   |
| 28    | 5.1   | 9.3   | 2.9   | 2.0  | 3.2   | 2.2  | 27    | 13      | 1.9   | 1.3   | 29    | 2.1   |
| 29    | 4.8   | 9.3   | 2.9   | 1.8  | ----- | 2.2  | 35    | 11      | 1.7   | 3.4   | 19    | 2.1   |
| 30    | 4.5   | 5.7   | 2.9   | 1.7  | ----- | 2.3  | 29    | 9.3     | 1.4   | 3.0   | 8.6   | 2.1   |
| 31    | 4.1   | ----- | 2.5   | 1.7  | ----- | 2.6  | ----- | 8.6     | ----- | 11    | 5.9   | ----- |
| TOTAL | 178.2 | 212.4 | 150.4 | 72.5 | 50.3  | 70.8 | 525.9 | 1,025.9 | 109.3 | 73.79 | 149.0 | 102.2 |
| MEAN  | 5.75  | 7.08  | 4.85  | 2.34 | 1.80  | 2.28 | 17.5  | 33.1    | 3.64  | 2.38  | 4.81  | 3.41  |
| MAX   | 20    | 27    | 15    | 4.0  | 3.2   | 5.2  | 41    | 62      | 7.9   | 11    | 29    | 8.2   |
| MIN   | 2.9   | 3.0   | 2.7   | 1.7  | 1.4   | 1.5  | 2.9   | 8.6     | 1.4   | .83   | 1.1   | 2.1   |
| CFSM  | 1.74  | 2.14  | 1.47  | .71  | .54   | .69  | 5.29  | 10.0    | 1.10  | .72   | 1.45  | 1.03  |
| IN.   | 2.00  | 2.39  | 1.65  | .81  | .57   | .80  | 5.91  | 11.53   | 1.23  | .83   | 1.67  | 1.15  |

CAL YR 1970 TOTAL 2,582.99 MEAN 7.08 MAX 58 MIN .75 CFSM 2.14 IN 29.03  
WTR YR 1971 TOTAL 2,720.69 MEAN 7.45 MAX 62 MIN .83 CFSM 2.25 IN 30.58

PEAK DISCHARGE (BASE, 90 CFS).--No peak above base.

NOTE.--No gage-height record Feb. 2 to Mar. 9, Mar. 12 to Apr. 8.

01151500 Ottauquechee River at North Hartland, Vt.

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

DRAINAGE AREA.--221 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 336.77 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--41 years, 380 cfs (23.35 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 3,540 cfs Apr. 21 (gage height, 6.96 ft); minimum, 7.4 cfs Aug. 20; minimum daily, 17 cfs Aug. 23, 24. Period of record: Maximum discharge, 24,400 cfs Sept. 21, 1938 (gage height, 17.68 ft), from rating curve extended above 6,200 cfs on basis of computations of flow over dams at gage heights 15.58, 17.68, and 21.5 ft; minimum, 2.9 cfs July 31, 1933; minimum daily, 3.8 cfs July 3, 1933. Maximum discharge since construction of North Hartland Dam in March 1961, 5,930 cfs Apr. 26, 1969 (gage height, 8.52 ft). Maximum stage since at least 1760, 21.5 ft in November 1927, from floodmarks (discharge, 30,400 cfs, by computation of peak flow over dam).

REMARKS.--Records excellent except those for winter period and period of no gage-height record, which are fair. Flow regulated by powerplants above station and by North Hartland Lake (see p. 209) since March 1961; greater regulation by powerplants prior to 1958. Small seasonal storage in reservoir at Plymouth.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT             | NOV      | DEC       | JAN     | FEB       | MAR        | APR       | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------------|-----------------|----------|-----------|---------|-----------|------------|-----------|--------|-------|-------|-------|-------|
| 1           | 83              | 88       | 190       | 118     | 105       | 263        | 286       | 1,820  | 310   | 88    | 191   | 142   |
| 2           | 83              | 88       | 210       | 125     | 100       | 235        | 333       | 1,880  | 292   | 97    | 146   | 100   |
| 3           | 83              | 88       | 225       | 128     | 98        | 224        | 566       | 2,820  | 286   | 100   | 148   | 103   |
| 4           | 139             | 88       | 225       | 128     | 96        | 202        | 893       | 2,630  | 284   | 82    | 165   | 97    |
| 5           | 166             | 88       | 320       | 126     | 94        | 185        | 693       | 2,720  | 280   | 74    | 144   | 94    |
| 6           | 164             | 88       | 370       | 130     | 92        | 200        | 653       | 2,960  | 242   | 70    | 100   | 91    |
| 7           | 148             | 88       | 370       | 155     | 95        | 202        | 658       | 2,200  | 213   | 66    | 94    | 94    |
| 8           | 82              | 88       | 330       | 155     | 96        | 194        | 562       | 2,550  | 204   | 61    | 78    | 89    |
| 9           | 40              | 88       | 450       | 140     | 94        | 193        | 524       | 2,130  | 207   | 58    | 80    | 83    |
| 10          | 72              | 88       | 480       | 122     | 96        | 195        | 719       | 1,610  | 186   | 59    | 65    | 69    |
| 11          | 86              | 88       | 450       | 126     | 100       | 185        | 949       | 1,420  | 168   | 58    | 59    | 61    |
| 12          | 68              | 88       | 340       | 137     | 100       | 187        | 1,400     | 1,270  | 157   | 53    | 74    | 73    |
| 13          | 61              | 88       | 230       | 130     | 100       | 189        | 1,820     | 1,240  | 148   | 48    | 78    | 125   |
| 14          | 61              | 88       | 200       | 124     | 110       | 180        | 2,100     | 1,070  | 138   | 52    | 60    | 136   |
| 15          | 81              | 88       | 170       | 122     | 145       | 207        | 1,620     | 848    | 132   | 67    | 55    | 140   |
| 16          | 88              | 88       | 150       | 120     | 350       | 459        | 1,340     | 756    | 128   | 123   | 43    | 134   |
| 17          | 111             | 115      | 150       | 115     | 249       | 666        | 1,100     | 719    | 121   | 136   | 52    | 114   |
| 18          | 120             | 130      | 160       | 115     | 196       | 458        | 1,220     | 658    | 112   | 78    | 45    | 121   |
| 19          | 118             | 130      | 174       | 110     | 195       | 388        | 1,720     | 605    | 106   | 73    | 42    | 114   |
| 20          | 91              | 130      | 176       | 110     | 197       | 334        | 2,730     | 565    | 100   | 259   | 27    | 97    |
| 21          | 81              | 170      | 164       | 105     | 180       | 368        | 3,280     | 543    | 97    | 154   | 21    | 105   |
| 22          | 81              | 310      | 148       | 105     | 175       | 324        | 2,830     | 704    | 117   | 103   | 18    | 119   |
| 23          | 82              | 370      | 117       | 100     | 173       | 292        | 2,190     | 545    | 108   | 85    | 17    | 97    |
| 24          | 164             | 370      | 141       | 100     | 170       | 283        | 1,750     | 452    | 94    | 67    | 17    | 85    |
| 25          | 204             | 370      | 146       | 100     | 166       | 275        | 1,920     | 416    | 100   | 70    | 28    | 85    |
| 26          | 201             | 250      | 150       | 105     | 164       | 270        | 1,620     | 788    | 274   | 64    | 44    | 84    |
| 27          | 201             | 190      | 150       | 110     | 169       | 268        | 1,600     | 596    | 170   | 65    | 48    | 80    |
| 28          | 199             | 190      | 144       | 110     | 253       | 276        | 1,690     | 502    | 123   | 69    | 679   | 70    |
| 29          | 122             | 190      | 141       | 105     | -----     | 285        | 2,270     | 441    | 105   | 69    | 802   | 68    |
| 30          | 179             | 190      | 135       | 105     | -----     | 284        | 1,990     | 396    | 96    | 196   | 305   | 61    |
| 31          | 109             | -----    | 128       | 105     | -----     | 285        | -----     | 367    | ----- | 114   | 194   | ----- |
| TOTAL       | 3,568           | 4,513    | 6,934     | 3,696   | 4,158     | 8,556      | 43,116    | 38,221 | 5,098 | 2,758 | 3,928 | 2,931 |
| MEAN        | 115             | 150      | 224       | 119     | 149       | 276        | 1,437     | 1,233  | 170   | 89.0  | 127   | 97.7  |
| MAX         | 204             | 370      | 480       | 155     | 350       | 666        | 3,280     | 2,960  | 310   | 259   | 802   | 142   |
| MIN         | 40              | 88       | 117       | 100     | 92        | 180        | 286       | 367    | 94    | 48    | 17    | 51    |
| MEAN†       | 111             | 155      | 184       | 119     | 150       | 276        | 1,437     | 1,233  | 170   | 82.8  | 134   | 96.8  |
| CFSM†       | .50             | .70      | .83       | .54     | .68       | 1.25       | 6.50      | 5.58   | .77   | .37   | .61   | .44   |
| IN.†        | .58             | .78      | .96       | .62     | .70       | 1.44       | 7.26      | 6.43   | .86   | .43   | .70   | .49   |
| CAL YR 1970 | TOTAL 129,770.6 | MEAN 356 | MAX 3,350 | MIN 9.6 | MEAN† 355 | CFSM† 1.61 | IN† 21.84 |        |       |       |       |       |
| WTR YR 1971 | TOTAL 127,477   | MEAN 349 | MAX 3,280 | MIN 17  | MEAN† 346 | CFSM† 1.57 | IN† 21.25 |        |       |       |       |       |

† Adjusted for change in contents in North Hartland Lake.

NOTE.--No gage-height record Nov. 13 to Dec. 17.

## CONNECTICUT RIVER BASIN

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01152500 Sugar River at West Claremont, N. H.

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

DRAINAGE AREA.--269 sq mi.

PERIOD OF RECORD.--May 1928 to current year. Published as "at Claremont" prior to October 1928.

GAGE.--Water-stage recorder. Datum of gage is 358.78 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1928, nonrecording gage at site 0.8 mile upstream at different datum.

AVERAGE DISCHARGE.--43 years, 389 cfs (19.64 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 4,410 cfs May 4 (gage height, 5.97 ft); minimum daily, 55 cfs July 13, Aug. 24-26.

Period of record: Maximum discharge, 14,000 cfs Mar. 19, 1936 (gage height, 10.92 ft), from rating curve extended above 6,700 cfs on basis of computations of flow over dam at gage heights 10.49 and 10.92 ft; maximum gage height, 11.80 ft Mar. 12, 1936 (ice jam); minimum daily discharge, 14 cfs Aug. 26, 1965.

REMARKS.--Records excellent except those for winter period, which are fair. Regulation by Sunapee Lake 25 miles upstream (see p. 209) and at low flow by mills above station.

REVISIONS (WATER YEARS).--WSP 711: 1930(M). WSP 756: Drainage area. WSP 1901: 1960.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC       | JAN    | FEB       | MAR        | APR       | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------------|---------------|----------|-----------|--------|-----------|------------|-----------|--------|-------|-------|-------|-------|
| 1           | 151           | 178      | 280       | 140    | 55        | 352        | 427       | 1,450  | 195   | 95    | 129   | 86    |
| 2           | 130           | 168      | 270       | 145    | 93        | 330        | 493       | 1,310  | 174   | 98    | 105   | 76    |
| 3           | 137           | 155      | 260       | 140    | 51        | 367        | 1,020     | 1,680  | 181   | 88    | 93    | 70    |
| 4           | 292           | 149      | 700       | 130    | 90        | 278        | 1,380     | 3,610  | 188   | 76    | 129   | 67    |
| 5           | 256           | 147      | 550       | 140    | 90        | 270        | 1,270     | 2,940  | 168   | 74    | 118   | 63    |
| 6           | 182           | 143      | 400       | 170    | 54        | 289        | 1,200     | 2,200  | 155   | 72    | 55    | 62    |
| 7           | 156           | 134      | 300       | 180    | 54        | 277        | 1,080     | 1,730  | 140   | 72    | 88    | 60    |
| 8           | 139           | 131      | 220       | 160    | 54        | 261        | 856       | 1,470  | 137   | 72    | 80    | 60    |
| 9           | 129           | 131      | 153       | 140    | 100       | 261        | 765       | 1,480  | 165   | 68    | 72    | 60    |
| 10          | 113           | 128      | 224       | 160    | 110       | 253        | 948       | 1,460  | 149   | 65    | 67    | 58    |
| 11          | 112           | 130      | 200       | 150    | 120       | 307        | 1,360     | 1,240  | 126   | 63    | 70    | 56    |
| 12          | 115           | 138      | 202       | 120    | 115       | 345        | 1,970     | 1,090  | 115   | 70    | 76    | 72    |
| 13          | 118           | 142      | 154       | 125    | 130       | 341        | 2,460     | 1,180  | 110   | 55    | 72    | 74    |
| 14          | 111           | 138      | 156       | 150    | 230       | 333        | 2,700     | 1,500  | 100   | 65    | 65    | 76    |
| 15          | 220           | 152      | 166       | 150    | 280       | 357        | 2,080     | 1,070  | 95    | 56    | 63    | 90    |
| 16          | 534           | 250      | 157       | 150    | 300       | 582        | 1,620     | 841    | 95    | 60    | 62    | 88    |
| 17          | 531           | 240      | 187       | 145    | 250       | 812        | 1,240     | 739    | 95    | 63    | 58    | 90    |
| 18          | 354           | 210      | 187       | 145    | 280       | 791        | 1,210     | 610    | 90    | 58    | 58    | 86    |
| 19          | 274           | 220      | 180       | 145    | 270       | 712        | 1,450     | 515    | 88    | 76    | 56    | 80    |
| 20          | 222           | 350      | 170       | 140    | 260       | 629        | 2,330     | 433    | 86    | 103   | 56    | 74    |
| 21          | 193           | 600      | 150       | 135    | 250       | 627        | 2,590     | 383    | 80    | 82    | 58    | 108   |
| 22          | 188           | 450      | 130       | 130    | 240       | 591        | 2,330     | 393    | 80    | 72    | 58    | 76    |
| 23          | 257           | 550      | 150       | 125    | 230       | 567        | 1,940     | 381    | 80    | 68    | 60    | 70    |
| 24          | 365           | 450      | 155       | 120    | 216       | 533        | 1,550     | 335    | 78    | 67    | 55    | 67    |
| 25          | 338           | 380      | 160       | 115    | 205       | 528        | 1,600     | 310    | 90    | 67    | 55    | 63    |
| 26          | 281           | 290      | 170       | 115    | 208       | 503        | 1,430     | 304    | 140   | 63    | 55    | 62    |
| 27          | 245           | 260      | 165       | 110    | 246       | 481        | 1,320     | 281    | 135   | 63    | 58    | 60    |
| 28          | 216           | 260      | 160       | 105    | 321       | 472        | 1,250     | 256    | 113   | 62    | 162   | 60    |
| 29          | 196           | 270      | 155       | 105    | -----     | 455        | 1,680     | 236    | 98    | 63    | 247   | 60    |
| 30          | 181           | 300      | 150       | 100    | -----     | 455        | 1,730     | 220    | 90    | 68    | 140   | 58    |
| 31          | 183           | -----    | 145       | 97     | -----     | 431        | -----     | 217    | ----- | 82    | 105   | ----- |
| TOTAL       | 7,319         | 7,244    | 6,926     | 4,182  | 5,142     | 13,740     | 45,319    | 31,864 | 3,636 | 2,206 | 2,665 | 2,132 |
| MEAN        | 236           | 241      | 223       | 135    | 184       | 443        | 1,511     | 1,028  | 121   | 71.2  | 86.0  | 71.1  |
| MAX         | 534           | 600      | 700       | 180    | 321       | 812        | 2,700     | 3,610  | 195   | 103   | 247   | 108   |
| MIN         | 111           | 128      | 130       | 97     | 50        | 253        | 427       | 217    | 78    | 55    | 55    | 56    |
| MEAN†       | 235           | 236      | 223       | 128    | 200       | 385        | 1,686     | 1,023  | 85.7  | 25.2  | 113   | -31.6 |
| CFSM†       | .87           | .88      | .83       | .48    | .74       | 1.43       | 6.27      | 3.80   | .32   | .09   | .42   | -.12  |
| IN.†        | 1.01          | .98      | .96       | .55    | .77       | 1.65       | 7.00      | 4.39   | .36   | .11   | .49   | -.13  |
| CAL YR 1970 | TOTAL 154,945 | MEAN 425 | MAX 3,140 | MIN 55 | MEAN† 420 | CFSM† 1.56 | IN† 21.18 |        |       |       |       |       |
| WTR YR 1971 | TOTAL 132,375 | MEAN 363 | MAX 3,610 | MIN 55 | MEAN† 359 | CFSM† 1.33 | IN† 18.12 |        |       |       |       |       |

## PEAK DISCHARGE (BASE, 3,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | 1700 | 5.97  | 4,410     |      |      |       |           |

† Adjusted for change in contents in Sunapee Lake. (Negative figures indicate that evaporation and seepage from lake exceeded inflow.)

## CONNECTICUT RIVER BASIN

01153000 Black River at North Springfield, Vt.

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

DRAINAGE AREA.--158 sq mi.

PERIOD OF RECORD.--October 1929 to current year. October 1929 monthly discharge only, published in WSP 1301.

GAGE.--Water-stage recorder. Datum of gage is 445.79 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--42 years, 273 cfs (23.46 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 2,900 cfs May 6 (gage height, 6.13 ft); minimum daily, 24 cfs Aug. 19-27.

Period of record: Maximum discharge, 15,500 cfs Sept. 22, 1938 (gage height, 17.68 ft), from rating curve extended above 3,200 cfs on basis of computations of flow over dams at gage heights 16.41 and 17.68 ft; minimum daily, 8.0 cfs July 8, 1962. Maximum discharge since construction of North Springfield Dam in 1960, 3,550 cfs Apr. 11, 1962 (gage height, 6.43 ft); maximum gage height, 6.47 ft Apr. 29, 1969.

REMARKS.--Records excellent except those for winter period, which are good. Flow regulated by mills above station and by North Springfield Lake (see p. 209) since November 1960.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 781: 1931(M), 1934(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT          | NOV      | DEC       | JAN    | FEB       | MAR        | APR       | MAY    | JUN   | JUL  | AUG   | SEP   |
|-------------|--------------|----------|-----------|--------|-----------|------------|-----------|--------|-------|------|-------|-------|
| 1           | 76           | 73       | 179       | 97     | 68        | 300        | 222       | 1,340  | 210   | 31   | 29    | 60    |
| 2           | 67           | 73       | 172       | 95     | 68        | 245        | 265       | 1,400  | 175   | 32   | 30    | 45    |
| 3           | 82           | 69       | 157       | 101    | 68        | 218        | 495       | 1,910  | 172   | 31   | 30    | 45    |
| 4           | 113          | 62       | 205       | 97     | 70        | 206        | 698       | 2,350  | 169   | 31   | 35    | 45    |
| 5           | 76           | 64       | 270       | 96     | 66        | 209        | 594       | 2,240  | 155   | 31   | 49    | 45    |
| 6           | 29           | 61       | 220       | 118    | 72        | 204        | 552       | 2,390  | 145   | 31   | 52    | 45    |
| 7           | 26           | 58       | 180       | 131    | 75        | 200        | 540       | 1,670  | 125   | 31   | 53    | 45    |
| 8           | 27           | 53       | 110       | 125    | 92        | 189        | 466       | 1,490  | 120   | 31   | 53    | 45    |
| 9           | 27           | 52       | 138       | 110    | 84        | 194        | 413       | 1,500  | 160   | 31   | 43    | 45    |
| 10          | 27           | 53       | 41        | 111    | 80        | 175        | 524       | 1,510  | 128   | 31   | 34    | 38    |
| 11          | 28           | 64       | 76        | 106    | 76        | 164        | 678       | 1,310  | 106   | 31   | 32    | 35    |
| 12          | 41           | 80       | 269       | 105    | 72        | 166        | 1,030     | 1,210  | 90    | 31   | 32    | 36    |
| 13          | 71           | 80       | 143       | 100    | 70        | 159        | 1,390     | 1,150  | 86    | 31   | 28    | 36    |
| 14          | 80           | 80       | 122       | 96     | 86        | 158        | 1,550     | 1,100  | 63    | 32   | 26    | 54    |
| 15          | 103          | 95       | 114       | 100    | 140       | 179        | 1,290     | 841    | 46    | 35   | 26    | 63    |
| 16          | 177          | 127      | 92        | 95     | 220       | 321        | 1,030     | 660    | 37    | 35   | 26    | 86    |
| 17          | 134          | 134      | 94        | 90     | 235       | 464        | 844       | 594    | 25    | 35   | 26    | 99    |
| 18          | 99           | 127      | 114       | 84     | 191       | 341        | 893       | 490    | 33    | 35   | 26    | 72    |
| 19          | 94           | 122      | 118       | 80     | 176       | 283        | 1,230     | 450    | 33    | 31   | 24    | 51    |
| 20          | 66           | 213      | 120       | 78     | 161       | 269        | 1,970     | 400    | 33    | 28   | 24    | 44    |
| 21          | 61           | 308      | 115       | 75     | 149       | 297        | 2,470     | 319    | 33    | 31   | 24    | 44    |
| 22          | 73           | 326      | 100       | 74     | 154       | 265        | 2,200     | 432    | 33    | 31   | 24    | 44    |
| 23          | 134          | 363      | 87        | 74     | 144       | 234        | 1,750     | 401    | 31    | 31   | 24    | 44    |
| 24          | 202          | 355      | 113       | 73     | 145       | 221        | 1,330     | 338    | 29    | 31   | 24    | 44    |
| 25          | 183          | 255      | 113       | 72     | 137       | 209        | 1,440     | 308    | 30    | 31   | 24    | 41    |
| 26          | 153          | 190      | 108       | 76     | 135       | 207        | 1,200     | 503    | 30    | 31   | 24    | 41    |
| 27          | 117          | 168      | 109       | 80     | 155       | 196        | 1,170     | 439    | 31    | 31   | 24    | 41    |
| 28          | 113          | 165      | 102       | 76     | 292       | 212        | 1,210     | 325    | 31    | 30   | 164   | 41    |
| 29          | 99           | 165      | 101       | 74     | -----     | 214        | 1,610     | 271    | 31    | 30   | 418   | 41    |
| 30          | 86           | 170      | 105       | 71     | -----     | 217        | 1,520     | 262    | 31    | 31   | 272   | 41    |
| 31          | 80           | -----    | 51        | 69     | -----     | 222        | -----     | 240    | ----- | 30   | 108   | ----- |
| TOTAL       | 2,734        | 4,205    | 4,078     | 2,829  | 3,481     | 7,138      | 32,574    | 29,843 | 2,421 | 973  | 1,808 | 1,456 |
| MEAN        | 88.2         | 140      | 132       | 91.3   | 124       | 230        | 1,086     | 963    | 80.7  | 31.4 | 58.3  | 48.5  |
| MAX         | 202          | 363      | 270       | 131    | 292       | 464        | 2,470     | 2,390  | 210   | 35   | 418   | 99    |
| MIN         | 26           | 52       | 41        | 69     | 66        | 158        | 222       | 240    | 25    | 28   | 24    | 35    |
| MEAN†       | 96.9         | 141      | 131       | 91.3   | 125       | 230        | 1,090     | 960    | 97.2  | 36.9 | 61.7  | 48.1  |
| CFSM†       | .61          | .89      | .83       | .58    | .79       | 1.46       | 6.90      | 6.08   | .62   | .23  | .39   | .30   |
| IN.†        | .71          | 1.00     | .95       | .67    | .82       | 1.68       | 7.70      | 7.01   | .69   | .27  | .45   | .34   |
| CAL YR 1970 | TOTAL 96,399 | MEAN 264 | MAX 2,300 | MIN 19 | MEAN† 264 | CFSM† 1.67 | IN† 22.69 |        |       |      |       |       |
| WTR YR 1971 | TOTAL 93,540 | MEAN 256 | MAX 2,470 | MIN 24 | MEAN† 259 | CFSM† 1.64 | IN† 22.28 |        |       |      |       |       |

† Adjusted for change in contents in North Springfield Lake.

01153500 Williams River at Brockways Mills, Vt.

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

DRAINAGE AREA.--103 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 430 ft (from topographic map).

AVERAGE DISCHARGE.--31 years, 161 cfs (21.23 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,540 cfs Apr. 20 (gage height, 6.91 ft); minimum, 6.6 cfs Aug. 22, 23, 25, 26, 27.

Period of record: Maximum discharge, 8,910 cfs June 1, 1952 (gage height, 13.39 ft), from rating curve extended above 3,300 cfs on basis of slope-area measurement at gage height 13.31 ft; minimum not determined, occurred Dec. 11, 1941, during period of ice effect; minimum daily, 3.6 cfs Aug. 27, 1949.

Flood in September 1938 had greatest discharge since at least 1753 (gage height, 22.7 ft, from floodmarks). Flood in November 1927 reached a stage possibly 2 ft higher than that of September 1938 flood because of backwater from mill dam, from information by local residents.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are fair. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1031: 1943-44(P). WSP 1301: 1941-42(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL  | AUG     | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|------|---------|-------|
| 1     | 29    | 36    | 92    | 49    | 36    | 163   | 148    | 779    | 87    | 23   | 32      | 27    |
| 2     | 25    | 35    | 82    | 50    | 35    | 130   | 202    | 805    | 77    | 23   | 25      | 23    |
| 3     | 23    | 34    | 72    | 52    | 35    | 118   | 482    | 1,280  | 80    | 21   | 27      | 20    |
| 4     | 53    | 33    | 173   | 50    | 35    | 97    | 539    | 1,400  | 77    | 18   | 34      | 19    |
| 5     | 47    | 33    | 141   | 56    | 35    | 97    | 453    | 956    | 64    | 17   | 27      | 17    |
| 6     | 33    | 32    | 115   | 80    | 36    | 106   | 432    | 818    | 57    | 17   | 21      | 17    |
| 7     | 28    | 32    | 69    | 74    | 37    | 110   | 409    | 687    | 53    | 16   | 17      | 20    |
| 8     | 25    | 31    | 55    | 67    | 37    | 112   | 322    | 600    | 74    | 14   | 15      | 18    |
| 9     | 23    | 31    | 90    | 64    | 40    | 101   | 313    | 772    | 105   | 14   | 14      | 17    |
| 10    | 22    | 32    | 100   | 62    | 45    | 93    | 452    | 643    | 65    | 14   | 13      | 15    |
| 11    | 21    | 50    | 90    | 58    | 44    | 96    | 576    | 511    | 52    | 13   | 13      | 14    |
| 12    | 22    | 54    | 82    | 56    | 42    | 95    | 879    | 427    | 47    | 13   | 17      | 26    |
| 13    | 21    | 46    | 78    | 50    | 47    | 90    | 1,150  | 515    | 43    | 12   | 14      | 54    |
| 14    | 23    | 43    | 74    | 47    | 60    | 96    | 1,210  | 500    | 40    | 13   | 13      | 46    |
| 15    | 23    | 55    | 64    | 49    | 100   | 113   | 840    | 353    | 37    | 14   | 12      | 72    |
| 16    | 91    | 80    | 60    | 46    | 140   | 315   | 669    | 301    | 36    | 14   | 11      | 52    |
| 17    | 118   | 72    | 66    | 43    | 115   | 356   | 563    | 272    | 33    | 14   | 10      | 41    |
| 18    | 59    | 60    | 70    | 41    | 106   | 306   | 642    | 234    | 30    | 16   | 9.6     | 35    |
| 19    | 45    | 72    | 66    | 39    | 97    | 280   | 1,180  | 206    | 28    | 19   | 9.0     | 30    |
| 20    | 37    | 140   | 64    | 38    | 91    | 250   | 1,670  | 182    | 26    | 56   | 8.5     | 26    |
| 21    | 33    | 200   | 58    | 37    | 90    | 242   | 1,480  | 172    | 25    | 27   | 8.1     | 29    |
| 22    | 32    | 180   | 56    | 37    | 85    | 190   | 1,230  | 210    | 26    | 20   | 7.0     | 29    |
| 23    | 73    | 210   | 62    | 36    | 85    | 166   | 953    | 169    | 24    | 17   | 7.3     | 24    |
| 24    | 125   | 160   | 65    | 36    | 84    | 132   | 855    | 146    | 22    | 15   | 7.4     | 22    |
| 25    | 72    | 130   | 62    | 37    | 80    | 123   | 883    | 138    | 25    | 14   | 6.9     | 20    |
| 26    | 55    | 100   | 60    | 39    | 78    | 119   | 729    | 148    | 103   | 14   | 6.8     | 18    |
| 27    | 51    | 88    | 56    | 39    | 100   | 117   | 770    | 132    | 45    | 14   | 9.3     | 18    |
| 28    | 46    | 84    | 54    | 38    | 213   | 118   | 770    | 122    | 32    | 14   | 396     | 18    |
| 29    | 42    | 86    | 53    | 37    | ----- | 124   | 1,110  | 111    | 27    | 13   | 154     | 18    |
| 30    | 40    | 96    | 52    | 36    | ----- | 135   | 848    | 101    | 24    | 27   | 60      | 18    |
| 31    | 38    | ----- | 50    | 36    | ----- | 140   | -----  | 106    | ----- | 27   | 36      | ----- |
| TOTAL | 1,375 | 2,335 | 2,331 | 1,479 | 2,028 | 4,730 | 22,759 | 13,796 | 1,464 | 563  | 1,040.9 | 803   |
| MEAN  | 44.4  | 77.8  | 75.2  | 47.7  | 72.4  | 153   | 759    | 445    | 48.8  | 18.2 | 33.6    | 26.8  |
| MAX   | 125   | 210   | 173   | 80    | 213   | 356   | 1,670  | 1,400  | 105   | 56   | 396     | 72    |
| MIN   | 21    | 31    | 50    | 36    | 35    | 90    | 148    | 101    | 22    | 12   | 6.8     | 14    |
| CFSM  | .43   | .76   | .73   | .46   | .70   | 1.49  | 7.37   | 4.32   | .47   | .18  | .33     | .26   |
| IN.   | .50   | .84   | .84   | .53   | .73   | 1.71  | 8.22   | 4.98   | .53   | .20  | .38     | .29   |

CAL YR 1970 TOTAL 60,699.8 MEAN 166 MAX 1,730 MIN 7.6 CFSM 1.61 IN 21.92  
WTR YR 1971 TOTAL 54,703.9 MEAN 150 MAX 1,670 MIN 6.8 CFSM 1.46 IN 19.76

PEAK DISCHARGE (BASE, 2,600 CFS).--No peak above base.

NOTE.--No gage-height record Oct. 29 to Dec. 2.

## CONNECTICUT RIVER BASIN

01154000 Saxtons River at Saxtons River, Vt.

LOCATION.--Lat 43°08'14", long 72°29'17", Windham County, on right bank 130 ft upstream from highway bridge, 0.8 mile east of Saxtons River, 1.4 miles upstream from Bundy Brook, and 3.9 miles upstream from mouth.

DRAINAGE AREA.--72.2 sq mi.

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

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

AVERAGE DISCHARGE.--31 years, 113 cfs (21.25 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,710 cfs Apr. 20 (gage height, 6.94 ft); minimum, 3.2 cfs Aug. 23, 24-26.

Period of record: Maximum discharge, 5,610 cfs Sept. 12, 1960 (gage height, 11.57 ft); from rating curve extended above 2,000 cfs on basis of slope-area measurements at gage heights 10.51 and 11.37 ft; minimum, 1.9 cfs July 25, 1949; minimum daily, 2.4 cfs Aug. 6, 1955.

Maximum stage since at least 1869, 17.9 ft in September 1938, from floodmarks (discharge not determined).

REMARKS.--Records good except those for winter period, which are fair. Occasional diurnal fluctuation at low flow prior to 1962; fluctuation more frequent prior to 1946.

REVISIONS (WATER YEARS).--WSP 1301: 1948-49(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| 1     | 21    | 30    | 72    | 38    | 29    | 130   | 114    | 476   | 59    | 11    | 25    | 17    |
| 2     | 19    | 30    | 65    | 39    | 28    | 105   | 163    | 489   | 52    | 13    | 16    | 14    |
| 3     | 28    | 28    | 59    | 40    | 27    | 94    | 384    | 797   | 57    | 11    | 15    | 11    |
| 4     | 49    | 28    | 138   | 40    | 27    | 85    | 404    | 824   | 53    | 9.6   | 20    | 10    |
| 5     | 33    | 27    | 110   | 44    | 28    | 80    | 348    | 561   | 44    | 8.5   | 16    | 9.1   |
| 6     | 25    | 27    | 90    | 64    | 29    | 85    | 321    | 489   | 39    | 8.3   | 11    | 8.0   |
| 7     | 22    | 25    | 60    | 58    | 29    | 90    | 300    | 409   | 36    | 9.3   | 8.8   | 8.4   |
| 8     | 20    | 24    | 42    | 54    | 29    | 90    | 236    | 366   | 34    | 6.6   | 7.4   | 8.0   |
| 9     | 19    | 24    | 70    | 50    | 32    | 82    | 232    | 521   | 38    | 6.1   | 6.4   | 7.4   |
| 10    | 17    | 25    | 75    | 48    | 36    | 78    | 329    | 449   | 32    | 6.0   | 5.6   | 6.5   |
| 11    | 16    | 38    | 70    | 45    | 35    | 74    | 449    | 341   | 28    | 6.8   | 7.0   | 6.2   |
| 12    | 16    | 41    | 64    | 42    | 33    | 71    | 650    | 279   | 26    | 6.2   | 8.5   | 19    |
| 13    | 19    | 35    | 60    | 39    | 37    | 72    | 854    | 424   | 24    | 5.0   | 6.2   | 24    |
| 14    | 20    | 33    | 58    | 37    | 48    | 67    | 866    | 428   | 23    | 6.8   | 5.2   | 30    |
| 15    | 28    | 43    | 50    | 38    | 80    | 80    | 593    | 280   | 21    | 8.0   | 5.0   | 50    |
| 16    | 81    | 62    | 46    | 36    | 110   | 190   | 463    | 228   | 21    | 7.0   | 4.7   | 31    |
| 17    | 49    | 56    | 52    | 33    | 92    | 230   | 402    | 206   | 19    | 6.8   | 4.4   | 29    |
| 18    | 36    | 46    | 54    | 32    | 84    | 155   | 435    | 178   | 17    | 8.4   | 4.1   | 25    |
| 19    | 30    | 56    | 52    | 31    | 78    | 131   | 803    | 157   | 16    | 15    | 3.8   | 20    |
| 20    | 27    | 112   | 50    | 29    | 74    | 128   | 1,130  | 138   | 15    | 31    | 3.7   | 16    |
| 21    | 24    | 160   | 45    | 29    | 72    | 116   | 981    | 127   | 15    | 16    | 3.7   | 25    |
| 22    | 31    | 115   | 44    | 29    | 69    | 106   | 811    | 136   | 15    | 11    | 3.6   | 24    |
| 23    | 96    | 157   | 50    | 29    | 68    | 103   | 634    | 114   | 14    | 8.6   | 3.9   | 17    |
| 24    | 98    | 117   | 52    | 29    | 67    | 96    | 566    | 99    | 12    | 7.4   | 3.4   | 14    |
| 25    | 62    | 86    | 49    | 29    | 64    | 92    | 597    | 95    | 14    | 7.0   | 3.2   | 12    |
| 26    | 50    | 70    | 47    | 31    | 62    | 89    | 470    | 89    | 34    | 6.7   | 3.4   | 12    |
| 27    | 45    | 65    | 44    | 31    | 80    | 88    | 474    | 82    | 21    | 6.5   | 5.7   | 10    |
| 28    | 40    | 65    | 42    | 30    | 170   | 89    | 476    | 77    | 15    | 5.7   | 292   | 10    |
| 29    | 37    | 67    | 42    | 29    | ----- | 94    | 669    | 69    | 12    | 6.8   | 103   | 10    |
| 30    | 34    | 75    | 41    | 29    | ----- | 102   | 527    | 66    | 12    | 15    | 41    | 9.5   |
| 31    | 32    | ----- | 39    | 29    | ----- | 107   | -----  | 72    | ----- | 21    | 25    | ----- |
| TOTAL | 1,124 | 1,767 | 1,832 | 1,161 | 1,617 | 3,199 | 15,681 | 9,066 | 818   | 302.1 | 671.7 | 493.1 |
| MEAN  | 36.3  | 58.9  | 59.1  | 37.5  | 57.8  | 103   | 523    | 292   | 27.3  | 9.75  | 21.7  | 16.4  |
| MAX   | 98    | 160   | 138   | 64    | 170   | 230   | 1,130  | 824   | 59    | 31    | 292   | 50    |
| MIN   | 16    | 24    | 39    | 29    | 27    | 67    | 114    | 66    | 12    | 5.0   | 3.2   | 6.2   |
| CFSM  | .50   | .82   | .82   | .52   | .80   | 1.43  | 7.24   | 4.04  | .38   | .14   | .30   | .23   |
| IN.   | .58   | .91   | .94   | .60   | .83   | 1.65  | 8.08   | 4.67  | .42   | .16   | .35   | .25   |

CAL YR 1970 TOTAL 43,051.8 MEAN 118 MAX 1,080 MIN 4.8 CFSM 1.63 IN 22.18  
WTR YR 1971 TOTAL 37,731.9 MEAN 103 MAX 1,130 MIN 3.2 CFSM 1.43 IN 19.44

PEAK DISCHARGE (BASE, 1,750 CFS).--No peak above base.



## 01154500 Connecticut River at North Walpole, N.H.

LOCATION.--Lat 43°07'34", long 72°26'14", Cheshire County, on left bank at North Walpole, 100 ft upstream from Saxtons River, 0.7 mile downstream from Vilas Bridge between Bellows Falls, Vt., and North Walpole, N.H., and at mile 172.5. Records include flow of Saxtons River.

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

PERIOD OF RECORD.--March 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 218.63 ft above mean sea level.

AVERAGE DISCHARGE.--29 years, 8,937 cfs (22.09 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 61,700 cfs May 4 (gage height, 22.88 ft); minimum daily, 174 cfs June 20.

Period of record: Maximum discharge, 97,000 cfs Mar. 27, 1953 (gage height, 30.37 ft); minimum daily, 115 cfs Aug. 31, 1952, Sept. 2, 1957. Maximum stage since at least 1750, 43.8 ft Mar. 19, 1936, from floodmarks.

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 (see p. 209), and other reservoirs (combined usable capacity, about 24.8 billion cubic feet).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT     | NOV     | DEC     | JAN     | FEB     | MAR     | APR     | MAY     | JUN     | JUL    | AUG     | SEP    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|--------|
| 1     | 5,360   | 474     | 7,800   | 1,900   | 4,200   | 6,600   | 7,100   | 36,400  | 8,750   | 2,420  | 1,320   | 4,330  |
| 2     | 4,190   | 3,570   | 6,600   | 2,100   | 3,000   | 7,000   | 7,850   | 36,400  | 8,460   | 3,790  | 3,000   | 4,390  |
| 3     | 2,350   | 2,860   | 7,300   | 1,900   | 4,600   | 7,200   | 11,000  | 41,600  | 7,530   | 927    | 4,130   | 5,540  |
| 4     | 3,730   | 3,450   | 8,300   | 3,600   | 3,100   | 6,800   | 16,000  | 56,800  | 6,010   | 1,350  | 4,980   | 3,350  |
| 5     | 6,080   | 3,050   | 11,000  | 3,500   | 4,600   | 8,000   | 16,000  | 57,300  | 4,930   | 815    | 8,140   | 1,250  |
| 6     | 5,910   | 2,660   | 3,700   | 3,010   | 2,500   | 4,800   | 15,500  | 52,300  | 3,650   | 2,360  | 7,420   | 189    |
| 7     | 7,270   | 1,530   | 6,400   | 4,190   | 1,100   | 4,700   | 16,200  | 46,000  | 5,980   | 1,950  | 1,660   | 3,820  |
| 8     | 6,780   | 1,140   | 6,200   | 5,210   | 3,900   | 4,900   | 14,600  | 41,800  | 6,550   | 2,330  | 1,070   | 4,510  |
| 9     | 6,720   | 2,530   | 5,000   | 3,600   | 3,800   | 7,300   | 12,600  | 36,800  | 7,820   | 2,210  | 4,120   | 4,100  |
| 10    | 3,260   | 3,770   | 5,700   | 2,000   | 3,400   | 7,300   | 13,300  | 36,200  | 6,800   | 1,220  | 3,620   | 3,460  |
| 11    | 1,540   | 2,900   | 4,170   | 3,300   | 3,400   | 6,000   | 16,700  | 35,500  | 7,150   | 840    | 3,290   | 1,510  |
| 12    | 3,720   | 3,700   | 4,830   | 3,500   | 3,100   | 6,200   | 21,700  | 35,400  | 3,820   | 1,830  | 3,920   | 1,480  |
| 13    | 3,650   | 4,700   | 1,720   | 5,200   | 2,900   | 7,000   | 32,900  | 35,000  | 4,130   | 1,380  | 1,400   | 3,450  |
| 14    | 3,230   | 2,500   | 5,150   | 4,300   | 1,400   | 4,000   | 40,100  | 35,900  | 4,750   | 2,030  | 858     | 4,750  |
| 15    | 3,800   | 2,400   | 4,640   | 4,500   | 1,900   | 5,800   | 35,700  | 31,100  | 4,550   | 1,990  | 219     | 4,170  |
| 16    | 6,400   | 5,800   | 4,230   | 2,600   | 4,400   | 8,500   | 30,500  | 26,300  | 3,020   | 1,900  | 2,240   | 6,320  |
| 17    | 6,500   | 6,000   | 4,030   | 900     | 7,000   | 12,000  | 26,300  | 20,200  | 2,980   | 1,100  | 1,690   | 4,220  |
| 18    | 5,000   | 4,500   | 4,350   | 4,300   | 5,800   | 13,000  | 23,100  | 18,800  | 3,070   | 1,490  | 2,800   | 4,010  |
| 19    | 5,500   | 4,600   | 2,610   | 4,400   | 5,400   | 12,500  | 23,500  | 15,100  | 2,650   | 3,620  | 1,570   | 2,670  |
| 20    | 6,500   | 5,100   | 3,450   | 4,300   | 3,600   | 12,000  | 37,800  | 12,700  | 174     | 2,370  | 1,340   | 3,550  |
| 21    | 5,200   | 3,100   | 4,820   | 4,600   | 3,100   | 12,000  | 48,100  | 17,200  | 4,820   | 3,320  | 618     | 3,690  |
| 22    | 5,600   | 5,600   | 4,430   | 3,200   | 4,900   | 11,500  | 50,400  | 15,800  | 3,250   | 3,010  | 190     | 4,090  |
| 23    | 5,400   | 7,300   | 4,150   | 1,500   | 6,200   | 10,500  | 47,400  | 15,800  | 2,650   | 3,310  | 3,750   | 4,740  |
| 24    | 5,100   | 5,400   | 4,920   | 1,600   | 5,600   | 8,700   | 41,100  | 13,300  | 5,080   | 931    | 2,310   | 4,220  |
| 25    | 3,000   | 7,800   | 2,600   | 3,900   | 4,500   | 8,430   | 36,800  | 12,800  | 4,070   | 196    | 2,710   | 1,070  |
| 26    | 5,100   | 5,500   | 4,900   | 2,800   | 5,400   | 7,820   | 33,700  | 14,400  | 5,360   | 3,250  | 2,140   | 482    |
| 27    | 5,200   | 6,100   | 4,900   | 4,200   | 5,200   | 6,590   | 32,800  | 16,900  | 1,990   | 3,410  | 5,890   | 2,810  |
| 28    | 5,370   | 3,100   | 4,800   | 4,800   | 3,900   | 5,220   | 32,700  | 14,200  | 3,230   | 1,090  | 6,950   | 2,020  |
| 29    | 7,190   | 3,800   | 4,900   | 4,100   | -----   | 6,160   | 36,200  | 12,800  | 2,180   | 1,260  | 12,300  | 1,870  |
| 30    | 4,770   | 7,000   | 5,000   | 2,500   | -----   | 7,460   | 38,400  | 13,000  | 4,470   | 2,960  | 11,400  | 2,150  |
| 31    | 3,400   | -----   | 5,200   | 1,300   | -----   | 7,350   | -----   | 8,780   | -----   | 1,730  | 6,220   | -----  |
| TOTAL | 152,820 | 126,734 | 157,880 | 102,800 | 111,900 | 243,630 | 816,050 | 862,580 | 139,874 | 62,389 | 113,265 | 98,211 |
| MEAN  | 4,930   | 4,224   | 5,093   | 3,316   | 3,996   | 7,859   | 27,200  | 27,830  | 4,662   | 2,013  | 3,654   | 3,274  |
| MAX   | 7,270   | 5,400   | 11,000  | 5,210   | 7,000   | 13,000  | 50,400  | 57,300  | 8,750   | 3,790  | 12,300  | 6,320  |
| MIN   | 1,540   | 474     | 1,720   | 500     | 1,100   | 4,000   | 7,100   | 8,780   | 174     | 196    | 190     | 189    |
| MEAN† | 5,037   | 3,991   | 4,180   | 2,608   | 3,401   | 6,171   | 28,490  | 30,940  | 4,589   | 1,937  | 3,784   | 2,836  |
| CFSM† | .92     | .73     | .76     | .47     | .62     | 1.12    | 5.19    | 5.63    | .84     | .35    | .69     | .52    |
| IN.†  | 1.06    | .81     | .88     | .55     | .64     | 1.30    | 5.79    | 6.50    | .93     | .41    | .79     | .58    |

CAL YR 1970 TOTAL 3,215,232 MEAN 8,820 MAX 56,200 MIN 209 MEAN† 8,717 CFSM† 1.59 IN† 21.55  
WTR YR 1971 TOTAL 2,988,123 MEAN 8,187 MAX 57,300 MIN 174 MEAN† 8,183 CFSM† 1.49 IN† 20.23

## PEAK DISCHARGE (BASE, 44,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-22 | 0800 | 20.41 | 51,200    |      |      |       |           |
| 5-4  | 2115 | 22.88 | 61,700    |      |      |       |           |

† Adjusted for change in contents in all reservoirs from First Connecticut and Second Connecticut Lakes to North Springfield Lake on Black River listed on page 209.

NOTE.--No gage-height record Nov. 11 to Dec. 10.

01155000 Cold River at Drewsville, N.H.

LOCATION.--Lat 43°07'54", long 72°23'23", Cheshire County, on left bank 50 ft upstream from bridge on State Highway 123 at Drewsville, 1.0 mile upstream from Great Brook, 2.7 miles east of Bellows Falls, Vt., and 3.4 miles upstream from mouth.

DRAINAGE AREA.--82.7 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 375 ft (from topographic map).

AVERAGE DISCHARGE.--31 years, 112 cfs (18.39 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,230 cfs Apr. 13 (gage height, 6.02 ft); minimum, 7.9 cfs July 14-17, 28, 29, Aug. 24, 25.

Period of record: Maximum discharge, 8,160 cfs Nov. 26, 1950 (gage height, 10.29 ft), from rating curve extended above 3,400 cfs; minimum, 1.3 cfs Sept. 23, 1940.

REMARKS.--Records excellent except those for winter period, which are fair. Occasional diurnal fluctuation at low flow caused by sawmill above station; fluctuation more frequent prior to 1945.

REVISIONS (WATER YEARS).--WSP 1431: 1952(P).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| 1     | 35    | 30    | 56    | 37    | 31    | 150   | 130    | 371   | 51    | 17    | 74    | 15    |
| 2     | 29    | 29    | 53    | 39    | 29    | 132   | 191    | 333   | 45    | 17    | 36    | 13    |
| 3     | 32    | 28    | 50    | 40    | 28    | 116   | 485    | 438   | 47    | 16    | 36    | 11    |
| 4     | 106   | 28    | 136   | 39    | 27    | 108   | 500    | 790   | 45    | 14    | 95    | 11    |
| 5     | 65    | 30    | 136   | 42    | 28    | 104   | 440    | 578   | 45    | 12    | 47    | 10    |
| 6     | 45    | 32    | 106   | 49    | 30    | 98    | 397    | 425   | 39    | 12    | 27    | 10    |
| 7     | 36    | 30    | 72    | 47    | 29    | 91    | 364    | 336   | 33    | 11    | 19    | 9.6   |
| 8     | 31    | 28    | 45    | 43    | 29    | 88    | 299    | 275   | 54    | 11    | 17    | 9.6   |
| 9     | 28    | 28    | 62    | 42    | 33    | 84    | 270    | 290   | 135   | 10    | 15    | 9.3   |
| 10    | 24    | 25    | 71    | 40    | 34    | 83    | 377    | 310   | 69    | 9.8   | 13    | 9.1   |
| 11    | 23    | 26    | 57    | 40    | 34    | 76    | 536    | 245   | 47    | 9.1   | 13    | 9.1   |
| 12    | 23    | 30    | 61    | 40    | 34    | 74    | 749    | 204   | 41    | 8.6   | 25    | 14    |
| 13    | 24    | 28    | 57    | 35    | 33    | 72    | 933    | 365   | 35    | 8.4   | 17    | 20    |
| 14    | 25    | 27    | 57    | 33    | 53    | 71    | 962    | 480   | 30    | 8.2   | 13    | 16    |
| 15    | 39    | 35    | 44    | 36    | 84    | 77    | 677    | 333   | 31    | 7.9   | 11    | 17    |
| 16    | 108   | 49    | 40    | 34    | 100   | 173   | 519    | 265   | 29    | 7.9   | 10    | 16    |
| 17    | 77    | 46    | 52    | 33    | 87    | 226   | 422    | 232   | 23    | 8.2   | 9.8   | 17    |
| 18    | 57    | 38    | 58    | 31    | 79    | 194   | 415    | 196   | 20    | 10    | 9.6   | 16    |
| 19    | 46    | 42    | 55    | 33    | 78    | 168   | 539    | 165   | 19    | 15    | 9.3   | 14    |
| 20    | 40    | 63    | 55    | 34    | 73    | 160   | 805    | 143   | 17    | 33    | 9.1   | 13    |
| 21    | 36    | 99    | 45    | 31    | 69    | 146   | 825    | 131   | 17    | 17    | 8.8   | 17    |
| 22    | 39    | 77    | 36    | 29    | 66    | 130   | 705    | 131   | 17    | 13    | 8.8   | 17    |
| 23    | 55    | 94    | 45    | 29    | 64    | 122   | 555    | 126   | 17    | 11    | 8.6   | 13    |
| 24    | 64    | 83    | 45    | 29    | 64    | 109   | 459    | 97    | 17    | 9.8   | 8.2   | 12    |
| 25    | 53    | 64    | 47    | 29    | 63    | 110   | 466    | 84    | 17    | 9.1   | 8.2   | 11    |
| 26    | 46    | 54    | 49    | 31    | 62    | 102   | 412    | 83    | 36    | 8.8   | 8.2   | 10    |
| 27    | 43    | 51    | 46    | 33    | 85    | 99    | 374    | 77    | 25    | 8.8   | 9.1   | 10    |
| 28    | 39    | 51    | 44    | 33    | 140   | 99    | 347    | 74    | 18    | 8.4   | 60    | 9.8   |
| 29    | 36    | 53    | 45    | 35    | ----- | 105   | 459    | 51    | 17    | 8.4   | 73    | 9.6   |
| 30    | 33    | 59    | 40    | 34    | ----- | 114   | 445    | 59    | 17    | 25    | 34    | 10    |
| 31    | 31    | ----- | 38    | 33    | ----- | 120   | -----  | 61    | ----- | 42    | 20    | ----- |
| TOTAL | 1,368 | 1,357 | 1,803 | 1,113 | 1,565 | 3,601 | 15,057 | 7,748 | 1,053 | 407.4 | 752.7 | 379.1 |
| MEAN  | 44.1  | 45.2  | 58.2  | 35.9  | 55.9  | 116   | 502    | 250   | 35.1  | 13.1  | 24.3  | 12.6  |
| MAX   | 108   | 99    | 136   | 49    | 140   | 226   | 962    | 790   | 135   | 42    | 95    | 20    |
| MIN   | 23    | 25    | 36    | 29    | 27    | 71    | 130    | 51    | 17    | 7.9   | 8.2   | 9.1   |
| CFSM  | .53   | .55   | .70   | .43   | .68   | 1.40  | 6.07   | 3.02  | .42   | .16   | .29   | .15   |
| IN.   | .62   | .61   | .81   | .50   | .70   | 1.62  | 6.77   | 3.49  | .47   | .18   | .34   | .17   |

CAL YR 1970 TOTAL 42,636.9 MEAN 117 MAX 1,000 MIN 6.7 CFSM 1.41 IN 19.18  
WTR YR 1971 TOTAL 36,204.2 MEAN 99.2 MAX 962 MIN 7.9 CFSM 1.20 IN 16.29

## PEAK DISCHARGE (BASE, 1,100 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-13 | 2215 | 6.02  | 1,230     |      |      |       |           |

01155200 Sacketts Brook near Putney, Vt.

LOCATION.--Lat 42°59'57", long 72°31'59", Windham County, on left bank 50 ft upstream from highway bridge on Saxtons River Road and 1.8 miles north of Putney.

DRAINAGE AREA.--10.0 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 430 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 14.1 cfs (19.15 inches per year).

EXTREMES.--Current year: Maximum discharge, 270 cfs Aug. 28 (gage height, 4.60 ft), from rating curve extended above 88 cfs; minimum, 1.4 cfs Aug. 22-27.

Period of record: Maximum discharge, 946 cfs July 29, 1969 (gage height, 6.89 ft), from rating curve extended above 88 cfs; minimum, 0.63 cfs Sept. 20, 21, 1964.

REMARKS.--Records good except those for winter period, which are fair. Recording rain gage at station since April 1964 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| 1     | 3.6   | 4.7   | 9.4   | 5.2   | 4.5   | 18    | 21    | 40    | 12    | 3.5  | 8.2   | 3.6   |
| 2     | 3.0   | 4.7   | 8.1   | 5.4   | 4.4   | 16    | 29    | 39    | 11    | 4.1  | 5.5   | 3.0   |
| 3     | 7.0   | 4.3   | 16    | 5.4   | 4.2   | 14    | 69    | 58    | 12    | 3.2  | 7.4   | 3.0   |
| 4     | 7.4   | 4.3   | 18    | 5.8   | 4.2   | 12    | 61    | 64    | 10    | 3.0  | 7.8   | 2.7   |
| 5     | 4.3   | 4.3   | 14    | 9.0   | 5.0   | 12    | 58    | 43    | 8.9   | 2.7  | 4.7   | 2.7   |
| 6     | 4.0   | 4.3   | 10    | 8.5   | 5.2   | 12    | 53    | 38    | 8.2   | 2.5  | 3.3   | 3.0   |
| 7     | 3.6   | 4.3   | 7.3   | 9.0   | 4.5   | 13    | 51    | 33    | 8.1   | 2.5  | 3.0   | 2.7   |
| 8     | 3.3   | 4.0   | 6.0   | 7.4   | 4.5   | 12    | 42    | 33    | 7.4   | 2.2  | 2.7   | 2.5   |
| 9     | 3.0   | 3.6   | 11    | 6.8   | 5.8   | 11    | 45    | 59    | 7.0   | 2.2  | 2.5   | 2.7   |
| 10    | 3.0   | 4.0   | 10    | 6.6   | 5.4   | 11    | 68    | 46    | 6.5   | 2.2  | 2.7   | 2.5   |
| 11    | 3.0   | 5.5   | 9.5   | 6.6   | 5.2   | 10    | 97    | 37    | 6.3   | 2.0  | 3.3   | 2.5   |
| 12    | 3.0   | 5.5   | 9.2   | 6.2   | 5.0   | 9.7   | 107   | 33    | 6.2   | 2.0  | 3.0   | 7.0   |
| 13    | 3.6   | 4.7   | 8.2   | 5.9   | 6.0   | 9.7   | 126   | 70    | 6.0   | 1.8  | 2.2   | 4.7   |
| 14    | 4.0   | 4.7   | 8.0   | 5.6   | 10    | 9.2   | 116   | 52    | 6.1   | 2.2  | 2.2   | 7.6   |
| 15    | 5.9   | 8.2   | 7.0   | 6.0   | 16    | 11    | 87    | 40    | 5.7   | 2.2  | 2.0   | 7.4   |
| 16    | 11    | 8.7   | 6.4   | 5.7   | 14    | 26    | 70    | 37    | 5.5   | 2.0  | 2.0   | 5.3   |
| 17    | 5.5   | 6.6   | 7.4   | 5.4   | 12    | 25    | 68    | 36    | 5.1   | 2.2  | 1.8   | 7.3   |
| 18    | 4.7   | 5.9   | 7.2   | 5.2   | 9.7   | 19    | 69    | 31    | 5.0   | 2.5  | 1.8   | 5.9   |
| 19    | 4.7   | 10    | 7.0   | 5.0   | 9.7   | 19    | 104   | 28    | 4.6   | 5.9  | 1.6   | 4.6   |
| 20    | 4.7   | 22    | 6.2   | 4.9   | 9.2   | 21    | 114   | 26    | 4.3   | 5.5  | 1.6   | 4.3   |
| 21    | 4.0   | 18    | 6.0   | 4.8   | 9.2   | 18    | 97    | 26    | 4.3   | 3.0  | 1.6   | 6.4   |
| 22    | 5.9   | 17    | 6.6   | 4.8   | 9.2   | 17    | 81    | 26    | 4.6   | 2.5  | 1.8   | 4.8   |
| 23    | 9.7   | 22    | 7.2   | 4.8   | 9.7   | 17    | 66    | 21    | 3.9   | 2.2  | 1.4   | 4.3   |
| 24    | 7.8   | 17    | 7.0   | 4.8   | 9.7   | 16    | 59    | 19    | 3.6   | 2.0  | 1.4   | 3.8   |
| 25    | 6.3   | 12    | 6.7   | 4.8   | 9.7   | 15    | 55    | 18    | 5.5   | 2.0  | 1.4   | 3.5   |
| 26    | 5.9   | 9.3   | 6.4   | 4.8   | 9.2   | 14    | 48    | 17    | 8.3   | 2.0  | 1.4   | 3.0   |
| 27    | 5.1   | 8.5   | 6.0   | 5.2   | 22    | 14    | 44    | 16    | 4.5   | 2.0  | 3.0   | 3.0   |
| 28    | 5.1   | 8.6   | 5.8   | 5.0   | 21    | 14    | 42    | 15    | 3.6   | 2.0  | 54    | 3.0   |
| 29    | 5.1   | 8.9   | 5.8   | 4.8   | ----- | 15    | 64    | 14    | 3.3   | 6.6  | 13    | 3.0   |
| 30    | 5.1   | 9.4   | 5.6   | 4.6   | ----- | 16    | 45    | 14    | 3.3   | 7.0  | 5.9   | 3.0   |
| 31    | 5.1   | ----- | 5.4   | 4.5   | ----- | 18    | ----- | 14    | ----- | 11   | 4.0   | ----- |
| TOTAL | 156.7 | 255.0 | 254.4 | 177.5 | 244.2 | 464.6 | 2,056 | 1,043 | 190.8 | 98.7 | 158.2 | 122.8 |
| MEAN  | 5.05  | 8.50  | 8.21  | 5.73  | 8.72  | 15.0  | 68.5  | 33.6  | 6.36  | 3.18 | 5.10  | 4.09  |
| MAX   | 11    | 22    | 18    | 9.0   | 22    | 26    | 126   | 70    | 12    | 11   | 54    | 7.6   |
| MIN   | 3.0   | 3.6   | 5.4   | 4.5   | 4.2   | 9.2   | 21    | 14    | 3.3   | 1.8  | 1.4   | 2.5   |
| CFSM  | .51   | .85   | .82   | .57   | .87   | 1.50  | 6.85  | 3.36  | .64   | .32  | .51   | .41   |
| IN.   | .58   | .95   | .95   | .66   | .91   | 1.73  | 7.65  | 3.88  | .71   | .37  | .59   | .46   |

|             |               |           |         |         |           |          |
|-------------|---------------|-----------|---------|---------|-----------|----------|
| CAL YR 1970 | TOTAL 6,045.7 | MEAN 16.6 | MAX 176 | MIN 1.3 | CFSM 1.66 | IN 22.49 |
| WTR YR 1971 | TOTAL 5,221.9 | MEAN 14.3 | MAX 126 | MIN 1.4 | CFSM 1.43 | IN 19.43 |

## PEAK DISCHARGE (BASE, 210 CFS, REVISED)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-12 | 1715 | 4.41  | 230       |      |      |       |           |
| 8-28 | 1045 | 4.60  | 270       |      |      |       |           |

01155300 Flood Brook near Londonderry, Vt.

LOCATION.--Lat 43°14'11", long 72°51'23", Windham County, on left bank 20 ft downstream from bridge on State Highway 11, 0.9 mile upstream from Burnt Meadow Brook, and 2.5 miles west of Londonderry.

DRAINAGE AREA.--9.25 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 19.3 cfs (28.33 inches per year).

EXTREMES.--Current year: Maximum discharge, 254 cfs May 5 (gage height, 4.62 ft), from rating curve extended above 220 cfs; maximum gage height, 6.33 ft Mar. 16 (backwater from ice); minimum discharge, 0.79 cfs July 13, Aug. 26.  
Period of record: Maximum discharge, 782 cfs Aug. 23, 1966 (gage height, 6.33 ft), from rating curve extended above 140 cfs; maximum gage height, 7.44 ft, from peak-stage indicator, Mar. 18, 1968 (ice jam); minimum discharge, 0.19 cfs Aug. 10-12, 1964.

REMARKS.--Records good except those for winter period or period of no gage-height record, which are fair. Recording rain gage at station since April 1964 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG    | SEP   |
|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 1     | 14    | 12    | 19   | 10    | 6.0   | 16    | 13    | 91    | 15    | 1.5   | 4.1    | 4.1   |
| 2     | 11    | 10    | 18   | 10    | 5.8   | 13    | 19    | 109   | 13    | 1.6   | 4.6    | 2.8   |
| 3     | 35    | 9.3   | 16   | 9.3   | 5.8   | 11    | 47    | 173   | 15    | 1.3   | 7.3    | 2.3   |
| 4     | 34    | 8.9   | 35   | 9.6   | 5.5   | 10    | 38    | 170   | 13    | 1.2   | 6.8    | 2.0   |
| 5     | 20    | 8.9   | 27   | 17    | 5.5   | 10    | 30    | 181   | 11    | 1.4   | 3.1    | 1.8   |
| 6     | 15    | 7.7   | 22   | 26    | 6.0   | 10    | 27    | 157   | 9.4   | 1.2   | 1.8    | 1.7   |
| 7     | 12    | 7.2   | 18   | 19    | 5.8   | 10    | 25    | 163   | 9.0   | 1.1   | 1.5    | 2.3   |
| 8     | 10    | 7.0   | 15   | 13    | 6.3   | 9.8   | 22    | 138   | 9.4   | 1.0   | 1.4    | 2.0   |
| 9     | 8.6   | 6.3   | 17   | 13    | 6.5   | 9.4   | 23    | 159   | 10    | .94   | 1.2    | 1.8   |
| 10    | 7.7   | 7.2   | 18   | 12    | 6.0   | 9.2   | 29    | 157   | 8.4   | .91   | 1.1    | 1.5   |
| 11    | 7.5   | 16    | 16   | 13    | 5.8   | 9.0   | 34    | 148   | 7.1   | .88   | 1.8    | 1.4   |
| 12    | 7.2   | 13    | 15   | 11    | 6.0   | 8.7   | 55    | 119   | 6.4   | .85   | 1.7    | 8.4   |
| 13    | 7.2   | 11    | 14   | 9.6   | 8.0   | 8.6   | 83    | 132   | 5.8   | .82   | 1.3    | 8.1   |
| 14    | 8.0   | 9.6   | 14   | 9.9   | 12    | 8.6   | 99    | 81    | 6.0   | 1.1   | 1.2    | 15    |
| 15    | 10    | 14    | 13   | 9.9   | 18    | 12    | 66    | 54    | 5.4   | 1.1   | 1.1    | 24    |
| 16    | 31    | 21    | 11   | 8.9   | 14    | 34    | 52    | 50    | 4.8   | .88   | 1.1    | 12    |
| 17    | 17    | 16    | 12   | 8.4   | 11    | 28    | 45    | 42    | 4.2   | 1.0   | 1.0    | 8.1   |
| 18    | 15    | 13    | 13   | 8.0   | 9.6   | 22    | 50    | 35    | 3.9   | 1.2   | .97    | 6.6   |
| 19    | 17    | 17    | 12   | 7.6   | 9.0   | 19    | 92    | 31    | 3.6   | 3.9   | .97    | 5.2   |
| 20    | 13    | 31    | 15   | 7.2   | 8.8   | 18    | 155   | 26    | 3.5   | 7.5   | .91    | 4.1   |
| 21    | 12    | 41    | 14   | 7.0   | 8.6   | 16    | 142   | 38    | 3.3   | 2.4   | .94    | 6.6   |
| 22    | 32    | 33    | 13   | 7.4   | 8.4   | 15    | 117   | 50    | 3.6   | 1.6   | .91    | 5.0   |
| 23    | 83    | 40    | 13   | 7.2   | 8.2   | 14    | 85    | 32    | 3.1   | 1.3   | 1.0    | 3.9   |
| 24    | 57    | 28    | 12   | 7.0   | 8.0   | 14    | 76    | 23    | 2.7   | 2.7   | .94    | 3.3   |
| 25    | 27    | 21    | 12   | 6.7   | 7.8   | 13    | 78    | 21    | 3.5   | 2.1   | .82    | 2.7   |
| 26    | 18    | 17    | 12   | 6.4   | 7.8   | 13    | 65    | 20    | 6.7   | 1.6   | .82    | 2.5   |
| 27    | 16    | 16    | 11   | 7.2   | 15    | 12    | 85    | 18    | 3.7   | 1.2   | 1.2    | 2.4   |
| 28    | 17    | 16    | 11   | 7.0   | 21    | 12    | 87    | 17    | 2.7   | 1.0   | .65    | 2.3   |
| 29    | 15    | 18    | 11   | 6.7   | ----- | 12    | 109   | 16    | 2.1   | 1.0   | .46    | 2.7   |
| 30    | 13    | 19    | 11   | 6.4   | ----- | 13    | 87    | 16    | 1.8   | 1.7   | .13    | 2.4   |
| 31    | 12    | ----- | 10   | 6.2   | ----- | 12    | ----- | 21    | ----- | 3.0   | .66    | ----- |
| TOTAL | 602.2 | 495.1 | 470  | 307.6 | 246.2 | 422.3 | 1,935 | 2,488 | 197.1 | 50.98 | 182.18 | 149.0 |
| MEAN  | 19.4  | 16.5  | 15.2 | 9.92  | 8.79  | 13.6  | 64.5  | 80.3  | 6.57  | 1.64  | 5.88   | 4.97  |
| MAX   | 83    | 41    | 35   | 26    | 21    | 34    | 155   | 181   | 15    | 7.5   | .65    | 24    |
| MIN   | 7.2   | 6.3   | 10   | 6.2   | 5.5   | 8.6   | 13    | 16    | 1.8   | .82   | .82    | 1.4   |
| CFSM  | 2.10  | 1.78  | 1.64 | 1.07  | .95   | 1.47  | 6.97  | 8.68  | .71   | .18   | .64    | .54   |
| IN.   | 2.42  | 1.99  | 1.89 | 1.24  | .99   | 1.70  | 7.78  | 10.01 | .79   | .21   | .73    | .60   |

CAL YR 1970 TOTAL 7,852.59 MEAN 21.5 MAX 335 MIN .42 CFSM 2.32 IN 31.58  
WTR YR 1971 TOTAL 7,545.66 MEAN 20.7 MAX 181 MIN .82 CFSM 2.24 IN 30.35

PEAK DISCHARGE (BASE, 300 CFS, REVISED).--No peak above base.

NOTE.--No gage-height record May 26 to June 30.

01155500 West River at Jamaica, Vt.

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

DRAINAGE AREA.--179 sq mi.

PERIOD OF RECORD.--October 1946 to current year.

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

AVERAGE DISCHARGE.--25 years, 339 cfs (25.72 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 3,650 cfs Apr. 21 (gage height, 8.34 ft); maximum gage height, 8.49 ft Mar. 17 (backwater from ice); minimum discharge, 2.5 cfs June 24; minimum daily, 20 cfs June 23, 24.

Period of record: Maximum discharge, 29,500 cfs Dec. 31, 1948 (gage height, 14.87 ft), from rating curve extended above 9,800 cfs, verified by slope-area measurement of peak flow; minimum, 0.94 cfs Sept. 23-25, 1968; minimum daily, 0.94 cfs Sept. 23, 24, 1968. Maximum discharge since construction of Ball Mountain Dam in 1961, 5,020 cfs Apr. 24, 1962 (gage height, 8.75 ft); maximum gage height, 9.46 ft Feb. 4, 1970 (ice jam).

REMARKS.--Records excellent except those for winter period, which are poor. Flow regulated by Ball Mountain Lake since 1961 (see p.209 ).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC       | JAN    | FEB       | MAR        | APR       | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------------|---------------|----------|-----------|--------|-----------|------------|-----------|--------|-------|-------|-------|-------|
| 1           | 205           | 121      | 284       | 125    | 86        | 400        | 225       | 1,010  | 183   | 41    | 30    | 31    |
| 2           | 202           | 114      | 282       | 115    | 80        | 300        | 240       | 1,160  | 159   | 41    | 30    | 32    |
| 3           | 158           | 106      | 265       | 110    | 76        | 230        | 489       | 2,430  | 128   | 41    | 31    | 32    |
| 4           | 183           | 101      | 320       | 110    | 76        | 240        | 848       | 3,120  | 75    | 40    | 31    | 32    |
| 5           | 221           | 99       | 487       | 130    | 78        | 210        | 637       | 3,220  | 79    | 40    | 31    | 32    |
| 6           | 219           | 94       | 499       | 150    | 80        | 190        | 565       | 2,710  | 75    | 40    | 30    | 32    |
| 7           | 216           | 89       | 388       | 210    | 88        | 200        | 534       | 2,200  | 79    | 40    | 30    | 32    |
| 8           | 213           | 84       | 205       | 220    | 90        | 200        | 436       | 2,000  | 79    | 39    | 30    | 32    |
| 9           | 205           | 80       | 170       | 180    | 88        | 195        | 375       | 2,350  | 106   | 39    | 30    | 32    |
| 10          | 201           | 80       | 210       | 160    | 86        | 180        | 473       | 2,250  | 132   | 39    | 30    | 32    |
| 11          | 175           | 129      | 215       | 160    | 85        | 175        | 536       | 1,900  | 97    | 39    | 31    | 32    |
| 12          | 367           | 170      | 190       | 150    | 84        | 175        | 882       | 2,080  | 82    | 32    | 30    | 36    |
| 13          | 551           | 139      | 160       | 110    | 90        | 170        | 1,700     | 1,950  | 82    | 27    | 32    | 160   |
| 14          | 298           | 121      | 165       | 110    | 130       | 160        | 2,050     | 1,750  | 65    | 28    | 34    | 187   |
| 15          | 82            | 138      | 165       | 120    | 170       | 165        | 1,320     | 1,030  | 53    | 28    | 34    | 125   |
| 16          | 388           | 246      | 150       | 110    | 240       | 400        | 813       | 767    | 50    | 28    | 34    | 125   |
| 17          | 377           | 238      | 130       | 120    | 270       | 600        | 865       | 855    | 41    | 28    | 34    | 125   |
| 18          | 217           | 178      | 135       | 110    | 220       | 550        | 844       | 707    | 41    | 28    | 33    | 124   |
| 19          | 183           | 195      | 140       | 90     | 190       | 400        | 561       | 480    | 41    | 29    | 33    | 87    |
| 20          | 153           | 506      | 170       | 95     | 190       | 350        | 815       | 483    | 41    | 29    | 33    | 63    |
| 21          | 132           | 729      | 200       | 100    | 170       | 330        | 2,760     | 464    | 41    | 29    | 33    | 64    |
| 22          | 154           | 545      | 195       | 100    | 150       | 300        | 3,240     | 451    | 34    | 29    | 33    | 64    |
| 23          | 697           | 794      | 180       | 94     | 155       | 270        | 2,290     | 499    | 20    | 29    | 33    | 64    |
| 24          | 500           | 584      | 165       | 70     | 160       | 260        | 1,280     | 536    | 20    | 29    | 33    | 63    |
| 25          | 312           | 286      | 160       | 56     | 150       | 250        | 1,300     | 519    | 29    | 29    | 32    | 63    |
| 26          | 237           | 208      | 135       | 92     | 145       | 250        | 1,360     | 506    | 86    | 29    | 32    | 63    |
| 27          | 215           | 247      | 145       | 92     | 150       | 245        | 1,350     | 474    | 103   | 29    | 33    | 63    |
| 28          | 195           | 259      | 145       | 96     | 250       | 240        | 1,700     | 375    | 64    | 29    | 431   | 45    |
| 29          | 164           | 261      | 140       | 56     | -----     | 236        | 2,180     | 298    | 53    | 30    | 1,070 | 33    |
| 30          | 144           | 270      | 135       | 54     | -----     | 210        | 1,620     | 240    | 46    | 29    | 349   | 32    |
| 31          | 130           | -----    | 130       | 90     | -----     | 231        | -----     | 209    | ----- | 30    | 85    | ----- |
| TOTAL       | 7,698         | 7,211    | 6,464     | 3,705  | 3,827     | 8,312      | 34,288    | 39,023 | 2,192 | 1,017 | 2,795 | 1,937 |
| MEAN        | 248           | 240      | 209       | 120    | 137       | 268        | 1,143     | 1,259  | 73.1  | 32.8  | 90.2  | 64.6  |
| MAX         | 697           | 794      | 499       | 220    | 270       | 600        | 3,240     | 3,220  | 183   | 41    | 1,070 | 187   |
| MIN         | 82            | 80       | 130       | 70     | 76        | 160        | 225       | 209    | 20    | 27    | 30    | 31    |
| MEAN†       | 201           | 246      | 208       | 120    | 140       | 266        | 1,157     | 1,260  | 79.4  | 30.4  | 93.4  | 68.8  |
| CFSM†       | 1.12          | 1.37     | 1.16      | .67    | .78       | 1.49       | 6.46      | 7.04   | .44   | .17   | .52   | .38   |
| IN.†        | 1.30          | 1.53     | 1.34      | .77    | .81       | 1.71       | 7.21      | 8.12   | .50   | .20   | .60   | .43   |
| CAL YR 1970 | TOTAL 125,372 | MEAN 343 | MAX 2,940 | MIN 30 | MEAN† 343 | CFSM† 1.92 | IN† 26.06 |        |       |       |       |       |
| WTR YR 1971 | TOTAL 118,469 | MEAN 325 | MAX 3,240 | MIN 20 | MEAN† 323 | CFSM† 1.80 | IN† 24.52 |        |       |       |       |       |

† Adjusted for change in contents in Ball Mountain Lake.

01156000 West River at Newfane, Vt.

LOCATION.--Lat 42°59'42", long 72°38'17", Windham County, on right bank 600 ft downstream from highway bridge, 1 mile northeast of Newfane, and at mile 12.7.

DRAINAGE AREA.--308 sq mi.

PERIOD OF RECORD.--September 1919 to September 1923, October 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 384.21 ft above mean sea level. Prior to June 27, 1931, nonrecording gage at site 600 ft upstream at same datum.

AVERAGE DISCHARGE.--47 years, 601 cfs (26.50 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 6,010 cfs May 6 (gage height, 8.53 ft); minimum, 14 cfs June 25; minimum daily, 17 cfs June 25. Period of record: Maximum discharge, 52,300 cfs Sept. 21, 1938 (gage height, 22.81 ft, from floodmarks), from rating curve extended above 20,000 cfs on basis of contracted-opening measurement at gage height 19.3 ft and slope-area measurements at gage heights 19.46 and 22.81 ft; minimum, 7.6 cfs Aug. 24, 25, 26, 1962, minimum daily, 8.2 cfs Aug. 25, 1962. Maximum discharge since construction of Ball Mountain and Townshend Lakes in 1961, 9,410 cfs Apr. 10, 1969 (gage height, 9.77 ft). Maximum discharge since at least 1869, that of Sept. 21, 1938. Flood of Nov. 3, 1927, reached a discharge of 45,000 cfs (gage height, 23.0 ft, from floodmarks, at nonrecording-gage site), from rating curve extended above 20,000 cfs on basis of computation of peak flow over dam at West Dummerston, about 5 miles downstream, adjusted for flow from intervening area.

REMARKS.--Records excellent except those for winter period, which are poor. Flow regulated since 1961 by Ball Mountain Lake and Townshend Lake 6.8 miles upstream (see p. 209).

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1231: 1922-23, 1929-31(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV    | DEC    | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|--------|--------|--------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| 1     | 267    | 204    | 433    | 185   | 130   | 540    | 410    | 2,130  | 308   | 70    | 73    | 104   |
| 2     | 239    | 183    | 408    | 180   | 130   | 640    | 413    | 2,320  | 274   | 82    | 67    | 76    |
| 3     | 239    | 171    | 378    | 180   | 130   | 520    | 864    | 3,840  | 268   | 81    | 60    | 68    |
| 4     | 281    | 160    | 588    | 180   | 130   | 420    | 1,390  | 5,350  | 218   | 68    | 64    | 67    |
| 5     | 291    | 156    | 812    | 200   | 135   | 380    | 1,500  | 5,590  | 192   | 62    | 64    | 64    |
| 6     | 271    | 152    | 746    | 230   | 140   | 350    | 1,140  | 4,910  | 178   | 59    | 55    | 61    |
| 7     | 226    | 145    | 620    | 300   | 150   | 350    | 1,080  | 3,620  | 165   | 58    | 51    | 61    |
| 8     | 248    | 138    | 402    | 350   | 160   | 360    | 889    | 3,340  | 156   | 55    | 48    | 61    |
| 9     | 248    | 131    | 312    | 270   | 170   | 350    | 738    | 4,020  | 149   | 54    | 43    | 60    |
| 10    | 145    | 120    | 356    | 230   | 170   | 330    | 931    | 4,390  | 175   | 54    | 43    | 30    |
| 11    | 148    | 101    | 384    | 210   | 165   | 320    | 1,160  | 3,100  | 172   | 52    | 45    | 46    |
| 12    | 171    | 88     | 307    | 190   | 160   | 310    | 1,640  | 3,290  | 140   | 51    | 49    | 68    |
| 13    | 545    | 120    | 286    | 180   | 170   | 300    | 2,520  | 3,300  | 131   | 45    | 45    | 119   |
| 14    | 458    | 183    | 258    | 175   | 240   | 290    | 4,110  | 3,220  | 128   | 43    | 44    | 290   |
| 15    | 179    | 196    | 262    | 170   | 350   | 280    | 3,520  | 2,050  | 107   | 46    | 45    | 253   |
| 16    | 378    | 302    | 240    | 165   | 500   | 500    | 1,740  | 1,270  | 97    | 45    | 43    | 226   |
| 17    | 504    | 350    | 260    | 160   | 550   | 1,000  | 1,650  | 1,440  | 90    | 44    | 42    | 203   |
| 18    | 356    | 281    | 280    | 155   | 450   | 950    | 1,680  | 1,260  | 80    | 45    | 43    | 188   |
| 19    | 262    | 258    | 260    | 150   | 380   | 800    | 1,780  | 910    | 78    | 47    | 44    | 171   |
| 20    | 230    | 628    | 270    | 145   | 340   | 620    | 2,860  | 850    | 76    | 72    | 43    | 117   |
| 21    | 196    | 850    | 240    | 145   | 320   | 560    | 4,540  | 688    | 75    | 64    | 43    | 122   |
| 22    | 200    | 1,080  | 240    | 145   | 300   | 530    | 5,610  | 860    | 76    | 52    | 43    | 134   |
| 23    | 727    | 1,090  | 260    | 145   | 290   | 500    | 4,400  | 811    | 73    | 47    | 43    | 117   |
| 24    | 822    | 1,110  | 240    | 145   | 285   | 470    | 2,790  | 790    | 26    | 46    | 42    | 107   |
| 25    | 471    | 596    | 235    | 130   | 280   | 440    | 2,680  | 754    | 17    | 44    | 41    | 100   |
| 26    | 421    | 333    | 230    | 135   | 230   | 420    | 2,470  | 724    | 59    | 42    | 42    | 96    |
| 27    | 566    | 361    | 210    | 140   | 230   | 410    | 2,570  | 686    | 154   | 42    | 48    | 94    |
| 28    | 333    | 373    | 210    | 135   | 350   | 400    | 2,840  | 580    | 116   | 41    | 551   | 93    |
| 29    | 253    | 378    | 200    | 135   | ----- | 357    | 3,650  | 492    | 85    | 43    | 1,680 | 70    |
| 30    | 226    | 396    | 195    | 130   | ----- | 375    | 3,070  | 347    | 76    | 61    | 543   | 62    |
| 31    | 204    | -----  | 190    | 130   | ----- | 396    | -----  | 352    | ----- | 70    | 231   | ----- |
| TOTAL | 10,105 | 10,634 | 10,312 | 5,520 | 7,035 | 14,508 | 66,635 | 67,284 | 3,939 | 1,685 | 4,318 | 3,328 |
| MEAN  | 326    | 354    | 333    | 178   | 251   | 468    | 2,221  | 2,170  | 131   | 54.4  | 139   | 111   |
| MAX   | 822    | 1,110  | 812    | 350   | 550   | 1,000  | 5,610  | 5,590  | 308   | 82    | 1,680 | 290   |
| MIN   | 145    | 88     | 190    | 130   | 130   | 280    | 410    | 347    | 17    | 41    | 41    | 30    |
| MEAN† | 265    | 376    | 331    | 205   | 226   | 466    | 2,236  | 2,170  | 137   | 52.0  | 143   | 114   |
| CFSM† | .86    | 1.22   | 1.07   | .67   | .73   | 1.51   | 7.26   | 7.05   | .44   | .17   | .46   | .37   |
| IN.†  | .99    | 1.36   | 1.24   | .77   | .76   | 1.75   | 8.10   | 8.13   | .50   | .19   | .54   | .41   |

CAL YR 1970 TOTAL 218,781 MEAN 555 MAX 5,470 MIN 41 MEAN† 599 CFSM† 1.94 IN† 26.42  
WTR YR 1971 TOTAL 205,303 MEAN 562 MAX 5,610 MIN 17 MEAN† 561 CFSM† 1.82 IN† 24.74

† Adjusted for change in contents in Ball Mountain and Townshend Lakes.

NOTE.--No gage-height record Feb. 2 to Mar. 1.



01156500 Connecticut River at Vernon, Vt.

LOCATION.--Lat 42°46'10", long 72°30'50", Windham County, on right bank just downstream from Vernon Dam at Vernon, 2 miles upstream from Ashuelot River, and at mile 141.9.

DRAINAGE AREA.--6,266 sq mi.

PERIOD OF RECORD.--February to April 1936 (in WSP 798), September and October 1938 (in WSP 867), October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level; prior to Jan. 20, 1948, datum was 94.13 ft higher.

AVERAGE DISCHARGE.--27 years (1944-71), 10,130 cfs (21.95 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 65,500 cfs May 5 (gage height, 199.63 ft); minimum daily, 230 cfs June 20, July 11, 25, Aug. 22.

Period of record: Maximum discharge, 176,000 cfs Mar. 19, 20, 1936 (gage height, 128.8 ft, datum then in use), from rating curve extended above 86,000 cfs; minimum daily, 99 cfs Oct. 8, 1944.

Flood of Mar. 19, 20, 1936, is greatest since at least 1750, from historical data and information by local residents.

REMARKS.--Records good except those below 1,000 cfs, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs (see p. 209), and other reservoirs (combined usable capacity, about 29 billion cubic feet).

REVISIONS.--WSP 1031: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT             | NOV     | DEC        | JAN     | FEB        | MAR     | APR     | MAY     | JUN         | JUL    | AUG        | SEP     |           |  |
|-------------|-----------------|---------|------------|---------|------------|---------|---------|---------|-------------|--------|------------|---------|-----------|--|
| 1           | 6,110           | 662     | 7,460      | 2,300   | 4,800      | 8,000   | 7,780   | 39,100  | 8,450       | 4,860  | 654        | 3,910   |           |  |
| 2           | 6,280           | 5,180   | 6,850      | 2,700   | 4,100      | 8,000   | 10,100  | 39,000  | 9,410       | 4,070  | 3,180      | 4,880   |           |  |
| 3           | 2,930           | 3,620   | 7,540      | 1,600   | 3,300      | 7,800   | 12,800  | 42,900  | 8,490       | 930    | 4,020      | 6,480   |           |  |
| 4           | 2,720           | 2,770   | 8,940      | 3,500   | 3,300      | 8,400   | 17,500  | 57,100  | 6,630       | 580    | 7,050      | 4,130   |           |  |
| 5           | 7,440           | 3,540   | 11,700     | 3,300   | 6,500      | 8,300   | 20,100  | 63,900  | 4,940       | 260    | 7,450      | 791     |           |  |
| 6           | 6,540           | 3,380   | 5,430      | 2,700   | 1,900      | 6,400   | 17,900  | 59,200  | 3,410       | 2,320  | 7,410      | 255     |           |  |
| 7           | 5,700           | 2,060   | 7,240      | 4,500   | 750        | 5,600   | 18,000  | 52,400  | 6,970       | 1,720  | 2,200      | 4,380   |           |  |
| 8           | 7,390           | 1,020   | 6,310      | 4,200   | 5,000      | 5,600   | 17,100  | 46,500  | 6,960       | 2,210  | 1,220      | 3,930   |           |  |
| 9           | 7,010           | 2,340   | 6,280      | 4,500   | 5,000      | 7,400   | 14,800  | 42,500  | 7,090       | 2,390  | 5,430      | 5,960   |           |  |
| 10          | 1,950           | 2,910   | 5,280      | 3,900   | 4,600      | 7,600   | 16,200  | 41,600  | 7,860       | 929    | 3,350      | 2,200   |           |  |
| 11          | 1,700           | 3,110   | 5,540      | 3,800   | 3,600      | 7,800   | 18,800  | 38,900  | 6,790       | 230    | 3,630      | 1,010   |           |  |
| 12          | 4,420           | 4,890   | 4,490      | 3,200   | 3,500      | 6,600   | 24,900  | 39,100  | 4,260       | 2,200  | 3,420      | 2,080   |           |  |
| 13          | 4,710           | 5,410   | 1,820      | 4,700   | 2,800      | 7,200   | 31,900  | 39,000  | 4,630       | 1,260  | 1,730      | 3,530   |           |  |
| 14          | 3,330           | 2,500   | 6,550      | 5,400   | 2,600      | 5,000   | 45,500  | 41,400  | 5,430       | 2,380  | 1,080      | 4,530   |           |  |
| 15          | 5,290           | 2,740   | 5,490      | 4,900   | 1,800      | 7,000   | 45,500  | 35,600  | 3,790       | 2,280  | 240        | 4,060   |           |  |
| 16          | 5,490           | 6,770   | 4,600      | 2,500   | 4,600      | 8,600   | 35,400  | 29,700  | 3,490       | 1,930  | 2,100      | 6,220   |           |  |
| 17          | 6,770           | 6,240   | 4,100      | 700     | 7,000      | 13,000  | 30,300  | 25,200  | 3,120       | 744    | 2,230      | 4,920   |           |  |
| 18          | 4,630           | 5,690   | 4,900      | 5,100   | 7,700      | 13,000  | 27,200  | 21,300  | 3,430       | 1,430  | 2,740      | 3,470   |           |  |
| 19          | 6,540           | 6,050   | 2,600      | 4,900   | 5,500      | 14,000  | 26,400  | 20,800  | 2,540       | 4,760  | 1,960      | 3,460   |           |  |
| 20          | 6,910           | 5,940   | 3,000      | 4,800   | 4,500      | 13,500  | 38,800  | 13,600  | 230         | 2,970  | 2,100      | 4,090   |           |  |
| 21          | 6,170           | 3,680   | 6,900      | 4,600   | 4,000      | 13,000  | 49,900  | 15,600  | 5,280       | 2,940  | 432        | 4,160   |           |  |
| 22          | 6,140           | 6,510   | 4,800      | 4,300   | 6,000      | 12,500  | 56,700  | 15,600  | 2,290       | 2,750  | 230        | 3,730   |           |  |
| 23          | 5,680           | 8,330   | 5,400      | 1,800   | 6,800      | 12,000  | 54,800  | 16,900  | 2,680       | 3,910  | 3,480      | 4,510   |           |  |
| 24          | 6,230           | 10,600  | 4,100      | 1,000   | 5,600      | 10,000  | 47,900  | 14,800  | 4,350       | 1,120  | 2,550      | 4,270   |           |  |
| 25          | 3,490           | 8,490   | 2,700      | 4,000   | 5,600      | 9,000   | 41,700  | 14,400  | 3,820       | 230    | 2,830      | 1,040   |           |  |
| 26          | 6,800           | 7,260   | 5,200      | 3,200   | 5,200      | 8,600   | 37,600  | 14,900  | 5,740       | 4,150  | 2,440      | 240     |           |  |
| 27          | 6,840           | 7,470   | 5,800      | 5,500   | 6,000      | 6,700   | 36,000  | 17,200  | 2,800       | 3,630  | 8,360      | 3,390   |           |  |
| 28          | 6,940           | 3,300   | 5,500      | 4,700   | 5,600      | 4,860   | 36,000  | 15,300  | 3,300       | 838    | 10,800     | 1,720   |           |  |
| 29          | 6,570           | 3,270   | 5,300      | 3,000   | -----      | 8,900   | 39,100  | 14,000  | 2,160       | 1,520  | 11,800     | 2,230   |           |  |
| 30          | 4,230           | 7,900   | 5,200      | 2,500   | -----      | 8,400   | 42,900  | 13,900  | 4,370       | 2,980  | 13,200     | 2,440   |           |  |
| 31          | 1,110           | -----   | 4,800      | 2,100   | -----      | 8,570   | -----   | 11,500  | -----       | 2,050  | 7,020      | -----   |           |  |
| TOTAL       | 164,060         | 143,632 | 171,820    | 109,900 | 127,650    | 271,330 | 919,580 | 952,900 | 144,710     | 66,571 | 126,336    | 102,016 |           |  |
| MEAN        | 5,292           | 4,788   | 5,543      | 3,545   | 4,559      | 8,753   | 30,650  | 30,740  | 4,824       | 2,147  | 4,075      | 3,401   |           |  |
| MAX         | 7,440           | 10,600  | 11,700     | 5,500   | 7,700      | 14,000  | 56,700  | 63,900  | 9,410       | 4,860  | 13,200     | 6,480   |           |  |
| MIN         | 1,110           | 662     | 1,820      | 700     | 750        | 4,860   | 7,780   | 11,500  | 230         | 230    | 230        | 240     |           |  |
| MEAN†       | 5,339           | 4,576   | 4,628      | 2,864   | 3,938      | 7,062   | 31,950  | 33,850  | 4,756       | 2,069  | 4,209      | 2,967   |           |  |
| CFSM†       | .85             | .73     | .74        | .46     | .63        | 1.13    | 5.10    | 5.40    | .76         | .33    | .67        | .47     |           |  |
| IN.†        | .98             | .82     | .85        | .53     | .65        | 1.30    | 5.69    | 6.23    | .85         | .38    | .77        | .53     |           |  |
| CAL YR 1970 | TOTAL 3,564,752 |         | MEAN 9,766 |         | MAX 62,000 |         | MIN 230 |         | MEAN† 9,663 |        | CFSM† 1.54 |         | IN† 20.94 |  |
| WTR YR 1971 | TOTAL 3,300,505 |         | MEAN 9,042 |         | MAX 63,900 |         | MIN 230 |         | MEAN† 9,037 |        | CFSM† 1.44 |         | IN† 19.58 |  |

## PEAK DISCHARGE (BASE, 50,000 CFS)

| DATE | TIME | G. H.  | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|--------|-----------|------|------|-------|-----------|
| 4-22 | 1330 | 197.53 | 57,100    |      |      |       |           |
| 5-5  | 0415 | 199.63 | 65,500    |      |      |       |           |

† Adjusted for change in contents in all reservoirs from First Connecticut and Second Connecticut Lakes to lakes in West River basin listed on page 209.

01157000 Ashuelot River near Gilsum, N.H.

LOCATION.--Lat 43°02'21", long 72°16'14", Cheshire County, on right bank 50 ft downstream from White Brook, 60 ft upstream from stone-arch bridge just off Keene-Newport road, 0.7 mile downstream from Gilsum, and at mile 43.4.

DRAINAGE AREA.--71.1 sq mi.

PERIOD OF RECORD.--August 1922 to current year.

GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1942. Datum of gage is 772.86 ft above mean sea level (levels by Corps of Engineers); prior to Oct. 1, 1964, datum was 1.00 ft higher.

AVERAGE DISCHARGE.--49 years, 122 cfs (23.30 inches per year).

EXTREMES.--Current year: Maximum discharge, 959 cfs Apr. 14 (gage height, 6.31 ft); minimum, 3.2 cfs July 28, 29.

Period of record: Maximum discharge, 5,220 cfs Sept. 21, 1938 (gage height, 12.24 ft in gage well, present datum), from rating curve extended above 2,000 cfs on basis of float measurements at gage heights 11.66 and 11.72 ft and slope-area measurement at gage height 12.24 ft (all at present datum); maximum gage height, 13.80 ft, present datum, Mar. 19, 1936; minimum discharge, about 1 cfs Oct. 6, 1922, July 10, 1923, Nov. 14, 1952. Maximum discharge since at least 1859, that of Sept. 21, 1938.

REMARKS.--Records good except those for winter period, which are fair. Some regulation by reservoir above station. Prior to 1938, diurnal fluctuation caused by powerplant above station.

REVISIONS (WATER YEARS).--WSP 661: Drainage area. WSP 781: 1934(M). WSP 1231: 1923-27(M), 1928, 1929-30(M), 1931, 1932(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| 1     | 23    | 41    | 75    | 44    | 33    | 140   | 79     | 542   | 49    | 11    | 12    | 33    |
| 2     | 17    | 39    | 75    | 43    | 32    | 120   | 102    | 467   | 41    | 13    | 15    | 26    |
| 3     | 19    | 36    | 71    | 42    | 31    | 105   | 333    | 506   | 42    | 13    | 20    | 22    |
| 4     | 43    | 36    | 128   | 41    | 30    | 100   | 473    | 808   | 43    | 10    | 35    | 18    |
| 5     | 41    | 37    | 158   | 43    | 30    | 95    | 396    | 506   | 39    | 9.4   | 45    | 15    |
| 6     | 25    | 41    | 140   | 47    | 31    | 92    | 318    | 698   | 36    | 8.9   | 45    | 13    |
| 7     | 23    | 36    | 109   | 46    | 32    | 87    | 328    | 545   | 32    | 8.6   | 38    | 12    |
| 8     | 19    | 35    | 86    | 42    | 32    | 84    | 341    | 422   | 29    | 8.0   | 30    | 11    |
| 9     | 17    | 32    | 87    | 35    | 34    | 82    | 286    | 357   | 48    | 6.9   | 24    | 10    |
| 10    | 15    | 30    | 150   | 39    | 36    | 80    | 332    | 354   | 62    | 5.5   | 20    | 8.9   |
| 11    | 14    | 33    | 150   | 35    | 35    | 77    | 467    | 321   | 56    | 5.1   | 18    | 8.0   |
| 12    | 13    | 40    | 140   | 38    | 34    | 74    | 662    | 270   | 45    | 4.4   | 15    | 11    |
| 13    | 13    | 39    | 130   | 37    | 35    | 74    | 826    | 306   | 39    | 3.7   | 15    | 12    |
| 14    | 13    | 36    | 120   | 36    | 50    | 71    | 524    | 533   | 30    | 4.5   | 13    | 12    |
| 15    | 18    | 43    | 110   | 35    | 80    | 73    | 805    | 443   | 25    | 4.1   | 11    | 13    |
| 16    | 76    | 58    | 110   | 34    | 50    | 136   | 638    | 318   | 22    | 3.8   | 11    | 13    |
| 17    | 60    | 63    | 105   | 34    | 80    | 203   | 533    | 272   | 20    | 3.5   | 9.4   | 14    |
| 18    | 42    | 55    | 95    | 33    | 76    | 180   | 482    | 221   | 17    | 4.0   | 8.3   | 14    |
| 19    | 33    | 60    | 85    | 33    | 74    | 146   | 518    | 176   | 16    | 6.8   | 7.2   | 13    |
| 20    | 27    | 73    | 75    | 33    | 70    | 133   | 770    | 137   | 14    | 5.0   | 6.9   | 12    |
| 21    | 24    | 104   | 66    | 33    | 66    | 124   | 896    | 112   | 15    | 5.5   | 6.9   | 13    |
| 22    | 25    | 121   | 62    | 32    | 64    | 116   | 882    | 112   | 17    | 4.8   | 6.5   | 13    |
| 23    | 34    | 170   | 59    | 32    | 62    | 110   | 742    | 108   | 14    | 4.4   | 5.6   | 12    |
| 24    | 54    | 185   | 57    | 31    | 61    | 108   | 602    | 55    | 12    | 3.9   | 5.0   | 11    |
| 25    | 52    | 120   | 55    | 31    | 60    | 100   | 566    | 87    | 13    | 3.8   | 4.6   | 10    |
| 26    | 45    | 100   | 52    | 32    | 60    | 98    | 551    | 81    | 23    | 3.8   | 3.9   | 9.2   |
| 27    | 45    | 51    | 50    | 35    | 90    | 94    | 509    | 75    | 17    | 3.7   | 4.2   | 8.5   |
| 28    | 48    | 86    | 46    | 37    | 130   | 93    | 458    | 70    | 14    | 3.5   | 21    | 8.9   |
| 29    | 49    | 84    | 47    | 36    | ----- | 54    | 518    | 63    | 12    | 4.6   | 42    | 8.6   |
| 30    | 47    | 81    | 46    | 35    | ----- | 100   | 578    | 58    | 11    | 14    | 25    | 8.5   |
| 31    | 43    | ----- | 45    | 34    | ----- | 90    | -----  | 56    | ----- | 9.6   | 35    | ----- |
| TOTAL | 1,021 | 2,009 | 2,750 | 1,146 | 1,538 | 3,279 | 15,946 | 9,519 | 853   | 205.2 | 576.7 | 394.0 |
| MEAN  | 32.9  | 67.0  | 90.0  | 37.0  | 54.5  | 106   | 532    | 307   | 28.4  | 6.62  | 18.6  | 13.1  |
| MAX   | 76    | 185   | 158   | 47    | 130   | 203   | 924    | 506   | 62    | 14    | 45    | 33    |
| MIN   | 13    | 30    | 45    | 31    | 30    | 71    | 79     | 56    | 11    | 3.5   | 3.9   | 8.0   |
| CFSM  | .46   | .94   | 1.27  | .52   | .77   | 1.49  | 7.48   | 4.32  | .40   | .09   | .26   | .18   |
| IN.   | .53   | 1.05  | 1.46  | .60   | .80   | 1.72  | 8.34   | 4.58  | .45   | .11   | .30   | .21   |

CAL YR 1970 TOTAL 46,202.6 MEAN 127 MAX 1,060 MIN 2.2 CFSM 1.79 IN 24.17  
 WTR YR 1971 TOTAL 39,276.9 MEAN 108 MAX 924 MIN 3.5 CFSM 1.52 IN 20.55

PEAK DISCHARGE (BASE, 1,000 CFS).--No peak above base.

NOTE.--No gage-height record Jan. 19 to Mar. 11.

## CONNECTICUT RIVER BASIN

161

01158000 Ashuelot River below Surry Mountain Dam, near Keene, N. H.

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

DRAINAGE AREA.--101 sq. mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 480.00 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--26 years, 165 cfs (22.19 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 1,050 cfs Apr. 15 (gage height, 8.83 ft); minimum daily, 4.1 cfs July 18.

Period of record: Maximum discharge, 1,320 cfs Oct. 28, 1959 (gage height, 9.60 ft); minimum daily, 0.4 cfs Sept. 17, 1964.

REMARKS.--Records excellent. Flow regulated by Surry Mountain Lake (see p. 209).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 33    | 56    | 118   | 81    | 46    | 167   | 149    | 571    | 80    | 17    | 21    | 41    |
| 2     | 29    | 52    | 112   | 81    | 46    | 182   | 160    | 517    | 70    | 18    | 21    | 36    |
| 3     | 27    | 50    | 105   | 80    | 46    | 182   | 290    | 494    | 67    | 17    | 26    | 31    |
| 4     | 41    | 48    | 136   | 63    | 45    | 182   | 519    | 654    | 67    | 15    | 41    | 26    |
| 5     | 52    | 49    | 192   | 53    | 45    | 180   | 568    | 787    | 63    | 14    | 49    | 22    |
| 6     | 52    | 51    | 201   | 54    | 45    | 178   | 517    | 793    | 57    | 12    | 52    | 19    |
| 7     | 44    | 50    | 176   | 54    | 45    | 176   | 473    | 678    | 52    | 12    | 50    | 17    |
| 8     | 36    | 48    | 117   | 55    | 45    | 174   | 457    | 590    | 48    | 10    | 44    | 15    |
| 9     | 31    | 45    | 100   | 61    | 45    | 144   | 418    | 527    | 49    | 9.2   | 36    | 13    |
| 10    | 26    | 43    | 102   | 61    | 45    | 130   | 421    | 450    | 61    | 7.8   | 30    | 11    |
| 11    | 23    | 44    | 139   | 61    | 45    | 130   | 531    | 403    | 68    | 6.1   | 27    | 9.3   |
| 12    | 21    | 48    | 197   | 61    | 45    | 115   | 749    | 356    | 65    | 5.5   | 28    | 13    |
| 13    | 21    | 52    | 216   | 61    | 45    | 107   | 914    | 339    | 58    | 4.8   | 24    | 14    |
| 14    | 20    | 51    | 193   | 61    | 45    | 107   | 1,010  | 476    | 50    | 4.9   | 21    | 15    |
| 15    | 23    | 53    | 157   | 61    | 54    | 151   | 1,040  | 509    | 43    | 4.8   | 17    | 16    |
| 16    | 59    | 66    | 147   | 60    | 77    | 232   | 1,020  | 443    | 37    | 4.6   | 13    | 14    |
| 17    | 87    | 78    | 126   | 60    | 87    | 264   | 887    | 386    | 31    | 4.3   | 11    | 15    |
| 18    | 78    | 80    | 127   | 60    | 87    | 265   | 648    | 331    | 28    | 4.1   | 11    | 14    |
| 19    | 65    | 82    | 128   | 60    | 87    | 244   | 580    | 281    | 25    | 4.9   | 9.7   | 13    |
| 20    | 53    | 94    | 128   | 60    | 87    | 227   | 756    | 241    | 22    | 9.5   | 9.8   | 12    |
| 21    | 45    | 120   | 129   | 60    | 87    | 212   | 913    | 207    | 23    | 10    | 9.0   | 13    |
| 22    | 42    | 151   | 128   | 59    | 87    | 191   | 963    | 186    | 28    | 8.6   | 8.3   | 13    |
| 23    | 47    | 176   | 127   | 50    | 87    | 179   | 920    | 175    | 25    | 7.2   | 8.3   | 11    |
| 24    | 60    | 211   | 126   | 45    | 87    | 166   | 802    | 159    | 21    | 6.3   | 6.6   | 11    |
| 25    | 70    | 198   | 111   | 45    | 87    | 157   | 686    | 111    | 20    | 6.0   | 6.6   | 11    |
| 26    | 69    | 166   | 102   | 45    | 87    | 150   | 602    | 103    | 30    | 5.5   | 7.2   | 9.3   |
| 27    | 64    | 148   | 89    | 45    | 93    | 144   | 549    | 111    | 31    | 5.7   | 9.7   | 8.3   |
| 28    | 62    | 132   | 81    | 45    | 131   | 141   | 501    | 108    | 26    | 4.6   | 26    | 7.9   |
| 29    | 62    | 124   | 81    | 45    | ----- | 145   | 507    | 100    | 22    | 5.2   | 50    | 8.3   |
| 30    | 61    | 121   | 81    | 45    | ----- | 153   | 571    | 93     | 19    | 15    | 52    | 9.3   |
| 31    | 59    | ----- | 81    | 46    | ----- | 160   | -----  | 88     | ----- | 19    | 45    | ----- |
| TOTAL | 1,462 | 2,687 | 4,053 | 1,778 | 1,858 | 5,335 | 19,121 | 11,267 | 1,286 | 278.6 | 770.2 | 468.4 |
| MEAN  | 47.2  | 89.6  | 131   | 57.4  | 66.4  | 172   | 637    | 363    | 42.9  | 8.99  | 24.8  | 15.6  |
| MAX   | 87    | 211   | 216   | 81    | 131   | 265   | 1,040  | 793    | 80    | 19    | 52    | 41    |
| MIN   | 20    | 43    | 81    | 45    | 45    | 107   | 149    | 88     | 19    | 4.1   | 6.6   | 7.9   |
| MEAN† | 48.9  | 91.4  | 132   | 59.7  | 71.9  | 162   | 650    | 352    | 39.7  | 9.44  | 26.2  | 13.8  |
| CFSM† | .48   | .90   | 1.31  | .59   | .71   | 1.60  | 6.44   | 3.49   | .39   | .09   | .26   | .14   |
| IN.†  | .56   | 1.01  | 1.51  | .68   | .74   | 1.84  | 7.19   | 4.02   | .44   | .11   | .30   | .15   |

CAL YR 1970 TOTAL 59,232.5 MEAN 162 MAX 872 MIN 3.8 MEAN† 162 CFSM† 1.60 IN† 21.78  
 WTR YR 1971 TOTAL 50,364.2 MEAN 138 MAX 1,040 MIN 4.1 MEAN† 138 CFSM† 1.37 IN† 18.55

† Adjusted for change in contents in Surry Mountain Lake.

## CONNECTICUT RIVER BASIN

01158600 Otter Brook below Otter Brook Dam, near Keene, N. H.

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

DRAINAGE AREA.--47.2 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 658.65 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--13 years, 70.4 cfs (20.25 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 528 cfs Apr. 15 (gage height, 8.27 ft); minimum, 1.7 cfs July 29; minimum daily, 2.0 cfs Aug. 26.  
Period of record: Maximum discharge, 685 cfs Apr. 20, 1959 (gage height, 8.59 ft); minimum, 0.1 cfs Nov. 28, 1959; minimum daily, 0.3 cfs Sept. 27 to Oct. 2, Oct. 9, 10, 12-20, 1964.

REMARKS.--Records good. Flow regulated by Otter Brook Lake (see p. 209).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT             | NOV       | DEC     | JAN     | FEB        | MAR        | APR       | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|-----------------|-----------|---------|---------|------------|------------|-----------|-------|-------|-------|-------|-------|
| 1           | 15              | 15        | 41      | 27      | 23         | 76         | 68        | 232   | 43    | 8.1   | 23    | 16    |
| 2           | 14              | 15        | 37      | 23      | 23         | 85         | 73        | 203   | 37    | 10    | 17    | 12    |
| 3           | 13              | 14        | 35      | 22      | 23         | 85         | 246       | 216   | 33    | 9.6   | 15    | 9.4   |
| 4           | 17              | 14        | 64      | 22      | 23         | 74         | 355       | 317   | 37    | 7.4   | 27    | 7.7   |
| 5           | 23              | 23        | 86      | 22      | 23         | 65         | 318       | 332   | 33    | 6.9   | 24    | 6.4   |
| 6           | 19              | 25        | 75      | 24      | 23         | 65         | 274       | 251   | 27    | 6.6   | 17    | 5.4   |
| 7           | 20              | 21        | 52      | 28      | 23         | 65         | 246       | 199   | 23    | 6.3   | 13    | 5.2   |
| 8           | 16              | 18        | 38      | 34      | 23         | 64         | 211       | 165   | 21    | 5.7   | 11    | 5.2   |
| 9           | 12              | 16        | 37      | 36      | 23         | 49         | 173       | 157   | 23    | 5.2   | 8.5   | 4.6   |
| 10          | 11              | 15        | 40      | 36      | 23         | 43         | 208       | 199   | 19    | 5.2   | 6.8   | 3.9   |
| 11          | 10              | 16        | 49      | 31      | 23         | 43         | 317       | 165   | 16    | 4.4   | 6.3   | 3.2   |
| 12          | 10              | 17        | 44      | 29      | 23         | 43         | 411       | 127   | 13    | 4.2   | 8.2   | 3.0   |
| 13          | 9.6             | 25        | 41      | 29      | 23         | 58         | 443       | 156   | 12    | 3.6   | 7.5   | 3.0   |
| 14          | 9.9             | 30        | 41      | 29      | 23         | 66         | 478       | 269   | 10    | 4.0   | 6.3   | 8.4   |
| 15          | 13              | 31        | 36      | 25      | 34         | 53         | 513       | 196   | 9.2   | 4.0   | 5.5   | 12    |
| 16          | 28              | 38        | 31      | 24      | 42         | 118        | 511       | 158   | 8.1   | 3.6   | 4.6   | 11    |
| 17          | 30              | 39        | 30      | 24      | 57         | 138        | 438       | 165   | 7.1   | 3.6   | 3.8   | 12    |
| 18          | 24              | 35        | 30      | 24      | 66         | 126        | 284       | 149   | 6.0   | 3.8   | 3.1   | 13    |
| 19          | 19              | 32        | 30      | 24      | 53         | 124        | 303       | 116   | 5.2   | 5.2   | 2.7   | 11    |
| 20          | 15              | 37        | 34      | 23      | 43         | 88         | 441       | 101   | 4.4   | 11    | 2.9   | 8.8   |
| 21          | 14              | 48        | 36      | 23      | 43         | 67         | 487       | 89    | 7.7   | 9.1   | 3.2   | 9.2   |
| 22          | 14              | 48        | 36      | 23      | 42         | 71         | 510       | 105   | 29    | 6.6   | 3.0   | 9.5   |
| 23          | 17              | 56        | 36      | 23      | 43         | 75         | 428       | 103   | 20    | 6.7   | 2.6   | 8.2   |
| 24          | 23              | 67        | 36      | 23      | 43         | 70         | 326       | 86    | 13    | 5.0   | 2.5   | 6.8   |
| 25          | 25              | 58        | 36      | 23      | 43         | 69         | 315       | 75    | 10    | 4.0   | 2.3   | 5.6   |
| 26          | 24              | 50        | 36      | 23      | 42         | 69         | 280       | 70    | 20    | 3.1   | 2.0   | 4.8   |
| 27          | 23              | 45        | 36      | 23      | 43         | 68         | 245       | 65    | 21    | 2.7   | 2.7   | 4.3   |
| 28          | 21              | 42        | 35      | 23      | 54         | 68         | 219       | 58    | 15    | 2.1   | 28    | 4.2   |
| 29          | 19              | 41        | 31      | 23      | -----      | 68         | 238       | 53    | 10    | 3.2   | 49    | 4.0   |
| 30          | 18              | 42        | 29      | 23      | -----      | 68         | 268       | 51    | 8.8   | 28    | 33    | 4.0   |
| 31          | 16              | -----     | 29      | 23      | -----      | 68         | -----     | 48    | ----- | 24    | 22    | ----- |
| TOTAL       | 542.5           | 973       | 1,247   | 789     | 970        | 2,289      | 9,627     | 4,676 | 541.5 | 212.9 | 363.5 | 221.8 |
| MEAN        | 17.5            | 32.4      | 40.2    | 25.5    | 34.6       | 73.8       | 321       | 151   | 18.1  | 6.87  | 11.7  | 7.39  |
| MAX         | 30              | 67        | 86      | 36      | 66         | 138        | 513       | 332   | 43    | 28    | 49    | 16    |
| MIN         | 9.6             | 14        | 29      | 22      | 23         | 43         | 68        | 48    | 4.4   | 2.1   | 2.0   | 3.0   |
| MEAN†       | 17.5            | 32.8      | 40.6    | 23.4    | 38.6       | 70.2       | 324       | 149   | 17.5  | 5.97  | 13.0  | 6.85  |
| CFSM†       | .37             | .69       | .86     | .50     | .82        | 1.49       | 6.86      | 3.16  | .37   | .13   | .28   | .15   |
| IN.†        | .43             | .78       | .99     | .57     | .85        | 1.72       | 7.67      | 3.64  | .41   | .15   | .32   | .16   |
| CAL YR 1970 | TOTAL 26,689.96 | MEAN 73.1 | MAX 528 | MIN .89 | MEAN† 73.0 | CFSM† 1.55 | IN† 20.99 |       |       |       |       |       |
| WTR YR 1971 | TOTAL 22,453.20 | MEAN 61.5 | MAX 513 | MIN 2.0 | MEAN† 61.5 | CFSM† 1.30 | IN† 17.69 |       |       |       |       |       |

† Adjusted for change in contents in Otter Brook Lake.

01160000 South Branch Ashuelot River at Webb, near Marlborough, N. H.

LOCATION.--Lat 42°52'20", long 72°12'51", Cheshire County, on right bank 15 ft downstream from bridge, at Webb, 2.5 miles south of Marlborough, and at mile 10.9.

DRAINAGE AREA.--36.0 sq mi.

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

GAGE.--Water-stage recorder. Concrete control since July 18, 1938. Datum of gage is 667.11 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--51 years, 57.8 cfs (21.80 inches per year).

EXTREMES.--Current year: Maximum discharge, 545 cfs Apr. 14 (gage height, 5.11 ft); minimum, 3.5 cfs July 17, 18, 19; minimum daily, 3.7 cfs July 18. Period of record: Maximum discharge, 5,960 cfs Sept. 21, 1938 (gage height, 7.89 ft), from rating curve extended above 3,300 cfs on basis of contracted-opening and slope-area measurements of peak flow; maximum gage height, 9.70 ft Mar. 12, 1936 (ice jam); practically no flow Mar. 22, 1931; minimum daily discharge, 0.4 cfs Sept. 15-17, 1926.

REVISIONS.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in WRD Mass., N. H., R. I., Vt. 1966-69.

| Water year | Date          | Discharge (cfs) | Gage height (feet) |
|------------|---------------|-----------------|--------------------|
| 1966       | Mar. 25, 1966 | 828             | 5.47               |
| 1967       | Apr. 3, 1967  | 750             | 5.39               |
| 1968       | Mar. 18, 1968 | 1,260           | 5.99               |
| 1969       | Apr. 11, 1969 | 1,030           | 5.79               |

REMARKS.--Records good except those for winter period, which are fair. Regulation at times prior to 1962 by powerplant and several small reservoirs above station; regulation greater prior to 1956. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 641: 1925(M). WSP 871: Drainage area. WSP 1231: 1921-24(M), 1926(M), 1929, 1933-34(M), 1939. Revised figures of discharge, in cubic feet per second, for high-water periods in water years 1967-69, superseding figures published in WRD Mass., N. H., R. I., Vt., 1967-69 are given herewith:

| Date   | Discharge | Date    | Discharge | Date   | Discharge | Date      | Discharge |
|--------|-----------|---------|-----------|--------|-----------|-----------|-----------|
| 1967   |           | 1968    |           | 1969   |           | 1969-Con. |           |
| Apr. 2 | 335       | Mar. 18 | 760       | Apr. 5 | 355       | Apr. 13   | 335       |
| 3      | 628       | 19      | 773       | 6      | 528       | 14        | 310       |
| 4      | 440       | 20      | 540       | 7      | 455       | 15        | 300       |
| 18     | 407       | 21      | 499       | 8      | 435       | 16        | 295       |
| May 10 | 435       | 22      | 534       | 9      | 390       | 17        | 295       |
| 26     | 663       | 23      | 472       | 10     | 596       | 19        | 310       |
| 27     | 494       | 24      | 670       | 11     | 758       | 23        | 505       |
| 28     | 345       | 25      | 330       | 12     | 461       | 24        | 420       |

| Month            | Cfs-days | Maximum | Minimum | Mean | Per square mile | Runoff in inches |
|------------------|----------|---------|---------|------|-----------------|------------------|
| April 1967.....  | 6,774    | 628     | 79      | 226  | 6.28            | 7.00             |
| May 1967.....    | 5,558    | 663     | 59      | 179  | 4.97            | 5.74             |
| WTR YR 1967..... | 21,035.2 | 663     | 2.5     | 57.6 | 1.60            | 21.74            |
| CAL YR 1967..... | 21,898.7 | 663     | 3.3     | 60.0 | 1.67            | 22.63            |
| March 1968.....  | 6,026    | 773     | 16      | 194  | 5.39            | 6.23             |
| WTR YR 1968..... | 20,389.2 | 773     | 1.5     | 55.7 | 1.55            | 21.07            |
| CAL YR 1968..... | 22,171.8 | 773     | 1.5     | 60.6 | 1.68            | 22.91            |
| April 1969.....  | 8,829    | 758     | 86      | 294  | 8.17            | 9.12             |
| WTR YR 1969..... | 25,857.0 | 758     | 3.3     | 70.8 | 1.97            | 26.72            |
| CAL YR 1969..... | 27,738.2 | 758     | 7.3     | 76.0 | 2.11            | 28.66            |

Revised peak discharge.--1966: Mar. 25 (1045) 828 cfs (5.47 ft).

1967: Apr. 3 (1830) 750 cfs (5.39 ft); May 10 (0415) 579 cfs (5.13 ft); May 26 (0100) 698 cfs (5.32 ft).

1968: Mar. 18 (1215) 1,260 cfs (5.99 ft); Mar. 24 (0115) 1,000 cfs (5.73 ft); June 14 (0145) 990 cfs (5.72 ft); June 28 (2030) 505 cfs (5.00 ft).

1969: Dec. 5 (0645) 583 cfs (5.15 ft); Apr. 6 (1945) 577 cfs (5.15 ft); Apr. 11 (0115) 1,030 cfs (5.79 ft);

Apr. 23 (0845) 616 cfs (5.22 ft); June 16 (0245) 649 cfs (5.29 ft); July 29 (1430) 483 cfs (4.97 ft); Aug. 5 (1045) 705 cfs (5.38 ft).

## CONNECTICUT RIVER BASIN

01160000 South Branch Ashuelot River at Webb, near Marlborough, N.H.--Continued

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 7.5   | 9.5   | 22   | 18   | 17    | 86    | 65    | 133   | 34    | 10    | 43    | 17    |
| 2     | 6.8   | 9.3   | 23   | 18   | 17    | 71    | 91    | 112   | 29    | 27    | 28    | 13    |
| 3     | 7.3   | 8.8   | 20   | 19   | 16    | 59    | 321   | 134   | 33    | 20    | 22    | 11    |
| 4     | 15    | 9.3   | 44   | 20   | 16    | 55    | 344   | 296   | 49    | 13    | 31    | 10    |
| 5     | 16    | 13    | 53   | 26   | 16    | 55    | 279   | 207   | 37    | 9.3   | 27    | 9.5   |
| 6     | 12    | 20    | 41   | 31   | 17    | 51    | 232   | 133   | 30    | 7.9   | 19    | 9.1   |
| 7     | 9.8   | 26    | 35   | 30   | 18    | 45    | 207   | 107   | 24    | 7.7   | 14    | 8.1   |
| 8     | 8.6   | 21    | 29   | 27   | 18    | 45    | 162   | 91    | 20    | 7.3   | 11    | 7.7   |
| 9     | 7.7   | 19    | 26   | 26   | 22    | 42    | 131   | 101   | 22    | 6.6   | 9.3   | 7.5   |
| 10    | 6.8   | 13    | 25   | 24   | 22    | 39    | 202   | 179   | 19    | 6.4   | 8.3   | 6.2   |
| 11    | 6.4   | 11    | 23   | 22   | 20    | 36    | 320   | 122   | 15    | 6.0   | 12    | 5.8   |
| 12    | 6.2   | 12    | 22   | 21   | 19    | 34    | 377   | 95    | 14    | 5.4   | 37    | 9.5   |
| 13    | 5.8   | 12    | 21   | 20   | 20    | 33    | 440   | 167   | 16    | 5.0   | 27    | 14    |
| 14    | 5.6   | 11    | 21   | 20   | 30    | 32    | 479   | 275   | 16    | 4.8   | 17    | 17    |
| 15    | 6.4   | 13    | 20   | 20   | 45    | 35    | 353   | 150   | 16    | 4.4   | 12    | 23    |
| 16    | 27    | 24    | 19   | 20   | 55    | 96    | 270   | 110   | 15    | 4.1   | 9.5   | 20    |
| 17    | 30    | 24    | 22   | 18   | 61    | 118   | 198   | 126   | 9.1   | 3.9   | 8.8   | 17    |
| 18    | 21    | 20    | 25   | 17   | 56    | 100   | 182   | 102   | 8.8   | 3.7   | 7.9   | 16    |
| 19    | 16    | 19    | 25   | 17   | 49    | 82    | 222   | 84    | 7.1   | 4.8   | 7.1   | 14    |
| 20    | 13    | 23    | 25   | 16   | 45    | 75    | 311   | 73    | 6.6   | 7.1   | 6.6   | 12    |
| 21    | 11    | 32    | 24   | 16   | 43    | 67    | 323   | 65    | 8.6   | 6.6   | 6.0   | 13    |
| 22    | 11    | 32    | 23   | 16   | 40    | 59    | 279   | 78    | 17    | 6.0   | 5.6   | 12    |
| 23    | 14    | 43    | 23   | 16   | 39    | 55    | 215   | 72    | 13    | 5.6   | 5.8   | 11    |
| 24    | 20    | 43    | 23   | 16   | 38    | 51    | 163   | 60    | 9.5   | 5.4   | 5.2   | 10    |
| 25    | 19    | 32    | 23   | 17   | 35    | 49    | 171   | 53    | 8.6   | 5.2   | 4.6   | 9.1   |
| 26    | 17    | 25    | 22   | 19   | 32    | 45    | 157   | 50    | 21    | 4.8   | 4.4   | 8.3   |
| 27    | 15    | 22    | 22   | 23   | 55    | 43    | 133   | 45    | 20    | 4.6   | 5.0   | 8.1   |
| 28    | 14    | 19    | 22   | 27   | 95    | 43    | 116   | 42    | 14    | 4.2   | 75    | 7.3   |
| 29    | 12    | 20    | 21   | 23   | ----- | 47    | 160   | 38    | 11    | 9.1   | 116   | 6.8   |
| 30    | 11    | 21    | 20   | 21   | ----- | 57    | 175   | 34    | 9.8   | 175   | 50    | 6.4   |
| 31    | 9.8   | ----- | 19   | 19   | ----- | 61    | ----- | 34    | ----- | 75    | 27    | ----- |
| TOTAL | 388.7 | 606.9 | 783  | 643  | 956   | 1,766 | 7,078 | 3,368 | 553.1 | 465.9 | 662.1 | 339.4 |
| MEAN  | 12.5  | 20.2  | 25.3 | 20.7 | 34.1  | 57.0  | 236   | 109   | 18.4  | 15.0  | 21.4  | 11.3  |
| MAX   | 30    | 43    | 53   | 31   | 95    | 118   | 479   | 296   | 49    | 175   | 116   | 23    |
| MIN   | 5.6   | 8.8   | 19   | 16   | 16    | 32    | 65    | 34    | 6.6   | 3.7   | 4.4   | 5.8   |
| CFSM  | .35   | .56   | .70  | .58  | .95   | 1.58  | 6.56  | 3.03  | .51   | .42   | .59   | .31   |
| IN.   | .40   | .63   | .81  | .66  | .99   | 1.82  | 7.31  | 3.48  | .57   | .48   | .68   | .35   |

CAL YR 1970 TOTAL 21,715.8 MEAN 59.5 MAX 738 MIN 3.4 CFSM 1.65 IN 22.44  
WTR YR 1971 TOTAL 17,610.1 MEAN 48.2 MAX 479 MIN 3.7 CFSM 1.34 IN 18.20

PEAK DISCHARGE (BASE, 550 CFS).-- No peak above base.



## 01161000 Ashuelot River at Hinsdale, N.H.

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

DRAINAGE AREA.--420 sq mi.

PERIOD OF RECORD.--March 1907 to December 1911, July 1914 to current year.

GAGE.--Water-stage recorder. Datum of gage is 101.32 ft above mean sea level (levels by Corps of Engineers). Prior to Sept. 29, 1933, nonrecording gage on highway bridge at same datum.

AVERAGE DISCHARGE.--61 years, 646 cfs (20.89 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 3,840 cfs Apr. 14 (gage height, 6.92 ft); minimum, 56 cfs about July 18, 28; minimum daily, 60 cfs July 18, 28.

Period of record: Maximum discharge, 16,600 cfs Mar. 19, 1936, by computation of peak flow over dam; maximum gage height, 20.2 ft Mar. 19, 1936, from floodmarks (backwater from Connecticut River); minimum discharge, 10 cfs Sept. 9, 1953; minimum daily, 12 cfs Sept. 15, 1929. Maximum discharge since at least 1859, that of Mar. 19, 1936.

REMARKS.--Records good except those for winter period and periods of no gage-height record, which are fair. Flow regulated by Surry Mountain Lake 33 miles upstream since 1942 and by Otter Brook Lake 29 miles upstream since 1958 (see p. 209). Occasional diurnal fluctuation at low flow by mills above station; greater regulation prior to 1952.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC       | JAN    | FEB       | MAR        | APR       | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------------|---------------|----------|-----------|--------|-----------|------------|-----------|--------|-------|-------|-------|-------|
| 1           | 137           | 174      | 383       | 240    | 210       | 796        | 891       | 1,810  | 426   | 132   | 400   | 220   |
| 2           | 130           | 169      | 358       | 235    | 196       | 864        | 988       | 1,660  | 371   | 156   | 340   | 170   |
| 3           | 128           | 166      | 335       | 235    | 193       | 844        | 1,700     | 1,590  | 349   | 154   | 300   | 150   |
| 4           | 179           | 169      | 443       | 230    | 189       | 764        | 2,550     | 2,120  | 400   | 135   | 330   | 130   |
| 5           | 225           | 182      | 700       | 270    | 193       | 685        | 2,670     | 2,440  | 376   | 115   | 330   | 115   |
| 6           | 218           | 218      | 679       | 309    | 154       | 674        | 2,480     | 2,250  | 309   | 101   | 250   | 105   |
| 7           | 194           | 208      | 581       | 301    | 197       | 651        | 2,270     | 2,000  | 272   | 100   | 190   | 98    |
| 8           | 185           | 193      | 420       | 288    | 196       | 601        | 2,030     | 1,710  | 251   | 91    | 150   | 94    |
| 9           | 166           | 182      | 364       | 279    | 207       | 578        | 1,810     | 1,570  | 234   | 85    | 125   | 90    |
| 10          | 154           | 171      | 352       | 270    | 216       | 501        | 1,860     | 1,720  | 224   | 80    | 115   | 88    |
| 11          | 142           | 171      | 324       | 260    | 211       | 477        | 2,310     | 1,660  | 215   | 76    | 113   | 90    |
| 12          | 135           | 185      | 358       | 250    | 202       | 457        | 2,870     | 1,430  | 202   | 73    | 137   | 100   |
| 13          | 133           | 185      | 413       | 238    | 200       | 421        | 3,340     | 1,390  | 190   | 71    | 159   | 120   |
| 14          | 128           | 188      | 443       | 231    | 273       | 431        | 3,780     | 2,020  | 179   | 68    | 142   | 140   |
| 15          | 137           | 199      | 390       | 242    | 360       | 443        | 3,770     | 2,060  | 168   | 68    | 119   | 160   |
| 16          | 205           | 257      | 335       | 225    | 381       | 667        | 3,420     | 1,740  | 157   | 66    | 104   | 170   |
| 17          | 288           | 297      | 347       | 220    | 446       | 1,140      | 3,020     | 1,610  | 148   | 63    | 98    | 160   |
| 18          | 284           | 292      | 324       | 210    | 467       | 1,210      | 2,610     | 1,480  | 135   | 60    | 87    | 150   |
| 19          | 245           | 284      | 318       | 200    | 459       | 1,130      | 2,220     | 1,280  | 123   | 62    | 79    | 140   |
| 20          | 212           | 314      | 318       | 200    | 405       | 988        | 2,380     | 1,100  | 113   | 80    | 74    | 130   |
| 21          | 188           | 405      | 318       | 199    | 368       | 931        | 2,740     | 955    | 109   | 82    | 70    | 140   |
| 22          | 182           | 465      | 320       | 202    | 348       | 823        | 2,900     | 901    | 167   | 74    | 69    | 130   |
| 23          | 192           | 510      | 310       | 212    | 344       | 787        | 2,830     | 915    | 192   | 70    | 68    | 120   |
| 24          | 218           | 616      | 310       | 205    | 342       | 729        | 2,530     | 834    | 158   | 66    | 65    | 110   |
| 25          | 235           | 602      | 300       | 199    | 337       | 674        | 2,230     | 745    | 139   | 64    | 63    | 100   |
| 26          | 231           | 518      | 290       | 200    | 341       | 652        | 2,040     | 657    | 176   | 62    | 63    | 92    |
| 27          | 222           | 443      | 280       | 222    | 431       | 633        | 1,840     | 617    | 194   | 61    | 67    | 85    |
| 28          | 208           | 405      | 275       | 231    | 619       | 633        | 1,650     | 589    | 169   | 60    | 148   | 80    |
| 29          | 196           | 375      | 270       | 230    | -----     | 663        | 1,630     | 534    | 142   | 80    | 460   | 76    |
| 30          | 188           | 383      | 260       | 231    | -----     | 754        | 1,820     | 480    | 124   | 250   | 470   | 74    |
| 31          | 182           | -----    | 250       | 220    | -----     | 640        | -----     | 456    | ----- | 370   | 350   | ----- |
| TOTAL       | 5,870         | 8,926    | 11,368    | 7,284  | 8,525     | 22,441     | 71,179    | 42,363 | 6,412 | 3,075 | 5,535 | 3,627 |
| MEAN        | 185           | 298      | 367       | 235    | 304       | 724        | 2,373     | 1,367  | 214   | 99.2  | 179   | 121   |
| MAX         | 288           | 616      | 700       | 309    | 619       | 1,210      | 3,780     | 2,440  | 426   | 370   | 470   | 220   |
| MIN         | 128           | 166      | 250       | 199    | 189       | 421        | 891       | 456    | 109   | 60    | 63    | 74    |
| MEAN†       | 191           | 300      | 369       | 235    | 314       | 710        | 2,389     | 1,353  | 210   | 98.7  | 181   | 119   |
| CFSM†       | .45           | .71      | .88       | .56    | .75       | 1.69       | 5.69      | 3.22   | .50   | .24   | .43   | .28   |
| IN.†        | .52           | .80      | 1.01      | .65    | .78       | 1.95       | 6.35      | 3.72   | .56   | .27   | .50   | .31   |
| CAL YR 1970 | TOTAL 255,574 | MEAN 700 | MAX 4,600 | MIN 57 | MEAN† 700 | CFSM† 1.67 | INT 22.62 |        |       |       |       |       |
| WTR YR 1971 | TOTAL 196,605 | MEAN 539 | MAX 3,780 | MIN 60 | MEAN† 539 | CFSM† 1.28 | INT 17.41 |        |       |       |       |       |

† Adjusted for change in contents in Surry Mountain and Otter Brook Lakes.

NOTE.--No gage-height record July 16 to Aug. 10, Aug. 30 to Sept. 30.

## 01161500 Tarbell Brook near Winchendon, Mass.

LOCATION.--Lat 42°42'45", long 72°05'09", Worcester County, on left bank 0.1 mile downstream from Spud Brook, 0.3 mile downstream from Massachusetts-New Hampshire State line, and 2.8 miles northwest of Winchendon.

DRAINAGE AREA.--18.2 sq mi.

PERIOD OF RECORD.--May 1916 to current year. Prior to October 1950, published as Sip Pond Brook near Winchendon.

GAGE.--Water-stage recorder. Concrete control since Sept. 24, 1965. Datum of gage is 872.82 ft above mean sea level. May 29 to June 29, 1916, non-recording 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 downstream at same datum.

AVERAGE DISCHARGE.--55 years, 28.8 cfs (21.49 inches per year).

EXTREMES.--Current year: Maximum discharge, 184 cfs Apr. 14 (gage height, 8.51 ft); minimum, 1.4 cfs Aug. 25-27.

Period of record: Maximum discharge, 2,630 cfs Sept. 21, 1938 (gage height, 13.72 ft); from rating curve extended above 1,200 cfs on basis of critical-depth study at control section; minimum, 0.1 cfs Aug. 25, 1924.

REMARKS.--Records good except those for winter period, which are fair. Some regulation by Pearly and Sip Ponds and Damon Reservoirs 1 mile upstream. Prior to 1967, greater regulation by these reservoirs and by small mill above station.

REVISIONS (WATER YEARS).--WSP 781: 1934. WSP 871: Drainage area. WSP 1051: 1928(M), 1933-34. WSP 1301: 1917(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN  | FEB   | MAR  | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|------|------|-------|------|-------|-------|-------|-------|-------|-------|
| 1     | 6.5   | 7.2   | 18   | 14   | 12    | 33   | 38    | 84    | 11    | 9.1   | 4.7   | 4.9   |
| 2     | 6.8   | 7.2   | 17   | 14   | 11    | 32   | 45    | 72    | 11    | 10    | 12    | 4.2   |
| 3     | 6.2   | 7.2   | 16   | 13   | 11    | 31   | 79    | 68    | 15    | 8.2   | 8.5   | 4.9   |
| 4     | 8.5   | 8.8   | 31   | 12   | 10    | 31   | 121   | 83    | 16    | 6.2   | 9.8   | 3.5   |
| 5     | 8.2   | 17    | 55   | 15   | 10    | 31   | 127   | 92    | 14    | 6.0   | 7.5   | 3.2   |
| 6     | 11    | 16    | 49   | 18   | 10    | 29   | 122   | 85    | 13    | 6.0   | 6.5   | 2.6   |
| 7     | 11    | 11    | 32   | 18   | 11    | 27   | 121   | 68    | 12    | 5.7   | 4.7   | 2.8   |
| 8     | 8.8   | 13    | 26   | 17   | 11    | 26   | 116   | 58    | 11    | 5.5   | 4.7   | 2.8   |
| 9     | 7.5   | 13    | 23   | 16   | 12    | 24   | 103   | 53    | 9.8   | 4.4   | 6.0   | 3.0   |
| 10    | 6.8   | 12    | 21   | 15   | 12    | 24   | 95    | 54    | 8.5   | 3.5   | 3.7   | 3.0   |
| 11    | 6.2   | 14    | 19   | 14   | 11    | 22   | 106   | 50    | 7.8   | 3.0   | 3.7   | 3.2   |
| 12    | 6.0   | 13    | 19   | 12   | 11    | 21   | 129   | 44    | 7.2   | 3.0   | 4.4   | 14    |
| 13    | 6.8   | 13    | 19   | 13   | 12    | 21   | 150   | 45    | 6.8   | 3.0   | 3.5   | 15    |
| 14    | 6.0   | 13    | 19   | 12   | 22    | 21   | 179   | 64    | 6.2   | 3.7   | 3.5   | 14    |
| 15    | 8.8   | 17    | 17   | 12   | 25    | 22   | 166   | 65    | 6.0   | 4.9   | 3.4   | 12    |
| 16    | 11    | 24    | 15   | 12   | 23    | 41   | 144   | 56    | 5.5   | 5.5   | 3.5   | 11    |
| 17    | 11    | 20    | 18   | 11   | 22    | 50   | 125   | 56    | 5.5   | 3.7   | 3.4   | 12    |
| 18    | 8.2   | 16    | 19   | 11   | 22    | 47   | 110   | 51    | 6.5   | 3.5   | 3.2   | 11    |
| 19    | 8.2   | 16    | 17   | 11   | 22    | 45   | 102   | 44    | 4.4   | 5.7   | 2.6   | 8.8   |
| 20    | 8.2   | 17    | 16   | 10   | 22    | 45   | 106   | 38    | 3.5   | 5.5   | 2.8   | 7.2   |
| 21    | 4.9   | 20    | 15   | 10   | 22    | 41   | 115   | 34    | 3.9   | 3.2   | 3.0   | 7.5   |
| 22    | 5.2   | 21    | 15   | 10   | 24    | 40   | 119   | 36    | 6.0   | 2.8   | 2.5   | 6.8   |
| 23    | 8.8   | 27    | 16   | 11   | 22    | 37   | 112   | 36    | 8.2   | 3.0   | 2.1   | 5.7   |
| 24    | 17    | 26    | 16   | 10   | 21    | 36   | 102   | 32    | 6.8   | 2.8   | 1.8   | 5.2   |
| 25    | 14    | 24    | 16   | 11   | 21    | 33   | 94    | 29    | 6.8   | 3.0   | 1.7   | 4.4   |
| 26    | 12    | 21    | 15   | 11   | 20    | 31   | 89    | 26    | 9.5   | 3.0   | 1.4   | 4.4   |
| 27    | 9.5   | 19    | 15   | 14   | 25    | 30   | 81    | 24    | 7.5   | 4.2   | 7.8   | 3.4   |
| 28    | 9.5   | 17    | 14   | 15   | 33    | 29   | 72    | 22    | 7.8   | 4.2   | 11    | 3.5   |
| 29    | 9.8   | 18    | 14   | 14   | ----- | 29   | 73    | 20    | 6.8   | 3.7   | 4.2   | 3.7   |
| 30    | 7.2   | 18    | 14   | 13   | ----- | 32   | 86    | 18    | 6.5   | 8.5   | 3.2   | 3.5   |
| 31    | 7.2   | ----- | 14   | 12   | ----- | 34   | ----- | 15    | ----- | 6.2   | 4.2   | ----- |
| TOTAL | 266.8 | 486.4 | 630  | 401  | 490   | 995  | 3,227 | 1,522 | 250.5 | 150.7 | 145.0 | 191.2 |
| MEAN  | 8.61  | 16.2  | 20.3 | 12.9 | 17.5  | 32.1 | 108   | 49.1  | 8.35  | 4.86  | 4.68  | 6.37  |
| MAX   | 17    | 27    | 55   | 18   | 33    | 50   | 179   | 92    | 16    | 10    | 12    | 15    |
| MIN   | 4.9   | 7.2   | 14   | 10   | 10    | 21   | 38    | 15    | 3.5   | 2.8   | 1.4   | 2.6   |
| CFSM  | 4.7   | .89   | 1.12 | .71  | .96   | 1.76 | 5.93  | 2.70  | .46   | .27   | .26   | .35   |
| IN.   | .55   | .99   | 1.29 | .82  | 1.00  | 2.03 | 6.60  | 3.11  | .51   | .31   | .30   | .39   |

CAL YR 1970 TOTAL 11,886.6 MEAN 32.6 MAX 210 MIN 3.7 CFSM 1.79 IN 24.30  
WTR YR 1971 TOTAL 8,755.6 MEAN 24.0 MAX 179 MIN 1.4 CFSM 1.32 IN 17.90

## PEAK DISCHARGE (BASE, 150 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-14 | 0830 | 8.51  | 184       |      |      |       |           |

01162000 Millers River near Winchendon, Mass.

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

DRAINAGE AREA.--83.0 sq mi.

PERIOD OF RECORD.--June 1916 to current year. March to May 1917, monthly discharge only, published in WSP 1301.

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

AVERAGE DISCHARGE.--55 years, 139 cfs (22.74 inches per year).

EXTREMES.--Maximum discharge, 763 cfs Apr. 14 (gage height, 7.21 ft); minimum daily, 16 cfs July 25, 26, Aug. 26.

Period of record: Maximum discharge, 8,500 cfs Sept. 22, 1938 (gage height, 21.55 ft, from floodmarks), from rating curve extended above 2,000 cfs on basis of computation of peak flow over dam; practically no flow because of regulation Sept. 20, 1918, Jan. 14, 1925..

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Lake Monomonic 6 miles upstream and other reservoirs and, prior to 1957, by powerplant.

REVISIONS (WATER YEARS).--WSP 451: 1916. WSP 871: Drainage area. WSP 1051: 1919, 1920-21(M), 1922-24, 1928(M), 1933-34.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| CAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| 1     | 65    | 88    | 54    | 46    | 44    | 154   | 178    | 400   | 58    | 72    | 61    | 30    |
| 2     | 81    | 86    | 49    | 46    | 43    | 136   | 237    | 363   | 54    | 110   | 75    | 26    |
| 3     | 84    | 75    | 48    | 47    | 41    | 180   | 498    | 360   | 60    | 92    | 68    | 23    |
| 4     | 118   | 63    | 92    | 47    | 39    | 170   | 550    | 447   | 71    | 71    | 63    | 22    |
| 5     | 111   | 75    | 132   | 52    | 39    | 160   | 541    | 437   | 68    | 60    | 54    | 20    |
| 6     | 98    | 69    | 114   | 64    | 41    | 150   | 515    | 392   | 60    | 51    | 47    | 19    |
| 7     | 86    | 49    | 85    | 64    | 43    | 140   | 506    | 339   | 57    | 47    | 40    | 19    |
| 8     | 81    | 41    | 70    | 59    | 47    | 135   | 478    | 294   | 52    | 39    | 34    | 22    |
| 9     | 75    | 37    | 68    | 57    | 55    | 130   | 437    | 234   | 54    | 30    | 30    | 24    |
| 10    | 68    | 34    | 66    | 55    | 57    | 125   | 449    | 223   | 52    | 27    | 27    | 22    |
| 11    | 81    | 40    | 60    | 52    | 56    | 120   | 515    | 203   | 47    | 26    | 32    | 20    |
| 12    | 86    | 41    | 59    | 48    | 55    | 116   | 584    | 238   | 42    | 26    | 66    | 59    |
| 13    | 94    | 40    | 58    | 45    | 58    | 112   | 648    | 247   | 40    | 25    | 52    | 80    |
| 14    | 158   | 40    | 59    | 45    | 90    | 109   | 738    | 373   | 40    | 25    | 42    | 70    |
| 15    | 146   | 49    | 55    | 45    | 110   | 115   | 743    | 346   | 37    | 26    | 36    | 62    |
| 16    | 153   | 66    | 53    | 41    | 110   | 241   | 703    | 308   | 34    | 24    | 32    | 61    |
| 17    | 123   | 60    | 58    | 42    | 105   | 271   | 613    | 314   | 32    | 25    | 28    | 89    |
| 18    | 111   | 51    | 63    | 41    | 107   | 242   | 537    | 282   | 32    | 29    | 25    | 93    |
| 19    | 107   | 49    | 60    | 40    | 105   | 222   | 503    | 242   | 29    | 31    | 22    | 61    |
| 20    | 103   | 54    | 59    | 39    | 104   | 207   | 520    | 209   | 27    | 36    | 23    | 44    |
| 21    | 103   | 66    | 56    | 39    | 100   | 187   | 549    | 191   | 50    | 29    | 21    | 46    |
| 22    | 103   | 66    | 52    | 39    | 95    | 174   | 568    | 187   | 114   | 24    | 19    | 58    |
| 23    | 111   | 75    | 55    | 39    | 93    | 159   | 552    | 158   | 87    | 20    | 18    | 44    |
| 24    | 127   | 75    | 56    | 40    | 88    | 152   | 507    | 132   | 69    | 18    | 18    | 46    |
| 25    | 146   | 63    | 57    | 40    | 83    | 145   | 475    | 101   | 58    | 16    | 17    | 40    |
| 26    | 139   | 55    | 55    | 42    | 80    | 135   | 449    | 81    | 81    | 16    | 16    | 28    |
| 27    | 127   | 52    | 52    | 51    | 109   | 130   | 416    | 77    | 70    | 17    | 25    | 32    |
| 28    | 118   | 49    | 51    | 53    | 182   | 127   | 384    | 81    | 58    | 18    | 58    | 31    |
| 29    | 107   | 52    | 50    | 54    | ----- | 134   | 400    | 73    | 48    | 19    | 58    | 51    |
| 30    | 98    | 54    | 49    | 53    | ----- | 152   | 418    | 68    | 53    | 37    | 41    | 58    |
| 31    | 92    | ----- | 48    | 47    | ----- | 166   | -----  | 66    | ----- | 48    | 34    | ----- |
| TOTAL | 3,300 | 1,714 | 1,943 | 1,472 | 2,179 | 4,896 | 15,211 | 7,466 | 1,634 | 1,134 | 1,182 | 1,300 |
| MEAN  | 106   | 57.1  | 62.7  | 47.5  | 77.8  | 158   | 507    | 241   | 54.5  | 36.6  | 38.1  | 43.3  |
| MAX   | 158   | 88    | 132   | 64    | 182   | 271   | 743    | 447   | 114   | 110   | 75    | 93    |
| MIN   | 65    | 34    | 48    | 39    | 39    | 109   | 178    | 66    | 27    | 16    | 16    | 19    |
| CFSM  | 1.28  | .69   | .76   | .57   | .94   | 1.90  | 6.11   | 2.90  | .66   | .44   | .46   | .52   |
| IN.   | 1.48  | .77   | .87   | .66   | .98   | 2.19  | 6.82   | 3.35  | .73   | .51   | .53   | .58   |

CAL YR 1970 TOTAL 51,299 MEAN 141 MAX 904 MIN 13 CFSM 1.70 IN 22.99

WTR YR 1971 TOTAL 43,431 MEAN 119 MAX 743 MIN 16 CFSM 1.43 IN 19.47

## PEAK DISCHARGE (BASE, 690 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-14 | 2315 | 7.21  | 763       |      |      |       |           |

01162500 Priest Brook near Winchendon, Mass.

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

DRAINAGE AREA.--19.4 sq mi.

PERIOD OF RECORD.--May 1916 to current year. Monthly discharge only October 1917 to July 1918 (published in WSP 1301) and September 1935 to September 1936.

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

AVERAGE DISCHARGE.--55 years, 32.0 cfs (22.40 inches per year).

EXTREMES.--Current year: Maximum discharge, 213 cfs Apr. 14 (gage height, 4.22 ft); minimum, 0.79 cfs July 29.

Period of record: Maximum discharge, 3,000 cfs Sept. 21, 1938 (gage height, 9.90 ft), from rating curve extended above 620 cfs on basis of contracted-opening measurements at gage heights 8.4 and 9.90 ft; minimum, 0.08 cfs several times in September 1929.

REMARKS.--Records good except those for winter period and periods of no gage-height record, which are fair. Prior to 1962, occasional diurnal fluctuation at low flow by mill above station; prior to 1953, regulation at low flow by mill and ponds.

REVISIONS (WATER YEARS).--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).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG    | SEP   |
|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 1     | 4.9   | 7.7   | 16   | 11    | 12    | 43    | 50    | 78    | 12    | 3.7   | 19     | 12    |
| 2     | 5.2   | 7.4   | 16   | 11    | 11    | 44    | 55    | 70    | 11    | 11    | 17     | 8.8   |
| 3     | 8.6   | 7.2   | 19   | 12    | 11    | 41    | 111   | 67    | 12    | 7.2   | 13     | 6.9   |
| 4     | 8.6   | 10    | 30   | 12    | 11    | 37    | 168   | 93    | 18    | 4.1   | 11     | 5.5   |
| 5     | 7.4   | 18    | 45   | 15    | 10    | 34    | 168   | 106   | 16    | 2.8   | 11     | 6.9   |
| 6     | 6.2   | 15    | 39   | 18    | 10    | 33    | 152   | 91    | 13    | 2.3   | 8.4    | 14    |
| 7     | 5.5   | 13    | 31   | 17    | 10    | 32    | 136   | 75    | 11    | 2.0   | 6.6    | 12    |
| 8     | 5.0   | 12    | 24   | 16    | 10    | 29    | 119   | 61    | 13    | 1.7   | 5.2    | 6.3   |
| 9     | 4.8   | 11    | 19   | 15    | 12    | 26    | 168   | 54    | 13    | 1.5   | 4.3    | 3.9   |
| 10    | 4.6   | 10    | 16   | 14    | 13    | 24    | 101   | 58    | 9.5   | 1.4   | 3.3    | 2.8   |
| 11    | 4.4   | 12    | 15   | 13    | 12    | 23    | 123   | 55    | 7.2   | 1.3   | 3.1    | 2.1   |
| 12    | 4.3   | 14    | 15   | 12    | 11    | 22    | 160   | 45    | 5.7   | 1.3   | 5.2    | 14    |
| 13    | 4.3   | 14    | 16   | 12    | 12    | 21    | 182   | 48    | 5.2   | 1.7   | 5.2    | 25    |
| 14    | 4.3   | 16    | 15   | 12    | 18    | 20    | 208   | 78    | 5.5   | 1.4   | 4.3    | 25    |
| 15    | 6.0   | 20    | 14   | 11    | 22    | 22    | 198   | 79    | 5.2   | 1.2   | 3.9    | 17    |
| 16    | 9.0   | 27    | 13   | 11    | 29    | 38    | 165   | 67    | 4.5   | 1.1   | 3.3    | 8.8   |
| 17    | 9.5   | 20    | 13   | 11    | 29    | 59    | 135   | 63    | 3.9   | 1.2   | 2.8    | 11    |
| 18    | 8.0   | 15    | 14   | 10    | 28    | 62    | 115   | 57    | 8.1   | 2.0   | 2.3    | 11    |
| 19    | 7.0   | 14    | 15   | 10    | 26    | 57    | 107   | 47    | 8.8   | 2.3   | 1.8    | 10    |
| 20    | 6.0   | 17    | 15   | 9.5   | 25    | 54    | 119   | 39    | 4.7   | 4.3   | 1.7    | 8.4   |
| 21    | 5.2   | 25    | 15   | 9.5   | 24    | 50    | 132   | 36    | 4.7   | 3.5   | 1.4    | 7.8   |
| 22    | 5.6   | 31    | 14   | 5.6   | 23    | 48    | 132   | 39    | 6.6   | 2.4   | 1.3    | 7.2   |
| 23    | 10    | 28    | 14   | 9.6   | 22    | 44    | 121   | 28    | 5.7   | 1.8   | 1.2    | 6.0   |
| 24    | 23    | 25    | 14   | 9.8   | 21    | 38    | 107   | 29    | 4.3   | 1.4   | 1.1    | 5.2   |
| 25    | 20    | 21    | 14   | 5.8   | 20    | 37    | 94    | 26    | 3.7   | 1.3   | .98    | 4.5   |
| 26    | 17    | 19    | 14   | 10    | 19    | 32    | 58    | 21    | 5.7   | 1.2   | .98    | 5.0   |
| 27    | 14    | 17    | 13   | 12    | 24    | 29    | 59    | 18    | 5.7   | 1.2   | 2.0    | 5.0   |
| 28    | 12    | 16    | 13   | 15    | 35    | 28    | 61    | 15    | 4.1   | .98   | 8.8    | 4.3   |
| 29    | 10    | 16    | 13   | 15    | ----- | 30    | 67    | 13    | 3.1   | 1.1   | 22     | 3.5   |
| 30    | 9.0   | 17    | 12   | 14    | ----- | 37    | 80    | 12    | 2.6   | 4.5   | 19     | 2.9   |
| 31    | 8.2   | ----- | 12   | 13    | ----- | 45    | ----- | 12    | ----- | 15    | 15     | ----- |
| TOTAL | 257.6 | 495.3 | 548  | 375.8 | 510   | 1,139 | 3,591 | 1,580 | 233.5 | 89.88 | 206.16 | 262.8 |
| MEAN  | 8.31  | 16.5  | 17.7 | 12.3  | 18.2  | 36.7  | 120   | 51.0  | 7.78  | 2.90  | 6.65   | 8.76  |
| MAX   | 23    | 31    | 45   | 18    | 35    | 62    | 208   | 106   | 18    | 15    | 22     | 25    |
| MIN   | 4.3   | 7.2   | 12   | 9.5   | 10    | 20    | 50    | 12    | 2.6   | .98   | .98    | 2.1   |
| CFSM  | .43   | .85   | .91  | .63   | .94   | 1.89  | 6.19  | 2.63  | .40   | .15   | .34    | .45   |
| IN.   | .49   | .95   | 1.05 | .73   | .98   | 2.18  | 6.89  | 3.03  | .45   | .17   | .40    | .50   |

CAL YR 1970 TOTAL 12,206.30 MEAN 33.4 MAX 290 MIN 1.5 CFSM 1.72 IN 23.41  
WTR YR 1971 TOTAL 9,293.04 MEAN 25.5 MAX 208 MIN .98 CFSM 1.31 IN 17.82

PEAK DISCHARGE (BASE, 190 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-14 | 0900 | 4.22  | 213       |      |      |       |           |

NOTE.--No gage-height record Oct. 8-25, Oct. 28 to Dec. 2.

01163200 Otter River at Otter River, Mass.

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

DRAINAGE AREA.--34.2 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 900 ft (from topographic map).

AVERAGE DISCHARGE.--6 years (1965-71), 51.5 cfs (20.45 inches per year).

EXTREMES.--Current year: Maximum discharge, 289 cfs Apr. 4 (gage height, 2.90 ft); minimum not determined; minimum daily, 5.2 cfs Aug. 25, 26. Period of record: Maximum discharge, 637 cfs Mar. 19, 1968 (gage height, 4.19 ft); minimum, 3.3 cfs Aug. 29-31, 1966.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| CAY   | OCT   | NOV   | DEC  | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 9.1   | 19    | 33   | 22   | 20    | 70    | 101   | 96    | 35    | 24    | 33    | 20    |
| 2     | 20    | 18    | 31   | 21   | 19    | 74    | 115   | 84    | 32    | 68    | 37    | 15    |
| 3     | 17    | 17    | 30   | 21   | 19    | 55    | 204   | 81    | 29    | 61    | 40    | 12    |
| 4     | 23    | 17    | 48   | 22   | 18    | 56    | 277   | 111   | 33    | 43    | 47    | 10    |
| 5     | 20    | 23    | 58   | 25   | 18    | 71    | 276   | 118   | 30    | 31    | 46    | 8.5   |
| 6     | 22    | 30    | 53   | 30   | 18    | 63    | 236   | 102   | 27    | 24    | 37    | 6.6   |
| 7     | 16    | 23    | 44   | 28   | 18    | 59    | 211   | 87    | 23    | 21    | 31    | 6.1   |
| 8     | 16    | 23    | 35   | 26   | 19    | 55    | 191   | 74    | 23    | 18    | 25    | 6.3   |
| 9     | 19    | 20    | 30   | 25   | 21    | 51    | 175   | 82    | 27    | 17    | 32    | 6.3   |
| 10    | 25    | 19    | 29   | 24   | 23    | 49    | 163   | 96    | 26    | 14    | 21    | 6.1   |
| 11    | 21    | 27    | 28   | 23   | 22    | 48    | 188   | 96    | 23    | 13    | 19    | 5.7   |
| 12    | 18    | 25    | 27   | 22   | 21    | 43    | 218   | 84    | 22    | 12    | 25    | 24    |
| 13    | 14    | 25    | 26   | 21   | 23    | 41    | 230   | 83    | 20    | 12    | 21    | 40    |
| 14    | 11    | 31    | 25   | 21   | 32    | 40    | 236   | 124   | 19    | 13    | 17    | 35    |
| 15    | 9.8   | 35    | 24   | 20   | 40    | 44    | 236   | 126   | 15    | 11    | 14    | 30    |
| 16    | 16    | 41    | 23   | 20   | 52    | 100   | 217   | 107   | 15    | 9.8   | 12    | 25    |
| 17    | 20    | 37    | 27   | 19   | 52    | 137   | 183   | 102   | 13    | 9.4   | 11    | 29    |
| 18    | 17    | 33    | 28   | 19   | 50    | 135   | 151   | 93    | 12    | 13    | 9.5   | 28    |
| 19    | 16    | 31    | 25   | 18   | 48    | 120   | 136   | 80    | 11    | 14    | 9.0   | 25    |
| 20    | 15    | 36    | 25   | 18   | 45    | 110   | 133   | 70    | 9.6   | 21    | 8.2   | 23    |
| 21    | 14    | 50    | 24   | 18   | 43    | 95    | 134   | 63    | 10    | 17    | 7.2   | 24    |
| 22    | 14    | 47    | 24   | 17   | 41    | 89    | 131   | 67    | 24    | 13    | 6.4   | 21    |
| 23    | 25    | 54    | 25   | 17   | 39    | 80    | 119   | 66    | 28    | 13    | 5.8   | 18    |
| 24    | 35    | 54    | 26   | 17   | 38    | 75    | 108   | 59    | 25    | 10    | 5.4   | 16    |
| 25    | 28    | 46    | 25   | 18   | 37    | 74    | 100   | 51    | 22    | 9.8   | 5.2   | 16    |
| 26    | 27    | 39    | 24   | 25   | 37    | 68    | 95    | 47    | 51    | 9.4   | 5.2   | 14    |
| 27    | 27    | 35    | 24   | 30   | 40    | 62    | 88    | 44    | 38    | 13    | 10    | 12    |
| 28    | 24    | 33    | 23   | 28   | 60    | 62    | 82    | 42    | 27    | 16    | 20    | 11    |
| 29    | 28    | 32    | 23   | 26   | ----- | 69    | 85    | 40    | 24    | 13    | 40    | 10    |
| 30    | 27    | 33    | 23   | 24   | ----- | 84    | 96    | 37    | 20    | 18    | 38    | 10    |
| 31    | 21    | ----- | 22   | 22   | ----- | 96    | ----- | 36    | ----- | 21    | 33    | ----- |
| TOTAL | 614.9 | 958   | 912  | 687  | 913   | 2,275 | 4,915 | 2,448 | 713.6 | 602.4 | 670.9 | 513.6 |
| MEAN  | 19.8  | 31.9  | 29.4 | 22.2 | 32.6  | 73.4  | 164   | 79.0  | 23.8  | 19.4  | 21.6  | 17.1  |
| MAX   | 35    | 54    | 58   | 30   | 60    | 137   | 277   | 126   | 51    | 68    | 47    | 40    |
| MIN   | 9.1   | 17    | 22   | 17   | 18    | 40    | 82    | 36    | 9.6   | 9.4   | 5.2   | 5.7   |
| CFSM  | .58   | .93   | .86  | .65  | .95   | 2.15  | 4.80  | 2.31  | .70   | .57   | .63   | .50   |
| IN.   | .67   | 1.04  | .95  | .75  | .99   | 2.47  | 5.35  | 2.66  | .78   | .66   | .73   | .56   |

CAL YR 1970 TOTAL 19,917.6 MEAN 54.6 MAX 402 MIN 4.7 CFSM 1.60 IN 21.66  
WTR YR 1971 TCTAL 16,223.4 MEAN 44.4 MAX 277 MIN 5.2 CFSM 1.30 IN 17.65

NOTE.--No gage-height record Jan. 31 to Feb. 28.

## 01164000 Millers River at South Royalston, Mass.

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

DRAINAGE AREA.--187 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 792.00 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--32 years, 303 cfs (22.00 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 1,430 cfs Apr. 15 (gage height, 6.66 ft); minimum daily, 38 cfs Aug. 26.

Period of record: Maximum discharge, 4,400 cfs Apr. 13, 1940 (gage height, 8.40 ft); maximum gage height, 9.42 ft Jan. 24, 1959 (backwater from ice); minimum daily discharge, 9.3 cfs Aug. 4, 1956. Maximum discharge since construction of Birch Hill Reservoir in 1941, 2,830 cfs June 25, 26, 1944 (gage height, 7.57 ft).

Flood of Sept. 21 or 22, 1938, reached a stage of 15.9 ft, from floodmarks (discharge not determined).

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Lake Monomonic and other reservoirs, by mills and powerplants prior to 1955, and at high flow by Birch Hill Reservoir (see p.209).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT   | NOV     | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------------|-------|---------|-------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| 1           | 100   | 143     | 163   | 110   | 105   | 354    | 459    | 738    | 163   | 120   | 191   | 79    |
| 2           | 109   | 141     | 155   | 110   | 100   | 354    | 519    | 680    | 153   | 330   | 213   | 68    |
| 3           | 124   | 131     | 148   | 110   | 97    | 377    | 744    | 643    | 148   | 291   | 207   | 60    |
| 4           | 171   | 116     | 213   | 115   | 94    | 344    | 892    | 777    | 177   | 194   | 194   | 57    |
| 5           | 182   | 160     | 335   | 130   | 92    | 354    | 1,120  | 878    | 169   | 145   | 182   | 54    |
| 6           | 160   | 213     | 309   | 160   | 94    | 382    | 1,300  | 823    | 148   | 116   | 145   | 54    |
| 7           | 141   | 163     | 234   | 155   | 98    | 321    | 1,320  | 718    | 179   | 100   | 116   | 57    |
| 8           | 124   | 133     | 205   | 145   | 105   | 295    | 1,320  | 612    | 166   | 87    | 96    | 52    |
| 9           | 118   | 116     | 174   | 135   | 120   | 285    | 1,120  | 559    | 158   | 74    | 87    | 51    |
| 10          | 116   | 105     | 169   | 130   | 130   | 260    | 983    | 559    | 141   | 66    | 79    | 48    |
| 11          | 120   | 111     | 153   | 125   | 125   | 245    | 1,030  | 536    | 116   | 61    | 69    | 44    |
| 12          | 131   | 127     | 148   | 115   | 120   | 234    | 1,160  | 514    | 101   | 60    | 133   | 107   |
| 13          | 124   | 122     | 141   | 110   | 125   | 227    | 1,270  | 519    | 94    | 58    | 124   | 224   |
| 14          | 169   | 127     | 143   | 110   | 180   | 224    | 1,360  | 699    | 98    | 59    | 98    | 194   |
| 15          | 179   | 142     | 140   | 105   | 240   | 238    | 1,430  | 751    | 90    | 60    | 80    | 169   |
| 16          | 194   | 191     | 160   | 100   | 260   | 427    | 1,370  | 687    | 82    | 57    | 71    | 138   |
| 17          | 201   | 188     | 150   | 98    | 270   | 618    | 1,260  | 661    | 76    | 57    | 65    | 153   |
| 18          | 192   | 160     | 141   | 56    | 260   | 612    | 1,110  | 618    | 71    | 71    | 59    | 185   |
| 19          | 171   | 148     | 140   | 94    | 250   | 582    | 997    | 548    | 74    | 70    | 54    | 153   |
| 20          | 163   | 160     | 135   | 92    | 240   | 525    | 962    | 480    | 68    | 96    | 54    | 111   |
| 21          | 158   | 201     | 135   | 91    | 230   | 514    | 976    | 427    | 100   | 85    | 53    | 100   |
| 22          | 158   | 213     | 130   | 90    | 225   | 454    | 990    | 438    | 275   | 69    | 51    | 107   |
| 23          | 174   | 227     | 135   | 90    | 215   | 417    | 976    | 402    | 213   | 60    | 45    | 96    |
| 24          | 217   | 245     | 140   | 92    | 205   | 377    | 920    | 349    | 169   | 53    | 43    | 80    |
| 25          | 231   | 217     | 140   | 94    | 200   | 344    | 857    | 296    | 133   | 49    | 39    | 84    |
| 26          | 224   | 179     | 135   | 110   | 195   | 330    | 796    | 241    | 207   | 47    | 38    | 64    |
| 27          | 210   | 160     | 130   | 130   | 227   | 313    | 731    | 220    | 207   | 48    | 42    | 64    |
| 28          | 191   | 148     | 125   | 135   | 309   | 309    | 674    | 217    | 145   | 56    | 116   | 61    |
| 29          | 174   | 150     | 120   | 130   | ----- | 330    | 680    | 198    | 116   | 54    | 171   | 70    |
| 30          | 171   | 155     | 120   | 125   | ----- | 382    | 738    | 179    | 101   | 77    | 131   | 82    |
| 31          | 153   | -----   | 115   | 115   | ----- | 427    | -----  | 174    | ----- | 122   | 98    | ----- |
| TOTAL       | 5,040 | 4,793   | 4,985 | 3,547 | 4,911 | 11,455 | 30,064 | 16,141 | 4,138 | 2,892 | 3,144 | 2,866 |
| MEAN        | 163   | 160     | 161   | 114   | 175   | 370    | 1,002  | 521    | 138   | 93.3  | 101   | 95.5  |
| MAX         | 221   | 245     | 339   | 160   | 309   | 618    | 1,430  | 878    | 275   | 330   | 213   | 224   |
| MIN         | 100   | 105     | 115   | 90    | 92    | 224    | 459    | 174    | 68    | 47    | 38    | 44    |
| MEAN†       | 163   | 160     | 161   | 115   | 176   | 371    | 1,004  | 517    | 138   | 93.3  | 102   | 95.3  |
| CFSMT       | .87   | .86     | .86   | .61   | .94   | 1.98   | 5.37   | 2.76   | .74   | .50   | .55   | .51   |
| IN.†        | 1.00  | .95     | .99   | .71   | .98   | 2.29   | 5.99   | 3.19   | .82   | .58   | .63   | .57   |
| CAL YR 1970 | TOTAL | 116,106 | MEAN  | 318   | MAX   | 1,520  | MIN    | 38     | MEAN† | 318   | CFSMT | 1.70  |
| WTR YR 1971 | TOTAL | 93,976  | MEAN  | 257   | MAX   | 1,430  | MIN    | 38     | MEAN† | 257   | CFSMT | 1.37  |
|             |       |         |       |       |       |        |        |        |       | IN†   | 23.08 |       |
|             |       |         |       |       |       |        |        |        |       | IN†   | 18.69 |       |

† Adjusted for change in contents in Birch Hill Reservoir.



01165000 East Branch Tully River near Athol, Mass.

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

DRAINAGE AREA.--50.4 sq mi.

PERIOD OF RECORD.--October 1915 to current year. October 1915 to May 1916 monthly discharge only, published in WSP 1301.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 613.71 ft above mean sea level (Corps of Engineers bench mark). Prior to Oct. 26, 1948, nonrecording gage at site 0.2 mile upstream at datum 14.40 ft higher.

AVERAGE DISCHARGE.--56 years, 79.6 cfs (21.45 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 510 cfs Apr. 14 (gage height, 4.57 ft); minimum, 0.42 cfs Aug. 20; minimum daily, 1.9 cfs Sept. 13. Period of record: Maximum discharge, 5,140 cfs Sept. 21, 1938 (gage height, 8.60 ft, from floodmarks, site and datum then in use), from rating curve extended above 1,500 cfs on basis of contracted-opening measurement and computation of peak flow over dam; minimum, 0.01 cfs Nov. 6-11, 1961; minimum daily, 0.01 cfs Nov. 7-10, 1961. Maximum discharge since construction of Tully Reservoir in 1948, 828 cfs Apr. 21, 1960 (gage height, 5.38 ft).

REMARKS.--Records good. Flow regulated by Tully Reservoir since 1948 (see p. 209).

REVISIONS (WATER YEARS).--WSP 451: 1916. WSP 891: Drainage area. WSP 1051: 1916(M), 1928. WSP 1301: 1917-35(M), 1937(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT            | NOV       | DEC     | JAN     | FEB        | MAR         | APR       | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|----------------|-----------|---------|---------|------------|-------------|-----------|-------|-------|-------|-------|-------|
| 1           | 12             | 18        | 47      | 36      | 36         | 74          | 89        | 139   | 49    | 6.0   | 5.2   | 32    |
| 2           | 11             | 18        | 47      | 32      | 33         | 95          | 92        | 140   | 49    | 5.7   | 25    | 4.5   |
| 3           | 11             | 18        | 47      | 30      | 26         | 105         | 100       | 139   | 49    | 5.6   | 38    | 4.5   |
| 4           | 15             | 16        | 58      | 30      | 26         | 105         | 115       | 141   | 49    | 5.6   | 38    | 4.5   |
| 5           | 17             | 9.2       | 65      | 30      | 26         | 105         | 211       | 205   | 49    | 5.3   | 38    | 4.5   |
| 6           | 19             | 16        | 66      | 30      | 26         | 103         | 322       | 251   | 49    | 5.2   | 38    | 4.5   |
| 7           | 18             | 28        | 66      | 48      | 26         | 102         | 340       | 179   | 48    | 5.2   | 24    | 4.4   |
| 8           | 14             | 28        | 66      | 56      | 26         | 100         | 323       | 138   | 48    | 15    | 17    | 2.6   |
| 9           | 10             | 28        | 61      | 56      | 26         | 66          | 300       | 138   | 48    | 18    | 17    | 2.8   |
| 10          | 9.2            | 26        | 57      | 55      | 26         | 49          | 198       | 137   | 23    | 18    | 17    | 2.9   |
| 11          | 9.6            | 24        | 57      | 55      | 26         | 80          | 159       | 137   | 10    | 18    | 17    | 2.9   |
| 12          | 9.8            | 24        | 57      | 45      | 30         | 94          | 204       | 124   | 10    | 18    | 17    | 2.8   |
| 13          | 9.8            | 26        | 56      | 39      | 33         | 92          | 351       | 117   | 10    | 18    | 17    | 1.9   |
| 14          | 11             | 27        | 56      | 34      | 34         | 90          | 470       | 119   | 10    | 19    | 17    | 31    |
| 15          | 12             | 27        | 40      | 30      | 34         | 88          | 488       | 143   | 10    | 15    | 11    | 49    |
| 16          | 14             | 27        | 30      | 30      | 52         | 87          | 383       | 153   | 10    | 13    | 6.4   | 49    |
| 17          | 15             | 27        | 30      | 30      | 61         | 89          | 231       | 153   | 9.7   | 13    | 12    | 49    |
| 18          | 16             | 28        | 30      | 29      | 67         | 108         | 155       | 150   | 8.9   | 13    | 19    | 49    |
| 19          | 16             | 28        | 30      | 29      | 73         | 150         | 200       | 147   | 10    | 13    | 8.7   | 19    |
| 20          | 16             | 34        | 30      | 29      | 72         | 178         | 235       | 145   | 11    | 13    | 6.8   | 3.9   |
| 21          | 16             | 38        | 30      | 22      | 72         | 180         | 255       | 112   | 9.1   | 13    | 10    | 18    |
| 22          | 16             | 38        | 35      | 17      | 72         | 137         | 240       | 77    | 8.6   | 15    | 8.7   | 26    |
| 23          | 17             | 38        | 39      | 17      | 71         | 98          | 207       | 77    | 8.2   | 12    | 8.7   | 26    |
| 24          | 17             | 50        | 39      | 17      | 56         | 97          | 206       | 76    | 8.2   | 8.7   | 8.7   | 24    |
| 25          | 17             | 60        | 39      | 18      | 42         | 96          | 204       | 38    | 8.0   | 8.2   | 6.8   | 19    |
| 26          | 17             | 59        | 39      | 30      | 62         | 94          | 159       | 12    | 7.4   | 7.3   | 2.9   | 19    |
| 27          | 18             | 34        | 39      | 37      | 74         | 90          | 139       | 25    | 7.3   | 6.0   | 2.9   | 19    |
| 28          | 18             | 38        | 39      | 36      | 74         | 87          | 139       | 50    | 6.8   | 5.6   | 2.1   | 9.4   |
| 29          | 18             | 47        | 31      | 36      | -----      | 86          | 139       | 50    | 6.2   | 4.8   | 33    | 3.8   |
| 30          | 18             | 47        | 33      | 36      | -----      | 86          | 139       | 50    | 6.0   | 6.4   | 50    | 3.2   |
| 31          | 18             | -----     | 36      | 36      | -----      | 87          | -----     | 50    | ----- | 6.8   | 50    | ----- |
| TOTAL       | 455.4          | 926.2     | 1,395   | 1,055   | 1,282      | 3,098       | 6,793     | 3,612 | 636.4 | 336.4 | 572.9 | 492.1 |
| MEAN        | 14.7           | 30.9      | 45.0    | 34.0    | 45.8       | 99.9        | 226       | 117   | 21.2  | 10.9  | 18.5  | 16.4  |
| MAX         | 19             | 60        | 66      | 56      | 74         | 180         | 488       | 251   | 49    | 19    | 50    | 49    |
| MIN         | 9.2            | 9.2       | 30      | 17      | 26         | 49          | 89        | 12    | 6.0   | 4.8   | 2.1   | 1.9   |
| MEAN†       | 19.7           | 39.3      | 47.1    | 32.5    | 47.8       | 89.0        | 244       | 119   | 20.4  | 10.4  | 18.9  | 1.43  |
| CFSMT       | .39            | .78       | .93     | .64     | .95        | 1.77        | 4.84      | 2.36  | .40   | .21   | .38   | .03   |
| IN.†        | .45            | .87       | 1.08    | .74     | .99        | 2.04        | 5.40      | 2.72  | .45   | .24   | .43   | .03   |
| CAL YR 1970 | TOTAL 29,823.5 | MEAN 81.7 | MAX 531 | MIN 5.0 | MEAN† 82.2 | CFSMT† 1.63 | IN† 22.15 |       |       |       |       |       |
| WTR YR 1971 | TOTAL 20,654.4 | MEAN 56.6 | MAX 488 | MIN 1.9 | MEAN† 57.3 | CFSMT† 1.14 | IN† 15.44 |       |       |       |       |       |

† Adjusted for change in contents in Tully Reservoir.

## CONNECTICUT RIVER BASIN

01165300 Lake Rohunta Outlet near Athol, Mass.

LOCATION.--Lat 42°34'13", long 72°16'22", Worcester County, on right bank 300 ft downstream from bridge on Daniel Shays Highway, 600 ft downstream from Lake Rohunta, and 2.8 miles southwest of Athol.

DRAINAGE AREA.--20.3 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 503.32 ft above mean sea level.

AVERAGE DISCHARGE.--6 years (1965-71), 29.7 cfs.

EXTREMES.--Current year: Maximum discharge, 135 cfs Apr. 5 (gage height, 2.68 ft); minimum daily, 0.17 cfs June 3, 4.  
Period of record: Maximum discharge, 420 cfs Apr. 18, 1967 (gage height, 4.60 ft); minimum daily, 0.17 cfs June 3, 4, 1971.

REMARKS.--Records good except those below 1 cfs, which are fair. Flow regulated by Lake Rohunta.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT   | NOV       | DEC  | JAN   | FEB   | MAR   | APR   | MAY   | JUN    | JUL   | AUG   | SEP   |
|-------------|-------|-----------|------|-------|-------|-------|-------|-------|--------|-------|-------|-------|
| 1           | 2.6   | 10        | 15   | 12    | 6.1   | 42    | 50    | 49    | 4.0    | 13    | 10    | 8.9   |
| 2           | 3.0   | 7.7       | 15   | 13    | 6.3   | 45    | 54    | 49    | .24    | 16    | 14    | 8.5   |
| 3           | 4.2   | 6.8       | 13   | 12    | 5.3   | 45    | 77    | 48    | .17    | 20    | 16    | 8.2   |
| 4           | 4.7   | 6.1       | 17   | 12    | 5.7   | 50    | 115   | 67    | .17    | 21    | 16    | 7.2   |
| 5           | 4.9   | 11        | 23   | 14    | 11    | 45    | 132   | 77    | .19    | 20    | 17    | 6.6   |
| 6           | 5.6   | 14        | 24   | 15    | 13    | 40    | 125   | 77    | .24    | 17    | 17    | 5.4   |
| 7           | 5.3   | 15        | 21   | 16    | 11    | 37    | 123   | 69    | .24    | 16    | 15    | 5.2   |
| 8           | 5.2   | 13        | 19   | 16    | 15    | 37    | 114   | 62    | .32    | 15    | 14    | 5.2   |
| 9           | 5.0   | 12        | 18   | 13    | 17    | 34    | 104   | 60    | .52    | 13    | 12    | 4.7   |
| 10          | 4.7   | 11        | 17   | 15    | 16    | 31    | 96    | 65    | 1.1    | 11    | 11    | 4.2   |
| 11          | 5.1   | 12        | 15   | 14    | 12    | 30    | 100   | 64    | 2.1    | 9.6   | 10    | 4.0   |
| 12          | 11    | 13        | 15   | 13    | 14    | 28    | 112   | 61    | 3.4    | 8.5   | 10    | 10    |
| 13          | 16    | 12        | 16   | 9.6   | 15    | 26    | 118   | 57    | 4.7    | 8.2   | 5.6   | 13    |
| 14          | 18    | 15        | 16   | 13    | 20    | 27    | 116   | 69    | 5.9    | 5.9   | 9.2   | 15    |
| 15          | 18    | 16        | 14   | 13    | 23    | 27    | 114   | 75    | 6.6    | 5.4   | 8.5   | 16    |
| 16          | 18    | 19        | 11   | 11    | 25    | 38    | 106   | 69    | 6.6    | 4.7   | 7.9   | 15    |
| 17          | 16    | 18        | 16   | 5.7   | 24    | 54    | 93    | 67    | 6.6    | 4.9   | 7.2   | 16    |
| 18          | 15    | 17        | 16   | 5.8   | 26    | 62    | 82    | 65    | 6.2    | 4.5   | 6.2   | 15    |
| 19          | 11    | 16        | 15   | 5.0   | 25    | 62    | 75    | 59    | 5.4    | 4.7   | 5.4   | 15    |
| 20          | 9.6   | 17        | 14   | 5.8   | 25    | 64    | 76    | 52    | 5.4    | 5.4   | 4.5   | 14    |
| 21          | 8.2   | 19        | 13   | 7.1   | 26    | 58    | 73    | 46    | 5.2    | 4.9   | 4.5   | 13    |
| 22          | 7.8   | 19        | 13   | 9.0   | 25    | 53    | 65    | 42    | 5.2    | 4.7   | 3.7   | 12    |
| 23          | 8.0   | 22        | 14   | 5.5   | 26    | 48    | 62    | 39    | 5.2    | 4.2   | 3.4   | 11    |
| 24          | 7.2   | 33        | 17   | 9.6   | 26    | 47    | 51    | 37    | 4.9    | 3.5   | 3.1   | 10    |
| 25          | 7.2   | 29        | 16   | 5.7   | 25    | 42    | 42    | 33    | 6.2    | 3.4   | 2.8   | 8.9   |
| 26          | 6.6   | 23        | 15   | 11    | 23    | 40    | 42    | 26    | 11     | 3.4   | 2.5   | 8.5   |
| 27          | 6.1   | 19        | 14   | 12    | 27    | 39    | 40    | 24    | 13     | 2.9   | 2.5   | 7.9   |
| 28          | 4.1   | 17        | 13   | 8.2   | 35    | 39    | 42    | 23    | 14     | 2.8   | 7.9   | 7.2   |
| 29          | 54    | 15        | 12   | 12    | ----- | 39    | 45    | 22    | 14     | 2.9   | 8.9   | 7.2   |
| 30          | 25    | 15        | 12   | 13    | ----- | 42    | 49    | 17    | 13     | 4.2   | 5.6   | 6.2   |
| 31          | 15    | -----     | 11   | 11    | ----- | 45    | ----- | 15    | -----  | 7.6   | 8.9   | ----- |
| TOTAL       | 365.0 | 472.6     | 480  | 346.0 | 528.4 | 1,316 | 2,501 | 1,585 | 151.79 | 268.3 | 279.1 | 289.0 |
| MEAN        | 11.9  | 15.8      | 15.5 | 11.2  | 18.9  | 42.5  | 83.4  | 51.1  | 5.06   | 8.65  | 9.00  | 9.63  |
| MAX         | 54    | 33        | 24   | 16    | 35    | 64    | 132   | 77    | 14     | 21    | 17    | 16    |
| MIN         | 2.6   | 6.1       | 11   | 5.0   | 5.3   | 26    | 40    | 15    | .17    | 2.8   | 2.5   | 4.0   |
| CAL YR 1970 | TOTAL | 12,940.98 | MEAN | 35.5  | MAX   | 270   | MIN   | .67   |        |       |       |       |
| WTR YR 1971 | TOTAL | 8,586.19  | MEAN | 23.5  | MAX   | 132   | MIN   | .17   |        |       |       |       |

01165500 Mass Brook at Wendell Depot, Mass.

LOCATION.--Lat 42°36'10", long 72°21'36", Franklin County, on left bank 0.2 mile upstream from mouth, 0.2 mile north of Wendell Depot, and 2.5 miles west of Orange.

DRAINAGE AREA.--12.3 sq mi.

PERIOD OF RECORD.--June to October 1909, April to August 1910, June 1916 to current year. Published as "at Wendell" 1909-10.

GAGE.--Water-stage recorder. Crest-stage gage since July 11, 1958. Datum of gage is 508.9 ft above mean sea level. Prior to April 1910, nonrecording gage at site 1,200 ft downstream at different datum. April to August 1910, nonrecording gage and sharp-crested weir at site 300 ft downstream at different datum. June 1916 to Dec. 8, 1965, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--55 years (1916-71), 19.7 cfs (21.75 inches per year).

EXTREMES.--Current year: Maximum discharge, 115 cfs Apr. 4 (gage height, 2.91 ft); minimum, 1.0 cfs Aug. 26, 27.

Period of record: Maximum discharge, 1,540 cfs Mar. 19, 1936 (gage height, 6.30 ft, from floodmarks), from rating curve extended above 400 cfs on basis of slope-area measurements at gage heights 5.62 and 6.30 ft; minimum, 0.2 cfs Sept. 4, 5, 1929.

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

REVISIONS (WATER YEARS).--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).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR  | APR   | MAY  | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|------|-------|------|-------|-------|-------|-------|
| 1     | 2.9   | 3.6   | 11    | 7.0   | 7.3   | 23   | 27    | 32   | 10    | 7.3   | 15    | 3.9   |
| 2     | 2.8   | 3.4   | 10    | 7.0   | 6.9   | 21   | 32    | 26   | 8.5   | 19    | 9.8   | 2.5   |
| 3     | 3.0   | 3.4   | 9.6   | 7.0   | 6.4   | 20   | 76    | 26   | 5.3   | 11    | 7.3   | 2.7   |
| 4     | 5.6   | 3.0   | 17    | 7.0   | 6.2   | 19   | 108   | 53   | 10    | 6.1   | 9.5   | 2.1   |
| 5     | 5.1   | 9.9   | 21    | 7.6   | 6.2   | 18   | 83    | 58   | 8.8   | 4.5   | 7.3   | 1.9   |
| 6     | 4.1   | 15    | 18    | 8.8   | 6.2   | 17   | 64    | 40   | 7.5   | 3.6   | 4.8   | 1.8   |
| 7     | 3.6   | 11    | 15    | 11    | 6.4   | 16   | 54    | 31   | 6.3   | 3.5   | 3.6   | 1.8   |
| 8     | 3.2   | 8.0   | 12    | 10    | 6.6   | 15   | 53    | 26   | 7.1   | 3.0   | 2.8   | 1.3   |
| 9     | 2.5   | 6.6   | 11    | 8.6   | 8.0   | 15   | 44    | 31   | 12    | 2.5   | 2.1   | 1.6   |
| 10    | 2.6   | 5.6   | 10    | 8.0   | 8.3   | 15   | 45    | 44   | 8.0   | 2.1   | 1.9   | 1.4   |
| 11    | 2.5   | 6.1   | 5.7   | 7.7   | 8.2   | 14   | 76    | 39   | 5.9   | 2.0   | 2.0   | 1.2   |
| 12    | 2.3   | 7.7   | 9.4   | 7.5   | 8.2   | 14   | 97    | 30   | 5.1   | 2.2   | 9.3   | 8.8   |
| 13    | 2.1   | 8.0   | 9.0   | 7.3   | 8.8   | 13   | 103   | 32   | 4.6   | 1.9   | 5.7   | 9.8   |
| 14    | 2.2   | 7.5   | 8.6   | 7.1   | 12    | 13   | 109   | 56   | 5.7   | 1.8   | 3.5   | 7.3   |
| 15    | 3.4   | 9.0   | 8.3   | 7.0   | 13    | 14   | 88    | 43   | 4.8   | 1.8   | 2.8   | 7.8   |
| 16    | 9.6   | 11    | 8.0   | 7.0   | 13    | 20   | 63    | 33   | 4.0   | 1.6   | 2.4   | 6.9   |
| 17    | 9.3   | 9.0   | 7.8   | 7.0   | 13    | 27   | 51    | 37   | 3.4   | 1.6   | 1.9   | 6.7   |
| 18    | 6.4   | 9.6   | 8.2   | 6.7   | 15    | 34   | 46    | 34   | 2.9   | 1.6   | 1.5   | 6.1   |
| 19    | 5.1   | 12    | 8.4   | 6.4   | 16    | 27   | 51    | 28   | 2.5   | 2.5   | 1.4   | 5.1   |
| 20    | 4.4   | 15    | 8.6   | 6.2   | 14    | 26   | 67    | 23   | 2.5   | 5.7   | 2.4   | 3.5   |
| 21    | 3.9   | 14    | 8.3   | 6.0   | 14    | 24   | 65    | 20   | 6.1   | 3.9   | 1.9   | 4.2   |
| 22    | 4.2   | 17    | 8.0   | 6.0   | 13    | 23   | 54    | 19   | 10    | 2.6   | 1.5   | 4.3   |
| 23    | 6.4   | 17    | 7.8   | 6.0   | 13    | 22   | 44    | 17   | 6.9   | 2.1   | 1.3   | 3.6   |
| 24    | 7.5   | 17    | 7.8   | 6.0   | 13    | 19   | 37    | 15   | 4.9   | 1.8   | 1.2   | 3.3   |
| 25    | 6.6   | 13    | 7.8   | 6.0   | 12    | 18   | 34    | 14   | 4.8   | 1.6   | 1.2   | 2.7   |
| 26    | 5.6   | 10    | 7.6   | 6.8   | 13    | 17   | 31    | 13   | 15    | 1.6   | 1.1   | 2.5   |
| 27    | 4.7   | 9.7   | 7.5   | 8.2   | 16    | 17   | 28    | 13   | 11    | 1.7   | 2.6   | 4.2   |
| 28    | 4.4   | 9.6   | 7.4   | 9.0   | 20    | 16   | 25    | 12   | 7.3   | 1.6   | 23    | 5.5   |
| 29    | 3.9   | 9.6   | 7.2   | 8.8   | ----- | 17   | 30    | 11   | 4.6   | 1.7   | 25    | 4.6   |
| 30    | 3.8   | 10    | 7.1   | 8.3   | ----- | 20   | 39    | 10   | 3.6   | 7.8   | 11    | 3.5   |
| 31    | 3.7   | ----- | 7.0   | 7.8   | ----- | 24   | ----- | 10   | ----- | 12    | 6.1   | ----- |
| TOTAL | 137.8 | 291.3 | 304.1 | 239.8 | 304.7 | 598  | 1,728 | 876  | 203.1 | 123.7 | 171.8 | 122.6 |
| MEAN  | 4.45  | 9.71  | 9.81  | 7.45  | 10.9  | 19.3 | 57.6  | 28.3 | 6.77  | 3.99  | 5.54  | 4.09  |
| MAX   | 9.6   | 17    | 21    | 11    | 20    | 34   | 109   | 58   | 15    | 19    | 25    | 9.8   |
| MIN   | 2.1   | 3.0   | 7.0   | 6.0   | 6.2   | 13   | 25    | 10   | 2.5   | 1.6   | 1.1   | 1.2   |
| CFSM  | .36   | .79   | .80   | .61   | .89   | 1.57 | 4.69  | 2.30 | .55   | .32   | .45   | .33   |
| IN.   | .42   | .88   | .92   | .70   | .82   | 1.81 | 5.22  | 2.65 | .61   | .37   | .52   | .37   |

CAL YR 1970 TOTAL 7,316.6 MEAN 20.0 MAX 269 MIN 1.1 CFSM 1.63 IN 22.13  
 WTR YR 1971 TOTAL 5,091.9 MEAN 14.0 MAX 105 MIN 1.1 CFSM 1.14 IN 15.40

PEAK DISCHARGE (BASE, 160 CFS).--No peak above base.

01166500 Millers River at Erving, Mass.

LOCATION.--Lat 42°35'51", long 72°26'19", Franklin County, on right bank 75 ft downstream from bridge at Farley, 0.6 mile upstream from Mormon Hollow Brook, 2.4 miles downstream from Erving, and 5.5 miles upstream from mouth.

DRAINAGE AREA.--375 sq mi.

PERIOD OF RECORD.--August 1914 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 380 ft (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 miles 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 mile downstream at different datum.

AVERAGE DISCHARGE.--57 years, 607 cfs (21.98 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 2,850 cfs Apr. 15 (gage height, 5.48 ft); minimum daily, 65 cfs Sept. 8.

Period of record: Maximum discharge, 29,000 cfs Sept. 22, 1938 (gage height, 13.37 ft, 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 cfs Sept. 6, 1926.

REMARKS.--Records excellent except those for winter period, which are fair. Flow regulated by powerplants, Lake Monomonic and other reservoirs, and high flow, by Birch Hill Reservoir 22 miles upstream and Tully Reservoir (see p. 209); greater regulation by powerplants prior to 1966.

REVISIONS (WATER YEARS).--WSP 641: 1920(M). WSP 756: Drainage area. WSP 781: 1928(M), 1933(M). WSP 1301: 1915(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| 1     | 152   | 217   | 318   | 225   | 220   | 680    | 862    | 1,190  | 345   | 192   | 360   | 223   |
| 2     | 148   | 211   | 306   | 220   | 205   | 700    | 969    | 1,120  | 308   | 428   | 380   | 175   |
| 3     | 158   | 201   | 296   | 220   | 190   | 720    | 1,730  | 1,100  | 311   | 453   | 375   | 138   |
| 4     | 203   | 190   | 397   | 220   | 185   | 680    | 2,060  | 1,510  | 320   | 335   | 366   | 84    |
| 5     | 256   | 285   | 566   | 240   | 185   | 680    | 2,040  | 1,600  | 323   | 262   | 335   | 81    |
| 6     | 227   | 352   | 548   | 280   | 190   | 680    | 2,440  | 1,550  | 285   | 224   | 290   | 117   |
| 7     | 213   | 308   | 468   | 320   | 195   | 620    | 2,470  | 1,370  | 268   | 192   | 243   | 96    |
| 8     | 192   | 258   | 400   | 305   | 200   | 570    | 2,380  | 1,110  | 268   | 168   | 203   | 65    |
| 9     | 177   | 233   | 350   | 280   | 240   | 520    | 2,180  | 1,090  | 288   | 156   | 170   | 71    |
| 10    | 167   | 210   | 330   | 270   | 250   | 490    | 2,020  | 1,150  | 279   | 140   | 163   | 114   |
| 11    | 165   | 228   | 310   | 260   | 245   | 480    | 2,020  | 1,060  | 182   | 125   | 153   | 109   |
| 12    | 188   | 220   | 300   | 240   | 240   | 490    | 2,240  | 970    | 182   | 125   | 215   | 251   |
| 13    | 187   | 221   | 290   | 230   | 255   | 480    | 2,500  | 999    | 175   | 120   | 237   | 400   |
| 14    | 194   | 236   | 250   | 220   | 350   | 470    | 2,750  | 1,230  | 227   | 120   | 197   | 366   |
| 15    | 252   | 268   | 270   | 210   | 420   | 460    | 2,790  | 1,280  | 183   | 115   | 168   | 380   |
| 16    | 321   | 341   | 275   | 205   | 460   | 740    | 2,620  | 1,230  | 170   | 110   | 143   | 335   |
| 17    | 305   | 340   | 270   | 200   | 480   | 1,050  | 2,260  | 1,240  | 157   | 110   | 125   | 219   |
| 18    | 279   | 309   | 265   | 195   | 500   | 1,100  | 1,870  | 1,140  | 144   | 120   | 118   | 344   |
| 19    | 262   | 273   | 265   | 190   | 500   | 1,050  | 1,730  | 1,030  | 136   | 130   | 116   | 326   |
| 20    | 243   | 284   | 255   | 195   | 480   | 1,000  | 1,730  | 922    | 135   | 190   | 118   | 235   |
| 21    | 228   | 357   | 250   | 180   | 460   | 960    | 1,780  | 842    | 157   | 170   | 109   | 212   |
| 22    | 233   | 373   | 250   | 175   | 450   | 860    | 1,710  | 773    | 165   | 140   | 105   | 215   |
| 23    | 247   | 408   | 260   | 175   | 440   | 801    | 1,620  | 723    | 135   | 115   | 96    | 220   |
| 24    | 281   | 442   | 270   | 175   | 420   | 724    | 1,510  | 649    | 274   | 100   | 88    | 191   |
| 25    | 304   | 415   | 270   | 190   | 400   | 570    | 1,420  | 592    | 244   | 90    | 81    | 173   |
| 26    | 311   | 355   | 260   | 200   | 390   | 540    | 1,340  | 469    | 399   | 88    | 75    | 162   |
| 27    | 286   | 336   | 250   | 250   | 480   | 614    | 1,170  | 398    | 362   | 90    | 84    | 143   |
| 28    | 268   | 277   | 245   | 260   | 600   | 610    | 1,050  | 412    | 291   | 92    | 332   | 150   |
| 29    | 300   | 296   | 230   | 260   | ----- | 647    | 1,140  | 401    | 218   | 94    | 405   | 137   |
| 30    | 259   | 317   | 230   | 250   | ----- | 723    | 1,230  | 373    | 195   | 180   | 330   | 152   |
| 31    | 226   | ----- | 225   | 235   | ----- | 798    | -----  | 362    | ----- | 300   | 250   | ----- |
| TOTAL | 7,232 | 8,761 | 9,509 | 7,065 | 9,630 | 21,507 | 55,631 | 29,885 | 7,526 | 5,274 | 6,430 | 5,884 |
| MEAN  | 233   | 292   | 307   | 228   | 344   | 694    | 1,854  | 964    | 251   | 170   | 207   | 196   |
| MAX   | 321   | 442   | 566   | 320   | 600   | 1,100  | 2,790  | 1,600  | 395   | 453   | 405   | 400   |
| MIN   | 148   | 190   | 225   | 175   | 185   | 460    | 862    | 362    | 135   | 88    | 75    | 65    |
| MEAN† | 238   | 300   | 309   | 227   | 346   | 685    | 1,873  | 963    | 250   | 170   | 208   | 181   |
| CFSM† | .63   | .80   | .82   | .61   | .92   | 1.83   | 4.99   | 2.57   | .67   | .45   | .55   | .48   |
| IN†   | .73   | .89   | .95   | .70   | .96   | 2.11   | 5.58   | 2.96   | .74   | .52   | .64   | .54   |

CAL YR 1970 TOTAL 231,019 MEAN 633 MAX 3,810 MIN 49 MEAN† 633 CFSM† 1.69 IN† 22.93  
WTR YR 1971 TOTAL 174,334 MEAN 478 MAX 2,790 MIN 65 MEAN† 478 CFSM† 1.27 IN† 17.32

† Adjusted for change in contents in Birch Hill and Tully Reservoirs.

01167000 Connecticut River at Turners Falls, Mass.

LOCATION.--Lat 42°36'40", long 72°33'20", Franklin County, at dam of Western Massachusetts Electric Co., at Turners Falls, 0.2 mile upstream from Falls River, and at mile 122.2.

DRAINAGE AREA.--7,163 sq mi.

PERIOD OF RECORD.--January 1915 to current year.

AVERAGE DISCHARGE.--56 years, 11,640 cfs (22.07 inches per year), adjusted for storage.

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 (see p. 209), and other reservoirs (combined usable capacity, about 35 billion cubic feet).

COOPERATION.--Records furnished by Western Massachusetts Electric Co.

REVISIONS (WATER YEARS).--WSP 741: 1932. WSP 891: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT     | NOV     | DEC     | JAN     | FEB     | MAR     | APR       | MAY       | JUN     | JUL    | AUG     | SEP     |
|-------|---------|---------|---------|---------|---------|---------|-----------|-----------|---------|--------|---------|---------|
| 1     | 6,220   | 1,550   | 8,500   | 2,260   | 4,640   | 7,610   | 11,000    | 44,900    | 8,600   | 4,970  | 937     | 3,850   |
| 2     | 7,220   | 2,860   | 5,600   | 3,310   | 3,670   | 8,750   | 10,600    | 45,100    | 10,100  | 6,320  | 3,720   | 4,120   |
| 3     | 6,740   | 4,740   | 8,850   | 2,000   | 4,100   | 9,290   | 17,300    | 47,400    | 8,360   | 227    | 4,660   | 6,740   |
| 4     | 2,170   | 2,570   | 10,100  | 4,880   | 3,580   | 10,500  | 24,600    | 62,500    | 7,400   | 0      | 7,030   | 4,300   |
| 5     | 7,430   | 5,160   | 11,400  | 4,360   | 5,210   | 8,830   | 25,700    | 72,700    | 6,930   | 405    | 7,350   | 574     |
| 6     | 6,970   | 4,220   | 5,640   | 3,370   | 3,730   | 8,930   | 23,100    | 69,000    | 3,320   | 3,090  | 7,790   | 138     |
| 7     | 5,890   | 2,980   | 6,710   | 4,610   | 729     | 6,500   | 22,900    | 61,400    | 8,130   | 1,930  | 2,870   | 5,220   |
| 8     | 7,610   | 2,450   | 7,680   | 4,400   | 5,050   | 7,140   | 21,700    | 55,100    | 7,290   | 3,490  | 1,330   | 4,410   |
| 9     | 7,220   | 1,840   | 6,440   | 5,250   | 4,370   | 7,880   | 19,200    | 50,000    | 6,500   | 1,550  | 5,450   | 5,960   |
| 10    | 4,130   | 2,570   | 5,580   | 4,740   | 4,520   | 9,830   | 22,800    | 48,000    | 8,630   | 190    | 4,000   | 2,050   |
| 11    | 2,320   | 3,660   | 7,040   | 4,470   | 4,260   | 8,200   | 24,600    | 45,600    | 5,020   | 426    | 3,390   | 1,230   |
| 12    | 4,240   | 4,680   | 3,770   | 4,140   | 3,880   | 7,380   | 29,400    | 45,200    | 4,710   | 2,540  | 3,230   | 3,070   |
| 13    | 5,580   | 5,610   | 2,370   | 5,010   | 3,210   | 6,720   | 40,800    | 44,600    | 4,830   | 1,020  | 1,740   | 3,640   |
| 14    | 4,940   | 4,070   | 6,330   | 5,580   | 2,840   | 6,400   | 52,500    | 48,200    | 5,590   | 2,440  | 1,280   | 5,900   |
| 15    | 4,160   | 3,160   | 5,720   | 4,660   | 2,110   | 6,580   | 53,200    | 43,100    | 5,380   | 2,600  | 670     | 4,170   |
| 16    | 5,640   | 5,200   | 5,330   | 3,090   | 4,910   | 9,290   | 47,100    | 36,800    | 3,820   | 2,380  | 2,450   | 6,110   |
| 17    | 8,170   | 7,580   | 4,220   | 401     | 6,610   | 14,500  | 40,800    | 32,000    | 3,030   | 1,440  | 2,000   | 5,480   |
| 18    | 7,050   | 5,240   | 5,070   | 5,030   | 8,420   | 16,000  | 36,000    | 26,400    | 3,870   | 758    | 2,400   | 3,860   |
| 19    | 6,340   | 7,630   | 2,820   | 5,120   | 6,440   | 15,600  | 32,700    | 26,400    | 2,220   | 5,300  | 1,790   | 3,250   |
| 20    | 7,640   | 5,970   | 3,740   | 4,260   | 5,750   | 16,100  | 43,200    | 16,500    | 138     | 3,270  | 1,850   | 5,650   |
| 21    | 7,080   | 5,200   | 6,780   | 4,700   | 5,160   | 16,100  | 49,600    | 19,200    | 5,730   | 3,310  | 862     | 3,670   |
| 22    | 7,130   | 6,170   | 6,300   | 4,360   | 5,950   | 15,800  | 61,600    | 17,900    | 3,020   | 2,550  | 138     | 3,680   |
| 23    | 7,150   | 8,130   | 4,880   | 2,140   | 7,470   | 15,900  | 59,500    | 20,100    | 2,680   | 4,640  | 4,130   | 4,550   |
| 24    | 6,940   | 11,500  | 5,290   | 920     | 6,400   | 13,400  | 51,200    | 17,400    | 4,810   | 1,010  | 1,830   | 4,890   |
| 25    | 6,260   | 5,820   | 2,640   | 4,410   | 6,140   | 10,200  | 42,300    | 16,100    | 3,940   | 90     | 2,910   | 543     |
| 26    | 5,640   | 9,900   | 5,820   | 3,350   | 5,100   | 10,800  | 37,800    | 16,100    | 6,260   | 4,330  | 2,170   | 213     |
| 27    | 6,970   | 6,560   | 6,010   | 5,540   | 6,570   | 7,810   | 37,600    | 18,400    | 3,690   | 3,790  | 8,120   | 3,670   |
| 28    | 6,260   | 6,140   | 6,600   | 4,520   | 6,070   | 6,360   | 40,200    | 17,400    | 3,940   | 790    | 13,800  | 2,140   |
| 29    | 6,210   | 3,790   | 6,500   | 3,570   | -----   | 8,890   | 44,000    | 15,500    | 2,670   | 1,730  | 12,300  | 2,100   |
| 30    | 4,560   | 5,960   | 5,100   | 3,110   | -----   | 5,050   | 49,400    | 15,900    | 4,380   | 3,570  | 15,200  | 2,570   |
| 31    | 2,430   | -----   | 4,710   | 3,010   | -----   | 10,000  | -----     | 14,600    | -----   | 2,030  | 8,610   | -----   |
| TOTAL | 184,460 | 157,810 | 187,900 | 121,381 | 137,565 | 316,780 | 1,072,888 | 1,110,338 | 158,988 | 72,686 | 136,207 | 109,028 |
| MEAN  | 5,950   | 5,060   | 6,061   | 3,916   | 4,927   | 10,220  | 35,760    | 35,820    | 5,300   | 2,345  | 4,394   | 3,634   |
| MAX   | 8,120   | 11,500  | 11,400  | 5,630   | 8,420   | 16,100  | 61,600    | 72,700    | 10,100  | 6,320  | 15,200  | 6,740   |
| MIN   | 2,170   | 1,590   | 2,370   | 401     | 729     | 6,360   | 10,600    | 14,600    | 138     | 0      | 138     | 138     |
| MEAN† | 6,004   | 5,059   | 5,151   | 3,233   | 4,319   | 8,505   | 37,100    | 38,920    | 5,227   | 2,266  | 4,531   | 3,183   |
| CFSM† | .84     | .71     | .72     | .45     | .60     | 1.19    | 5.18      | 5.43      | .73     | .32    | .63     | .44     |
| IN.†  | .97     | .79     | .83     | .52     | .63     | 1.37    | 5.78      | 6.27      | .81     | .36    | .73     | .50     |

CAL YR 1970 TOTAL 4,153,954 MEAN 11,380 MAX 71,200 MIN 138 MEAN† 11,280 CFSM† 1.57 IN† 21.38  
 WTP YR 1971 TOTAL 3,766,309 MEAN 10,320 MAX 72,700 MIN 0 MEAN† 10,310 CFSM† 1.44 IN† 19.55

† Adjusted for change in contents in all reservoirs from First Connecticut and Second Connecticut Lakes to Tully Reservoir on East Branch Tully River listed on p. 209.

01167800 Beaver Brook at Wilmington, Vt.

LOCATION.--Lat 42°51'38", long 72°51'04", Windham County, on right bank 20 ft downstream from bridge on State Highway 9, 1.0 mile southeast of Wilmington, and 1.7 miles upstream from mouth.

DRAINAGE AREA.--6.38 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 1,560 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 13.84 cfs (29.46 inches per year).

EXTREMES.--Current year: Maximum discharge, 275 cfs May 3 (gage height, 4.22 ft), from rating curve extended above 160 cfs; maximum gage height, 4.44 ft Feb. 15 (backwater from ice); minimum discharge, 0.46 cfs July 26, 29, Aug. 22, 23, 25-27.

Period of record: Maximum discharge, 1,990 cfs Nov. 6, 1969 (gage height, 7.51 ft), from rating curve extended above 160 cfs, caused by dam failure; maximum gage height, 8.73 ft Jan. 19, 1965 (ice jam); minimum discharge, 0.06 cfs Aug. 1, 1965.

REMARKS.--Records good except those for winter period, which are fair. Records of suspended-sediment loads for the current year are published in Part 2 of this report. Recording rain gage at station since April 1964 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR     | MAY     | JUN   | JUL   | AUG    | SEP    |
|-------|-------|-------|-------|-------|-------|-------|---------|---------|-------|-------|--------|--------|
| 1     | 1.6   | 3.8   | 15    | 5.6   | 3.6   | 13    | 7.0     | 67      | 4.5   | 2.6   | 5.5    | 1.6    |
| 2     | 1.4   | 3.5   | 12    | 6.0   | 3.3   | 12    | 11      | 88      | 3.7   | 4.2   | 2.6    | 1.3    |
| 3     | 3.2   | 3.5   | 10    | 5.6   | 3.1   | 11    | 36      | 154     | 4.2   | 1.4   | 2.6    | 1.1    |
| 4     | 6.5   | 3.2   | 67    | 5.8   | 3.1   | 11    | 37      | 121     | 4.2   | .95   | 3.7    | .95    |
| 5     | 3.8   | 3.5   | 36    | 12    | 3.3   | 11    | 29      | 103     | 3.4   | .85   | 2.3    | .85    |
| 6     | 2.9   | 3.5   | 20    | 13    | 3.5   | 11    | 27      | 92      | 2.6   | .95   | 1.4    | .95    |
| 7     | 2.7   | 2.9   | 15    | 8.2   | 3.3   | 11    | 24      | 86      | 2.3   | .95   | 1.2    | .85    |
| 8     | 2.4   | 2.7   | 11    | 8.0   | 3.5   | 10    | 20      | 87      | 2.1   | .67   | .85    | .76    |
| 9     | 2.1   | 2.4   | 13    | 7.2   | 3.8   | 10    | 21      | 136     | 2.3   | .67   | .76    | .67    |
| 10    | 1.8   | 2.7   | 12    | 8.2   | 3.5   | 9.9   | 24      | 102     | 1.8   | .59   | .67    | .59    |
| 11    | 1.6   | 6.5   | 10    | 7.4   | 3.2   | 9.9   | 35      | 77      | 1.4   | .52   | 1.2    | .59    |
| 12    | 1.6   | 5.9   | 9.7   | 6.5   | 3.5   | 9.0   | 57      | 65      | 1.3   | .52   | 2.1    | 13     |
| 13    | 1.6   | 5.4   | 9.4   | 5.4   | 5.5   | 8.5   | 91      | 139     | 1.2   | .52   | 1.2    | 13     |
| 14    | 1.8   | 5.4   | 9.2   | 5.8   | 14    | 9.0   | 93      | 87      | 1.2   | .76   | .85    | 14     |
| 15    | 6.5   | 9.7   | 7.6   | 6.5   | 15    | 10    | 58      | 52      | 1.1   | .67   | .67    | 15     |
| 16    | 9.2   | 16    | 6.4   | 5.6   | 9.4   | 22    | 43      | 47      | 1.1   | .67   | .59    | 11     |
| 17    | 5.4   | 10    | 6.9   | 5.4   | 7.8   | 18    | 39      | 38      | .85   | .67   | .59    | 13     |
| 18    | 3.2   | 7.5   | 8.5   | 5.0   | 7.0   | 14    | 46      | 24      | .85   | .59   | .59    | 9.2    |
| 19    | 3.2   | 16    | 7.8   | 4.7   | 7.0   | 12    | 93      | 23      | .67   | 2.3   | .59    | 6.2    |
| 20    | 2.7   | 28    | 10    | 4.6   | 7.2   | 12    | 141     | 20      | .67   | 3.9   | .59    | 4.9    |
| 21    | 2.7   | 39    | 8.5   | 4.5   | 7.0   | 11    | 101     | 19      | .76   | 1.4   | .59    | 6.0    |
| 22    | 9.7   | 22    | 6.8   | 4.6   | 6.5   | 10    | 86      | 23      | 1.2   | .95   | .46    | 4.5    |
| 23    | 27    | 43    | 7.6   | 4.5   | 6.5   | 9.5   | 73      | 16      | .95   | .76   | .52    | 3.6    |
| 24    | 16    | 23    | 7.0   | 4.5   | 6.5   | 9.0   | 76      | 13      | .76   | .59   | .52    | 3.1    |
| 25    | 9.7   | 15    | 7.0   | 4.5   | 6.5   | 8.5   | 68      | 9.7     | 1.8   | .59   | .52    | 2.7    |
| 26    | 7.5   | 12    | 6.8   | 5.0   | 6.5   | 8.3   | 50      | 7.8     | 4.5   | .52   | .46    | 2.4    |
| 27    | 6.5   | 10    | 6.6   | 4.8   | 14    | 8.1   | 53      | 7.4     | 1.6   | .67   | .76    | 2.3    |
| 28    | 4.8   | 10    | 6.4   | 5.0   | 17    | 7.8   | 61      | 6.4     | 1.1   | .52   | 70     | 2.1    |
| 29    | 4.8   | 10    | 6.0   | 4.6   | ----- | 7.5   | 83      | 5.9     | .95   | .85   | 16     | 2.0    |
| 30    | 4.0   | 20    | 5.8   | 4.3   | ----- | 7.5   | 66      | 5.0     | .76   | 4.5   | 4.5    | 1.8    |
| 31    | 3.8   | ----- | 5.4   | 3.9   | ----- | 7.0   | -----   | 5.9     | ----- | 12    | 2.3    | -----  |
| TOTAL | 161.7 | 346.1 | 370.4 | 186.7 | 184.2 | 328.5 | 1,649.0 | 1,727.1 | 55.82 | 48.30 | 127.18 | 140.01 |
| MEAN  | 5.22  | 11.5  | 11.9  | 6.02  | 6.58  | 10.6  | 55.0    | 55.7    | 1.86  | 1.56  | 4.10   | 4.67   |
| MAX   | 27    | 43    | 67    | 13    | 17    | 22    | 141     | 154     | 4.5   | 12    | 70     | 15     |
| MIN   | 1.4   | 2.4   | 5.4   | 3.9   | 3.1   | 7.0   | 7.0     | 5.0     | .67   | .52   | .46    | .59    |
| CFSM  | .82   | 1.80  | 1.87  | .94   | 1.03  | 1.66  | 8.62    | 8.73    | .29   | .24   | .64    | .73    |
| IN.   | .94   | 2.02  | 2.16  | 1.09  | 1.07  | 1.92  | 9.61    | 10.07   | .33   | .28   | .74    | .82    |

CAL YR 1970 TOTAL 4,827.33 MEAN 13.2 MAX 150 MIN .16 CFSM 2.07 IN 28.15

WTR YR 1971 TOTAL 5,325.01 MEAN 14.6 MAX 154 MIN .46 CFSM 2.29 IN 31.05

## PEAK DISCHARGE (BASE, 150 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-14 | 0100 | 3.69  | 167       | 5-9  | 2015 | 3.69  | 167       |
| 4-20 | 1745 | 4.20  | 270       | 5-13 | 1430 | 4.21  | 273       |
| 5-3  | 2200 | 4.22  | 275       | 8-28 | 1100 | 4.19  | 254       |



01168500 Deerfield River at Charlemont, Mass.

LOCATION.--Lat 42°37'33", long 72°51'20", Franklin County, on left bank 1 mile downstream from Charlemont, 2.5 miles downstream from Chickley River, and at mile 24.5.

DRAINAGE AREA.--362 sq mi.

PERIOD OF RECORD.--June 1913 to current year.

GAGE.--Water-stage recorder. Datum of gage is 517.36 ft above mean sea level.

AVERAGE DISCHARGE.--58 years, 876 cfs (32.86 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 6,180 cfs Aug. 28 (gage height, 6.52 ft); minimum daily, 77 cfs Aug. 25.

Period of record: Maximum discharge, 56,300 cfs Sept. 21, 1938 (gage height, 20.17 ft, from floodmarks), from rating curve extended above 31,000 cfs on basis of slope-area and contracted-opening measurements at gage heights 17.75 and 20.17 ft; minimum daily, 5 cfs June 17, 1921.

REMARKS.--Records good. Flow regulated by Somerset Reservoir, since 1924 by Harriman Reservoir (see p. 209), and by several powerplants above station.

REVISIONS (WATER YEARS).--WSP 781: 1915(M). WSP 1301: 1918(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN   | JUL   | AUG    | SEP    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|--------|--------|
| 1     | 604    | 311    | 1,050  | 430    | 600    | 740    | 814    | 2,610  | 766   | 623   | 256    | 446    |
| 2     | 640    | 594    | 1,080  | 279    | 800    | 871    | 850    | 2,490  | 288   | 1,190 | 709    | 476    |
| 3     | 372    | 741    | 1,060  | 334    | 650    | 934    | 1,270  | 3,540  | 289   | 238   | 281    | 459    |
| 4     | 249    | 713    | 1,340  | 760    | 780    | 961    | 1,060  | 4,870  | 150   | 94    | 223    | 202    |
| 5     | 887    | 720    | 1,040  | 866    | 520    | 926    | 1,120  | 3,260  | 477   | 158   | 213    | 87     |
| 6     | 645    | 674    | 807    | 961    | 580    | 473    | 1,330  | 3,210  | 172   | 306   | 175    | 103    |
| 7     | 688    | 690    | 809    | 1,050  | 120    | 224    | 1,270  | 2,500  | 406   | 161   | 145    | 425    |
| 8     | 728    | 315    | 1,030  | 1,040  | 600    | 651    | 1,190  | 2,530  | 563   | 168   | 116    | 574    |
| 9     | 664    | 471    | 1,050  | 805    | 660    | 1,040  | 1,000  | 3,100  | 449   | 215   | 161    | 375    |
| 10    | 499    | 615    | 1,050  | 354    | 660    | 1,040  | 1,330  | 3,300  | 368   | 119   | 177    | 468    |
| 11    | 277    | 584    | 1,030  | 646    | 720    | 1,040  | 1,450  | 3,500  | 371   | 135   | 221    | 156    |
| 12    | 467    | 732    | 938    | 1,020  | 850    | 1,040  | 1,920  | 3,280  | 221   | 240   | 443    | 501    |
| 13    | 842    | 644    | 437    | 1,020  | 320    | 523    | 2,980  | 4,080  | 170   | 240   | 351    | 704    |
| 14    | 597    | 467    | 720    | 1,020  | 200    | 285    | 3,000  | 4,060  | 319   | 194   | 176    | 1,180  |
| 15    | 674    | 420    | 1,020  | 1,020  | 230    | 675    | 2,320  | 2,890  | 388   | 172   | 190    | 1,130  |
| 16    | 715    | 667    | 1,010  | 921    | 850    | 1,100  | 1,540  | 2,220  | 395   | 199   | 399    | 743    |
| 17    | 402    | 790    | 1,040  | 338    | 760    | 1,280  | 1,430  | 1,940  | 124   | 156   | 201    | 893    |
| 18    | 108    | 1,040  | 1,050  | 664    | 700    | 1,180  | 1,540  | 1,680  | 186   | 100   | 183    | 362    |
| 19    | 451    | 1,060  | 851    | 989    | 701    | 1,150  | 2,720  | 1,270  | 135   | 328   | 181    | 177    |
| 20    | 691    | 1,160  | 629    | 995    | 521    | 1,140  | 3,480  | 1,210  | 103   | 402   | 205    | 352    |
| 21    | 638    | 1,040  | 610    | 995    | 257    | 1,120  | 3,260  | 1,190  | 719   | 158   | 218    | 619    |
| 22    | 608    | 818    | 730    | 992    | 603    | 1,090  | 2,760  | 1,120  | 287   | 136   | 146    | 551    |
| 23    | 919    | 961    | 700    | 600    | 644    | 985    | 2,180  | 317    | 304   | 170   | 309    | 587    |
| 24    | 388    | 1,150  | 760    | 455    | 785    | 1,080  | 1,870  | 604    | 295   | 180   | 202    | 613    |
| 25    | 371    | 1,090  | 880    | 600    | 763    | 904    | 1,780  | 786    | 117   | 101   | 77     | 228    |
| 26    | 696    | 913    | 330    | 970    | 838    | 1,070  | 1,650  | 809    | 351   | 178   | 195    | 94     |
| 27    | 672    | 555    | 380    | 900    | 583    | 647    | 1,860  | 742    | 128   | 191   | 473    | 421    |
| 28    | 786    | 774    | 520    | 960    | 444    | 232    | 1,890  | 205    | 321   | 203   | 2,380  | 513    |
| 29    | 562    | 747    | 1,010  | 900    | -----  | 611    | 3,080  | 241    | 326   | 202   | 1,310  | 504    |
| 30    | 606    | 824    | 1,000  | 520    | -----  | 785    | 3,340  | 301    | 397   | 582   | 489    | 464    |
| 31    | 249    | -----  | 1,010  | 290    | -----  | 684    | -----  | 263    | ----- | 438   | 429    | -----  |
| TOTAL | 17,695 | 22,280 | 27,011 | 23,694 | 16,739 | 26,481 | 57,284 | 64,118 | 9,585 | 7,977 | 11,234 | 14,407 |
| MEAN  | 571    | 743    | 871    | 764    | 598    | 854    | 1,909  | 2,068  | 320   | 257   | 362    | 480    |
| MAX   | 919    | 1,160  | 1,340  | 1,050  | 850    | 1,280  | 3,480  | 4,870  | 766   | 1,190 | 2,380  | 1,180  |
| MIN   | 108    | 311    | 330    | 279    | 120    | 224    | 814    | 205    | 103   | 94    | 77     | 87     |
| MEAN† | 439    | 595    | 573    | 291    | 367    | 574    | 2,725  | 3,116  | 227   | 223   | 425    | 307    |
| CFSM† | 1.21   | 1.64   | 1.58   | .80    | 1.01   | 1.59   | 7.53   | 8.61   | .63   | .62   | 1.17   | .85    |
| IN.†  | 1.40   | 1.83   | 1.83   | .93    | 1.06   | 1.83   | 8.40   | 9.93   | .70   | .71   | 1.35   | .95    |

|             |               |          |           |        |           |            |           |
|-------------|---------------|----------|-----------|--------|-----------|------------|-----------|
| CAL YR 1970 | TOTAL 315,504 | MEAN 864 | MAX 5,140 | MIN 65 | MEAN† 816 | CFSM† 2.25 | IN† 30.62 |
| WTR YR 1971 | TOTAL 298,505 | MEAN 818 | MAX 4,870 | MIN 77 | MEAN† 824 | CFSM† 2.28 | IN† 30.90 |

† Adjusted for change in contents in Somerset and Harriman Reservoirs.

01169000 North River at Shattuckville, Mass.

LOCATION.--Lat 42°38'18", long 72°43'32", Franklin County, on right bank in Shattuckville, 1.2 miles south of Griswoldville and 1.3 miles upstream from mouth.

DRAINAGE AREA.--88.4 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 458.36 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 171 cfs (26.27 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,970 cfs Aug. 28 (gage height, 6.44 ft); minimum, 8.3 cfs Aug. 25, 26; minimum daily, 9.0 cfs Aug. 25. Period of record: Maximum discharge, 13,200 cfs Oct. 15, 1955 (gage height, 10.37 ft), from rating curve extended above 5,700 cfs on basis of computation of flow over dam at gage height 9.62 ft; minimum daily, 5.1 cfs Oct. 3, 1948.

REMARKS.--Records good except those for winter period, which are fair. Diurnal fluctuation at times caused by mill above station; because storage capacity is small, daily flows are not affected appreciably. Prior to 1950, greater regulation by mill.

REVISIONS (WATER YEARS).--WSP 1111: 1945(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL  | AUG     | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|------|---------|-------|
| 1     | 22    | 31    | 94    | 56    | 44    | 179   | 144    | 695    | 103   | 36   | 56      | 43    |
| 2     | 21    | 30    | 77    | 56    | 41    | 150   | 189    | 703    | 88    | 62   | 42      | 34    |
| 3     | 25    | 29    | 71    | 56    | 37    | 132   | 527    | 1,180  | 88    | 41   | 38      | 29    |
| 4     | 86    | 27    | 241   | 56    | 34    | 119   | 534    | 1,310  | 84    | 32   | 53      | 27    |
| 5     | 51    | 34    | 196   | 64    | 32    | 115   | 453    | 816    | 72    | 27   | 41      | 27    |
| 6     | 36    | 31    | 125   | 100   | 40    | 116   | 412    | 710    | 65    | 26   | 29      | 24    |
| 7     | 29    | 28    | 74    | 87    | 41    | 109   | 389    | 580    | 60    | 31   | 24      | 23    |
| 8     | 26    | 26    | 50    | 70    | 40    | 108   | 321    | 594    | 59    | 27   | 20      | 22    |
| 9     | 23    | 25    | 61    | 67    | 45    | 100   | 307    | 1,170  | 62    | 22   | 17      | 21    |
| 10    | 21    | 27    | 65    | 65    | 45    | 93    | 480    | 921    | 53    | 20   | 16      | 19    |
| 11    | 21    | 39    | 52    | 59    | 45    | 96    | 659    | 591    | 47    | 20   | 17      | 18    |
| 12    | 20    | 47    | 47    | 56    | 48    | 95    | 929    | 478    | 44    | 21   | 42      | 77    |
| 13    | 20    | 41    | 45    | 52    | 46    | 92    | 1,230  | 866    | 42    | 17   | 26      | 75    |
| 14    | 21    | 36    | 45    | 57    | 90    | 93    | 1,240  | 802    | 44    | 17   | 20      | 115   |
| 15    | 31    | 61    | 45    | 59    | 140   | 96    | 804    | 473    | 39    | 17   | 17      | 125   |
| 16    | 84    | 106   | 46    | 56    | 110   | 167   | 642    | 398    | 37    | 16   | 16      | 86    |
| 17    | 48    | 74    | 54    | 52    | 100   | 211   | 545    | 386    | 35    | 15   | 14      | 103   |
| 18    | 36    | 57    | 74    | 48    | 99    | 170   | 632    | 307    | 32    | 17   | 13      | 84    |
| 19    | 31    | 67    | 71    | 46    | 94    | 147   | 1,120  | 262    | 31    | 27   | 12      | 63    |
| 20    | 27    | 154   | 72    | 44    | 90    | 147   | 1,580  | 228    | 28    | 64   | 12      | 49    |
| 21    | 26    | 206   | 68    | 43    | 87    | 138   | 1,360  | 210    | 50    | 33   | 11      | 64    |
| 22    | 40    | 132   | 65    | 42    | 81    | 125   | 1,110  | 263    | 74    | 24   | 10      | 58    |
| 23    | 126   | 167   | 61    | 42    | 83    | 122   | 934    | 203    | 42    | 20   | 11      | 45    |
| 24    | 97    | 128   | 62    | 42    | 83    | 116   | 867    | 171    | 33    | 18   | 12      | 39    |
| 25    | 62    | 83    | 68    | 43    | 81    | 111   | 863    | 158    | 41    | 17   | 9.0     | 33    |
| 26    | 50    | 75    | 67    | 47    | 80    | 111   | 644    | 148    | 147   | 19   | 9.1     | 31    |
| 27    | 46    | 76    | 67    | 52    | 132   | 109   | 653    | 137    | 64    | 17   | 13      | 31    |
| 28    | 41    | 70    | 66    | 49    | 227   | 113   | 677    | 127    | 44    | 14   | 948     | 30    |
| 29    | 37    | 74    | 64    | 47    | ----- | 125   | 1,120  | 117    | 35    | 18   | 244     | 30    |
| 30    | 34    | 99    | 60    | 45    | ----- | 136   | 782    | 110    | 31    | 86   | 94      | 27    |
| 31    | 33    | ----- | 56    | 45    | ----- | 136   | -----  | 120    | ----- | 52   | 57      | ----- |
| TOTAL | 1,271 | 2,080 | 2,309 | 1,703 | 2,115 | 3,877 | 22,147 | 15,234 | 1,674 | 873  | 1,943.1 | 1,452 |
| MEAN  | 41.0  | 69.3  | 74.5  | 54.9  | 75.5  | 125   | 738    | 491    | 55.8  | 28.2 | 62.7    | 48.4  |
| MAX   | 126   | 206   | 241   | 100   | 227   | 211   | 1,580  | 1,310  | 147   | 86   | 948     | 125   |
| MIN   | 20    | 25    | 45    | 42    | 32    | 92    | 144    | 110    | 28    | 14   | 9.0     | 18    |
| CFSM  | .46   | .78   | .84   | .62   | .85   | 1.41  | 8.35   | 5.55   | .63   | .32  | .71     | .55   |
| IN.   | .53   | .88   | .97   | .72   | .89   | 1.63  | 9.32   | 6.41   | .70   | .37  | .82     | .61   |

CAL YR 1970 TOTAL 59,279.8 MEAN 162 MAX 2,000 MIN 9.0 CFM 1.83 IN 24.95  
WTR YR 1971 TOTAL 56,678.1 MEAN 155 MAX 1,580 MIN 9.0 CFM 1.75 IN 23.85

PEAK DISCHARGE (BASE, 2,200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-20 | 2000 | 6.05  | 2,440     |      |      |       |           |
| 8-28 | 1245 | 6.44  | 2,970     |      |      |       |           |

## CONNECTICUT RIVER BASIN

179

01169900 South River near Conway, Mass.

LOCATION.--Lat 42°32'31", long 72°41'39", Franklin County, on left bank at upstream side of Reeds Bridge just off Bardwell Road, 2.2 miles north of Conway, and 2.6 miles upstream from mouth. Prior to Oct. 7, 1970, at downstream side of bridge at same site.

DRAINAGE AREA.--24.0 sq mi.

RECORDS AVAILABLE.--June 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 460 ft (from topographic map). Prior to Oct. 7, 1970, at downstream side of bridge at same site and datum.

AVERAGE DISCHARGE.--5 years, 46.7 cfs (26.42 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,180 cfs Aug. 28 (gage height, 5.87 ft), from rating curve extended above 390 cfs; minimum, 3.6 cfs Aug. 24-26.

Period of record: Maximum discharge, 3,000 cfs Apr. 23, 1969 (gage height, 7.40 ft), from rating curve extended above 390 cfs; minimum, 3.0 cfs Aug. 21, 22, Sept. 2, 3, 1966.

REMARKS.--Records good except those for winter period and period of doubtful or no gage-height record, which are fair.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 6.0   | 7.9   | 20   | 13   | 9.8   | 50    | 55    | 117   | 38    | 15    | 17    | 10    |
| 2     | 6.0   | 7.9   | 18   | 15   | 9.0   | 40    | 90    | 107   | 35    | 23    | 14    | 9.3   |
| 3     | 6.5   | 7.9   | 16   | 15   | 9.5   | 32    | 241   | 173   | 38    | 14    | 17    | 8.5   |
| 4     | 11    | 7.9   | 55   | 15   | 10    | 33    | 174   | 224   | 33    | 11    | 24    | 8.0   |
| 5     | 7.0   | 34    | 32   | 30   | 11    | 40    | 139   | 120   | 28    | 10    | 14    | 6.9   |
| 6     | 6.2   | 21    | 26   | 35   | 13    | 36    | 124   | 97    | 25    | 9.1   | 8.9   | 6.5   |
| 7     | 6.2   | 14    | 21   | 25   | 11    | 33    | 126   | 82    | 23    | 10    | 6.5   | 6.5   |
| 8     | 6.2   | 12    | 16   | 23   | 11    | 30    | 101   | 89    | 30    | 8.6   | 6.0   | 6.5   |
| 9     | 6.0   | 11    | 17   | 19   | 16    | 29    | 117   | 221   | 33    | 7.6   | 5.4   | 6.5   |
| 10    | 5.7   | 11    | 19   | 21   | 15    | 27    | 203   | 205   | 22    | 7.0   | 4.9   | 6.2   |
| 11    | 5.7   | 16    | 17   | 18   | 11    | 26    | 237   | 116   | 20    | 7.0   | 4.9   | 6.0   |
| 12    | 5.7   | 16    | 15   | 16   | 10    | 25    | 287   | 103   | 18    | 6.5   | 9.9   | 14    |
| 13    | 6.0   | 14    | 14   | 14   | 14    | 24    | 385   | 213   | 16    | 6.3   | 5.7   | 19    |
| 14    | 6.0   | 13    | 14   | 15   | 35    | 24    | 290   | 159   | 16    | 6.5   | 4.9   | 34    |
| 15    | 9.9   | 25    | 14   | 16   | 40    | 27    | 206   | 109   | 15    | 6.2   | 4.6   | 24    |
| 16    | 21    | 30    | 15   | 14   | 30    | 50    | 165   | 112   | 14    | 5.9   | 4.6   | 16    |
| 17    | 11    | 21    | 17   | 13   | 23    | 60    | 155   | 124   | 15    | 6.1   | 4.3   | 35    |
| 18    | 8.4   | 16    | 20   | 12   | 25    | 48    | 174   | 86    | 14    | 6.2   | 4.1   | 21    |
| 19    | 8.4   | 21    | 20   | 11   | 24    | 41    | 288   | 85    | 13    | 11    | 3.7   | 16    |
| 20    | 7.0   | 34    | 19   | 10   | 25    | 40    | 295   | 75    | 12    | 15    | 7.5   | 12    |
| 21    | 6.5   | 47    | 17   | 11   | 27    | 37    | 254   | 63    | 12    | 8.0   | 5.7   | 18    |
| 22    | 12    | 28    | 16   | 12   | 23    | 35    | 217   | 74    | 13    | 6.5   | 5.2   | 14    |
| 23    | 34    | 31    | 18   | 12   | 25    | 35    | 186   | 58    | 11    | 6.1   | 4.6   | 12    |
| 24    | 25    | 24    | 18   | 11   | 25    | 34    | 168   | 53    | 9.9   | 5.8   | 4.1   | 11    |
| 25    | 15    | 19    | 18   | 11   | 24    | 34    | 158   | 51    | 20    | 5.7   | 3.6   | 9.4   |
| 26    | 12    | 18    | 17   | 13   | 24    | 34    | 126   | 50    | 60    | 5.6   | 3.7   | 9.0   |
| 27    | 11    | 17    | 16   | 19   | 60    | 34    | 117   | 52    | 19    | 5.3   | 8.0   | 8.9   |
| 28    | 9.4   | 17    | 15   | 15   | 60    | 35    | 117   | 54    | 14    | 4.9   | 226   | 8.9   |
| 29    | 8.9   | 17    | 15   | 14   | ----- | 41    | 219   | 45    | 13    | 5.9   | 35    | 8.9   |
| 30    | 8.4   | 22    | 14   | 14   | ----- | 49    | 139   | 40    | 11    | 23    | 19    | 8.8   |
| 31    | 8.4   | ----- | 14   | 11   | ----- | 50    | ----- | 42    | ----- | 18    | 13    | ----- |
| TOTAL | 306.5 | 580.6 | 583  | 493  | 620.3 | 1,133 | 5,553 | 3,199 | 640.9 | 286.8 | 499.8 | 380.8 |
| MEAN  | 9.89  | 19.4  | 18.8 | 15.9 | 22.2  | 36.5  | 185   | 103   | 21.4  | 9.25  | 16.1  | 12.7  |
| MAX   | 34    | 47    | 55   | 35   | 60    | 60    | 385   | 224   | 60    | 23    | 226   | 35    |
| MIN   | 5.7   | 7.9   | 14   | 10   | 9.0   | 24    | 55    | 40    | 9.9   | 4.9   | 3.6   | 6.0   |
| CFSM  | .41   | .81   | .78  | .66  | .93   | 1.52  | 7.71  | 4.29  | .89   | .39   | .67   | .53   |
| IN.   | .48   | .90   | .90  | .76  | .96   | 1.76  | 8.61  | 4.96  | .99   | .44   | .77   | .59   |

CAL YR 1970 TOTAL 16,801.8 MEAN 46.0 MAX 555 MIN 4.6 CFSM 1.92 IN 26.04  
WTR YR 1971 TOTAL 14,276.7 MEAN 39.1 MAX 385 MIN 3.6 CFSM 1.63 IN 22.13

## PEAK DISCHARGE (BASE, 660 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-13 | 1745 | 5.21  | 701       |      |      |       |           |
| 8-28 | 1200 | 5.87  | 1,180     |      |      |       |           |

NOTE.--Doubtful or no gage-height record May 12 to June 16.

## 01170000 Deerfield River near West Deerfield, Mass.

LOCATION.--Lat 42°32'09", long 72°39'14", Franklin County, on right bank 0.4 mile downstream from South River, 1.2 miles west of West Deerfield, 2.5 miles west of Deerfield, and 9.2 miles upstream from mouth.

DRAINAGE AREA.--558 sq mi.

PERIOD OF RECORD.--March to November 1904, January 1905, March to December 1905, October 1940 to current year. Published as "at Deerfield" 1904-5.

GAGE.--Water-stage recorder. Altitude of gage is 155 ft (from topographic map). Prior to Dec. 16, 1905, nonrecording gage at site 1.5 miles downstream at different datum.

AVERAGE DISCHARGE.--31 years (1940-71), 1,225 cfs (29.81 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 10,400 cfs Aug. 28 (gage height, 6.95 ft); minimum daily, 93 cfs July 8.

Period of record: Maximum discharge, 48,500 cfs Dec. 31, 1948 (gage height, 15.43 ft); minimum daily, 28 cfs July 29, 1962.

REMARKS.--Records good. Flow regulated since 1913 by Somerset Reservoir, since 1924 by Harriman Reservoir (see p. 209), and by several powerplants above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV        | DEC       | JAN    | FEB         | MAR        | APR       | MAY    | JUN    | JUL    | AUG    | SEP    |
|-------------|---------------|------------|-----------|--------|-------------|------------|-----------|--------|--------|--------|--------|--------|
| 1           | 660           | 287        | 1,320     | 677    | 908         | 1,090      | 1,230     | 3,590  | 972    | 862    | 388    | 485    |
| 2           | 751           | 550        | 1,220     | 425    | 1,110       | 1,200      | 1,420     | 3,300  | 513    | 1,380  | 778    | 563    |
| 3           | 446           | 787        | 1,210     | 394    | 810         | 1,200      | 2,410     | 4,420  | 486    | 385    | 492    | 524    |
| 4           | 443           | 788        | 1,570     | 769    | 996         | 1,260      | 2,390     | 6,750  | 402    | 171    | 365    | 307    |
| 5           | 759           | 772        | 1,520     | 977    | 653         | 1,150      | 2,150     | 4,220  | 598    | 251    | 144    | 208    |
| 6           | 797           | 826        | 1,010     | 1,150  | 822         | 897        | 2,220     | 4,200  | 358    | 386    | 248    | 158    |
| 7           | 702           | 695        | 998       | 1,240  | 350         | 501        | 2,190     | 3,300  | 487    | 261    | 242    | 348    |
| 8           | 788           | 518        | 1,090     | 1,110  | 640         | 651        | 1,870     | 3,300  | 702    | 93     | 242    | 744    |
| 9           | 738           | 400        | 1,230     | 1,060  | 834         | 1,340      | 1,780     | 4,490  | 742    | 367    | 215    | 472    |
| 10          | 692           | 672        | 1,190     | 509    | 756         | 1,250      | 2,350     | 4,820  | 482    | 195    | 265    | 493    |
| 11          | 198           | 760        | 1,170     | 672    | 862         | 1,270      | 2,730     | 4,350  | 471    | 139    | 386    | 308    |
| 12          | 485           | 601        | 1,120     | 1,110  | 987         | 1,270      | 3,410     | 3,900  | 472    | 231    | 378    | 854    |
| 13          | 808           | 762        | 633       | 1,130  | 573         | 813        | 4,910     | 4,900  | 299    | 332    | 443    | 767    |
| 14          | 737           | 718        | 654       | 1,160  | 436         | 527        | 5,290     | 5,440  | 301    | 239    | 350    | 1,380  |
| 15          | 749           | 547        | 1,120     | 1,090  | 560         | 779        | 3,730     | 3,650  | 479    | 199    | 203    | 1,420  |
| 16          | 823           | 742        | 1,170     | 1,020  | 957         | 1,460      | 2,840     | 2,890  | 423    | 254    | 372    | 743    |
| 17          | 620           | 917        | 1,160     | 520    | 981         | 1,790      | 2,380     | 2,750  | 379    | 233    | 316    | 1,280  |
| 18          | 114           | 1,230      | 1,130     | 620    | 939         | 1,700      | 2,490     | 2,230  | 117    | 180    | 273    | 645    |
| 19          | 371           | 1,200      | 964       | 1,100  | 963         | 1,370      | 4,020     | 1,860  | 195    | 408    | 233    | 277    |
| 20          | 741           | 1,320      | 893       | 1,150  | 748         | 1,570      | 5,560     | 1,690  | 227    | 531    | 274    | 405    |
| 21          | 785           | 1,470      | 715       | 1,100  | 524         | 1,420      | 5,420     | 1,600  | 637    | 170    | 238    | 695    |
| 22          | 703           | 939        | 893       | 1,150  | 691         | 1,440      | 4,540     | 1,750  | 588    | 190    | 167    | 775    |
| 23          | 1,030         | 1,290      | 837       | 757    | 827         | 1,220      | 3,710     | 848    | 354    | 210    | 342    | 716    |
| 24          | 809           | 1,390      | 921       | 543    | 978         | 1,380      | 3,120     | 640    | 457    | 180    | 198    | 641    |
| 25          | 464           | 1,270      | 1,050     | 660    | 884         | 1,130      | 3,210     | 1,130  | 278    | 150    | 218    | 390    |
| 26          | 627           | 1,120      | 449       | 1,100  | 937         | 1,340      | 2,550     | 1,180  | 676    | 120    | 241    | 144    |
| 27          | 859           | 515        | 584       | 934    | 1,040       | 1,120      | 2,750     | 1,010  | 256    | 230    | 573    | 453    |
| 28          | 759           | 864        | 544       | 1,180  | 901         | 429        | 2,790     | 558    | 309    | 310    | 3,870  | 632    |
| 29          | 722           | 936        | 1,190     | 1,070  | -----       | 755        | 4,330     | 452    | 431    | 330    | 2,020  | 591    |
| 30          | 600           | 900        | 1,100     | 623    | -----       | 1,140      | 4,350     | 598    | 395    | 827    | 777    | 583    |
| 31          | 488           | -----      | 1,120     | 416    | -----       | 1,050      | -----     | 514    | -----  | 660    | 420    | -----  |
| TOTAL       | 20,268        | 25,786     | 31,775    | 27,416 | 22,667      | 35,512     | 94,140    | 86,330 | 13,486 | 10,474 | 15,671 | 18,001 |
| MEAN        | 654           | 860        | 1,025     | 884    | 810         | 1,146      | 3,138     | 2,785  | 450    | 338    | 506    | 600    |
| MAX         | 1,030         | 1,470      | 1,570     | 1,240  | 1,110       | 1,790      | 5,560     | 6,750  | 972    | 1,380  | 3,870  | 1,420  |
| MIN         | 114           | 287        | 449       | 394    | 350         | 429        | 1,230     | 452    | 117    | 93     | 144    | 144    |
| MEAN†       | 522           | 712        | 727       | 411    | 579         | 865        | 3,954     | 3,832  | 357    | 304    | 568    | 427    |
| CFSMT       | .94           | 1.28       | 1.30      | .74    | 1.04        | 1.55       | 7.09      | 6.87   | .64    | .54    | 1.02   | .77    |
| IN.†        | 1.08          | 1.42       | 1.50      | .85    | 1.08        | 1.79       | 7.91      | 7.92   | .71    | .63    | 1.17   | .85    |
| CAL YR 1970 | TOTAL 425,492 | MEAN 1,166 | MAX 6,850 | MIN 86 | MEAN† 1,118 | CFSMT 2.00 | IN† 27.20 |        |        |        |        |        |
| WTR YR 1971 | TOTAL 401,526 | MEAN 1,100 | MAX 6,750 | MIN 93 | MEAN† 1,106 | CFSMT 1.98 | IN† 26.92 |        |        |        |        |        |

† Adjusted for change in contents in Somerset and Harriman Reservoirs.

01170100 Green River near Colrain, Mass.

LOCATION.--Lat 42°42'12", long 72°40'16", Franklin County, on right bank 0.5 mile upstream from bridge on West Leyden Road and 2.5 miles northeast of Colrain.

DRAINAGE AREA.--41.4 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

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

EXTREMES.--Current year: Maximum discharge, 1,450 cfs Aug. 28 (gage height, 5.47 ft), from rating curve extended above 800 cfs; minimum, 4.5 cfs Aug. 25-27.

Period of record: Maximum discharge, 3,200 cfs (revised) Apr. 23, 1969 (gage height, 7.20 ft), from rating curve extended above 410 cfs; minimum, 1.9 cfs Aug. 1, 1968.

Revisions.--Figures of maximum discharge for the water years 1968 and 1969 have been revised to 2,400 cfs Apr. 25, 1968 (gage height, 6.49 ft) and 3,200 cfs Apr. 23, 1969 (gage height, 7.20 ft), superseding figures published in WRD Mass., N.H., R.I., Vt., 1968 and 1969.

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

REVISIONS.--Revised figures of discharge, in cubic feet per second, for high-water periods in water year 1969, superseding figures published in WRD Mass., N.H., R.I., Vt., 1969 are given herewith:

| Date   | Discharge | Date      | Discharge | Date      | Discharge |
|--------|-----------|-----------|-----------|-----------|-----------|
| 1969   |           | 1969-Con. |           | 1969-Con. |           |
| Apr. 5 | 460       | Apr. 13   | 451       | Apr. 22   | 658       |
| 6      | 599       | 14        | 475       | 23        | 1,270     |
| 7      | 511       | 15        | 503       | 24        | 496       |
| 8      | 511       | 16        | 538       | 25        | 345       |
| 9      | 480       | 17        | 560       |           |           |
| 10     | 784       | 18        | 455       | July 29   | 1,020     |
| 11     | 724       | 19        | 736       | 30        | 491       |
| 12     | 506       | 20        | 394       |           |           |

| Month       | Cfs-days | Maximum | Minimum | Mean | Per square mile | Runoff in inches |
|-------------|----------|---------|---------|------|-----------------|------------------|
| April 1969  | 13,273   | 1,270   | 121     | 442  | 10.7            | 11.93            |
| July 1969   | 2,799    | 1,020   | 18      | 90.3 | 2.18            | 2.52             |
| WAT YR 1969 | 37,373.4 | 1,270   | 6.5     | 102  | 2.46            | 33.58            |
| CAL YR 1969 | 41,492   | 1,270   | 13      | 114  | 2.75            | 37.28            |

Revised peak discharge.--1969: Nov. 29 (0830) 605 cfs (4.24 ft); Dec. 4 (2215) 1,250 cfs (5.23 ft); Apr. 10 (2130) 1,600 cfs (5.66 ft); Apr. 19 (0615) 1,590 cfs (5.64 ft); Apr. 23 (0230) 3,200 cfs (7.20 ft); June 15 (1830) 2,480 cfs (6.56 ft); July 29 (0615) 3,100 cfs (7.12 ft); Aug. 5 (0715) 778 cfs (4.53 ft).

## CONNECTICUT RIVER BASIN

01170100 Green River near Colrain, Mass.--Continued

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN  | FEB   | MAR   | APR    | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|------|-------|-------|--------|-------|-------|-------|-------|-------|
| 1     | 11    | 15    | 43    | 27   | 20    | 82    | 56     | 354   | 50    | 17    | 27    | 16    |
| 2     | 10    | 15    | 37    | 28   | 19    | 60    | 73     | 364   | 45    | 24    | 18    | 13    |
| 3     | 12    | 14    | 33    | 29   | 17    | 54    | 229    | 524   | 45    | 18    | 17    | 11    |
| 4     | 39    | 13    | 120   | 29   | 16    | 52    | 234    | 769   | 45    | 14    | 24    | 10    |
| 5     | 22    | 16    | 78    | 32   | 16    | 61    | 193    | 439   | 39    | 13    | 19    | 9.5   |
| 6     | 15    | 15    | 56    | 45   | 17    | 55    | 171    | 377   | 35    | 12    | 13    | 8.4   |
| 7     | 13    | 13    | 40    | 29   | 18    | 50    | 160    | 313   | 33    | 14    | 11    | 8.4   |
| 8     | 12    | 13    | 23    | 32   | 19    | 51    | 130    | 303   | 32    | 11    | 9.3   | 8.4   |
| 9     | 11    | 13    | 26    | 30   | 24    | 47    | 129    | 520   | 31    | 10    | 8.2   | 8.4   |
| 10    | 10    | 13    | 30    | 32   | 23    | 44    | 223    | 434   | 29    | 9.3   | 7.4   | 7.5   |
| 11    | 10    | 17    | 24    | 31   | 20    | 45    | 312    | 302   | 26    | 8.5   | 7.8   | 7.1   |
| 12    | 10    | 21    | 22    | 29   | 20    | 44    | 412    | 242   | 25    | 8.5   | 23    | 29    |
| 13    | 9.8   | 19    | 21    | 26   | 25    | 44    | 533    | 424   | 24    | 8.1   | 13    | 32    |
| 14    | 10    | 17    | 21    | 28   | 50    | 43    | 529    | 389   | 24    | 7.8   | 9.9   | 37    |
| 15    | 13    | 27    | 21    | 29   | 70    | 42    | 391    | 237   | 22    | 9.7   | 8.3   | 44    |
| 16    | 38    | 41    | 21    | 27   | 65    | 63    | 314    | 198   | 25    | 9.2   | 7.6   | 29    |
| 17    | 23    | 32    | 25    | 25   | 50    | 81    | 273    | 191   | 25    | 8.7   | 6.7   | 35    |
| 18    | 17    | 25    | 35    | 24   | 38    | 61    | 313    | 148   | 19    | 10    | 6.4   | 28    |
| 19    | 15    | 32    | 35    | 23   | 33    | 56    | 512    | 125   | 17    | 16    | 5.8   | 23    |
| 20    | 13    | 59    | 33    | 22   | 32    | 56    | 646    | 107   | 16    | 32    | 5.5   | 18    |
| 21    | 13    | 80    | 30    | 21   | 31    | 55    | 575    | 98    | 19    | 15    | 5.5   | 22    |
| 22    | 16    | 53    | 28    | 23   | 30    | 52    | 495    | 117   | 28    | 11    | 5.3   | 20    |
| 23    | 46    | 66    | 32    | 23   | 31    | 50    | 438    | 91    | 19    | 9.4   | 5.3   | 16    |
| 24    | 41    | 53    | 31    | 22   | 32    | 47    | 423    | 80    | 17    | 8.4   | 4.9   | 13    |
| 25    | 29    | 41    | 31    | 21   | 34    | 50    | 411    | 74    | 18    | 8.1   | 4.6   | 12    |
| 26    | 24    | 44    | 31    | 22   | 37    | 49    | 325    | 70    | 53    | 7.8   | 4.5   | 11    |
| 27    | 21    | 34    | 29    | 26   | 65    | 47    | 335    | 65    | 26    | 7.5   | 7.2   | 11    |
| 28    | 19    | 32    | 29    | 22   | 130   | 48    | 355    | 61    | 19    | 7.3   | 403   | 11    |
| 29    | 17    | 33    | 28    | 22   | ----- | 51    | 488    | 56    | 16    | 9.1   | 94    | 11    |
| 30    | 16    | 44    | 28    | 22   | ----- | 54    | 384    | 56    | 15    | 41    | 35    | 11    |
| 31    | 16    | ----- | 27    | 21   | ----- | 54    | -----  | 59    | ----- | 25    | 22    | ----- |
| TOTAL | 571.8 | 910   | 1,068 | 822  | 982   | 1,648 | 10,062 | 7,587 | 837   | 410.4 | 839.2 | 520.7 |
| MEAN  | 18.4  | 30.3  | 34.5  | 26.5 | 35.1  | 53.2  | 335    | 245   | 27.9  | 13.2  | 27.1  | 17.4  |
| MAX   | 46    | 80    | 120   | 45   | 130   | 82    | 646    | 769   | 53    | 41    | 403   | 44    |
| MIN   | 9.8   | 13    | 21    | 21   | 16    | 42    | 56     | 56    | 15    | 7.3   | 4.5   | 7.1   |
| CFSM  | .44   | .73   | .83   | .64  | .85   | 1.29  | 8.09   | 5.92  | .67   | .32   | .65   | .42   |
| IN.   | .51   | .82   | .96   | .74  | .88   | 1.48  | 9.04   | 6.82  | .75   | .37   | .75   | .47   |

CAL YR 1970 TOTAL 26,848.6 MEAN 73.6 MAX 736 MIN 4.5 CFSM 1.78 IN 24.12  
WTR YR 1971 TOTAL 26,258.1 MEAN 71.9 MAX 769 MIN 4.5 CFSM 1.74 IN 23.59

## PEAK DISCHARGE (BASE, 800 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-20 | 1900 | 4.70  | 880       |      |      |       |           |
| 5-4  | 0715 | 5.17  | 1,210     |      |      |       |           |
| 8-28 | 1215 | 5.47  | 1,450     |      |      |       |           |



## 01170500 Connecticut River at Montague City, Mass.

LOCATION.--Lat 42°34'48", long 72°34'30", Franklin County, on left bank 75 ft downstream from Penn Central Railroad bridge at Montague City, 1,000 ft downstream from Deerfield River, and at mile 119.0.

DRAINAGE AREA.--7,865 sq mi.

PERIOD OF RECORD.--March 1904 to current year. Prior to October 1929, published as "at Sunderland." Records published for both sites October 1929 to September 1932.

GAGE.--Water-stage recorder. Datum of gage is 99.87 ft 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, at site 9 miles downstream at datum 1.00 ft lower. Since Oct. 1, 1929, water-stage recorder at present site and datum.

AVERAGE DISCHARGE.--67 years, 13,460 cfs (23.24 inches per year), adjusted for storage since October 1923.

EXTREMES.--Current year: Maximum discharge, 76,400 cfs May 5 (gage height, 27.50 ft); minimum daily, 305 cfs July 4.

Period of record: Maximum discharge, 236,000 cfs Mar. 19, 1936 (gage height, 49.2 ft, from floodmarks); minimum daily, 215 cfs Aug. 31, Sept. 1, 1958.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs (see p.209), and other reservoirs (combined usable capacity, about 42.2 billion cubic feet).

REVISIONS (WATER YEARS).--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).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT     | NOV     | DEC     | JAN     | FEB     | MAR     | APR      | MAY      | JUN     | JUL    | AUG     | SEP     |
|-------|---------|---------|---------|---------|---------|---------|----------|----------|---------|--------|---------|---------|
| 1     | 8,120   | 2,060   | 10,500  | 3,100   | 5,800   | 8,200   | 12,900   | 47,700   | 10,800  | 6,200  | 1,750   | 5,330   |
| 2     | 8,500   | 3,290   | 10,300  | 3,900   | 5,100   | 10,500  | 12,900   | 46,300   | 11,400  | 8,160  | 5,150   | 5,420   |
| 3     | 7,980   | 6,430   | 5,520   | 2,500   | 5,200   | 11,500  | 19,200   | 49,100   | 9,760   | 2,120  | 5,380   | 7,460   |
| 4     | 3,230   | 4,140   | 11,000  | 5,700   | 4,900   | 11,500  | 25,200   | 64,300   | 8,320   | 305    | 8,030   | 5,930   |
| 5     | 7,840   | 5,310   | 14,400  | 5,900   | 6,200   | 11,000  | 28,900   | 74,400   | 7,940   | 716    | 8,580   | 1,390   |
| 6     | 8,430   | 5,290   | 7,600   | 4,800   | 4,900   | 10,500  | 27,400   | 70,800   | 4,170   | 3,830  | 8,690   | 610     |
| 7     | 7,900   | 4,080   | 7,670   | 5,600   | 1,200   | 7,600   | 26,500   | 62,900   | 9,000   | 2,650  | 4,090   | 5,870   |
| 8     | 9,200   | 3,330   | 5,670   | 6,200   | 5,400   | 8,200   | 25,600   | 55,700   | 8,980   | 3,950  | 1,740   | 5,600   |
| 9     | 8,310   | 2,120   | 8,520   | 6,800   | 6,200   | 9,880   | 21,500   | 52,000   | 7,580   | 2,560  | 6,020   | 7,000   |
| 10    | 5,650   | 3,810   | 7,790   | 5,600   | 6,000   | 12,000  | 23,800   | 50,900   | 9,410   | 632    | 5,290   | 3,390   |
| 11    | 2,930   | 4,790   | 8,770   | 5,400   | 5,500   | 10,600  | 26,800   | 48,200   | 9,980   | 700    | 4,230   | 1,930   |
| 12    | 3,930   | 5,460   | 5,890   | 5,600   | 5,000   | 9,480   | 33,800   | 47,000   | 5,750   | 3,020  | 4,220   | 4,030   |
| 13    | 6,520   | 6,800   | 3,390   | 6,400   | 4,100   | 8,800   | 42,400   | 46,800   | 5,150   | 1,540  | 2,680   | 5,170   |
| 14    | 5,680   | 5,510   | 7,420   | 7,000   | 3,500   | 7,510   | 53,300   | 51,700   | 6,380   | 3,060  | 1,770   | 7,140   |
| 15    | 5,240   | 3,880   | 8,000   | 6,200   | 2,800   | 8,030   | 56,600   | 45,600   | 6,300   | 3,130  | 1,200   | 6,320   |
| 16    | 6,860   | 6,060   | 6,600   | 4,300   | 6,200   | 11,500  | 47,800   | 38,600   | 4,880   | 2,990  | 3,180   | 7,280   |
| 17    | 8,500   | 9,060   | 6,000   | 1,000   | 8,000   | 16,500  | 39,500   | 34,000   | 4,060   | 2,040  | 2,790   | 7,700   |
| 18    | 7,740   | 7,800   | 6,500   | 6,600   | 10,000  | 18,100  | 36,100   | 27,800   | 4,340   | 1,070  | 3,230   | 5,370   |
| 19    | 6,160   | 9,090   | 4,500   | 6,600   | 8,000   | 16,700  | 34,700   | 27,700   | 2,820   | 5,570  | 2,500   | 3,590   |
| 20    | 8,380   | 7,740   | 4,800   | 5,800   | 6,800   | 17,200  | 46,300   | 19,100   | 569     | 4,920  | 2,480   | 6,920   |
| 21    | 8,070   | 7,590   | 7,400   | 6,000   | 6,000   | 17,100  | 56,900   | 20,100   | 6,340   | 4,080  | 1,340   | 5,010   |
| 22    | 7,800   | 7,040   | 8,000   | 6,000   | 7,200   | 16,500  | 65,700   | 18,800   | 4,660   | 3,270  | 507     | 4,940   |
| 23    | 8,280   | 10,500  | 6,000   | 3,000   | 8,800   | 16,300  | 64,700   | 20,600   | 3,440   | 5,160  | 4,710   | 5,730   |
| 24    | 7,040   | 13,200  | 6,500   | 1,600   | 7,800   | 14,200  | 58,200   | 18,900   | 5,640   | 1,680  | 2,500   | 6,440   |
| 25    | 7,060   | 11,400  | 4,000   | 5,400   | 7,400   | 12,300  | 51,200   | 17,100   | 4,580   | 431    | 3,680   | 2,040   |
| 26    | 6,430   | 11,400  | 6,600   | 4,800   | 6,400   | 13,200  | 45,700   | 16,900   | 7,520   | 4,880  | 2,850   | 780     |
| 27    | 8,850   | 7,520   | 7,000   | 7,000   | 8,500   | 10,100  | 43,100   | 19,900   | 4,770   | 4,860  | 8,090   | 4,100   |
| 28    | 8,420   | 7,710   | 7,500   | 6,000   | 7,500   | 7,530   | 42,800   | 18,400   | 4,840   | 1,480  | 17,500  | 3,340   |
| 29    | 8,350   | 5,140   | 8,200   | 5,000   | -----   | 10,500  | 45,800   | 16,000   | 3,570   | 2,290  | 15,500  | 3,110   |
| 30    | 6,810   | 7,620   | 6,800   | 4,000   | -----   | 11,300  | 51,500   | 15,900   | 5,410   | 4,970  | 16,200  | 3,580   |
| 31    | 4,520   | -----   | 6,000   | 3,600   | -----   | 12,000  | -----    | 15,000   | -----   | 3,260  | 10,400  | -----   |
| TOTAL | 218,730 | 195,170 | 232,840 | 157,400 | 170,400 | 366,330 | 1,166.8M | 1,158.2M | 188,359 | 95,524 | 166,277 | 142,520 |
| MEAN  | 7,056   | 6,506   | 7,511   | 5,077   | 6,086   | 11,820  | 38,890   | 37,360   | 6,279   | 3,081  | 5,364   | 4,751   |
| MAX   | 9,200   | 13,200  | 14,400  | 7,000   | 10,000  | 18,100  | 65,700   | 74,400   | 11,400  | 8,160  | 17,500  | 7,700   |
| MIN   | 2,930   | 2,060   | 3,390   | 1,000   | 1,200   | 7,510   | 12,900   | 15,000   | 569     | 305    | 507     | 610     |
| MEAN† | 6,978   | 6,157   | 6,302   | 3,922   | 5,246   | 9,823   | 41,040   | 41,510   | 6,113   | 2,968  | 5,564   | 4,126   |
| CFSM† | .89     | .78     | .80     | .50     | .67     | 1.25    | 5.22     | 5.28     | .78     | .38    | .71     | .52     |
| IN.†  | 1.02    | .87     | .92     | .58     | .69     | 1.44    | 5.82     | 6.09     | .87     | .44    | .82     | .59     |

CAL YR 1970 TOTAL 4,712,255 MEAN 12,510 MAX 74,500 MIN 507 MEAN† 12,760 CFSM† 1.62 IN† 22.03  
WTR YR 1971 TOTAL 4,258,550 MEAN 11,670 MAX 74,400 MIN 305 MEAN† 11,670 CFSM† 1.48 IN† 20.14

## PEAK DISCHARGE (BASE, 61,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-22 | 1015 | 25.66 | 67,200    |      |      |       |           |
| 5-5  | 0915 | 27.50 | 76,400    |      |      |       |           |

† Adjusted for change in contents in all reservoirs from First Connecticut and Second Connecticut Lakes to 2 reservoirs in Deerfield River basin listed on page 209.

01171300 Fort River near Amherst, Mass.

LOCATION.--Lat 42°21'28", long 72°30'17", Hampshire County, on left bank 20 ft upstream from Southeast Street Bridge, 250 ft downstream from Hop Brook, and 1.3 miles southeast of Amherst.

DRAINAGE AREA.--40.6 sq mi, excludes 1.04 sq mi drained by Nourse Brook, flow of which is diverted from basin.

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

GAGE.--Water-stage recorder. Altitude of gage is 147 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 56.5 cfs (18.90 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 345 cfs Apr. 4 (gage height, 4.78 ft); minimum, 5.2 cfs Aug. 26.

Period of record: Maximum discharge, 2,030 cfs Apr. 2, 1970 (gage height, 8.70 ft), from rating curve extended above 690 cfs; minimum, 1.9 cfs Sept. 3, 1966.

Floods of March 1936 and September 1938 reached discharges of 2,360 cfs and 1,640 cfs, respectively, by computation of flow over dam 1.2 miles downstream.

REMARKS.--Records good except those for winter period, which are fair. Diversion above station for municipal supply of Amherst. Records of chemical analyses for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT            | NOV       | DEC     | JAN     | FEB        | MAR        | APR       | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|----------------|-----------|---------|---------|------------|------------|-----------|-------|-------|-------|-------|-------|
| 1           | 14             | 20        | 35      | 23      | 23         | 161        | 96        | 59    | 32    | 8.9   | 42    | 11    |
| 2           | 13             | 16        | 21      | 25      | 21         | 161        | 119       | 48    | 25    | 12    | 26    | 8.0   |
| 3           | 15             | 16        | 27      | 24      | 20         | 127        | 278       | 65    | 30    | 10    | 19    | 7.7   |
| 4           | 36             | 19        | 62      | 23      | 19         | 100        | 268       | 150   | 42    | 8.0   | 29    | 8.0   |
| 5           | 25             | 42        | 66      | 33      | 22         | 82         | 199       | 113   | 29    | 8.3   | 23    | 7.5   |
| 6           | 19             | 44        | 45      | 55      | 24         | 75         | 156       | 75    | 22    | 7.0   | 15    | 7.0   |
| 7           | 17             | 32        | 35      | 45      | 23         | 74         | 163       | 59    | 20    | 8.0   | 12    | 7.0   |
| 8           | 15             | 26        | 26      | 39      | 28         | 82         | 163       | 55    | 36    | 7.0   | 10    | 7.7   |
| 9           | 14             | 20        | 26      | 35      | 32         | 74         | 139       | 105   | 89    | 7.7   | 8.6   | 8.3   |
| 10          | 14             | 20        | 28      | 34      | 29         | 63         | 154       | 154   | 41    | 7.7   | 8.0   | 6.8   |
| 11          | 13             | 24        | 32      | 31      | 27         | 57         | 159       | 103   | 27    | 8.0   | 8.0   | 6.6   |
| 12          | 13             | 29        | 29      | 27      | 27         | 55         | 156       | 75    | 22    | 8.0   | 14    | 6.8   |
| 13          | 13             | 25        | 30      | 25      | 35         | 56         | 144       | 105   | 20    | 7.7   | 11    | 5.6   |
| 14          | 13             | 41        | 30      | 26      | 65         | 57         | 129       | 167   | 18    | 9.2   | 8.9   | 2.7   |
| 15          | 17             | 56        | 27      | 27      | 80         | 82         | 105       | 109   | 15    | 9.2   | 7.7   | 1.8   |
| 16          | 34             | 66        | 24      | 25      | 62         | 214        | 90        | 92    | 14    | 8.3   | 7.5   | 1.3   |
| 17          | 24             | 44        | 27      | 22      | 56         | 226        | 82        | 123   | 13    | 7.7   | 6.8   | 3.0   |
| 18          | 21             | 32        | 30      | 20      | 54         | 159        | 74        | 90    | 12    | 9.2   | 6.4   | 2.1   |
| 19          | 20             | 32        | 31      | 19      | 53         | 125        | 69        | 68    | 11    | 13    | 6.2   | 1.5   |
| 20          | 17             | 38        | 34      | 19      | 54         | 105        | 66        | 57    | 10    | 16    | 8.0   | 1.2   |
| 21          | 16             | 65        | 34      | 18      | 58         | 100        | 60        | 50    | 11    | 13    | 9.5   | 1.8   |
| 22          | 18             | 48        | 25      | 18      | 52         | 98         | 57        | 54    | 11    | 9.2   | 7.3   | 1.8   |
| 23          | 25             | 47        | 28      | 20      | 54         | 102        | 51        | 47    | 11    | 8.0   | 6.4   | 1.3   |
| 24          | 30             | 45        | 27      | 22      | 56         | 89         | 42        | 40    | 10    | 7.5   | 5.7   | 1.1   |
| 25          | 24             | 33        | 27      | 22      | 54         | 78         | 42        | 35    | 9.2   | 7.5   | 5.3   | 1.0   |
| 26          | 20             | 28        | 27      | 30      | 56         | 72         | 42        | 34    | 33    | 7.7   | 5.3   | 8.9   |
| 27          | 19             | 27        | 27      | 35      | 111        | 71         | 41        | 36    | 16    | 12    | 13    | 8.3   |
| 28          | 18             | 28        | 25      | 30      | 152        | 74         | 39        | 42    | 11    | 11    | 80    | 8.3   |
| 29          | 17             | 28        | 24      | 26      | -----      | 84         | 71        | 38    | 9.5   | 9.2   | 55    | 8.3   |
| 30          | 17             | 34        | 24      | 25      | -----      | 100        | 80        | 33    | 8.6   | 18    | 22    | 8.3   |
| 31          | 17             | -----     | 23      | 24      | -----      | 100        | -----     | 33    | ----- | 42    | 14    | ----- |
| TOTAL       | 588            | 1,025     | 967     | 846     | 1,347      | 3,103      | 3,334     | 2,314 | 658.3 | 326.0 | 500.6 | 457.7 |
| MEAN        | 19.0           | 34.2      | 31.2    | 27.3    | 48.1       | 100        | 111       | 74.6  | 21.9  | 10.5  | 16.1  | 15.3  |
| MAX         | 36             | 66        | 66      | 55      | 152        | 226        | 278       | 167   | 89    | 42    | 80    | 6.8   |
| MIN         | 13             | 16        | 23      | 18      | 19         | 55         | 39        | 33    | 8.6   | 7.0   | 5.3   | 6.6   |
| MEAN†       | 2.01           | 34.7      | 32.2    | 28.3    | 50.4       | 102        | 113       | 76.8  | 23.8  | 11.9  | 17.2  | 16.9  |
| CFSM†       | .50            | .85       | .79     | .70     | 1.24       | 2.51       | 2.78      | 1.89  | .59   | .29   | .42   | .42   |
| IN.†        | .57            | .95       | .92     | .80     | 1.29       | 2.89       | 3.11      | 2.18  | .65   | .34   | .49   | .46   |
| CAL YR 1970 | TOTAL 21,761.2 | MEAN 59.6 | MAX 885 | MIN 8.9 | MEAN† 60.5 | CFSM† 1.49 | IN† 20.23 |       |       |       |       |       |
| WTR YR 1971 | TOTAL 15,466.6 | MEAN 42.4 | MAX 278 | MIN 5.3 | MEAN† 43.8 | CFSM† 1.08 | IN† 14.66 |       |       |       |       |       |

PEAK DISCHARGE (BASE, 500 CFS, REVISED).--No peak above base.

† Adjusted for diversion for municipal supply of Amherst. Diversion records furnished by town of Amherst.

01171500 Mill River at Northampton, Mass.

LOCATION.--Lat 42°19'05", long 72°39'21", Hampshire County, on right bank at Northampton, 3.5 miles upstream from mouth.

DRAINAGE AREA.--52.8 sq mi.

PERIOD OF RECORD.--October 1938 to current year. October 1938 monthly discharge only, published in WSP 1301.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 140 ft (from topographic map).

AVERAGE DISCHARGE.--33 years, 90.9 cfs (23.38 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,360 cfs Aug. 28 (gage height, 5.11 ft); minimum, 7.5 cfs July 16.

Period of record: Maximum discharge, 6,300 cfs Aug. 19, 1955 (gage height, 11.78 ft), from rating curve extended above 3,700 cfs on basis of computation of peak flow over dam; minimum, 2.2 cfs Oct. 1, 1950; minimum daily, 4.2 cfs Aug. 21, 23, 24, 1957.

REMARKS.--Records excellent except those for period of no gage-height record, which are fair. Flow regulated by mill above station prior to 1956. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 921: 1940. WSP 1231: 1940-42(M), 1944-45(M), 1948(M), 1949.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG     | SEP   |
|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|
| 1     | 18   | 18    | 49    | 42    | 36    | 165   | 185   | 179   | 73    | 22    | 37      | 25    |
| 2     | 20   | 19    | 42    | 45    | 33    | 147   | 229   | 157   | 58    | 30    | 27      | 20    |
| 3     | 20   | 18    | 38    | 43    | 31    | 125   | 508   | 211   | 71    | 22    | 30      | 18    |
| 4     | 29   | 18    | 113   | 42    | 30    | 105   | 435   | 305   | 67    | 18    | 46      | 16    |
| 5     | 22   | 93    | 85    | 60    | 30    | 105   | 343   | 196   | 50    | 15    | 29      | 15    |
| 6     | 20   | 62    | 61    | 100   | 39    | 105   | 283   | 160   | 44    | 13    | 20      | 14    |
| 7     | 20   | 37    | 49    | 80    | 37    | 102   | 316   | 142   | 42    | 12    | 15      | 15    |
| 8     | 18   | 31    | 38    | 66    | 38    | 97    | 276   | 139   | 51    | 10    | 12      | 16    |
| 9     | 17   | 27    | 45    | 62    | 45    | 87    | 252   | 297   | 125   | 11    | 12      | 16    |
| 10    | 16   | 26    | 47    | 60    | 35    | 84    | 350   | 350   | 58    | 10    | 11      | 15    |
| 11    | 16   | 32    | 45    | 54    | 32    | 82    | 390   | 202   | 45    | 10    | 14      | 13    |
| 12    | 18   | 35    | 43    | 48    | 43    | 80    | 431   | 168   | 37    | 11    | 29      | 53    |
| 13    | 18   | 32    | 44    | 43    | 50    | 76    | 508   | 276   | 36    | 9.5   | 19      | 53    |
| 14    | 18   | 36    | 44    | 47    | 110   | 78    | 486   | 290   | 35    | 9.9   | 13      | 93    |
| 15    | 22   | 59    | 39    | 50    | 120   | 89    | 350   | 185   | 31    | 9.1   | 11      | 78    |
| 16    | 41   | 84    | 36    | 45    | 84    | 162   | 290   | 170   | 30    | 8.6   | 12      | 46    |
| 17    | 28   | 51    | 44    | 40    | 65    | 195   | 249   | 220   | 28    | 8.6   | 11      | 55    |
| 18    | 21   | 39    | 55    | 37    | 65    | 149   | 255   | 200   | 25    | 8.6   | 10      | 43    |
| 19    | 20   | 42    | 53    | 34    | 65    | 131   | 316   | 165   | 23    | 14    | 9.5     | 32    |
| 20    | 18   | 73    | 49    | 33    | 76    | 127   | 362   | 140   | 22    | 25    | 25      | 27    |
| 21    | 18   | 127   | 46    | 33    | 82    | 113   | 327   | 120   | 22    | 15    | 26      | 35    |
| 22    | 25   | 73    | 49    | 34    | 70    | 104   | 276   | 130   | 22    | 12    | 18      | 31    |
| 23    | 61   | 84    | 55    | 35    | 84    | 106   | 239   | 115   | 21    | 11    | 14      | 25    |
| 24    | 55   | 67    | 53    | 35    | 84    | 102   | 217   | 105   | 18    | 9.9   | 12      | 22    |
| 25    | 35   | 50    | 49    | 35    | 78    | 93    | 208   | 96    | 18    | 9.5   | 11      | 20    |
| 26    | 29   | 42    | 45    | 45    | 82    | 91    | 179   | 90    | 100   | 11    | 10      | 18    |
| 27    | 25   | 42    | 47    | 60    | 171   | 97    | 168   | 95    | 37    | 11    | 25      | 19    |
| 28    | 22   | 41    | 46    | 50    | 150   | 106   | 160   | 105   | 29    | 9.9   | 443     | 22    |
| 29    | 21   | 41    | 45    | 44    | ----- | 137   | 301   | 78    | 22    | 11    | 137     | 22    |
| 30    | 21   | 50    | 44    | 42    | ----- | 182   | 233   | 67    | 26    | 20    | 53      | 16    |
| 31    | 19   | ----- | 43    | 39    | ----- | 185   | ----- | 78    | ----- | 30    | 32      | ----- |
| TOTAL | 751  | 1,449 | 1,541 | 1,483 | 1,905 | 3,611 | 9,122 | 5,231 | 1,266 | 427.6 | 1,173.5 | 893   |
| MEAN  | 24.2 | 48.3  | 49.7  | 47.8  | 68.0  | 116   | 304   | 169   | 42.2  | 13.8  | 37.9    | 29.8  |
| MAX   | 61   | 127   | 113   | 100   | 190   | 199   | 508   | 350   | 125   | 30    | 443     | 93    |
| MIN   | 16   | 18    | 36    | 33    | 30    | 76    | 160   | 67    | 18    | 8.6   | 9.5     | 13    |
| CFSM  | .46  | .91   | .94   | .91   | 1.29  | 2.20  | 5.76  | 3.20  | .80   | .26   | .72     | .56   |
| IN.   | .53  | 1.02  | 1.09  | 1.04  | 1.24  | 2.54  | 6.43  | 3.69  | .89   | .30   | .83     | .63   |

|             |                |           |         |         |           |          |
|-------------|----------------|-----------|---------|---------|-----------|----------|
| CAL YR 1970 | TOTAL 34,074.0 | MEAN 93.4 | MAX 992 | MIN 9.3 | CFSM 1.77 | IN 24.01 |
| WTR YR 1971 | TOTAL 28,853.1 | MEAN 79.0 | MAX 508 | MIN 8.6 | CFSM 1.50 | IN 20.33 |

PEAK DISCHARGE (BASE, 1,250 CFS)

NOTE.--No gage-height record Dec. 25 to Feb. 12.

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 8-28 | 1315 | 5.11  | 1,360     |      |      |       |           |

01171800 Bassett Brook near Northampton, Mass.

LOCATION.--Lat 42°18'09", long 72°41'16", Hampshire County, on right bank 20 ft upstream from bridge on State Highway 66 and 3 miles southwest of Northampton.

DRAINAGE AREA.--5.56 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 210 ft (from topographic map).

AVERAGE DISCHARGE.--8 years (1963-71), 6.58 cfs (16.07 inches per year).

EXTREMES.--Current year: Maximum discharge, 55 cfs Aug. 28 (gage height, 5.21 ft); minimum, 0.60 cfs Aug. 19.

Period of record: Maximum discharge, 93 cfs July 29, 1969 (gage height, 6.14 ft), from rating curve extended above 52 cfs; minimum, 0.16 cfs Sept. 2, 1963.

REMARKS.--Records good except those for winter period, which are fair. Recording rain gage located at station since April 1963 (no winter records). Records of chemical analyses for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| 1     | 1.3  | 1.3   | 4.7   | 4.7   | 4.1   | 20    | 24    | 11    | 7.1   | 1.8  | 1.5   | 1.3   |
| 2     | 1.2  | 1.3   | 4.3   | 5.0   | 3.6   | 18    | 30    | 9.5   | 5.8   | 1.9  | 1.5   | 1.2   |
| 3     | 2.0  | 1.3   | 4.2   | 4.8   | 3.5   | 16    | 48    | 13    | 6.5   | 1.7  | 1.8   | 1.1   |
| 4     | 2.2  | 1.4   | 8.4   | 4.7   | 3.6   | 13    | 42    | 19    | 6.5   | 1.6  | 1.8   | 1.1   |
| 5     | 2.0  | 10    | 6.6   | 5.8   | 3.5   | 12    | 33    | 12    | 5.5   | 1.5  | 1.4   | 1.1   |
| 6     | 1.6  | 5.7   | 5.4   | 9.8   | 4.5   | 12    | 26    | 10    | 5.1   | 1.5  | 1.2   | 1.1   |
| 7     | 1.5  | 3.0   | 4.4   | 8.4   | 4.5   | 12    | 32    | 9.8   | 4.5   | 1.4  | 1.0   | 1.1   |
| 8     | 1.4  | 2.8   | 3.8   | 7.4   | 4.5   | 12    | 28    | 11    | 5.8   | 2.9  | 1.0   | 1.2   |
| 9     | 1.3  | 2.3   | 3.3   | 7.0   | 5.2   | 11    | 23    | 24    | 9.5   | 2.5  | .93   | 1.2   |
| 10    | 1.3  | 2.2   | 3.8   | 6.4   | 4.2   | 10    | 25    | 22    | 5.6   | 1.3  | .93   | 1.0   |
| 11    | 1.3  | 2.4   | 3.5   | 6.0   | 3.5   | 10    | 26    | 14    | 4.2   | 1.3  | 1.3   | .93   |
| 12    | 1.4  | 2.4   | 3.8   | 5.4   | 4.5   | 9.7   | 25    | 12    | 4.0   | 1.3  | 1.2   | 15    |
| 13    | 1.4  | 2.4   | 3.9   | 4.7   | 6.6   | 9.3   | 22    | 21    | 4.2   | 1.3  | .86   | 5.9   |
| 14    | 1.5  | 3.9   | 3.5   | 5.0   | 10    | 9.4   | 21    | 22    | 4.8   | 1.6  | .83   | 7.4   |
| 15    | 4.8  | 7.5   | 3.3   | 5.6   | 15    | 10    | 18    | 14    | 3.4   | 1.3  | .80   | 4.3   |
| 16    | 6.8  | 7.2   | 3.1   | 5.0   | 11    | 17    | 16    | 17    | 4.4   | 1.3  | .80   | 2.8   |
| 17    | 3.2  | 4.3   | 4.5   | 4.4   | 7.6   | 24    | 15    | 19    | 2.3   | 1.3  | .77   | 8.3   |
| 18    | 2.6  | 2.9   | 6.4   | 3.8   | 7.6   | 22    | 15    | 13    | 2.0   | 1.2  | .77   | 3.2   |
| 19    | 2.0  | 4.2   | 5.6   | 3.9   | 7.8   | 18    | 13    | 11    | 2.0   | 2.1  | .70   | 2.7   |
| 20    | 1.7  | 6.6   | 5.1   | 3.7   | 8.7   | 19    | 12    | 10    | 2.2   | 1.5  | 2.0   | 1.8   |
| 21    | 1.5  | 13    | 4.8   | 3.7   | 9.8   | 15    | 11    | 10    | 2.8   | 1.2  | 1.3   | 3.2   |
| 22    | 3.4  | 8.1   | 5.6   | 3.9   | 9.0   | 13    | 11    | 12    | 3.0   | 1.2  | .80   | 2.0   |
| 23    | 4.2  | 8.0   | 6.2   | 4.1   | 9.4   | 13    | 10    | 9.8   | 2.3   | 1.2  | 1.0   | 1.9   |
| 24    | 4.3  | 6.6   | 6.0   | 4.4   | 10    | 13    | 10    | 8.4   | 2.1   | 1.1  | 1.0   | 1.5   |
| 25    | 3.0  | 5.4   | 5.6   | 4.8   | 9.7   | 12    | 10    | 7.4   | 2.7   | 1.2  | 1.0   | 1.4   |
| 26    | 2.3  | 4.7   | 5.4   | 5.6   | 11    | 12    | 9.5   | 7.7   | 3.6   | 1.1  | 1.0   | 1.4   |
| 27    | 1.9  | 5.1   | 5.3   | 6.8   | 15    | 12    | 8.6   | 7.5   | 2.7   | 1.4  | 7.4   | 1.4   |
| 28    | 1.6  | 5.0   | 5.2   | 4.8   | 23    | 13    | 8.4   | 8.3   | 2.2   | 1.1  | 32    | 1.4   |
| 29    | 1.3  | 4.7   | 5.0   | 4.8   | ----- | 16    | 18    | 7.2   | 2.0   | 1.5  | 9.7   | 1.4   |
| 30    | 1.3  | 5.4   | 5.0   | 5.2   | ----- | 21    | 14    | 7.1   | 1.8   | 1.8  | 3.0   | 1.4   |
| 31    | 1.3  | ----- | 4.8   | 4.8   | ----- | 24    | ----- | 7.7   | ----- | 2.8  | 1.5   | ----- |
| TOTAL | 68.6 | 141.1 | 150.5 | 164.4 | 220.6 | 448.4 | 604.5 | 387.4 | 120.6 | 47.9 | 82.79 | 80.73 |
| MEAN  | 2.21 | 4.70  | 4.85  | 5.30  | 7.88  | 14.5  | 20.2  | 12.5  | 4.02  | 1.55 | 2.67  | 2.69  |
| MAX   | 6.8  | 13    | 8.4   | 9.8   | 23    | 24    | 48    | 24    | 9.5   | 2.9  | 32    | 15    |
| MIN   | 1.2  | 1.3   | 3.1   | 3.7   | 3.5   | 9.3   | 8.4   | 7.1   | 1.8   | 1.1  | .70   | .93   |
| CFSM  | .40  | .85   | .87   | .95   | 1.42  | 2.61  | 3.63  | 2.25  | .72   | .28  | .48   | .48   |
| IN.   | .46  | .94   | 1.01  | 1.10  | 1.48  | 3.00  | 4.04  | 2.59  | .81   | .32  | .55   | .54   |

CAL YR 1970 TOTAL 2,877.10 MEAN 7.88 MAX 67 MIN .73 CFSM 1.42 IN 19.25  
WTR YR 1971 TOTAL 2,517.52 MEAN 6.90 MAX 48 MIN .70 CFSM 1.24 IN 16.84

PEAK DISCHARGE (BASE, 70 CFS).--No peak above base.

01172500 Ware River near Barre, Mass.

LOCATION.--Lat 42°25'35", long 72°01'30", Worcester County, on left bank 700 ft downstream from Barre Falls Dam, 1.6 miles upstream from Burnshirt River, 4 miles east of Barre, and at mile 33.3.

DRAINAGE AREA.--55.0 sq mi.

PERIOD OF RECORD.--July 1946 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 745 ft (from topographic map).

AVERAGE DISCHARGE.--25 years, 86.1 cfs (21.26 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 463 cfs Apr. 4 (gage height, 4.45 ft); minimum, 5.4 cfs July 17, Aug. 26, 27; minimum daily, 5.5 cfs Aug. 26.

Period of record: Maximum discharge, 1,890 cfs Oct. 16, 1955 (gage height, 6.31 ft), from rating curve extended above 1,100 cfs; minimum, 0.5 cfs Sept. 11, 12, 1963; minimum daily, 0.5 cfs Sept. 11, 1963. Maximum discharge since construction of Barre Falls Reservoir in 1958, 1,050 cfs Apr. 8, 1963 (gage height, 5.41 ft).

REMARKS.--Records good except those for winter period, which are fair. Prior to August 1955, slight regulation at low flow at times by Long Pond. Flow regulated by Barre Falls Reservoir (see p. 209) since 1958.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 6.3   | 17    | 50    | 32    | 35    | 124   | 167   | 135   | 59    | 26    | 41    | 16    |
| 2     | 6.0   | 17    | 48    | 32    | 32    | 127   | 187   | 122   | 52    | 56    | 36    | 12    |
| 3     | 6.3   | 16    | 44    | 34    | 29    | 155   | 346   | 122   | 54    | 48    | 26    | 9.9   |
| 4     | 14    | 16    | 63    | 33    | 25    | 129   | 449   | 160   | 68    | 31    | 28    | 8.8   |
| 5     | 16    | 28    | 77    | 42    | 24    | 120   | 393   | 165   | 61    | 22    | 29    | 7.9   |
| 6     | 14    | 41    | 69    | 65    | 25    | 115   | 324   | 142   | 58    | 18    | 22    | 7.2   |
| 7     | 12    | 40    | 59    | 69    | 27    | 96    | 296   | 122   | 56    | 17    | 16    | 7.0   |
| 8     | 10    | 33    | 55    | 65    | 29    | 94    | 283   | 111   | 53    | 14    | 13    | 6.8   |
| 9     | 10    | 27    | 48    | 60    | 32    | 84    | 254   | 124   | 66    | 12    | 10    | 6.5   |
| 10    | 9.8   | 24    | 46    | 55    | 37    | 78    | 260   | 155   | 58    | 11    | 8.4   | 6.0   |
| 11    | 9.7   | 26    | 42    | 47    | 41    | 78    | 306   | 147   | 49    | 8.3   | 14    | 5.6   |
| 12    | 9.6   | 31    | 40    | 44    | 44    | 74    | 339   | 129   | 37    | 7.3   | 58    | 30    |
| 13    | 9.6   | 30    | 41    | 37    | 50    | 71    | 335   | 133   | 31    | 6.3   | 43    | 67    |
| 14    | 9.6   | 43    | 42    | 36    | 68    | 68    | 335   | 204   | 30    | 6.7   | 28    | 68    |
| 15    | 9.7   | 55    | 37    | 36    | 75    | 77    | 317   | 195   | 31    | 6.5   | 19    | 59    |
| 16    | 17    | 66    | 36    | 35    | 80    | 140   | 280   | 165   | 34    | 5.8   | 14    | 47    |
| 17    | 22    | 59    | 35    | 33    | 82    | 204   | 245   | 165   | 28    | 5.7   | 11    | 46    |
| 18    | 20    | 50    | 39    | 30    | 80    | 215   | 218   | 155   | 24    | 10    | 8.7   | 43    |
| 19    | 17    | 42    | 43    | 29    | 78    | 195   | 201   | 140   | 22    | 12    | 7.6   | 37    |
| 20    | 14    | 46    | 44    | 28    | 74    | 167   | 195   | 124   | 18    | 17    | 7.6   | 24    |
| 21    | 13    | 74    | 44    | 26    | 70    | 160   | 189   | 116   | 21    | 15    | 7.3   | 22    |
| 22    | 13    | 78    | 40    | 27    | 67    | 145   | 178   | 120   | 59    | 12    | 9.1   | 21    |
| 23    | 23    | 77    | 41    | 27    | 65    | 133   | 165   | 122   | 59    | 9.3   | 11    | 17    |
| 24    | 46    | 75    | 41    | 27    | 64    | 124   | 147   | 111   | 36    | 7.8   | 8.6   | 15    |
| 25    | 57    | 61    | 41    | 26    | 62    | 118   | 140   | 99    | 26    | 7.0   | 5.9   | 12    |
| 26    | 44    | 49    | 40    | 27    | 60    | 111   | 135   | 91    | 48    | 6.8   | 5.5   | 11    |
| 27    | 35    | 46    | 39    | 35    | 71    | 105   | 129   | 84    | 57    | 8.0   | 6.6   | 9.7   |
| 28    | 28    | 48    | 37    | 41    | 78    | 107   | 120   | 85    | 39    | 15    | 32    | 9.2   |
| 29    | 24    | 48    | 35    | 41    | ----- | 122   | 129   | 78    | 35    | 14    | 50    | 9.1   |
| 30    | 20    | 49    | 34    | 40    | ----- | 145   | 145   | 66    | 33    | 16    | 36    | 8.6   |
| 31    | 18    | ----- | 33    | 39    | ----- | 160   | ----- | 63    | ----- | 26    | 23    | ----- |
| TOTAL | 563.6 | 1,312 | 1,383 | 1,198 | 1,504 | 3,841 | 7,207 | 3,950 | 1,302 | 477.5 | 635.3 | 649.3 |
| MEAN  | 18.2  | 43.7  | 44.6  | 38.6  | 53.7  | 124   | 240   | 127   | 43.4  | 15.4  | 20.5  | 21.6  |
| MAX   | 57    | 78    | 77    | 69    | 82    | 215   | 449   | 204   | 68    | 56    | 58    | 68    |
| MIN   | 6.0   | 16    | 33    | 26    | 24    | 68    | 120   | 63    | 18    | 5.7   | 5.5   | 5.6   |
| MEAN† | 18.3  | 43.8  | 44.5  | 38.6  | 57.4  | 121   | 240   | 127   | 43.4  | 15.3  | 20.5  | 21.6  |
| CFSMT | .33   | .80   | .81   | .70   | 1.04  | 2.20  | 4.36  | 2.31  | .79   | .28   | .37   | .39   |
| IN.†  | .38   | .89   | .93   | .81   | 1.09  | 2.54  | 4.87  | 2.67  | .88   | .32   | .43   | .44   |

CAL YR 1970 TOTAL 33,632.6 MEAN 92.1 MAX 610 MIN 2.3 MEAN† 92.1 CFSMT† 1.67 IN† 22.74  
WTR YR 1971 TOTAL 24,022.7 MEAN 65.8 MAX 449 MIN 5.5 MEAN† 65.8 CFSMT† 1.20 IN† 16.25

† Adjusted for change in contents in Barre Falls Reservoir.

01173000 Ware River at Coldbrook, Mass.

LOCATION.--Lat 42°23'26", long 72°03'39", Worcester County, on right bank above diversion dam at Ware River intake works at Coldbrook, 2 miles east of South Barre, 2.7 miles downstream from Burnshirt River, and at mile 29.1.

DRAINAGE AREA.--96.8 sq mi.

PERIOD OF RECORD.--January 1928 to current year.

GAGE.--Venturi meters and water-stage recorder. Datum of gage is 5.65 ft below mean sea level. Prior to Feb. 1, 1936, water-stage recorder at site 0.2 mile downstream at datum 631.91 ft above mean sea level, unadjusted.

AVERAGE DISCHARGE.--43 years, 159 cfs (22.31 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum daily discharge, 891 cfs Apr. 4; minimum daily, 13 cfs Oct. 2, Aug. 26.

Period of record: Maximum discharge, 14,000 cfs Sept. 21, 1938 (gage height, 664.28 ft), by computation of flow over dam; minimum daily, 1.1 cfs Sept. 19, 1965 (caused by unusual regulation). Maximum daily discharge since construction of Barre Falls Reservoir in 1958, 1,470 cfs Apr. 1, 1962.

REMARKS.--Records good. Figures of discharge include diversion as needed for Boston metropolitan district during period Oct. 15 to June 14 of each year; diversion began in March 1931. Flow regulated by Barre Falls Reservoir 4.3 miles upstream (see p.209) since 1958.

COOPERATION.--Computations of daily discharge made in cooperation with Water Division, Metropolitan District Commission, which collected gage-height and venturi-meter records.

REVISIONS (WATER YEARS).--WSP 781: Drainage area. WSP 1031: 1944.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT          | NOV      | DEC       | JAN    | FEB       | MAR    | APR    | MAY       | JUN   | JUL   | AUG   | SEP   |
|-------------|--------------|----------|-----------|--------|-----------|--------|--------|-----------|-------|-------|-------|-------|
| 1           | 14           | 29       | 73        | 50     | 59        | 231    | 299    | 227       | 104   | 55    | 92    | 28    |
| 2           | 13           | 29       | 68        | 54     | 54        | 226    | 425    | 200       | 93    | 101   | 88    | 24    |
| 3           | 16           | 26       | 65        | 54     | 48        | 199    | 818    | 252       | 104   | 78    | 70    | 21    |
| 4           | 34           | 27       | 110       | 55     | 45        | 169    | 891    | 348       | 117   | 55    | 71    | 19    |
| 5           | 32           | 46       | 124       | 79     | 45        | 165    | 712    | 309       | 101   | 39    | 64    | 17    |
| 6           | 27           | 58       | 100       | 101    | 48        | 159    | 591    | 252       | 93    | 35    | 47    | 17    |
| 7           | 24           | 55       | 86        | 104    | 49        | 151    | 549    | 212       | 88    | 33    | 35    | 17    |
| 8           | 21           | 46       | 79        | 94     | 51        | 146    | 486    | 200       | 90    | 28    | 28    | 16    |
| 9           | 19           | 39       | 75        | 81     | 59        | 139    | 446    | 248       | 112   | 25    | 23    | 16    |
| 10          | 18           | 36       | 73        | 75     | 64        | 134    | 500    | 280       | 92    | 23    | 19    | 15    |
| 11          | 18           | 42       | 67        | 72     | 64        | 131    | 596    | 243       | 78    | 21    | 46    | 15    |
| 12          | 17           | 46       | 64        | 69     | 66        | 124    | 630    | 205       | 65    | 18    | 94    | 70    |
| 13          | 17           | 48       | 70        | 59     | 81        | 120    | 617    | 295       | 57    | 17    | 62    | 127   |
| 14          | 17           | 67       | 66        | 57     | 111       | 119    | 616    | 370       | 54    | 18    | 43    | 114   |
| 15          | 19           | 85       | 57        | 59     | 126       | 128    | 552    | 308       | 54    | 17    | 32    | 93    |
| 16          | 37           | 117      | 56        | 54     | 134       | 296    | 472    | 282       | 56    | 15    | 26    | 74    |
| 17          | 38           | 83       | 56        | 55     | 136       | 394    | 409    | 279       | 48    | 17    | 21    | 78    |
| 18          | 33           | 68       | 70        | 49     | 132       | 382    | 375    | 252       | 42    | 29    | 18    | 69    |
| 19          | 29           | 64       | 71        | 45     | 129       | 328    | 355    | 219       | 40    | 32    | 16    | 63    |
| 20          | 25           | 76       | 73        | 41     | 122       | 283    | 345    | 196       | 34    | 43    | 17    | 47    |
| 21          | 23           | 113      | 69        | 39     | 120       | 258    | 346    | 187       | 54    | 32    | 17    | 48    |
| 22          | 24           | 109      | 62        | 43     | 116       | 227    | 309    | 207       | 111   | 47    | 16    | 46    |
| 23          | 41           | 115      | 64        | 45     | 113       | 207    | 272    | 192       | 92    | 36    | 20    | 39    |
| 24          | 73           | 103      | 64        | 45     | 113       | 185    | 245    | 168       | 64    | 22    | 19    | 35    |
| 25          | 72           | 81       | 64        | 45     | 108       | 179    | 247    | 150       | 54    | 19    | 15    | 31    |
| 26          | 62           | 71       | 65        | 53     | 105       | 169    | 237    | 143       | 105   | 18    | 13    | 29    |
| 27          | 47           | 68       | 62        | 63     | 131       | 164    | 218    | 137       | 93    | 34    | 19    | 28    |
| 28          | 41           | 68       | 59        | 68     | 173       | 177    | 206    | 142       | 68    | 40    | 50    | 27    |
| 29          | 35           | 71       | 56        | 68     | -----     | 210    | 250    | 132       | 57    | 35    | 83    | 21    |
| 30          | 32           | 75       | 54        | 66     | -----     | 261    | 257    | 116       | 54    | 45    | 60    | 19    |
| 31          | 29           | -----    | 53        | 64     | -----     | 294    | -----  | 112       | ----- | 72    | 29    | ----- |
| TOTAL       | 947          | 1,961    | 2,175     | 1,906  | 2,602     | 6,355  | 13,271 | 6,863     | 2,274 | 1,099 | 1,253 | 1,263 |
| MEAN        | 30.5         | 65.4     | 70.2      | 61.5   | 92.9      | 205    | 442    | 221       | 75.8  | 35.5  | 40.4  | 42.1  |
| MAX         | 73           | 117      | 124       | 104    | 173       | 394    | 891    | 370       | 117   | 101   | 94    | 127   |
| MIN         | 13           | 26       | 53        | 39     | 45        | 119    | 206    | 112       | 34    | 15    | 13    | 15    |
| MEAN†       | 30.6         | 65.4     | 70.1      | 61.4   | 96.6      | 202    | 442    | 221       | 75.8  | 35.4  | 40.4  | 42.0  |
| CFSMT       | .32          | .68      | .72       | .63    | 1.00      | 2.09   | 4.57   | 2.28      | .78   | .37   | .42   | .43   |
| IN.†        | .36          | .75      | .84       | .73    | 1.04      | 2.41   | 5.10   | 2.63      | .87   | .42   | .48   | .48   |
| CAL YR 1970 | TOTAL 56,895 | MEAN 156 | MAX 1,080 | MIN 11 | MEAN† 156 | CFSMT† | 1.61   | IN† 21.86 |       |       |       |       |
| WTR YR 1971 | TOTAL 41,969 | MEAN 115 | MAX 891   | MIN 13 | MEAN† 115 | CFSMT† | 1.19   | IN† 16.13 |       |       |       |       |

† Adjusted for change in contents in Barre Falls Reservoir.



## CONNECTICUT RIVER BASIN

189

01173260 Moose Brook near Barre, Mass.

LOCATION.--Lat 42°23'52", long 72°08'51", Worcester County, on right bank 20 ft upstream from culvert on Hardwick Road and 2.7 miles southwest of Barre.

DRAINAGE AREA.--4.54 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1960-62. October 1962 to current year.

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

AVERAGE DISCHARGE.--8 years (1963-71), 5.92 cfs (17.71 inches per year).

EXTREMES.--Current year: Maximum discharge, 56 cfs Apr. 3 (gage height, 2.15 ft); maximum gage height, 2.34 ft Feb. 15 (backwater from ice); minimum discharge, 0.26 cfs July 15-17, Sept. 12.

Period of record: Maximum discharge, 135 cfs Mar. 19, 1968 (gage height, 2.75 ft); maximum gage height, 3.65 ft Mar. 7, 1963 (backwater from ice); no flow at times during water years 1963-65, 1968, 1970.

REMARKS.--Records good except those for winter period, which are fair. Recording rain gage at station since April 1963 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | CCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG    | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 1     | .63   | 1.4   | 4.3   | 3.0   | 2.0   | 13    | 17    | 9.8   | 3.4   | 1.9   | 11     | 1.8   |
| 2     | .49   | 1.4   | 3.9   | 3.0   | 1.6   | 14    | 22    | 8.4   | 3.0   | 4.0   | 9.7    | 1.2   |
| 3     | .42   | 1.4   | 3.7   | 3.0   | 2.0   | 14    | 48    | 8.8   | 2.9   | 3.9   | 8.3    | .95   |
| 4     | 1.6   | 1.4   | 5.7   | 3.0   | 2.3   | 13    | 48    | 17    | 3.8   | 2.5   | 8.3    | .77   |
| 5     | 2.2   | 2.6   | 7.2   | 3.5   | 2.3   | 11    | 37    | 17    | 3.6   | 1.8   | 7.8    | .59   |
| 6     | 1.7   | 3.9   | 6.0   | 4.5   | 2.3   | 11    | 30    | 14    | 2.9   | 1.3   | 6.0    | .51   |
| 7     | 1.2   | 3.7   | 4.5   | 5.2   | 2.3   | 11    | 26    | 11    | 2.5   | 1.0   | 4.4    | .51   |
| 8     | 1.0   | 3.2   | 3.7   | 5.0   | 2.3   | 10    | 24    | 9.2   | 2.5   | .84   | 3.2    | .44   |
| 9     | .84   | 2.6   | 3.2   | 4.5   | 2.8   | 9.5   | 23    | 9.2   | 4.0   | .70   | 2.4    | .44   |
| 10    | .84   | 2.5   | 3.2   | 3.9   | 3.2   | 9.5   | 23    | 12    | 3.4   | .64   | 2.1    | .37   |
| 11    | .77   | 2.6   | 3.2   | 3.6   | 3.2   | 9.2   | 25    | 11    | 2.5   | .58   | 2.5    | .37   |
| 12    | .77   | 3.4   | 2.8   | 3.5   | 3.0   | 8.2   | 25    | 9.5   | 2.0   | .46   | 8.0    | 3.6   |
| 13    | .70   | 3.5   | 2.8   | 3.4   | 5.5   | 7.7   | 23    | 9.8   | 1.7   | .39   | 6.0    | 9.7   |
| 14    | .70   | 4.5   | 2.8   | 3.4   | 7.5   | 7.6   | 22    | 17    | 1.5   | .38   | 4.2    | 8.5   |
| 15    | .63   | 5.5   | 2.8   | 3.3   | 10    | 8.2   | 19    | 14    | 1.3   | .37   | 2.9    | 7.1   |
| 16    | 3.2   | 6.7   | 2.8   | 3.2   | 9.5   | 17    | 17    | 11    | 1.2   | .26   | 2.2    | 5.0   |
| 17    | 3.0   | 5.7   | 3.9   | 3.1   | 8.8   | 22    | 15    | 11    | 1.1   | .44   | 1.7    | 4.2   |
| 18    | 2.5   | 4.8   | 3.4   | 3.0   | 8.2   | 20    | 13    | 10    | .95   | 1.6   | 1.5    | 4.6   |
| 19    | 1.9   | 3.9   | 3.4   | 2.8   | 7.6   | 19    | 11    | 8.3   | .86   | 1.4   | 1.2    | 3.8   |
| 20    | 1.7   | 4.3   | 3.4   | 2.6   | 7.2   | 17    | 11    | 6.7   | .77   | 2.1   | 2.1    | 3.0   |
| 21    | 1.4   | 6.2   | 3.4   | 2.5   | 7.0   | 15    | 9.9   | 6.0   | 1.2   | 1.7   | 2.5    | 3.0   |
| 22    | 1.4   | 6.2   | 3.2   | 2.4   | 6.8   | 14    | 9.4   | 5.8   | 4.8   | 1.2   | 1.7    | 3.6   |
| 23    | 2.3   | 6.4   | 3.2   | 2.3   | 6.6   | 13    | 8.6   | 5.8   | 3.8   | .86   | 1.5    | 3.0   |
| 24    | 3.9   | 6.7   | 3.4   | 2.3   | 6.4   | 12    | 7.6   | 5.2   | 2.5   | .68   | 1.4    | 2.4   |
| 25    | 3.9   | 5.5   | 3.2   | 2.5   | 5.8   | 11    | 7.4   | 4.6   | 2.0   | .51   | 1.1    | 2.0   |
| 26    | 3.2   | 4.3   | 3.1   | 3.0   | 5.6   | 10    | 7.4   | 4.6   | 4.4   | .44   | .95    | 1.6   |
| 27    | 2.6   | 3.9   | 2.9   | 3.5   | 9.0   | 9.5   | 7.3   | 4.2   | 4.2   | 1.7   | .95    | 1.5   |
| 28    | 2.2   | 3.7   | 2.8   | 3.3   | 13    | 9.8   | 6.9   | 4.2   | 2.7   | 4.2   | 4.2    | 1.3   |
| 29    | 1.9   | 3.7   | 2.7   | 3.0   | ----- | 11    | 8.3   | 4.0   | 1.8   | 2.7   | 6.9    | 1.4   |
| 30    | 1.7   | 4.1   | 2.7   | 2.8   | ----- | 14    | 10    | 3.6   | 1.6   | 3.6   | 4.8    | 1.3   |
| 31    | 1.6   | ----- | 2.7   | 2.5   | ----- | 16    | ----- | 3.4   | ----- | 6.9   | 2.9    | ----- |
| TOTAL | 52.89 | 119.7 | 110.0 | 100.6 | 153.8 | 387.2 | 561.8 | 276.1 | 74.88 | 51.05 | 124.40 | 78.55 |
| MEAN  | 1.71  | 3.99  | 3.55  | 3.25  | 5.49  | 12.5  | 18.7  | 8.91  | 2.50  | 1.65  | 4.01   | 2.62  |
| MAX   | 3.9   | 6.7   | 7.2   | 5.2   | 13    | 22    | 48    | 17    | 4.8   | 6.9   | 11     | 9.7   |
| MIN   | .42   | 1.4   | 2.7   | 2.3   | 1.6   | 7.6   | 6.9   | 3.4   | .77   | .26   | .95    | .37   |
| CFSM  | .38   | .88   | .78   | .72   | 1.21  | 2.75  | 4.12  | 1.96  | .55   | .36   | .88    | .58   |
| IN.   | .43   | .98   | .90   | .82   | 1.26  | 3.17  | 4.60  | 2.26  | .61   | .42   | 1.02   | .64   |

CAL YR 1970 TOTAL 2,703.79 MEAN 7.41 MAX 71 MIN 0 CF5M 1.63 IN 22.15

WTR YR 1971 TOTAL 2,090.97 MEAN 5.73 MAX 48 MIN .26 CF5M 1.26 IN 17.13

PEAK DISCHARGE (BASE, 60 CFS).--No peak above base.

## CONNECTICUT RIVER BASIN

01173500 Ware River at Gibbs Crossing, Mass.

LOCATION.--Lat 42°14' 07", long 72°16' 45", Hampshire County, on right bank 0.5 mile upstream from Gibbs Crossing, 1.8 miles upstream from Beaver Brook, 2.5 miles southwest of Ware, and 8.8 miles upstream from mouth.

DRAINAGE AREA.--199 sq mi.

PERIOD OF RECORD.--August 1912 to current year.

GAGE.--Water-stage recorder. Datum of gage is 379.79 ft above mean sea level. Prior to Mar. 1, 1930, at site 0.5 mile downstream at different datum.

AVERAGE DISCHARGE.--59 years, 312 cfs (21.29 inches per year), adjusted for diversion and storage.

EXTREMES.--Current year: Maximum discharge, 1,100 cfs Apr. 3 (gage height, 3.87 ft); minimum, 41 cfs Sept. 11, 12; minimum daily, 41 cfs Sept. 11. Period of record: Maximum discharge, 22,700 cfs Sept. 21, 1938 (gage height, 18.2 ft, from floodmarks), from rating curve extended above 4,600 cfs on basis of contracted-opening measurement at gage height 12.83 ft and slope-area measurement at gage height 18.2 ft; minimum, 5.0 cfs Oct. 26, 1914; minimum daily, 6.0 cfs Oct. 4, 1914. Maximum discharge since construction of Barre Falls Reservoir in 1958, 4,000 cfs Mar. 31, 1960 (gage height, 7.03 ft).

REMARKS.--Records good except those for winter period, which are fair. Diversion at times since March 1931 from 97 sq mi in Ware River basin for supply of Boston metropolitan district. (See table below for figures of diversion.) Regulation by Barre Falls Reservoir (see p. 209) since 1958. Flow regulated by mills above station prior to 1967.

REVISIONS (WATER YEARS).--WSP 661: Drainage area. WSP 1031: 1944. WSP 1301: 1914(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT          | NOV      | DEC       | JAN    | FEB       | MAR        | APR       | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------------|--------------|----------|-----------|--------|-----------|------------|-----------|--------|-------|-------|-------|-------|
| 1           | 49           | 77       | 161       | 115    | 135       | 461        | 498       | 330    | 224   | 116   | 158   | 81    |
| 2           | 47           | 76       | 155       | 120    | 125       | 425        | 524       | 311    | 198   | 155   | 205   | 64    |
| 3           | 52           | 76       | 149       | 120    | 115       | 398        | 886       | 325    | 198   | 161   | 178   | 60    |
| 4           | 77           | 77       | 205       | 125    | 105       | 360        | 896       | 485    | 239   | 126   | 191   | 55    |
| 5           | 83           | 103      | 267       | 174    | 105       | 330        | 695       | 431    | 220   | 99    | 171   | 53    |
| 6           | 76           | 126      | 235       | 224    | 110       | 330        | 571       | 365    | 188   | 87    | 129   | 45    |
| 7           | 66           | 124      | 158       | 220    | 110       | 320        | 571       | 335    | 174   | 85    | 99    | 47    |
| 8           | 64           | 116      | 165       | 205    | 120       | 315        | 557       | 316    | 174   | 74    | 81    | 45    |
| 9           | 61           | 106      | 158       | 181    | 130       | 300        | 531       | 365    | 263   | 66    | 70    | 46    |
| 10          | 58           | 95       | 155       | 174    | 145       | 295        | 557       | 409    | 228   | 61    | 61    | 45    |
| 11          | 56           | 103      | 150       | 167    | 150       | 284        | 557       | 365    | 181   | 60    | 72    | 41    |
| 12          | 56           | 116      | 146       | 161    | 155       | 275        | 531       | 330    | 155   | 60    | 335   | 213   |
| 13          | 55           | 118      | 146       | 135    | 175       | 263        | 498       | 392    | 137   | 52    | 235   | 350   |
| 14          | 55           | 161      | 149       | 130    | 250       | 263        | 473       | 564    | 124   | 58    | 137   | 315   |
| 15          | 58           | 188      | 130       | 135    | 300       | 302        | 443       | 431    | 113   | 55    | 99    | 270   |
| 16          | 99           | 224      | 125       | 130    | 310       | 500        | 409       | 392    | 108   | 50    | 77    | 200   |
| 17          | 111          | 220      | 125       | 126    | 310       | 600        | 387       | 420    | 103   | 59    | 66    | 220   |
| 18          | 92           | 164      | 145       | 115    | 310       | 578        | 370       | 376    | 97    | 97    | 58    | 190   |
| 19          | 83           | 149      | 149       | 105    | 307       | 505        | 345       | 340    | 92    | 83    | 58    | 175   |
| 20          | 74           | 155      | 160       | 95     | 293       | 467        | 340       | 320    | 87    | 97    | 60    | 130   |
| 21          | 70           | 205      | 155       | 90     | 289       | 437        | 335       | 302    | 87    | 92    | 63    | 135   |
| 22          | 72           | 220      | 150       | 98     | 263       | 398        | 325       | 320    | 158   | 76    | 61    | 130   |
| 23          | 87           | 231      | 145       | 100    | 267       | 403        | 316       | 298    | 178   | 76    | 58    | 115   |
| 24          | 129          | 235      | 145       | 105    | 259       | 387        | 302       | 271    | 149   | 72    | 53    | 100   |
| 25          | 131          | 195      | 140       | 105    | 247       | 360        | 311       | 267    | 121   | 61    | 50    | 90    |
| 26          | 126          | 161      | 145       | 120    | 245       | 355        | 311       | 267    | 174   | 55    | 49    | 82    |
| 27          | 108          | 152      | 145       | 140    | 302       | 355        | 302       | 267    | 181   | 53    | 55    | 78    |
| 28          | 97           | 146      | 135       | 160    | 400       | 370        | 293       | 284    | 149   | 58    | 118   | 74    |
| 29          | 90           | 149      | 125       | 160    | -----     | 414        | 345       | 263    | 113   | 74    | 174   | 66    |
| 30          | 83           | 155      | 120       | 155    | -----     | 479        | 360       | 247    | 103   | 92    | 167   | 54    |
| 31          | 79           | -----    | 120       | 150    | -----     | 498        | -----     | 228    | ----- | 134   | 124   | ----- |
| TOTAL       | 2,444        | 4,427    | 4,806     | 4,340  | 6,032     | 12,027     | 13,929    | 10,616 | 4,716 | 2,543 | 3,552 | 3,573 |
| MEAN        | 78.8         | 148      | 155       | 140    | 215       | 388        | 465       | 342    | 157   | 82.0  | 115   | 119   |
| MAX         | 131          | 235      | 267       | 224    | 400       | 600        | 986       | 564    | 263   | 161   | 335   | 350   |
| MIN         | 47           | 76       | 120       | 90     | 105       | 263        | 293       | 228    | 87    | 50    | 49    | 41    |
| (†)         | 0            | 0        | 0         | 0      | +1.55     | +73.7      | +309      | +88.9  | 0     | 0     | 0     | 0     |
| MEAN‡       | 78.9         | 148      | 155       | 140    | 221       | 459        | 774       | 431    | 157   | 82.0  | 115   | 119   |
| CFSM‡       | .40          | .74      | .78       | .70    | 1.11      | 2.31       | 3.89      | 2.17   | .79   | .41   | .58   | .60   |
| IN.‡        | .46          | .83      | .90       | .81    | 1.16      | 2.66       | 4.34      | 2.50   | .88   | .47   | .66   | .67   |
| CAL YR 1970 | TOTAL 87,796 | MEAN 241 | MAX 2,280 | MIN 37 | MEAN‡ 313 | CFSM‡ 1.57 | IN‡ 21.33 |        |       |       |       |       |
| WTR YR 1971 | TOTAL 73,015 | MEAN 200 | MAX 986   | MIN 41 | MEAN‡ 239 | CFSM‡ 1.20 | IN‡ 16.33 |        |       |       |       |       |

† Diversion, in cubic feet per second, from 97 sq mi in Ware River basin for supply of Boston metropolitan district; records furnished by Water Division of Metropolitan District Commission.

‡ Adjusted for diversion and for change in contents in Barre Falls Reservoir.

## CONNECTICUT RIVER BASIN

191

01174000 Hop Brook near New Salem, Mass.

LOCATION.--Lat 42°28'42", long 72°20'05", Franklin County, on right bank 1.5 miles upstream from mouth and 1.5 miles south of New Salem.

DRAINAGE AREA.--3.39 sq mi.

PERIOD OF RECORD.--October 1947 to current year. Monthly discharge only October 1947, published in WSP 1301.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 725 ft (from topographic map).

AVERAGE DISCHARGE.--24 years, 5.65 cfs (22.63 inches per year).

EXTREMES.--Current year: Maximum discharge, 51 cfs Apr. 3 (gage height, 1.96 ft); maximum gage height, 2.18 ft Feb. 14 (backwater from ice); minimum discharge, 0.02 cfs Aug. 18-20, 24-27.

Period of record: Maximum discharge, 289 cfs Oct. 24, 1959 (gage height, 3.17 ft), from rating curve extended above 130 cfs; minimum, 0.004 cfs Aug. 3, 9, 10, 1955.

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | .41   | .62   | 2.7  | 2.3  | 2.1   | 9.8   | 11    | 8.3   | 3.2   | 2.3   | 1.3   | .25   |
| 2     | .62   | .66   | 2.5  | 2.4  | 1.9   | 8.6   | 19    | 7.4   | 2.7   | 2.6   | 2.5   | .17   |
| 3     | 1.1   | .70   | 2.2  | 2.3  | 1.8   | 7.4   | 41    | 14    | 4.1   | 1.0   | 1.7   | .14   |
| 4     | 2.6   | .66   | 11   | 2.4  | 1.8   | 7.1   | 25    | 24    | 3.6   | .70   | 2.2   | .13   |
| 5     | .97   | 8.3   | 5.1  | 5.6  | 2.0   | 6.1   | 20    | 12    | 2.5   | .48   | .97   | .09   |
| 6     | .66   | 3.0   | 3.8  | 4.0  | 2.2   | 5.6   | 19    | 10    | 2.3   | .33   | .47   | .09   |
| 7     | .58   | 1.9   | 2.8  | 3.2  | 2.1   | 5.6   | 19    | 9.2   | 2.0   | .41   | .28   | .15   |
| 8     | .51   | 1.4   | 2.5  | 2.7  | 2.2   | 5.1   | 17    | 9.5   | 5.1   | .20   | .21   | .25   |
| 9     | .51   | 1.2   | 2.7  | 2.6  | 3.5   | 4.9   | 17    | 14    | 4.9   | .18   | .14   | .41   |
| 10    | .44   | 1.3   | 2.8  | 2.5  | 2.7   | 4.6   | 24    | 14    | 2.4   | .16   | .08   | .17   |
| 11    | .44   | 1.8   | 2.5  | 2.5  | 2.4   | 4.4   | 25    | 10    | 1.9   | .14   | .08   | .11   |
| 12    | .44   | 1.8   | 2.5  | 2.4  | 2.5   | 4.4   | 24    | 8.9   | 1.7   | .16   | 1.5   | 16    |
| 13    | .44   | 1.5   | 2.6  | 2.1  | 3.5   | 4.2   | 24    | 17    | 1.6   | .10   | .45   | 3.4   |
| 14    | .41   | 3.2   | 2.4  | 2.1  | 10    | 4.4   | 22    | 15    | 1.7   | .16   | .23   | 2.3   |
| 15    | 1.0   | 5.4   | 2.3  | 2.2  | 6.3   | 8.0   | 18    | 10    | 1.4   | .11   | .15   | 1.8   |
| 16    | 3.8   | 4.9   | 2.1  | 2.2  | 4.3   | 19    | 16    | 11    | 1.3   | .08   | .10   | 1.2   |
| 17    | 1.4   | 2.6   | 2.5  | 2.0  | 3.6   | 14    | 14    | 12    | 1.1   | .10   | .06   | 3.9   |
| 18    | 1.0   | 2.1   | 2.6  | 1.9  | 3.8   | 9.5   | 14    | 9.2   | .90   | .19   | .03   | 1.8   |
| 19    | .87   | 2.4   | 2.4  | 1.8  | 4.1   | 8.6   | 14    | 8.0   | .73   | .68   | .02   | 1.3   |
| 20    | .74   | 2.8   | 2.5  | 1.8  | 4.4   | 9.2   | 12    | 7.1   | .62   | .91   | .06   | 1.0   |
| 21    | .70   | 6.8   | 2.3  | 1.8  | 4.2   | 7.7   | 12    | 6.6   | .63   | .43   | .07   | 1.6   |
| 22    | 1.1   | 3.2   | 2.2  | 1.9  | 3.6   | 7.1   | 10    | 6.8   | .85   | .42   | .06   | 1.1   |
| 23    | 2.1   | 6.6   | 2.3  | 1.9  | 3.9   | 7.1   | 9.2   | 5.6   | .60   | .17   | .05   | .80   |
| 24    | 1.7   | 3.6   | 2.4  | 1.8  | 3.6   | 6.6   | 8.6   | 5.1   | .54   | .10   | .03   | .58   |
| 25    | 1.2   | 2.6   | 2.4  | 1.9  | 3.8   | 6.6   | 8.9   | 4.9   | 1.3   | .09   | .02   | .45   |
| 26    | .97   | 2.3   | 2.4  | 2.5  | 3.9   | 6.3   | 8.3   | 4.4   | 5.8   | .11   | .02   | .45   |
| 27    | .87   | 2.4   | 2.3  | 4.2  | 11    | 6.1   | 7.4   | 4.6   | 1.5   | .10   | 1.9   | .46   |
| 28    | .78   | 2.4   | 2.2  | 3.0  | 11    | 6.6   | 7.1   | 4.9   | .92   | .06   | 9.9   | .51   |
| 29    | .74   | 2.5   | 2.2  | 2.6  | ----- | 8.6   | 13    | 3.8   | .69   | .12   | 2.2   | .51   |
| 30    | .74   | 3.6   | 2.1  | 2.5  | ----- | 10    | 10    | 3.5   | .54   | .99   | .92   | .42   |
| 31    | .70   | ----- | 2.1  | 2.3  | ----- | 11    | ----- | 3.9   | ----- | 2.9   | .47   | ----- |
| TOTAL | 30.54 | 84.24 | 87.4 | 77.4 | 112.2 | 234.2 | 489.5 | 284.7 | 59.12 | 16.48 | 28.17 | 41.54 |
| MEAN  | .99   | 2.81  | 2.82 | 2.50 | 4.01  | 7.55  | 16.3  | 9.18  | 1.97  | .53   | .91   | 1.38  |
| MAX   | 3.8   | 8.3   | 11   | 5.6  | 11    | 19    | 41    | 24    | 5.8   | 2.9   | 9.9   | 16    |
| MIN   | .41   | .62   | 2.1  | 1.8  | 1.8   | 4.2   | 7.1   | 3.5   | .54   | .06   | .02   | .09   |
| CFSM  | .29   | .83   | .83  | .74  | 1.18  | 2.23  | 4.81  | 2.71  | .58   | .16   | .27   | .41   |
| IN.   | .34   | .92   | .96  | .85  | 1.23  | 2.57  | 5.37  | 3.12  | .65   | .18   | .31   | .46   |

CAL YR 1970 TOTAL 2,007.21 MEAN 5.50 MAX 86 MIN .02 CFSM 1.62 IN 22.03  
WTR YR 1971 TOTAL 1,545.49 MEAN 4.23 MAX 41 MIN .02 CFSM 1.25 IN 16.96

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

01174500 East Branch Swift River near Hardwick, Mass.

LOCATION.--Lat 42°23'36", long 72°14'21", Worcester County, on left bank 100 ft above spillway of regulating dam and 4.6 miles northwest of Hardwick.

DRAINAGE AREA.--43.7 sq mi.

PERIOD OF RECORD.--January 1937 to current year. Published as "near Dana" January 1937 to September 1939.

GAGE.--Water-stage recorder. Concrete spillway since Mar. 12, 1940. Datum of gage is 504.70 ft above mean sea level.

AVERAGE DISCHARGE.--34 years, 65.9 cfs (20.48 inches per year).

EXTREMES.--Current year: Maximum discharge, 477 cfs Apr. 4 (gage height, 20.41 ft); minimum, 3.2 cfs July 13, 17.

Period of record: Maximum discharge, 6,780 cfs Sept. 21, 1938, average of slope-area and contracted-opening measurements; maximum gage height, 22.49 ft June 25, 1944; no flow at times during several years.

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 7.7   | 13    | 25   | 21   | 24    | 100   | 119   | 100   | 33    | 14    | 79    | 13    |
| 2     | 7.7   | 13    | 24   | 21   | 24    | 100   | 134   | 86    | 29    | 31    | 76    | 10    |
| 3     | 8.4   | 12    | 24   | 21   | 21    | 93    | 360   | 89    | 31    | 31    | 59    | 9.2   |
| 4     | 16    | 12    | 36   | 21   | 19    | 96    | 438   | 143   | 44    | 24    | 62    | 16    |
| 5     | 16    | 19    | 41   | 29   | 24    | 79    | 334   | 156   | 38    | 18    | 56    | 16    |
| 6     | 14    | 24    | 41   | 36   | 25    | 65    | 259   | 130   | 29    | 14    | 36    | 13    |
| 7     | 13    | 24    | 33   | 38   | 24    | 65    | 249   | 104   | 25    | 12    | 25    | 10    |
| 8     | 12    | 24    | 27   | 36   | 29    | 69    | 212   | 89    | 27    | 10    | 21    | 8.4   |
| 9     | 11    | 21    | 25   | 31   | 33    | 59    | 183   | 107   | 41    | 8.4   | 16    | 7.7   |
| 10    | 10    | 19    | 25   | 27   | 33    | 53    | 198   | 126   | 36    | 7.7   | 13    | 7.0   |
| 11    | 9.2   | 19    | 24   | 25   | 29    | 53    | 243   | 111   | 29    | 7.0   | 13    | 6.3   |
| 12    | 9.2   | 21    | 25   | 25   | 27    | 50    | 259   | 93    | 24    | 6.3   | 19    | 24    |
| 13    | 9.2   | 22    | 25   | 24   | 29    | 47    | 254   | 100   | 21    | 5.0   | 15    | 47    |
| 14    | 9.2   | 25    | 24   | 24   | 50    | 50    | 249   | 165   | 21    | 5.0   | 13    | 47    |
| 15    | 10    | 31    | 22   | 24   | 69    | 53    | 222   | 143   | 22    | 5.0   | 11    | 41    |
| 16    | 14    | 38    | 21   | 24   | 76    | 104   | 188   | 119   | 19    | 4.3   | 8.4   | 31    |
| 17    | 13    | 33    | 27   | 22   | 69    | 178   | 160   | 119   | 16    | 5.0   | 7.7   | 31    |
| 18    | 12    | 29    | 27   | 21   | 62    | 165   | 143   | 107   | 14    | 9.2   | 7.0   | 27    |
| 19    | 13    | 27    | 25   | 21   | 53    | 138   | 130   | 89    | 12    | 12    | 5.6   | 25    |
| 20    | 12    | 27    | 24   | 19   | 53    | 126   | 123   | 79    | 11    | 16    | 8.4   | 21    |
| 21    | 11    | 33    | 22   | 18   | 53    | 107   | 119   | 69    | 12    | 15    | 7.7   | 22    |
| 22    | 13    | 33    | 22   | 18   | 50    | 89    | 111   | 69    | 18    | 12    | 7.0   | 24    |
| 23    | 15    | 41    | 24   | 19   | 50    | 82    | 104   | 65    | 16    | 9.2   | 6.3   | 22    |
| 24    | 19    | 44    | 27   | 19   | 50    | 79    | 93    | 56    | 14    | 7.7   | 5.0   | 18    |
| 25    | 21    | 36    | 25   | 19   | 44    | 72    | 93    | 50    | 13    | 7.0   | 3.7   | 14    |
| 26    | 21    | 29    | 24   | 22   | 41    | 69    | 93    | 50    | 27    | 6.3   | 3.7   | 12    |
| 27    | 18    | 25    | 22   | 27   | 53    | 65    | 86    | 44    | 27    | 14    | 5.0   | 11    |
| 28    | 15    | 25    | 21   | 27   | 79    | 65    | 79    | 44    | 22    | 16    | 14    | 10    |
| 29    | 15    | 25    | 19   | 27   | ----- | 76    | 93    | 41    | 15    | 15    | 24    | 10    |
| 30    | 13    | 25    | 19   | 27   | ----- | 93    | 107   | 38    | 13    | 25    | 22    | 10    |
| 31    | 13    | ----- | 19   | 25   | ----- | 107   | ----- | 36    | ----- | 47    | 16    | ----- |
| TOTAL | 400.6 | 769   | 789  | 758  | 1,193 | 2,647 | 5,435 | 2,817 | 699   | 419.1 | 665.5 | 563.6 |
| MEAN  | 12.9  | 25.6  | 25.5 | 24.5 | 42.6  | 85.4  | 181   | 90.9  | 23.3  | 13.5  | 21.5  | 18.8  |
| MAX   | 21    | 44    | 41   | 38   | 79    | 178   | 438   | 165   | 44    | 47    | 79    | 47    |
| MIN   | 7.7   | 12    | 19   | 18   | 19    | 47    | 79    | 36    | 11    | 4.3   | 3.7   | 6.3   |
| CFSM  | .30   | .59   | .58  | .56  | .97   | 1.95  | 4.14  | 2.08  | .53   | .31   | .49   | .43   |
| IN.   | .34   | .65   | .67  | .65  | 1.02  | 2.25  | 4.63  | 2.40  | .60   | .36   | .57   | .48   |

CAL YR 1970 TOTAL 23,275.05 MEAN 63.8 MAX 751 MIN .05 CFSM 1.46 IN 19.81  
WTR YR 1971 TOTAL 17,155.80 MEAN 47.0 MAX 438 MIN 3.7 CFSM 1.08 IN 14.60

## PEAK DISCHARGE (BASE, 350 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-4  | 0400 | 20.41 | 477       |      |      |       |           |

01174600 Cadwell Creek near Pelham, Mass.

LOCATION.--Lat 42°21'16", long 72°23'18", Hampshire County, on left bank 0.8 mile east of Knights Corner, 2 miles upstream from mouth, 2.7 miles south of Pelham, and 5 miles north of Belchertown.

DRAINAGE AREA.--0.63 sq mi.

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

GAGE.--Water-stage recorder and concrete control with V-notch sharp-crested weir. Altitude of gage is 860 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 0.94 cfs (20.26 inches per year).

EXTREMES.--Current year: Maximum discharge, 23 cfs Apr. 2 (gage height, 4.68 ft), from rating curve extended above 10 cfs; no flow for part of each day, July 12, 13.

Period of record: Maximum discharge, 36 cfs Feb. 3, 1970 (gage height, 5.06 ft), from rating curve extended above 10 cfs; no flow at times.

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| 1     | .15  | .18   | .67   | .50   | .45   | 3.2   | 4.2   | 1.2   | .45   | .06  | .96   | .08   |
| 2     | .14  | .19   | .60   | .50   | .41   | 2.5   | 8.6   | 1.1   | .37   | .15  | 1.3   | .06   |
| 3     | .50  | .20   | .52   | .50   | .37   | 2.0   | 16    | 2.3   | .57   | .06  | .77   | .06   |
| 4     | .83  | .22   | 2.5   | .65   | .37   | 1.7   | 7.5   | 4.5   | .57   | .04  | 1.2   | .05   |
| 5     | .33  | 1.8   | 1.3   | 2.5   | .37   | 1.4   | 4.9   | 2.3   | .37   | .03  | .43   | .05   |
| 6     | .25  | .73   | .96   | 1.5   | .45   | 1.2   | 3.6   | 1.7   | .31   | .02  | .22   | .05   |
| 7     | .20  | .50   | .67   | 1.0   | .41   | 1.3   | 3.8   | 1.3   | .26   | .02  | .13   | .05   |
| 8     | .18  | .39   | .52   | .83   | .45   | 1.3   | 3.5   | 1.4   | 1.3   | .01  | .09   | .05   |
| 9     | .16  | .33   | .52   | .83   | .90   | 1.1   | 3.4   | 3.0   | 1.3   | .01  | .06   | .08   |
| 10    | .14  | .41   | .62   | .65   | .60   | .96   | 3.8   | 2.9   | .55   | .01  | .05   | .06   |
| 11    | .14  | .77   | .52   | .57   | .52   | .93   | 3.2   | 1.8   | .37   | .01  | .14   | .04   |
| 12    | .14  | .67   | .55   | .57   | .55   | .90   | 2.7   | 1.4   | .30   | .01  | .28   | 3.9   |
| 13    | .14  | .62   | .55   | .47   | 1.5   | .90   | 2.3   | 4.0   | .26   | .01  | .08   | .93   |
| 14    | .14  | 1.6   | .52   | .45   | 3.8   | .93   | 2.0   | 3.7   | .21   | .02  | .05   | .67   |
| 15    | .30  | 1.8   | .47   | .45   | 1.6   | 2.6   | 1.7   | 2.0   | .18   | .01  | .04   | .43   |
| 16    | .50  | 1.5   | .45   | .45   | 1.1   | 7.6   | 1.6   | 2.3   | .15   | .01  | .04   | .28   |
| 17    | .26  | .90   | .50   | .43   | .86   | 4.8   | 1.4   | 2.4   | .12   | .28  | .03   | .96   |
| 18    | .22  | .67   | .55   | .39   | .86   | 3.3   | 1.2   | 1.7   | .09   | .23  | .02   | .45   |
| 19    | .18  | .83   | .57   | .37   | .93   | 2.5   | 1.2   | 1.3   | .07   | .40  | .02   | .30   |
| 20    | .16  | 1.1   | .65   | .41   | 1.0   | 2.2   | 1.0   | 1.2   | .06   | .24  | .05   | .22   |
| 21    | .16  | 1.8   | .60   | .35   | 1.0   | 1.8   | 1.0   | 1.0   | .06   | .08  | .03   | .86   |
| 22    | .35  | .96   | .55   | .35   | .86   | 1.7   | .96   | 1.0   | .08   | .04  | .02   | .43   |
| 23    | .65  | 1.6   | .55   | .35   | .96   | 1.7   | .90   | .85   | .06   | .03  | .02   | .26   |
| 24    | .43  | 1.0   | .55   | .35   | .90   | 1.5   | .83   | .77   | .05   | .02  | .01   | .19   |
| 25    | .31  | .73   | .55   | .35   | .86   | 1.3   | .90   | .73   | .14   | .03  | .01   | .15   |
| 26    | .26  | .60   | .58   | 1.2   | .90   | 1.3   | .86   | .73   | .71   | .03  | .01   | .13   |
| 27    | .23  | .57   | .57   | 1.2   | 3.7   | 1.4   | .80   | .70   | .15   | 1.1  | .67   | .13   |
| 28    | .20  | .57   | .55   | .77   | 4.3   | 1.8   | .90   | .67   | .07   | .18  | 2.8   | .13   |
| 29    | .19  | .57   | .50   | .60   | ----- | 2.8   | 2.3   | .60   | .06   | .23  | .55   | .12   |
| 30    | .18  | .90   | .53   | .57   | ----- | 3.4   | 1.7   | .52   | .05   | .83  | .23   | .10   |
| 31    | .18  | ----- | .50   | .50   | ----- | 3.8   | ----- | .52   | ----- | 3.0  | .12   | ----- |
| TOTAL | 8.20 | 24.71 | 20.24 | 20.61 | 30.98 | 65.82 | 88.75 | 51.60 | 9.29  | 7.20 | 10.43 | 11.27 |
| MEAN  | .26  | .82   | .65   | .65   | 1.11  | 2.12  | 2.96  | 1.66  | .31   | .23  | .34   | .38   |
| MAX   | .83  | 1.8   | 2.5   | 2.5   | 4.3   | 7.6   | 16    | 4.5   | 1.3   | 3.0  | 2.8   | 3.9   |
| MIN   | .14  | .18   | .45   | .35   | .37   | .90   | .80   | .52   | .05   | .01  | .01   | .04   |
| CFSM  | .41  | 1.30  | 1.03  | 1.05  | 1.76  | 3.37  | 4.73  | 2.63  | .49   | .37  | .54   | .60   |
| IN.   | .48  | 1.46  | 1.20  | 1.22  | 1.83  | 3.89  | 5.24  | 3.05  | .55   | .43  | .62   | .67   |

CAL YR 1970 TOTAL 422.38 MEAN 1.16 MAX 21 MIN .01 CFSM 1.84 IN 24.94  
WTR YR 1971 TOTAL 349.10 MEAN .96 MAX 16 MIN .01 CFSM 1.52 IN 20.61

## PEAK DISCHARGE (BASE, 18 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-2  | 2330 | 4.68  | 23        |      |      |       |           |

01174900 Cadwell Creek near Belchertown, Mass.

LOCATION.--Lat 42°20'08", long 72°22'12", Hampshire County, on left bank 200 ft upstream from mouth, 2 miles southeast of Knights Corner, and 4.5 miles north of Belchertown.

DRAINAGE AREA.--2.81 sq mi.

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

GAGE.--Water-stage recorder and concrete control with V-notch sharp-crested weir. Altitude of gage is 540 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 3.92 cfs (18.94 inches per year).

EXTREMES.--Current year: Maximum discharge, 79 cfs Apr. 3 (gage height, 6.44 ft); minimum, 0.13 cfs July 13.

Period of record: Maximum discharge, 190 cfs Feb. 3, 1970 (gage height, 7.05 ft); minimum, 0.07 cfs several times in water years 1964, 1965, and 1966.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WRD Mass., N.H., R.I., Vt. 1967: 1962-63(M), 1964(P), 1966(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | .78   | .87   | 2.8  | 2.0  | 2.1   | 11    | 12    | 4.9   | 2.1   | .50   | 3.5   | .78   |
| 2     | .72   | .90   | 2.6  | 2.1  | 2.0   | 8.6   | 24    | 4.4   | 1.8   | .69   | 6.5   | .61   |
| 3     | .97   | 1.0   | 2.3  | 2.1  | 1.9   | 7.3   | 61    | 7.1   | 3.0   | .50   | 4.0   | .54   |
| 4     | 3.1   | 1.1   | 7.2  | 2.3  | 1.8   | 6.8   | 31    | 14    | 3.1   | .38   | 6.0   | .51   |
| 5     | 1.4   | 5.8   | 4.5  | 8.1  | 2.0   | 5.7   | 19    | 7.6   | 2.0   | .31   | 2.6   | .43   |
| 6     | 1.1   | 2.9   | 3.6  | 5.2  | 2.3   | 5.0   | 14    | 5.8   | 1.6   | .27   | 1.5   | .40   |
| 7     | .94   | 2.0   | 2.8  | 3.7  | 2.2   | 5.3   | 15    | 4.9   | 1.5   | .24   | 1.0   | .43   |
| 8     | .84   | 1.7   | 2.6  | 3.1  | 2.3   | 5.6   | 13    | 4.9   | 3.8   | .19   | .78   | .43   |
| 9     | .81   | 1.4   | 2.6  | 3.0  | 4.0   | 4.8   | 13    | 9.4   | 4.8   | .19   | .61   | .60   |
| 10    | .75   | 1.6   | 2.8  | 2.8  | 2.9   | 4.3   | 16    | 11    | 2.3   | .17   | .49   | .78   |
| 11    | .72   | 2.5   | 2.6  | 2.6  | 2.6   | 4.1   | 14    | 6.7   | 1.7   | .16   | 1.0   | .50   |
| 12    | .72   | 2.4   | 2.6  | 2.4  | 2.6   | 3.9   | 11    | 5.5   | 1.5   | .16   | 2.1   | 13    |
| 13    | .72   | 1.9   | 2.6  | 2.1  | 3.8   | 3.9   | 10    | 12    | 1.3   | .15   | .90   | 5.1   |
| 14    | .72   | 4.7   | 2.4  | 2.1  | 11    | 4.1   | 8.8   | 14    | 1.2   | .36   | .63   | 3.5   |
| 15    | .90   | 5.1   | 2.3  | 2.2  | 5.7   | 9.8   | 7.3   | 7.7   | 1.0   | .22   | .52   | 2.6   |
| 16    | 2.1   | 4.6   | 2.2  | 2.1  | 4.2   | 24    | 6.6   | 7.8   | .94   | .17   | .44   | 1.9   |
| 17    | 1.2   | 3.1   | 2.5  | 1.7  | 3.7   | 16    | 6.0   | 9.1   | .84   | .84   | .36   | 4.1   |
| 18    | 1.0   | 2.5   | 2.6  | 1.7  | 3.6   | 11    | 5.5   | 6.5   | .75   | 1.8   | .30   | 2.8   |
| 19    | .94   | 2.8   | 2.5  | 1.7  | 3.8   | 9.1   | 5.2   | 5.4   | .63   | 1.5   | .27   | 1.9   |
| 20    | .81   | 3.5   | 2.7  | 1.7  | 4.2   | 8.0   | 4.8   | 4.8   | .58   | 1.7   | 1.5   | 1.5   |
| 21    | .81   | 5.5   | 2.6  | 1.7  | 4.2   | 6.8   | 4.6   | 4.4   | .70   | .71   | .71   | 3.5   |
| 22    | 1.2   | 3.3   | 2.3  | 1.8  | 3.8   | 6.5   | 4.3   | 4.5   | .97   | .44   | .50   | 2.4   |
| 23    | 2.4   | 5.1   | 2.4  | 1.9  | 4.1   | 6.4   | 4.1   | 3.8   | .58   | .32   | .37   | 1.8   |
| 24    | 2.0   | 3.6   | 2.4  | 1.8  | 3.9   | 5.7   | 3.9   | 3.4   | .50   | .25   | .27   | 1.3   |
| 25    | 1.4   | 2.8   | 2.3  | 2.0  | 3.8   | 5.3   | 4.1   | 3.3   | .59   | .24   | .25   | 1.0   |
| 26    | 1.2   | 2.4   | 2.3  | 3.4  | 3.9   | 5.0   | 3.9   | 3.2   | 2.4   | .24   | .24   | .88   |
| 27    | 1.1   | 2.4   | 2.3  | 4.8  | 12    | 5.1   | 3.7   | 3.0   | .87   | .97   | 1.9   | .87   |
| 28    | .97   | 2.4   | 2.2  | 3.0  | 14    | 5.9   | 3.9   | 3.1   | .60   | .71   | 11    | .88   |
| 29    | .90   | 2.4   | 2.1  | 2.7  | ----- | 8.4   | 8.5   | 2.7   | .48   | .47   | 3.3   | .89   |
| 30    | .90   | 3.3   | 2.0  | 2.4  | ----- | 10    | 6.4   | 2.5   | .43   | 2.6   | 1.7   | .80   |
| 31    | .87   | ----- | 1.8  | 2.3  | ----- | 11    | ----- | 2.6   | ----- | 7.2   | 1.1   | ----- |
| TOTAL | 34.99 | 85.57 | 83.5 | 82.5 | 118.4 | 234.4 | 344.6 | 190.0 | 44.56 | 24.65 | 56.34 | 56.73 |
| MEAN  | 1.13  | 2.85  | 2.69 | 2.66 | 4.23  | 7.56  | 11.5  | 6.13  | 1.49  | .80   | 1.82  | 1.89  |
| MAX   | 3.1   | 5.8   | 7.2  | 8.1  | 14    | 24    | 61    | 14    | 4.8   | 7.2   | 11    | 13    |
| MIN   | .72   | .87   | 1.8  | 1.7  | 1.8   | 3.9   | 3.7   | 2.5   | .43   | .15   | .24   | .40   |
| CFSM  | .40   | 1.01  | .96  | .95  | 1.51  | 2.69  | 4.09  | 2.18  | .53   | .28   | .65   | .67   |
| IN.   | .46   | 1.13  | 1.11 | 1.09 | 1.57  | 3.10  | 4.56  | 2.52  | .59   | .33   | .75   | .75   |

CAL YR 1970 TOTAL 1,717.73 MEAN 4.71 MAX 85 MIN .13 CFSM 1.68 IN 22.74  
WTR YR 1971 TOTAL 1,356.24 MEAN 3.72 MAX 61 MIN .15 CFSM 1.32 IN 17.95

## PEAK DISCHARGE (BASE, 75 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-3  | 0145 | 6.44  | 79        |      |      |       |           |



01175500 Swift River at West Ware, Mass.

LOCATION.--Lat 42°16'04", long 72°19'59", Hampshire County, on left bank at West Ware, 1.4 miles downstream from Quabbin Reservoir, 3.5 miles east of Belchertown, and 8.0 miles upstream from mouth.

DRAINAGE AREA.--188 sq mi, includes 1.6 sq mi drained by Beaver Brook, flow of which is diverted from Ware River basin. Prior to January 1937, 186 sq mi.

PERIOD OF RECORD.--July 1910 to September 1912 (twice-daily gage heights and corresponding discharges), October 1912 to current year.

GAUGE.--Water-stage recorder. Datum of gage is 365.18 ft above mean sea level. Prior to Aug. 25, 1912, nonrecording gage at site 400 ft upstream at same datum.

AVERAGE DISCHARGE.--59 years (1912-71), 296 cfs (21.38 inches per year), adjusted for storage and diversions.

EXTREMES.--Current year: Maximum discharge, 189 cfs Aug. 11 (gage height, 3.02 ft); maximum gage height, 3.17 ft Jan. 18 (backwater from ice); minimum daily discharge, 24 cfs Feb. 7, June 6, 13.

Period of record: Maximum discharge, 7,590 cfs Mar. 19, 1936 (gage height, 15.00 ft); minimum daily, 9.1 cfs Dec. 15, 1968. Maximum discharge since construction of Quabbin Reservoir in 1939, 1,870 cfs Apr. 30, 1956 (gage height, 8.37 ft).

REMARKS.--Records good. Flow regulated since August 1939 by Quabbin Reservoir (see p. 209). Diversion from Ware River to Quabbin Reservoir since 1940, from Quabbin Reservoir to Wachusett Reservoir since 1941, from Quabbin Reservoir to Chicopee Valley aqueduct since 1950, and at times since January 1966 from Quabbin Reservoir to city of Worcester. No diversion to city of Worcester during year. See table below for figures of diversion.

REVISIONS (WATER YEARS).--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).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 38    | 26    | 36    | 25    | 42    | 44    | 36    | 42    | 44    | 67    | 91    | 37    |
| 2     | 38    | 45    | 36    | 45    | 35    | 36    | 37    | 25    | 36    | 38    | 92    | 76    |
| 3     | 44    | 37    | 36    | 26    | 35    | 36    | 46    | 44    | 37    | 43    | 91    | 93    |
| 4     | 30    | 37    | 38    | 43    | 35    | 37    | 26    | 39    | 37    | 29    | 92    | 50    |
| 5     | 30    | 38    | 43    | 36    | 35    | 36    | 44    | 37    | 42    | 28    | 49    | 93    |
| 6     | 45    | 37    | 26    | 36    | 41    | 41    | 37    | 37    | 24    | 44    | 37    | 93    |
| 7     | 37    | 43    | 44    | 37    | 24    | 27    | 39    | 37    | 43    | 77    | 42    | 93    |
| 8     | 37    | 26    | 37    | 37    | 42    | 43    | 38    | 43    | 36    | 89    | 25    | 93    |
| 9     | 37    | 45    | 36    | 42    | 35    | 36    | 37    | 26    | 37    | 89    | 43    | 53    |
| 10    | 44    | 43    | 37    | 26    | 35    | 36    | 43    | 44    | 36    | 86    | 36    | 36    |
| 11    | 30    | 26    | 37    | 43    | 35    | 35    | 26    | 37    | 36    | 89    | 77    | 43    |
| 12    | 30    | 45    | 42    | 36    | 34    | 35    | 43    | 37    | 41    | 89    | 93    | 32    |
| 13    | 47    | 37    | 26    | 36    | 43    | 41    | 37    | 40    | 24    | 90    | 91    | 45    |
| 14    | 38    | 44    | 44    | 36    | 29    | 25    | 37    | 39    | 43    | 90    | 86    | 38    |
| 15    | 39    | 27    | 36    | 36    | 28    | 44    | 37    | 43    | 36    | 89    | 89    | 37    |
| 16    | 40    | 45    | 36    | 42    | 43    | 41    | 37    | 26    | 36    | 89    | 90    | 37    |
| 17    | 45    | 37    | 36    | 26    | 37    | 38    | 43    | 45    | 36    | 71    | 89    | 38    |
| 18    | 27    | 37    | 36    | 43    | 35    | 37    | 28    | 37    | 78    | 82    | 89    | 43    |
| 19    | 46    | 37    | 42    | 36    | 35    | 37    | 28    | 37    | 84    | 91    | 89    | 26    |
| 20    | 37    | 37    | 26    | 36    | 41    | 42    | 44    | 37    | 88    | 91    | 89    | 44    |
| 21    | 38    | 43    | 44    | 36    | 25    | 25    | 37    | 37    | 88    | 90    | 87    | 39    |
| 22    | 38    | 26    | 36    | 36    | 42    | 43    | 37    | 43    | 89    | 90    | 89    | 37    |
| 23    | 38    | 45    | 36    | 42    | 36    | 37    | 37    | 25    | 90    | 90    | 89    | 37    |
| 24    | 44    | 37    | 42    | 25    | 35    | 36    | 41    | 43    | 90    | 83    | 82    | 37    |
| 25    | 27    | 42    | 26    | 42    | 35    | 36    | 25    | 36    | 81    | 89    | 83    | 42    |
| 26    | 46    | 26    | 45    | 35    | 35    | 36    | 43    | 37    | 78    | 90    | 92    | 26    |
| 27    | 37    | 44    | 26    | 35    | 42    | 41    | 36    | 37    | 90    | 90    | 94    | 44    |
| 28    | 38    | 43    | 44    | 35    | 28    | 25    | 37    | 37    | 89    | 89    | 95    | 35    |
| 29    | 37    | 26    | 37    | 36    | ----- | 43    | 38    | 44    | 90    | 90    | 94    | 72    |
| 30    | 37    | 44    | 37    | 42    | ----- | 37    | 37    | 29    | 89    | 91    | 94    | 82    |
| 31    | 43    | ----- | 41    | 25    | ----- | 37    | ----- | 29    | ----- | 89    | 53    | ----- |
| TOTAL | 1,182 | 1,125 | 1,148 | 1,116 | 997   | 1,143 | 1,111 | 1,149 | 1,748 | 2,442 | 2,432 | 1,591 |
| MEAN  | 38.1  | 37.5  | 37.0  | 36.0  | 35.6  | 36.9  | 37.0  | 37.1  | 58.3  | 78.8  | 78.5  | 53.0  |
| MAX   | 47    | 45    | 49    | 49    | 43    | 44    | 46    | 45    | 90    | 91    | 95    | 93    |
| MIN   | 27    | 26    | 26    | 25    | 24    | 25    | 25    | 25    | 24    | 28    | 25    | 26    |
| (†)   | +478  | +473  | +476  | +388  | +431  | -54.4 | -289  | -67.8 | +163  | +480  | +482  | +479  |
| MEAN‡ | 73.4  | 195   | 207   | 190   | 337   | 398   | 632   | 404   | 97.8  | 140   | 143   | 145   |
| CFSM‡ | .39   | 1.04  | 1.10  | 1.01  | 1.79  | 2.12  | 3.36  | 2.15  | .52   | .74   | .76   | .77   |
| IN.‡  | .45   | 1.16  | 1.27  | 1.16  | 1.87  | 2.44  | 3.75  | 2.48  | .58   | .86   | .88   | .86   |

CAL YR 1970 TOTAL 18,517 MEAN 50.7 MAX 100 MIN 22 MEAN‡ 300 CFSM‡ 1.60 IN‡ 21.66  
WTR YR 1971 TOTAL 17,184 MEAN 47.1 MAX 95 MIN 24 MEAN‡ 246 CFSM‡ 1.31 IN‡ 17.75

† Diversions, in cubic feet per second, to Quabbin Reservoir from Ware River and from Quabbin Reservoir to Wachusett Reservoir and Chicopee Valley aqueduct.

‡ Adjusted for diversions and change in contents in Quabbin Reservoir.

01175670 Sevenmile River near Spencer, Mass.

LOCATION.--Lat 42°15'54", long 72°00'19", Worcester County, on right bank 40 ft upstream from bridge on Cooney Road and 1.5 miles north of Spencer.

DRAINAGE AREA.--8.58 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements, water year 1960. October 1960 to current year. October and November 1960 monthly discharge only, published in WSP 1901.

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

AVERAGE DISCHARGE.--11 years, 12.1 cfs (19.15 inches per year).

EXTREMES.--Current year: Maximum discharge, 89 cfs Apr. 3 (gage height, 3.75 ft); maximum gage height, 4.07 ft Mar. 16 (affected by backwater from ice); minimum discharge, 0.39 cfs July 10.

Period of record: Maximum discharge, 412 cfs Mar. 18, 1968 (gage height, 5.19 ft), from rating curve extended above 160 cfs; maximum gage height, 5.41 ft Mar. 7, 1963 (backwater from ice); minimum discharge, 0.15 cfs Sept. 12, 1963.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are fair.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN   | FEB   | MAR  | APR   | MAY  | JUN   | JUL   | AUG   | SEP   |
|-------|------|-------|-------|-------|-------|------|-------|------|-------|-------|-------|-------|
| 1     | 1.2  | 2.3   | 5.4   | 4.7   | 5.0   | 35   | 38    | 18   | 13    | 2.7   | 5.7   | 1.8   |
| 2     | 1.1  | 2.3   | 5.1   | 5.0   | 4.7   | 35   | 43    | 16   | 10    | 3.8   | 4.7   | 1.5   |
| 3     | 1.4  | 2.5   | 4.6   | 4.5   | 4.6   | 32   | 80    | 18   | 11    | 3.3   | 3.9   | 1.3   |
| 4     | 2.4  | 2.7   | 10    | 4.9   | 4.5   | 28   | 75    | 26   | 12    | 2.7   | 7.4   | 1.1   |
| 5     | 1.9  | 3.7   | 10    | 7.4   | 4.6   | 26   | 67    | 23   | 9.0   | 2.1   | 5.6   | 1.0   |
| 6     | 1.7  | 4.0   | 8.2   | 12    | 4.8   | 23   | 58    | 20   | 7.5   | 2.0   | 4.4   | .93   |
| 7     | 1.5  | 3.5   | 7.3   | 15    | 5.1   | 20   | 58    | 17   | 6.6   | 5.1   | 2.6   | .90   |
| 8     | 1.3  | 3.2   | 5.8   | 12    | 5.5   | 21   | 53    | 15   | 7.5   | 1.2   | 2.6   | .80   |
| 9     | 1.3  | 3.0   | 5.6   | 10    | 6.5   | 19   | 49    | 19   | 10    | .65   | 1.7   | .74   |
| 10    | 1.3  | 2.9   | 6.2   | 9.0   | 6.6   | 17   | 51    | 28   | 8.4   | .49   | 1.3   | .68   |
| 11    | 1.5  | 3.7   | 5.5   | 7.0   | 6.7   | 17   | 56    | 26   | 7.2   | .52   | 3.8   | .65   |
| 12    | 1.2  | 4.0   | 5.9   | 5.1   | 7.0   | 16   | 54    | 23   | 6.2   | .53   | 6.5   | 5.0   |
| 13    | 1.3  | 4.1   | 6.4   | 5.7   | 8.0   | 16   | 50    | 34   | 5.5   | .65   | 3.7   | 13    |
| 14    | 1.5  | 6.9   | 6.4   | 5.6   | 20    | 16   | 46    | 54   | 4.9   | 1.3   | 2.4   | 11    |
| 15    | 1.7  | 7.3   | 5.8   | 5.4   | 24    | 20   | 41    | 40   | 4.6   | 1.0   | 2.5   | 8.0   |
| 16    | 2.9  | 7.3   | 5.2   | 5.2   | 22    | 57   | 37    | 36   | 4.4   | .78   | 1.3   | 6.0   |
| 17    | 2.3  | 6.2   | 6.0   | 5.0   | 21    | 55   | 34    | 36   | 3.8   | .87   | 1.2   | 4.7   |
| 18    | 2.1  | 5.6   | 7.0   | 4.8   | 20    | 48   | 31    | 31   | 3.4   | 2.9   | 1.0   | 3.9   |
| 19    | 2.0  | 5.4   | 6.6   | 4.6   | 19    | 40   | 29    | 27   | 3.0   | 2.3   | .87   | 3.3   |
| 20    | 2.1  | 5.9   | 6.4   | 4.4   | 18    | 38   | 27    | 24   | 2.9   | 2.6   | .91   | 3.0   |
| 21    | 2.0  | 9.4   | 6.2   | 4.3   | 16    | 34   | 25    | 22   | 2.6   | 2.2   | .80   | 3.5   |
| 22    | 2.0  | 8.0   | 5.8   | 4.1   | 15    | 31   | 23    | 22   | 3.6   | 1.5   | .74   | 2.9   |
| 23    | 3.2  | 7.6   | 6.0   | 4.0   | 15    | 29   | 21    | 20   | 5.1   | .71   | .74   | 2.3   |
| 24    | 4.2  | 7.3   | 6.2   | 4.3   | 15    | 27   | 20    | 18   | 2.4   | .83   | .67   | 2.0   |
| 25    | 3.5  | 5.9   | 6.2   | 4.3   | 14    | 25   | 19    | 17   | 3.3   | .83   | .58   | 1.7   |
| 26    | 3.2  | 5.2   | 6.0   | 5.0   | 14    | 23   | 18    | 16   | 6.0   | .87   | .55   | 1.4   |
| 27    | 3.0  | 5.1   | 5.8   | 7.0   | 18    | 23   | 17    | 15   | 4.8   | .91   | 1.3   | 1.2   |
| 28    | 2.8  | 5.2   | 5.6   | 6.6   | 30    | 24   | 16    | 16   | 3.8   | .74   | 6.0   | 1.0   |
| 29    | 2.5  | 5.1   | 5.4   | 6.1   | ----- | 28   | 15    | 16   | 3.1   | .76   | 4.4   | .92   |
| 30    | 2.4  | 5.6   | 5.0   | 5.7   | ----- | 34   | 20    | 14   | 2.5   | 2.2   | 2.7   | .85   |
| 31    | 2.3  | ----- | 4.7   | 5.3   | ----- | 36   | ----- | 14   | ----- | 4.1   | 2.2   | ----- |
| TOTAL | 64.8 | 150.9 | 192.3 | 194.4 | 354.6 | 893  | 1,179 | 721  | 178.1 | 53.14 | 84.76 | 87.07 |
| MEAN  | 2.09 | 5.03  | 6.20  | 6.27  | 12.7  | 28.8 | 39.3  | 23.3 | 5.94  | 1.71  | 2.73  | 2.90  |
| MAX   | 4.2  | 9.4   | 10    | 15    | 30    | 57   | 80    | 54   | 13    | 5.1   | 7.4   | 13    |
| MIN   | 1.1  | 2.3   | 4.6   | 4.0   | 4.5   | 16   | 16    | 14   | 2.4   | .49   | .55   | .65   |
| CFSM  | .24  | .59   | .72   | .73   | 1.48  | 3.36 | 4.58  | 2.72 | .69   | .20   | .32   | .34   |
| IN.   | .28  | .65   | .83   | .84   | 1.54  | 3.87 | 5.11  | 3.13 | .77   | .23   | .37   | .38   |

CAL YR 1970 TOTAL 5,257.50 MEAN 14.4 MAX 150 MIN .43 CFSM 1.68 IN 22.79  
WTR YR 1971 TOTAL 4,153.07 MEAN 11.4 MAX 80 MIN .49 CFSM 1.33 IN 18.01

PEAK DISCHARGE (BASE, 60 CFS)

NOTE.--No gage-height record Sept. 3-30.

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 3-16 | 0930 | 3.52  | 65        |      |      |       |           |
| 4-3  | 1530 | 3.75  | 89        |      |      |       |           |
| 5-13 | 2315 | 3.47  | 60        |      |      |       |           |

## 01176000 Quabaog River at West Brimfield, Mass.

LOCATION.--Lat 42°10'56", long 72°15'51", Hampden County, on right bank 10 ft upstream from abandoned highway-bridge site at West Brimfield, 0.9 mile upstream from Blodgett Mill Brook, 3.5 miles northeast of Palmer, and 9.9 miles upstream from mouth.

DRAINAGE AREA.--151 sq mi.

PERIOD OF RECORD.--August 1909 to August 1912 (twice-daily gage heights and corresponding discharges), September 1912 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 390 ft (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 mile downstream at different datum.

AVERAGE DISCHARGE.--59 years (1912-71), 236 cfs (21.22 inches per year).

EXTREMES.--Current year: Maximum discharge, 689 cfs Apr. 7 (gage height, 4.92 ft); maximum gage height, 5.00 ft Feb. 28 (backwater from ice); minimum daily discharge, 26 cfs Sept. 11.

Period of record: Maximum discharge, 12,800 cfs Aug. 19, 1955 (gage height, 15.36 ft, from floodmarks, present site and datum), from rating curve extended above 2,700 cfs on basis of slope-area measurement of peak flow; minimum daily, 6.6 cfs Sept. 28, 29, 1957.

REMARKS.--Records good except those for winter period, which are fair. Slight diurnal fluctuation at low flow caused by mill above station prior to 1956; regulation much greater prior to 1938. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 451: 1916. WSP 711: Drainage area. WSP 1301: 1918(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| 1     | 34    | 65    | 106   | 85    | 96    | 390    | 481    | 286    | 197   | 42    | 104   | 53    |
| 2     | 33    | 61    | 104   | 86    | 92    | 423    | 500    | 281    | 171   | 59    | 51    | 52    |
| 3     | 36    | 59    | 103   | 86    | 85    | 428    | 554    | 291    | 170   | 54    | 85    | 45    |
| 4     | 55    | 64    | 101   | 90    | 85    | 423    | 623    | 358    | 167   | 52    | 52    | 42    |
| 5     | 57    | 66    | 95    | 110   | 85    | 345    | 653    | 349    | 160   | 43    | 99    | 38    |
| 6     | 47    | 66    | 127   | 150   | 86    | 383    | 664    | 347    | 153   | 41    | 54    | 35    |
| 7     | 46    | 72    | 99    | 155   | 92    | 403    | 681    | 330    | 145   | 51    | 86    | 34    |
| 8     | 43    | 69    | 91    | 145   | 100   | 380    | 677    | 323    | 133   | 46    | 78    | 31    |
| 9     | 42    | 65    | 88    | 135   | 120   | 337    | 684    | 336    | 137   | 43    | 71    | 28    |
| 10    | 40    | 66    | 110   | 125   | 125   | 323    | 674    | 361    | 133   | 40    | 64    | 27    |
| 11    | 40    | 71    | 110   | 115   | 120   | 328    | 652    | 365    | 126   | 36    | 60    | 26    |
| 12    | 47    | 73    | 115   | 105   | 130   | 303    | 649    | 364    | 122   | 35    | 101   | 83    |
| 13    | 38    | 72    | 115   | 100   | 150   | 289    | 631    | 407    | 111   | 31    | 69    | 116   |
| 14    | 36    | 104   | 110   | 98    | 200   | 278    | 599    | 490    | 108   | 32    | 85    | 137   |
| 15    | 40    | 120   | 105   | 96    | 270   | 319    | 561    | 504    | 95    | 28    | 76    | 140   |
| 16    | 48    | 124   | 100   | 94    | 290   | 507    | 547    | 525    | 86    | 28    | 66    | 136   |
| 17    | 44    | 120   | 100   | 91    | 310   | 550    | 522    | 536    | 77    | 32    | 61    | 125   |
| 18    | 48    | 119   | 110   | 87    | 320   | 609    | 487    | 518    | 70    | 40    | 55    | 112   |
| 19    | 43    | 119   | 120   | 85    | 310   | 637    | 459    | 495    | 63    | 38    | 49    | 95    |
| 20    | 42    | 122   | 110   | 83    | 250   | 660    | 441    | 461    | 56    | 43    | 48    | 87    |
| 21    | 42    | 131   | 105   | 81    | 260   | 630    | 415    | 424    | 54    | 44    | 45    | 85    |
| 22    | 49    | 138   | 100   | 80    | 265   | 606    | 376    | 392    | 59    | 40    | 40    | 83    |
| 23    | 61    | 145   | 100   | 79    | 260   | 590    | 340    | 359    | 56    | 38    | 36    | 74    |
| 24    | 69    | 143   | 105   | 81    | 255   | 545    | 343    | 335    | 52    | 36    | 29    | 63    |
| 25    | 79    | 139   | 110   | 85    | 250   | 517    | 322    | 311    | 48    | 36    | 28    | 59    |
| 26    | 76    | 130   | 105   | 95    | 250   | 501    | 310    | 283    | 74    | 38    | 27    | 53    |
| 27    | 73    | 122   | 98    | 115   | 280   | 483    | 295    | 262    | 61    | 37    | 30    | 48    |
| 28    | 81    | 114   | 94    | 115   | 350   | 464    | 278    | 251    | 53    | 33    | 60    | 45    |
| 29    | 75    | 108   | 90    | 115   | ----- | 461    | 302    | 240    | 48    | 34    | 60    | 42    |
| 30    | 71    | 107   | 86    | 110   | ----- | 463    | 295    | 226    | 43    | 42    | 56    | 39    |
| 31    | 66    | ----- | 84    | 105   | ----- | 470    | -----  | 214    | ----- | 78    | 57    | ----- |
| TOTAL | 1,603 | 2,974 | 3,196 | 3,182 | 5,550 | 14,085 | 15,055 | 11,224 | 3,028 | 1,270 | 2,045 | 2,043 |
| MEAN  | 51.7  | 95.1  | 103   | 103   | 198   | 454    | 502    | 362    | 101   | 41.0  | 66.0  | 68.1  |
| MAX   | 81    | 145   | 127   | 155   | 350   | 660    | 684    | 536    | 197   | 78    | 104   | 140   |
| MIN   | 33    | 59    | 84    | 79    | 85    | 278    | 278    | 214    | 43    | 28    | 27    | 26    |
| CFSM  | .34   | .66   | .68   | .68   | 1.31  | 3.01   | 3.32   | 2.40   | .67   | .27   | .44   | .45   |
| IN.   | .39   | .73   | .75   | .78   | 1.27  | 3.47   | 3.71   | 2.77   | .75   | .31   | .50   | .50   |

CAL YR 1970 TOTAL 87,732 MEAN 240 MAX 1,260 MIN 19 CFSM 1.59 IN 21.61  
WTR YR 1971 TOTAL 65,259 MEAN 175 MAX 684 MIN 26 CFSM 1.19 IN 16.08

PEAK DISCHARGE (BASE, 840 CFS).--No peak above base.

NOTE.--No gage-height record Dec. 10 to Jan. 6, Jan. 8-15.

01177000 Chicopee River at Indian Orchard, Mass.

LOCATION.--Lat 42°09'38", long 72°30'52", Hampden County, on left bank 1,000 ft downstream from West Street Bridge at Indian Orchard, 1.1 miles upstream from Fuller Brook, and 7.2 miles upstream from mouth.

DRAINAGE AREA.--688 sq mi.

PERIOD OF RECORD.--August 1928 to current year. Published as "at Bircham Bend" prior to November 1938.

GAGE.--Water-stage recorder. Altitude of gage is 125 ft (from topographic map). Prior to Nov. 1, 1938, water-stage recorder at site 1.8 miles downstream at different datum.

AVERAGE DISCHARGE.--43 years, 1,056 cfs (20.54 inches per year), adjusted to present drainage area and for storage and diversions.

EXTREMES.--Current year: Maximum discharge, 2,450 cfs Apr. 4 (gage height, 7.10 ft); minimum daily, 103 cfs Oct. 15.

Period of record: Maximum discharge, 45,200 cfs Sept. 21, 1938, by computation of flow over dam; minimum daily, 16 cfs several times in 1929-31.

REMARKS.--Records good. Diversion since 1941 from 186 sq mi in Swift River basin and at times since 1931 from 97 sq mi in Ware River basin for Boston metropolitan district; since 1950, for city of Chicopee; since 1952, for South Hadley; and, at times since 1966, for city of Worcester. Diversion from Ludlow Reservoir for Springfield and, prior to 1952, for Chicopee. See table below for figures of diversion. Flow regulated by powerplants above station, by Quabbin Reservoir (21 miles upstream) on Swift River since 1939, by Barre Falls Reservoir on Ware River since 1958, by Conant Brook Reservoir since 1966 (see p. 209), and by smaller reservoirs.

REVISIONS (WATER YEARS).--WSP 711: Drainage area. WSP 1231: 1934.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT           | NOV      | DEC       | JAN     | FEB         | MAR        | APR       | MAY    | JUN    | JUL   | AUG    | SEP    |
|-------------|---------------|----------|-----------|---------|-------------|------------|-----------|--------|--------|-------|--------|--------|
| 1           | 151           | 260      | 447       | 366     | 330         | 1,450      | 1,380     | 902    | 676    | 400   | 650    | 291    |
| 2           | 199           | 306      | 420       | 283     | 320         | 1,370      | 1,390     | 872    | 580    | 450   | 677    | 256    |
| 3           | 192           | 222      | 395       | 357     | 310         | 1,290      | 1,930     | 914    | 538    | 413   | 533    | 226    |
| 4           | 274           | 253      | 502       | 420     | 300         | 1,240      | 2,290     | 1,230  | 704    | 323   | 575    | 254    |
| 5           | 357           | 272      | 621       | 453     | 300         | 1,060      | 1,960     | 1,270  | 660    | 331   | 534    | 237    |
| 6           | 311           | 330      | 589       | 583     | 310         | 1,030      | 1,740     | 1,100  | 523    | 264   | 395    | 290    |
| 7           | 230           | 257      | 541       | 553     | 310         | 1,090      | 1,730     | 987    | 534    | 345   | 331    | 253    |
| 8           | 280           | 314      | 420       | 660     | 391         | 1,160      | 1,770     | 932    | 549    | 331   | 259    | 224    |
| 9           | 260           | 322      | 453       | 628     | 389         | 957        | 1,690     | 1,050  | 512    | 345   | 240    | 232    |
| 10          | 150           | 314      | 469       | 431     | 427         | 918        | 1,710     | 1,220  | 596    | 206   | 353    | 174    |
| 11          | 240           | 275      | 469       | 519     | 410         | 914        | 1,670     | 1,130  | 530    | 221   | 201    | 117    |
| 12          | 170           | 260      | 415       | 480     | 404         | 863        | 1,600     | 1,040  | 454    | 311   | 562    | 583    |
| 13          | 270           | 357      | 353       | 443     | 443         | 835        | 1,530     | 1,090  | 389    | 325   | 626    | 854    |
| 14          | 246           | 453      | 491       | 444     | 711         | 840        | 1,330     | 1,680  | 431    | 304   | 393    | 735    |
| 15          | 103           | 559      | 419       | 352     | 792         | 900        | 1,240     | 1,510  | 405    | 238   | 364    | 668    |
| 16          | 250           | 641      | 362       | 341     | 766         | 1,200      | 1,240     | 1,340  | 362    | 265   | 355    | 558    |
| 17          | 290           | 502      | 318       | 312     | 721         | 1,900      | 1,210     | 1,420  | 357    | 273   | 225    | 462    |
| 18          | 268           | 491      | 469       | 300     | 721         | 1,800      | 1,180     | 1,340  | 338    | 357   | 227    | 383    |
| 19          | 279           | 469      | 405       | 290     | 771         | 1,700      | 1,080     | 1,250  | 330    | 420   | 337    | 410    |
| 20          | 268           | 442      | 431       | 285     | 765         | 1,600      | 1,070     | 1,110  | 299    | 396   | 296    | 381    |
| 21          | 175           | 486      | 457       | 280     | 759         | 1,550      | 998       | 991    | 347    | 325   | 277    | 431    |
| 22          | 213           | 535      | 447       | 280     | 774         | 1,500      | 973       | 999    | 416    | 346   | 214    | 295    |
| 23          | 290           | 621      | 400       | 290     | 804         | 1,500      | 893       | 905    | 424    | 261   | 237    | 439    |
| 24          | 283           | 589      | 348       | 300     | 831         | 1,460      | 884       | 862    | 444    | 244   | 222    | 313    |
| 25          | 357           | 535      | 400       | 360     | 762         | 1,280      | 845       | 826    | 433    | 270   | 205    | 228    |
| 26          | 405           | 436      | 330       | 376     | 782         | 1,230      | 887       | 766    | 483    | 306   | 185    | 241    |
| 27          | 322           | 436      | 366       | 415     | 948         | 1,230      | 846       | 729    | 439    | 322   | 334    | 231    |
| 28          | 268           | 395      | 447       | 432     | 1,190       | 1,200      | 813       | 756    | 474    | 246   | 456    | 287    |
| 29          | 286           | 405      | 380       | 401     | -----       | 1,180      | 954       | 728    | 408    | 304   | 492    | 178    |
| 30          | 246           | 475      | 362       | 373     | -----       | 1,370      | 1,050     | 628    | 379    | 311   | 450    | 236    |
| 31          | 183           | -----    | 268       | 350     | -----       | 1,380      | -----     | 667    | -----  | 414   | 378    | -----  |
| TOTAL       | 7,816         | 12,212   | 13,234    | 12,357  | 16,741      | 38,997     | 39,883    | 32,244 | 14,014 | 9,867 | 11,583 | 10,467 |
| MEAN        | 252           | 407      | 427       | 399     | 598         | 1,258      | 1,329     | 1,040  | 467    | 318   | 374    | 349    |
| MAX         | 405           | 641      | 621       | 660     | 1,190       | 1,900      | 2,290     | 1,680  | 704    | 450   | 677    | 854    |
| MIN         | 103           | 222      | 268       | 280     | 300         | 835        | 813       | 628    | 299    | 206   | 185    | 117    |
| (†)         | +478          | +476     | +484      | +396    | +441        | +27.3      | +29.5     | +22.9  | +163   | +479  | +482   | +478   |
| MEAN‡       | 295           | 569      | 598       | 560     | 919         | 1,699      | 2,242     | 1,496  | 499    | 375   | 441    | 445    |
| CFSM‡       | .43           | .83      | .87       | .81     | 1.34        | 2.47       | 3.26      | 2.17   | .73    | .55   | .64    | .65    |
| IN.‡        | .49           | .92      | 1.00      | .94     | 1.39        | 2.85       | 3.64      | 2.51   | .81    | .63   | .74    | .72    |
| CAL YR 1970 | TOTAL 289,519 | MEAN 793 | MAX 5,490 | MIN 103 | MEAN‡ 1,118 | CFSM‡ 1.62 | IN‡ 22.06 |        |        |       |        |        |
| WTR YR 1971 | TOTAL 219,415 | MEAN 601 | MAX 2,290 | MIN 103 | MEAN‡ 843   | CFSM‡ 1.23 | IN‡ 16.64 |        |        |       |        |        |

† 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 city of Springfield.

‡ Adjusted for diversions and for change in contents in Quabbin Reservoir (adjusted for diversion from Ware River), Barre Falls, Conant Brook, and Ludlow Reservoirs.

## 01179500 Westfield River at Knightville, Mass.

LOCATION.--Lat 42°17'16", long 72°51'53", Hampshire County, on left bank at Knightville, 0.2 mile downstream from Knightville Dam, 0.2 mile upstream from Sykes Brook, 2.4 miles upstream from Middle Branch, 3.5 miles north of Huntington, and at mile 29.7.

DRAINAGE AREA.--162 sq mi.

PERIOD OF RECORD.--August 1909 to current year.

GAGE.--Water-stage recorder. Concrete control since Dec. 20, 1940. Datum of gage is 461.25 ft above mean sea level (levels by Corps of Engineers). Prior to Jan. 11, 1935, nonrecording gage at site 0.5 mile upstream at different datum. Jan. 11, 1935, to May 20, 1940, water-stage recorder at site 700 ft upstream at datum 10.57 ft higher. May 21 to Dec. 19, 1940, nonrecording gage at site 700 ft upstream at datum 18.75 ft higher.

AVERAGE DISCHARGE.--62 years, 315 cfs (26.41 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 2,500 cfs Apr. 21 (gage height, 5.49 ft); minimum, 20 cfs July 29; minimum daily, 22 cfs July 29.

Period of record: Maximum discharge, 37,900 cfs Sept. 21, 1938 (gage height, 29.58 ft, from floodmarks, site and datum then in use), from rating curve extended above 3,800 cfs on basis of slope-area measurements at gage heights 24.07 and 29.58 ft; minimum, 0.1 cfs Apr. 3, 1965; minimum daily, 1.1 cfs Apr. 2, 1965. Maximum discharge since construction of Knightville Reservoir in 1941, 6,660 cfs Mar. 21, 1945 (gage height, 7.45 ft).

REMARKS.--Records good. Flow regulated by Knightville Reservoir since 1941 (see p. 209).

REVISIONS (WATER YEARS).--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).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 33    | 53    | 192   | 117   | 118   | 565   | 292    | 1,020  | 264   | 56    | 103   | 160   |
| 2     | 31    | 52    | 160   | 106   | 118   | 419   | 368    | 956    | 200   | 286   | 92    | 121   |
| 3     | 31    | 51    | 141   | 112   | 120   | 327   | 622    | 1,160  | 196   | 128   | 102   | 97    |
| 4     | 56    | 49    | 343   | 131   | 115   | 298   | 989    | 1,960  | 192   | 78    | 155   | 80    |
| 5     | 62    | 111   | 338   | 141   | 108   | 225   | 1,320  | 1,370  | 169   | 60    | 113   | 67    |
| 6     | 45    | 129   | 227   | 147   | 101   | 220   | 1,260  | 1,000  | 141   | 51    | 74    | 59    |
| 7     | 38    | 89    | 127   | 174   | 84    | 230   | 769    | 798    | 129   | 47    | 54    | 55    |
| 8     | 34    | 76    | 98    | 205   | 80    | 228   | 625    | 757    | 135   | 43    | 43    | 55    |
| 9     | 32    | 68    | 109   | 171   | 84    | 216   | 565    | 1,260  | 302   | 38    | 36    | 54    |
| 10    | 29    | 63    | 122   | 137   | 88    | 200   | 892    | 1,580  | 183   | 34    | 31    | 53    |
| 11    | 28    | 82    | 128   | 147   | 98    | 194   | 1,070  | 940    | 138   | 32    | 30    | 45    |
| 12    | 27    | 99    | 129   | 153   | 111   | 193   | 1,450  | 700    | 116   | 30    | 100   | 112   |
| 13    | 27    | 91    | 129   | 146   | 124   | 192   | 1,850  | 848    | 106   | 28    | 84    | 203   |
| 14    | 29    | 89    | 130   | 129   | 159   | 190   | 2,280  | 1,420  | 101   | 27    | 52    | 263   |
| 15    | 35    | 125   | 129   | 115   | 214   | 190   | 1,560  | 840    | 92    | 26    | 39    | 289   |
| 16    | 115   | 275   | 110   | 114   | 303   | 297   | 1,170  | 635    | 82    | 25    | 33    | 200   |
| 17    | 86    | 174   | 92    | 121   | 310   | 591   | 886    | 717    | 78    | 24    | 29    | 245   |
| 18    | 61    | 129   | 87    | 127   | 233   | 496   | 1,010  | 542    | 71    | 27    | 28    | 198   |
| 19    | 51    | 122   | 126   | 124   | 196   | 344   | 1,320  | 450    | 65    | 31    | 23    | 143   |
| 20    | 45    | 231   | 150   | 110   | 197   | 309   | 2,060  | 393    | 60    | 88    | 56    | 114   |
| 21    | 44    | 371   | 152   | 123   | 190   | 339   | 2,230  | 354    | 58    | 59    | 60    | 158   |
| 22    | 56    | 270   | 151   | 124   | 187   | 265   | 1,840  | 425    | 65    | 41    | 50    | 175   |
| 23    | 217   | 267   | 148   | 116   | 182   | 292   | 1,410  | 354    | 58    | 34    | 42    | 122   |
| 24    | 210   | 249   | 145   | 110   | 180   | 263   | 1,330  | 292    | 52    | 29    | 34    | 100   |
| 25    | 122   | 160   | 142   | 107   | 175   | 231   | 1,340  | 266    | 49    | 27    | 29    | 84    |
| 26    | 89    | 134   | 140   | 105   | 171   | 235   | 987    | 261    | 207   | 27    | 25    | 75    |
| 27    | 76    | 141   | 130   | 106   | 181   | 236   | 925    | 250    | 123   | 26    | 33    | 72    |
| 28    | 71    | 136   | 118   | 136   | 298   | 238   | 977    | 289    | 84    | 23    | 414   | 72    |
| 29    | 65    | 149   | 117   | 120   | ----- | 252   | 1,350  | 244    | 63    | 22    | 1,310 | 71    |
| 30    | 60    | 174   | 117   | 124   | ----- | 298   | 1,290  | 211    | 56    | 93    | 1,310 | 70    |
| 31    | 56    | ----- | 119   | 127   | ----- | 289   | -----  | 266    | ----- | 101   | 516   | ----- |
| TOTAL | 1,961 | 4,209 | 4,546 | 4,025 | 4,525 | 8,862 | 36,037 | 22,558 | 3,635 | 1,641 | 5,100 | 3,612 |
| MEAN  | 63.3  | 140   | 147   | 130   | 162   | 286   | 1,201  | 728    | 121   | 52.9  | 165   | 120   |
| MAX   | 217   | 371   | 343   | 205   | 310   | 591   | 2,280  | 1,960  | 302   | 286   | 1,310 | 289   |
| MIN   | 27    | 49    | 87    | 105   | 80    | 190   | 292    | 211    | 49    | 22    | 23    | 45    |
| MEAN† | 63.3  | 140   | 150   | 131   | 165   | 279   | 1,204  | 725    | 121   | 53.0  | 167   | 118   |
| CFSM† | .39   | .86   | .93   | .81   | 1.02  | 1.72  | 7.43   | 4.48   | .75   | .33   | 1.03  | .73   |
| IN.†  | .45   | .97   | 1.07  | .93   | 1.06  | 1.98  | 8.29   | 5.16   | .83   | .38   | 1.19  | .81   |

CAL YR 1970 TOTAL 102,341 MEAN 280 MAX 1,850 MIN 11 MEAN† 280 CFSM† 1.73 IN† 23.49  
WTR YR 1971 TOTAL 100,711 MEAN 276 MAX 2,280 MIN 22 MEAN† 276 CFSM† 1.70 IN† 23.13

† Adjusted for change in contents in Knightville Reservoir.

## 01180000 Sykes Brook at Knightville, Mass.

LOCATION.--Lat 42°17'27", long 72°52'15", Hampshire County, on right bank 200 ft downstream from bridge on State Highway 112 at Knightville, 0.4 mile upstream from mouth, 0.4 mile west of Knightville Dam, and 3.5 miles north of Huntington.

DRAINAGE AREA.--1.64 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 641.40 ft above mean sea level.

AVERAGE DISCHARGE.--26 years, 2.48 cfs (20.54 inches per year).

EXTREMES.--Current year: Maximum discharge, 43 cfs Aug. 28 (gage height, 2.31 ft); minimum, 0.11 cfs Aug. 19.

Period of record: Maximum discharge, 680 cfs Aug. 19, 1955 (gage height, 4.485 ft), from rating curve extended above 80 cfs; minimum, 0.01 cfs July 28, 1970 (caused by unusual regulation).

REMARKS.--Records good except those for winter period and period of no gage-height record, which are fair.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR  | APR   | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|------|-------|-------|
| 1     | .19   | .33   | 1.4   | 1.0   | .80   | 3.8  | 3.8   | 5.9   | 1.8   | .46  | .33   | 1.2   |
| 2     | .21   | .31   | 1.2   | 1.0   | .74   | 3.4  | 6.9   | 4.9   | 1.6   | .46  | .89   | .89   |
| 3     | .35   | .30   | 1.1   | .95   | .70   | 3.0  | 17    | 5.5   | 1.9   | .35  | .73   | .68   |
| 4     | .41   | .30   | 2.0   | 1.2   | .70   | 2.7  | 13    | 12    | 1.7   | .31  | .68   | .52   |
| 5     | .26   | 1.2   | 1.4   | 2.3   | .80   | 2.5  | 11    | 7.6   | 1.5   | .29  | .49   | .37   |
| 6     | .24   | 1.2   | 1.3   | 1.7   | .80   | 2.4  | 9.0   | 5.9   | 1.4   | .29  | .35   | .31   |
| 7     | .23   | .80   | 1.2   | 1.6   | .75   | 2.3  | 9.4   | 4.9   | 1.3   | .27  | .31   | .29   |
| 8     | .21   | .62   | 1.1   | 1.5   | .90   | 2.2  | 7.9   | 4.3   | 2.2   | .25  | .27   | .31   |
| 9     | .19   | .55   | 1.2   | 1.4   | 1.1   | 2.0  | 8.2   | 8.0   | 1.9   | .25  | .23   | .29   |
| 10    | .21   | .70   | 1.2   | 1.3   | 1.0   | 2.0  | 12    | 11    | 1.6   | .23  | .20   | .25   |
| 11    | .21   | .90   | 1.1   | 1.2   | .95   | 1.9  | 14    | 7.3   | 1.4   | .23  | .29   | .25   |
| 12    | .20   | .80   | 1.1   | 1.1   | .95   | 1.8  | 17    | 5.2   | 1.3   | .23  | .35   | .83   |
| 13    | .20   | 1.1   | 1.2   | 1.2   | 1.3   | 1.7  | 20    | 10    | 1.3   | .20  | .22   | .56   |
| 14    | .20   | 1.0   | 1.1   | 1.3   | 3.8   | 1.8  | 20    | 9.2   | 1.2   | .22  | .20   | .83   |
| 15    | .50   | 2.7   | .95   | 1.0   | 2.7   | 2.0  | 14    | 6.2   | 1.0   | .20  | .17   | .73   |
| 16    | 1.0   | 2.7   | .95   | .95   | 2.1   | 4.9  | 12    | 6.6   | .95   | .20  | .17   | .60   |
| 17    | .65   | 1.8   | 1.4   | .90   | 2.0   | 4.6  | 9.5   | 6.6   | .95   | .17  | .16   | .68   |
| 18    | .45   | 1.4   | 1.4   | .86   | 1.6   | 3.6  | 9.6   | 4.9   | .89   | .17  | .14   | .64   |
| 19    | .34   | 1.3   | 1.2   | .84   | 1.8   | 3.2  | 11    | 4.1   | .83   | .52  | .13   | .52   |
| 20    | .30   | 3.5   | 1.2   | .82   | 1.8   | 2.6  | 14    | 3.4   | .78   | .31  | .95   | .43   |
| 21    | .28   | 3.0   | 1.2   | .80   | 1.8   | 2.6  | 14    | 3.2   | .68   | .25  | .33   | .64   |
| 22    | 1.0   | 2.3   | 1.2   | .79   | 1.8   | 2.5  | 11    | 3.2   | .56   | .20  | .29   | .43   |
| 23    | 2.0   | 2.6   | 1.1   | .78   | 2.0   | 2.5  | 9.6   | 2.6   | .46   | .17  | .27   | .35   |
| 24    | 1.3   | 1.9   | 1.1   | .78   | 1.9   | 2.2  | 8.5   | 2.3   | .40   | .16  | .22   | .37   |
| 25    | .85   | 1.4   | 1.1   | .82   | 1.8   | 1.9  | 7.7   | 2.2   | .46   | .20  | .22   | .35   |
| 26    | .70   | 1.2   | 1.1   | 1.1   | 1.8   | 1.9  | 6.6   | 2.0   | .56   | .20  | .19   | .29   |
| 27    | .60   | 1.1   | 1.0   | 1.4   | 3.5   | 1.9  | 5.5   | 2.2   | .43   | .19  | .83   | .27   |
| 28    | .50   | 1.1   | 1.0   | 1.2   | 4.0   | 2.0  | 5.2   | 2.2   | .37   | .16  | 9.6   | .25   |
| 29    | .43   | 1.3   | 1.0   | 1.0   | ----- | 2.6  | 8.4   | 1.8   | .35   | .31  | 4.1   | .27   |
| 30    | .38   | 1.4   | .95   | .92   | ----- | 3.2  | 8.0   | 1.8   | .35   | .40  | 2.3   | .25   |
| 31    | .35   | ----- | .95   | .86   | ----- | 3.4  | ----- | 2.0   | ----- | .68  | 1.6   | ----- |
| TOTAL | 14.94 | 40.81 | 36.40 | 34.57 | 46.09 | 81.1 | 323.8 | 159.0 | 32.12 | 8.53 | 27.21 | 14.65 |
| MEAN  | .48   | 1.36  | 1.17  | 1.12  | 1.65  | 2.62 | 10.8  | 5.13  | 1.07  | .28  | .88   | .49   |
| MAX   | 2.0   | 3.5   | 2.0   | 2.3   | 4.0   | 4.9  | 20    | 12    | 2.2   | .68  | 9.6   | 1.2   |
| MIN   | .19   | .30   | .95   | .78   | .70   | 1.7  | 3.8   | 1.8   | .35   | .16  | .13   | .25   |
| CFSM  | .29   | .83   | .71   | .68   | 1.01  | 1.60 | 6.59  | 3.13  | .65   | .17  | .54   | .30   |
| IN.   | .34   | .93   | .83   | .78   | 1.05  | 1.84 | 7.34  | 3.61  | .73   | .19  | .62   | .33   |

CAL YR 1970 TOTAL 926.19 MEAN 2.54 MAX 31 MIN .08 CFSM 1.55 IN 21.01

WTR YR 1971 TOTAL 819.22 MEAN 2.24 MAX 20 MIN .13 CFSM 1.37 IN 18.58

## PEAK DISCHARGE (BASE, 35 CFS)

NOTE.--No gage-height record Oct. 12 to Dec. 4.

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 8-28 | 0915 | 2.31  | 43        |      |      |       |           |



## 01180500 Middle Branch Westfield River at Goss Heights, Mass.

LOCATION.--Lat 42°15'31", long 72°52'23", Hampshire County, on right bank at upstream side of highway bridge at Goss Heights, 0.3 mile upstream from mouth, 0.7 mile downstream from Littleville Dam, and 1.7 miles north of Huntington.

DRAINAGE AREA.--52.6 sq mi.

PERIOD OF RECORD.--July 1910 to current year.

GAGE.--Water-stage recorder. Datum of gage is 399.30 ft above mean sea level. Prior to June 25, 1930, datum was 2.00 ft higher, and June 25, 1930, to Sept. 30, 1964, datum was 1.00 ft higher. Prior to Sept. 8, 1912, nonrecording gage at same site.

AVERAGE DISCHARGE.--61 years, 101 cfs (26.08 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 912 cfs Apr. 16 (gage height, 4.41 ft); minimum, 2.3 cfs July 19.

Period of record: Maximum discharge, 19,900 cfs Sept. 21, 1938 (gage height, 11.61 ft, present datum), from rating curve extended above 3,200 cfs on basis of mean of two contracted-opening measurements of peak flow; maximum gage height, 14.87 ft, present datum, Mar. 12, 1936 (ice jam); practically no flow Sept. 3, 22, Oct. 20, 1910, July 30, 1912, Oct. 26, 27, 1914. Maximum discharge since construction of Littleville Dam in 1965, 1,170 cfs Apr. 9, 1969 (gage height, 4.79 ft).

REMARKS.--Records good except those for period of no gage-height record, which are fair. Some diurnal fluctuation at low flow prior to 1952 caused by mill above station. Flow regulated by Littleville Lake (see p. 209) since 1965.

REVISIONS (WATER YEARS).--WSP 415: 1910-13. WSP 781: 1933(M), drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT            | NOV       | DEC     | JAN     | FEB         | MAR         | APR        | MAY   | JUN     | JUL   | AUG     | SEP   |
|-------------|----------------|-----------|---------|---------|-------------|-------------|------------|-------|---------|-------|---------|-------|
| 1           | 6.1            | 15        | 51      | 39      | 32          | 168         | 105        | 304   | 70      | 9.6   | 17      | 70    |
| 2           | 5.4            | 15        | 50      | 38      | 31          | 145         | 127        | 269   | 62      | 12    | 20      | 40    |
| 3           | 6.1            | 14        | 47      | 37      | 30          | 125         | 361        | 297   | 60      | 13    | 22      | 28    |
| 4           | 8.4            | 14        | 74      | 37      | 30          | 120         | 453        | 596   | 56      | 11    | 30      | 21    |
| 5           | 8.4            | 22        | 109     | 45      | 31          | 105         | 441        | 431   | 52      | 8.8   | 28      | 18    |
| 6           | 8.0            | 35        | 92      | 71      | 31          | 98          | 345        | 307   | 48      | 7.6   | 21      | 15    |
| 7           | 8.0            | 33        | 71      | 81      | 31          | 93          | 299        | 239   | 40      | 6.7   | 15      | 13    |
| 8           | 7.6            | 29        | 51      | 73      | 34          | 88          | 251        | 209   | 40      | 5.4   | 11      | 12    |
| 9           | 7.0            | 24        | 51      | 63      | 37          | 82          | 212        | 317   | 75      | 5.1   | 8.8     | 12    |
| 10          | 6.7            | 22        | 54      | 56      | 36          | 78          | 297        | 435   | 70      | 4.3   | 7.0     | 11    |
| 11          | 6.4            | 25        | 52      | 53      | 34          | 75          | 382        | 311   | 65      | 3.9   | 6.4     | 9.9   |
| 12          | 6.4            | 29        | 51      | 50      | 32          | 72          | 447        | 226   | 45      | 3.5   | 8.8     | 16    |
| 13          | 6.1            | 29        | 49      | 45      | 36          | 71          | 490        | 254   | 38      | 2.8   | 9.6     | 31    |
| 14          | 6.1            | 31        | 46      | 45      | 61          | 70          | 669        | 404   | 33      | 3.0   | 8.4     | 50    |
| 15          | 7.3            | 39        | 42      | 43      | 103         | 70          | 716        | 278   | 28      | 2.6   | 7.0     | 79    |
| 16          | 13             | 76        | 36      | 42      | 101         | 109         | 750        | 214   | 26      | 2.6   | 5.7     | 66    |
| 17          | 17             | 77        | 46      | 40      | 84          | 188         | 429        | 224   | 24      | 2.6   | 4.8     | 60    |
| 18          | 16             | 59        | 46      | 37      | 74          | 163         | 365        | 187   | 20      | 2.6   | 4.3     | 59    |
| 19          | 15             | 51        | 46      | 35      | 68          | 136         | 454        | 150   | 18      | 3.9   | 3.7     | 49    |
| 20          | 13             | 64        | 48      | 34      | 67          | 124         | 699        | 126   | 16      | 7.6   | 10      | 39    |
| 21          | 11             | 106       | 49      | 33      | 70          | 110         | 772        | 110   | 14      | 8.0   | 9.6     | 39    |
| 22          | 14             | 114       | 48      | 33      | 69          | 96          | 607        | 105   | 13      | 7.0   | 8.4     | 48    |
| 23          | 35             | 104       | 47      | 32      | 72          | 92          | 440        | 100   | 11      | 5.4   | 6.7     | 42    |
| 24          | 62             | 99        | 48      | 32      | 71          | 88          | 390        | 90    | 10      | 4.5   | 4.5     | 35    |
| 25          | 52             | 74        | 45      | 32      | 66          | 84          | 379        | 82    | 10      | 4.5   | 3.5     | 28    |
| 26          | 39             | 57        | 43      | 35      | 63          | 81          | 300        | 75    | 14      | 4.3   | 3.2     | 24    |
| 27          | 31             | 51        | 42      | 40      | 91          | 79          | 262        | 72    | 14      | 4.1   | 5.7     | 21    |
| 28          | 25             | 46        | 40      | 43      | 166         | 78          | 267        | 76    | 12      | 3.5   | 96      | 20    |
| 29          | 21             | 45        | 39      | 40      | -----       | 82          | 358        | 72    | 10      | 3.7   | 298     | 19    |
| 30          | 19             | 47        | 38      | 37      | -----       | 92          | 373        | 66    | 9.2     | 7.3   | 348     | 18    |
| 31          | 17             | -----     | 37      | 36      | -----       | 100         | -----      | 64    | -----   | 13    | 178     | ----- |
| TOTAL       | 504.0          | 1,446     | 1,588   | 1,357   | 1,651       | 3,162       | 12,440     | 6,690 | 1,003.2 | 183.9 | 1,210.1 | 992.9 |
| MEAN        | 16.3           | 48.2      | 51.2    | 43.8    | 59.0        | 102         | 415        | 216   | 33.4    | 5.93  | 39.0    | 33.1  |
| MAX         | 62             | 114       | 109     | 81      | 166         | 188         | 772        | 596   | 75      | 13    | 348     | 79    |
| MIN         | 5.4            | 14        | 36      | 32      | 30          | 70          | 105        | 64    | 9.2     | 2.6   | 3.2     | 9.9   |
| MEAN †      | 16.7           | 49.7      | 50.7    | 43.8    | 63.8        | 100         | 422        | 208   | 30.9    | 6.42  | 44.9    | 27.1  |
| CFSM †      | .32            | .94       | .96     | .83     | 1.21        | 1.90        | 8.02       | 3.95  | .59     | .12   | .85     | .52   |
| IN. †       | .37            | 1.05      | 1.11    | .96     | 1.26        | 2.19        | 8.95       | 4.55  | .66     | .14   | .98     | .57   |
| CAL YR 1970 | TOTAL 32,582.3 | MEAN 89.3 | MAX 665 | MIN 2.1 | MEAN † 89.1 | CFSM † 1.69 | IN † 23.01 |       |         |       |         |       |
| WTR YR 1971 | TOTAL 32,228.1 | MEAN 88.3 | MAX 772 | MIN 2.6 | MEAN † 88.3 | CFSM † 1.68 | IN † 22.80 |       |         |       |         |       |

† Adjusted for change in contents in Littleville Lake.

NOTE.--No gage-height record May 22 to June 24.

01180800 Walker Brook near Becket Center, Mass.

LOCATION.--Lat 42°15'49", long 73°02'48", Berkshire County, on right bank 20 ft upstream from culvert on U.S. Highway 20, 0.2 mile east of Bonny Rigg Corners, 1.7 miles southeast of Becket Center, and 3.5 miles west of Chester.

DRAINAGE AREA.--3.01 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements, water year 1962. November 1962 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,280 ft (from topographic map).

AVERAGE DISCHARGE.--8 years (1963-71), 5.45 cfs (24.59 inches per year).

EXTREMES.--Current year: Maximum discharge, 241 cfs Aug. 28 (gage height, 6.17 ft), from rating curve extended above 93 cfs; minimum, 0.23 cfs July 13, 14, Aug. 19, 20.

Period of record: Maximum discharge, 266 cfs Apr. 22, 1969 (gage height, 6.34 ft), from rating curve extended above 93 cfs; minimum, 0.14 cfs Sept. 11, 1963, Aug. 24, 1965.

REMARKS.--Records good except those for winter period and periods of no gage-height record, which are fair. Recording rain gage at station since May 1963 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV    | DEC   | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG    | SEP    |
|-------|--------|--------|-------|------|-------|-------|-------|-------|-------|-------|--------|--------|
| 1     | .48    | 1.0    | 3.3   | 2.3  | 1.9   | 8.5   | 6.0   | 14    | 3.5   | 1.2   | 2.5    | 1.6    |
| 2     | .48    | .87    | 2.7   | 2.5  | 1.6   | 7.2   | 10    | 12    | 2.9   | 1.9   | 2.8    | 1.2    |
| 3     | .66    | .87    | 2.4   | 2.4  | 1.5   | 6.5   | 36    | 17    | 3.0   | 1.2   | 3.2    | 1.1    |
| 4     | 1.2    | .87    | 9.0   | 2.3  | 1.7   | 6.0   | 28    | 27    | 3.3   | .76   | 4.2    | 1.1    |
| 5     | .87    | 7.3    | 7.5   | 5.0  | 2.1   | 5.6   | 21    | 19    | 2.6   | .60   | 2.3    | .91    |
| 6     | .73    | 4.6    | 5.1   | 6.7  | 2.5   | 5.4   | 14    | 12    | 2.2   | .54   | 1.3    | .82    |
| 7     | .66    | 2.4    | 3.8   | 5.0  | 2.2   | 5.1   | 15    | 9.6   | 2.0   | .48   | .82    | .78    |
| 8     | .66    | 1.6    | 2.9   | 4.0  | 3.7   | 4.9   | 12    | 9.6   | 2.3   | .48   | .65    | .76    |
| 9     | .66    | 1.3    | 2.9   | 3.6  | 2.7   | 4.8   | 11    | 25    | 6.2   | .43   | .60    | .74    |
| 10    | .60    | 1.3    | 2.9   | 3.5  | 2.5   | 4.6   | 18    | 22    | 3.5   | .37   | .48    | .68    |
| 11    | .60    | 1.7    | 2.7   | 3.2  | 2.2   | 4.4   | 21    | 13    | 2.4   | .32   | .71    | .62    |
| 12    | .60    | 2.3    | 2.7   | 2.8  | 2.5   | 4.4   | 30    | 9.6   | 1.9   | .32   | 1.9    | 3.1    |
| 13    | .60    | 2.7    | 2.7   | 2.5  | 4.1   | 4.2   | 42    | 18    | 1.7   | .32   | .94    | 3.3    |
| 14    | .60    | 2.9    | 2.6   | 2.7  | 9.4   | 4.2   | 38    | 19    | 1.7   | .32   | .71    | 25     |
| 15    | 1.2    | 6.8    | 2.4   | 2.7  | 6.7   | 5.8   | 25    | 12    | 1.5   | .37   | .60    | 16     |
| 16    | 4.9    | 7.9    | 2.3   | 2.3  | 5.0   | 12    | 20    | 11    | 1.3   | .32   | .54    | 8.2    |
| 17    | 2.1    | 4.9    | 4.0   | 1.9  | 4.0   | 10    | 16    | 13    | 1.2   | .32   | .48    | 20     |
| 18    | 1.2    | 3.2    | 3.6   | 1.8  | 4.0   | 7.6   | 19    | 9.5   | 1.1   | .54   | .43    | 12     |
| 19    | .95    | 3.8    | 3.3   | 1.7  | 4.0   | 6.5   | 30    | 7.2   | .95   | .82   | .23    | 7.1    |
| 20    | .73    | 6.6    | 3.2   | 1.7  | 4.0   | 7.0   | 40    | 6.2   | .85   | 1.1   | .48    | 5.0    |
| 21    | 2.9    | 8.8    | 3.0   | 1.7  | 4.3   | 5.8   | 35    | 5.6   | .78   | .76   | .48    | 9.2    |
| 22    | 11     | 5.9    | 3.0   | 1.7  | 4.5   | 5.2   | 27    | 6.8   | .76   | .60   | .54    | 6.4    |
| 23    | 15     | 8.0    | 2.8   | 1.8  | 4.4   | 5.0   | 22    | 5.4   | .76   | .43   | .43    | 4.8    |
| 24    | 12     | 5.9    | 2.6   | 1.9  | 4.0   | 4.6   | 19    | 4.7   | .65   | .40   | .37    | 3.1    |
| 25    | 10     | 3.3    | 2.6   | 2.0  | 3.8   | 4.4   | 17    | 4.7   | .71   | .38   | .34    | 2.8    |
| 26    | 9.6    | 2.4    | 2.5   | 2.7  | 4.5   | 4.4   | 14    | 4.2   | 2.0   | .37   | .32    | 2.5    |
| 27    | 9.0    | 2.4    | 2.5   | 3.6  | 11    | 4.2   | 12    | 4.2   | 1.1   | .35   | 2.3    | 2.3    |
| 28    | 7.9    | 2.6    | 2.5   | 2.9  | 10    | 4.4   | 13    | 4.5   | .71   | .32   | 53     | 2.1    |
| 29    | 6.4    | 2.7    | 2.4   | 2.7  | ----- | 4.8   | 22    | 4.0   | .65   | .32   | 13     | 2.0    |
| 30    | 1.8    | 3.8    | 2.3   | 2.7  | ----- | 5.8   | 17    | 3.7   | .60   | .94   | 4.3    | 1.8    |
| 31    | 1.1    | -----  | 2.3   | 2.5  | ----- | 5.6   | ----- | 3.9   | ----- | 2.8   | 2.3    | -----  |
| TOTAL | 107.18 | 110.71 | 100.5 | 86.8 | 114.8 | 178.9 | 650.0 | 337.4 | 54.82 | 20.38 | 103.25 | 147.01 |
| MEAN  | 3.46   | 3.69   | 3.24  | 2.80 | 4.10  | 5.77  | 21.7  | 10.9  | 1.83  | .66   | 3.33   | 4.90   |
| MAX   | 15     | 8.8    | 9.0   | 6.7  | 11    | 12    | 42    | 27    | 6.2   | 2.8   | 53     | 25     |
| MIN   | .48    | .87    | 2.3   | 1.7  | 1.5   | 4.2   | 6.0   | 3.7   | .60   | .32   | .23    | .62    |
| CFSM  | 1.15   | 1.23   | 1.08  | .93  | 1.36  | 1.92  | 7.21  | 3.62  | .61   | .22   | 1.11   | 1.63   |
| IN.   | 1.32   | 1.37   | 1.24  | 1.07 | 1.42  | 2.21  | 8.03  | 4.17  | .68   | .25   | 1.28   | 1.82   |

CAL YR 1970 TOTAL 1,846.17 MEAN 5.06 MAX 50 MIN .20 CFSM 1.68 IN 22.82  
WTR YR 1971 TOTAL 2,011.75 MEAN 5.51 MAX 53 MIN .23 CFSM 1.83 IN 24.86

PEAK DISCHARGE (BASE, 80 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 8-28 | 0945 | 6.17  | 241       |      |      |       |           |

NOTE.--No gage-height record Apr. 1 to May 13, May 15 to June 21.

01181000 West Branch Westfield River at Huntington, Mass.

LOCATION. --Lat 42°14'14", long 72°53'46", Hampshire County, on left bank at Huntington, 0.4 mile downstream from Roaring Brook and 1.5 miles upstream from mouth.

DRAINAGE AREA. --93.7 sq mi.

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

GAGE. --Water-stage recorder. Datum of gage is 388.60 ft above mean sea level.

AVERAGE DISCHARGE. --36 years, 178 cfs (25.80 inches per year).

EXTREMES. --Current year: Maximum discharge, 3,780 cfs Aug. 28 (gage height, 5.75 ft); minimum, 8.6 cfs July 29.

Period of record: Maximum discharge, 26,100 cfs Aug. 19, 1955 (gage height, 15.27 ft), from rating curve extended above 9,500 cfs on basis of slope-area measurement of peak flow; minimum, 3.3 cfs Aug. 9, 1955, Nov. 27, 1957.

REMARKS. --Records good. Prior to 1950, some diurnal fluctuation at low flow caused by small mill above station. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL  | AUG     | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|------|---------|-------|
| 1     | 19    | 35    | 104   | 79    | 65    | 333   | 208    | 473    | 124   | 20   | 71      | 65    |
| 2     | 18    | 35    | 94    | 86    | 55    | 272   | 354    | 418    | 104   | 39   | 61      | 53    |
| 3     | 18    | 33    | 93    | 81    | 52    | 232   | 1,120  | 571    | 109   | 33   | 69      | 45    |
| 4     | 27    | 32    | 216   | 79    | 55    | 208   | 909    | 824    | 111   | 24   | 107     | 37    |
| 5     | 26    | 91    | 197   | 131   | 69    | 197   | 668    | 558    | 93    | 20   | 63      | 31    |
| 6     | 21    | 96    | 144   | 208   | 91    | 187   | 493    | 418    | 79    | 18   | 39      | 28    |
| 7     | 19    | 68    | 109   | 170   | 76    | 180   | 512    | 343    | 72    | 16   | 26      | 27    |
| 8     | 18    | 54    | 89    | 153   | 78    | 170   | 430    | 343    | 81    | 15   | 20      | 26    |
| 9     | 17    | 47    | 107   | 131   | 98    | 156   | 400    | 690    | 194   | 15   | 18      | 26    |
| 10    | 17    | 46    | 109   | 134   | 99    | 150   | 639    | 759    | 109   | 14   | 16      | 23    |
| 11    | 16    | 64    | 94    | 115   | 91    | 144   | 705    | 436    | 82    | 13   | 15      | 20    |
| 12    | 20    | 68    | 91    | 100   | 75    | 139   | 1,050  | 343    | 69    | 13   | 50      | 50    |
| 13    | 19    | 69    | 93    | 84    | 100   | 136   | 1,550  | 618    | 61    | 13   | 38      | 76    |
| 14    | 17    | 79    | 91    | 98    | 300   | 134   | 1,430  | 675    | 61    | 13   | 23      | 317   |
| 15    | 18    | 127   | 88    | 100   | 325   | 147   | 858    | 406    | 54    | 13   | 18      | 268   |
| 16    | 81    | 204   | 61    | 86    | 224   | 436   | 683    | 372    | 46    | 12   | 16      | 141   |
| 17    | 54    | 136   | 89    | 66    | 158   | 430   | 558    | 406    | 42    | 12   | 15      | 154   |
| 18    | 37    | 109   | 109   | 59    | 141   | 282   | 646    | 307    | 38    | 13   | 14      | 147   |
| 19    | 30    | 100   | 98    | 61    | 136   | 240   | 1,020  | 253    | 34    | 16   | 12      | 113   |
| 20    | 25    | 147   | 109   | 59    | 134   | 228   | 1,310  | 220    | 30    | 33   | 18      | 86    |
| 21    | 23    | 236   | 100   | 59    | 153   | 201   | 1,140  | 201    | 28    | 22   | 17      | 129   |
| 22    | 49    | 158   | 102   | 68    | 156   | 180   | 875    | 228    | 27    | 16   | 16      | 122   |
| 23    | 161   | 208   | 96    | 71    | 156   | 173   | 698    | 190    | 25    | 13   | 14      | 91    |
| 24    | 131   | 170   | 89    | 73    | 147   | 164   | 632    | 164    | 23    | 12   | 12      | 76    |
| 25    | 86    | 119   | 89    | 78    | 131   | 156   | 590    | 153    | 23    | 12   | 10      | 66    |
| 26    | 69    | 98    | 86    | 98    | 144   | 150   | 467    | 150    | 37    | 12   | 9.3     | 60    |
| 27    | 65    | 94    | 89    | 124   | 338   | 147   | 430    | 141    | 32    | 12   | 16      | 54    |
| 28    | 59    | 93    | 88    | 79    | 418   | 153   | 436    | 167    | 24    | 10   | 1,250   | 51    |
| 29    | 53    | 93    | 84    | 81    | ----- | 170   | 698    | 139    | 21    | 10   | 354     | 50    |
| 30    | 44    | 107   | 81    | 94    | ----- | 201   | 590    | 124    | 20    | 26   | 141     | 49    |
| 31    | 39    | ----- | 81    | 88    | ----- | 190   | -----  | 134    | ----- | 47   | 89      | ----- |
| TOTAL | 1,296 | 3,016 | 3,170 | 2,993 | 4,035 | 6,286 | 22,099 | 11,224 | 1,853 | 557  | 2,637.3 | 2,521 |
| MEAN  | 41.8  | 101   | 102   | 96.5  | 144   | 203   | 737    | 362    | 61.8  | 18.0 | 85.1    | 84.0  |
| MAX   | 161   | 236   | 216   | 208   | 418   | 436   | 1,550  | 824    | 194   | 47   | 1,250   | 317   |
| MIN   | 16    | 32    | 61    | 59    | 52    | 134   | 208    | 124    | 20    | 10   | 9.3     | 20    |
| CFSM  | .45   | 1.08  | 1.09  | 1.03  | 1.54  | 2.17  | 7.87   | 3.86   | .66   | .19  | .91     | .90   |
| IN.   | .51   | 1.20  | 1.26  | 1.19  | 1.60  | 2.50  | 8.77   | 4.46   | .74   | .22  | 1.05    | 1.00  |

CAL YR 1970 TOTAL 61,204.9 MEAN 168 MAX 2,010 MIN 4.7 CFSM 1.79 IN 24.30  
WTR YR 1971 TOTAL 61,687.3 MEAN 169 MAX 1,550 MIN 9.3 CFSM 1.80 IN 24.49

## PEAK DISCHARGE (BASE, 2,700 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-13 | 2030 | 4.84  | 2,700     |      |      |       |           |
| 8-28 | 1215 | 5.75  | 3,780     |      |      |       |           |

## CONNECTICUT RIVER BASIN

01183000 Westfield Little River at outlet of Cobble Mountain Reservoir,  
near Westfield, Mass.

LOCATION.--Lat 42°07'34", long 72°53'37", Hampden County, at Cobble Mountain Dam, 7.5 miles west of Westfield, and at mile 10.7.

DRAINAGE AREA.--45.8 sq mi.

PERIOD OF RECORD.--July 1905 to current year. Published as "near Blandford" 1905-11 and as "near Westfield" 1912-35.

GAGE.--Venturi meters at outlet tunnel at powerhouse 2.4 miles downstream. Prior to Mar. 1, 1910, nonrecording gage at site 0.2 mile upstream and Mar. 1, 1910, to Sept. 30, 1935, water-stage recorder at diversion dam 2.8 miles downstream.

AVERAGE DISCHARGE.--61 years (1910-71), 87.7 cfs (26.00 inches per year), adjusted to present drainage area.

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 (see p. 209); discharge adjusted for effect of this regulation. No flow over spillway or through bypass tunnel during year.

COOPERATION.--Records furnished by Springfield Board of Water Commissioners.

REVISIONS.--WSP 501: Drainage area.

## MONTHLY DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| Month                        | Mean | Per square<br>mile | Runoff in<br>inches |
|------------------------------|------|--------------------|---------------------|
| October . . . . .            | 14.2 | 0.31               | 0.36                |
| November . . . . .           | 53.3 | 1.16               | 1.30                |
| December . . . . .           | 38.6 | .84                | .97                 |
| Calendar year 1970 . . . . . | 76.8 | 1.68               | 22.78               |
| January . . . . .            | 33.9 | .74                | .85                 |
| February . . . . .           | 53.0 | 1.16               | 1.21                |
| March . . . . .              | 90.5 | 1.98               | 2.28                |
| April . . . . .              | 372  | 8.12               | 9.06                |
| May . . . . .                | 149  | 3.25               | 3.75                |
| June . . . . .               | 19.0 | .41                | .46                 |
| July . . . . .               | 5.10 | .11                | .13                 |
| August . . . . .             | 44.9 | .98                | 1.13                |
| September . . . . .          | 32.9 | .72                | .80                 |
| Water year 1970-71 . . . . . | 75.2 | 1.64               | 22.30               |

01183500 Westfield River near Westfield, Mass.

LOCATION.--Lat 42°06'24", long 72°41'58", Hampden County, on left bank 0.7 mile downstream from Great Brook, 3 miles east of Westfield, and 8.1 miles upstream from mouth.

DRAINAGE AREA.--497 sq mi.

PERIOD OF RECORD.--June 1914 to current year.

GAGE.--Water-stage recorder. Datum of gage is 98.25 ft above mean sea level. Prior to Nov. 3, 1933, on right bank at same datum.

AVERAGE DISCHARGE.--57 years, 922 cfs (25.19 inches per year), adjusted for diversion and, since October 1931, for storage.

EXTREMES.--Current year: Maximum discharge, 6,190 cfs Apr. 14 (gage height, 9.83 ft); minimum, 58 cfs Aug. 27; minimum daily, 76 cfs July 13.

Period of record: Maximum discharge, 70,300 cfs Aug. 19, 1955 (gage height, 34.2 ft, from floodmarks), from rating curve extended above 18,000 cfs on basis of computations of flow over dam at gage heights 27.20, 29.40, and 34.2 ft; minimum, 9 cfs Oct. 2, 1921; minimum daily, 40 cfs Dec. 28, 1914.

REMARKS.--Records excellent. Flow regulated by Borden Brook Reservoir, Cobble Mountain Reservoir since 1931, Knightville Reservoir since 1941, and Littleville Lake since 1965 (see p. 209). Diversion above station from Westfield Little River for municipal supply of Springfield. See table below for figures of diversion. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 601: 1924(M). WSP 756: Drainage area. WSP 1051: 1919-21(M), 1925(M). WSP 1231: 1915-16(M), 1920.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| CAY   | OCT   | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL   | AUG    | SEP    |
|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|
| 1     | 139   | 198    | 490    | 326    | 350    | 1,470  | 1,160  | 2,220  | 725    | 388   | 321    | 481    |
| 2     | 127   | 190    | 445    | 345    | 370    | 1,410  | 1,420  | 2,010  | 591    | 335   | 256    | 346    |
| 3     | 122   | 192    | 432    | 334    | 350    | 1,100  | 2,970  | 2,340  | 564    | 328   | 281    | 278    |
| 4     | 165   | 187    | 585    | 368    | 320    | 995    | 3,220  | 4,060  | 588    | 228   | 372    | 256    |
| 5     | 154   | 262    | 948    | 443    | 300    | 907    | 3,210  | 3,200  | 551    | 187   | 353    | 228    |
| 6     | 170   | 418    | 651    | 563    | 305    | 799    | 2,910  | 2,540  | 390    | 167   | 250    | 204    |
| 7     | 154   | 324    | 521    | 582    | 310    | 816    | 2,460  | 1,880  | 534    | 147   | 204    | 198    |
| 8     | 134   | 265    | 391    | 570    | 320    | 894    | 2,150  | 1,650  | 592    | 127   | 149    | 192    |
| 9     | 137   | 265    | 422    | 495    | 350    | 749    | 1,770  | 2,730  | 722    | 244   | 142    | 207    |
| 10    | 122   | 234    | 425    | 445    | 341    | 682    | 2,400  | 3,880  | 592    | 144   | 107    | 190    |
| 11    | 100   | 240    | 408    | 441    | 341    | 687    | 2,830  | 2,590  | 469    | 130   | 116    | 187    |
| 12    | 107   | 314    | 396    | 432    | 336    | 654    | 3,550  | 2,100  | 411    | 109   | 113    | 308    |
| 13    | 134   | 294    | 399    | 405    | 379    | 645    | 4,440  | 2,370  | 285    | 76    | 234    | 463    |
| 14    | 113   | 342    | 410    | 379    | 595    | 641    | 5,350  | 3,840  | 328    | 109   | 170    | 695    |
| 15    | 134   | 392    | 377    | 374    | 792    | 676    | 4,040  | 2,250  | 304    | 113   | 120    | 964    |
| 16    | 201   | 715    | 342    | 360    | 762    | 1,140  | 3,320  | 1,710  | 295    | 86    | 109    | 685    |
| 17    | 314   | 610    | 333    | 350    | 739    | 1,800  | 2,510  | 1,950  | 269    | 109   | 105    | 571    |
| 18    | 213   | 468    | 384    | 340    | 675    | 1,560  | 2,550  | 1,570  | 231    | 105   | 96     | 600    |
| 19    | 201   | 414    | 384    | 325    | 598    | 1,190  | 3,010  | 1,350  | 249    | 110   | 82     | 454    |
| 20    | 228   | 549    | 459    | 320    | 609    | 1,100  | 4,470  | 1,210  | 208    | 170   | 137    | 376    |
| 21    | 170   | 886    | 446    | 320    | 644    | 1,030  | 4,750  | 1,030  | 237    | 160   | 154    | 380    |
| 22    | 237   | 808    | 399    | 320    | 645    | 960    | 3,980  | 1,080  | 219    | 152   | 142    | 495    |
| 23    | 432   | 725    | 434    | 315    | 673    | 901    | 3,070  | 983    | 298    | 127   | 130    | 392    |
| 24    | 645   | 772    | 405    | 310    | 678    | 893    | 2,780  | 852    | 222    | 105   | 105    | 335    |
| 25    | 432   | 553    | 408    | 320    | 633    | 883    | 2,740  | 779    | 250    | 100   | 94     | 253    |
| 26    | 356   | 450    | 399    | 330    | 618    | 769    | 2,220  | 742    | 301    | 102   | 94     | 253    |
| 27    | 278   | 432    | 411    | 380    | 892    | 765    | 1,980  | 701    | 346    | 109   | 154    | 222    |
| 28    | 269   | 405    | 368    | 450    | 1,310  | 783    | 2,000  | 746    | 250    | 102   | 1,600  | 237    |
| 29    | 253   | 409    | 385    | 410    | -----  | 892    | 2,780  | 764    | 201    | 80    | 2,000  | 216    |
| 30    | 222   | 459    | 362    | 370    | -----  | 1,060  | 2,850  | 557    | 353    | 240   | 1,950  | 222    |
| 31    | 192   | -----  | 365    | 360    | -----  | 1,170  | -----  | 635    | -----  | 338   | 1,250  | -----  |
| TOTAL | 6,655 | 12,772 | 13,584 | 12,082 | 15,235 | 30,021 | 88,890 | 56,319 | 11,575 | 5,027 | 11,390 | 10,888 |
| MEAN  | 215   | 426    | 438    | 390    | 544    | 968    | 2,963  | 1,817  | 386    | 162   | 367    | 363    |
| MAX   | 645   | 886    | 948    | 582    | 1,310  | 1,800  | 5,350  | 4,060  | 725    | 388   | 2,000  | 964    |
| MIN   | 100   | 187    | 333    | 310    | 300    | 641    | 1,160  | 557    | 201    | 76    | 82     | 187    |
| (†)   | 62.9  | 57.5   | 50.4   | 48.6   | 50.2   | 51.5   | 51.5   | 60.2   | 87.8   | 83.3  | 70.7   | 67.6   |
| MEAN‡ | 230   | 487    | 484    | 423    | 605    | 1,049  | 3,345  | 1,873  | 383    | 161   | 426    | 397    |
| CFSM‡ | .46   | .98    | .97    | .85    | 1.22   | 2.11   | 6.73   | 3.77   | .77    | .32   | .86    | .80    |
| IN.†  | .53   | 1.09   | 1.12   | .98    | 1.27   | 2.43   | 7.51   | 4.35   | .86    | .37   | .99    | .89    |

CAL YR 1970 TOTAL 293,663 MEAN 805 MAX 5,090 MIN 75 MEAN‡ 853 CFSM‡ 1.72 IN‡ 23.30  
WTR YR 1971 TOTAL 274,438 MEAN 752 MAX 5,350 MIN 76 MEAN‡ 820 CFSM‡ 1.65 IN‡ 22.40

† Diversion in cubic feet per second, from Westfield Little River for municipal supply of Springfield.

‡ Adjusted for diversion and for change in contents in Borden Brook, Cobble Mountain, and Knightville Reservoirs and Littleville Lake.

## CONNECTICUT RIVER BASIN

01184000 Connecticut River at Thompsonville, Conn.

(International Hydrological Decade River Station)

LOCATION.--Lat 41°59'14", long 72°36'21", Hartford County, on right bank just upstream from Enfield Dam, 1 mile downstream from Thompsonville, 3 miles downstream from Massachusetts-Connecticut State line, and at mile 68.2.

DRAINAGE AREA.--9,661 sq mi.

PERIOD OF RECORD.--July 1928 to current year.

GAGE.--Water-stage recorders on river and on canal of Connecticut Light and Power Co. Datum of gage is 38.48 ft above mean sea level.

AVERAGE DISCHARGE.--43 years, 15,960 cfs (22.43 inches per year), adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 78,400 cfs May 5 (gage height, 5.89 ft); minimum daily, 1,620 cfs July 11.

Period of record: Maximum discharge, 282,000 cfs Mar. 20, 1936 (gage height, 16.6 ft, from floodmarks); minimum daily, 968 cfs Oct. 20, 1963.

REMARKS.--Records good. Discharge includes water diverted around station by canal of Connecticut Light & 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 (see p. 209), and other reservoirs (combined usable capacity, about 107 billion cubic feet). Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 741: 1932. WSP 891: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT     | NOV     | DEC     | JAN     | FEB     | MAR     | APR       | MAY       | JUN     | JUL     | AUG     | SEP     |
|-------|---------|---------|---------|---------|---------|---------|-----------|-----------|---------|---------|---------|---------|
| 1     | 7,910   | 4,050   | 9,470   | 5,420   | 4,860   | 12,800  | 15,000    | 54,300    | 14,100  | 5,500   | 4,610   | 8,460   |
| 2     | 8,420   | 4,150   | 11,200  | 4,110   | 5,610   | 14,200  | 15,600    | 50,800    | 12,600  | 7,130   | 4,910   | 5,990   |
| 3     | 8,440   | 5,290   | 10,600  | 3,730   | 5,820   | 14,800  | 20,300    | 51,200    | 11,100  | 7,210   | 5,770   | 6,120   |
| 4     | 6,970   | 6,190   | 11,200  | 4,310   | 5,920   | 14,500  | 29,400    | 61,100    | 11,300  | 2,680   | 7,360   | 6,620   |
| 5     | 5,420   | 5,730   | 13,700  | 5,590   | 5,920   | 13,300  | 34,700    | 74,900    | 9,020   | 1,970   | 9,380   | 3,480   |
| 6     | 8,950   | 6,750   | 13,000  | 6,050   | 5,190   | 13,200  | 34,300    | 76,600    | 7,330   | 2,110   | 7,870   | 2,260   |
| 7     | 8,770   | 5,120   | 8,490   | 5,530   | 4,230   | 12,800  | 32,500    | 71,000    | 6,850   | 2,490   | 7,700   | 3,560   |
| 8     | 8,340   | 4,300   | 9,640   | 5,710   | 3,970   | 10,900  | 31,800    | 63,000    | 10,000  | 2,850   | 2,970   | 5,650   |
| 9     | 9,130   | 4,850   | 9,760   | 5,980   | 6,660   | 10,500  | 27,900    | 59,700    | 10,100  | 4,420   | 3,570   | 5,850   |
| 10    | 8,020   | 4,450   | 9,410   | 5,110   | 7,100   | 12,000  | 27,100    | 58,500    | 9,760   | 2,470   | 6,400   | 5,410   |
| 11    | 4,230   | 4,290   | 8,490   | 5,530   | 7,210   | 13,000  | 30,500    | 55,500    | 10,400  | 1,620   | 4,790   | 2,660   |
| 12    | 3,300   | 5,060   | 9,040   | 5,280   | 6,760   | 11,900  | 36,800    | 51,700    | 8,770   | 2,170   | 4,750   | 4,300   |
| 13    | 6,390   | 7,060   | 5,450   | 5,600   | 6,300   | 11,500  | 46,200    | 51,500    | 5,390   | 2,490   | 4,380   | 7,170   |
| 14    | 6,260   | 7,940   | 6,080   | 6,250   | 6,020   | 9,990   | 55,300    | 57,000    | 7,380   | 2,520   | 2,400   | 6,680   |
| 15    | 6,130   | 6,250   | 8,960   | 5,570   | 6,380   | 9,710   | 63,500    | 54,700    | 7,160   | 2,960   | 1,850   | 8,340   |
| 16    | 7,130   | 6,980   | 7,920   | 4,670   | 6,430   | 13,400  | 59,800    | 47,300    | 5,840   | 3,230   | 2,720   | 7,430   |
| 17    | 7,690   | 9,210   | 7,410   | 3,430   | 7,910   | 17,600  | 49,000    | 41,700    | 4,710   | 2,760   | 3,440   | 8,430   |
| 18    | 8,810   | 10,100  | 6,970   | 5,070   | 10,600  | 22,300  | 43,800    | 35,000    | 4,400   | 2,130   | 2,950   | 6,910   |
| 19    | 7,790   | 9,390   | 6,850   | 6,620   | 11,100  | 20,800  | 40,500    | 30,700    | 3,830   | 2,930   | 3,210   | 5,180   |
| 20    | 7,510   | 10,700  | 6,220   | 6,410   | 9,660   | 20,000  | 45,500    | 26,500    | 2,890   | 7,000   | 3,180   | 5,690   |
| 21    | 9,010   | 9,440   | 7,330   | 6,300   | 8,820   | 20,300  | 57,900    | 21,300    | 3,470   | 4,400   | 2,300   | 7,210   |
| 22    | 8,590   | 9,730   | 8,420   | 6,190   | 8,120   | 19,700  | 67,100    | 21,200    | 5,770   | 3,730   | 1,750   | 5,860   |
| 23    | 8,600   | 10,500  | 7,130   | 5,760   | 10,100  | 18,800  | 70,100    | 21,500    | 5,110   | 4,180   | 2,980   | 5,540   |
| 24    | 9,070   | 12,800  | 6,390   | 4,480   | 10,700  | 18,000  | 66,900    | 21,500    | 4,300   | 3,430   | 4,150   | 6,330   |
| 25    | 8,050   | 13,900  | 5,890   | 4,010   | 9,660   | 15,800  | 60,200    | 19,100    | 5,770   | 1,990   | 2,970   | 4,670   |
| 26    | 7,760   | 12,000  | 6,070   | 5,920   | 9,740   | 15,000  | 53,000    | 18,600    | 5,680   | 2,690   | 3,600   | 2,550   |
| 27    | 8,520   | 11,600  | 7,050   | 5,910   | 9,850   | 14,500  | 48,400    | 19,000    | 7,500   | 5,220   | 4,930   | 3,130   |
| 28    | 9,140   | 8,860   | 7,760   | 6,300   | 12,500  | 11,700  | 46,900    | 20,400    | 4,880   | 4,070   | 13,000  | 4,250   |
| 29    | 9,140   | 7,740   | 7,340   | 6,020   | -----   | 11,000  | 48,100    | 18,400    | 4,990   | 2,130   | 18,800  | 3,730   |
| 30    | 8,680   | 7,330   | 6,820   | 4,850   | -----   | 13,400  | 54,400    | 17,100    | 4,790   | 2,810   | 17,200  | 3,600   |
| 31    | 6,320   | -----   | 6,620   | 4,350   | -----   | 14,600  | -----     | 16,700    | -----   | 4,990   | 15,200  | -----   |
| TOTAL | 238,990 | 233,740 | 256,680 | 166,060 | 213,140 | 452,000 | 1,312,500 | 1,286,800 | 215,190 | 108,280 | 181,090 | 163,760 |
| MEAN  | 7,709   | 7,791   | 8,280   | 5,357   | 7,612   | 14,580  | 43,750    | 41,510    | 7,173   | 3,493   | 5,842   | 5,435   |
| MAX   | 9,140   | 13,900  | 13,700  | 6,620   | 12,500  | 22,300  | 70,100    | 76,600    | 14,100  | 7,210   | 18,800  | 8,460   |
| MIN   | 3,800   | 4,050   | 5,450   | 3,430   | 3,970   | 9,710   | 15,000    | 16,700    | 2,890   | 1,620   | 1,750   | 2,260   |
| (†)   | 458     | 453     | 457     | 370     | 414     | 0       | .67       | 0         | 136     | 454     | 458     | 456     |
| MEAN‡ | 7,607   | 7,586   | 7,212   | 4,320   | 7,077   | 13,030  | 47,120    | 46,090    | 6,922   | 3,326   | 6,074   | 4,851   |
| CFSM‡ | .79     | .79     | .75     | .45     | .73     | 1.35    | 4.88      | 4.77      | .72     | .34     | .63     | .50     |
| IN‡   | .91     | .88     | .86     | .52     | .76     | 1.56    | 5.44      | 5.50      | .80     | .40     | .72     | .56     |

CAL YR 1970 TOTAL 5,643,480 MEAN 15,460 MAX 77,200 MIN 1,440 MEAN‡ 15,600 CFSM‡ 1.61 IN‡ 21.92  
 WTR YR 1971 TOTAL 4,827,530 MEAN 13,230 MAX 76,600 MIN 1,620 MEAN‡ 13,450 CFSM‡ 1.39 IN‡ 18.90

† Diversion, in cubic feet per second, from Chicopee River basin to Wachusett Reservoir.

‡ Adjusted for change in contents in all reservoirs from First Connecticut and Second Connecticut Lakes to Borden Brook and Cobble Mountain Reservoirs on page 209 and for diversion from Chicopee River basin.



01185100 Fall River below Otis Reservoir, near Otis, Mass.

LOCATION.--Lat 42°09'42", long 73°03'48", Berkshire County, on right bank 0.4 mile downstream from Otis Reservoir, 0.5 mile upstream from mouth, and 2.6 miles southeast of Otis.

DRAINAGE AREA.--16.5 sq mi.

PERIOD OF RECORD.--August 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,260 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, about 235 cfs Oct. 1-14; maximum gage height, 4.49 ft May 13 (backwater from beaver dam); minimum daily discharge, 1.1 cfs July 17, 18, 21-25.

Period of record: Maximum discharge, about 235 cfs Oct. 1-14, 1970; maximum gage height, 4.49 ft May 13, 1971 (backwater from beaver dam); minimum daily discharge, 1.1 cfs July 17, 18, 21-25, 1971.

REMARKS.--Records fair. Flow regulated by Otis Reservoir (see p. 209).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT     | NOV   | DEC   | JAN   | FEB   | MAR  | APR     | MAY     | JUN   | JUL  | AUG   | SEP   |
|-------|---------|-------|-------|-------|-------|------|---------|---------|-------|------|-------|-------|
| 1     | 180     | 2.9   | 12    | 4.0   | 3.1   | 3.2  | 3.1     | 110     | 2.1   | 1.3  | 1.4   | 60    |
| 2     | 235     | 2.9   | 24    | 4.0   | 3.1   | 3.2  | 58      | 74      | 2.0   | 1.6  | 2.2   | 115   |
| 3     | 235     | 2.9   | 24    | 4.0   | 3.1   | 3.2  | 150     | 2.8     | 2.0   | 1.5  | 2.8   | 110   |
| 4     | 235     | 2.9   | 24    | 4.0   | 3.1   | 3.2  | 95      | 2.8     | 2.2   | 1.4  | 2.6   | 35    |
| 5     | 235     | 2.9   | 24    | 51    | 3.1   | 3.2  | 3.1     | 2.8     | 2.0   | 1.4  | 2.5   | 3.0   |
| 6     | 235     | 2.9   | 24    | 90    | 3.1   | 3.2  | 3.1     | 2.7     | 1.9   | 1.4  | 2.4   | 3.0   |
| 7     | 235     | 2.9   | 24    | 90    | 3.1   | 3.2  | 3.0     | 2.7     | 1.8   | 1.3  | 2.3   | 2.9   |
| 8     | 120     | 2.9   | 58    | 90    | 3.1   | 3.2  | 3.0     | 2.7     | 2.1   | 1.3  | 2.2   | 2.9   |
| 9     | 235     | 2.9   | 92    | 90    | 3.1   | 3.2  | 3.0     | 2.7     | 2.0   | 1.3  | 2.1   | 2.8   |
| 10    | 235     | 2.9   | 92    | 90    | 3.1   | 3.2  | 3.0     | 19      | 1.9   | 1.2  | 2.0   | 2.7   |
| 11    | 235     | 2.9   | 42    | 50    | 3.1   | 3.2  | 3.0     | 60      | 1.8   | 1.2  | 2.1   | 3.0   |
| 12    | 235     | 2.9   | 7.0   | 3.0   | 3.1   | 3.2  | 3.0     | 60      | 1.7   | 1.2  | 2.2   | 10    |
| 13    | 235     | 2.9   | 7.0   | 3.0   | 3.1   | 3.2  | 3.0     | 105     | 1.7   | 1.2  | 2.1   | 60    |
| 14    | 140     | 2.9   | 7.0   | 3.0   | 3.1   | 3.2  | 3.0     | 135     | 1.6   | 1.3  | 2.0   | 100   |
| 15    | 92      | 2.9   | 7.0   | 3.0   | 3.1   | 3.2  | 3.0     | 110     | 1.6   | 1.2  | 1.9   | 26    |
| 16    | 92      | 11    | 7.0   | 3.0   | 3.1   | 3.2  | 2.9     | 110     | 1.6   | 1.2  | 1.9   | 25    |
| 17    | 92      | 24    | 7.0   | 3.0   | 47    | 3.2  | 2.9     | 70      | 1.5   | 1.1  | 1.8   | 24    |
| 18    | 92      | 39    | 18    | 3.0   | 90    | 3.2  | 2.9     | 2.6     | 1.5   | 1.1  | 1.8   | 23    |
| 19    | 92      | 88    | 24    | 3.0   | 90    | 3.2  | 2.9     | 2.6     | 1.5   | 1.2  | 1.7   | 22    |
| 20    | 92      | 110   | 24    | 3.0   | 90    | 3.2  | 35      | 2.6     | 1.5   | 1.2  | 2.0   | 21    |
| 21    | 92      | 110   | 24    | 3.0   | 90    | 3.2  | 130     | 2.5     | 1.4   | 1.1  | 1.9   | 20    |
| 22    | 36      | 110   | 24    | 3.0   | 52    | 3.2  | 130     | 2.5     | 1.4   | 1.1  | 1.8   | 19    |
| 23    | 2.9     | 110   | 24    | 3.0   | 60    | 3.2  | 130     | 2.4     | 1.4   | 1.1  | 1.8   | 18    |
| 24    | 2.9     | 110   | 24    | 3.0   | 90    | 3.2  | 130     | 13      | 1.4   | 1.1  | 1.7   | 17    |
| 25    | 2.9     | 43    | 24    | 3.0   | 90    | 3.2  | 130     | 33      | 1.6   | 1.1  | 1.7   | 16    |
| 26    | 2.9     | 2.9   | 24    | 3.1   | 43    | 3.2  | 110     | 48      | 1.8   | 1.2  | 1.6   | 16    |
| 27    | 2.9     | 2.9   | 24    | 3.1   | 3.1   | 3.2  | 85      | 60      | 1.6   | 1.3  | 6.0   | 15    |
| 28    | 2.9     | 2.9   | 12    | 3.1   | 3.1   | 3.2  | 85      | 60      | 1.5   | 1.2  | 13    | 15    |
| 29    | 2.9     | 2.9   | 4.0   | 3.1   | ----- | 3.1  | 100     | 60      | 1.4   | 1.2  | 20    | 14    |
| 30    | 2.9     | 2.9   | 4.0   | 3.1   | ----- | 3.1  | 110     | 60      | 1.4   | 1.4  | 25    | 14    |
| 31    | 2.9     | ----- | 4.0   | 3.1   | ----- | 3.1  | -----   | 46      | ----- | 1.5  | 30    | ----- |
| TOTAL | 3,731.1 | 813.0 | 740.0 | 627.6 | 797.8 | 98.9 | 1,525.9 | 1,267.4 | 50.9  | 38.9 | 146.5 | 815.3 |
| MEAN  | 120     | 27.1  | 23.9  | 20.2  | 28.5  | 3.19 | 50.9    | 40.9    | 1.70  | 1.25 | 4.73  | 27.2  |
| MAX   | 235     | 110   | 92    | 90    | 90    | 3.2  | 150     | 135     | 2.2   | 1.6  | 30    | 115   |
| MIN   | 2.9     | 2.9   | 4.0   | 3.0   | 3.1   | 3.1  | 2.9     | 2.4     | 1.4   | 1.1  | 1.4   | 2.7   |

CAL YR 1970 TOTAL 10,537.6 MEAN 28.9 MAX 235 MIN 1.9  
WTR YR 1971 TOTAL 10,653.3 MEAN 29.2 MAX 235 MIN 1.1

NOTE.--No gage-height record Oct. 1 to Nov. 4, May 19 to June 23, Sept. 6-21. Stage-discharge relation indefinite Nov. 5 to May 18, June 24 to Sept. 5, Sept. 22-30.

## CONNECTICUT RIVER BASIN

01185500 West Branch Farmington River near New Boston, Mass.

LOCATION.--Lat 42°04'45", long 73°04'24", Berkshire County, on left bank 5 ft downstream from highway bridge, 0.3 mile downstream from Clam River, 1 mile south of New Boston, and at mile 65.0.

DRAINAGE AREA.--92.0 sq mi.

PERIOD OF RECORD.--May 1913 to current year. Prior to October 1948, published as Farmington River near New Boston.

GAGE.--Water-stage recorder. Datum of gage is 758.21 ft above mean sea level.

AVERAGE DISCHARGE.--58 years, 177 cfs (26.13 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 1,340 cfs Aug. 28 (gage height, 5.69 ft); minimum daily, 9.5 cfs July 29.

Period of record: Maximum discharge, 34,300 cfs Aug. 19, 1955 (gage height, 14.06 ft), from rating curve extended above 9,600 cfs on basis of slope-area measurement of peak flow; minimum daily, 2.4 cfs Aug. 20, 21, 1957.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Otis Reservoir 7.0 miles upstream on Fall River (see p. 209).

REVISIONS (WATER YEARS).--WSP 641: 1924(M). WSP 756: Drainage area. WSP 781: 1928(M). WSP 1231: 1914.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 231   | 48    | 122   | 70    | 57    | 251   | 152    | 536    | 91    | 20    | 49    | 109   |
| 2     | 299   | 46    | 137   | 75    | 54    | 221   | 282    | 448    | 76    | 36    | 78    | 159   |
| 3     | 300   | 44    | 137   | 72    | 52    | 189   | 720    | 426    | 89    | 30    | 101   | 148   |
| 4     | 321   | 45    | 195   | 70    | 50    | 177   | 675    | 591    | 116   | 24    | 120   | 119   |
| 5     | 304   | 104   | 190   | 160   | 58    | 167   | 486    | 501    | 94    | 21    | 82    | 35    |
| 6     | 297   | 100   | 150   | 260   | 71    | 155   | 380    | 377    | 73    | 20    | 58    | 31    |
| 7     | 287   | 78    | 120   | 230   | 64    | 148   | 377    | 298    | 66    | 19    | 43    | 28    |
| 8     | 183   | 68    | 130   | 210   | 79    | 141   | 331    | 278    | 60    | 18    | 33    | 25    |
| 9     | 270   | 61    | 150   | 200   | 84    | 131   | 304    | 467    | 89    | 17    | 27    | 23    |
| 10    | 267   | 59    | 160   | 195   | 76    | 120   | 395    | 587    | 76    | 15    | 23    | 21    |
| 11    | 260   | 68    | 120   | 140   | 70    | 114   | 428    | 467    | 60    | 15    | 23    | 19    |
| 12    | 254   | 72    | 80    | 86    | 64    | 109   | 578    | 359    | 51    | 15    | 33    | 46    |
| 13    | 251   | 73    | 85    | 74    | 84    | 105   | 792    | 533    | 45    | 14    | 24    | 100   |
| 14    | 182   | 88    | 82    | 84    | 240   | 104   | 868    | 683    | 41    | 16    | 21    | 320   |
| 15    | 131   | 139   | 80    | 86    | 260   | 119   | 671    | 498    | 37    | 17    | 19    | 189   |
| 16    | 182   | 195   | 70    | 74    | 185   | 280   | 561    | 478    | 35    | 13    | 18    | 156   |
| 17    | 166   | 170   | 90    | 58    | 170   | 287   | 465    | 436    | 32    | 11    | 15    | 174   |
| 18    | 150   | 150   | 105   | 53    | 210   | 224   | 478    | 263    | 31    | 11    | 13    | 150   |
| 19    | 141   | 186   | 105   | 54    | 195   | 193   | 598    | 206    | 29    | 14    | 11    | 127   |
| 20    | 133   | 245   | 110   | 54    | 190   | 186   | 753    | 175    | 27    | 21    | 18    | 108   |
| 21    | 125   | 336   | 105   | 54    | 200   | 160   | 854    | 157    | 25    | 16    | 27    | 158   |
| 22    | 110   | 270   | 105   | 53    | 170   | 144   | 764    | 175    | 23    | 13    | 26    | 152   |
| 23    | 172   | 359   | 105   | 53    | 190   | 135   | 662    | 152    | 23    | 11    | 22    | 117   |
| 24    | 146   | 293   | 100   | 52    | 200   | 124   | 602    | 134    | 21    | 11    | 16    | 95    |
| 25    | 107   | 196   | 100   | 52    | 190   | 120   | 580    | 147    | 24    | 13    | 13    | 78    |
| 26    | 87    | 118   | 98    | 85    | 170   | 116   | 508    | 161    | 63    | 13    | 12    | 82    |
| 27    | 77    | 107   | 100   | 100   | 232   | 111   | 427    | 164    | 42    | 12    | 34    | 57    |
| 28    | 67    | 106   | 90    | 90    | 280   | 111   | 411    | 163    | 29    | 9.6   | 639   | 51    |
| 29    | 61    | 106   | 75    | 75    | ----- | 121   | 597    | 155    | 25    | 9.5   | 397   | 82    |
| 30    | 54    | 120   | 72    | 70    | ----- | 140   | 629    | 154    | 21    | 16    | 212   | 84    |
| 31    | 52    | ----- | 71    | 62    | ----- | 143   | -----  | 150    | ----- | 42    | 129   | ----- |
| TOTAL | 5,667 | 4,050 | 3,479 | 3,051 | 3,945 | 4,846 | 16,328 | 10,319 | 1,514 | 533.1 | 2,336 | 3,043 |
| MEAN  | 183   | 135   | 112   | 98.4  | 141   | 156   | 544    | 333    | 50.5  | 17.2  | 75.4  | 101   |
| MAX   | 321   | 359   | 195   | 260   | 280   | 287   | 868    | 683    | 116   | 42    | 639   | 320   |
| MIN   | 52    | 44    | 70    | 52    | 50    | 104   | 152    | 134    | 21    | 9.5   | 11    | 19    |
| MEAN† | 6.02  | 1.39  | 1.11  | 96.1  | 141   | 193   | 609    | 354    | 51.9  | 17.2  | 85.4  | 97.0  |
| CFSMT | .65   | 1.51  | 1.21  | 1.04  | 1.53  | 2.10  | 6.62   | 3.85   | .56   | .19   | .93   | 1.05  |
| IN.†  | .75   | 1.68  | 1.39  | 1.20  | 1.60  | 2.42  | 7.39   | 4.44   | .63   | .22   | 1.07  | 1.18  |

CAL YR 1970 TOTAL 57,283

MEAN 157

MAX 989

MIN 11

MEAN† 157

CFSMT 1.71

IN† 23.10

WTR YR 1971 TOTAL 59,111.1

MEAN 162

MAX 868

MIN 9.5

MEAN† 162

CFSMT 1.76

IN† 23.97

† 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 miles northeast of Pittsburg, N.H., 506,000,000 cu ft; First Lake, 5.6 miles northeast of Pittsburg, N.H., 3,330,000,000 cu ft. Records furnished by New England Power Co.
01129000. LAKE FRANCIS on Connecticut River at Pittsburg, N.H., completed in March 1940, used for storage of water for power and for recreation, has usable capacity of 4,326,000,000 cu ft. 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 miles northwest of Littleton, N.H., filled in April 1956, 4,970,000,000 cu ft; Comerford Reservoir, 5 miles northeast of Munroe, N.H., completed in 1930, 1,279,000,000 cu ft. Records furnished by New England Power Co.
01141000. UNION VILLAGE RESERVOIR on Ompompanoosuc River, 0.3 mile north of Union Village, Vt., completed in 1949 for flood control, has usable capacity of 1,660,000,000 cu ft. Records furnished by Corps of Engineers.
- 01148000; 01150000. LAKES AND PONDS IN MASCOMA RIVER BASIN.--These reservoirs 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 miles northeast of Mascoma, N.H., 509,000,000 cu ft; Grafton Pond, 8.5 miles southeast of Mascoma, 144,000,000 cu ft; Crystal Lake, 5.8 miles southeast of Mascoma, 75,000,000 cu ft; 01150000. Mascoma Lake at Mascoma, 337,000,000 cu ft; total usable capacity of the four reservoirs, 1,060,000,000 cu ft. Records furnished by New England Power Co. prior to January 1970 and by New Hampshire Water Resources Board thereafter.
01151400. NORTH HARTLAND LAKE on Ottauquechee River at North Hartland, Vt., completed in 1961, used for flood control and recreation, has usable capacity of 3,110,000,000 cu ft. Records furnished by Corps of Engineers.
01152000. SUNAPEE LAKE on Sugar River at Sunapee, N.H., used for recreation and storage of water for power, has usable capacity of 862,000,000 cu ft. Records collected by Geological Survey.
01152900. NORTH SPRINGFIELD LAKE on Black River at North Springfield, Vt., completed in 1960, used for flood control and recreation, has usable capacity of 2,230,000,000 cu ft. Records furnished by Corps of Engineers.
01155400. BALL MOUNTAIN LAKE on West River, 2 miles north of Jamaica, Vt., completed in 1961, used for flood control and recreation, has usable capacity of 2,380,000,000 cu ft. Records furnished by Corps of Engineers.
01155900. TOWNSHEND LAKE on West River, 1.8 miles northwest of Townshend, Vt., completed in 1961, used for flood control and recreation, has usable capacity of 1,460,000,000 cu ft. Records furnished by Corps of Engineers.
01157500. SURRY MOUNTAIN LAKE on Ashuelot River, 4.5 miles north of Keene, N.H., completed in 1942, used for flood control and recreation, has usable capacity of 1,420,000,000 cu ft. Records furnished by Corps of Engineers.
01158550. OTTER BROOK LAKE on Otter Brook, 2.5 miles northeast of Keene, N.H., completed in 1958, used for flood control and recreation, has usable capacity of 798,000,000 cu ft. Records furnished by Corps of Engineers.
01163500. BIRCH HILL RESERVOIR on Millers River, 1 mile east of South Royalston, Mass., completed in 1941 for flood control, has usable capacity of 2,180,000,000 cu ft. Records furnished by Corps of Engineers.
01164500. TULLY RESERVOIR on East Branch Tully River, 3.5 miles north of Athol, Mass., completed in 1948 for flood control, has usable capacity of 958,000,000 cu ft. 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 miles northeast of Somerset, Vt., completed in 1913, 2,500,000,000 cu ft; Harriman Reservoir on Deerfield River at Davis Bridge, Vt., completed in 1924, 5,060,000,000 cu ft. Records furnished by New England Power Co.
01172400. BARRE FALLS RESERVOIR on Ware River, 4 miles east of Barre, Mass., completed in 1958 for flood control, has usable capacity of 1,050,000,000 cu ft. Records furnished by Corps of Engineers.
01175000. QUABBIN RESERVOIR on Swift River, 3.2 miles east of Belchertown, Mass., completed in August 1939 for storage of water for municipal supply, has usable capacity of 53,800,000,000 cu ft. Records furnished by Water Division, Metropolitan District Commission.
01176410. CONANT BROOK RESERVOIR in Chicopee River basin, 1.5 miles southeast of South Monson, Mass., completed in September 1966 for flood control, has usable capacity of 163,000,000 cu ft. Records furnished by Corps of Engineers.
01176500. LUDLOW RESERVOIR in Chicopee River basin, 3.2 miles northwest of Three Rivers, Mass., completed in 1875 for storage of water for municipal supply, has usable capacity of 201,000,000 cu ft. Records furnished by Board of Water Commissioners, Springfield, Mass.
01179000. KNIGHTVILLE RESERVOIR on Westfield River, 4 miles north of Huntington, Mass., completed in 1941 for flood control, has usable capacity of 2,130,000,000 cu ft. Records furnished by Corps of Engineers.
01180450. LITTLEVILLE LAKE on Middle Branch Westfield River, 2 miles north of Huntington, Mass., completed in 1965, used for flood control, water supply, and recreation, has usable capacity of 1,410,000,000 cu ft. 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 miles south of Blandford, Mass., completed in 1909, 344,000,000 cu ft; Cobble Mountain Reservoir on Westfield Little River, 6.5 miles west of Westfield, Mass., completed in 1931, 3,050,000,000 cu ft. Records furnished by Board of Water Commissioners, Springfield, Mass.
01185000. OTIS RESERVOIR in Farmington River basin, 1 mile northeast of Cold Spring, Mass., completed in 1865, used for storage of water for power and for recreation, has usable capacity of 780,000,000 cu ft. Records furnished by Massachusetts Department of Natural Resources, Division of Forests and Parks.

## Reservoirs in Connecticut River basin--Continued

## MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| Date                | First and Second Connecticut Lakes | Lake Francis           | Moore and Comerford Reservoirs   | Union Village Reservoir                     | Lakes and ponds in Mascoma River basin | North Hartland Lake    |
|---------------------|------------------------------------|------------------------|----------------------------------|---------------------------------------------|----------------------------------------|------------------------|
| Sept. 30, 1970..... | 3,319.3                            | 3,569.7                | 5,507.1                          | 1.3                                         | 858.6                                  | 129.0                  |
| Oct. 31.....        | 3,187.6                            | 3,954.1                | 5,828.8                          | 1.4                                         | 561.5                                  | 119.0                  |
| Nov. 30.....        | 2,610.9                            | 3,528.7                | 6,189.6                          | 7.8                                         | 592.1                                  | 130.0                  |
| Dec. 31.....        | 2,118.9                            | 2,156.3                | 5,629.3                          | 19.1                                        | 670.7                                  | 23.1                   |
| Jan. 31, 1971.....  | 1,595.7                            | 1,328.4                | 5,136.9                          | 17.5                                        | 638.4                                  | 22.9                   |
| Feb. 28.....        | 1,014.7                            | 802.7                  | 4,859.4                          | 14.7                                        | 542.6                                  | 25.3                   |
| Mar. 31.....        | 58.1                               | 299.7                  | 2,130.6                          | 11.2                                        | 370.2                                  | 24.8                   |
| Apr. 30.....        | 860.3                              | 1,365.4                | 2,542.5                          | 12.3                                        | 955.9                                  | 23.6                   |
| May 31.....         | 3,401.4                            | 3,463.6                | 6,065.3                          | 2.1                                         | 1,166.1                                | 22.7                   |
| June 30.....        | 3,459.6                            | 3,877.7                | 5,551.9                          | 1.4                                         | 1,067.4                                | 22.7                   |
| July 31.....        | 3,386.6                            | 3,852.4                | 5,647.4                          | 1.4                                         | 991.8                                  | 6.2                    |
| Aug. 31.....        | 3,234.5                            | 3,776.8                | 6,182.9                          | 1.9                                         | 931.5                                  | 24.8                   |
| Sept. 30.....       | 3,225.1                            | 3,594.3                | 5,608.3                          | 1.4                                         | 834.5                                  | 22.5                   |
|                     | Sunapee Lake                       | North Springfield Lake | Ball Mountain Lake               | Townshend Lake                              | Surry Mountain Lake                    | Otter Brook Lake       |
| Sept. 30, 1970..... | 348                                | 1.3                    | 127.2                            | 38.0                                        | 59.8                                   | 33.0                   |
| Oct. 31.....        | 345                                | 24.7                   | .9                               | .6                                          | 64.5                                   | 33.0                   |
| Nov. 30.....        | 332                                | 26.9                   | 15.6                             | 41.8                                        | 69.3                                   | 34.0                   |
| Dec. 31.....        | 332                                | 24.7                   | 13.0                             | 40.0                                        | 73.1                                   | 35.1                   |
| Jan. 31, 1971.....  | 313                                | 24.7                   | 13.9                             | 110.6                                       | 79.5                                   | 29.6                   |
| Feb. 28.....        | 352                                | 26.2                   | 21.9                             | 40.4                                        | 92.8                                   | 39.3                   |
| Mar. 31.....        | 196                                | 24.7                   | 15.2                             | 42.2                                        | 64.5                                   | 29.6                   |
| Apr. 30.....        | 651                                | 36.3                   | 51.3                             | 44.8                                        | 98.3                                   | 38.6                   |
| May 31.....         | 638                                | 29.1                   | 55.2                             | 40.4                                        | 66.9                                   | 34.0                   |
| June 30.....        | 546                                | 71.8                   | 71.7                             | 38.3                                        | 58.6                                   | 32.6                   |
| July 31.....        | 423                                | 86.6                   | 65.3                             | 38.3                                        | 59.8                                   | 30.2                   |
| Aug. 31.....        | 496                                | 95.7                   | 73.9                             | 40.0                                        | 63.4                                   | 33.7                   |
| Sept. 30.....       | 230                                | 94.6                   | 84.8                             | 38.0                                        | 58.6                                   | 32.3                   |
|                     | Birch Hill Reservoir               | Tully Reservoir        | Somerset and Harriman Reservoirs | Barre Falls Reservoir                       | Quabbin Reservoir†                     | Conant Brook Reservoir |
| Sept. 30, 1970..... | 2.5                                | 0.2                    | 5,469.0                          | 2.2                                         | 33,187                                 | 0                      |
| Oct. 31.....        | 3.0                                | 13.5                   | 5,116.7                          | 2.4                                         | 32,000                                 | 0                      |
| Nov. 30.....        | 2.8                                | 35.3                   | 4,733.4                          | 2.6                                         | 31,183                                 | .1                     |
| Dec. 31.....        | 2.5                                | 40.8                   | 3,934.4                          | 2.4                                         | 30,364                                 | 0                      |
| Jan. 31, 1971.....  | 3.3                                | 36.8                   | 2,666.2                          | 2.2                                         | 29,735                                 | .1                     |
| Feb. 28.....        | 4.5                                | 41.6                   | 2,107.8                          | 11.2                                        | 29,423                                 | .1                     |
| Mar. 31.....        | 9.0                                | 12.3                   | 1,355.9                          | 3.4                                         | 30,535                                 | .1                     |
| Apr. 30.....        | 13.4                               | 57.4                   | 3,469.8                          | 3.4                                         | 32,826                                 | .2                     |
| May 31.....         | 3.0                                | 64.0                   | 6,275.8                          | 2.6                                         | 33,989                                 | .1                     |
| June 30.....        | 2.2                                | 61.8                   | 6,035.2                          | 2.6                                         | 33,669                                 | 0                      |
| July 31.....        | 2.3                                | 60.7                   | 5,943.2                          | 2.4                                         | 32,546                                 | .1                     |
| Aug. 31.....        | 2.7                                | 61.8                   | 6,111.1                          | 2.4                                         | 31,427                                 | .1                     |
| Sept. 30.....       | 2.2                                | 23.0                   | 5,662.8                          | 2.2                                         | 30,426                                 | 0                      |
|                     | Ludlow Reservoir                   | Knightville Reservoir  | Littleville Lake                 | Borden Brook and Cobble Mountain Reservoirs | Otis Reservoir                         |                        |
| Sept. 30, 1970..... | 154.5                              | 0.1                    | 415.9                            | 2,417.5                                     | 680.3                                  |                        |
| Oct. 31.....        | 175.8                              | .1                     | 417.2                            | 2,289.7                                     | 352.0                                  |                        |
| Nov. 30.....        | 179.4                              | .2                     | 421.1                            | 2,296.6                                     | 361.2                                  |                        |
| Dec. 31.....        | 161.5                              | 10.5                   | 419.8                            | 2,275.8                                     | 358.2                                  |                        |
| Jan. 31, 1971.....  | 161.5                              | 13.0                   | 419.8                            | 2,231.0                                     | 352.0                                  |                        |
| Feb. 28.....        | 175.8                              | 20.5                   | 431.5                            | 2,237.8                                     | 352.0                                  |                        |
| Mar. 31.....        | 179.4                              | .8                     | 426.3                            | 2,341.4                                     | 451.3                                  |                        |
| Apr. 30.....        | 175.8                              | 7.0                    | 444.5                            | 3,173.8                                     | 619.5                                  |                        |
| May 31.....         | 174.1                              | .4                     | 422.4                            | 3,192.7                                     | 676.5                                  |                        |
| June 30.....        | 154.5                              | .1                     | 415.9                            | 2,963.6                                     | 680.3                                  |                        |
| July 31.....        | 144.2                              | .2                     | 417.2                            | 2,735.5                                     | 680.3                                  |                        |
| Aug. 31.....        | 152.8                              | 5.6                    | 432.8                            | 2,682.2                                     | 707.2                                  |                        |
| Sept. 30.....       | 163.2                              | .1                     | 417.2                            | 2,615.2                                     | 695.7                                  |                        |

† Affected by diversion from Ware River and diversion to Wachusett Reservoir and Chicopee Valley aqueduct.

01197000 East Branch Housatonic River at Coltsville, Mass.

LOCATION.--Lat 42°28'10", long 73°11'49", Berkshire County, on right bank 40 ft downstream from Hubbard Avenue Bridge at Coltsville, 1.2 miles upstream from Unkameet Brook, and 2 miles northeast of Pittsfield.

DRAINAGE AREA.--57.1 sq mi.

PERIOD OF RECORD.--March 1936 to current year. Prior to October 1945, published as Housatonic River at Coltsville.

GAGE.--Water-stage recorder. Datum of gage is 993.49 ft above mean sea level.

AVERAGE DISCHARGE.--35 years, 109 cfs (25.92 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 1,080 cfs Aug. 28 (gage height, 4.36 ft); minimum daily, 12 cfs Aug. 20.

Period of record: Maximum discharge, 6,400 cfs Sept. 21, 1938 (gage height, 10.80 ft), from rating curve extended above 2,300 cfs on basis of computation of peak flow over dam; minimum daily, 4.4 cfs Aug. 15, 1936.

Maximum discharge since at least 1755, that of Sept. 21, 1938.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by powerplants above station and, since 1949, by Cleveland Brook Reservoir (usable capacity, 214,000,000 cubic feet) 5.4 miles upstream; regulation greater prior to 1955. Diversion above station from Cleveland Brook Reservoir for municipal supply of Pittsfield since May 1950; see table below for figures of diversion.

REVISIONS (WATER YEARS).--WSP 851: 1936(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| CAY         | CCT          | NOV       | DEC     | JAN    | FEB        | MAR        | APR       | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------------|--------------|-----------|---------|--------|------------|------------|-----------|-------|-------|------|-------|-------|
| 1           | 27           | 28        | 40      | 31     | 26         | 108        | 68        | 277   | 71    | 62   | 36    | 40    |
| 2           | 26           | 27        | 40      | 32     | 25         | 104        | 92        | 249   | 57    | 98   | 36    | 34    |
| 3           | 33           | 27        | 39      | 32     | 25         | 96         | 205       | 339   | 55    | 43   | 52    | 31    |
| 4           | 44           | 27        | 60      | 37     | 25         | 77         | 227       | 628   | 55    | 31   | 60    | 27    |
| 5           | 35           | 35        | 80      | 50     | 27         | 69         | 205       | 339   | 46    | 26   | 45    | 29    |
| 6           | 31           | 55        | 60      | 62     | 30         | 75         | 172       | 227   | 39    | 29   | 31    | 29    |
| 7           | 29           | 46        | 48      | 62     | 29         | 75         | 148       | 205   | 39    | 29   | 25    | 32    |
| 8           | 29           | 42        | 41      | 55     | 30         | 72         | 130       | 214   | 82    | 24   | 21    | 35    |
| 9           | 29           | 38        | 40      | 44     | 32         | 69         | 121       | 339   | 169   | 22   | 21    | 35    |
| 10          | 26           | 35        | 42      | 42     | 30         | 66         | 156       | 378   | 96    | 20   | 20    | 32    |
| 11          | 24           | 38        | 40      | 43     | 29         | 68         | 180       | 260   | 52    | 17   | 31    | 30    |
| 12          | 23           | 42        | 36      | 42     | 29         | 68         | 256       | 202   | 43    | 17   | 57    | 61    |
| 13          | 25           | 44        | 35      | 37     | 32         | 65         | 414       | 322   | 39    | 17   | 38    | 68    |
| 14          | 32           | 50        | 37      | 38     | 60         | 62         | 511       | 428   | 39    | 19   | 25    | 89    |
| 15          | 55           | 65        | 37      | 38     | 56         | 71         | 291       | 236   | 36    | 18   | 20    | 87    |
| 16          | 60           | 60        | 33      | 33     | 52         | 123        | 214       | 185   | 34    | 17   | 21    | 70    |
| 17          | 45           | 52        | 36      | 32     | 50         | 141        | 177       | 185   | 31    | 17   | 20    | 66    |
| 18          | 38           | 46        | 38      | 32     | 50         | 119        | 182       | 144   | 28    | 14   | 20    | 65    |
| 19          | 33           | 41        | 37      | 31     | 52         | 100        | 256       | 127   | 25    | 23   | 19    | 55    |
| 20          | 30           | 47        | 38      | 31     | 54         | 92         | 450       | 116   | 23    | 27   | 12    | 52    |
| 21          | 27           | 54        | 42      | 32     | 62         | 94         | 470       | 112   | 24    | 20   | 18    | 84    |
| 22          | 30           | 62        | 42      | 32     | 66         | 78         | 295       | 123   | 27    | 17   | 17    | 79    |
| 23          | 45           | 56        | 40      | 31     | 66         | 72         | 260       | 110   | 24    | 15   | 20    | 67    |
| 24          | 41           | 50        | 37      | 30     | 66         | 66         | 307       | 100   | 23    | 14   | 19    | 50    |
| 25          | 38           | 46        | 36      | 29     | 63         | 62         | 310       | 92    | 27    | 14   | 18    | 43    |
| 26          | 35           | 43        | 37      | 32     | 65         | 62         | 249       | 82    | 43    | 13   | 18    | 41    |
| 27          | 33           | 41        | 36      | 35     | 85         | 62         | 236       | 77    | 27    | 15   | 23    | 43    |
| 28          | 32           | 44        | 38      | 33     | 102        | 60         | 256       | 75    | 24    | 13   | 485   | 42    |
| 29          | 21           | 42        | 38      | 31     | -----      | 66         | 347       | 62    | 23    | 25   | 371   | 45    |
| 30          | 30           | 41        | 36      | 29     | -----      | 72         | 331       | 55    | 22    | 46   | 145   | 44    |
| 31          | 29           | -----     | 32      | 27     | -----      | 71         | -----     | 75    | ----- | 40   | 65    | ----- |
| TOTAL       | 1,045        | 1,325     | 1,273   | 1,145  | 1,318      | 2,485      | 7,516     | 6,363 | 1,323 | 802  | 1,813 | 1,500 |
| MEAN        | 33.7         | 44.2      | 41.1    | 36.9   | 47.1       | 80.2       | 251       | 205   | 44.1  | 25.9 | 58.5  | 50.0  |
| MAX         | 60           | 65        | 80      | 62     | 102        | 141        | 511       | 628   | 169   | 98   | 485   | 89    |
| MIN         | 23           | 27        | 32      | 27     | 25         | 60         | 68        | 55    | 22    | 13   | 12    | 27    |
| (†)         | 13.6         | 10.3      | 12.3    | 10.3   | 11.4       | 10.6       | 13.3      | 11.0  | 11.4  | 15.4 | 11.2  | 15.2  |
| CAL YR 1970 | TOTAL 30,787 | MEAN 84.3 | MAX 709 | MIN 12 | MEAN‡ 96.1 | CFSM‡ 1.68 | IN‡ 22.85 |       |       |      |       |       |
| WTR YR 1971 | TOTAL 27,908 | MEAN 76.5 | MAX 628 | MIN 12 | MEAN‡ 88.6 | CFSM‡ 1.55 | IN‡ 21.07 |       |       |      |       |       |

PEAK DISCHARGE (BASE, 1,150 CFS).--No peak above base.

† Diversion, in cubic feet per second, from Cleveland Brook Reservoir for municipal supply of Pittsfield; records furnished by city of Pittsfield.

‡ Adjusted for diversion.

NOTE.--No gage-height record Oct. 16 to Dec. 8, Jan. 18 to Feb. 24.

01197300 Marsh Brook at Lenox, Mass.

LOCATION.--Lat 42°20'59", long 73°17'56", Berkshire County, on left bank 15 ft downstream from culvert on Hawthorne Street and 1.0 mile southwest of Lenox.

DRAINAGE AREA.--2.19 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 990 ft (from topographic map).

AVERAGE DISCHARGE.--8 years (1963-71), 4.28 cfs (26.54 inches per year).

EXTREMES.--Current year: Maximum discharge, 104 cfs June 8 (gage height, 3.27 ft), from rating curve extended above 23 cfs; maximum gage height, 3.55 ft Mar. 4 (backwater from ice); minimum discharge, 0.06 cfs July 29.

Period of record: Maximum discharge, 122 cfs July 18, 1965 (gage height, 2.75 ft), from rating curve extended above 33 cfs; maximum gage height, 4.07 ft Jan. 28, 1969 (backwater from ice); no flow at times during 1963, 1964, 1965, and 1970.

REMARKS.--Records good except those for winter period, which are fair. Recording rain gage at station since May 1963 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN  | FEB   | MAR   | APR   | MAY   | JUN    | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|------|-------|-------|-------|-------|--------|-------|-------|-------|
| 1     | .31   | .52   | .94   | 1.0  | .96   | 7.6   | 7.6   | 6.7   | 37     | 2.6   | .56   | 1.8   |
| 2     | .31   | .46   | .83   | 1.0  | .93   | 7.1   | 12    | 5.7   | 31     | 1.2   | .95   | 1.4   |
| 3     | .57   | .46   | .72   | 1.0  | .90   | 5.7   | 20    | 8.0   | 30     | .84   | 1.2   | 1.2   |
| 4     | .52   | .46   | 2.7   | 1.5  | .86   | 4.9   | 19    | 11    | 24     | .64   | 1.1   | 1.1   |
| 5     | .46   | .67   | 3.2   | 2.0  | .84   | 5.2   | 17    | 9.4   | 13     | .49   | .74   | .95   |
| 6     | .46   | .57   | 2.6   | 2.6  | .84   | 5.0   | 15    | 8.5   | 11     | .56   | .56   | .84   |
| 7     | .46   | .57   | 2.1   | 2.4  | .84   | 4.9   | 16    | 7.6   | 8.9    | .49   | .43   | .74   |
| 8     | .46   | .52   | 1.8   | 2.1  | .95   | 3.9   | 14    | 7.1   | 15     | .37   | .37   | .64   |
| 9     | .41   | .52   | 1.6   | 1.7  | 1.2   | 3.5   | 13    | 9.4   | 8.5    | .32   | .32   | .64   |
| 10    | .41   | .52   | 1.4   | 1.6  | 1.2   | 3.9   | 15    | 10    | 6.0    | .28   | .28   | .64   |
| 11    | .41   | .67   | 1.2   | 1.6  | 1.2   | 3.2   | 15    | 8.5   | 4.2    | .24   | 7.6   | .74   |
| 12    | .41   | .62   | 1.2   | 1.6  | 1.2   | 3.2   | 16    | 7.1   | 3.5    | .24   | 5.3   | 2.3   |
| 13    | .41   | .62   | 1.2   | 1.4  | 2.5   | 2.6   | 17    | 12    | 3.2    | .20   | 2.6   | 1.6   |
| 14    | .41   | .62   | 1.2   | 1.5  | 9.0   | 2.9   | 18    | 11    | 2.3    | .28   | 1.4   | 4.2   |
| 15    | 1.0   | .94   | 1.2   | 1.5  | 7.0   | 3.9   | 16    | 10    | 1.8    | .20   | 1.1   | 3.2   |
| 16    | .83   | 1.3   | 1.1   | 1.3  | 5.3   | 8.9   | 13    | 9.4   | 1.4    | .28   | .74   | 2.9   |
| 17    | .72   | 1.2   | 1.2   | 1.2  | 4.2   | 9.4   | 11    | 9.4   | 1.2    | .32   | .43   | 3.2   |
| 18    | .72   | .94   | 1.2   | 1.1  | 3.9   | 6.7   | 9.8   | 7.1   | .95    | .32   | .43   | 3.2   |
| 19    | .72   | 1.0   | 1.2   | 1.0  | 3.9   | 6.7   | 9.4   | 5.7   | .84    | 2.6   | .32   | 2.3   |
| 20    | .62   | 1.2   | 1.3   | 1.0  | 3.9   | 7.6   | 9.4   | 12    | .64    | .84   | .95   | 2.0   |
| 21    | .62   | 1.5   | 1.4   | 1.1  | 4.6   | 5.3   | 8.9   | 53    | .56    | .56   | .64   | 5.7   |
| 22    | .83   | 1.3   | 1.4   | 1.1  | 4.9   | 4.6   | 8.5   | 62    | .43    | .49   | .56   | 3.5   |
| 23    | .83   | 2.0   | 1.3   | 1.0  | 4.9   | 4.6   | 8.0   | 58    | .37    | .37   | .49   | 2.9   |
| 24    | .83   | 1.6   | 1.2   | 1.0  | 3.9   | 4.2   | 6.7   | 53    | .32    | .37   | .37   | 2.6   |
| 25    | .72   | 1.4   | 1.2   | 1.1  | 2.9   | 3.2   | 6.7   | 49    | 1.6    | .37   | .32   | 2.3   |
| 26    | .67   | 1.2   | 1.2   | 1.2  | 3.2   | 2.9   | 6.7   | 47    | .95    | .16   | .28   | 1.8   |
| 27    | .62   | 1.0   | 1.2   | 1.3  | 7.6   | 2.9   | 5.7   | 47    | .56    | .09   | .64   | 1.8   |
| 28    | .57   | 1.0   | 1.3   | 1.2  | 8.5   | 3.2   | 5.3   | 45    | .49    | .09   | 10    | 1.6   |
| 29    | .57   | 1.0   | 1.3   | 1.1  | ----- | 4.2   | 7.1   | 39    | .43    | 1.6   | 4.9   | 1.4   |
| 30    | .52   | 1.0   | 1.2   | 1.1  | ----- | 4.9   | 7.6   | 36    | .43    | .56   | 3.5   | 1.2   |
| 31    | .52   | ----- | 1.1   | 1.0  | ----- | 5.7   | ----- | 43    | -----  | .95   | 2.6   | ----- |
| TOTAL | 17.92 | 27.38 | 43.69 | 42.3 | 92.12 | 152.5 | 354.4 | 707.6 | 210.57 | 18.83 | 51.68 | 60.39 |
| MEAN  | .58   | .91   | 1.41  | 1.36 | 3.29  | 4.92  | 11.8  | 22.8  | 7.02   | .61   | 1.67  | 2.01  |
| MAX   | 1.0   | 2.0   | 3.2   | 2.6  | 9.0   | 9.4   | 20    | 62    | 37     | 2.6   | 10    | 5.7   |
| MIN   | .31   | .46   | .72   | 1.0  | .84   | 2.6   | 5.3   | 5.7   | .32    | .09   | .28   | .64   |
| CFSM  | .26   | .42   | .64   | .62  | 1.50  | 2.25  | 5.39  | 10.4  | 3.21   | .28   | .76   | .92   |
| IN.   | .30   | .47   | .74   | .72  | 1.56  | 2.59  | 6.02  | 12.02 | 3.58   | .32   | .88   | 1.03  |

CAL YR 1970 TOTAL 1,312.42 MEAN 3.60 MAX 31 MIN 0 CFSM 1.64 IN 22.29  
 WTR YR 1971 TOTAL 1,779.38 MEAN 4.88 MAX 62 MIN .09 CFSM 2.23 IN 30.23

## PEAK DISCHARGE (BASE, 45 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-21 | 1315 | 3.11  | 64        |      |      |       |           |
| 6-8  | 1745 | 3.27  | 104       |      |      |       |           |
| 8-11 | 2000 | 3.07  | 56        |      |      |       |           |



01197500 Housatonic River near Great Barrington, Mass.

LOCATION.--Lat 42°13'55", long 73°21'19", Berkshire County, on left bank at upstream side of highway bridge at Van Deusenville, 0.5 mile upstream from Williams River and 2 miles north of Great Barrington.

DRAINAGE AREA.--280 sq mi.

PERIOD OF RECORD.--May 1913 to current year.

GAGE.--Water-stage recorder. Datum of gage is 683.04 ft above mean sea level. Prior to Oct. 1, 1931, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--58 years, 507 cfs (24.59 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,110 cfs Apr. 15 (gage height, 5.80 ft); minimum daily, 91 cfs July 23.

Period of record: Maximum discharge, 12,200 cfs Jan. 1, 1949 (gage height, 12.08 ft), from rating curve extended above 5,300 cfs on basis of computations of flow over dams at gage heights 11.72 and 12.08 ft; minimum daily, 1.0 cfs Oct. 18, 1914.

REMARKS.--Records good. Regulation at low flow by powerplants above station. Records of chemical analyses and suspended-sediment loads for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 415: 1913-14. WSP 781: 1928(M). WSP 1051: 1928, 1933. WSP 1301: 1914-15(M), 1917-27(M), 1929-31(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| 1     | 147   | 195   | 244   | 195   | 150   | 813    | 626    | 1,390  | 422   | 143   | 288   | 428   |
| 2     | 118   | 202   | 248   | 188   | 158   | 770    | 798    | 1,270  | 383   | 313   | 266   | 327   |
| 3     | 116   | 181   | 228   | 198   | 158   | 693    | 1,370  | 1,260  | 361   | 388   | 251   | 285   |
| 4     | 165   | 162   | 287   | 195   | 152   | 594    | 1,620  | 1,570  | 372   | 256   | 400   | 255   |
| 5     | 198   | 188   | 394   | 269   | 162   | 496    | 1,610  | 1,720  | 340   | 189   | 347   | 234   |
| 6     | 158   | 296   | 335   | 366   | 171   | 509    | 1,440  | 1,610  | 305   | 163   | 263   | 217   |
| 7     | 147   | 260   | 265   | 335   | 168   | 509    | 1,360  | 1,330  | 274   | 162   | 216   | 205   |
| 8     | 120   | 240   | 220   | 296   | 171   | 503    | 1,350  | 1,160  | 265   | 165   | 178   | 192   |
| 9     | 109   | 228   | 224   | 269   | 174   | 458    | 1,240  | 1,280  | 587   | 154   | 165   | 197   |
| 10    | 104   | 206   | 232   | 256   | 171   | 422    | 1,290  | 1,480  | 600   | 165   | 117   | 193   |
| 11    | 107   | 232   | 228   | 244   | 162   | 416    | 1,350  | 1,480  | 410   | 164   | 131   | 182   |
| 12    | 107   | 232   | 228   | 236   | 162   | 394    | 1,440  | 1,260  | 320   | 155   | 239   | 206   |
| 13    | 98    | 236   | 213   | 209   | 164   | 388    | 1,630  | 1,220  | 278   | 151   | 289   | 344   |
| 14    | 98    | 244   | 209   | 206   | 355   | 377    | 2,010  | 1,580  | 256   | 137   | 215   | 497   |
| 15    | 114   | 248   | 209   | 228   | 388   | 416    | 2,010  | 1,570  | 240   | 136   | 171   | 623   |
| 16    | 305   | 366   | 206   | 215   | 355   | 784    | 1,760  | 1,350  | 228   | 137   | 148   | 535   |
| 17    | 274   | 350   | 213   | 200   | 320   | 1,020  | 1,520  | 1,170  | 211   | 135   | 137   | 453   |
| 18    | 209   | 283   | 240   | 190   | 305   | 843    | 1,340  | 1,060  | 201   | 134   | 129   | 427   |
| 19    | 171   | 240   | 236   | 190   | 315   | 735    | 1,310  | 880    | 182   | 168   | 126   | 387   |
| 20    | 178   | 252   | 248   | 185   | 330   | 659    | 1,480  | 749    | 170   | 193   | 126   | 330   |
| 21    | 123   | 325   | 244   | 195   | 372   | 633    | 1,660  | 672    | 173   | 192   | 134   | 407   |
| 22    | 147   | 340   | 236   | 202   | 372   | 574    | 1,730  | 721    | 134   | 173   | 142   | 477   |
| 23    | 188   | 355   | 236   | 199   | 372   | 555    | 1,570  | 653    | 150   | 91    | 128   | 416   |
| 24    | 232   | 366   | 244   | 181   | 372   | 548    | 1,380  | 613    | 148   | 99    | 125   | 289   |
| 25    | 213   | 305   | 228   | 168   | 355   | 516    | 1,350  | 581    | 150   | 128   | 121   | 330   |
| 26    | 224   | 248   | 216   | 188   | 340   | 496    | 1,320  | 574    | 177   | 129   | 118   | 311   |
| 27    | 181   | 220   | 209   | 200   | 460   | 496    | 1,250  | 535    | 203   | 138   | 122   | 309   |
| 28    | 198   | 216   | 202   | 190   | 729   | 496    | 1,100  | 574    | 162   | 144   | 586   | 288   |
| 29    | 206   | 224   | 198   | 184   | ----- | 529    | 1,290  | 516    | 148   | 107   | 1,360 | 293   |
| 30    | 216   | 236   | 195   | 191   | ----- | 607    | 1,420  | 410    | 136   | 122   | 1,360 | 259   |
| 31    | 206   | ----- | 195   | 190   | ----- | 620    | -----  | 394    | ----- | 256   | 789   | ----- |
| TOTAL | 5,177 | 7,676 | 7,310 | 6,757 | 7,912 | 17,869 | 42,714 | 32,672 | 7,986 | 5,187 | 9,187 | 9,886 |
| MEAN  | 167   | 256   | 236   | 218   | 253   | 576    | 1,424  | 1,054  | 266   | 167   | 296   | 330   |
| MAX   | 305   | 366   | 394   | 366   | 728   | 1,020  | 2,010  | 1,720  | 600   | 388   | 1,360 | 623   |
| MIN   | 98    | 162   | 195   | 168   | 150   | 377    | 626    | 394    | 134   | 91    | 117   | 182   |
| CFSM  | .60   | .91   | .84   | .78   | 1.01  | 2.06   | 5.09   | 3.76   | .95   | .60   | 1.06  | 1.18  |
| IN.   | .69   | 1.02  | .97   | .90   | 1.25  | 2.37   | 5.67   | 4.34   | 1.06  | .69   | 1.22  | 1.31  |

CAL YR 1970 TOTAL 157,101 MEAN 430 MAX 3,200 MIN 71 CFSM 1.54 IN 20.87

WTR YR 1971 TOTAL 160,333 MEAN 439 MAX 2,610 MIN 91 CFSM 1.57 IN 21.30

PEAK DISCHARGE (BASE, 2,400 CFS).--No peak above base.

## HOUSATONIC RIVER BASIN

01198000 Green River near Great Barrington, Mass.

LOCATION.--Lat 42°11'31", long 73°23'28", Berkshire County, on left bank 250 ft downstream from Hurlburt Street highway bridge, 0.2 mile downstream from Seekonk Brook, 1.5 miles west of Great Barrington, and 3 miles upstream from mouth.

DRAINAGE AREA.--51.0 sq mi.

PERIOD OF RECORD.--October 1951 to September 1971 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 690 ft (from topographic map).

AVERAGE DISCHARGE.--20 years, 79.4 cfs (21.14 inches per year).

EXTREMES.--Current year: Maximum discharge, 648 cfs Apr. 13 (gage height, 5.37 ft); minimum, 5.6 cfs Aug. 25, 26, 27.

Period of record: Maximum discharge, 2,120 cfs Mar. 31, 1960 (gage height, 7.83 ft); minimum, 2.7 cfs Sept. 21-25, Oct. 13-18, 1964.

REMARKS.--Records good except those for winter period and periods of no gage-height record, which are fair. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1701: 1956(M). WSP 1901: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP     |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| 1     | 7.6   | 17    | 39    | 31    | 27    | 230   | 119   | 126   | 69    | 13    | 11    | 14      |
| 2     | 7.4   | 17    | 38    | 30    | 26    | 210   | 185   | 114   | 59    | 20    | 11    | 13      |
| 3     | 10    | 16    | 37    | 30    | 25    | 190   | 495   | 141   | 59    | 15    | 21    | 12      |
| 4     | 13    | 16    | 60    | 31    | 25    | 179   | 480   | 272   | 55    | 12    | 17    | 11      |
| 5     | 10    | 27    | 66    | 46    | 27    | 155   | 399   | 243   | 49    | 11    | 13    | 10      |
| 6     | 9.0   | 31    | 56    | 55    | 30    | 148   | 325   | 192   | 43    | 11    | 11    | 9.6     |
| 7     | 8.4   | 26    | 49    | 49    | 29    | 148   | 332   | 167   | 39    | 10    | 10    | 9.6     |
| 8     | 8.0   | 21    | 41    | 47    | 31    | 139   | 292   | 164   | 36    | 9.6   | 8.7   | 9.2     |
| 9     | 7.6   | 19    | 42    | 47    | 40    | 119   | 262   | 221   | 36    | 9.2   | 8.3   | 9.2     |
| 10    | 7.2   | 18    | 44    | 46    | 45    | 107   | 350   | 237   | 33    | 8.7   | 8.3   | 8.7     |
| 11    | 6.9   | 22    | 42    | 44    | 38    | 104   | 336   | 187   | 27    | 8.7   | 8.3   | 8.7     |
| 12    | 6.7   | 23    | 44    | 43    | 35    | 97    | 397   | 167   | 25    | 7.9   | 9.2   | 13      |
| 13    | 6.7   | 25    | 42    | 41    | 50    | 92    | 478   | 274   | 25    | 7.9   | 8.3   | 17      |
| 14    | 7.1   | 30    | 41    | 40    | 70    | 90    | 517   | 317   | 24    | 7.9   | 7.9   | 97      |
| 15    | 10    | 40    | 38    | 39    | 90    | 104   | 367   | 231   | 23    | 7.5   | 7.5   | 66      |
| 16    | 15    | 55    | 32    | 37    | 75    | 199   | 306   | 214   | 21    | 7.5   | 7.1   | 50      |
| 17    | 16    | 48    | 37    | 34    | 66    | 217   | 255   | 200   | 19    | 7.5   | 7.1   | 50      |
| 18    | 15    | 42    | 37    | 32    | 62    | 177   | 225   | 168   | 18    | 7.5   | 6.6   | 72      |
| 19    | 14    | 38    | 37    | 31    | 64    | 167   | 213   | 148   | 17    | 9.6   | 6.6   | 72      |
| 20    | 13    | 50    | 41    | 30    | 80    | 163   | 221   | 130   | 15    | 9.2   | 6.6   | 55      |
| 21    | 13    | 64    | 38    | 31    | 100   | 151   | 204   | 145   | 14    | 8.3   | 7.1   | 84      |
| 22    | 16    | 70    | 37    | 31    | 95    | 134   | 181   | 175   | 14    | 7.5   | 6.6   | 84      |
| 23    | 46    | 60    | 35    | 30    | 100   | 127   | 157   | 134   | 13    | 7.5   | 6.2   | 64      |
| 24    | 43    | 52    | 37    | 29    | 105   | 116   | 136   | 115   | 13    | 7.1   | 5.8   | 53      |
| 25    | 32    | 47    | 35    | 27    | 94    | 104   | 133   | 107   | 13    | 7.1   | 5.8   | 46      |
| 26    | 27    | 44    | 35    | 31    | 90    | 99    | 130   | 105   | 18    | 7.1   | 5.8   | 42      |
| 27    | 23    | 41    | 34    | 38    | 150   | 97    | 127   | 96    | 15    | 6.6   | 7.5   | 38      |
| 28    | 21    | 40    | 32    | 32    | 270   | 98    | 117   | 97    | 13    | 6.2   | 94    | 34      |
| 29    | 19    | 41    | 31    | 29    | ----- | 105   | 155   | 83    | 12    | 7.1   | 47    | 31      |
| 30    | 18    | 40    | 31    | 28    | ----- | 116   | 142   | 74    | 12    | 9.2   | 24    | 29      |
| 31    | 18    | ----- | 31    | 27    | ----- | 114   | ----- | 78    | ----- | 11    | 18    | -----   |
| TOTAL | 474.6 | 1,080 | 1,242 | 1,116 | 1,939 | 4,296 | 8,036 | 5,122 | 829   | 285.4 | 422.3 | 1,112.0 |
| MEAN  | 15.3  | 36.0  | 40.1  | 36.0  | 69.3  | 139   | 268   | 165   | 27.6  | 9.21  | 13.6  | 37.1    |
| MAX   | 46    | 70    | 66    | 55    | 270   | 230   | 517   | 317   | 69    | 20    | 94    | 97      |
| MIN   | 6.7   | 16    | 31    | 27    | 25    | 90    | 117   | 74    | 12    | 6.2   | 5.8   | 8.7     |
| CFSM  | .30   | .71   | .79   | .71   | 1.36  | 2.73  | 5.25  | 3.24  | .54   | .18   | .27   | .73     |
| IN.   | .35   | .79   | .61   | .81   | 1.41  | 3.13  | 5.86  | 3.74  | .60   | .21   | .31   | .81     |

CAL YR 1970 TOTAL 26,028.1 MEAN 71.3 MAX 993 MIN 4.2 CFSM 1.40 IN 18.99  
WTR YR 1971 TOTAL 25,954.3 MEAN 71.1 MAX 517 MIN 5.8 CFSM 1.39 IN 18.93

PEAK DISCHARGE (BASE, 750 CFS).--No peak above base.

NOTE.--No gage-height record Oct. 1-14, Oct. 31 to Dec. 5, Feb. 1 to Mar. 3.

01198030 Schenab Brook near Sheffield, Mass.

LOCATION.--Lat 42°06' 33", long 73°22' 09", Berkshire County, on left bank at upstream side of Berkshire School Road bridge, 0.8 mile west of Sheffield, and 2.1 miles upstream from Hubbard Brook.

DRAINAGE AREA.--22.7 sq mi.

PERIOD OF RECORD.--November 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 650 ft (from topographic map).

EXTREMES.--Maximum discharge during period, 151 cfs Apr. 15 (gage height, 5.46 ft); maximum gage height, 6.35 ft Mar. 1 (backwater from ice); minimum discharge, 0.73 cfs Aug. 21.

REMARKS.--Records good except those for winter period and periods of no gage-height record, which are poor.

## DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | CCT | NOV   | DEC   | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG    | SEP     |
|-------|-----|-------|-------|------|-------|-------|-------|-------|-------|-------|--------|---------|
| 1     |     | 13    | 38    | 24   | 23    | 125   | 62    | 52    | 22    | 6.0   | 9.9    | 5.4     |
| 2     |     | 13    | 37    | 25   | 21    | 120   | 66    | 46    | 19    | 8.0   | 8.1    | 3.8     |
| 3     |     | 12    | 36    | 26   | 19    | 100   | 104   | 33    | 16    | 8.9   | 8.0    | 3.1     |
| 4     |     | 13    | 38    | 26   | 19    | 92    | 136   | 59    | 17    | 8.9   | 9.6    | 2.4     |
| 5     |     | 20    | 40    | 30   | 20    | 86    | 125   | 101   | 15    | 8.9   | 9.6    | 2.4     |
| 6     |     | 23    | 39    | 43   | 20    | 84    | 109   | 109   | 13    | 7.5   | 5.9    | 8.9     |
| 7     |     | 18    | 36    | 45   | 21    | 82    | 99    | 92    | 11    | 6.0   | 5.5    | 5.0     |
| 8     |     | 15    | 34    | 36   | 23    | 86    | 123   | 52    | 10    | 4.5   | 3.0    | 4.3     |
| 9     |     | 14    | 29    | 32   | 25    | 82    | 107   | 64    | 9.8   | 3.5   | 2.1    | 4.1     |
| 10    |     | 14    | 32    | 29   | 28    | 72    | 99    | 82    | 8.2   | 2.8   | 1.9    | 3.1     |
| 11    |     | 16    | 34    | 28   | 30    | 67    | 97    | 75    | 7.4   | 2.4   | 2.0    | 2.5     |
| 12    |     | 17    | 32    | 27   | 29    | 65    | 93    | 69    | 6.6   | 2.2   | 2.8    | 3.3     |
| 13    |     | 19    | 34    | 26   | 27    | 63    | 96    | 71    | 6.0   | 2.1   | 1.7    | 8.5     |
| 14    |     | 22    | 36    | 25   | 45    | 62    | 125   | 129   | 7.0   | 2.0   | 1.7    | 52      |
| 15    |     | 30    | 33    | 25   | 65    | 66    | 146   | 116   | 8.0   | 2.0   | 1.7    | 117     |
| 16    |     | 45    | 29    | 24   | 74    | 80    | 108   | 85    | 11    | 2.1   | 1.6    | 115     |
| 17    |     | 40    | 31    | 23   | 66    | 110   | 84    | 81    | 9.8   | 2.3   | 1.6    | 79      |
| 18    |     | 35    | 33    | 22   | 60    | 100   | 71    | 76    | 7.0   | 3.0   | 1.3    | 62      |
| 19    |     | 38    | 35    | 21   | 55    | 90    | 59    | 66    | 5.2   | 4.5   | 1.3    | 62      |
| 20    |     | 41    | 37    | 20   | 52    | 80    | 59    | 59    | 4.7   | 5.5   | .97    | 55      |
| 21    |     | 48    | 38    | 20   | 68    | 80    | 63    | 55    | 4.3   | 4.5   | .81    | 60      |
| 22    |     | 53    | 36    | 20   | 76    | 77    | 65    | 54    | 4.2   | 3.5   | .57    | 77      |
| 23    |     | 50    | 35    | 21   | 78    | 72    | 61    | 50    | 4.1   | 2.8   | 1.3    | 65      |
| 24    |     | 46    | 35    | 22   | 80    | 68    | 53    | 41    | 4.0   | 2.4   | 1.8    | 51      |
| 25    |     | 43    | 34    | 22   | 78    | 65    | 50    | 39    | 6.0   | 2.1   | 1.5    | 43      |
| 26    |     | 40    | 32    | 24   | 70    | 63    | 43    | 35    | 8.0   | 2.0   | 1.7    | 39      |
| 27    |     | 38    | 30    | 28   | 75    | 61    | 41    | 36    | 9.1   | 1.9   | 2.2    | 37      |
| 28    |     | 37    | 28    | 31   | 100   | 59    | 34    | 34    | 8.2   | 1.8   | 38     | 33      |
| 29    |     | 38    | 26    | 27   | ----- | 62    | 39    | 29    | 7.2   | 2.0   | 106    | 17      |
| 30    |     | 39    | 25    | 24   | ----- | 69    | 51    | 20    | 6.4   | 2.5   | 48     | 13      |
| 31    |     | ----- | 24    | 24   | ----- | 68    | ----- | 20    | ----- | 4.0   | 11     | -----   |
| TOTAL |     | 890   | 1,036 | 820  | 1,347 | 2,456 | 2,468 | 1,930 | 275.2 | 122.6 | 293.95 | 1,033.8 |
| MEAN  |     | 29.7  | 33.4  | 26.5 | 48.1  | 79.2  | 82.3  | 62.3  | 9.17  | 3.95  | 9.48   | 34.5    |
| MAX   |     | 53    | 40    | 45   | 100   | 125   | 146   | 129   | 22    | 8.9   | 106    | 117     |
| MIN   |     | 12    | 24    | 20   | 19    | 59    | 34    | 20    | 4.0   | 1.8   | .81    | 2.4     |
| CFSM  |     | 1.31  | 1.47  | 1.17 | 2.12  | 3.49  | 3.63  | 2.74  | .40   | .17   | .42    | 1.52    |
| IN.   |     | 1.46  | 1.70  | 1.34 | 2.21  | 4.02  | 4.04  | 3.16  | .45   | .20   | .48    | 1.69    |

## PEAK DISCHARGE (BASE, 140 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-15 | 0115 | 5.46  | 151       |      |      |       |           |
| 5-14 | 1600 | 5.29  | 143       |      |      |       |           |

NOTE.--No gage-height record Nov. 1-18, Nov. 23 to Dec. 5, June 10-15, 18-26, June 28 to July 2, July 6-31.

## HOUSATONIC RIVER BASIN

01198070 Willard Brook near Sheffield, Mass.

LOCATION.--Lat 42°06'41", long 73°23'38", Berkshire County, on right bank 125 ft downstream from Berkshire School Road bridge, 300 ft downstream from Fawn Lake, and 2.0 miles west of Sheffield.

DRAINAGE AREA.--3.21 sq mi.

PERIOD OF RECORD.--November 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 690 ft (from topographic map).

EXTREMES.--Maximum discharge during period, 39 cfs Feb. 28 (gage height, 3.36 ft); minimum, 0.19 cfs Sept. 7; minimum daily, 0.22 cfs Aug. 23-26.

REMARKS.--Records good. Occasional regulation by pond above station.

| DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971 |     |       |       |       |       |       |       |       |       |       |       |        |
|--------------------------------------------------------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| DAY                                                                            | CCT | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP    |
| 1                                                                              |     | 3.2   | 7.4   | 3.9   | 2.9   | 18    | 9.7   | 8.9   | 4.6   | 1.2   | 1.9   | 4.7    |
| 2                                                                              |     | 3.2   | 6.7   | 3.0   | 2.7   | 16    | 11    | 7.6   | 4.0   | 1.7   | 2.0   | 4.0    |
| 3                                                                              |     | 3.0   | 6.3   | 3.1   | 2.5   | 14    | 19    | 9.3   | 4.7   | 1.3   | 2.7   | 3.4    |
| 4                                                                              |     | 3.0   | 7.3   | 3.3   | 2.4   | 14    | 19    | 16    | 3.5   | .94   | 4.5   | 3.3    |
| 5                                                                              |     | 5.0   | 7.8   | 4.2   | 2.4   | 12    | 16    | 18    | 2.4   | .98   | 2.6   | 2.3    |
| 6                                                                              |     | 5.6   | 6.7   | 4.9   | 2.6   | 12    | 14    | 12    | 2.5   | .97   | 1.6   | .31    |
| 7                                                                              |     | 4.5   | 6.4   | 4.9   | 3.1   | 12    | 17    | 10    | 1.9   | 1.1   | 1.2   | .23    |
| 8                                                                              |     | 3.9   | 5.1   | 4.9   | 2.9   | 13    | 18    | 10    | 2.6   | 1.0   | 1.1   | .80    |
| 9                                                                              |     | 3.5   | 4.2   | 4.9   | 3.9   | 11    | 15    | 14    | 2.9   | .96   | 1.1   | 1.3    |
| 10                                                                             |     | 3.3   | 5.3   | 4.7   | 4.1   | 9.8   | 15    | 14    | 2.5   | .86   | 1.1   | .50    |
| 11                                                                             |     | 4.0   | 6.4   | 4.6   | 3.5   | 9.4   | 17    | 11    | 2.2   | .86   | 4.2   | .56    |
| 12                                                                             |     | 4.3   | 6.4   | 4.4   | 3.2   | 8.9   | 16    | 9.8   | 2.2   | .86   | 3.7   | .80    |
| 13                                                                             |     | 4.6   | 6.4   | 4.2   | 4.1   | 8.7   | 18    | 14    | 2.3   | .86   | 1.5   | 1.1    |
| 14                                                                             |     | 5.4   | 6.4   | 3.8   | 9.2   | 8.5   | 24    | 19    | 2.3   | .92   | 1.1   | 14     |
| 15                                                                             |     | 7.2   | 6.0   | 3.8   | 8.5   | 9.7   | 20    | 13    | 2.3   | 1.0   | 1.1   | 18     |
| 16                                                                             |     | 10    | 5.8   | 3.7   | 6.9   | 15    | 16    | 12    | 2.3   | 1.5   | 1.2   | 12     |
| 17                                                                             |     | 9.0   | 5.7   | 3.3   | 5.8   | 15    | 14    | 12    | 2.4   | 1.2   | .99   | 8.0    |
| 18                                                                             |     | 7.9   | 5.5   | 3.1   | 5.3   | 13    | 13    | 10    | 1.9   | 1.2   | .92   | 9.0    |
| 19                                                                             |     | 7.9   | 5.5   | 2.8   | 5.4   | 12    | 12    | 8.9   | 1.8   | 1.2   | 1.0   | 13     |
| 20                                                                             |     | 8.4   | 5.5   | 2.7   | 6.5   | 12    | 13    | 8.1   | 1.7   | 1.5   | .99   | 10     |
| 21                                                                             |     | 12    | 5.5   | 2.7   | 8.7   | 12    | 14    | 7.6   | 1.6   | 1.0   | 1.2   | 13     |
| 22                                                                             |     | 10    | 5.5   | 2.7   | 8.2   | 11    | 13    | 8.1   | 1.4   | 1.0   | .63   | 15     |
| 23                                                                             |     | 12    | 5.5   | 2.8   | 8.4   | 11    | 11    | 7.1   | 1.2   | 1.0   | .22   | 12     |
| 24                                                                             |     | 11    | 5.5   | 2.9   | 8.9   | 9.9   | 9.8   | 6.1   | 1.1   | 1.0   | .22   | 9.0    |
| 25                                                                             |     | 8.9   | 5.3   | 2.9   | 8.0   | 8.8   | 9.6   | 6.0   | 1.3   | 1.0   | .22   | 7.8    |
| 26                                                                             |     | 7.9   | 5.2   | 3.2   | 7.5   | 8.3   | 9.4   | 6.2   | 2.6   | 1.1   | .22   | 7.0    |
| 27                                                                             |     | 7.7   | 4.9   | 4.0   | 13    | 8.0   | 8.9   | 5.6   | 1.7   | 1.1   | .30   | 6.5    |
| 28                                                                             |     | 7.7   | 4.8   | 3.6   | 21    | 8.1   | 7.8   | 5.5   | 1.3   | 1.1   | 20    | 5.8    |
| 29                                                                             |     | 7.6   | 4.5   | 3.1   | ----- | 9.0   | 10    | 4.8   | 1.1   | 1.0   | 18    | 5.4    |
| 30                                                                             |     | 7.5   | 4.3   | 3.0   | ----- | 10    | 11    | 4.7   | 1.1   | 1.0   | 8.2   | 5.0    |
| 31                                                                             |     | ----- | 4.2   | 3.0   | ----- | 10    | ----- | 5.3   | ----- | 1.2   | 6.0   | -----  |
| TOTAL                                                                          |     | 159.0 | 178.0 | 112.1 | 171.6 | 350.1 | 421.2 | 304.6 | 67.4  | 33.61 | 91.71 | 193.80 |
| MEAN                                                                           |     | 6.63  | 5.74  | 3.62  | 6.13  | 11.3  | 14.0  | 9.83  | 2.25  | 1.08  | 2.96  | 6.46   |
| MAX                                                                            |     | 12    | 7.8   | 4.9   | 21    | 18    | 24    | 19    | 4.7   | 1.7   | 20    | 18     |
| MIN                                                                            |     | 3.0   | 4.2   | 2.7   | 2.4   | 8.0   | 7.8   | 4.7   | 1.1   | .86   | .22   | .23    |
| CFSM                                                                           |     | 2.07  | 1.79  | 1.13  | 1.91  | 3.52  | 4.36  | 3.06  | .70   | .34   | .92   | 2.01   |
| IN.                                                                            |     | 2.31  | 2.06  | 1.30  | 1.99  | 4.06  | 4.88  | 3.53  | .78   | .39   | 1.06  | 2.25   |

NOTE.-- No gage-height record Sept. 15-30.

## HOUSATONIC RIVER BASIN

217

01198075 Hubbard Brook at Sheffield, Mass.

LOCATION.--Lat 42°07'13", long 73°21'46", Berkshire County, on right bank 10 ft upstream from Cook Road bridge, 200 ft downstream from Mill Pond, and 0.9 mile northwest of Sheffield.

DRAINAGE AREA.--25.8 sq mi.

PERIOD OF RECORD.--November 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 655 ft (from topographic map).

EXTREMES.--Maximum discharge during period, 142 cfs May 16 (gage height, 5.57 ft); minimum, 3.9 cfs May 23; minimum daily, 4.0 cfs May 23.

REMARKS.--Records good. Occasional regulation by pond above station.

## DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | CCT | NOV   | DEC  | JAN  | FEB   | MAR   | APR   | MAY     | JUN   | JUL   | AUG   | SEP   |
|-------|-----|-------|------|------|-------|-------|-------|---------|-------|-------|-------|-------|
| 1     |     | 15    | 33   | 16   | 15    | 119   | 68    | 66      | 45    | 7.0   | 14    | 18    |
| 2     |     | 15    | 30   | 17   | 13    | 112   | 70    | 59      | 29    | 12    | 16    | 13    |
| 3     |     | 14    | 28   | 16   | 13    | 101   | 95    | 59      | 27    | 11    | 16    | 12    |
| 4     |     | 14    | 32   | 16   | 13    | 89    | 119   | 76      | 33    | 7.9   | 49    | 11    |
| 5     |     | 22    | 35   | 21   | 13    | 78    | 117   | 97      | 29    | 6.9   | 42    | 10    |
| 6     |     | 25    | 31   | 32   | 14    | 83    | 110   | 88      | 25    | 6.7   | 17    | 9.3   |
| 7     |     | 20    | 23   | 31   | 14    | 78    | 108   | 70      | 19    | 6.1   | 10    | 8.3   |
| 8     |     | 17    | 21   | 24   | 16    | 80    | 113   | 66      | 15    | 5.6   | 7.9   | 7.7   |
| 9     |     | 16    | 18   | 21   | 17    | 75    | 105   | 77      | 14    | 5.6   | 7.1   | 7.8   |
| 10    |     | 16    | 19   | 19   | 18    | 68    | 104   | 93      | 14    | 5.6   | 6.6   | 7.8   |
| 11    |     | 18    | 21   | 19   | 20    | 66    | 106   | 83      | 12    | 5.6   | 6.5   | 7.3   |
| 12    |     | 20    | 24   | 19   | 15    | 64    | 103   | 71      | 11    | 5.4   | 10    | 9.3   |
| 13    |     | 21    | 25   | 17   | 20    | 62    | 106   | 73      | 13    | 5.3   | 9.4   | 14    |
| 14    |     | 24    | 23   | 17   | 36    | 61    | 119   | 112     | 14    | 5.1   | 7.1   | 54    |
| 15    |     | 33    | 20   | 17   | 51    | 65    | 127   | 102     | 12    | 5.1   | 6.3   | 77    |
| 16    |     | 45    | 18   | 18   | 55    | 92    | 118   | 100     | 9.6   | 5.1   | 6.5   | 56    |
| 17    |     | 41    | 22   | 17   | 57    | 110   | 106   | 118     | 11    | 5.1   | 6.3   | 40    |
| 18    |     | 35    | 21   | 15   | 48    | 96    | 92    | 102     | 10    | 5.8   | 5.7   | 45    |
| 19    |     | 30    | 21   | 15   | 46    | 86    | 81    | 78      | 8.6   | 7.2   | 5.3   | 68    |
| 20    |     | 35    | 25   | 14   | 52    | 80    | 76    | 68      | 8.0   | 11    | 5.2   | 55    |
| 21    |     | 55    | 27   | 14   | 60    | 82    | 75    | 64      | 7.6   | 9.9   | 5.5   | 60    |
| 22    |     | 45    | 24   | 14   | 68    | 77    | 76    | 52      | 7.1   | 7.4   | 5.6   | 73    |
| 23    |     | 53    | 23   | 15   | 68    | 74    | 71    | 4.0     | 7.7   | 6.3   | 5.6   | 61    |
| 24    |     | 49    | 24   | 15   | 65    | 71    | 65    | 4.4     | 8.2   | 5.7   | 5.3   | 51    |
| 25    |     | 40    | 23   | 15   | 67    | 66    | 63    | 5.3     | 9.3   | 5.7   | 5.3   | 43    |
| 26    |     | 35    | 22   | 16   | 64    | 63    | 63    | 5.8     | 19    | 5.7   | 5.3   | 35    |
| 27    |     | 33    | 20   | 19   | 71    | 62    | 63    | 11      | 17    | 5.7   | 5.3   | 36    |
| 28    |     | 32    | 19   | 22   | 108   | 62    | 61    | 30      | 10    | 5.6   | 37    | 36    |
| 29    |     | 33    | 18   | 19   | ----- | 64    | 67    | 37      | 7.8   | 5.4   | 116   | 32    |
| 30    |     | 34    | 17   | 17   | ----- | 69    | 72    | 43      | 7.1   | 5.4   | 61    | 28    |
| 31    |     | ----- | 16   | 17   | ----- | 70    | ----- | 47      | ----- | 6.5   | 30    | ----- |
| TOTAL |     | 885   | 723  | 564  | 1,129 | 2,425 | 2,723 | 1,961.5 | 460.0 | 204.4 | 535.8 | 985.5 |
| MEAN  |     | 29.5  | 23.3 | 18.2 | 40.3  | 78.2  | 90.8  | 63.3    | 15.3  | 6.59  | 17.3  | 32.9  |
| MAX   |     | 55    | 35   | 32   | 108   | 119   | 127   | 118     | 45    | 12    | 116   | 77    |
| MIN   |     | 14    | 16   | 14   | 13    | 61    | 61    | 4.0     | 7.1   | 5.1   | 5.2   | 7.3   |
| CFSM  |     | 1.14  | .90  | .71  | 1.56  | 3.03  | 3.52  | 2.45    | .59   | .26   | .67   | 1.28  |
| IN.   |     | 1.28  | 1.04 | .81  | 1.63  | 3.50  | 3.93  | 2.83    | .66   | .29   | .77   | 1.42  |

## HUDSON RIVER BASIN

01329000 Batten Kill at Arlington, Vt.

LOCATION.--Lat 43°04'38", long 73°09'26", Bennington County, on left bank 5 ft upstream from bridge on Highway 313 at Arlington and 0.9 mile downstream from Warm Brook.

DRAINAGE AREA.--152 sq mi.

PERIOD OF RECORD.--October 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 597.68 ft above mean sea level, unadjusted. Prior to Nov. 18, 1941, nonrecording gage at downstream side of bridge at same datum.

AVERAGE DISCHARGE.--43 years, 326 cfs (29.13 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,210 cfs May 13 (gage height, 6.83 ft); minimum, 66 cfs Aug. 27.

Period of record: Maximum discharge, 11,100 cfs Mar. 18, 1936 (gage height, 11.3 ft, from floodmarks, present site), from rating curve extended above 5,200 cfs on basis of slope-area measurement at gage height 10.8 ft and computation of peak flow over dam; minimum, 37 cfs Sept. 25 1964.

REMARKS.--Records good except those for winter period, which are fair. Prior to 1949, diurnal fluctuation at low flow caused by mill above station.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 851: 1936 (maximum gage height). WSP 1302: 1929-34(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|--------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 340    | 198   | 317   | 156   | 115   | 269   | 239    | 805    | 288   | 172   | 178   | 159   |
| 2     | 290    | 190   | 276   | 160   | 115   | 227   | 334    | 907    | 265   | 251   | 150   | 129   |
| 3     | 480    | 182   | 252   | 158   | 110   | 210   | 575    | 1,210  | 303   | 152   | 174   | 115   |
| 4     | 580    | 178   | 548   | 154   | 110   | 190   | 575    | 1,570  | 295   | 122   | 273   | 108   |
| 5     | 400    | 176   | 511   | 312   | 115   | 190   | 508    | 1,430  | 266   | 110   | 169   | 103   |
| 6     | 320    | 169   | 374   | 400   | 120   | 190   | 487    | 1,390  | 234   | 102   | 125   | 104   |
| 7     | 280    | 162   | 300   | 280   | 130   | 190   | 486    | 1,410  | 216   | 98    | 108   | 100   |
| 8     | 250    | 156   | 239   | 224   | 135   | 186   | 442    | 1,580  | 201   | 92    | 96    | 94    |
| 9     | 230    | 151   | 268   | 225   | 139   | 175   | 426    | 1,960  | 235   | 89    | 88    | 71    |
| 10    | 215    | 150   | 276   | 220   | 130   | 170   | 556    | 1,830  | 196   | 85    | 82    | 86    |
| 11    | 205    | 200   | 245   | 207   | 125   | 169   | 569    | 1,760  | 178   | 83    | 99    | 82    |
| 12    | 200    | 189   | 232   | 190   | 127   | 167   | 580    | 1,740  | 170   | 82    | 122   | 132   |
| 13    | 210    | 171   | 227   | 155   | 148   | 164   | 929    | 1,980  | 163   | 80    | 93    | 140   |
| 14    | 205    | 163   | 223   | 182   | 260   | 166   | 1,200  | 1,740  | 155   | 101   | 83    | 144   |
| 15    | 450    | 225   | 202   | 181   | 245   | 281   | 1,040  | 1,280  | 148   | 114   | 79    | 224   |
| 16    | 904    | 289   | 190   | 160   | 166   | 904   | 819    | 1,060  | 143   | 96    | 79    | 183   |
| 17    | 483    | 234   | 194   | 150   | 155   | 748   | 674    | 925    | 136   | 91    | 75    | 156   |
| 18    | 336    | 200   | 211   | 145   | 159   | 530   | 624    | 870    | 129   | 105   | 72    | 133   |
| 19    | 291    | 216   | 202   | 135   | 157   | 425   | 639    | 826    | 124   | 111   | 69    | 122   |
| 20    | 258    | 330   | 225   | 130   | 159   | 381   | 943    | 743    | 120   | 201   | 68    | 109   |
| 21    | 234    | 580   | 202   | 125   | 165   | 341   | 1,110  | 775    | 118   | 131   | 70    | 210   |
| 22    | 268    | 447   | 196   | 130   | 154   | 304   | 1,090  | 991    | 127   | 103   | 69    | 180   |
| 23    | 548    | 565   | 195   | 130   | 152   | 282   | 924    | 686    | 116   | 92    | 73    | 133   |
| 24    | 499    | 456   | 189   | 125   | 151   | 265   | 739    | 533    | 109   | 86    | 75    | 115   |
| 25    | 357    | 322   | 185   | 120   | 147   | 248   | 759    | 477    | 141   | 86    | 68    | 103   |
| 26    | 300    | 272   | 179   | 120   | 146   | 238   | 681    | 549    | 348   | 83    | 69    | 93    |
| 27    | 273    | 259   | 175   | 140   | 245   | 233   | 642    | 487    | 185   | 100   | 71    | 95    |
| 28    | 251    | 272   | 170   | 135   | 346   | 233   | 633    | 440    | 137   | 94    | 744   | 95    |
| 29    | 233    | 337   | 165   | 130   | ----- | 234   | 755    | 391    | 120   | 83    | 1,060 | 98    |
| 30    | 218    | 338   | 165   | 125   | ----- | 236   | 797    | 347    | 112   | 126   | 414   | 91    |
| 31    | 206    | ----- | 160   | 120   | ----- | 232   | -----  | 323    | ----- | 148   | 219   | ----- |
| TOTAL | 10,314 | 7,777 | 7,493 | 5,324 | 4,446 | 8,778 | 20,875 | 33,015 | 5,478 | 3,469 | 5,213 | 3,732 |
| MEAN  | 333    | 259   | 242   | 172   | 159   | 283   | 696    | 1,065  | 183   | 112   | 168   | 124   |
| MAX   | 904    | 580   | 548   | 400   | 346   | 904   | 1,200  | 1,980  | 348   | 251   | 1,060 | 224   |
| MIN   | 200    | 150   | 160   | 120   | 110   | 164   | 239    | 323    | 109   | 80    | 68    | 82    |
| CFSM  | 2.19   | 1.70  | 1.59  | 1.13  | 1.05  | 1.86  | 4.58   | 7.01   | 1.20  | .74   | 1.11  | .82   |
| IN.   | 2.52   | 1.90  | 1.83  | 1.30  | 1.09  | 2.15  | 5.11   | 8.08   | 1.34  | .85   | 1.28  | .91   |

CAL YR 1970 TOTAL 116,781 MEAN 320 MAX 2,280 MIN 70 CFSM 2.11 IN 28.58  
WTR YR 1971 TOTAL 115,914 MEAN 318 MAX 1,980 MIN 68 CFSM 2.09 IN 28.37

## PEAK DISCHARGE (BASE, 2,200 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-13 | 1700 | 6.83  | 2,210     |      |      |       |           |



01331400 Dry Brook near Adams, Mass.

LOCATION.--Lat 42°35'20", long 73°06'48", Berkshire County, on right bank 20 ft upstream from bridge on State Highway 116, just south of junction of Wells Road and State Highway 116, and 2.5 miles south of Adams.

DRAINAGE AREA.--7.53 sq mi.

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

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

AVERAGE DISCHARGE.--8 years (1963-71), 13.3 cfs (23.99 inches per year).

EXTREMES.--Current year: Maximum discharge, 919 cfs Aug. 28 (gage height, 4.81 ft), from rating curve extended above 250 cfs; minimum, 0.23 cfs Nov. 9, 10 (caused by unknown regulation).  
Period of record: Maximum discharge, 984 cfs July 19, 1966 (gage height, 5.03 ft), from rating curve extended above 250 cfs; no flow Sept. 9-11, 15-20, 1964, part of June 28, 1965, Aug. 10, 14-20, 1970.

REMARKS.--Records good except those for winter period, which are fair. Recording rain gage at station since May 1963 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV   | DEC   | JAN   | FEB    | MAR   | APR   | MAY     | JUN   | JUL    | AUG   | SEP   |
|-------|--------|-------|-------|-------|--------|-------|-------|---------|-------|--------|-------|-------|
| 1     | 1.3    | 2.5   | 4.1   | 2.5   | 1.4    | 14    | 12    | 49      | 6.2   | 23     | 3.4   | 4.4   |
| 2     | .93    | 2.5   | 3.2   | 2.6   | 1.3    | 11    | 20    | 49      | 5.0   | 29     | 2.7   | 3.2   |
| 3     | 3.7    | 2.4   | 2.7   | 2.6   | 1.2    | 9.8   | 58    | 89      | 5.6   | 8.0    | 4.7   | 2.7   |
| 4     | 5.3    | 2.4   | 16    | 2.5   | 1.2    | 8.5   | 48    | 96      | 5.0   | 3.9    | 6.5   | 2.5   |
| 5     | 2.7    | 2.9   | 9.8   | 6.5   | 1.2    | 8.5   | 38    | 52      | 4.1   | 2.5    | 3.9   | 2.0   |
| 6     | 1.9    | 3.3   | 7.5   | 13    | 1.2    | 8.5   | 32    | 46      | 3.8   | 2.0    | 2.4   | 1.9   |
| 7     | 1.5    | 1.8   | 6.0   | 9.0   | 1.2    | 8.4   | 28    | 35      | 3.4   | 1.8    | 1.9   | 1.9   |
| 8     | 1.5    | .46   | 5.0   | 6.0   | 1.1    | 8.0   | 23    | 42      | 3.8   | 1.4    | 1.6   | 1.8   |
| 9     | 1.1    | .39   | 7.5   | 5.0   | 1.2    | 7.6   | 27    | 72      | 6.8   | 1.4    | 1.2   | 2.0   |
| 10    | 1.5    | .30   | 5.7   | 4.5   | 1.0    | 7.5   | 42    | 70      | 3.9   | 1.3    | 1.2   | 1.7   |
| 11    | 1.0    | 1.1   | 4.8   | 4.0   | .93    | 7.6   | 48    | 46      | 3.4   | 1.1    | 14    | 1.4   |
| 12    | 1.5    | 1.1   | 4.3   | 3.4   | .98    | 7.1   | 75    | 27      | 3.1   | 1.2    | 18    | 8.9   |
| 13    | 1.5    | .95   | 4.0   | 2.9   | 2.5    | 6.8   | 122   | 94      | 2.7   | 1.1    | 5.6   | 7.5   |
| 14    | 1.5    | .93   | 3.6   | 3.1   | 15     | 6.8   | 83    | 67      | 2.9   | 1.3    | 3.1   | 19    |
| 15    | 5.3    | 5.5   | 3.1   | 3.3   | 12     | 15    | 58    | 30      | 2.4   | 1.1    | 2.3   | 17    |
| 16    | 11     | 6.8   | 2.7   | 2.9   | 10     | 49    | 44    | 26      | 2.4   | 1.1    | 2.0   | 9.3   |
| 17    | 5.7    | 3.7   | 3.0   | 2.6   | 8.5    | 31    | 41    | 24      | 2.2   | 1.1    | 1.8   | 17    |
| 18    | 4.1    | 2.4   | 3.8   | 2.3   | 7.5    | 28    | 47    | 19      | 1.8   | .97    | 1.7   | 8.9   |
| 19    | 3.3    | 3.0   | 3.6   | 2.1   | 7.1    | 20    | 85    | 15      | 1.7   | 2.4    | 1.4   | 6.2   |
| 20    | 2.6    | 4.5   | 5.0   | 2.0   | 6.8    | 16    | 111   | 12      | 1.6   | 3.1    | 1.4   | 4.7   |
| 21    | 2.4    | 7.6   | 4.0   | 1.9   | 7.1    | 13    | 87    | 15      | 1.7   | 2.0    | 1.4   | 22    |
| 22    | 6.2    | 4.4   | 3.0   | 2.0   | 6.8    | 13    | 61    | 19      | 2.2   | 1.6    | 2.3   | 12    |
| 23    | 15     | 11    | 3.5   | 1.8   | 6.8    | 12    | 56    | 13      | 1.7   | 1.4    | 2.2   | 9.0   |
| 24    | 8.9    | 5.6   | 3.2   | 1.7   | 6.5    | 10    | 61    | 10      | 1.4   | 1.1    | 1.8   | 7.2   |
| 25    | 5.8    | 3.9   | 3.2   | 1.8   | 6.2    | 9.0   | 52    | 9.3     | 3.1   | 1.1    | 1.6   | 6.0   |
| 26    | 4.7    | 2.9   | 3.1   | 1.9   | 6.2    | 8.5   | 39    | 9.7     | 12    | 1.1    | 1.4   | 5.5   |
| 27    | 4.3    | 2.5   | 3.0   | 1.9   | 32     | 8.3   | 46    | 9.3     | 4.1   | 1.1    | 2.4   | 5.3   |
| 28    | 3.7    | 2.9   | 2.9   | 1.9   | 22     | 9.0   | 51    | 11      | 2.3   | .81    | 208   | 4.8   |
| 29    | 3.5    | 3.5   | 2.7   | 1.8   | -----  | 9.7   | 62    | 8.4     | 1.8   | 2.3    | 54    | 4.8   |
| 30    | 3.1    | 5.0   | 2.7   | 1.6   | -----  | 10    | 52    | 6.8     | 2.0   | 5.9    | 15    | 4.3   |
| 31    | 2.7    | ----- | 2.5   | 1.5   | -----  | 9.3   | ----- | 7.5     | ----- | 4.4    | 6.8   | ----- |
| TOTAL | 119.23 | 98.23 | 139.2 | 102.6 | 176.91 | 390.9 | 1,609 | 1,079.0 | 104.1 | 111.58 | 377.7 | 204.9 |
| MEAN  | 3.85   | 3.27  | 4.49  | 3.31  | 6.32   | 12.6  | 53.6  | 34.8    | 3.47  | 3.60   | 12.2  | 6.83  |
| MAX   | 15     | 11    | 16    | 13    | 32     | 49    | 122   | 96      | 12    | 29     | 208   | 22    |
| MIN   | .93    | .30   | 2.5   | 1.5   | .93    | 6.8   | 12    | 6.8     | 1.4   | .81    | 1.2   | 1.4   |
| CFSM  | .51    | .43   | .60   | .44   | .84    | 1.67  | 7.12  | 4.62    | .46   | .48    | 1.62  | .91   |
| IN.   | .59    | .49   | .69   | .51   | .87    | 1.93  | 7.95  | 5.33    | .51   | .55    | 1.87  | 1.01  |

CAL YR 1970 TOTAL 4,565.29 MEAN 12.5 MAX 122 MIN 0 CFSM 1.66 IN 22.55  
WTR YR 1971 TOTAL 4,513.35 MEAN 12.4 MAX 208 MIN .30 CFSM 1.65 IN 22.30

## PEAK DISCHARGE (BASE, 300 CFS, REVISED)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 7-1  | 1630 | 3.85  | 329       |      |      |       |           |
| 8-28 | 1045 | 4.81  | 919       |      |      |       |           |

01331500 Hoosic River at Adams, Mass.

LOCATION.--Lat 42°36'37", long 73°07'32", Berkshire County, on right bank at Adams, just downstream from Dry Brook and 0.5 mile upstream from Pecks Brook.

DRAINAGE AREA.--46.3 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 836.01 ft above mean sea level; prior to Oct. 1, 1964, datum was 1.00 ft higher.

AVERAGE DISCHARGE.--40 years, 88.4 cfs (25.93 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 504 cfs Aug. 28 (gage height, 3.41 ft); minimum, 17 cfs July 19; minimum daily, 18 cfs Feb. 3, July 16, Aug. 26.

Period of record: Maximum discharge, 5,080 cfs Sept. 21, 1938 (gage height, 9.25 ft, present datum), from rating curve extended above 1,100 cfs on basis of computation of peak flow over dam; minimum daily, 8.0 cfs Aug. 31, Sept. 1, 1968.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Diversion above station for municipal supply of Adams. See table below for figures of diversion. Some diurnal fluctuation by mill above station prior to 1961. Flow regulated by Cheshire Reservoir 5.1 miles upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| 1     | 28   | 47    | 37    | 29    | 21    | 71    | 62    | 217   | 56    | 58   | 40    | 29    |
| 2     | 27   | 47    | 33    | 30    | 20    | 66    | 73    | 217   | 62    | 140  | 33    | 26    |
| 3     | 33   | 47    | 31    | 31    | 18    | 62    | 168   | 287   | 52    | 55   | 36    | 23    |
| 4     | 42   | 36    | 71    | 34    | 19    | 56    | 187   | 354   | 50    | 42   | 49    | 23    |
| 5     | 30   | 31    | 55    | 60    | 20    | 53    | 153   | 274   | 43    | 38   | 36    | 21    |
| 6     | 28   | 31    | 43    | 62    | 20    | 58    | 145   | 229   | 41    | 34   | 31    | 19    |
| 7     | 27   | 33    | 36    | 48    | 19    | 75    | 138   | 209   | 40    | 31   | 28    | 20    |
| 8     | 26   | 35    | 33    | 43    | 20    | 75    | 126   | 192   | 43    | 28   | 26    | 20    |
| 9     | 25   | 35    | 35    | 41    | 21    | 71    | 119   | 200   | 49    | 26   | 24    | 22    |
| 10    | 21   | 39    | 35    | 39    | 20    | 69    | 163   | 229   | 40    | 24   | 22    | 20    |
| 11    | 21   | 36    | 35    | 37    | 19    | 69    | 187   | 184   | 37    | 23   | 32    | 19    |
| 12    | 20   | 34    | 35    | 35    | 20    | 67    | 232   | 160   | 36    | 22   | 73    | 60    |
| 13    | 20   | 34    | 36    | 32    | 27    | 64    | 315   | 238   | 36    | 21   | 36    | 49    |
| 14    | 20   | 33    | 35    | 32    | 60    | 56    | 354   | 315   | 35    | 22   | 31    | 69    |
| 15    | 33   | 49    | 35    | 34    | 70    | 64    | 247   | 195   | 33    | 19   | 28    | 66    |
| 16    | 36   | 44    | 33    | 32    | 45    | 122   | 226   | 158   | 32    | 18   | 25    | 52    |
| 17    | 25   | 37    | 32    | 31    | 36    | 119   | 214   | 148   | 30    | 19   | 24    | 66    |
| 18    | 23   | 35    | 34    | 30    | 32    | 83    | 223   | 124   | 29    | 19   | 23    | 50    |
| 19    | 21   | 41    | 35    | 29    | 33    | 71    | 262   | 115   | 27    | 26   | 21    | 42    |
| 20    | 19   | 50    | 38    | 28    | 35    | 69    | 361   | 106   | 25    | 32   | 21    | 37    |
| 21    | 20   | 60    | 38    | 27    | 36    | 64    | 357   | 108   | 27    | 25   | 21    | 64    |
| 22    | 32   | 46    | 35    | 27    | 34    | 58    | 308   | 126   | 31    | 24   | 23    | 49    |
| 23    | 37   | 58    | 35    | 26    | 32    | 62    | 259   | 106   | 25    | 22   | 22    | 41    |
| 24    | 28   | 43    | 36    | 25    | 31    | 73    | 244   | 93    | 23    | 21   | 20    | 37    |
| 25    | 24   | 38    | 34    | 26    | 31    | 69    | 229   | 87    | 26    | 21   | 19    | 33    |
| 26    | 23   | 37    | 35    | 27    | 36    | 66    | 195   | 83    | 60    | 21   | 18    | 33    |
| 27    | 22   | 34    | 34    | 27    | 75    | 66    | 189   | 77    | 32    | 20   | 22    | 31    |
| 28    | 22   | 37    | 31    | 26    | 87    | 64    | 198   | 77    | 28    | 19   | 244   | 31    |
| 29    | 22   | 37    | 29    | 25    | ----- | 64    | 235   | 69    | 27    | 23   | 163   | 30    |
| 30    | 22   | 41    | 28    | 24    | ----- | 62    | 226   | 64    | 26    | 47   | 58    | 27    |
| 31    | 35   | ----- | 28    | 23    | ----- | 62    | ----- | 66    | ----- | 46   | 38    | ----- |
| TOTAL | 812  | 1,205 | 1,120 | 1,020 | 937   | 2,150 | 6,395 | 5,107 | 1,101 | 986  | 1,287 | 1,109 |
| MEAN  | 26.2 | 40.2  | 36.1  | 32.9  | 33.5  | 69.4  | 213   | 165   | 36.7  | 31.8 | 41.5  | 37.0  |
| MAX   | 42   | 60    | 71    | 62    | 87    | 122   | 361   | 354   | 62    | 140  | 244   | 69    |
| MIN   | 19   | 31    | 28    | 23    | 18    | 53    | 62    | 64    | 23    | 18   | 18    | 19    |
| (†)   | 3.06 | 2.99  | 3.11  | 2.88  | 3.01  | 3.53  | 3.03  | 2.98  | 3.13  | 3.63 | 3.67  | 3.69  |

CAL YR 1970 TOTAL 25,460 MEAN 69.8 MAX 467 MIN 14 MEAN† 72.9 CFSM† 1.57 IN† 21.37  
WTR YR 1971 TOTAL 23,229 MEAN 63.6 MAX 361 MIN 18 MEAN† 66.9 CFSM† 1.44 IN† 19.61

PEAK DISCHARGE (BASE, 900 CFS).--No peak above base.

† Diversion, in cubic feet per second, for municipal supply of Adams; records furnished by Adams Fire and Water District.

‡ Adjusted for diversion.

NOTE.--No gage-height record Jan. 10 to Feb. 23.

01332000 North Branch Hoosic River at North Adams, Mass.

LOCATION.--Lat 42°42'08", long 73°05'37", Berkshire County, on left bank at North Adams, 0.4 mile downstream from Hudson Brook, and 1.5 miles upstream from mouth.

DRAINAGE AREA.--39.0 sq mi.

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

GAGE.--Water-stage recorder. Concrete control at present site. Datum of gage is 820.46 ft above mean sea level. Prior to Sept. 23, 1938, at site 100 ft upstream at same datum. July 9, 1959, to July 29, 1960, nonrecording gage at site 500 ft upstream at datum about 4.6 ft lower.

AVERAGE DISCHARGE.--40 years, 93.0 cfs (32.38 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,470 cfs Aug. 28 (gage height, 8.38 ft); minimum, 5.5 cfs June 17; minimum daily, 8.3 cfs June 20, Aug. 26.

Period of record: Maximum discharge, 8,950 cfs Sept. 21, 1938 (gage height, 12.05 ft, from floodmarks), by computation of peak flow over dam; minimum, 1.7 cfs July 30, 1965; minimum daily, 3.1 cfs July 30, 1965.

Flood in November 1927 reached a discharge of 9,980 cfs, by computation of flow over dam.

REMARKS.--Records good. Occasional diurnal fluctuation at low flow by mill above station prior to 1963; more frequent fluctuation prior to 1948.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 781: 1933(M). WSP 801: 1928(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| CAY         | OCT            | NOV       | DEC     | JAN     | FEB       | MAR      | APR   | MAY   | JUN   | JUL   | AUG     | SEP   |
|-------------|----------------|-----------|---------|---------|-----------|----------|-------|-------|-------|-------|---------|-------|
| 1           | 54             | 39        | 96      | 34      | 22        | 78       | 55    | 320   | 46    | 85    | 44      | 36    |
| 2           | 46             | 36        | 81      | 36      | 20        | 67       | 74    | 350   | 40    | 123   | 34      | 27    |
| 3           | 99             | 34        | 70      | 34      | 19        | 60       | 181   | 370   | 46    | 50    | 49      | 22    |
| 4           | 144            | 32        | 252     | 35      | 19        | 52       | 181   | 670   | 41    | 30    | 85      | 19    |
| 5           | 83             | 31        | 173     | 70      | 20        | 53       | 156   | 450   | 34    | 22    | 47      | 17    |
| 6           | 63             | 29        | 118     | 78      | 21        | 53       | 140   | 420   | 29    | 18    | 29      | 17    |
| 7           | 52             | 27        | 88      | 50      | 20        | 52       | 129   | 370   | 27    | 19    | 20      | 18    |
| 8           | 44             | 25        | 67      | 45      | 21        | 49       | 108   | 390   | 27    | 15    | 16      | 17    |
| 9           | 39             | 23        | 79      | 44      | 23        | 46       | 113   | 540   | 47    | 13    | 14      | 17    |
| 10          | 34             | 23        | 74      | 50      | 21        | 46       | 160   | 450   | 29    | 12    | 12      | 15    |
| 11          | 32             | 39        | 61      | 46      | 20        | 46       | 181   | 350   | 23    | 11    | 67      | 13    |
| 12          | 30             | 34        | 60      | 40      | 21        | 43       | 305   | 290   | 19    | 11    | 69      | 95    |
| 13          | 31             | 30        | 58      | 33      | 32        | 41       | 502   | 500   | 17    | 9.7   | 31      | 63    |
| 14          | 30             | 28        | 54      | 36      | 91        | 43       | 530   | 450   | 17    | 12    | 20      | 76    |
| 15          | 99             | 67        | 46      | 39      | 89        | 58       | 320   | 266   | 15    | 12    | 15      | 91    |
| 16          | 128            | 93        | 39      | 33      | 58        | 135      | 250   | 200   | 15    | 11    | 14      | 72    |
| 17          | 81             | 61        | 41      | 33      | 47        | 115      | 196   | 167   | 12    | 11    | 13      | 69    |
| 18          | 65             | 49        | 52      | 31      | 43        | 87       | 217   | 135   | 9.7   | 12    | 11      | 56    |
| 19          | 60             | 58        | 47      | 29      | 43        | 74       | 397   | 115   | 8.7   | 38    | 10      | 47    |
| 20          | 51             | 91        | 60      | 28      | 44        | 76       | 680   | 100   | 8.3   | 56    | 9.7     | 38    |
| 21          | 46             | 180       | 51      | 27      | 43        | 67       | 610   | 126   | 26    | 23    | 10      | 108   |
| 22          | 72             | 115       | 41      | 28      | 40        | 60       | 410   | 160   | 41    | 15    | 10      | 78    |
| 23          | 141            | 162       | 46      | 27      | 40        | 58       | 330   | 113   | 17    | 13    | 9.7     | 56    |
| 24          | 102            | 115       | 43      | 27      | 40        | 55       | 280   | 93    | 13    | 12    | 11      | 46    |
| 25          | 77             | 86        | 43      | 27      | 38        | 52       | 310   | 89    | 50    | 11    | 8.7     | 36    |
| 26          | 67             | 72        | 42      | 30      | 38        | 50       | 250   | 80    | 156   | 11    | 8.3     | 32    |
| 27          | 61             | 67        | 40      | 29      | 85        | 50       | 230   | 76    | 47    | 10    | 9.7     | 29    |
| 28          | 54             | 74        | 39      | 30      | 105       | 53       | 260   | 70    | 27    | 11    | 604     | 28    |
| 29          | 49             | 93        | 36      | 28      | -----     | 56       | 350   | 61    | 19    | 12    | 814     | 29    |
| 30          | 44             | 112       | 36      | 26      | -----     | 55       | 320   | 55    | 16    | 58    | 82      | 26    |
| 31          | 41             | -----     | 33      | 24      | -----     | 53       | ----- | 55    | ----- | 49    | 52      | ----- |
| TOTAL       | 2,019          | 1,925     | 2,066   | 1,131   | 1,123     | 1,883    | 8,225 | 7,881 | 922.7 | 795.7 | 2,229.1 | 1,293 |
| MEAN        | 65.1           | 64.2      | 66.6    | 36.5    | 40.1      | 60.7     | 274   | 254   | 30.8  | 25.7  | 71.9    | 43.1  |
| MAX         | 144            | 180       | 252     | 78      | 105       | 135      | 680   | 670   | 156   | 123   | 814     | 108   |
| MIN         | 30             | 23        | 33      | 24      | 19        | 41       | 55    | 55    | 8.3   | 9.7   | 8.3     | 13    |
| CFSM        | 1.67           | 1.65      | 1.71    | .54     | 1.03      | 1.56     | 7.03  | 6.51  | .79   | .66   | 1.84    | 1.11  |
| IN.         | 1.93           | 1.84      | 1.97    | 1.08    | 1.07      | 1.80     | 7.85  | 7.52  | .88   | .76   | 2.13    | 1.23  |
| CAL YR 1970 | TOTAL 33,525.6 | MEAN 91.9 | MAX 838 | MIN 5.6 | CFSM 2.36 | IN 31.98 |       |       |       |       |         |       |
| WTR YR 1971 | TOTAL 31,493.5 | MEAN 86.3 | MAX 814 | MIN 8.3 | CFSM 2.21 | IN 30.04 |       |       |       |       |         |       |

## PEAK DISCHARGE (BASE, 1,300 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 8-28 | 1200 | 8.38  | 1,470     |      |      |       |           |

## HUDSON RIVER BASIN

01332500 Hoosic River near Williamstown, Mass.

LOCATION.--Lat 42°42'21", long 73°10'50", Berkshire County, on left bank 1.0 mile upstream from Green River and 1.2 miles east of Williamstown.

DRAINAGE AREA.--132 sq mi.

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

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

AVERAGE DISCHARGE.--31 years, 262 cfs (26.95 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,530 cfs Aug. 28 (gage height, 5.82 ft), from rating curve extended above 1,600 cfs on basis of slope-area measurement of peak flow; minimum, 52 cfs July 12, 15-19, 27, 28, Aug. 25-27; minimum daily, 52 cfs July 16-18, Aug. 26.

Period of record: Maximum discharge, 13,000 cfs Dec. 31, 1948 (gage height, 14.85 ft), from rating curve extended above 4,300 cfs on basis of contracted-opening measurement of peak flow; minimum, 5.8 cfs Aug. 30, 31, Oct. 26, 1940; minimum daily, 25 cfs (corrected) Sept. 2, 1968.

REMARKS.--Records good except those for winter period, which are fair. Slight diurnal fluctuation at low flow prior to 1966 caused by mills above station. Some regulation by Cheshire Reservoir 17 miles upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 120   | 117   | 192   | 111   | 90    | 273   | 215    | 785    | 158   | 280   | 137   | 144   |
| 2     | 111   | 117   | 171   | 110   | 84    | 234   | 288    | 838    | 147   | 429   | 110   | 127   |
| 3     | 160   | 117   | 153   | 114   | 78    | 201   | 670    | 1,160  | 147   | 168   | 123   | 116   |
| 4     | 243   | 117   | 450   | 114   | 78    | 175   | 635    | 1,610  | 133   | 116   | 197   | 116   |
| 5     | 153   | 107   | 322   | 220   | 80    | 193   | 535    | 1,070  | 127   | 103   | 127   | 110   |
| 6     | 130   | 104   | 247   | 270   | 84    | 182   | 488    | 974    | 116   | 94    | 103   | 107   |
| 7     | 120   | 95    | 190   | 190   | 78    | 189   | 461    | 871    | 110   | 84    | 91    | 103   |
| 8     | 114   | 98    | 155   | 170   | 82    | 186   | 394    | 898    | 130   | 72    | 81    | 107   |
| 9     | 104   | 98    | 178   | 160   | 86    | 179   | 381    | 1,160  | 147   | 69    | 75    | 110   |
| 10    | 95    | 101   | 174   | 157   | 82    | 179   | 535    | 1,060  | 120   | 64    | 69    | 91    |
| 11    | 92    | 120   | 157   | 160   | 78    | 172   | 580    | 821    | 110   | 55    | 151   | 84    |
| 12    | 92    | 114   | 153   | 157   | 82    | 168   | 816    | 680    | 103   | 55    | 242   | 246   |
| 13    | 95    | 111   | 147   | 130   | 100   | 161   | 1,190  | 1,150  | 97    | 55    | 116   | 186   |
| 14    | 95    | 107   | 143   | 135   | 220   | 165   | 1,430  | 1,120  | 100   | 69    | 91    | 223   |
| 15    | 174   | 160   | 133   | 150   | 300   | 227   | 871    | 675    | 103   | 55    | 78    | 253   |
| 16    | 224   | 213   | 120   | 125   | 200   | 479   | 725    | 540    | 97    | 52    | 75    | 197   |
| 17    | 157   | 164   | 127   | 120   | 133   | 425   | 605    | 488    | 94    | 52    | 72    | 223   |
| 18    | 133   | 140   | 140   | 115   | 133   | 328   | 645    | 403    | 84    | 52    | 69    | 179   |
| 19    | 127   | 143   | 136   | 110   | 136   | 284   | 865    | 352    | 84    | 103   | 67    | 151   |
| 20    | 114   | 192   | 157   | 105   | 133   | 273   | 1,350  | 308    | 87    | 144   | 64    | 133   |
| 21    | 111   | 318   | 147   | 105   | 133   | 246   | 1,380  | 344    | 137   | 81    | 61    | 269   |
| 22    | 143   | 224   | 115   | 105   | 130   | 219   | 1,080  | 434    | 147   | 72    | 64    | 201   |
| 23    | 239   | 298   | 140   | 100   | 130   | 212   | 800    | 328    | 87    | 67    | 64    | 151   |
| 24    | 188   | 235   | 133   | 100   | 130   | 215   | 745    | 288    | 78    | 64    | 58    | 133   |
| 25    | 147   | 181   | 127   | 105   | 127   | 204   | 800    | 269    | 130   | 61    | 55    | 120   |
| 26    | 133   | 160   | 127   | 110   | 127   | 197   | 635    | 253    | 420   | 61    | 52    | 116   |
| 27    | 127   | 153   | 123   | 110   | 273   | 197   | 605    | 238    | 130   | 55    | 61    | 110   |
| 28    | 117   | 160   | 120   | 105   | 324   | 197   | 655    | 230    | 100   | 55    | 1,060 | 107   |
| 29    | 114   | 185   | 115   | 105   | ----- | 208   | 849    | 204    | 94    | 72    | 650   | 107   |
| 30    | 107   | 221   | 115   | 100   | ----- | 208   | 790    | 182    | 91    | 179   | 280   | 103   |
| 31    | 107   | ----- | 110   | 95    | ----- | 204   | -----  | 175    | ----- | 165   | 182   | ----- |
| TOTAL | 4,186 | 4,670 | 5,017 | 4,063 | 3,711 | 6,580 | 22,018 | 19,908 | 3,708 | 3,103 | 4,725 | 4,423 |
| MEAN  | 135   | 156   | 162   | 131   | 133   | 225   | 734    | 642    | 124   | 100   | 152   | 147   |
| MAX   | 243   | 318   | 450   | 270   | 324   | 479   | 1,430  | 1,610  | 420   | 429   | 1,060 | 269   |
| MIN   | 92    | 95    | 110   | 95    | 78    | 161   | 215    | 175    | 78    | 52    | 52    | 84    |
| CFSM  | 1.02  | 1.18  | 1.23  | .99   | 1.01  | 1.70  | 5.56   | 4.86   | .94   | .76   | 1.15  | 1.11  |
| IN.   | 1.18  | 1.32  | 1.41  | 1.15  | 1.05  | 1.97  | 6.21   | 5.61   | 1.04  | .87   | 1.33  | 1.25  |

|             |       |        |      |     |     |       |     |    |      |      |    |       |
|-------------|-------|--------|------|-----|-----|-------|-----|----|------|------|----|-------|
| CAL YR 1970 | TOTAL | 54,767 | MEAN | 260 | MAX | 1,940 | MIN | 60 | CFSM | 1.97 | IN | 26.71 |
| WTR YR 1971 | TOTAL | 86,512 | MEAN | 237 | MAX | 1,610 | MIN | 52 | CFSM | 1.80 | IN | 24.38 |

## PEAK DISCHARGE (BASE, 2,400 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 8-28 | 1300 | 5.82  | 2,530     |      |      |       |           |

01333000 Green River at Williamstown, Mass.

LOCATION.--Lat 42°42'32", long 73°11'50", Berkshire County, on left bank 0.1 mile upstream from bridge on State Highway 2 at Williamstown and 0.8 mile upstream from mouth.

DRAINAGE AREA.--42.6 sq mi.

PERIOD OF RECORD.--September 1949 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 615 ft (from topographic map).

AVERAGE DISCHARGE.--22 years, 75.9 cfs (24.20 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,100 cfs Aug. 28 (gage height, 3.77 ft, from peak-stage indicator); minimum, 8.1 cfs Aug. 25, 26, 27. Period of record: Maximum discharge, 2,730 cfs June 15, 1969 (gage height, 4.94 ft), from rating curve extended above 750 cfs on basis of slope-area measurement at gage height 4.94 ft; maximum gage height, 5.94 ft Sept. 12, 1960; minimum discharge, 3.1 cfs Sept. 20, 22, 24, 25, 1964. Flood of Dec. 31, 1948, reached a stage of about 7.5 ft, from floodmarks.

REMARKS.--Records good except those for winter period, which are fair. Slight diurnal fluctuation at times caused by mill above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT            | NOV       | DEC     | JAN     | FEB       | MAR      | APR   | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------------|----------------|-----------|---------|---------|-----------|----------|-------|-------|-------|------|-------|-------|
| 1           | 15             | 22        | 45      | 28      | 24        | 135      | 87    | 207   | 53    | 151  | 24    | 34    |
| 2           | 13             | 21        | 43      | 29      | 23        | 121      | 171   | 206   | 48    | 96   | 23    | 30    |
| 3           | 22             | 20        | 40      | 29      | 22        | 108      | 343   | 316   | 49    | 54   | 26    | 27    |
| 4           | 31             | 20        | 104     | 29      | 21        | 97       | 282   | 420   | 45    | 41   | 30    | 25    |
| 5           | 23             | 19        | 85      | 76      | 22        | 88       | 250   | 319   | 40    | 34   | 23    | 23    |
| 6           | 20             | 19        | 76      | 56      | 23        | 87       | 228   | 279   | 37    | 31   | 19    | 22    |
| 7           | 19             | 18        | 63      | 45      | 23        | 84       | 219   | 247   | 35    | 28   | 16    | 21    |
| 8           | 17             | 18        | 52      | 50      | 23        | 74       | 183   | 261   | 58    | 25   | 15    | 20    |
| 9           | 16             | 16        | 60      | 46      | 26        | 67       | 184   | 294   | 52    | 23   | 13    | 21    |
| 10          | 15             | 16        | 59      | 52      | 24        | 64       | 231   | 287   | 38    | 20   | 12    | 19    |
| 11          | 14             | 20        | 50      | 45      | 23        | 60       | 232   | 245   | 34    | 19   | 35    | 17    |
| 12          | 14             | 18        | 48      | 41      | 24        | 58       | 279   | 215   | 31    | 18   | 34    | 65    |
| 13          | 14             | 18        | 46      | 37      | 39        | 55       | 403   | 384   | 31    | 17   | 20    | 37    |
| 14          | 13             | 17        | 44      | 36      | 117       | 58       | 571   | 334   | 29    | 21   | 16    | 64    |
| 15          | 27             | 36        | 41      | 39      | 64        | 172      | 347   | 250   | 27    | 17   | 15    | 67    |
| 16          | 34             | 45        | 35      | 36      | 55        | 319      | 277   | 217   | 25    | 16   | 14    | 56    |
| 17          | 26             | 34        | 37      | 35      | 52        | 199      | 229   | 193   | 24    | 18   | 13    | 56    |
| 18          | 23             | 30        | 41      | 32      | 49        | 155      | 207   | 167   | 22    | 16   | 11    | 48    |
| 19          | 22             | 31        | 41      | 31      | 50        | 135      | 225   | 144   | 20    | 33   | 10    | 43    |
| 20          | 20             | 38        | 52      | 29      | 54        | 128      | 296   | 127   | 19    | 29   | 10    | 38    |
| 21          | 20             | 79        | 41      | 29      | 61        | 112      | 333   | 144   | 38    | 19   | 11    | 98    |
| 22          | 26             | 60        | 37      | 29      | 55        | 101      | 288   | 143   | 36    | 16   | 11    | 62    |
| 23          | 46             | 94        | 41      | 28      | 53        | 92       | 232   | 117   | 24    | 14   | 11    | 52    |
| 24          | 40             | 70        | 38      | 26      | 49        | 84       | 207   | 103   | 22    | 13   | 9.3   | 45    |
| 25          | 35             | 55        | 37      | 26      | 47        | 76       | 215   | 96    | 61    | 13   | 8.5   | 40    |
| 26          | 32             | 49        | 35      | 30      | 48        | 71       | 197   | 87    | 81    | 13   | 8.8   | 37    |
| 27          | 29             | 47        | 34      | 31      | 150       | 70       | 177   | 82    | 37    | 11   | 12    | 34    |
| 28          | 27             | 46        | 28      | 29      | 153       | 71       | 178   | 76    | 30    | 11   | 308   | 32    |
| 29          | 26             | 46        | 28      | 29      | -----     | 75       | 225   | 67    | 26    | 14   | 102   | 31    |
| 30          | 24             | 48        | 27      | 28      | -----     | 75       | 217   | 62    | 23    | 34   | 59    | 29    |
| 31          | 23             | -----     | 27      | 26      | -----     | 76       | ----- | 60    | ----- | 29   | 42    | ----- |
| TOTAL       | 726            | 1,070     | 1,435   | 1,112   | 1,374     | 3,167    | 7,463 | 6,149 | 1,095 | 894  | 961.6 | 1,192 |
| MEAN        | 23.4           | 35.7      | 46.3    | 35.9    | 49.1      | 102      | 249   | 198   | 36.5  | 28.8 | 31.0  | 39.7  |
| MAX         | 46             | 94        | 104     | 76      | 153       | 319      | 521   | 420   | 81    | 151  | 308   | 98    |
| MIN         | 13             | 16        | 27      | 26      | 21        | 55       | 87    | 60    | 19    | 11   | 8.5   | 17    |
| CFSM        | .55            | .84       | 1.09    | .84     | 1.15      | 2.39     | 5.85  | 4.65  | .86   | .68  | .73   | .93   |
| IN.         | .63            | .93       | 1.25    | .97     | 1.20      | 2.77     | 6.52  | 5.37  | .96   | .78  | .84   | 1.04  |
| CAL YR 1970 | TOTAL 26,745.6 | MEAN 73.3 | MAX 777 | MIN 4.7 | CFSM 1.72 | IN 23.36 |       |       |       |      |       |       |
| WTR YR 1971 | TOTAL 26,638.6 | MEAN 73.0 | MAX 521 | MIN 8.5 | CFSM 1.71 | IN 23.26 |       |       |       |      |       |       |

## PEAK DISCHARGE (BASE, 650 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-13 | 1515 | 3.29  | 663       |      |      |       |           |
| 7-1  | 1745 | 3.31  | 678       |      |      |       |           |
| 8-28 | -    | 3.77  | 1,100     |      |      |       |           |

01334000 Walloomsac River near North Bennington, Vt.

LOCATION.--Lat 42°54'47", long 73°15'25", Bennington County, on left bank 0.6 mile downstream from Paran Creek and 1.4 miles south of North Bennington.

DRAINAGE AREA.--111 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 525 ft (from topographic map).

AVERAGE DISCHARGE.--40 years, 212 cfs (25.94 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,740 cfs July 1 (gage height, 7.76 ft); minimum, 45 cfs Aug. 25, 26, 27; minimum daily, 46 cfs Aug. 25, 26.

Period of record: Maximum discharge, 8,450 cfs Sept. 21, 1938 (gage height, 12.04 ft), from rating curve extended above 2,800 cfs on basis of contracted-opening measurements at gage heights 10.13, 10.49, 11.50, and 12.04 ft and slope-area measurement and computation of flow over dam at gage height 12.04 ft; minimum, 4 cfs Sept. 27, 1932; minimum daily, 21 cfs Sept. 22, 23, 1964, July 12, 1965.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Occasional diurnal fluctuation at low flow caused by mills above station; diurnal fluctuation greater prior to 1960. Diversion above station for municipal supply of Bennington and North Bennington since 1961. See table below for figures of diversion.

REVISIONS (WATER YEARS).--WSP 781: 1933(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT          | NOV   | DEC      | JAN       | FEB    | MAR       | APR      | MAY      | JUN   | JUL   | AUG   | SEP   |
|-------------|--------------|-------|----------|-----------|--------|-----------|----------|----------|-------|-------|-------|-------|
| 1           | 193          | 121   | 201      | 105       | 78     | 261       | 173      | 595      | 166   | 949   | 180   | 110   |
| 2           | 164          | 116   | 178      | 110       | 76     | 210       | 264      | 666      | 151   | 761   | 126   | 94    |
| 3           | 295          | 111   | 162      | 110       | 74     | 181       | 484      | 916      | 183   | 262   | 127   | 86    |
| 4           | 363          | 108   | 374      | 104       | 75     | 157       | 415      | 1,280    | 171   | 160   | 195   | 82    |
| 5           | 236          | 106   | 317      | 230       | 78     | 155       | 348      | 928      | 146   | 126   | 125   | 76    |
| 6           | 188          | 101   | 236      | 240       | 82     | 150       | 322      | 949      | 132   | 108   | 97    | 73    |
| 7           | 164          | 97    | 194      | 190       | 98     | 147       | 325      | 951      | 123   | 100   | 83    | 68    |
| 8           | 147          | 94    | 155      | 150       | 98     | 141       | 297      | 1,070    | 125   | 88    | 74    | 67    |
| 9           | 134          | 90    | 175      | 145       | 96     | 130       | 281      | 1,330    | 172   | 81    | 57    | 67    |
| 10          | 125          | 89    | 178      | 140       | 92     | 127       | 396      | 1,140    | 127   | 75    | 63    | 62    |
| 11          | 113          | 100   | 160      | 135       | 90     | 124       | 373      | 1,090    | 110   | 71    | 132   | 58    |
| 12          | 113          | 95    | 155      | 125       | 92     | 121       | 459      | 989      | 102   | 68    | 168   | 157   |
| 13          | 118          | 93    | 151      | 100       | 110    | 119       | 664      | 1,580    | 100   | 64    | 97    | 141   |
| 14          | 117          | 89    | 149      | 120       | 200    | 131       | 859      | 1,180    | 95    | 103   | 76    | 125   |
| 15          | 261          | 147   | 132      | 120       | 180    | 320       | 574      | 738      | 91    | 86    | 66    | 196   |
| 16          | 570          | 206   | 115      | 105       | 140    | 588       | 475      | 605      | 86    | 75    | 64    | 148   |
| 17          | 289          | 154   | 125      | 100       | 115    | 393       | 405      | 516      | 79    | 73    | 58    | 129   |
| 18          | 219          | 125   | 140      | 95        | 120    | 296       | 387      | 456      | 77    | 89    | 55    | 114   |
| 19          | 195          | 127   | 135      | 90        | 135    | 249       | 439      | 405      | 74    | 109   | 52    | 100   |
| 20          | 170          | 184   | 159      | 86        | 115    | 233       | 717      | 352      | 71    | 157   | 49    | 86    |
| 21          | 156          | 298   | 140      | 84        | 125    | 210       | 802      | 411      | 78    | 100   | 53    | 266   |
| 22          | 198          | 222   | 130      | 86        | 120    | 192       | 644      | 520      | 98    | 78    | 50    | 186   |
| 23          | 310          | 269   | 125      | 86        | 120    | 184       | 504      | 367      | 79    | 68    | 48    | 129   |
| 24          | 240          | 226   | 124      | 82        | 115    | 171       | 439      | 301      | 70    | 63    | 51    | 109   |
| 25          | 192          | 177   | 122      | 78        | 109    | 157       | 516      | 275      | 95    | 62    | 46    | 93    |
| 26          | 170          | 156   | 118      | 78        | 109    | 152       | 463      | 275      | 275   | 60    | 46    | 89    |
| 27          | 157          | 151   | 115      | 90        | 281    | 153       | 436      | 260      | 128   | 75    | 50    | 84    |
| 28          | 147          | 170   | 110      | 87        | 333    | 159       | 433      | 240      | 90    | 71    | 639   | 82    |
| 29          | 138          | 229   | 105      | 85        | -----  | 165       | 580      | 212      | 77    | 66    | 595   | 80    |
| 30          | 131          | 221   | 100      | 83        | -----  | 166       | 578      | 193      | 70    | 168   | 226   | 76    |
| 31          | 126          | ----- | 100      | 80        | -----  | 163       | -----    | 186      | ----- | 160   | 143   | ----- |
| TOTAL       | 6,145        | 4,472 | 4,880    | 3,519     | 3,426  | 6,105     | 14,052   | 20,976   | 3,441 | 4,576 | 3,901 | 3,233 |
| MEAN        | 198          | 149   | 157      | 114       | 122    | 197       | 468      | 677      | 115   | 148   | 126   | 108   |
| MAX         | 570          | 298   | 374      | 240       | 333    | 588       | 859      | 1,580    | 275   | 949   | 639   | 266   |
| MIN         | 113          | 89    | 100      | 78        | 74     | 119       | 173      | 186      | 70    | 60    | 46    | 58    |
| CFSM        | 1.78         | 1.34  | 1.41     | 1.03      | 1.10   | 1.77      | 4.22     | 6.10     | 1.04  | 1.33  | 1.14  | .97   |
| IN.         | 2.06         | 1.50  | 1.64     | 1.18      | 1.15   | 2.05      | 4.71     | 7.03     | 1.15  | 1.53  | 1.31  | 1.08  |
| (†)         | 3.22         | 3.02  | 3.30     | 3.23      | 3.52   | 4.68      | 4.65     | 5.18     | 3.41  | 3.49  | 2.77  | 3.00  |
| CAL YR 1970 | TOTAL 75,363 |       | MEAN 206 | MAX 1,390 | MIN 36 | CFSM 1.86 | IN 25.26 | (†) 3.66 |       |       |       |       |
| WTR YR 1971 | TOTAL 78,726 |       | MEAN 216 | MAX 1,580 | MIN 46 | CFSM 1.95 | IN 26.38 | (†) 3.62 |       |       |       |       |

## PEAK DISCHARGE (BASE, 2,000 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-13 | 1815 | 6.12  | 2,400     |      |      |       |           |
| 7-1  | 1930 | 7.76  | 3,740     |      |      |       |           |

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

NOTE.--No gage-height record Jan. 5 to Feb. 23.



## ST. LAWRENCE RIVER BASIN

04280000 Poultney River below Fair Haven, Vt.

LOCATION.--Lat 43°37'40", long 73°18'50", Rutland County, on right bank 0.3 mile downstream from Carver Falls, 1.9 miles upstream from Hubbardton River, and 3.2 miles northwest of Fair Haven.

DRAINAGE AREA.--187 sq mi.

PERIOD OF RECORD.--October 1928 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 105 ft (from topographic map).

AVERAGE DISCHARGE.--43 years, 229 cfs (16.63 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,420 cfs Aug. 29 (gage height, 11.04 ft); minimum daily, 5.2 cfs July 13.

Period of record: Maximum discharge, 14,800 cfs July 20, 1945 (gage height, 24.36 ft, from high-water mark in gage well), from rating curve extended above 2,400 cfs on basis of computations of peak flow over dam at gage heights 16.10, 21.40, and 24.36 ft; minimum daily, 2.1 cfs Aug. 8, 1965.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplant above station and by Lake Bomoseen.

REVISIONS (WATER YEARS).--WSP 1114: 1929(M), 1932-35.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN     | JUL     | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|--------|--------|--------|---------|---------|-------|-------|
| 1     | 191   | 63    | 160   | 145   | 110   | 300    | 383    | 464    | 199     | 35      | 179   | 540   |
| 2     | 187   | 65    | 145   | 120   | 105   | 350    | 508    | 418    | 171     | 72      | 147   | 388   |
| 3     | 78    | 65    | 140   | 120   | 95    | 330    | 1,030  | 557    | 137     | 19      | 208   | 238   |
| 4     | 107   | 65    | 225   | 115   | 75    | 320    | 1,580  | 789    | 149     | 28      | 467   | 172   |
| 5     | 113   | 52    | 263   | 115   | 70    | 320    | 1,290  | 770    | 119     | 30      | 267   | 154   |
| 6     | 56    | 50    | 192   | 140   | 80    | 310    | 1,190  | 593    | 61      | 56      | 200   | 105   |
| 7     | 51    | 26    | 188   | 150   | 75    | 300    | 1,130  | 531    | 104     | 21      | 171   | 96    |
| 8     | 32    | 52    | 147   | 150   | 80    | 300    | 1,030  | 496    | 89      | 6.6     | 100   | 87    |
| 9     | 39    | 54    | 182   | 120   | 85    | 290    | 962    | 484    | 98      | 14      | 97    | 83    |
| 10    | 30    | 29    | 167   | 150   | 90    | 280    | 1,080  | 447    | 106     | 18      | 62    | 79    |
| 11    | 19    | 45    | 158   | 150   | 85    | 270    | 1,100  | 406    | 87      | 18      | 72    | 53    |
| 12    | 43    | 49    | 145   | 120   | 80    | 260    | 1,310  | 363    | 70      | 58      | 124   | 69    |
| 13    | 28    | 28    | 140   | 120   | 85    | 250    | 1,540  | 341    | 67      | 5.2     | 81    | 228   |
| 14    | 43    | 40    | 130   | 140   | 100   | 240    | 1,700  | 335    | 64      | 8.6     | 63    | 177   |
| 15    | 50    | 45    | 140   | 120   | 110   | 260    | 1,340  | 296    | 66      | 12      | 53    | 163   |
| 16    | 84    | 76    | 125   | 100   | 180   | 550    | 1,020  | 238    | 63      | 97      | 51    | 158   |
| 17    | 72    | 81    | 135   | 120   | 175   | 750    | 880    | 204    | 40      | 18      | 44    | 132   |
| 18    | 51    | 78    | 125   | 130   | 170   | 714    | 817    | 184    | 55      | 26      | 40    | 139   |
| 19    | 61    | 71    | 125   | 120   | 175   | 615    | 815    | 171    | 34      | 67      | 36    | 171   |
| 20    | 52    | 80    | 125   | 110   | 155   | 582    | 1,090  | 159    | 33      | 253     | 30    | 105   |
| 21    | 58    | 135   | 130   | 100   | 155   | 534    | 1,190  | 164    | 35      | 119     | 32    | 99    |
| 22    | 44    | 107   | 115   | 85    | 160   | 476    | 1,100  | 394    | 66      | 77      | 32    | 98    |
| 23    | 119   | 142   | 100   | 80    | 155   | 447    | 974    | 286    | 34      | 37      | 51    | 89    |
| 24    | 152   | 169   | 140   | 100   | 150   | 418    | 858    | 238    | 34      | 47      | 65    | 84    |
| 25    | 84    | 132   | 120   | 120   | 150   | 386    | 815    | 213    | 28      | 45      | 45    | 57    |
| 26    | 109   | 104   | 90    | 110   | 135   | 366    | 775    | 366    | 86      | 62      | 39    | 69    |
| 27    | 85    | 94    | 160   | 105   | 150   | 355    | 739    | 355    | 94      | 32      | 69    | 75    |
| 28    | 77    | 110   | 160   | 105   | 250   | 343    | 590    | 299    | 53      | 86      | 677   | 73    |
| 29    | 69    | 147   | 140   | 120   | ----- | 341    | 510    | 263    | 6.6     | 43      | 1,990 | 45    |
| 30    | 69    | 142   | 105   | 100   | ----- | 343    | 554    | 225    | 48      | 97      | 973   | 62    |
| 31    | 51    | ----- | 150   | 110   | ----- | 360    | -----  | 201    | -----   | 77      | 699   | ----- |
| TOTAL | 2,304 | 2,396 | 4,567 | 3,690 | 3,485 | 11,960 | 29,900 | 11,250 | 2,296.6 | 1,584.4 | 7,164 | 4,088 |
| MEAN  | 74.3  | 79.9  | 147   | 119   | 124   | 386    | 997    | 363    | 76.6    | 51.1    | 231   | 136   |
| MAX   | 191   | 169   | 263   | 150   | 250   | 750    | 1,700  | 789    | 199     | 253     | 1,990 | 540   |
| MIN   | 19    | 26    | 90    | 80    | 70    | 240    | 383    | 159    | 6.6     | 5.2     | 30    | 45    |
| CFSM  | .40   | .43   | .79   | .64   | .66   | 2.06   | 5.33   | 1.94   | .41     | .27     | 1.24  | .73   |
| IN.   | .46   | .48   | .91   | .73   | .69   | 2.38   | 5.95   | 2.24   | .46     | .32     | 1.43  | .81   |

CAL YR 1970 TOTAL 71,673.7 MEAN 196 MAX 2,600 MIN 4.0 CFSM 1.05 IN 14.26  
 WTR YR 1971 TOTAL 84,685.0 MEAN 232 MAX 1,990 MIN 5.2 CFSM 1.24 IN 16.85

PEAK DISCHARGE (BASE, 2,600 CFS).--No peak above base.

04280300 Mettawee River tributary near Pawlet, Vt.

LOCATION.--Lat 43°19'43", long 73°10'23", Rutland County, on left bank 20 ft downstream from culvert on State Highway 30, 400 ft upstream from mouth, and 1.2 miles south of Pawlet.

DRAINAGE AREA.--2.95 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 650 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 2.77 cfs (12.75 inches per year).

EXTREMES.--Current year: Maximum discharge, 23 cfs Apr. 13 (gage height, 3.61 ft), from rating curve extended above 11 cfs; minimum, 0.23 cfs Aug. 11, 19, 20, 25, 26.

Period of record: Maximum discharge, 266 cfs July 21, 1967 (gage height, 4.82 ft), from rating curve extended above 19 cfs on basis of measurement of peak flow through culvert; no flow July 25-28, July 31 to Aug. 7, 1964, July 27, 28, Aug. 4, 1965.

REMARKS.--Records fair. Recording rain gage at station since April 1964 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN  | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 1.3   | 1.3   | 2.9  | 1.6  | 1.2   | 3.6   | 5.1   | 8.6   | 3.9   | 1.2   | .55   | .43   |
| 2     | .92   | 1.3   | 2.9  | 1.6  | 1.0   | 3.0   | 8.3   | 8.6   | 3.6   | 1.0   | .43   | .38   |
| 3     | 3.4   | 1.3   | 2.9  | 1.6  | 1.0   | 2.7   | 14    | 9.9   | 3.4   | 1.0   | .49   | .38   |
| 4     | 2.6   | 1.2   | 5.5  | 1.6  | 1.0   | 2.6   | 15    | 11    | 3.1   | 1.0   | .55   | .43   |
| 5     | 2.2   | .92   | 3.9  | 3.4  | 1.0   | 2.6   | 11    | 9.5   | 2.9   | .92   | .49   | .43   |
| 6     | 1.8   | .92   | 3.9  | 2.9  | .92   | 2.7   | 9.9   | 8.3   | 2.6   | .70   | .49   | 2.2   |
| 7     | 1.6   | .92   | 3.9  | 2.9  | .70   | 2.8   | 8.3   | 6.9   | 2.4   | .62   | .38   | .92   |
| 8     | 1.5   | .92   | 2.9  | 2.9  | .70   | 2.7   | 9.0   | 6.5   | 3.6   | .55   | .38   | .55   |
| 9     | 1.5   | .80   | 3.4  | 2.6  | .92   | 2.6   | 10    | 6.5   | 2.6   | .55   | .34   | .49   |
| 10    | 1.2   | .70   | 3.6  | 2.6  | .70   | 2.6   | 13    | 5.8   | 2.2   | .49   | .30   | .38   |
| 11    | 1.0   | 1.0   | 3.4  | 2.4  | .70   | 2.5   | 14    | 5.1   | 2.0   | .49   | .38   | .43   |
| 12    | 1.0   | .80   | 3.1  | 2.4  | .70   | 2.5   | 14    | 4.9   | 1.8   | .49   | .34   | 1.3   |
| 13    | 1.5   | .70   | 2.9  | 2.6  | 1.6   | 2.6   | 17    | 5.5   | 1.6   | .43   | .34   | 1.8   |
| 14    | 1.3   | .62   | 2.9  | 4.4  | 2.4   | 3.0   | 20    | 5.1   | 1.2   | .55   | .34   | 1.2   |
| 15    | 1.5   | 1.5   | 2.6  | 2.9  | 2.0   | 6.0   | 16    | 4.9   | 1.0   | .62   | .38   | 2.6   |
| 16    | 1.5   | 1.2   | 1.8  | 2.6  | 1.8   | 13    | 14    | 4.6   | 1.0   | .62   | .34   | 1.5   |
| 17    | 1.3   | .92   | 3.1  | 2.4  | 1.8   | 11    | 13    | 4.4   | 1.0   | .70   | .30   | 1.4   |
| 18    | 1.3   | .80   | 2.9  | 2.3  | 1.6   | 9.0   | 11    | 4.1   | .92   | .55   | .30   | 1.3   |
| 19    | 1.3   | 1.2   | 2.9  | 2.2  | 1.5   | 7.5   | 11    | 3.9   | .80   | .92   | .26   | 1.2   |
| 20    | 1.2   | 1.0   | 3.1  | 2.1  | 1.5   | 6.9   | 12    | 3.6   | 1.8   | .80   | .23   | 1.0   |
| 21    | 1.2   | 2.0   | 2.4  | 2.0  | 1.6   | 6.3   | 15    | 5.5   | 3.4   | .70   | .26   | 2.6   |
| 22    | 1.3   | 1.6   | 1.6  | 1.8  | 1.5   | 5.8   | 13    | 5.5   | 1.6   | .62   | .30   | 1.5   |
| 23    | 2.4   | 3.6   | 1.8  | 1.6  | 1.5   | 5.3   | 11    | 4.6   | 1.3   | .43   | .38   | 1.3   |
| 24    | 1.6   | 2.9   | 2.4  | 1.5  | 1.4   | 4.8   | 9.9   | 4.1   | 1.3   | .38   | .38   | 1.3   |
| 25    | 1.6   | 2.6   | 2.6  | 1.5  | 1.4   | 4.6   | 9.9   | 4.9   | 2.4   | .38   | .23   | 1.3   |
| 26    | 1.5   | 2.6   | 2.4  | 1.6  | 1.5   | 4.4   | 9.0   | 8.6   | 2.2   | .38   | .26   | 1.3   |
| 27    | 1.3   | 2.6   | 2.4  | 1.5  | 2.3   | 4.3   | 8.6   | 6.9   | 1.3   | .43   | .34   | 1.3   |
| 28    | 1.3   | 3.1   | 2.0  | 1.4  | 4.2   | 4.4   | 8.3   | 6.2   | .92   | .34   | 3.1   | 1.3   |
| 29    | 1.3   | 3.1   | 2.0  | 1.3  | ----- | 4.5   | 10    | 5.5   | .80   | .55   | 1.5   | 1.2   |
| 30    | 1.3   | 3.4   | 2.0  | 1.2  | ----- | 4.8   | 9.5   | 4.6   | .80   | .62   | .55   | 1.0   |
| 31    | 1.3   | ----- | 1.8  | 1.2  | ----- | 4.9   | ----- | 4.4   | ----- | 2.0   | .49   | ----- |
| TOTAL | 47.02 | 47.52 | 87.9 | 66.6 | 40.14 | 146.0 | 349.8 | 188.5 | 59.44 | 21.03 | 15.40 | 34.42 |
| MEAN  | 1.52  | 1.58  | 2.84 | 2.15 | 1.43  | 4.71  | 11.7  | 6.08  | 1.98  | .68   | .50   | 1.15  |
| MAX   | 3.4   | 3.6   | 5.5  | 4.4  | 4.2   | 13    | 20    | 11    | 3.9   | 2.0   | 3.1   | 2.6   |
| MIN   | .92   | .62   | 1.6  | 1.2  | .70   | 2.5   | 5.1   | 3.6   | .80   | .34   | .23   | .38   |
| CFSM  | .52   | .54   | .96  | .73  | .48   | 1.60  | 3.97  | 2.06  | .67   | .23   | .17   | .39   |
| IN.   | .59   | .60   | 1.11 | .84  | .51   | 1.84  | 4.41  | 2.38  | .75   | .27   | .19   | .43   |

CAL YR 1970 TOTAL 1,273.93 MEAN 3.49 MAX 28 MIN .20 CFSM 1.18 IN 16.06

WTR YR 1971 TOTAL 1,103.77 MEAN 3.02 MAX 20 MIN .23 CFSM 1.02 IN 13.92

PEAK DISCHARGE (BASE, 40 CFS).--No peak above base.

NOTE.--No gage-height record Feb. 20 to Mar. 29.

## 04281500 East Creek at Rutland, Vt.

LOCATION.--Lat 43°37'43", long 72°59'22", Rutland County, on left bank on grounds of Rutland Country Club, at Rutland, 280 ft downstream from Grove Street Bridge and 2 miles upstream from mouth.

DRAINAGE AREA.--51.1 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 570 ft (from topographic map).

AVERAGE DISCHARGE.--31 years, 95.5 cfs (25.38 inches per year), adjusted for diversion and storage.

EXTREMES.--Current year: Maximum discharge, 1,170 cfs Aug. 28 (gage height, 3.82 ft), from rating curve extended above 490 cfs on basis of computation of flow over dam and slope-area measurement at gage height 7.10 ft; minimum daily, 17 cfs July 6, 7.

Period of record: Maximum discharge, 36,500 cfs June 3, 1947 (gage height, 20.3 ft, from high-water mark in gage house), mean of two slope-area measurements, caused by failure of East Pittsford Dam 5.8 miles upstream; minimum daily, 3.1 cfs Nov. 8, 1947.

REMARKS.--Records good except those for winter period, which are fair. Diversion above station from Mendon Brook for municipal supply of Rutland. Flow regulated by powerplants and by Chittenden Reservoir 11 miles upstream (usable capacity, 819,800,000 cu ft); prior to June 3, 1947, also regulated by East Pittsford Reservoir (usable capacity, 150,000,000 cu ft). See table below for figures of diversion and monthend contents in Chittenden Reservoir.

REVISIONS (WATER YEARS).--WSP 1307: 1941-42(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY    | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1      | 65    | 30    | 85    | 41    | 60    | 111   | 160   | 199   | 75    | 21    | 39    | 39    |
| 2      | 24    | 63    | 77    | 34    | 70    | 92    | 195   | 230   | 85    | 24    | 97    | 31    |
| 3      | 60    | 53    | 75    | 23    | 55    | 56    | 216   | 400   | 104   | 19    | 148   | 26    |
| 4      | 73    | 69    | 106   | 70    | 70    | 31    | 154   | 436   | 101   | 18    | 139   | 23    |
| 5      | 40    | 55    | 53    | 114   | 45    | 29    | 122   | 310   | 59    | 18    | 79    | 25    |
| 6      | 106   | 47    | 48    | 122   | 25    | 37    | 109   | 270   | 44    | 17    | 78    | 24    |
| 7      | 92    | 23    | 81    | 57    | 23    | 40    | 99    | 262   | 96    | 17    | 37    | 28    |
| 8      | 55    | 23    | 61    | 95    | 81    | 38    | 101   | 242   | 84    | 20    | 41    | 23    |
| 9      | 45    | 44    | 109   | 48    | 67    | 133   | 101   | 286   | 112   | 19    | 67    | 22    |
| 10     | 33    | 23    | 117   | 33    | 71    | 169   | 145   | 223   | 95    | 19    | 87    | 22    |
| 11     | 30    | 26    | 104   | 65    | 73    | 173   | 136   | 230   | 95    | 18    | 77    | 21    |
| 12     | 34    | 30    | 51    | 50    | 61    | 163   | 227   | 282   | 51    | 19    | 80    | 19    |
| 13     | 90    | 29    | 45    | 73    | 29    | 45    | 298   | 310   | 35    | 38    | 56    | 63    |
| 14     | 50    | 21    | 77    | 59    | 53    | 33    | 306   | 238   | 26    | 55    | 28    | 42    |
| 15     | 111   | 31    | 97    | 104   | 55    | 133   | 209   | 136   | 55    | 46    | 24    | 66    |
| 16     | 106   | 69    | 95    | 38    | 88    | 315   | 202   | 122   | 41    | 29    | 55    | 94    |
| 17     | 48    | 31    | 99    | 31    | 55    | 242   | 145   | 157   | 21    | 21    | 82    | 101   |
| 18     | 45    | 50    | 95    | 69    | 79    | 202   | 142   | 145   | 21    | 24    | 69    | 51    |
| 19     | 61    | 88    | 50    | 73    | 75    | 192   | 230   | 139   | 20    | 128   | 69    | 28    |
| 20     | 79    | 60    | 47    | 55    | 35    | 114   | 351   | 145   | 20    | 126   | 55    | 70    |
| 21     | 73    | 63    | 75    | 48    | 34    | 56    | 324   | 163   | 20    | 92    | 26    | 90    |
| 22     | 73    | 51    | 111   | 22    | 85    | 125   | 282   | 179   | 20    | 74    | 25    | 86    |
| 23     | 104   | 95    | 101   | 22    | 85    | 182   | 216   | 99    | 21    | 58    | 78    | 83    |
| 24     | 53    | 90    | 81    | 22    | 83    | 179   | 160   | 114   | 20    | 27    | 65    | 72    |
| 25     | 41    | 60    | 48    | 60    | 83    | 179   | 182   | 120   | 18    | 23    | 74    | 30    |
| 26     | 52    | 41    | 45    | 90    | 75    | 179   | 157   | 176   | 58    | 59    | 76    | 22    |
| 27     | 51    | 38    | 30    | 50    | 60    | 176   | 179   | 139   | 28    | 84    | 80    | 84    |
| 28     | 65    | 40    | 104   | 70    | 85    | 179   | 199   | 136   | 20    | 80    | 424   | 66    |
| 29     | 65    | 58    | 88    | 45    | ----- | 176   | 227   | 81    | 18    | 67    | 206   | 41    |
| 30     | 61    | 90    | 90    | 23    | ----- | 179   | 199   | 73    | 27    | 117   | 90    | 40    |
| 31     | 31    | ----- | 90    | 25    | ----- | 166   | ----- | 58    | ----- | 80    | 51    | ----- |
| TOTAL  | 1,956 | 1,491 | 2,439 | 1,871 | 1,800 | 4,124 | 5,773 | 6,100 | 1,490 | 1,457 | 2,602 | 1,432 |
| MEAN   | 62.1  | 48.7  | 78.7  | 60.4  | 64.3  | 133   | 192   | 197   | 49.7  | 47.0  | 83.9  | 47.7  |
| MAX    | 111   | 95    | 117   | 122   | 95    | 315   | 351   | 436   | 112   | 128   | 424   | 101   |
| MIN    | 24    | 21    | 30    | 22    | 23    | 29    | 99    | 58    | 18    | 17    | 24    | 19    |
| (†)    | 6.34  | 6.20  | 6.08  | 6.14  | 6.21  | 6.34  | 5.96  | 6.34  | 6.44  | 6.61  | 5.92  | 5.81  |
| (‡)    | 501.4 | 507.1 | 448.5 | 381.6 | 331.9 | 198.6 | 391.1 | 655.6 | 649.9 | 622.5 | 603.4 | 594.1 |
| MEAN†† | 68.9  | 58.1  | 62.9  | 41.5  | 49.9  | 89.6  | 273   | 302   | 53.9  | 43.4  | 82.7  | 50.0  |
| CFSM†† | 1.35  | 1.14  | 1.23  | .81   | .98   | 1.75  | 5.34  | 5.91  | 1.05  | .85   | 1.62  | .98   |
| IN.††  | 1.55  | 1.27  | 1.42  | .94   | 1.02  | 2.02  | 5.95  | 6.81  | 1.18  | .98   | 1.87  | 1.09  |

CAL YR 1970 TOTAL 35,864.4 MEAN 98.3 MAX 595 MIN 8.1 MEAN†† 101 CFSM†† 1.98 INT†† 26.90

WTR YR 1971 TOTAL 32,535 MEAN 89.1 MAX 436 MIN 17 MEAN†† 98.2 CFSM†† 1.92 INT†† 26.10

† Diversion, in cubic feet per second, from Mendon Brook for municipal supply of Rutland; records furnished by city of Rutland.

‡ Monthend contents, in millions of cubic feet, in Chittenden Reservoir; records furnished by Central Vermont Public Service Corp.

†† Adjusted for diversion and change in contents in Chittenden Reservoir.

## 04282000 Otter Creek at Center Rutland, Vt.

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

DRAINAGE AREA.--307 sq mi.

PERIOD OF RECORD.--May 1928 to current year.

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

AVERAGE DISCHARGE.--43 years, 528 cfs (23.36 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,080 cfs May 5 (gage height, 7.09 ft); minimum daily, 93 cfs July 12.

Period of record: Maximum discharge, 13,700 cfs Sept. 22, 1938 (gage height, 13.45 ft, present datum), from rating curve extended above 7,400 cfs on basis of computation of peak flow over dam; minimum daily, 45 cfs Sept. 21, 1947, Aug. 7, 1965.

REMARKS.--Records good. Flow regulated by powerplants and Chittenden Reservoir 14 miles upstream on East Creek (usable capacity, 819,800,000 cu ft); prior to June 3, 1947, also regulated by East Pittsford Reservoir (usable capacity, 150,000,000 cu ft). See table with station 04281500 for monthend contents in Chittenden Reservoir. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1084: 1929.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC    | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|--------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| 1     | 284   | 213   | 457    | 245   | 210   | 521    | 540    | 1,540  | 524   | 155   | 339   | 260   |
| 2     | 209   | 230   | 411    | 218   | 217   | 459    | 717    | 1,560  | 472   | 223   | 305   | 202   |
| 3     | 280   | 228   | 386    | 212   | 200   | 394    | 1,260  | 2,020  | 489   | 179   | 307   | 169   |
| 4     | 527   | 237   | 519    | 240   | 210   | 316    | 1,270  | 2,810  | 467   | 144   | 366   | 154   |
| 5     | 391   | 222   | 588    | 334   | 194   | 286    | 1,040  | 2,880  | 408   | 133   | 288   | 145   |
| 6     | 336   | 213   | 473    | 455   | 174   | 346    | 962    | 2,400  | 330   | 121   | 214   | 135   |
| 7     | 261   | 182   | 375    | 456   | 162   | 322    | 935    | 2,220  | 352   | 115   | 165   | 131   |
| 8     | 223   | 169   | 265    | 377   | 196   | 311    | 835    | 2,100  | 321   | 112   | 142   | 120   |
| 9     | 200   | 184   | 386    | 279   | 224   | 373    | 790    | 2,110  | 491   | 105   | 151   | 115   |
| 10    | 176   | 163   | 460    | 265   | 221   | 413    | 1,020  | 2,070  | 414   | 102   | 159   | 112   |
| 11    | 165   | 193   | 392    | 286   | 222   | 418    | 1,060  | 1,940  | 342   | 97    | 198   | 109   |
| 12    | 167   | 239   | 339    | 316   | 212   | 409    | 1,380  | 1,880  | 277   | 93    | 222   | 128   |
| 13    | 236   | 217   | 312    | 249   | 199   | 288    | 1,800  | 1,860  | 234   | 109   | 165   | 241   |
| 14    | 213   | 194   | 341    | 261   | 267   | 274    | 2,130  | 1,800  | 211   | 144   | 126   | 209   |
| 15    | 282   | 231   | 346    | 313   | 378   | 404    | 1,900  | 1,430  | 211   | 139   | 110   | 268   |
| 16    | 350   | 395   | 279    | 244   | 421   | 1,060  | 1,530  | 1,080  | 209   | 119   | 125   | 333   |
| 17    | 315   | 342   | 331    | 215   | 407   | 1,310  | 1,190  | 981    | 173   | 131   | 162   | 304   |
| 18    | 277   | 310   | 346    | 215   | 361   | 1,060  | 1,140  | 906    | 161   | 128   | 143   | 224   |
| 19    | 279   | 312   | 304    | 215   | 340   | 866    | 1,310  | 853    | 148   | 258   | 139   | 169   |
| 20    | 299   | 414   | 305    | 215   | 288   | 687    | 1,920  | 809    | 143   | 433   | 121   | 184   |
| 21    | 253   | 560   | 332    | 215   | 273   | 620    | 2,350  | 838    | 149   | 292   | 103   | 231   |
| 22    | 282   | 623   | 324    | 180   | 315   | 580    | 2,370  | 1,230  | 176   | 205   | 101   | 266   |
| 23    | 514   | 614   | 346    | 179   | 306   | 560    | 2,040  | 962    | 154   | 170   | 178   | 226   |
| 24    | 614   | 642   | 321    | 180   | 304   | 540    | 1,530  | 735    | 137   | 123   | 149   | 200   |
| 25    | 426   | 457   | 291    | 192   | 296   | 520    | 1,510  | 680    | 150   | 111   | 146   | 151   |
| 26    | 388   | 369   | 271    | 250   | 280   | 510    | 1,350  | 1,340  | 498   | 105   | 138   | 128   |
| 27    | 323   | 343   | 238    | 258   | 311   | 520    | 1,350  | 1,450  | 381   | 150   | 145   | 178   |
| 28    | 309   | 348   | 277    | 301   | 487   | 527    | 1,450  | 1,030  | 232   | 160   | 921   | 160   |
| 29    | 292   | 437   | 304    | 275   | ----- | 523    | 1,590  | 791    | 178   | 140   | 1,250 | 148   |
| 30    | 271   | 463   | 262    | 196   | ----- | 534    | 1,660  | 664    | 163   | 264   | 703   | 127   |
| 31    | 233   | ----- | 291    | 184   | ----- | 537    | -----  | 579    | ----- | 348   | 384   | ----- |
| TOTAL | 9,375 | 9,744 | 10,872 | 8,020 | 7,675 | 16,488 | 41,929 | 45,548 | 8,595 | 5,108 | 8,165 | 5,527 |
| MEAN  | 302   | 325   | 351    | 259   | 274   | 532    | 1,398  | 1,469  | 287   | 165   | 263   | 184   |
| MAX   | 614   | 642   | 588    | 456   | 487   | 1,310  | 2,370  | 2,880  | 524   | 433   | 1,250 | 333   |
| MIN   | 165   | 163   | 238    | 179   | 162   | 274    | 540    | 579    | 137   | 93    | 101   | 109   |
| CFSM  | .98   | 1.06  | 1.14   | .84   | .89   | 1.73   | 4.55   | 4.79   | .93   | .54   | .86   | .60   |
| IN.   | 1.14  | 1.18  | 1.32   | .97   | .93   | 2.00   | 5.08   | 5.52   | 1.04  | .62   | .99   | .67   |

CAL YR 1970 TOTAL 195,241 MEAN 535 MAX 4,160 MIN 72 CFSM 1.74 IN 23.66  
WTR YR 1971 TOTAL 177,046 MEAN 485 MAX 2,880 MIN 93 CFSM 1.58 IN 21.45

PEAK DISCHARGE (BASE, 3,400 CFS).--No peak above base.

LOCATION.--Lat 44°00'47", long 73°10'06", Addison County, on right bank 150 ft upstream from highway bridge in Middlebury, and 3.5 miles downstream from Middlebury River.

PERIOD OF RECORD.--April 1903 to April 1907, October 1910 to January 1920, October 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 335.75 ft above mean sea level. Apr. 1, 1903, to Apr. 30, 1907, and Oct. 5, 1910, to Jan. 31, 1920, nonrecording gage at site 1, 800 ft upstream at datum 10 ft lower, and Oct. 1, 1928, to Oct. 17, 1933, at present datum.

EXTREMES.--Current year: Maximum discharge, 3,460 cfs May 11 (gage height, 5.23 ft); minimum daily, 176 cfs July 11.

Period of record: Maximum discharge, 11,000 cfs Mar. 20, 21, 1936 (gauge height, 10.3 ft); minimum daily, 92 cfs Aug. 9, 1965.

Maximum discharge since at least 1830, 13,600 cfs Nov. 4, 1927 (gage height, 13.3 ft, present datum, at site 1,800 ft upstream), from rating curve

REMARKS.--Records good. Some regulation by Chittenden Reservoir (usable capacity, 819, 800,000 cu ft) on East Creek; see table with station 04281500 for monthend contents. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 434: 1903-4. WSP 684: 1913(M), drainage area. WSP 1114: 1913. WSP 1207: 1929, 1931.

| DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971 |        |         |        |        |        |        |        |        |        |       |        |        |
|--------------------------------------------------------------------------------|--------|---------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|
| DAY                                                                            | OCT    | NOV     | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL   | AUG    | SEP    |
| 1                                                                              | 599    | 359     | 855    | 509    | 370    | 967    | 1,190  | 2,930  | 1,290  | 309   | 593    | 1,480  |
| 2                                                                              | 550    | 345     | 785    | 424    | 410    | 1,010  | 1,230  | 2,900  | 1,070  | 339   | 677    | 1,130  |
| 3                                                                              | 434    | 365     | 723    | 364    | 430    | 1,020  | 1,720  | 3,020  | 863    | 358   | 947    | 799    |
| 4                                                                              | 448    | 362     | 782    | 379    | 420    | 939    | 2,070  | 3,260  | 794    | 328   | 1,250  | 614    |
| 5                                                                              | 662    | 363     | 942    | 483    | 400    | 810    | 2,160  | 3,260  | 757    | 262   | 907    | 408    |
| 6                                                                              | 595    | 352     | 926    | 541    | 380    | 705    | 2,250  | 3,240  | 697    | 246   | 699    | 627    |
| 7                                                                              | 507    | 331     | 755    | 645    | 362    | 698    | 2,300  | 3,250  | 564    | 263   | 517    | 490    |
| 8                                                                              | 429    | 253     | 550    | 670    | 342    | 680    | 2,330  | 3,310  | 557    | 248   | 359    | 468    |
| 9                                                                              | 366    | 264     | 530    | 583    | 462    | 705    | 2,370  | 3,400  | 580    | 219   | 284    | 398    |
| 10                                                                             | 319    | 319     | 668    | 448    | 495    | 716    | 2,440  | 3,430  | 635    | 194   | 338    | 337    |
| 11                                                                             | 236    | 312     | 770    | 430    | 468    | 764    | 2,470  | 3,440  | 630    | 176   | 334    | 342    |
| 12                                                                             | 255    | 248     | 714    | 470    | 473    | 782    | 2,590  | 3,410  | 537    | 182   | 348    | 309    |
| 13                                                                             | 338    | 344     | 554    | 490    | 484    | 741    | 2,700  | 3,380  | 455    | 224   | 326    | 408    |
| 14                                                                             | 357    | 359     | 521    | 463    | 513    | 663    | 2,750  | 3,310  | 386    | 249   | 296    | 594    |
| 15                                                                             | 399    | 322     | 548    | 450    | 653    | 627    | 2,710  | 3,230  | 422    | 263   | 220    | 588    |
| 16                                                                             | 580    | 448     | 540    | 450    | 755    | 980    | 2,730  | 3,140  | 381    | 270   | 221    | 562    |
| 17                                                                             | 607    | 593     | 566    | 445    | 830    | 1,350  | 2,750  | 3,030  | 381    | 261   | 263    | 588    |
| 18                                                                             | 530    | 563     | 597    | 400    | 848    | 1,440  | 2,790  | 2,900  | 321    | 216   | 221    | 575    |
| 19                                                                             | 518    | 505     | 577    | 450    | 820    | 1,470  | 2,820  | 2,740  | 293    | 213   | 220    | 457    |
| 20                                                                             | 499    | 618     | 499    | 470    | 778    | 1,470  | 2,900  | 2,560  | 236    | 517   | 211    | 387    |
| 21                                                                             | 478    | 751     | 500    | 455    | 685    | 1,410  | 2,980  | 2,390  | 273    | 629   | 200    | 440    |
| 22                                                                             | 521    | 857     | 540    | 421    | 659    | 1,360  | 3,010  | 2,280  | 318    | 483   | 189    | 440    |
| 23                                                                             | 755    | 909     | 540    | 378    | 685    | 1,330  | 2,970  | 2,130  | 300    | 358   | 254    | 440    |
| 24                                                                             | 986    | 986     | 571    | 310    | 725    | 1,300  | 2,960  | 2,020  | 292    | 308   | 438    | 424    |
| 25                                                                             | 968    | 973     | 546    | 317    | 724    | 1,270  | 3,010  | 1,900  | 283    | 320   | 345    | 398    |
| 26                                                                             | 756    | 770     | 481    | 401    | 692    | 1,220  | 3,040  | 1,860  | 430    | 238   | 322    | 295    |
| 27                                                                             | 697    | 595     | 439    | 447    | 685    | 1,180  | 3,040  | 1,830  | 627    | 284   | 295    | 249    |
| 28                                                                             | 627    | 579     | 418    | 470    | 785    | 1,150  | 3,040  | 1,810  | 585    | 306   | 1,010  | 347    |
| 29                                                                             | 593    | 731     | 495    | 504    | -----  | 1,120  | 3,040  | 1,770  | 438    | 335   | 1,840  | 347    |
| 30                                                                             | 506    | 785     | 555    | 481    | -----  | 1,120  | 2,990  | 1,700  | 365    | 506   | 1,750  | 304    |
| 31                                                                             | 437    | -----   | 558    | 400    | -----  | 1,160  | -----  | 1,540  | -----  | 563   | 1,680  | -----  |
| TOTAL                                                                          | 16,552 | 15,561  | 19,045 | 14,148 | 16,333 | 32,157 | 77,350 | 84,370 | 15,760 | 9,667 | 17,554 | 15,245 |
| MEAN                                                                           | 534    | 519     | 614    | 456    | 583    | 1,037  | 2,578  | 2,722  | 525    | 312   | 566    | 508    |
| MAX                                                                            | 986    | 986     | 942    | 670    | 848    | 1,470  | 3,040  | 3,440  | 1,290  | 629   | 1,840  | 1,480  |
| MIN                                                                            | 236    | 248     | 418    | 310    | 342    | 627    | 1,190  | 1,540  | 236    | 176   | 189    | 249    |
| CFSM                                                                           | .85    | .83     | .98    | .73    | .93    | 1.65   | 4.11   | 4.33   | .84    | .50   | .90    | .81    |
| IN.                                                                            | .98    | .92     | 1.13   | .84    | .97    | 1.90   | 4.58   | 5.00   | .93    | .57   | 1.04   | .90    |
| CAL YR 1970                                                                    | TOTAL  | 340,323 | MEAN   | 932    | MAX    | 4,370  | MIN    | 119    | CFSM   | 1.48  | IN     | 20.16  |
| WTR YR 1971                                                                    | TOTAL  | 333,742 | MEAN   | 914    | MAX    | 3,440  | MIN    | 176    | CFSM   | 1.46  | IN     | 19.77  |

04282700 Lewis Creek tributary at Starksboro, Vt.

LOCATION.--Lat 44°12'59", long 73°03'21", Addison County, on right bank 25 ft downstream from culvert on State Highway 116, 0.3 mile upstream from mouth, and 0.7 mile south of Starksboro.

DRAINAGE AREA.--5.31 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 650 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 5.70 cfs (14.58 inches per year).

EXTREMES.--Current year: Maximum discharge, 721 cfs Sept. 6 (gage height, 4.81 ft), from rating curve extended above 97 cfs; minimum, 0.27 cfs July 26, 27.

Period of record: Maximum discharge, 721 cfs Sept. 6, 1971 (gage height, 4.81 ft), from rating curve extended above 97 cfs; minimum, 0.14 cfs Sept. 21-25, 27, 1964.

REMARKS.--Records good except those for winter period, which are fair. Recording rain gage at station since July 1964 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV    | DEC   | JAN  | FEB   | MAR   | APR     | MAY   | JUN   | JUL   | AUG    | SEP    |
|-------|-------|--------|-------|------|-------|-------|---------|-------|-------|-------|--------|--------|
| 1     | .53   | 1.3    | 6.8   | 2.8  | 1.7   | 4.6   | 4.8     | 49    | 2.5   | .89   | .37    | 2.7    |
| 2     | .53   | 1.2    | 6.2   | 2.8  | 1.6   | 4.3   | 11      | 49    | 2.1   | .89   | .29    | 1.5    |
| 3     | .61   | 1.1    | 5.5   | 2.8  | 1.6   | 3.8   | 31      | 91    | 2.1   | .46   | 23     | 1.1    |
| 4     | .66   | 1.0    | 6.0   | 2.6  | 1.6   | 4.2   | 27      | 160   | 1.7   | .39   | 5.1    | .90    |
| 5     | .61   | 1.0    | 5.5   | 2.8  | 1.6   | 4.5   | 22      | 89    | 1.3   | .37   | 1.2    | .90    |
| 6     | .57   | 1.0    | 5.5   | 3.0  | 1.6   | 4.5   | 21      | 52    | 1.2   | .37   | .68    | 57     |
| 7     | .57   | .95    | 3.5   | 3.0  | 1.5   | 4.3   | 21      | 35    | .97   | .37   | .52    | 15     |
| 8     | .53   | .88    | 2.8   | 2.7  | 1.5   | 4.5   | 18      | 26    | .89   | .35   | .44    | 9.0    |
| 9     | .53   | .88    | 3.5   | 2.7  | 1.5   | 4.2   | 18      | 23    | .82   | .35   | .42    | 6.1    |
| 10    | .53   | .82    | 3.5   | 3.0  | 1.5   | 4.2   | 26      | 18    | .76   | .35   | .39    | 4.4    |
| 11    | .53   | .95    | 3.0   | 2.8  | 1.6   | 4.2   | 30      | 14    | .64   | .31   | .80    | 3.1    |
| 12    | .53   | 1.0    | 2.8   | 2.7  | 1.6   | 3.7   | 51      | 14    | .59   | .29   | .55    | 3.7    |
| 13    | .66   | .88    | 2.7   | 2.6  | 1.7   | 4.2   | 113     | 13    | .54   | .31   | .44    | 3.5    |
| 14    | .71   | 1.1    | 2.6   | 2.6  | 3.2   | 3.7   | 70      | 9.9   | .54   | .89   | .44    | 3.3    |
| 15    | 7.2   | 3.5    | 2.5   | 2.6  | 3.2   | 8.2   | 31      | 8.5   | .50   | .42   | .39    | 2.9    |
| 16    | 8.2   | 4.5    | 2.4   | 2.6  | 3.0   | 24    | 22      | 6.4   | .50   | .35   | .39    | 1.9    |
| 17    | 4.0   | 3.2    | 2.7   | 2.6  | 3.5   | 19    | 19      | 6.8   | .50   | .37   | .39    | 1.5    |
| 18    | 2.8   | 2.2    | 2.8   | 2.4  | 3.2   | 17    | 19      | 6.1   | .50   | .42   | .39    | 2.5    |
| 19    | 2.4   | 3.0    | 2.8   | 2.2  | 3.2   | 13    | 34      | 5.1   | .46   | .35   | .39    | 1.5    |
| 20    | 1.7   | 4.0    | 2.8   | 2.1  | 3.2   | 11    | 91      | 3.7   | .46   | .37   | .39    | 4.7    |
| 21    | 1.5   | 9.7    | 2.7   | 1.9  | 3.2   | 9.7   | 152     | 4.0   | 1.1   | .33   | .42    | 4.4    |
| 22    | 1.7   | 7.2    | 2.6   | 1.9  | 3.2   | 8.2   | 94      | 5.4   | .97   | .31   | .42    | 2.7    |
| 23    | 7.5   | 7.2    | 3.0   | 1.9  | 3.2   | 7.2   | 37      | 3.7   | .54   | .29   | 7.6    | 1.9    |
| 24    | 6.2   | 5.5    | 2.9   | 1.9  | 3.2   | 6.6   | 31      | 3.3   | .46   | .29   | .90    | 2.1    |
| 25    | 3.7   | 4.2    | 2.8   | 1.9  | 2.8   | 6.0   | 30      | 4.0   | .70   | .31   | .58    | 1.3    |
| 26    | 2.6   | 3.5    | 2.8   | 1.9  | 3.0   | 5.6   | 27      | 8.0   | .97   | .29   | .52    | 1.1    |
| 27    | 2.2   | 3.2    | 2.8   | 2.1  | 3.4   | 5.2   | 29      | 7.6   | .59   | .37   | .52    | .96    |
| 28    | 2.1   | 7.9    | 2.8   | 1.9  | 5.0   | 5.0   | 31      | 6.4   | .50   | .33   | 42     | .85    |
| 29    | 1.9   | 9.2    | 2.8   | 1.9  | ----- | 4.9   | 44      | 5.1   | .46   | .31   | 29     | .80    |
| 30    | 1.6   | 8.2    | 2.8   | 1.9  | ----- | 4.8   | 38      | 4.0   | .42   | .31   | 8.5    | .76    |
| 31    | 1.5   | -----  | 2.8   | 1.7  | ----- | 4.8   | -----   | 3.1   | ----- | 1.1   | 4.4    | -----  |
| TOTAL | 66.90 | 100.26 | 106.7 | 74.3 | 70.1  | 219.1 | 1,192.8 | 734.1 | 26.28 | 13.11 | 131.84 | 144.07 |
| MEAN  | 2.16  | 3.34   | 3.44  | 2.40 | 2.50  | 7.07  | 39.8    | 23.7  | .88   | .42   | 4.25   | 4.80   |
| MAX   | 8.2   | 9.7    | 6.8   | 3.0  | 5.0   | 24    | 152     | 160   | 2.5   | 1.1   | 42     | 57     |
| MIN   | .53   | .82    | 2.4   | 1.7  | 1.5   | 3.7   | 4.8     | 3.1   | .42   | .29   | .29    | .76    |
| CFSM  | .41   | .63    | .65   | .45  | .47   | 1.33  | 7.50    | 4.46  | .17   | .08   | .80    | .90    |
| IN.   | .47   | .70    | .75   | .52  | .49   | 1.53  | 8.36    | 5.14  | .18   | .09   | .92    | 1.01   |

CAL YR 1970 TOTAL 2,877.82 MEAN 7.88 MAX 137 MIN .40 CFSM 1.48 IN 20.16  
WTR YR 1971 TOTAL 2,879.56 MEAN 7.89 MAX 160 MIN .29 CFSM 1.49 IN 20.17

## PEAK DISCHARGE (BASE, 100 CFS, REVISED)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-13 | 1945 | 4.08  | 187       | 8-28 | 1400 | 4.51  | 438       |
| 4-21 | 1800 | 4.23  | 257       | 9-6  | 0130 | 4.81  | 721       |
| 5-4  | 0215 | 4.19  | 235       |      |      |       |           |
| 8-3  | 1600 | 4.17  | 226       |      |      |       |           |



## 04284000 Jail Branch at East Barre, Vt.

LOCATION.--Lat 44°09'40", long 72°27'02", Washington County, on right bank 75 ft downstream from highway bridge, at East Barre, 0.6 mile downstream from East Barre Detention Reservoir, and 3.9 miles upstream from mouth.

DRAINAGE AREA.--40.4 sq mi.

PERIOD OF RECORD.--August 1920 to September 1923, October 1933 to current year. October 1933 monthly discharge only, published in WSP 1307. Prior to October 1922, published as Jail Brook at East Barre.

GAGE.--Water-stage recorder. Datum of gage is 1,069.59 ft above mean sea level (levels by Corps of Engineers). Nov. 1, 1933, to Sept. 30, 1964, datum was 2.00 ft higher. Aug. 14, 1920, to Sept. 30, 1923, nonrecording gage at site 0.2 mile upstream at different datum. Nov. 1, 1933, to Jan. 25, 1935, nonrecording gage at present site.

AVERAGE DISCHARGE.--41 years, 52.1 cfs (17.51 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 538 cfs May 4 (gage height, 3.48 ft); minimum, 1.9 cfs July 13.

Period of record: Maximum discharge, 1,820 cfs Oct. 1, 1920 (gage height, 9.50 ft, from graph based on gage readings, site and datum then in use), from rating curve extended above 900 cfs; minimum, 0.1 cfs Aug. 18, 1950, Aug. 3, 4, 31, Sept. 1, 3, 1953. Maximum discharge since construction of East Barre Detention Reservoir in 1935, 634 cfs Apr. 19, 1969 (gage height, 3.31 ft); maximum gage height, 6.35 ft (present datum) Feb. 17, 1939 (ice jam).

REMARKS.--Records good except those for winter period, which are fair. Discharge affected by East Barre Detention Reservoir since 1935 (see p. 233). Prior to 1964, occasional diurnal fluctuation at low flow caused by mill above station. Diversion from reservoir on Orange Brook, a tributary above station, for city of Barre.

REVISIONS (WATER YEARS).--WSP 564: 1922. WSP 1034: Drainage area. WSP 1307: 1921-23(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT             | NOV       | DEC     | JAN     | FEB        | MAR        | APR       | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------------|-----------------|-----------|---------|---------|------------|------------|-----------|-------|-------|-------|-------|-------|
| 1           | 5.3             | 4.4       | 19      | 6.2     | 4.9        | 15         | 21        | 324   | 31    | 6.6   | 12    | 17    |
| 2           | 7.1             | 3.5       | 18      | 6.0     | 4.9        | 13         | 23        | 317   | 25    | 12    | 85    | 13    |
| 3           | 8.2             | 3.5       | 18      | 6.0     | 4.7        | 12         | 92        | 403   | 25    | 8.2   | 63    | 11    |
| 4           | 16              | 3.9       | 27      | 6.1     | 4.7        | 12         | 113       | 514   | 23    | 6.3   | 101   | 11    |
| 5           | 12              | 3.9       | 20      | 6.8     | 4.6        | 11         | 70        | 519   | 19    | 7.6   | 38    | 11    |
| 6           | 8.9             | 3.5       | 14      | 7.2     | 4.5        | 11         | 64        | 498   | 17    | 5.6   | 19    | 10    |
| 7           | 7.5             | 3.5       | 9.0     | 7.2     | 4.4        | 12         | 64        | 488   | 17    | 4.0   | 15    | 11    |
| 8           | 6.7             | 3.5       | 6.3     | 6.5     | 4.4        | 12         | 49        | 470   | 16    | 3.3   | 11    | 9.0   |
| 9           | 6.0             | 3.6       | 7.0     | 6.8     | 5.2        | 12         | 50        | 448   | 22    | 2.8   | 9.3   | 8.2   |
| 10          | 5.0             | 3.6       | 7.2     | 7.3     | 6.1        | 12         | 78        | 408   | 16    | 2.8   | 7.2   | 7.6   |
| 11          | 4.7             | 5.3       | 6.6     | 7.0     | 6.0        | 11         | 97        | 345   | 14    | 2.5   | 6.3   | 6.9   |
| 12          | 4.7             | 8.2       | 6.6     | 6.6     | 5.9        | 11         | 151       | 280   | 12    | 2.2   | 6.9   | 8.2   |
| 13          | 5.0             | 6.7       | 6.6     | 6.4     | 6.6        | 11         | 213       | 211   | 12    | 2.0   | 5.6   | 13    |
| 14          | 6.3             | 6.0       | 6.6     | 6.5     | 11         | 11         | 244       | 220   | 11    | 6.9   | 5.2   | 16    |
| 15          | 13              | 8.6       | 5.8     | 6.4     | 20         | 15         | 153       | 157   | 11    | 8.2   | 4.7   | 19    |
| 16          | 23              | 16        | 5.6     | 6.2     | 16         | 55         | 123       | 130   | 12    | 4.5   | 4.4   | 15    |
| 17          | 15              | 13        | 6.0     | 6.5     | 14         | 70         | 98        | 151   | 9.7   | 4.3   | 3.9   | 24    |
| 18          | 11              | 9.8       | 6.6     | 6.8     | 14         | 38         | 113       | 130   | 8.6   | 9.7   | 3.6   | 23    |
| 19          | 8.9             | 10        | 6.5     | 6.5     | 13         | 29         | 153       | 101   | 7.2   | 7.2   | 3.3   | 15    |
| 20          | 7.8             | 18        | 6.5     | 6.2     | 12         | 27         | 317       | 85    | 6.6   | 28    | 3.0   | 12    |
| 21          | 7.5             | 26        | 6.2     | 5.5     | 11         | 25         | 369       | 97    | 8.6   | 10    | 6.0   | 16    |
| 22          | 7.5             | 17        | 6.0     | 5.5     | 11         | 21         | 350       | 140   | 24    | 6.6   | 5.0   | 15    |
| 23          | 20              | 22        | 6.6     | 5.2     | 10         | 22         | 271       | 95    | 12    | 4.8   | 11    | 12    |
| 24          | 15              | 17        | 6.6     | 4.9     | 10         | 22         | 189       | 73    | 8.2   | 4.3   | 11    | 10    |
| 25          | 9.9             | 13        | 6.6     | 4.5     | 9.0        | 21         | 260       | 67    | 7.9   | 4.3   | 6.6   | 9.3   |
| 26          | 8.0             | 10        | 6.5     | 5.1     | 13         | 20         | 240       | 113   | 19    | 4.0   | 5.8   | 8.2   |
| 27          | 6.6             | 9.3       | 6.5     | 5.4     | 12         | 20         | 249       | 92    | 12    | 3.8   | 5.5   | 7.9   |
| 28          | 6.0             | 14        | 6.5     | 5.2     | 17         | 20         | 251       | 82    | 9.3   | 3.8   | 182   | 7.2   |
| 29          | 5.6             | 22        | 6.3     | 5.0     | -----      | 21         | 326       | 65    | 7.6   | 12    | 194   | 6.6   |
| 30          | 5.0             | 15        | 6.2     | 4.8     | -----      | 22         | 338       | 50    | 6.6   | 39    | 47    | 7.6   |
| 31          | 4.7             | -----     | 6.2     | 4.5     | -----      | 22         | -----     | 44    | ----- | 13    | 28    | ----- |
| TOTAL       | 281.9           | 305.8     | 279.1   | 187.7   | 259.9      | 636        | 5,129     | 7,117 | 430.3 | 240.3 | 909.3 | 360.7 |
| MEAN        | 9.09            | 10.3      | 9.00    | 6.05    | 9.28       | 20.5       | 171       | 230   | 14.3  | 7.75  | 29.3  | 12.0  |
| MAX         | 23              | 26        | 27      | 7.3     | 20         | 70         | 369       | 519   | 31    | 39    | 194   | 24    |
| MIN         | 4.7             | 3.6       | 5.6     | 4.5     | 4.4        | 11         | 21        | 44    | 6.6   | 2.0   | 3.0   | 6.6   |
| MEAN†       | 9.35            | 10.1      | 9.00    | 6.02    | 9.82       | 20.2       | 178       | 223   | 13.9  | 7.64  | 29.9  | 12.9  |
| CFSM†       | .23             | .25       | .22     | .15     | .24        | .50        | 4.41      | 5.52  | .34   | .19   | .74   | .32   |
| IN.†        | .27             | .28       | .26     | .17     | .25        | .58        | 4.91      | 6.37  | .38   | .22   | .85   | .36   |
| CAL YR 1970 | TOTAL 18,033.26 | MEAN 49.4 | MAX 561 | MIN .62 | MEAN† 49.3 | CFSM† 1.22 | IN† 16.58 |       |       |       |       |       |
| WTR YR 1971 | TOTAL 16,141.00 | MEAN 44.2 | MAX 519 | MIN 2.0 | MEAN† 44.3 | CFSM† 1.10 | IN† 14.90 |       |       |       |       |       |

† Adjusted for change in contents in East Barre Detention Reservoir.

NOTE.--No gage-height record Dec. 15 to Feb. 21.

04285500 North Branch Winooski River at Wrightsville, Vt.

LOCATION.--Lat 44°17'58", long 72°34'45", Washington County, on right bank at Wrightsville, 0.8 mile downstream from Wrightsville Detention Reservoir and 3.5 miles upstream from mouth.

DRAINAGE AREA.--69.2 sq mi.

PERIOD OF RECORD.--October 1933 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 550.53 ft above mean sea level (levels by Corps of Engineers). Prior to Nov. 21, 1934, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--38 years, 127 cfs (24.92 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 715 cfs about May 8 (gage height, 3.47 ft, from peak-stage indicator); minimum daily, 3.9 cfs July 12, 13.

Period of record: Maximum discharge, 2,170 cfs Apr. 12, 1934 (gage height, 6.53 ft), from rating curve extended above 920 cfs; minimum daily, 0.2 cfs Aug. 13, 1941. Maximum discharge since construction of Wrightsville Detention Reservoir in 1935, 1,040 cfs Mar. 21, 1936 (gage height, 4.32 ft); maximum gage height, 5.43 ft Mar. 12, 1936 (ice jam). Maximum discharge since at least 1830, 17,200 cfs Nov. 3, 1927, by computation of peak flow over dam 0.8 mile above gage.

REMARKS.--Records good except those for winter period and periods of no gage-height record, which are fair. Discharge affected since 1935 by Wrightsville Detention Reservoir (see following page). Occasional diurnal fluctuation at low flow caused by small mill above station; more frequent diurnal fluctuation prior to 1968.

REVISIONS (WATER YEARS).--WSP 1237: 1934-39.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG     | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|---------|-------|
| 1     | 42    | 41    | 127   | 47    | 36    | 103   | 77     | 520    | 73    | 16    | 16      | 348   |
| 2     | 33    | 38    | 115   | 46    | 35    | 92    | 87     | 530    | 61    | 75    | 18      | 134   |
| 3     | 33    | 36    | 122   | 46    | 34    | 84    | 228    | 560    | 60    | 37    | 145     | 46    |
| 4     | 51    | 34    | 117   | 47    | 33    | 87    | 301    | 600    | 60    | 19    | 378     | 38    |
| 5     | 56    | 33    | 90    | 50    | 33    | 83    | 239    | 640    | 50    | 9.4   | 253     | 33    |
| 6     | 52    | 30    | 91    | 55    | 33    | 80    | 197    | 670    | 42    | 6.8   | 60      | 29    |
| 7     | 40    | 29    | 76    | 54    | 33    | 77    | 201    | 680    | 38    | 5.6   | 27      | 27    |
| 8     | 33    | 27    | 57    | 50    | 35    | 74    | 173    | 690    | 53    | 5.0   | 18      | 24    |
| 9     | 27    | 26    | 65    | 50    | 41    | 72    | 168    | 680    | 97    | 4.5   | 13      | 21    |
| 10    | 23    | 25    | 62    | 56    | 48    | 68    | 214    | 650    | 66    | 4.2   | 11      | 18    |
| 11    | 23    | 37    | 57    | 54    | 52    | 70    | 263    | 630    | 44    | 4.0   | 13      | 16    |
| 12    | 23    | 65    | 54    | 50    | 55    | 68    | 357    | 580    | 35    | 3.9   | 16      | 99    |
| 13    | 27    | 55    | 53    | 48    | 60    | 66    | 432    | 530    | 31    | 3.9   | 15      | 150   |
| 14    | 43    | 46    | 52    | 49    | 90    | 68    | 490    | 470    | 26    | 6.0   | 13      | 119   |
| 15    | 155   | 65    | 49    | 48    | 150   | 79    | 500    | 440    | 23    | 14    | 11      | 159   |
| 16    | 290   | 113   | 45    | 46    | 130   | 172   | 450    | 400    | 22    | 12    | 9.5     | 107   |
| 17    | 146   | 94    | 47    | 45    | 115   | 200   | 400    | 330    | 20    | 10    | 8.6     | 70    |
| 18    | 88    | 73    | 52    | 54    | 105   | 150   | 350    | 270    | 17    | 12    | 7.7     | 74    |
| 19    | 66    | 68    | 50    | 52    | 105   | 130   | 380    | 240    | 17    | 9.0   | 6.6     | 87    |
| 20    | 53    | 117   | 49    | 50    | 57    | 123   | 440    | 210    | 14    | 7.4   | 5.9     | 99    |
| 21    | 45    | 268   | 47    | 45    | 53    | 112   | 510    | 180    | 14    | 6.6   | 6.0     | 213   |
| 22    | 45    | 281   | 46    | 42    | 87    | 100   | 540    | 150    | 34    | 6.0   | 7.9     | 151   |
| 23    | 213   | 170   | 53    | 40    | 83    | 91    | 550    | 110    | 27    | 5.6   | 72      | 97    |
| 24    | 201   | 137   | 50    | 38    | 80    | 91    | 560    | 100    | 18    | 5.2   | 93      | 75    |
| 25    | 123   | 105   | 50    | 37    | 76    | 89    | 540    | 103    | 16    | 5.0   | 41      | 59    |
| 26    | 91    | 78    | 50    | 36    | 72    | 83    | 520    | 214    | 26    | 4.8   | 25      | 46    |
| 27    | 75    | 84    | 50    | 36    | 77    | 81    | 510    | 174    | 27    | 5.0   | 19      | 38    |
| 28    | 63    | 95    | 49    | 38    | 104   | 81    | 500    | 171    | 19    | 6.6   | 264     | 34    |
| 29    | 54    | 166   | 48    | 40    | ----- | 86    | 500    | 134    | 14    | 8.5   | 526     | 33    |
| 30    | 48    | 137   | 47    | 39    | ----- | 82    | 500    | 108    | 12    | 11    | 494     | 32    |
| 31    | 44    | ----- | 47    | 38    | ----- | 80    | -----  | 90     | ----- | 13    | 433     | ----- |
| TOTAL | 2,306 | 2,573 | 1,967 | 1,426 | 1,592 | 2,922 | 11,177 | 11,854 | 1,056 | 342.0 | 3,026.2 | 2,476 |
| MEAN  | 74.4  | 85.8  | 63.5  | 46.0  | 71.1  | 94.3  | 373    | 382    | 35.2  | 11.0  | 97.6    | 82.5  |
| MAX   | 290   | 281   | 127   | 56    | 150   | 200   | 560    | 690    | 97    | 75    | 526     | 348   |
| MIN   | 23    | 25    | 45    | 36    | 33    | 66    | 77     | 90     | 12    | 3.9   | 5.9     | 16    |
| MEAN† | 74.4  | 86.7  | 62.7  | 45.8  | 72.0  | 94.0  | 446    | 311    | 34.2  | 11.1  | 109     | 70.8  |
| CFSM† | 1.08  | 1.25  | .91   | .66   | 1.04  | 1.36  | 6.45   | 4.49   | .49   | .16   | 1.58    | 1.02  |
| IN.†  | 1.24  | 1.40  | 1.05  | .76   | 1.08  | 1.57  | 7.20   | 5.18   | .55   | .19   | 1.82    | 1.14  |

CAL YR 1970 TOTAL 40,750.6 MEAN 112 MAX 781 MIN 2.4 MEAN† 112 CFSM† 1.62 IN† 21.91  
WTR YR 1971 TOTAL 43,117.2 MEAN 118 MAX 690 MIN 3.9 MEAN† 118 CFSM† 1.71 IN† 23.18

† Adjusted for change in contents in Wrightsville Detention Reservoir.

NOTE.--No gage-height record Dec. 10 to Jan. 20, Apr. 14 to May 24, July 4-30, Aug. 6-17.

## Reservoirs in Winooski River basin above Montpelier, Vt.

04283500. EAST BARRE DETENTION RESERVOIR.--Lat 44°09'18", long 72°26'42", Washington County, at dam on Jail Branch at East Barre, 4.5 miles upstream from mouth. Drainage area, 38.8 sq mi. Period of record, February 1936 (in WSP 1307), March and April 1936 (in WSP 798), May 1936 to August 1938 (in WSP 1307), September 1938 (in WSP 867), October 1938 to current year. Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Aug. 30, 1960, nonrecording gage, and Aug. 30 to Sept. 30, 1960, water-stage recorder, at present site at datum 1,127.9 ft above mean sea level. Maximum elevation for current year, 1,146.23 ft May 4. Maximum elevation for period of record, 1,163.9 ft, present datum, Mar. 22, 1936.

Reservoir is formed by earthfill dam completed by Corps of Engineers in 1935 for flood control. Usable capacity of reservoir, 525,000,000 cu ft between elevation 1,124.9 ft (bottom of outlet opening) and 1,165.0 ft (crest of spillway). Dam has no gates; below elevation 1,165.0 ft, outflow from reservoir is dependent on capacity of outlet opening near base of dam. Outlet-opening enlargement and reservoir-construction modifications completed in November 1959. Size of opening since enlargement, height, 7 ft and average width, 3.7 ft. Figures given herein represent usable contents.

04285000. WRIGHTSVILLE DETENTION RESERVOIR.--Lat 44°18'38", long 72°34'31", Washington County, at dam on North Branch Winooski River at Wrightsville, 0.3 mile downstream from Long Meadow Brook and 4.2 miles upstream from mouth. Drainage area, 66.5 sq mi. Period of record, November 1935 to February 1936 (in WSP 1307), March to May 1936 (in WSP 798), June 1936 to August 1938 (in WSP 1307), September 1938 (in WSP 867), October 1938 to current year. Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to July 28, 1960, nonrecording gage, and July 28 to Sept. 30, 1960, water-stage recorder, at present site at datum 612.75 ft above mean sea level. Extremes for current year: Maximum elevation not determined; minimum, 619.93 ft July 13. Extremes for period of record: Maximum elevation, 676.4 ft, present datum, Mar. 22, 1936, from graph based on gage readings; minimum observed, 613.0 ft Aug. 17, 1949, and Aug. 17-19, 1950.

Reservoir is formed by earthfill dam completed by Corps of Engineers in 1935 for flood control; modification of intake-structure works to create a recreational pool completed in June 1965. Usable capacity for recreation, 22,000,000 cu ft between elevations 612.75 ft (bottom of outlet opening) and 620.00 ft; for flood control, 851,500,000 cu ft between elevations 620.00 ft and 685.00 ft (crest of spillway); total usable capacity, 873,500,000 cu ft. Dam has no gates; below elevation 685.00 ft, outflow from reservoir is dependent on capacity of outlet opening, 5.25 ft square near base of dam. Figures given herein represent usable contents.

## MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971 |                     |                                         |                           |                                      |
|------------------------------------------------------------------------------------|---------------------|-----------------------------------------|---------------------------|--------------------------------------|
| Date                                                                               | Elevation<br>(feet) | Contents<br>(millions of<br>cubic feet) | Change in contents        |                                      |
|                                                                                    |                     |                                         | Millions of<br>cubic feet | Equivalent, cubic<br>feet per second |
| 04283500 East Barre Detention Reservoir                                            |                     |                                         |                           |                                      |
| Sept. 30.....                                                                      | 1,128.24            | 3.5                                     | -                         | -                                    |
| Oct. 31.....                                                                       | 1,128.89            | 4.2                                     | +0.7                      | +0.26                                |
| Nov. 30.....                                                                       | 1,128.47            | 3.7                                     | -5.5                      | -1.9                                 |
| Dec. 31.....                                                                       | 1,128.43            | 3.7                                     | 0                         | 0                                    |
| CAL YR 1970 .....                                                                  | -                   | -                                       | -2.7                      | -0.09                                |
| Jan. 31.....                                                                       | 1,128.35            | 3.6                                     | -1                        | -0.04                                |
| Feb. 28.....                                                                       | 1,129.46            | 4.9                                     | +1.3                      | +0.54                                |
| Mar. 31.....                                                                       | 1,128.71            | 4.0                                     | -9                        | -0.34                                |
| Apr. 30.....                                                                       | 1,137.85            | 21.8                                    | +17.8                     | +6.87                                |
| May 31.....                                                                        | 1,129.32            | 4.7                                     | -17.1                     | -6.38                                |
| June 30.....                                                                       | 1,128.26            | 3.5                                     | -1.2                      | -0.46                                |
| July 31.....                                                                       | 1,127.97            | 3.2                                     | -3                        | -0.11                                |
| Aug. 31.....                                                                       | 1,129.41            | 4.8                                     | +1.6                      | +0.60                                |
| Sept. 30.....                                                                      | 1,131.09            | 7.0                                     | +2.2                      | +0.85                                |
| WTR YR 1971 .....                                                                  | -                   | -                                       | +3.5                      | +1.1                                 |
| 04285000 Wrightsville Detention Reservoir                                          |                     |                                         |                           |                                      |
| Sept. 30.....                                                                      | 620.34              | 23.4                                    | -                         | -                                    |
| Oct. 31.....                                                                       | 620.33              | 23.3                                    | -0.1                      | -0.04                                |
| Nov. 30.....                                                                       | 620.92              | 25.6                                    | +2.3                      | +0.89                                |
| Dec. 31.....                                                                       | 620.40              | 23.6                                    | -2.0                      | -0.75                                |
| CAL YR 1970 .....                                                                  | -                   | -                                       | +1                        | +0.003                               |
| Jan. 31.....                                                                       | 610.31              | 23.2                                    | -4                        | -0.15                                |
| Feb. 28.....                                                                       | 620.80              | 25.2                                    | +2.0                      | +0.83                                |
| Mar. 31.....                                                                       | 620.61              | 24.4                                    | -8                        | -0.30                                |
| Apr. 30.....                                                                       | 646.25              | 215.7                                   | +191.3                    | +73.8                                |
| May 31.....                                                                        | 620.72              | 24.8                                    | -190.9                    | -71.3                                |
| June 30.....                                                                       | 620.05              | 22.2                                    | -2.6                      | -1.00                                |
| July 31.....                                                                       | 620.13              | 22.5                                    | +3                        | +0.11                                |
| Aug. 31.....                                                                       | 626.90              | 53.5                                    | +31.0                     | +11.6                                |
| Sept. 30.....                                                                      | 620.29              | 23.2                                    | -30.3                     | -11.7                                |
| WTR YR 1971 .....                                                                  | -                   | -                                       | -0.2                      | -0.01                                |

## 04286000 Winooski River at Montpelier, Vt.

LOCATION.--Lat 44°15'23", long 72°35'36", Washington County, on right bank 0.4 mile upstream from Dog River and 1 mile downstream from depot at Montpelier.

DRAINAGE AREA.--397 sq mi.

PERIOD OF RECORD.--May 1909 to June 1914 (fragmentary), July 1914 to September 1923, August 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 499.99 ft above mean sea level. Prior to June 16, 1914, nonrecording gage at site 0.9 mile upstream at different datum. June 16 to July 3, 1914, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--52 years (1914-23, 1928-71), 568 cfs (19.43 inches per year), adjusted for storage since October 1935.

EXTREMES.--Current year: Maximum discharge, 8,080 cfs May 4 (gage height, 11.96 ft), from rating curve extended above 4,200 cfs on basis of computations of flow over dam at gage heights 13.90 and 14.11 ft and slope-area measurement at gage height 13.90 ft; minimum daily, 82 cfs July 12, 13. Period of record: Maximum discharge, 17,200 cfs Apr. 7, 1912 (gage height, 17.31 ft, from floodmarks, present datum), from rating curve extended above 6,900 cfs; minimum daily, 17 cfs Sept. 3, 1933. Maximum discharge since at least 1830, 57,000 cfs Nov. 3, 1927 (gage height, 27.1 ft), from rating curve extended above 6,900 cfs.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by several small powerplants above station, by Peacham Pond and, since 1926, by Mollys Falls Reservoir (combined usable capacity, 492,000,000 cu ft), which regulate runoff from 24 sq mi, and by East Barre and Wrightsville Detention Reservoirs since 1935 (see preceding page). See table below for monthend contents in Peacham Pond and Mollys Falls Reservoir. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 424: 1915. WSP 894: Drainage area. WSP 1437: 1912-14(M), 1915-18, 1919(M), 1920, 1921(M), 1922-23, 1929, 1933, 1934(M), 1936, 1937(M), 1938, 1946(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY    | OCT   | NOV   | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN   | JUL   | AUG    | SEP   |
|--------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|--------|-------|
| 1      | 156   | 122   | 347   | 210   | 155   | 450    | 420    | 2,800  | 428   | 132   | 130    | 599   |
| 2      | 132   | 143   | 326   | 205   | 170   | 470    | 430    | 2,680  | 403   | 225   | 263    | 375   |
| 3      | 134   | 128   | 334   | 200   | 175   | 430    | 883    | 4,160  | 390   | 180   | 929    | 233   |
| 4      | 146   | 124   | 340   | 195   | 180   | 400    | 1,090  | 6,670  | 391   | 135   | 1,850  | 206   |
| 5      | 162   | 120   | 300   | 205   | 180   | 380    | 879    | 4,290  | 372   | 121   | 977    | 191   |
| 6      | 169   | 119   | 244   | 220   | 160   | 370    | 845    | 3,600  | 289   | 114   | 417    | 181   |
| 7      | 141   | 166   | 230   | 230   | 145   | 360    | 870    | 3,280  | 273   | 108   | 249    | 175   |
| 8      | 122   | 97    | 215   | 225   | 150   | 370    | 724    | 2,980  | 355   | 105   | 193    | 164   |
| 9      | 114   | 117   | 230   | 225   | 180   | 400    | 725    | 2,720  | 505   | 98    | 162    | 152   |
| 10     | 107   | 108   | 270   | 190   | 200   | 400    | 951    | 2,480  | 370   | 94    | 142    | 141   |
| 11     | 99    | 114   | 260   | 200   | 210   | 400    | 1,110  | 2,330  | 287   | 88    | 140    | 157   |
| 12     | 99    | 176   | 250   | 220   | 220   | 400    | 1,660  | 2,100  | 275   | 82    | 149    | 202   |
| 13     | 103   | 185   | 230   | 215   | 215   | 400    | 1,990  | 1,970  | 224   | 82    | 133    | 332   |
| 14     | 118   | 148   | 210   | 225   | 350   | 400    | 2,020  | 1,870  | 204   | 158   | 118    | 348   |
| 15     | 222   | 172   | 200   | 230   | 500   | 450    | 1,690  | 1,570  | 216   | 174   | 108    | 436   |
| 16     | 458   | 279   | 205   | 210   | 480   | 700    | 1,540  | 1,380  | 215   | 138   | 103    | 306   |
| 17     | 316   | 277   | 220   | 180   | 460   | 1,000  | 1,410  | 1,380  | 197   | 128   | 98     | 243   |
| 18     | 206   | 266   | 230   | 180   | 450   | 650    | 1,520  | 1,350  | 170   | 149   | 107    | 282   |
| 19     | 165   | 196   | 235   | 220   | 430   | 550    | 2,260  | 1,200  | 158   | 148   | 90     | 263   |
| 20     | 151   | 257   | 220   | 225   | 400   | 500    | 3,620  | 1,080  | 152   | 222   | 88     | 245   |
| 21     | 136   | 440   | 210   | 220   | 360   | 450    | 3,910  | 1,070  | 152   | 172   | 97     | 377   |
| 22     | 141   | 550   | 230   | 200   | 360   | 420    | 3,670  | 1,250  | 249   | 139   | 103    | 349   |
| 23     | 315   | 365   | 255   | 180   | 400   | 410    | 2,980  | 948    | 207   | 112   | 209    | 252   |
| 24     | 397   | 369   | 260   | 170   | 410   | 400    | 2,380  | 629    | 161   | 100   | 366    | 216   |
| 25     | 274   | 290   | 220   | 160   | 410   | 400    | 2,590  | 599    | 157   | 100   | 171    | 193   |
| 26     | 214   | 240   | 220   | 170   | 400   | 400    | 2,420  | 973    | 213   | 99    | 148    | 171   |
| 27     | 201   | 203   | 215   | 170   | 420   | 400    | 2,460  | 864    | 188   | 108   | 132    | 158   |
| 28     | 196   | 249   | 215   | 180   | 450   | 390    | 2,470  | 854    | 155   | 100   | 1,870  | 193   |
| 29     | 183   | 367   | 230   | 230   | ----- | 410    | 2,950  | 697    | 136   | 103   | 2,120  | 170   |
| 30     | 176   | 331   | 210   | 200   | ----- | 410    | 2,830  | 547    | 127   | 192   | 1,100  | 160   |
| 31     | 169   | ----- | 220   | 165   | ----- | 410    | -----  | 485    | ----- | 144   | 768    | ----- |
| TOTAL  | 5,726 | 6,718 | 7,581 | 6,255 | 8,620 | 13,980 | 55,297 | 60,806 | 7,623 | 4,050 | 13,530 | 7,470 |
| MEAN   | 185   | 224   | 245   | 202   | 308   | 451    | 1,843  | 1,961  | 254   | 131   | 436    | 249   |
| MAX    | 458   | 550   | 347   | 230   | 500   | 1,000  | 3,910  | 6,670  | 509   | 225   | 2,120  | 599   |
| MIN    | 99    | 97    | 200   | 160   | 145   | 360    | 420    | 485    | 127   | 82    | 88     | 141   |
| (†)    | 400.0 | 373.9 | 300.3 | 233.6 | 163.3 | 35.2   | 192.3  | 429.8  | 426.3 | 435.9 | 426.1  | 413.6 |
| MEAN ‡ | 184   | 215   | 216   | 177   | 280   | 403    | 1,985  | 1,972  | 251   | 134   | 445    | 233   |
| CFSM ‡ | .46   | .54   | .54   | .45   | .71   | 1.02   | 5.00   | 4.97   | .63   | .34   | 1.12   | .59   |
| IN. ‡  | .53   | .60   | .63   | .51   | .74   | 1.17   | 5.58   | 5.73   | .71   | .39   | 1.29   | .66   |

CAL YR 1970 TOTAL 190,106 MEAN 521 MAX 5,400 MIN 53 MEAN ‡ 520 CFSM ‡ 1.31 IN ‡ 17.79  
WTR YR 1971 TOTAL 197,656 MEAN 542 MAX 6,670 MIN 82 MEAN ‡ 542 CFSM ‡ 1.37 IN ‡ 18.54

## PEAK DISCHARGE (BASE, 3,900 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-20 | 2115 | 9.23  | 4,890     |      |      |       |           |
| 5-4  | 0630 | 11.96 | 8,080     |      |      |       |           |
| 8-28 | 1900 | 8.53  | 4,160     |      |      |       |           |

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

‡ Adjusted for change in contents in Peacham Pond, Mollys Falls Reservoir, and East Barre and Wrightsville Detention Reservoirs.

## 04287000 Dog River at Northfield Falls, Vt.

LOCATION.--Lat 44°10'58", long 72°38'27", Washington County, on right bank 1 mile downstream from Northfield Falls, and 1.2 miles downstream from Cox Branch.

DRAINAGE AREA.--76.1 sq mi.

PERIOD OF RECORD.--October 1934 to September 1971. October 1934 monthly discharge only, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is 603.00 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--37 years, 116 cfs (20.70 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,310 cfs Aug. 28 (gage height, 6.46 ft), from rating curve extended above 1,500 cfs as explained below; minimum, 9.4 cfs July 13.

Period of record: Maximum discharge, 9,750 cfs Sept. 21, 1938 (gage height, 11.53 ft), from rating curve extended above 1,500 cfs on basis of computation of flow over dam at gage height 8.49 ft and slope-area measurements at gage heights 8.96 and 11.53 ft; minimum, 4.3 cfs Aug. 31, Sept. 7, 1942.

REMARKS.--Records good except those for winter period, which are fair. Infrequent diurnal fluctuation at low flow by powerplant above station; regulation much greater prior to 1955.

REVISIONS (WATER YEARS).--WSP 1237: 1935-37.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 16   | 21    | 66    | 40    | 31    | 89    | 94     | 745    | 89    | 18    | 23    | 84    |
| 2     | 15   | 20    | 63    | 39    | 31    | 91    | 107    | 712    | 82    | 27    | 40    | 70    |
| 3     | 17   | 20    | 62    | 39    | 30    | 82    | 242    | 1,340  | 79    | 25    | 240   | 61    |
| 4     | 21   | 18    | 70    | 40    | 30    | 75    | 274    | 1,720  | 78    | 17    | 205   | 56    |
| 5     | 19   | 18    | 58    | 44    | 29    | 76    | 213    | 949    | 69    | 15    | 82    | 49    |
| 6     | 17   | 18    | 60    | 47    | 29    | 83    | 214    | 813    | 63    | 14    | 53    | 63    |
| 7     | 16   | 17    | 47    | 46    | 28    | 78    | 224    | 698    | 58    | 14    | 39    | 62    |
| 8     | 14   | 17    | 39    | 42    | 28    | 81    | 194    | 583    | 57    | 14    | 30    | 51    |
| 9     | 14   | 16    | 46    | 43    | 35    | 75    | 194    | 543    | 65    | 12    | 24    | 44    |
| 10    | 13   | 17    | 47    | 47    | 39    | 76    | 245    | 457    | 61    | 12    | 21    | 38    |
| 11    | 12   | 21    | 43    | 45    | 38    | 73    | 311    | 410    | 54    | 11    | 20    | 35    |
| 12    | 13   | 25    | 43    | 42    | 27    | 72    | 486    | 344    | 48    | 9.7   | 19    | 57    |
| 13    | 14   | 24    | 43    | 41    | 42    | 72    | 645    | 302    | 43    | 9.7   | 16    | 79    |
| 14    | 15   | 23    | 43    | 42    | 70    | 73    | 645    | 255    | 39    | 20    | 15    | 73    |
| 15    | 18   | 28    | 37    | 41    | 115   | 83    | 425    | 206    | 35    | 23    | 14    | 84    |
| 16    | 26   | 40    | 36    | 38    | 105   | 185   | 360    | 179    | 35    | 16    | 14    | 69    |
| 17    | 31   | 37    | 39    | 42    | 88    | 197   | 329    | 194    | 33    | 15    | 12    | 58    |
| 18    | 25   | 33    | 43    | 46    | 89    | 140   | 357    | 172    | 31    | 16    | 11    | 60    |
| 19    | 20   | 42    | 42    | 45    | 82    | 125   | 625    | 146    | 27    | 17    | 11    | 55    |
| 20    | 18   | 74    | 42    | 40    | 78    | 122   | 1,090  | 130    | 25    | 44    | 11    | 52    |
| 21    | 16   | 170   | 39    | 38    | 76    | 111   | 1,040  | 139    | 25    | 23    | 19    | 62    |
| 22    | 17   | 102   | 38    | 36    | 73    | 105   | 874    | 185    | 38    | 16    | 15    | 56    |
| 23    | 73   | 88    | 45    | 34    | 72    | 58    | 600    | 143    | 40    | 13    | 38    | 49    |
| 24    | 74   | 74    | 42    | 32    | 72    | 98    | 539    | 125    | 30    | 12    | 35    | 44    |
| 25    | 51   | 62    | 43    | 31    | 69    | 94    | 640    | 120    | 25    | 13    | 21    | 38    |
| 26    | 39   | 51    | 43    | 31    | 79    | 89    | 575    | 169    | 36    | 12    | 16    | 34    |
| 27    | 34   | 52    | 43    | 30    | 79    | 91    | 635    | 153    | 33    | 14    | 16    | 33    |
| 28    | 30   | 56    | 42    | 30    | 96    | 93    | 686    | 137    | 27    | 14    | 948   | 36    |
| 29    | 27   | 71    | 41    | 32    | ----- | 96    | 877    | 122    | 24    | 15    | 344   | 34    |
| 30    | 24   | 68    | 40    | 31    | ----- | 95    | 688    | 109    | 20    | 27    | 149   | 31    |
| 31    | 22   | ----- | 40    | 29    | ----- | 93    | -----  | 100    | ----- | 22    | 110   | ----- |
| TOTAL | 761  | 1,323 | 1,425 | 1,203 | 1,670 | 3,011 | 14,428 | 12,400 | 1,373 | 530.4 | 2,611 | 1,617 |
| MEAN  | 24.5 | 44.1  | 46.0  | 38.8  | 59.6  | 97.1  | 481    | 400    | 45.8  | 17.1  | 84.2  | 53.9  |
| MAX   | 74   | 170   | 70    | 47    | 115   | 197   | 1,090  | 1,720  | 89    | 44    | 948   | 84    |
| MIN   | 12   | 16    | 36    | 29    | 28    | 72    | 94     | 100    | 20    | 9.7   | 11    | 31    |
| CFSM  | .32  | .58   | .60   | .51   | .78   | 1.28  | 6.32   | 5.26   | .60   | .22   | 1.11  | .71   |
| IN.   | .37  | .65   | .70   | .59   | .82   | 1.47  | 7.05   | 6.06   | .67   | .26   | 1.28  | .79   |

CAL YR 1970 TOTAL 40,499.4 MEAN 111 MAX 1,470 MIN 6.9 CFSM 1.46 IN 19.80  
WTR YR 1971 TOTAL 42,352.4 MEAN 116 MAX 1,720 MIN 9.7 CFSM 1.52 IN 20.70

## PEAK DISCHARGE (BASE, 1,600 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-20 | 1930 | 4.81  | 1,750     | 8-28 | 1515 | 6.46  | 3,310     |
| 5-4  | 0445 | 5.86  | 2,660     |      |      |       |           |

04287300 Sonny Brook near Montpelier, Vt.

LOCATION.--Lat 44°16'08", long 72°37'37", Washington County, on left bank 20 ft upstream from culvert on U.S. Highway 2, 1,000 ft upstream from mouth, and 2.5 miles west of Montpelier.

DRAINAGE AREA.--2.31 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 510 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 2.88 cfs (16.93 inches per year).

EXTREMES.--Current year: Maximum discharge, 136 cfs Aug. 28 (gage height, 5.19 ft); minimum not determined; minimum daily, 0.07 cfs July 11, 12.

Period of record: Maximum discharge, 322 cfs May 20, 1969 (gage height, 7.23 ft), from rating curve extended above 55 cfs on basis of computation of peak flow through culvert; minimum, 0.01 cfs Aug. 19-22, 1964.

REMARKS.--Records fair. Recording rain gage at station since April 1964 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT  | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| 1     | .20  | .14   | 1.1   | .87   | .68   | 2.7   | 3.7   | 15    | 1.6   | .18  | .18   | 1.7   |
| 2     | .20  | .13   | .59   | .84   | .70   | 2.5   | 4.5   | 15    | 1.4   | .28  | .29   | 1.1   |
| 3     | .20  | .12   | .59   | .85   | .68   | 2.4   | 13    | 36    | 1.3   | .18  | 4.3   | .88   |
| 4     | .25  | .12   | 1.2   | .90   | .66   | 2.5   | 11    | 61    | 1.1   | .14  | 2.6   | .71   |
| 5     | .25  | .11   | .53   | .95   | .65   | 2.7   | 9.6   | 19    | .89   | .12  | 1.0   | .50   |
| 6     | .25  | .11   | .53   | 1.0   | .64   | 3.1   | 9.5   | 13    | .69   | .11  | .66   | .45   |
| 7     | .23  | .10   | .82   | 1.0   | .64   | 3.0   | 9.8   | 10    | .56   | .10  | .46   | .45   |
| 8     | .15  | .10   | .70   | .90   | .70   | 3.3   | 7.6   | 8.4   | .64   | .10  | .36   | .25   |
| 9     | .12  | .10   | .85   | .90   | .80   | 3.0   | 8.6   | 7.5   | .69   | .09  | .28   | .23   |
| 10    | .12  | .10   | .85   | 1.0   | .90   | 2.9   | 12    | 6.0   | .56   | .08  | .25   | .20   |
| 11    | .12  | .12   | .80   | .57   | .90   | 3.0   | 19    | 5.2   | .49   | .07  | .45   | .17   |
| 12    | .12  | .20   | .71   | .94   | 1.0   | 2.9   | 33    | 4.8   | .44   | .07  | .35   | 1.9   |
| 13    | .12  | .17   | .66   | .90   | 1.4   | 3.0   | 33    | 5.1   | .38   | .10  | .27   | .88   |
| 14    | .15  | .15   | .64   | .92   | 2.0   | 3.1   | 27    | 5.0   | .33   | .31  | .20   | 1.3   |
| 15    | .32  | .32   | .62   | .90   | 4.5   | 4.0   | 15    | 4.1   | .29   | .22  | .17   | 1.6   |
| 16    | .71  | .51   | .62   | .86   | 3.5   | 9.0   | 12    | 3.5   | .26   | .16  | .15   | .83   |
| 17    | .35  | .39   | .70   | .90   | 2.7   | 7.6   | 13    | 3.4   | .25   | .13  | .14   | .54   |
| 18    | .25  | .35   | .85   | .57   | 2.8   | 6.2   | 15    | 3.0   | .23   | .23  | .12   | .71   |
| 19    | .20  | .32   | .84   | .94   | 2.7   | 5.2   | 40    | 2.6   | .22   | .17  | .10   | .45   |
| 20    | .17  | .51   | .82   | .85   | 2.6   | 4.7   | 52    | 2.5   | .20   | .36  | .08   | .59   |
| 21    | .17  | 1.5   | .80   | .80   | 2.5   | 4.5   | 40    | 4.3   | .22   | .23  | .17   | .71   |
| 22    | .20  | 1.3   | .80   | .76   | 2.3   | 4.3   | 30    | 4.4   | .35   | .14  | .15   | .54   |
| 23    | 1.0  | 1.2   | 1.0   | .72   | 2.3   | 4.1   | 19    | 2.9   | .25   | .10  | 1.3   | .45   |
| 24    | .43  | 1.0   | .57   | .65   | 2.4   | 3.9   | 18    | 2.9   | .20   | .10  | .41   | .36   |
| 25    | .35  | .93   | .52   | .67   | 2.4   | 3.8   | 21    | 4.7   | .22   | .12  | .20   | .28   |
| 26    | .25  | .60   | .50   | .66   | 2.3   | 3.7   | 18    | 6.6   | .33   | .10  | .15   | .25   |
| 27    | .20  | .60   | .50   | .66   | 2.7   | 3.6   | 18    | 5.0   | .23   | .13  | .17   | .20   |
| 28    | .20  | .93   | .50   | .66   | 3.1   | 3.5   | 18    | 3.9   | .18   | .13  | 34    | .20   |
| 29    | .18  | 1.4   | .85   | .66   | ----- | 3.5   | 20    | 2.9   | .15   | .12  | 10    | .20   |
| 30    | .16  | 1.2   | .89   | .66   | ----- | 3.5   | 17    | 2.4   | .13   | .17  | 4.3   | .20   |
| 31    | .15  | ----- | .85   | .66   | ----- | 3.5   | ----- | 2.0   | ----- | .20  | 2.8   | ----- |
| TOTAL | 7.77 | 14.83 | 26.48 | 25.57 | 51.15 | 118.7 | 567.3 | 272.1 | 14.78 | 4.74 | 66.06 | 18.83 |
| MEAN  | .25  | .49   | .85   | .84   | 1.83  | 3.83  | 18.9  | 8.78  | .49   | .15  | 2.13  | .63   |
| MAX   | 1.0  | 1.5   | 1.2   | 1.0   | 4.5   | 9.0   | 52    | 61    | 1.6   | .36  | 34    | 1.9   |
| MIN   | .12  | .10   | .62   | .66   | .64   | 2.4   | 3.7   | 2.0   | .13   | .07  | .08   | .17   |
| CFSM  | .11  | .21   | .37   | .36   | .79   | 1.66  | 8.18  | 3.80  | .21   | .06  | .92   | .27   |
| IN.   | .13  | .24   | .43   | .42   | .82   | 1.91  | 9.14  | 4.38  | .24   | .08  | 1.06  | .30   |

CAL YR 1970 TOTAL 1,061.62 MEAN 2.91 MAX 54 MIN .02 CFSM 1.26 IN 17.10  
WTR YR 1971 TOTAL 1,188.71 MEAN 3.26 MAX 61 MIN .07 CFSM 1.41 IN 19.14

## PEAK DISCHARGE (BASE, 55 CFS, REVISED)

NOTE.--Indefinite stage-discharge relation  
May 27 to Aug. 19.

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-12 | 1800 | 3.93  | 61        |      |      |       |           |
| 4-20 | 1515 | 4.77  | 108       |      |      |       |           |
| 5-4  | 0230 | 5.13  | 132       |      |      |       |           |
| 8-28 | 1300 | 5.19  | 136       |      |      |       |           |



## 04288000 Mad River near Moretown, Vt.

LOCATION.--Lat 44°16'42", long 72°44'37", Washington County, on left bank at downstream side of highway bridge, 2.4 miles downstream from Moretown, and 3.8 miles upstream from mouth.

DRAINAGE AREA.--139 sq mi.

PERIOD OF RECORD.--July to November 1910, October 1928 to current year. October 1928 monthly discharge only, published in WSP 1307.

GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1933. Datum of gage is 543.93 ft above mean sea level (levels by Vermont Department of Highways). July 6 to Nov. 4, 1910, nonrecording gage at same site at different datum. Nov. 20, 1928, to Sept. 27, 1930, nonrecording gage at same site at present datum.

AVERAGE DISCHARGE.--43 years (1928-71), 244 cfs (23.84 inches per year).

EXTREMES.--Current year: Maximum discharge, 9,270 cfs Aug. 28 (gage height, 11.04 ft), from rating curve extended above 2,100 cfs as explained below; minimum, 22 cfs July 12, 13; minimum daily, 23 cfs July 12, 13.

Period of record: Maximum discharge, 18,400 cfs Sept. 22, 1938 (gage height, 16.34 ft, from floodmarks), from rating curve extended above 2,700 cfs on basis of computations of flow over dam at gage heights 9.98, 11.51, 16.34, and 19.4 ft; minimum, 1.4 cfs Oct. 1, 1930.

Maximum discharge since at least 1830, 23,000 cfs Nov. 3, 1927 (gage height, 19.4 ft, from floodmarks), by computation of peak flow over dam.

REMARKS.--Records good except those for winter period, which are fair. Occasional diurnal fluctuation at low flow; much greater regulation prior to 1958. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 744: Drainage area. WSP 854: 1934(M). WSP 1114: 1929, 1930(M), 1936-37.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 64    | 76    | 199   | 78    | 58    | 160   | 180    | 1,260  | 190   | 52    | 59    | 212   |
| 2     | 57    | 72    | 182   | 78    | 60    | 140   | 220    | 1,300  | 161   | 117   | 62    | 156   |
| 3     | 64    | 68    | 171   | 78    | 58    | 130   | 600    | 2,360  | 159   | 57    | 1,060 | 127   |
| 4     | 84    | 65    | 185   | 78    | 58    | 140   | 520    | 2,810  | 143   | 44    | 588   | 108   |
| 5     | 68    | 64    | 155   | 84    | 56    | 150   | 410    | 1,860  | 121   | 38    | 210   | 93    |
| 6     | 60    | 65    | 150   | 90    | 55    | 160   | 410    | 1,600  | 107   | 35    | 123   | 399   |
| 7     | 55    | 63    | 110   | 90    | 54    | 155   | 434    | 1,510  | 98    | 33    | 89    | 209   |
| 8     | 49    | 63    | 92    | 80    | 56    | 165   | 377    | 1,300  | 110   | 30    | 70    | 138   |
| 9     | 47    | 59    | 115   | 82    | 66    | 155   | 369    | 1,420  | 123   | 28    | 58    | 108   |
| 10    | 44    | 57    | 120   | 92    | 74    | 150   | 516    | 1,280  | 88    | 27    | 51    | 90    |
| 11    | 42    | 73    | 110   | 88    | 74    | 150   | 607    | 1,350  | 78    | 24    | 93    | 80    |
| 12    | 44    | 85    | 100   | 82    | 76    | 150   | 951    | 1,190  | 72    | 23    | 80    | 183   |
| 13    | 49    | 74    | 90    | 78    | 90    | 145   | 1,250  | 1,090  | 67    | 23    | 54    | 231   |
| 14    | 73    | 70    | 83    | 80    | 140   | 150   | 1,290  | 697    | 61    | 93    | 45    | 252   |
| 15    | 184   | 96    | 78    | 78    | 260   | 180   | 779    | 566    | 61    | 65    | 42    | 246   |
| 16    | 284   | 134   | 74    | 76    | 200   | 450   | 635    | 589    | 62    | 42    | 41    | 171   |
| 17    | 144   | 108   | 84    | 80    | 160   | 400   | 566    | 647    | 55    | 39    | 38    | 127   |
| 18    | 107   | 92    | 88    | 84    | 165   | 270   | 636    | 586    | 50    | 75    | 35    | 130   |
| 19    | 92    | 109   | 87    | 80    | 160   | 240   | 1,150  | 578    | 46    | 47    | 32    | 115   |
| 20    | 80    | 196   | 84    | 77    | 150   | 230   | 1,760  | 540    | 43    | 95    | 31    | 134   |
| 21    | 73    | 631   | 80    | 72    | 145   | 210   | 1,810  | 511    | 48    | 54    | 45    | 182   |
| 22    | 82    | 349   | 74    | 68    | 140   | 200   | 1,520  | 520    | 92    | 41    | 38    | 141   |
| 23    | 585   | 279   | 92    | 64    | 140   | 140   | 988    | 366    | 55    | 34    | 194   | 108   |
| 24    | 346   | 215   | 85    | 62    | 145   | 185   | 822    | 254    | 45    | 31    | 126   | 97    |
| 25    | 211   | 155   | 82    | 60    | 145   | 180   | 880    | 284    | 46    | 38    | 67    | 84    |
| 26    | 155   | 135   | 82    | 60    | 140   | 175   | 821    | 547    | 102   | 35    | 53    | 77    |
| 27    | 130   | 136   | 82    | 58    | 150   | 180   | 996    | 493    | 60    | 46    | 51    | 71    |
| 28    | 109   | 169   | 80    | 58    | 180   | 180   | 969    | 390    | 48    | 46    | 3,330 | 69    |
| 29    | 96    | 255   | 80    | 61    | ----- | 180   | 1,300  | 314    | 43    | 35    | 1,190 | 68    |
| 30    | 86    | 217   | 80    | 58    | ----- | 180   | 1,100  | 262    | 39    | 47    | 469   | 65    |
| 31    | 80    | ----- | 78    | 56    | ----- | 180   | -----  | 227    | ----- | 58    | 315   | ----- |
| TOTAL | 3,644 | 4,230 | 3,252 | 2,310 | 3,255 | 5,910 | 24,766 | 28,741 | 2,473 | 1,452 | 8,739 | 4,271 |
| MEAN  | 118   | 141   | 105   | 74.5  | 116   | 191   | 826    | 927    | 82.4  | 46.8  | 282   | 142   |
| MAX   | 585   | 631   | 199   | 92    | 260   | 450   | 1,810  | 2,810  | 190   | 117   | 3,330 | 399   |
| MIN   | 42    | 57    | 74    | 56    | 54    | 130   | 180    | 227    | 39    | 23    | 31    | 65    |
| CFSM  | .85   | 1.01  | .76   | .54   | .83   | 1.37  | 5.94   | 6.67   | .59   | .34   | 2.03  | 1.02  |
| IN.   | .98   | 1.13  | .87   | .62   | .87   | 1.58  | 6.63   | 7.69   | .66   | .39   | 2.34  | 1.14  |

CAL YR 1970 TOTAL 86,894 MEAN 238 MAX 3,120 MIN 13 CFSM 1.71 IN 23.26  
WTR YR 1971 TOTAL 93,043 MEAN 255 MAX 3,330 MIN 23 CFSM 1.83 IN 24.90

## PEAK DISCHARGE (BASE, 3,400 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | 0315 | 7.71  | 4,230     |      |      |       |           |
| 8-3  | 1815 | 7.41  | 3,840     |      |      |       |           |
| 8-28 | 1745 | 11.04 | 9,270     |      |      |       |           |

## 04288500 Waterbury Reservoir near Waterbury, Vt.

LOCATION.--Lat 44°22'54", long 72°46'13", Washington County, at dam on Little River, 2.7 miles upstream from mouth and 3.5 miles north of Waterbury.

DRAINAGE AREA.--109 sq mi.

PERIOD OF RECORD.--September 1937 to current year. September 1937 to August 1938 monthend contents only, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Dec. 10, 1938, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum elevation, 594.23 ft May 11, 12; minimum, 540.32 ft Apr. 11.

Period of record: Maximum elevation, 613.45 ft May 4, 1940; minimum observed, 501.3 ft Oct. 16, 1938.

REMARKS.--Reservoir is formed by earthfill dam completed by Corps of Engineers during summer of 1937 for flood control and storage of water for power. Usable capacity for storage of water for power, 1,582,700,000 cu ft between elevations 500.0 and 592.0 ft (sill of taintor gate) above mean sea level; for flood control, 1,229,600,000 cu ft between elevations 592.0 and 617.5 ft (crest of spillway) above mean sea level; total usable capacity, 2,812,300,000 cu ft.

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

|       |       |       |         |
|-------|-------|-------|---------|
| 540.0 | 302.7 | 580.0 | 1,168.5 |
| 550.0 | 461.7 | 590.0 | 1,505.0 |
| 560.0 | 658.8 | 600.0 | 1,913.4 |
| 570.0 | 891.9 |       |         |

## ELEVATION, IN FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | OCT         | NOV        | DEC        | JAN       | FEB    | MAR    | APR    | MAY     | JUN     | JUL     | AUG     | SEP     |
|-------------|-------------|------------|------------|-----------|--------|--------|--------|---------|---------|---------|---------|---------|
| 1           | 590.13      | 589.52     | 590.13     | 586.58    | 578.85 | 573.14 | 546.82 | 574.39  | 590.70  | 590.52  | 590.30  | 590.79  |
| 2           | 589.78      | 589.51     | 590.20     | 586.80    | 578.47 | 572.75 | 545.10 | 575.99  | 590.41  | 589.86  | 590.19  | 590.30  |
| 3           | 590.03      | 589.33     | 590.30     | 586.79    | 577.82 | 572.20 | 545.74 | 580.45  | 590.20  | 589.92  | 590.49  | 590.80  |
| 4           | 590.32      | 589.15     | 590.02     | 586.61    | 577.44 | 572.10 | 546.60 | 585.52  | 590.03  | 590.00  | 589.65  | 589.91  |
| 5           | 590.51      | 588.92     | 590.00     | 586.68    | 577.20 | 571.80 | 545.58 | 588.48  | 590.14  | 590.05  | 589.74  | 590.03  |
| 6           | 590.45      | 588.53     | 590.17     | 586.77    | 577.38 | 571.16 | 544.50 | 590.29  | 590.35  | 589.78  | 588.31  | 590.13  |
| 7           | 590.03      | 588.69     | 589.59     | 586.80    | 577.20 | 569.74 | 543.46 | 592.12  | 589.98  | 589.63  | 588.39  | 589.60  |
| 8           | 589.54      | 588.81     | 589.05     | 586.66    | 576.81 | 568.60 | 542.07 | 593.14  | 589.81  | 589.52  | 588.48  | 589.28  |
| 9           | 589.03      | 588.62     | 588.74     | 586.79    | 576.51 | 567.55 | 540.84 | 593.63  | 589.88  | 589.44  | 588.52  | 589.05  |
| 10          | 589.15      | 588.41     | 588.55     | 586.74    | 576.13 | 566.35 | 540.56 | 594.04  | 589.91  | 589.48  | 588.47  | 588.91  |
| 11          | 589.30      | 588.32     | 588.43     | 586.24    | 575.77 | 565.68 | 541.10 | 594.23  | 589.81  | 589.50  | 588.58  | 589.00  |
| 12          | 589.43      | 588.26     | 588.37     | 585.94    | 575.81 | 564.58 | 543.43 | 593.67  | 589.99  | 589.37  | 588.60  | 589.28  |
| 13          | 589.67      | 588.11     | 589.44     | 585.45    | 576.21 | 563.46 | 546.77 | 593.59  | 590.15  | 589.27  | 588.65  | 589.90  |
| 14          | 589.99      | 588.36     | 588.25     | 585.04    | 577.24 | 562.37 | 549.58 | 592.90  | 590.71  | 589.31  | 588.69  | 589.58  |
| 15          | 592.09      | 588.85     | 587.99     | 584.92    | 577.58 | 562.12 | 549.10 | 592.45  | 589.53  | 589.30  | 588.71  | 588.36  |
| 16          | 591.75      | 589.08     | 587.68     | 584.93    | 577.52 | 563.07 | 550.00 | 592.54  | 589.83  | 589.39  | 588.75  | 588.33  |
| 17          | 590.96      | 589.04     | 587.73     | 584.79    | 577.73 | 562.50 | 549.78 | 592.58  | 589.73  | 589.59  | 588.61  | 588.25  |
| 18          | 590.12      | 589.16     | 587.74     | 584.01    | 577.60 | 562.56 | 549.93 | 592.55  | 589.77  | 589.80  | 588.66  | 588.59  |
| 19          | 589.94      | 589.33     | 587.69     | 583.15    | 577.41 | 563.39 | 552.62 | 592.60  | 589.81  | 589.76  | 588.69  | 588.80  |
| 20          | 589.73      | 589.56     | 587.75     | 582.28    | 577.41 | 562.80 | 557.12 | 592.51  | 589.95  | 589.73  | 588.78  | 589.18  |
| 21          | 589.77      | 590.43     | 587.15     | 581.67    | 577.22 | 562.62 | 561.30 | 592.32  | 589.92  | 589.80  | 588.86  | 590.04  |
| 22          | 589.83      | 590.88     | 586.76     | 581.43    | 576.83 | 561.70 | 564.32 | 592.00  | 589.92  | 589.75  | 588.90  | 590.06  |
| 23          | 590.05      | 590.32     | 586.54     | 581.51    | 576.65 | 560.18 | 565.38 | 591.39  | 589.90  | 589.80  | 588.40  | 589.89  |
| 24          | 589.68      | 590.23     | 586.84     | 581.24    | 576.14 | 558.64 | 565.83 | 590.80  | 589.75  | 589.88  | 589.59  | 589.92  |
| 25          | 590.10      | 590.20     | 586.90     | 580.94    | 575.45 | 557.02 | 566.44 | 590.56  | 589.97  | 589.92  | 589.66  | 590.15  |
| 26          | 590.06      | 590.30     | 587.02     | 580.81    | 575.22 | 555.33 | 566.86 | 590.29  | 590.24  | 589.81  | 589.71  | 590.28  |
| 27          | 589.98      | 590.32     | 587.04     | 580.36    | 574.53 | 553.93 | 567.48 | 589.94  | 590.37  | 589.82  | 588.28  | 589.99  |
| 28          | 589.83      | 590.46     | 586.96     | 579.78    | 573.64 | 553.93 | 568.41 | 589.60  | 590.28  | 589.80  | 592.63  | 589.71  |
| 29          | 589.68      | 590.39     | 586.84     | 579.54    | -----  | 552.25 | 570.60 | 590.19  | 590.10  | 589.76  | 593.30  | 589.67  |
| 30          | 589.23      | 590.19     | 586.50     | 579.75    | -----  | 550.54 | 572.25 | 590.69  | 590.02  | 589.71  | 592.40  | 589.62  |
| 31          | 589.41      | -----      | 586.37     | 579.46    | -----  | 548.72 | -----  | 590.93  | -----   | 590.12  | 591.47  | -----   |
| MEAN        | 589.99      | 589.38     | 588.12     | 583.89    | 576.81 | 562.55 | 553.35 | 590.23  | 590.03  | 589.71  | 589.47  | 589.48  |
| MAX         | 592.09      | 590.88     | 590.30     | 586.80    | 578.85 | 573.14 | 572.25 | 594.23  | 590.70  | 590.12  | 593.30  | 590.79  |
| MIN         | 589.03      | 588.11     | 586.37     | 579.46    | 573.64 | 548.72 | 540.56 | 574.39  | 589.72  | 589.27  | 588.31  | 588.25  |
| (†)         | 1,484.0     | 1,512.3    | 1,376.4    | 1,152.8   | 987.7  | 440.0  | 951.0  | 1,541.1 | 1,505.8 | 1,509.6 | 1,562.0 | 1,491.5 |
| (‡)         | -13.0       | +10.9      | -50.7      | -83.5     | -68.2  | -204   | +197   | +220    | -13.6   | +1.42   | +19.6   | -27.2   |
| CAL YR 1970 | MEAN 582.93 | MAX 593.88 | MIN 524.10 | (†) -1.25 |        |        |        |         |         |         |         |         |
| WTR YR 1971 | MEAN 582.86 | MAX 594.23 | MIN 540.56 | (‡) -0.87 |        |        |        |         |         |         |         |         |

† Contents, in millions of cubic feet, at end of month.

‡ Change in contents, in cubic feet per second.

## 04289000 Little River near Waterbury, Vt.

LOCATION.--Lat 44°22'12", long 72°46'11", Washington County, on right bank 1 mile downstream from Waterbury Reservoir, 1.7 miles upstream from mouth, and 2.5 miles north of Waterbury.

DRAINAGE AREA.--111 sq mi.

PERIOD OF RECORD.--July to October 1910 (gage heights only), October 1935 to current year. October, November 1935 monthly discharge only, published in WSP 1307. Prior to October 1962, published as Waterbury River near Waterbury.

GAGE.--Water-stage recorder. Concrete control since Dec. 8, 1937. Datum of gage is 428.00 ft above mean sea level (levels by Corps of Engineers). July 7 to Oct. 31, 1910, nonrecording gage at site 2 miles upstream at different datum.

AVERAGE DISCHARGE.--36 years, 226 cfs (27.65 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 1,360 cfs May 12 (gage height, 9.22 ft); minimum daily, 9.9 cfs Aug. 16.

Period of record: Maximum discharge, 6,520 cfs Mar. 18, 1936 (gage height, 19.38 ft); minimum daily, 0.6 cfs several times during summers of 1938-39, 1941, and 1944. Maximum discharge since construction of Waterbury Reservoir in 1937, 4,080 cfs Dec. 9, 1937 (gage height, 14.88 ft).

REMARKS.--Records good. Flow completely regulated by Waterbury Reservoir (see preceding page).

REVISIONS (WATER YEARS).--WSP 824: 1936.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY         | CCT            | NCV      | EEC       | JAN     | FEB       | MAR        | APR       | MAY    | JUN   | JUL   | AUG     | SEP   |
|-------------|----------------|----------|-----------|---------|-----------|------------|-----------|--------|-------|-------|---------|-------|
| 1           | 221            | 34       | 221       | 14      | 271       | 170        | 496       | 579    | 281   | 146   | 11      | 358   |
| 2           | 253            | 97       | 178       | 14      | 206       | 128        | 493       | 580    | 269   | 158   | 127     | 289   |
| 3           | 11             | 154      | 167       | 100     | 270       | 196        | 402       | 600    | 274   | 13    | 301     | 288   |
| 4           | 11             | 149      | 354       | 164     | 171       | 145        | 253       | 626    | 279   | 12    | 575     | 12    |
| 5           | 79             | 180      | 155       | 101     | 155       | 183        | 492       | 620    | 77    | 12    | 489     | 11    |
| 6           | 140            | 225      | 94        | 121     | 12        | 285        | 493       | 613    | 12    | 149   | 239     | 11    |
| 7           | 290            | 13       | 378       | 122     | 113       | 540        | 490       | 621    | 290   | 105   | 11      | 283   |
| 8           | 295            | 12       | 345       | 153     | 194       | 466        | 487       | 757    | 273   | 92    | 10      | 189   |
| 9           | 299            | 148      | 274       | 46      | 167       | 371        | 484       | 1,010  | 179   | 73    | 10      | 150   |
| 10          | 11             | 146      | 215       | 119     | 176       | 402        | 486       | 1,110  | 105   | 12    | 57      | 97    |
| 11          | 11             | 66       | 175       | 307     | 156       | 304        | 490       | 1,270  | 141   | 12    | 11      | 11    |
| 12          | 11             | 139      | 123       | 217     | 52        | 366        | 500       | 1,270  | 12    | 82    | 11      | 12    |
| 13          | 12             | 163      | 102       | 277     | 12        | 378        | 515       | 1,210  | 11    | 82    | 10      | 141   |
| 14          | 15             | 12       | 206       | 249     | 15        | 378        | 484       | 909    | 117   | 81    | 10      | 161   |
| 15          | 48             | 13       | 216       | 141     | 13        | 284        | 505       | 708    | 106   | 81    | 10      | 257   |
| 16          | 553            | 104      | 223       | 82      | 13        | 320        | 503       | 660    | 105   | 11    | 9.9     | 102   |
| 17          | 568            | 153      | 135       | 119     | 13        | 523        | 502       | 688    | 109   | 11    | 77      | 102   |
| 18          | 540            | 62       | 116       | 361     | 89        | 247        | 506       | 677    | 74    | 11    | 11      | 13    |
| 19          | 210            | 75       | 133       | 401     | 183       | 14         | 524       | 680    | 12    | 79    | 10      | 11    |
| 20          | 205            | 126      | 91        | 392     | 125       | 316        | 548       | 686    | 12    | 82    | 10      | 175   |
| 21          | 81             | 535      | 355       | 232     | 165       | 251        | 555       | 660    | 113   | 11    | 10      | 155   |
| 22          | 115            | 183      | 269       | 162     | 214       | 354        | 558       | 622    | 106   | 60    | 10      | 199   |
| 23          | 402            | 503      | 197       | 52      | 182       | 519        | 556       | 594    | 82    | 11    | 79      | 155   |
| 24          | 463            | 254      | 15        | 173     | 256       | 518        | 557       | 558    | 116   | 10    | 11      | 137   |
| 25          | 13             | 178      | 86        | 176     | 64        | 518        | 560       | 406    | 13    | 10    | 11      | 12    |
| 26          | 167            | 85       | 56        | 146     | 80        | 516        | 564       | 553    | 12    | 84    | 13      | 12    |
| 27          | 167            | 126      | 105       | 238     | 218       | 470        | 567       | 591    | 13    | 62    | 252     | 198   |
| 28          | 175            | 209      | 127       | 285     | 396       | 108        | 570       | 536    | 96    | 60    | 480     | 175   |
| 29          | 185            | 328      | 149       | 158     | -----     | 503        | 555       | 14     | 98    | 58    | 536     | 107   |
| 30          | 291            | 333      | 241       | 12      | -----     | 505        | 571       | 12     | 116   | 64    | 661     | 102   |
| 31          | 13             | -----    | 141       | 170     | -----     | 500        | -----     | 90     | ----- | 14    | 591     | ----- |
| TOTAL       | 5,859          | 4,809    | 5,646     | 5,408   | 3,980     | 10,777     | 15,270    | 20,510 | 3,493 | 1,738 | 4,653.9 | 4,005 |
| MEAN        | 189            | 160      | 182       | 174     | 142       | 348        | 509       | 662    | 116   | 56.1  | 150     | 134   |
| MAX         | 568            | 535      | 378       | 401     | 356       | 540        | 571       | 1,270  | 281   | 158   | 661     | 398   |
| MIN         | 11             | 12       | 15        | 12      | 12        | 14         | 253       | 12     | 11    | 10    | 9.9     | 11    |
| MEAN†       | 176            | 171      | 131       | 91.0    | 73.9      | 143        | 706       | 882    | 103   | 57.5  | 170     | 106   |
| CFSM†       | 1.59           | 1.54     | 1.18      | .82     | .67       | 1.29       | 6.36      | 7.95   | .93   | .52   | 1.53    | .95   |
| IN.†        | 1.83           | 1.72     | 1.37      | .95     | .69       | 1.49       | 7.10      | 9.16   | 1.03  | .60   | 1.76    | 1.07  |
| CAL YR 1970 | TOTAL 80,996.7 | MEAN 222 | MAX 1,110 | MIN 8.4 | MEAN† 221 | CFSM† 1.99 | IN† 26.99 |        |       |       |         |       |
| WTR YR 1971 | TOTAL 86,148.9 | MEAN 236 | MAX 1,270 | MIN 9.9 | MEAN† 235 | CFSM† 2.12 | IN† 28.77 |        |       |       |         |       |

† Adjusted for change in contents in Waterbury Reservoir.

## ST. LAWRENCE RIVER BASIN

04290500 Winooski River near Essex Junction, Vt.

LOCATION.--Lat 44°28'44", long 73°08'21", Chittenden County, on right bank 0.5 mile downstream from Muddy Brook and 2 miles southwest of Essex Junction.

DRAINAGE AREA.--1,044 sq mi.

PERIOD OF RECORD.--October 1928 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 185 ft (from topographic map); prior to Oct. 1, 1964, datum was 1.00 ft higher.

AVERAGE DISCHARGE.--43 years, 1,626 cfs (21.15 inches per year), adjusted for storage since October 1938.

EXTREMES.--Current year: Maximum discharge, 20,700 cfs May 4 (gage height, 13.62 ft); minimum daily, 128 cfs Aug. 22.

Period of record: Maximum discharge, 45,300 cfs Mar. 19, 1936 (gage height, 24.54 ft, present datum), from rating curve extended above 27,000 cfs on basis of computations of flow over dam at gage heights 19.72, 24.54, and 51.4 ft and slope-area measurement at gage height 51.4 ft (all at present datum); minimum daily, 24 cfs Sept. 7, 1968.

Maximum discharge since at least 1830, 113,000 cfs Nov. 4, 1927 (gage height, 51.4 ft, present datum, from floodmarks), from rating curve extended above 27,000 cfs by method explained above.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants above station, by Peacham Pond and Mollys Falls Reservoir (combined usable capacity, 492,000,000 cu ft), by Waterbury Reservoir since 1937 (see p. 238), and by East Barre and Wrightsville Detention Reservoirs since 1935 (see p. 233). See table with station 04286000 for monthend contents in Peacham Pond and Mollys Falls Reservoir.

REVISIONS (WATER YEARS).--WSP 714: 1930(M). WSP 894: Drainage area. WSP 1307: 1929(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| CAY   | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR     | MAY     | JUN    | JUL    | AUG    | SEP    |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|
| 1     | 667    | 304    | 1,130  | 680    | 500    | 1,600  | 1,450   | 7,930   | 1,280  | 445    | 301    | 2,020  |
| 2     | 563    | 608    | 1,130  | 600    | 520    | 1,300  | 1,720   | 7,790   | 1,260  | 645    | 446    | 1,170  |
| 3     | 371    | 423    | 1,040  | 640    | 550    | 1,100  | 3,600   | 9,960   | 1,050  | 624    | 1,200  | 1,030  |
| 4     | 265    | 457    | 1,150  | 680    | 570    | 1,100  | 4,380   | 17,600  | 1,030  | 311    | 5,460  | 602    |
| 5     | 476    | 498    | 1,000  | 640    | 560    | 1,150  | 3,520   | 14,200  | 912    | 150    | 2,770  | 534    |
| 6     | 546    | 562    | 800    | 800    | 540    | 1,100  | 3,230   | 9,780   | 867    | 457    | 1,490  | 569    |
| 7     | 741    | 437    | 850    | 750    | 490    | 1,500  | 3,330   | 9,000   | 784    | 288    | 594    | 1,000  |
| 8     | 515    | 243    | 860    | 700    | 450    | 1,350  | 2,950   | 8,370   | 939    | 385    | 396    | 650    |
| 9     | 829    | 375    | 750    | 670    | 600    | 1,150  | 2,650   | 8,320   | 1,150  | 284    | 385    | 571    |
| 10    | 612    | 471    | 900    | 640    | 560    | 1,100  | 3,580   | 7,650   | 1,000  | 216    | 355    | 524    |
| 11    | 260    | 403    | 850    | 620    | 610    | 800    | 3,750   | 7,830   | 784    | 135    | 342    | 360    |
| 12    | 408    | 620    | 670    | 720    | 600    | 1,200  | 5,520   | 7,430   | 575    | 250    | 353    | 624    |
| 13    | 340    | 586    | 760    | 660    | 560    | 1,300  | 7,990   | 6,900   | 495    | 262    | 367    | 957    |
| 14    | 395    | 526    | 740    | 700    | 650    | 900    | 8,350   | 5,520   | 568    | 460    | 302    | 1,140  |
| 15    | 683    | 540    | 780    | 670    | 1,150  | 1,050  | 5,990   | 4,430   | 568    | 420    | 237    | 1,110  |
| 16    | 1,770  | 822    | 680    | 550    | 1,300  | 3,500  | 5,030   | 3,930   | 575    | 422    | 245    | 1,170  |
| 17    | 1,610  | 851    | 700    | 580    | 1,250  | 4,000  | 4,170   | 3,980   | 508    | 364    | 240    | 638    |
| 18    | 1,260  | 691    | 680    | 580    | 1,150  | 2,500  | 4,530   | 3,930   | 534    | 365    | 248    | 568    |
| 19    | 994    | 704    | 650    | 560    | 1,050  | 1,800  | 5,150   | 3,660   | 375    | 407    | 238    | 610    |
| 20    | 544    | 736    | 720    | 680    | 1,200  | 1,600  | 9,150   | 3,430   | 216    | 465    | 236    | 752    |
| 21    | 971    | 1,760  | 740    | 640    | 940    | 1,700  | 11,600  | 3,120   | 463    | 448    | 159    | 1,210  |
| 22    | 512    | 2,210  | 770    | 600    | 960    | 1,500  | 11,000  | 3,390   | 589    | 352    | 128    | 1,020  |
| 23    | 879    | 1,920  | 790    | 560    | 1,000  | 1,650  | 8,650   | 2,840   | 547    | 308    | 1,030  | 808    |
| 24    | 2,110  | 1,400  | 810    | 540    | 1,050  | 1,600  | 6,550   | 2,290   | 469    | 198    | 815    | 792    |
| 25    | 1,450  | 949    | 620    | 520    | 1,050  | 1,600  | 6,900   | 1,850   | 488    | 236    | 392    | 514    |
| 26    | 714    | 844    | 760    | 580    | 1,000  | 1,450  | 6,550   | 2,560   | 375    | 265    | 252    | 385    |
| 27    | 671    | 749    | 640    | 520    | 1,300  | 1,400  | 6,650   | 3,000   | 451    | 294    | 799    | 680    |
| 28    | 630    | 1,040  | 720    | 520    | 1,700  | 1,150  | 6,800   | 2,690   | 469    | 269    | 3,430  | 582    |
| 29    | 642    | 1,520  | 700    | 700    | -----  | 1,300  | 7,890   | 2,080   | 415    | 388    | 11,600 | 514    |
| 30    | 721    | 1,360  | 720    | 620    | -----  | 1,450  | 7,890   | 1,570   | 375    | 336    | 4,050  | 589    |
| 31    | 613    | -----  | 700    | 550    | -----  | 1,450  | -----   | 1,300   | -----  | 509    | 2,580  | -----  |
| TOTAL | 23,762 | 24,609 | 24,810 | 19,470 | 23,860 | 47,350 | 170,520 | 178,330 | 20,111 | 10,958 | 41,440 | 23,693 |
| MEAN  | 767    | 820    | 800    | 628    | 852    | 1,527  | 5,684   | 5,753   | 670    | 353    | 1,337  | 790    |
| MAX   | 2,110  | 2,210  | 1,150  | 800    | 1,700  | 4,000  | 11,600  | 17,600  | 1,280  | 645    | 11,600 | 2,020  |
| MIN   | 260    | 243    | 620    | 520    | 450    | 800    | 1,450   | 1,300   | 216    | 135    | 128    | 360    |
| MEAN† | 753    | 822    | 721    | 519    | 756    | 1,274  | 6,022   | 5,984   | 654    | 358    | 1,365  | 747    |
| CFSM† | .72    | .79    | .69    | .50    | .72    | 1.22   | 5.77    | 5.73    | .63    | .34    | 1.31   | .72    |
| IN.†  | .83    | .88    | .80    | .57    | .75    | 1.41   | 6.44    | 6.61    | .70    | .40    | 1.51   | .80    |

CAL YR 1970 TOTAL 568,402 MEAN 1,557 MAX 17,800 MIN 43 MEAN† 1,555 CFSM† 1.49 IN† 20.23  
WTR YR 1971 TOTAL 608,913 MEAN 1,668 MAX 17,600 MIN 128 MEAN† 1,668 CFSM† 1.60 IN† 21.69

## PEAK DISCHARGE (BASE, 12,500 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-21 | 0800 | 9.59  | 12,900    |      |      |       |           |
| 5-4  | 1845 | 13.62 | 20,700    |      |      |       |           |
| 8-29 | 0415 | 12.04 | 17,600    |      |      |       |           |

† Adjusted for change in contents in Peacham Pond, Mollys Falls Reservoir, East Barre and Wrightsville Detention Reservoirs, and Waterbury Reservoir. Records of monthend contents in Peacham Pond and Mollys Falls Reservoir furnished by Green Mountain Power Corp.

## 04292000 Lamoille River at Johnson, Vt.

LOCATION.--Lat 44°37'22", long 72°40'50", Lamoille County, on right bank above falls, 0.7 mile upstream from bridge in Johnson, and 0.8 mile upstream from Gihon River.

DRAINAGE AREA.--310 sq mi.

PERIOD OF RECORD.--July to December 1910, June 1911 to December 1913 (monthly discharge only, January to March 1912, February 1913), September 1928 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 495 ft (from topographic map). Prior to Dec. 31, 1913, nonrecording gage at bridge 0.7 mile downstream at different datum.

AVERAGE DISCHARGE.--45 years (1911-13, 1928-71), 514 cfs (22.52 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,920 cfs May 4 (gage height, 12.05 ft, from peak-stage indicator); minimum, 120 cfs Aug. 26, 27; minimum daily, 123 cfs Aug. 27.

Period of record: Maximum discharge, 13,000 cfs Mar. 18, 1936 (gage height, 16.48 ft), from rating curve extended above 8,500 cfs on basis of computation of peak flow over dam; minimum, 11 cfs Sept. 2, 1935; minimum daily, 16 cfs Oct. 26, 1947.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are fair. Some regulation by powerplant above station.

REVISIONS (WATER YEARS).--WSP 894: Drainage area. WSP 1114: 1933, 1934(M). WSP 1237: 1912(M), 1930, 1932(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN   | JUL   | AUG    | SEP   |
|-------|-------|-------|--------|--------|--------|--------|--------|--------|-------|-------|--------|-------|
| 1     | 229   | 144   | 513    | 370    | 330    | 550    | 316    | 2,900  | 330   | 383   | 221    | 369   |
| 2     | 191   | 142   | 327    | 340    | 300    | 460    | 326    | 2,700  | 310   | 964   | 208    | 280   |
| 3     | 150   | 185   | 363    | 320    | 280    | 370    | 755    | 2,800  | 285   | 533   | 244    | 203   |
| 4     | 167   | 188   | 435    | 330    | 290    | 400    | 1,160  | 4,700  | 248   | 289   | 1,310  | 142   |
| 5     | 243   | 150   | 285    | 340    | 310    | 380    | 849    | 5,500  | 245   | 138   | 588    | 144   |
| 6     | 233   | 164   | 243    | 360    | 330    | 350    | 758    | 3,500  | 243   | 137   | 338    | 143   |
| 7     | 194   | 191   | 282    | 380    | 310    | 370    | 749    | 2,900  | 217   | 136   | 241    | 139   |
| 8     | 133   | 144   | 323    | 360    | 300    | 390    | 635    | 2,700  | 246   | 139   | 221    | 138   |
| 9     | 139   | 158   | 403    | 340    | 320    | 420    | 629    | 2,400  | 685   | 144   | 177    | 146   |
| 10    | 125   | 167   | 343    | 370    | 310    | 380    | 770    | 2,300  | 434   | 146   | 133    | 179   |
| 11    | 125   | 139   | 308    | 420    | 300    | 360    | 892    | 2,200  | 311   | 150   | 133    | 199   |
| 12    | 125   | 243   | 282    | 370    | 340    | 370    | 1,450  | 2,000  | 235   | 151   | 134    | 207   |
| 13    | 133   | 229   | 250    | 320    | 370    | 370    | 2,010  | 1,800  | 230   | 152   | 136    | 479   |
| 14    | 144   | 200   | 304    | 350    | 430    | 390    | 2,170  | 1,500  | 205   | 215   | 137    | 422   |
| 15    | 690   | 200   | 327    | 380    | 650    | 380    | 1,430  | 1,100  | 166   | 266   | 136    | 500   |
| 16    | 1,100 | 403   | 270    | 350    | 560    | 680    | 1,180  | 950    | 149   | 247   | 136    | 404   |
| 17    | 522   | 359   | 340    | 330    | 500    | 750    | 1,010  | 1,000  | 161   | 252   | 136    | 275   |
| 18    | 359   | 274   | 380    | 370    | 450    | 600    | 1,170  | 1,000  | 195   | 270   | 135    | 200   |
| 19    | 285   | 207   | 320    | 320    | 390    | 520    | 1,830  | 920    | 214   | 299   | 134    | 336   |
| 20    | 147   | 347   | 320    | 300    | 330    | 450    | 3,570  | 830    | 193   | 294   | 140    | 428   |
| 21    | 156   | 594   | 380    | 280    | 360    | 400    | 3,950  | 760    | 181   | 237   | 158    | 681   |
| 22    | 194   | 640   | 340    | 300    | 350    | 380    | 3,310  | 820    | 184   | 219   | 223    | 549   |
| 23    | 395   | 407   | 300    | 290    | 360    | 390    | 2,430  | 760    | 197   | 170   | 568    | 387   |
| 24    | 439   | 399   | 360    | 310    | 390    | 350    | 1,660  | 600    | 193   | 156   | 854    | 280   |
| 25    | 285   | 292   | 380    | 330    | 410    | 285    | 2,080  | 500    | 189   | 158   | 353    | 170   |
| 26    | 253   | 204   | 330    | 320    | 410    | 342    | 2,000  | 540    | 399   | 155   | 138    | 190   |
| 27    | 236   | 216   | 310    | 320    | 380    | 341    | 1,900  | 600    | 329   | 166   | 123    | 205   |
| 28    | 220   | 312   | 340    | 300    | 440    | 334    | 2,000  | 520    | 253   | 186   | 2,340  | 181   |
| 29    | 188   | 626   | 330    | 290    | -----  | 346    | 2,400  | 450    | 229   | 195   | 3,290  | 175   |
| 30    | 173   | 554   | 340    | 320    | -----  | 383    | 2,800  | 400    | 205   | 195   | 975    | 192   |
| 31    | 139   | ----- | 330    | 340    | -----  | 344    | -----  | 370    | ----- | 253   | 580    | ----- |
| TOTAL | 8,112 | 8,478 | 10,358 | 10,370 | 10,500 | 12,835 | 48,189 | 52,020 | 7,661 | 7,395 | 14,640 | 8,343 |
| MEAN  | 262   | 283   | 334    | 335    | 375    | 414    | 1,606  | 1,678  | 255   | 239   | 472    | 278   |
| MAX   | 1,100 | 640   | 513    | 420    | 650    | 750    | 3,950  | 5,500  | 685   | 964   | 3,290  | 681   |
| MIN   | 125   | 139   | 243    | 280    | 280    | 285    | 316    | 370    | 149   | 136   | 123    | 138   |
| CFSM  | .85   | .91   | 1.08   | 1.08   | 1.21   | 1.34   | 5.18   | 5.41   | .82   | .77   | 1.52   | .90   |
| IN.   | .97   | 1.02  | 1.24   | 1.24   | 1.26   | 1.54   | 5.78   | 6.24   | .92   | .89   | 1.76   | 1.00  |

CAL YR 1970 TOTAL 169,231 MEAN 464 MAX 6,100 MIN 50 CFSM 1.50 IN 20.31  
WTR YR 1971 TOTAL 198,901 MEAN 545 MAX 5,500 MIN 123 CFSM 1.76 IN 23.87

## PEAK DISCHARGE (BASE, 5,400 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | -    | 12.05 | 6,920     |      |      |       |           |
| 8-28 | 2200 | 11.69 | 6,520     |      |      |       |           |



## ST. LAWRENCE RIVER BASIN

04292100 Stony Brook near Eden, Vt.

LOCATION.--Lat 44°41'38", long 72°35'00", Lamoille County, on right bank 20 ft downstream from bridge on State Highway 100, 500 ft upstream from mouth, and 2 miles southwest of Eden.

DRAINAGE AREA.--4.21 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 890 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 9.50 cfs (30.64 inches per year).

EXTREMES.--Current year: Maximum discharge, 420 cfs Aug. 28 (gage height, 3.46 ft); maximum gage height, 4.71 ft Mar. 16 (backwater from ice); minimum discharge, 0.96 cfs Aug. 18-20.

Period of record: Maximum discharge, 420 cfs Aug. 28, 1971 (gage height, 3.46 ft); maximum gage height, 4.77 ft Mar. 6, 1966 (ice jam); minimum discharge, 0.40 cfs Sept. 24, 1964.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are fair. Recording rain gage at station since July 1964 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY     | JUN   | JUL   | AUG    | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|--------|-------|
| 1     | 5.7   | 4.6   | 12    | 4.4   | 3.6   | 6.4   | 6.2   | 71      | 5.0   | 19    | 5.3    | 3.8   |
| 2     | 4.9   | 4.5   | 11    | 4.4   | 3.5   | 5.8   | 6.4   | 56      | 4.8   | 11    | 5.0    | 2.6   |
| 3     | 6.8   | 4.2   | 10    | 4.4   | 3.4   | 5.8   | 20    | 88      | 12    | 5.5   | 7.6    | 2.2   |
| 4     | 8.4   | 4.0   | 9.0   | 4.5   | 2.3   | 5.5   | 16    | 58      | 8.2   | 4.0   | 7.3    | 1.9   |
| 5     | 8.3   | 4.0   | 8.5   | 5.5   | 3.3   | 5.5   | 13    | 93      | 5.5   | 3.3   | 3.8    | 3.5   |
| 6     | 6.2   | 3.9   | 8.0   | 6.8   | 4.5   | 5.5   | 11    | 86      | 5.0   | 2.8   | 2.8    | 5.3   |
| 7     | 4.8   | 3.9   | 7.6   | 6.3   | 4.5   | 5.5   | 11    | 86      | 4.5   | 3.0   | 2.2    | 3.0   |
| 8     | 4.8   | 3.9   | 7.2   | 6.0   | 4.3   | 5.5   | 10    | 67      | 28    | 2.2   | 1.7    | 2.2   |
| 9     | 4.2   | 3.8   | 7.0   | 5.8   | 5.3   | 5.5   | 10    | 65      | 15    | 1.9   | 1.6    | 1.7   |
| 10    | 3.9   | 3.8   | 7.0   | 5.7   | 4.8   | 5.3   | 13    | 59      | 8.5   | 1.9   | 1.3    | 1.5   |
| 11    | 3.8   | 6.8   | 6.8   | 5.6   | 4.8   | 5.3   | 15    | 50      | 6.4   | 1.6   | 1.3    | 1.4   |
| 12    | 3.8   | 6.0   | 6.5   | 5.4   | 4.5   | 5.5   | 22    | 34      | 5.3   | 1.5   | 1.5    | 3.0   |
| 13    | 6.5   | 5.4   | 6.2   | 5.3   | 5.0   | 5.8   | 37    | 30      | 4.8   | 1.6   | 1.1    | 3.3   |
| 14    | 10    | 5.4   | 5.9   | 5.2   | 7.0   | 5.5   | 39    | 23      | 4.0   | 2.1   | 1.2    | 5.5   |
| 15    | 19    | 9.0   | 5.7   | 5.1   | 13    | 6.5   | 25    | 18      | 3.5   | 3.5   | 1.1    | 5.5   |
| 16    | 14    | 14    | 5.4   | 5.0   | 12    | 12    | 19    | 16      | 3.3   | 2.2   | 1.1    | 3.0   |
| 17    | 9.6   | 9.2   | 5.2   | 4.8   | 10    | 13    | 18    | 18      | 2.8   | 13    | 1.1    | 2.0   |
| 18    | 7.6   | 7.0   | 5.0   | 4.8   | 8.2   | 11    | 19    | 15      | 2.4   | 7.9   | .96    | 2.0   |
| 19    | 6.2   | 7.0   | 5.0   | 4.7   | 7.4   | 8.4   | 38    | 12      | 2.4   | 3.8   | .96    | 1.9   |
| 20    | 5.4   | 11    | 4.9   | 4.7   | 6.4   | 7.6   | 70    | 11      | 2.2   | 4.8   | .96    | 1.7   |
| 21    | 5.1   | 30    | 4.8   | 4.6   | 6.1   | 7.3   | 62    | 15      | 14    | 3.0   | 1.1    | 20    |
| 22    | 5.4   | 20    | 4.8   | 4.5   | 5.3   | 6.7   | 46    | 16      | 8.5   | 2.2   | 1.5    | 8.8   |
| 23    | 16    | 15    | 4.8   | 4.4   | 5.3   | 6.6   | 29    | 12      | 4.3   | 1.9   | 11     | 5.8   |
| 24    | 12    | 12    | 4.7   | 4.2   | 5.3   | 6.4   | 25    | 10      | 3.0   | 1.7   | 4.5    | 4.5   |
| 25    | 9.0   | 9.0   | 4.6   | 4.0   | 5.3   | 6.3   | 28    | 9.2     | 6.4   | 2.6   | 2.0    | 3.5   |
| 26    | 7.4   | 6.8   | 4.5   | 4.0   | 5.0   | 6.2   | 29    | 10      | 8.5   | 2.0   | 1.5    | 2.8   |
| 27    | 6.4   | 9.0   | 4.5   | 4.3   | 5.8   | 6.0   | 31    | 10      | 4.0   | 5.5   | 1.5    | 2.4   |
| 28    | 6.0   | 19    | 4.5   | 4.0   | 7.4   | 6.0   | 44    | 8.8     | 2.8   | 3.0   | 81     | 2.2   |
| 29    | 5.6   | 15    | 4.5   | 3.9   | ----- | 6.0   | 56    | 7.6     | 2.6   | 2.0   | 20     | 2.8   |
| 30    | 5.2   | 13    | 4.5   | 3.9   | ----- | 6.0   | 68    | 6.7     | 2.6   | 2.6   | 8.5    | 3.0   |
| 31    | 4.9   | ----- | 4.5   | 3.7   | ----- | 6.0   | ----- | 5.8     | ----- | 12    | 6.4    | ----- |
| TOTAL | 226.5 | 270.2 | 194.6 | 149.9 | 164.3 | 206.4 | 836.6 | 1,107.1 | 190.3 | 135.1 | 168.88 | 128.1 |
| MEAN  | 7.32  | 9.01  | 6.28  | 4.84  | 5.87  | 6.66  | 27.9  | 35.7    | 6.34  | 4.36  | 6.09   | 4.27  |
| MAX   | 19    | 30    | 12    | 6.8   | 13    | 13    | 70    | 98      | 28    | 19    | 81     | 20    |
| MIN   | 3.8   | 3.8   | 4.5   | 3.7   | 3.3   | 5.3   | 6.2   | 5.8     | 2.2   | 1.5   | .96    | 1.4   |
| CFSM  | 1.74  | 2.14  | 1.49  | 1.15  | 1.39  | 1.58  | 6.63  | 8.48    | 1.51  | 1.04  | 1.45   | 1.01  |
| IN.   | 2.00  | 2.39  | 1.72  | 1.32  | 1.45  | 1.82  | 7.39  | 9.78    | 1.68  | 1.19  | 1.67   | 1.13  |

CAL YR 1970 TOTAL 3,321.03 MEAN 9.10 MAX 135 MIN .53 CFSM 2.16 IN 29.34  
WTR YR 1971 TOTAL 3,798.38 MEAN 10.4 MAX 58 MIN .96 CFSM 2.47 IN 33.56

## PEAK DISCHARGE (BASE, 110 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-20 | 1800 | 3.21  | 120       |      |      |       |           |
| 4-30 | 1830 | 3.19  | 110       |      |      |       |           |
| 5-6  | 1845 | 3.29  | 178       |      |      |       |           |
| 8-28 | 1430 | 3.46  | 420       |      |      |       |           |

NOTE.--No gage-height record Oct. 23 to Dec. 30.



## 04292500 Lamoille River at East Georgia, Vt.

LOCATION.--Lat 44°40'45", long 73°04'23", Franklin County, on right bank at East Georgia, 0.5 mile upstream from railroad bridge and 1 mile downstream from Beaver Meadow Brook.

DRAINAGE AREA.--686 sq mi.

PERIOD OF RECORD.--August 1929 to current year. Prior to October 1937, published as "near Milton."

GAGE.--Water-stage recorder. Altitude of gage is 285 ft (from topographic map). Prior to Dec. 1, 1937, at site 3.5 miles downstream at different datum.

AVERAGE DISCHARGE.--42 years, 1,187 cfs (23.50 inches per year), adjusted to present drainage area.

EXTREMES.--Current year: Maximum discharge, 12,200 cfs May 5 (gage height, 9.74 ft); minimum daily, 194 cfs July 10.

Period of record: Maximum discharge, 23,200 cfs Mar. 19, 1936 (gage height, 12.52 ft, site and datum then in use), by computation of peak flow over dam; maximum gage height, 18.81 ft Apr. 3, 1959 (ice jam); minimum daily discharge, 74 cfs Sept. 26, 1964.

REMARKS.--Records good except those for winter period, periods of no gage-height record, and period of doubtful gage-height record, which are fair. Low flow regulated by powerplants above station. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS.--WSP 894: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR     | MAY     | JUN    | JUL    | AUG    | SEP    |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|
| 1     | 724    | 470    | 1,000  | 760    | 590    | 860    | 700     | 6,270   | 760    | 760    | 530    | 900    |
| 2     | 613    | 457    | 900    | 720    | 590    | 830    | 780     | 5,750   | 711    | 2,290  | 500    | 750    |
| 3     | 617    | 452    | 950    | 680    | 540    | 800    | 2,000   | 6,010   | 654    | 1,120  | 800    | 620    |
| 4     | 880    | 456    | 1,050  | 720    | 450    | 780    | 3,500   | 10,000  | 781    | 672    | 2,500  | 450    |
| 5     | 859    | 500    | 850    | 740    | 510    | 760    | 2,900   | 11,100  | 642    | 475    | 1,800  | 350    |
| 6     | 791    | 398    | 700    | 900    | 520    | 750    | 2,400   | 7,590   | 545    | 313    | 900    | 370    |
| 7     | 675    | 446    | 840    | 840    | 530    | 750    | 2,100   | 6,290   | 540    | 328    | 550    | 370    |
| 8     | 498    | 444    | 700    | 800    | 540    | 840    | 1,900   | 5,880   | 746    | 331    | 450    | 343    |
| 9     | 448    | 382    | 750    | 780    | 500    | 820    | 1,800   | 5,240   | 1,310  | 289    | 400    | 341    |
| 10    | 383    | 456    | 800    | 760    | 580    | 800    | 2,600   | 4,930   | 1,030  | 194    | 330    | 353    |
| 11    | 377    | 392    | 820    | 780    | 590    | 760    | 2,920   | 4,710   | 725    | 276    | 300    | 351    |
| 12    | 375    | 505    | 820    | 800    | 560    | 720    | 4,050   | 4,370   | 642    | 273    | 280    | 441    |
| 13    | 442    | 553    | 720    | 720    | 650    | 760    | 5,860   | 4,000   | 500    | 274    | 260    | 425    |
| 14    | 669    | 606    | 760    | 660    | 800    | 760    | 6,280   | 3,140   | 450    | 350    | 240    | 699    |
| 15    | 1,120  | 730    | 760    | 680    | 1,000  | 900    | 4,300   | 2,290   | 420    | 598    | 230    | 748    |
| 16    | 2,620  | 886    | 700    | 720    | 1,100  | 1,500  | 3,220   | 2,040   | 359    | 491    | 210    | 753    |
| 17    | 1,610  | 925    | 660    | 660    | 900    | 1,400  | 2,560   | 2,180   | 310    | 450    | 240    | 631    |
| 18    | 1,060  | 856    | 780    | 640    | 820    | 1,200  | 2,880   | 2,170   | 317    | 600    | 230    | 530    |
| 19    | 858    | 743    | 800    | 600    | 760    | 1,100  | 3,400   | 1,940   | 331    | 900    | 240    | 368    |
| 20    | 708    | 735    | 820    | 550    | 680    | 1,000  | 6,490   | 1,780   | 331    | 720    | 220    | 625    |
| 21    | 577    | 1,100  | 800    | 550    | 660    | 940    | 8,310   | 1,650   | 490    | 620    | 250    | 1,290  |
| 22    | 522    | 2,000  | 750    | 560    | 640    | 880    | 8,490   | 1,770   | 660    | 480    | 350    | 1,320  |
| 23    | 1,150  | 1,500  | 760    | 580    | 620    | 840    | 6,890   | 1,640   | 545    | 410    | 580    | 850    |
| 24    | 1,640  | 1,200  | 800    | 560    | 640    | 800    | 4,350   | 1,290   | 351    | 360    | 2,000  | 695    |
| 25    | 1,210  | 950    | 800    | 600    | 700    | 740    | 4,240   | 1,120   | 367    | 330    | 1,000  | 595    |
| 26    | 913    | 820    | 700    | 640    | 680    | 720    | 4,320   | 1,200   | 624    | 320    | 500    | 372    |
| 27    | 755    | 720    | 800    | 660    | 750    | 720    | 4,290   | 1,300   | 732    | 320    | 400    | 400    |
| 28    | 730    | 700    | 700    | 670    | 860    | 720    | 4,230   | 1,150   | 582    | 400    | 1,000  | 407    |
| 29    | 606    | 1,300  | 780    | 600    | -----  | 740    | 5,280   | 1,000   | 411    | 450    | 7,000  | 399    |
| 30    | 573    | 1,150  | 800    | 590    | -----  | 730    | 5,920   | 880     | 375    | 450    | 2,200  | 344    |
| 31    | 554    | -----  | 820    | 580    | -----  | 720    | -----   | 820     | -----  | 600    | 1,300  | -----  |
| TOTAL | 25,557 | 22,832 | 24,690 | 21,100 | 18,760 | 26,640 | 118,960 | 111,500 | 17,241 | 16,444 | 27,790 | 17,090 |
| MEAN  | 824    | 761    | 796    | 681    | 670    | 859    | 3,965   | 3,597   | 575    | 530    | 896    | 570    |
| MAX   | 2,620  | 2,000  | 1,050  | 900    | 1,100  | 1,500  | 8,490   | 11,100  | 1,310  | 2,290  | 7,000  | 1,320  |
| MIN   | 375    | 382    | 660    | 550    | 450    | 720    | 700     | 820     | 310    | 194    | 210    | 341    |
| CFSM  | 1.20   | 1.11   | 1.16   | .59    | .98    | 1.25   | 5.78    | 5.24    | .84    | .77    | 1.31   | .83    |
| IN.   | 1.39   | 1.24   | 1.34   | 1.14   | 1.02   | 1.44   | 6.45    | 6.05    | .93    | .89    | 1.51   | .93    |

CAL YR 1970 TOTAL 406,694 MEAN 1,114 MAX 11,000 MIN 110 CFSM 1.62 IN 22.05  
WTR YR 1971 TOTAL 448,604 MEAN 1,229 MAX 11,100 MIN 194 CFSM 1.75 IN 24.33

## PEAK DISCHARGE (BASE, 10,400 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-5  | 0330 | 9.74  | 12,200    |      |      |       |           |
| 8-29 | -    | -     | †11,500   |      |      |       |           |

† About.

NOTE.--No gage-height record Nov. 21 to Dec. 29, July 17 to Sept. 7. Doubtful gage-height record June 2 to July 11.

04292700 Stone Bridge Brook near Georgia Plains, Vt.

LOCATION.--Lat 44°42'13", long 73°10'54", Franklin County, on left bank 20 ft upstream from culvert on gravel road and 1.5 miles southwest of Georgia Plains.

DRAINAGE AREA.--8.45 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 150 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 6.66 cfs (10.70 inches per year).

EXTREMES.--Current year: Maximum discharge, 131 cfs Apr. 13 (gage height, 4.69 ft); maximum gage height, 5.13 ft Mar. 16 (backwater from ice); minimum discharge, 0.75 cfs Aug. 19, 20.

Period of record: Maximum discharge, 264 cfs May 20, 1969 (gage height, 5.54 ft), from rating curve extended above 75 cfs; maximum gage height, 6.01 ft Jan. 26, 1964 (backwater from ice); minimum discharge, 0.22 cfs Aug. 5, 1965.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are fair. Recording rain gage at station since July 1964 (no winter records).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL    | AUG    | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|
| 1     | 3.1   | 3.3   | 9.5   | 5.8   | 4.0   | 5.8   | 11    | 22    | 4.3   | 4.0    | 12     | 5.9   |
| 2     | 2.8   | 3.3   | 7.8   | 5.8   | 3.9   | 9.6   | 22    | 15    | 3.2   | 11     | 5.5    | 3.5   |
| 3     | 3.4   | 2.7   | 6.5   | 5.8   | 3.8   | 9.4   | 48    | 20    | 2.9   | 8.0    | 3.7    | 2.4   |
| 4     | 4.2   | 2.9   | 5.5   | 5.6   | 3.7   | 9.2   | 62    | 73    | 2.8   | 4.5    | 3.1    | 2.2   |
| 5     | 3.5   | 2.9   | 7.0   | 6.0   | 3.8   | 8.8   | 54    | 65    | 2.6   | 2.6    | 2.2    | 2.0   |
| 6     | 3.0   | 3.1   | 6.5   | 6.4   | 3.8   | 9.6   | 50    | 27    | 2.4   | 1.8    | 1.5    | 1.9   |
| 7     | 2.6   | 3.0   | 6.2   | 6.2   | 3.6   | 9.4   | 46    | 16    | 2.9   | 1.5    | 1.4    | 1.7   |
| 8     | 2.4   | 2.7   | 6.0   | 5.9   | 3.5   | 9.0   | 43    | 12    | 6.0   | 1.4    | 1.3    | 1.6   |
| 9     | 2.2   | 2.9   | 6.5   | 6.1   | 3.6   | 8.6   | 39    | 11    | 9.0   | 1.2    | 1.1    | 1.5   |
| 10    | 1.9   | 2.8   | 7.0   | 6.4   | 3.7   | 8.2   | 63    | 10    | 6.0   | 1.1    | 1.1    | 1.5   |
| 11    | 2.3   | 2.7   | 6.5   | 6.1   | 3.8   | 7.8   | 64    | 9.0   | 4.0   | 1.0    | 1.6    | 1.4   |
| 12    | 2.8   | 3.2   | 6.0   | 5.8   | 4.0   | 7.6   | 86    | 8.3   | 2.9   | .95    | 1.6    | 1.4   |
| 13    | 3.3   | 3.3   | 5.8   | 5.8   | 4.5   | 7.4   | 105   | 7.3   | 2.5   | .98    | 1.2    | 1.7   |
| 14    | 4.9   | 4.3   | 5.6   | 5.8   | 7.6   | 7.8   | 83    | 6.6   | 2.1   | 2.9    | 1.2    | 1.7   |
| 15    | 6.0   | 9.4   | 5.3   | 5.8   | 7.4   | 15    | 43    | 6.1   | 1.9   | 3.7    | 1.1    | 2.0   |
| 16    | 5.8   | 11    | 5.0   | 5.8   | 7.2   | 50    | 31    | 4.9   | 1.7   | 2.9    | 1.1    | 1.9   |
| 17    | 4.6   | 8.1   | 5.6   | 5.6   | 8.6   | 70    | 24    | 7.5   | 1.6   | 4.6    | .91    | 1.8   |
| 18    | 3.5   | 6.1   | 6.0   | 5.2   | 8.4   | 60    | 30    | 7.8   | 1.4   | 12     | .89    | 1.8   |
| 19    | 2.5   | 5.9   | 6.0   | 5.0   | 8.2   | 47    | 34    | 6.5   | 1.3   | 6.1    | .83    | 1.7   |
| 20    | 2.2   | 6.9   | 5.8   | 4.7   | 8.0   | 31    | 45    | 5.6   | 1.2   | 4.0    | .75    | 2.7   |
| 21    | 2.0   | 9.8   | 5.6   | 4.5   | 7.8   | 24    | 47    | 12    | 6.0   | 2.9    | 1.1    | 6.0   |
| 22    | 3.0   | 8.5   | 5.4   | 4.4   | 7.6   | 19    | 53    | 12    | 5.0   | 2.1    | 1.7    | 5.5   |
| 23    | 15    | 7.0   | 6.2   | 4.4   | 7.4   | 17    | 43    | 8.4   | 3.5   | 1.5    | 8.3    | 3.8   |
| 24    | 17    | 5.7   | 6.1   | 4.4   | 7.2   | 14    | 28    | 6.7   | 3.2   | 1.5    | 7.8    | 2.8   |
| 25    | 8.9   | 4.9   | 6.1   | 4.4   | 6.8   | 12    | 25    | 7.7   | 5.4   | 1.5    | 4.6    | 2.7   |
| 26    | 5.8   | 4.5   | 6.0   | 4.5   | 7.2   | 11    | 22    | 6.7   | 4.5   | 1.1    | 3.4    | 2.6   |
| 27    | 5.4   | 4.5   | 6.0   | 4.9   | 8.0   | 10    | 20    | 7.4   | 3.5   | 4.0    | 2.5    | 2.3   |
| 28    | 4.0   | 9.7   | 5.9   | 4.7   | 11    | 10    | 17    | 6.8   | 2.7   | 3.0    | 27     | 2.0   |
| 29    | 3.5   | 17    | 5.8   | 4.5   | ----- | 9.9   | 18    | 8.2   | 2.2   | 2.2    | 59     | 1.9   |
| 30    | 3.3   | 13    | 5.8   | 4.4   | ----- | 9.9   | 22    | 5.0   | 1.8   | 2.2    | 17     | 1.9   |
| 31    | 3.1   | ----- | 5.8   | 4.1   | ----- | 10    | ----- | 3.9   | ----- | 8.3    | 9.8    | ----- |
| TOTAL | 138.0 | 175.1 | 190.8 | 164.8 | 168.1 | 542.0 | 1,278 | 425.4 | 100.5 | 106.53 | 186.32 | 73.8  |
| MEAN  | 4.45  | 5.84  | 6.15  | 5.32  | 6.00  | 17.5  | 42.6  | 13.7  | 3.35  | 3.44   | 6.01   | 2.46  |
| MAX   | 17    | 17    | 9.5   | 6.4   | 11    | 70    | 105   | 73    | 9.0   | 12     | 59     | 6.0   |
| MIN   | 1.9   | 2.7   | 5.0   | 4.1   | 3.5   | 7.4   | 11    | 3.9   | 1.2   | .95    | .79    | 1.4   |
| CFSM  | .53   | .69   | .73   | .63   | .71   | 2.07  | 5.04  | 1.62  | .40   | .41    | .71    | .29   |
| IN.   | .61   | .77   | .84   | .73   | .74   | 2.39  | 5.63  | 1.87  | .44   | .47    | .82    | .32   |

CAL YR 1970 TOTAL 2,381.69 MEAN 6.53 MAX 84 MIN .72 CFSM .77 IN 10.49  
WTR YR 1971 TOTAL 3,549.35 MEAN 9.72 MAX 105 MIN .79 CFSM 1.15 IN 15.63

## PEAK DISCHARGE (BASE, 75 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 3-16 | 2100 | -     | 80        |      |      |       |           |
| 4-13 | 0030 | 4.69  | 131       |      |      |       |           |
| 5-4  | 1715 | 4.41  | 99        |      |      |       |           |
| 8-29 | 0315 | 4.28  | 86        |      |      |       |           |

NOTE.--No gage-height record June 7 to July 10.

04293000 Missisquoi River near North Troy, Vt.

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

DRAINAGE AREA.--131 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 580 ft (from topographic map).

AVERAGE DISCHARGE.--40 years, 263 cfs (27.26 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,090 cfs Aug. 28 (gage height, 11.22 ft); from rating curve extended as explained below; minimum, 32 cfs Aug. 20; minimum daily, 34 cfs Aug. 20.

Period of record: Maximum discharge, 7,980 cfs May 3, 1940 (gage height, 12.87 ft), from rating curve extended above 3,600 cfs on basis of computation of flow over dam at gage height 11.70 ft; minimum, 9.4 cfs Aug. 28, 1949; minimum daily, 11 cfs Aug. 28, 1949, Aug. 30, 1953.

REMARKS.--Records good except those for winter period, which are fair. Occasional regulation at low flow caused by small powerplant above station; greater regulation prior to 1967.

REVISIONS (WATER YEARS).--WSP 924: 1940. WSP 1114: 1933(M), 1936-39.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 181   | 85    | 306   | 82    | 71    | 185   | 142    | 1,420  | 113   | 443   | 246   | 194   |
| 2     | 138   | 83    | 266   | 81    | 70    | 160   | 197    | 1,290  | 101   | 729   | 252   | 136   |
| 3     | 159   | 80    | 271   | 81    | 69    | 145   | 516    | 1,460  | 114   | 179   | 151   | 106   |
| 4     | 292   | 77    | 190   | 80    | 68    | 135   | 550    | 3,080  | 128   | 102   | 146   | 93    |
| 5     | 215   | 76    | 175   | 95    | 67    | 125   | 396    | 2,100  | 100   | 78    | 103   | 90    |
| 6     | 160   | 77    | 175   | 120   | 69    | 120   | 374    | 1,490  | 87    | 67    | 80    | 161   |
| 7     | 127   | 78    | 145   | 115   | 72    | 115   | 363    | 1,570  | 81    | 62    | 69    | 118   |
| 8     | 108   | 77    | 120   | 105   | 72    | 115   | 289    | 1,460  | 320   | 59    | 60    | 90    |
| 9     | 96    | 72    | 130   | 97    | 77    | 110   | 332    | 1,380  | 251   | 54    | 52    | 82    |
| 10    | 89    | 71    | 140   | 91    | 84    | 110   | 508    | 1,340  | 135   | 48    | 47    | 72    |
| 11    | 86    | 83    | 130   | 88    | 90    | 115   | 681    | 1,340  | 100   | 42    | 88    | 66    |
| 12    | 88    | 123   | 125   | 84    | 86    | 115   | 1,120  | 1,180  | 85    | 40    | 80    | 70    |
| 13    | 260   | 100   | 120   | 82    | 92    | 110   | 1,700  | 1,120  | 77    | 39    | 56    | 141   |
| 14    | 230   | 96    | 115   | 80    | 150   | 120   | 1,300  | 642    | 70    | 204   | 47    | 129   |
| 15    | 300   | 230   | 110   | 78    | 300   | 170   | 900    | 479    | 65    | 246   | 43    | 174   |
| 16    | 390   | 321   | 105   | 77    | 260   | 350   | 700    | 524    | 63    | 98    | 43    | 114   |
| 17    | 240   | 194   | 100   | 75    | 230   | 340   | 800    | 588    | 59    | 139   | 39    | 87    |
| 18    | 170   | 143   | 97    | 74    | 200   | 310   | 1,200  | 519    | 55    | 501   | 37    | 82    |
| 19    | 135   | 134   | 95    | 73    | 175   | 280   | 1,700  | 482    | 52    | 163   | 35    | 78    |
| 20    | 115   | 195   | 93    | 72    | 160   | 250   | 2,100  | 418    | 48    | 143   | 34    | 117   |
| 21    | 102   | 763   | 92    | 72    | 150   | 220   | 2,300  | 491    | 92    | 103   | 62    | 400   |
| 22    | 103   | 579   | 90    | 71    | 140   | 200   | 1,800  | 519    | 121   | 78    | 100   | 240   |
| 23    | 253   | 374   | 89    | 70    | 130   | 184   | 1,400  | 349    | 71    | 65    | 406   | 133   |
| 24    | 263   | 286   | 88    | 70    | 125   | 175   | 1,100  | 248    | 58    | 66    | 402   | 103   |
| 25    | 187   | 198   | 87    | 70    | 120   | 161   | 1,100  | 218    | 74    | 92    | 143   | 92    |
| 26    | 146   | 143   | 86    | 73    | 115   | 145   | 1,100  | 249    | 166   | 70    | 87    | 79    |
| 27    | 124   | 167   | 85    | 78    | 120   | 148   | 1,200  | 273    | 87    | 126   | 73    | 73    |
| 28    | 109   | 252   | 84    | 77    | 180   | 150   | 1,400  | 244    | 64    | 101   | 2,430 | 69    |
| 29    | 100   | 460   | 84    | 75    | ----- | 150   | 1,570  | 194    | 54    | 68    | 2,750 | 68    |
| 30    | 94    | 345   | 83    | 74    | ----- | 141   | 1,340  | 157    | 51    | 73    | 530   | 79    |
| 31    | 89    | ----- | 82    | 72    | ----- | 136   | -----  | 132    | ----- | 255   | 327   | ----- |
| TOTAL | 5,149 | 5,962 | 3,958 | 2,532 | 3,542 | 5,290 | 30,178 | 26,956 | 2,942 | 4,533 | 9,018 | 3,536 |
| MEAN  | 166   | 199   | 128   | 81.7  | 127   | 171   | 1,006  | 870    | 98.1  | 146   | 291   | 118   |
| MAX   | 390   | 763   | 306   | 120   | 300   | 350   | 2,300  | 3,080  | 320   | 729   | 2,750 | 400   |
| MIN   | 86    | 71    | 82    | 70    | 67    | 110   | 142    | 132    | 48    | 39    | 34    | 66    |
| CFSM  | 1.27  | 1.52  | .98   | .62   | .97   | 1.31  | 7.68   | 6.64   | .75   | 1.11  | 2.22  | .90   |
| IN.   | 1.46  | 1.69  | 1.12  | .72   | 1.01  | 1.50  | 8.57   | 7.65   | .84   | 1.29  | 2.56  | 1.00  |

CAL YR 1970 TOTAL 83,040 MEAN 228 MAX 3,850 MIN 19 CFSM 1.74 IN 23.58  
WTR YR 1971 TOTAL 103,596 MEAN 284 MAX 3,080 MIN 34 CFSM 2.17 IN 29.42

## PEAK DISCHARGE (BASE, 3,300 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-4  | 1215 | 8.45  | 3,480     |      |      |       |           |
| 8-28 | 1515 | 11.22 | 6,090     |      |      |       |           |

04293500 Missisquoi River near Richford, Vt.

LOCATION.--Lat 44°57'30", long 72°41'55", Franklin County, on left bank 1.7 miles upstream from Trout River, 3 miles south of Richford, and 3.8 miles downstream from North Branch.

DRAINAGE AREA.--479 sq mi.

PERIOD OF RECORD.--July 1911 to September 1923, October 1928 to current year. Monthly discharge only for some periods, published in WSP 1307.

GAGE.--Water-stage recorder. Altitude of gage is 410 ft (from topographic map). Prior to Aug. 1, 1915, nonrecording gage at site 0.2 mile downstream at datum 4.35 ft lower. Aug. 1, 1915, to Sept. 30, 1923, water-stage recorder at present site and datum. Oct. 1, 1928, to Sept. 30, 1929, nonrecording gage at former site at datum 4.6 ft lower.

AVERAGE DISCHARGE.--55 years, 902 cfs (25.57 inches per year).

EXTREMES.--Current year: Maximum discharge, 12,700 cfs Aug. 28 (gage height, 13.23 ft); minimum, 78 cfs Aug. 20.

Period of record: Maximum discharge, 17,200 cfs May 4, 1940 (gage height, 15.15 ft), from rating curve extended above 9,300 cfs on basis of computation of peak flow over dam at gage height 14.70 ft, slope-area measurement at gage height 12.90 ft, and study of discharge per foot of width at measuring section; maximum gage height, 18.92 ft Mar. 15, 1946 (ice jam); minimum discharge observed, 8 cfs July 14, 1911.

Maximum discharge since at least 1830, 45,000 cfs during flood of November 1927 (gage height, 23.1 ft, from floodmarks), from rating curve extended above 9,300 cfs as explained above.

REMARKS.--Records good except those for winter period, which are fair. Diurnal fluctuation at low flow prior to 1934. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 784: Drainage area. WSP 1237: 1913-14(M), 1922(M), 1923, 1929-30. WSP 1307: 1916(M). WSP 1437: 1912.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT    | NOV    | DEC    | JAN   | FEB    | MAR    | APR    | MAY    | JUN    | JUL   | AUG    | SEP    |
|-------|--------|--------|--------|-------|--------|--------|--------|--------|--------|-------|--------|--------|
| 1     | 916    | 382    | 1,480  | 290   | 265    | 660    | 480    | 4,740  | 372    | 393   | 852    | 1,430  |
| 2     | 675    | 358    | 1,230  | 290   | 260    | 580    | 600    | 4,400  | 325    | 1,230 | 452    | 773    |
| 3     | 731    | 338    | 1,140  | 290   | 255    | 530    | 900    | 4,260  | 344    | 717   | 675    | 505    |
| 4     | 1,070  | 316    | 1,000  | 290   | 255    | 500    | 1,400  | 6,370  | 372    | 316   | 452    | 401    |
| 5     | 988    | 295    | 900    | 350   | 255    | 480    | 1,500  | 8,100  | 328    | 224   | 365    | 348    |
| 6     | 724    | 298    | 780    | 400   | 265    | 460    | 1,600  | 6,070  | 281    | 178   | 275    | 405    |
| 7     | 564    | 289    | 600    | 400   | 270    | 450    | 1,600  | 4,980  | 251    | 159   | 215    | 495    |
| 8     | 470    | 275    | 500    | 380   | 270    | 440    | 1,300  | 4,430  | 731    | 148   | 188    | 379    |
| 9     | 417    | 261    | 550    | 350   | 290    | 430    | 1,000  | 3,930  | 932    | 139   | 168    | 313    |
| 10    | 368    | 253    | 580    | 330   | 310    | 420    | 1,400  | 3,610  | 510    | 126   | 146    | 292    |
| 11    | 338    | 261    | 540    | 310   | 335    | 415    | 2,100  | 3,340  | 351    | 110   | 198    | 259    |
| 12    | 344    | 319    | 490    | 300   | 345    | 410    | 3,440  | 3,000  | 284    | 96    | 240    | 237    |
| 13    | 1,040  | 348    | 460    | 290   | 360    | 410    | 4,860  | 2,810  | 242    | 89    | 198    | 335    |
| 14    | 1,030  | 341    | 430    | 285   | 600    | 430    | 5,470  | 2,030  | 213    | 213   | 148    | 515    |
| 15    | 1,220  | 710    | 410    | 280   | 900    | 600    | 4,300  | 1,450  | 188    | 610   | 124    | 558    |
| 16    | 1,500  | 1,230  | 390    | 275   | 950    | 1,150  | 2,870  | 1,360  | 173    | 351   | 110    | 515    |
| 17    | 1,190  | 964    | 370    | 270   | 850    | 1,200  | 2,140  | 1,400  | 161    | 251   | 102    | 409    |
| 18    | 860    | 689    | 360    | 265   | 750    | 1,150  | 2,370  | 1,330  | 146    | 510   | 94     | 354    |
| 19    | 647    | 604    | 350    | 260   | 650    | 1,000  | 3,280  | 1,210  | 133    | 490   | 85     | 319    |
| 20    | 525    | 724    | 340    | 260   | 600    | 900    | 5,440  | 1,080  | 120    | 295   | 85     | 348    |
| 21    | 452    | 1,700  | 335    | 255   | 550    | 800    | 6,610  | 1,100  | 924    | 251   | 112    | 780    |
| 22    | 434    | 2,480  | 330    | 255   | 500    | 720    | 7,050  | 1,300  | 924    | 193   | 110    | 988    |
| 23    | 1,190  | 1,680  | 325    | 250   | 480    | 660    | 5,750  | 1,050  | 417    | 152   | 520    | 628    |
| 24    | 1,730  | 1,330  | 320    | 250   | 460    | 620    | 3,960  | 880    | 264    | 137   | 940    | 457    |
| 25    | 1,230  | 964    | 315    | 250   | 450    | 580    | 3,410  | 820    | 251    | 161   | 558    | 386    |
| 26    | 924    | 745    | 310    | 260   | 440    | 540    | 3,400  | 920    | 586    | 175   | 316    | 328    |
| 27    | 738    | 661    | 305    | 290   | 470    | 520    | 3,360  | 972    | 447    | 242   | 253    | 286    |
| 28    | 604    | 1,080  | 300    | 290   | 630    | 510    | 3,610  | 924    | 284    | 264   | 4,680  | 261    |
| 29    | 515    | 1,810  | 300    | 280   | -----  | 510    | 4,430  | 710    | 210    | 195   | 9,190  | 248    |
| 30    | 452    | 1,680  | 295    | 275   | -----  | 500    | 4,820  | 547    | 180    | 163   | 6,070  | 242    |
| 31    | 413    | -----  | 295    | 270   | -----  | 480    | -----  | 438    | -----  | 682   | 2,870  | -----  |
| TOTAL | 24,299 | 23,385 | 16,330 | 9,090 | 13,015 | 19,055 | 94,450 | 79,561 | 10,944 | 9,260 | 30,791 | 13,794 |
| MEAN  | 784    | 780    | 527    | 293   | 465    | 615    | 3,148  | 2,565  | 365    | 299   | 993    | 460    |
| MAX   | 1,730  | 2,480  | 1,480  | 400   | 950    | 1,200  | 7,050  | 8,100  | 932    | 1,230 | 9,190  | 1,430  |
| MIN   | 338    | 253    | 295    | 250   | 255    | 410    | 480    | 438    | 120    | 89    | 85     | 237    |
| CFSM  | 1.64   | 1.63   | 1.10   | .61   | .97    | 1.28   | 6.57   | 5.36   | .76    | .62   | 2.07   | .96    |
| IN.   | 1.89   | 1.82   | 1.27   | .71   | 1.01   | 1.48   | 7.34   | 6.18   | .85    | .72   | 2.39   | 1.07   |

CAL YR 1970 TOTAL 306,266 MEAN 839 MAX 9,740 MIN 60 CFSM 1.75 IN 23.79  
WTR YR 1971 TOTAL 343,974 MEAN 942 MAX 9,190 MIN 85 CFSM 1.97 IN 26.71

## PEAK DISCHARGE (BASE, 7,600 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 5-5  | 0630 | 10.92 | 8,880     |      |      |       |           |
| 8-28 | 2230 | 13.23 | 12,700    |      |      |       |           |

04294500 Lake Champlain at Burlington, Vt.

LOCATION.--Lat 44°28'52", long 73°13'27", Chittenden County, 50 ft south of Gulf Oil Co. dock at Burlington, 0.1 mile north of Burlington Water Department pumping station, and 0.5 mile north of railroad station.

PERIOD OF RECORD.--May 1907 to current year.

GAGE.--Water-stage recorder. Datum of gage is 92.86 ft above mean sea level. Prior to July 20, 1937, nonrecording gage at site 0.7 mile south, and July 20, 1937, to Sept. 7, 1939, nonrecording gage at site 0.1 mile south, both at present datum.

EXTREMES.--Current year: Maximum gage height, 8.38 ft May 9; minimum, 1.82 ft Oct. 3, Nov. 10, affected by seiche.  
Period of record: Maximum gage height observed, 8.65 ft Mar. 27, 28, 1936; minimum observed, -0.25 ft Dec. 4, 1908.

REMARKS.--Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 684: 1912-29 (datum correction). WSP 1207: 1938 (datum correction).

## GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY  | CCT  | NOV   | DEC  | JAN  | FEB   | MAR  | APR   | MAY  | JUN   | JUL  | AUG  | SEP   |
|------|------|-------|------|------|-------|------|-------|------|-------|------|------|-------|
| 1    | 1.92 | 2.13  | 2.19 | 2.22 | 2.10  | 2.52 | 3.44  | 7.44 | 6.65  | 3.84 | 2.90 | 3.58  |
| 2    | 1.88 | 2.14  | 2.11 | 2.20 | 2.10  | 2.57 | 3.42  | 7.50 | 6.50  | 3.82 | 2.89 | 3.58  |
| 3    | 1.88 | 2.14  | 2.17 | 2.19 | 2.09  | 2.61 | 3.54  | 7.60 | 6.37  | 3.78 | 2.88 | 3.54  |
| 4    | 1.92 | 2.10  | 2.33 | 2.16 | 2.08  | 2.73 | 3.73  | 7.80 | 6.28  | 3.74 | 2.95 | 3.56  |
| 5    | 1.95 | 2.08  | 2.31 | 2.17 | 2.07  | 2.75 | 3.92  | 8.02 | 6.17  | 3.67 | 3.01 | 3.58  |
| 6    | 1.93 | 2.03  | 2.31 | 2.18 | 2.08  | 2.77 | 4.08  | 8.16 | 6.02  | 3.59 | 3.01 | 3.57  |
| 7    | 1.92 | 1.96  | 2.30 | 2.18 | 2.06  | 2.80 | 4.20  | 8.26 | 5.90  | 3.53 | 2.99 | 3.51  |
| 8    | 1.94 | 1.98  | 2.28 | 2.19 | 2.08  | 2.83 | 4.36  | 8.32 | 5.81  | 3.49 | 2.95 | 3.47  |
| 9    | 1.95 | 1.93  | 2.24 | 2.19 | 2.08  | 2.84 | 4.50  | 8.36 | 5.73  | 3.44 | 2.94 | 3.45  |
| 10   | 1.93 | 1.84  | 2.29 | 2.18 | 2.06  | 2.84 | 4.60  | 8.37 | 5.62  | 3.37 | 2.91 | 3.43  |
| 11   | 1.94 | 1.87  | 2.29 | 2.18 | 2.04  | 2.87 | 4.85  | 8.36 | 5.50  | 3.30 | 2.89 | 3.40  |
| 12   | 1.92 | 1.87  | 2.28 | 2.18 | 2.03  | 2.88 | 5.05  | 8.35 | 5.38  | 3.25 | 2.88 | 3.37  |
| 13   | 1.95 | 1.89  | 2.28 | 2.17 | 2.08  | 2.89 | 5.35  | 8.32 | 5.29  | 3.20 | 2.84 | 3.34  |
| 14   | 1.94 | 1.91  | 2.28 | 2.15 | 2.13  | 2.90 | 5.65  | 8.28 | 5.20  | 3.15 | 2.81 | 3.33  |
| 15   | 1.99 | 1.91  | 2.26 | 2.17 | 2.15  | 2.88 | 5.90  | 8.19 | 5.07  | 3.14 | 2.80 | 3.32  |
| 16   | 2.04 | 1.94  | 2.24 | 2.16 | 2.17  | 2.94 | 6.05  | 8.06 | 4.95  | 3.13 | 2.79 | 3.31  |
| 17   | 2.06 | 1.94  | 2.28 | 2.16 | 2.19  | 3.07 | 6.10  | 8.01 | 4.86  | 3.10 | 2.73 | 3.30  |
| 18   | 2.05 | 1.96  | 2.29 | 2.17 | 2.22  | 3.18 | 6.15  | 7.94 | 4.76  | 3.08 | 2.69 | 3.30  |
| 19   | 2.05 | 1.94  | 2.27 | 2.16 | 2.24  | 3.28 | 6.25  | 7.85 | 4.65  | 3.07 | 2.66 | 3.32  |
| 20   | 2.01 | 1.94  | 2.27 | 2.16 | 2.27  | 3.37 | 6.35  | 7.76 | 4.54  | 3.06 | 2.63 | 3.34  |
| 21   | 1.99 | 1.99  | 2.26 | 2.15 | 2.33  | 3.42 | 6.60  | 7.75 | 4.50  | 3.03 | 2.61 | 3.32  |
| 22   | 2.01 | 2.02  | 2.26 | 2.16 | 2.34  | 3.45 | 6.80  | 7.71 | 4.46  | 2.99 | 2.60 | 3.29  |
| 23   | 2.07 | 2.05  | 2.27 | 2.15 | 2.35  | 3.46 | 6.90  | 7.64 | 4.38  | 2.93 | 2.67 | 3.27  |
| 24   | 2.14 | 2.08  | 2.28 | 2.14 | 2.43  | 3.48 | 7.05  | 7.51 | 4.30  | 2.91 | 2.66 | 3.25  |
| 25   | 2.20 | 2.10  | 2.28 | 2.13 | 2.44  | 3.47 | 7.13  | 7.38 | 4.25  | 2.91 | 2.66 | 3.24  |
| 26   | 2.24 | 2.04  | 2.27 | 2.13 | 2.45  | 3.46 | 7.18  | 7.29 | 4.18  | 2.89 | 2.63 | 3.22  |
| 27   | 2.26 | 2.07  | 2.25 | 2.16 | 2.45  | 3.46 | 7.22  | 7.21 | 4.13  | 2.90 | 2.62 | 3.20  |
| 28   | 2.24 | 2.12  | 2.24 | 2.14 | 2.48  | 3.45 | 7.26  | 7.12 | 4.08  | 2.89 | 2.76 | 3.17  |
| 29   | 2.22 | 2.13  | 2.23 | 2.12 | ----- | 3.45 | 7.31  | 7.00 | 3.96  | 2.85 | 3.12 | 3.15  |
| 30   | 2.20 | 2.14  | 2.22 | 2.11 | ----- | 3.44 | 7.39  | 6.90 | 3.88  | 2.85 | 3.39 | 3.13  |
| 31   | 2.16 | ----- | 2.23 | 2.12 | ----- | 3.43 | ----- | 6.78 | ----- | 2.90 | 3.51 | ----- |
| MEAN | 2.03 | 2.01  | 2.26 | 2.16 | 2.20  | 3.08 | 5.61  | 7.78 | 5.11  | 3.22 | 2.85 | 3.36  |
| MAX  | 2.26 | 2.14  | 2.33 | 2.22 | 2.48  | 3.48 | 7.39  | 8.37 | 6.65  | 3.84 | 3.51 | 3.58  |
| MIN  | 1.88 | 1.84  | 2.11 | 2.11 | 2.03  | 2.52 | 3.42  | 6.78 | 3.88  | 2.85 | 2.60 | 3.13  |

CAL YR 1970 MEAN 3.23 MAX 7.60 MIN 1.67  
WTR YR 1971 MEAN 3.48 MAX 8.37 MIN 1.84

NOTE.--No gage-height record Apr. 2-27, Sept. 9-30.

04295500 Lake Memphremagog at Newport, Vt.

LOCATION.--Lat 44°56'15", long 72°12'21", Orleans County, on west side of bridge on U.S. Highway 5 at Newport.

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

GAGE.--Water-stage recorder. Datum of gage is 673.00 ft above mean sea level. Prior to July 21, 1934, nonrecording gage on highway bridge 0.1 mile southeast at same datum. July 21, 1934, to Aug. 22, 1961, nonrecording gage on east side, and Aug. 23, 1961, to Oct. 18, 1966, on west side of bridge at present site and datum.

EXTREMES.--Current year: Maximum gage height, 10.81 ft May 7; minimum, 6.87 ft Mar. 15 (affected by seiche).

Period of record: Maximum gage height observed, 12.92 ft Apr. 20, 1933; minimum recorded, 6.48 ft Nov. 2, 1968 (affected by seiche), but may have been lower during period of use of nonrecording gage.

REMARKS.--Elevation of lake regulated by powerplant and gates at Magog, Quebec.

## GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY  | OCT  | NOV   | DEC  | JAN  | FEB   | MAR  | APR   | MAY   | JUN   | JUL  | AUG  | SEP   |
|------|------|-------|------|------|-------|------|-------|-------|-------|------|------|-------|
| 1    | 9.56 | 9.02  | 8.79 | 8.62 | 7.79  | 7.18 | 6.96  | 10.24 | 10.05 | 9.26 | 9.20 | 9.91  |
| 2    | 9.45 | 9.00  | 8.72 | 8.61 | 7.74  | 7.16 | 6.94  | 10.30 | 10.00 | 9.20 | 9.22 | 9.87  |
| 3    | 9.48 | 8.95  | 8.82 | 8.58 | 7.68  | 7.15 | 6.98  | 10.37 | 9.95  | 9.15 | 9.21 | 9.85  |
| 4    | 9.50 | 8.87  | 8.97 | 8.56 | 7.64  | 7.17 | 7.05  | 10.48 | 9.90  | 9.22 | 9.24 | 9.85  |
| 5    | 9.50 | 8.83  | 8.92 | 8.55 | 7.52  | 7.17 | 7.10  | 10.62 | 9.85  | 9.18 | 9.25 | 9.85  |
| 6    | 9.43 | 8.76  | 8.93 | 8.56 | 7.48  | 7.15 | 7.15  | 10.75 | 9.83  | 9.13 | 9.23 | 9.84  |
| 7    | 9.40 | 8.68  | 8.97 | 8.57 | 7.44  | 7.15 | 7.21  | 10.80 | 9.83  | 9.08 | 9.26 | 9.79  |
| 8    | 9.36 | 8.68  | 8.92 | 8.58 | 7.42  | 7.14 | 7.24  | 10.79 | 9.85  | 9.03 | 9.23 | 9.80  |
| 9    | 9.32 | 8.62  | 8.90 | 8.57 | 7.40  | 7.11 | 7.26  | 10.76 | 9.82  | 9.05 | 9.24 | 9.78  |
| 10   | 9.25 | 8.52  | 8.89 | 8.56 | 7.37  | 7.08 | 7.31  | 10.69 | 9.80  | 9.04 | 9.22 | 9.72  |
| 11   | 9.21 | 8.52  | 8.89 | 8.54 | 7.32  | 7.05 | 7.37  | 10.60 | 9.80  | 8.97 | 9.23 | 9.66  |
| 12   | 9.20 | 8.49  | 8.86 | 8.52 | 7.29  | 7.02 | 7.49  | 10.46 | 9.75  | 8.97 | 9.26 | 9.64  |
| 13   | 9.22 | 8.47  | 8.85 | 8.48 | 7.29  | 6.99 | 7.70  | 10.39 | 9.70  | 9.04 | 9.21 | 9.63  |
| 14   | 9.16 | 8.47  | 8.83 | 8.45 | 7.30  | 6.95 | 7.97  | 10.28 | 9.65  | 9.02 | 9.21 | 9.65  |
| 15   | 9.17 | 8.43  | 8.82 | 8.43 | 7.29  | 6.91 | 8.12  | 10.22 | 9.65  | 9.00 | 9.24 | 9.66  |
| 16   | 9.23 | 8.47  | 8.77 | 8.40 | 7.30  | 6.93 | 8.23  | 10.19 | 9.63  | 9.02 | 9.21 | 9.66  |
| 17   | 9.27 | 8.47  | 8.77 | 8.35 | 7.29  | 6.99 | 8.31  | 10.16 | 9.60  | 9.04 | 9.14 | 9.64  |
| 18   | 9.24 | 8.45  | 8.79 | 8.33 | 7.28  | 7.04 | 8.39  | 10.13 | 9.57  | 9.07 | 9.15 | 9.64  |
| 19   | 9.23 | 8.43  | 8.77 | 8.31 | 7.28  | 7.08 | 8.50  | 10.12 | 9.54  | 9.05 | 9.13 | 9.59  |
| 20   | 9.18 | 8.35  | 8.75 | 8.27 | 7.28  | 7.13 | 8.77  | 10.14 | 9.50  | 9.06 | 9.08 | 9.51  |
| 21   | 9.19 | 8.42  | 8.75 | 8.23 | 7.29  | 7.16 | 9.17  | 10.15 | 9.51  | 9.09 | 9.07 | 9.62  |
| 22   | 9.22 | 8.52  | 8.70 | 8.19 | 7.28  | 7.17 | 9.49  | 10.11 | 9.52  | 9.11 | 9.08 | 9.66  |
| 23   | 9.27 | 8.50  | 8.71 | 8.16 | 7.29  | 7.17 | 9.72  | 10.13 | 9.47  | 9.13 | 9.19 | 9.62  |
| 24   | 9.30 | 8.64  | 8.74 | 8.11 | 7.30  | 7.16 | 9.82  | 10.12 | 9.45  | 9.10 | 9.17 | 9.63  |
| 25   | 9.30 | 8.65  | 8.74 | 8.06 | 7.27  | 7.13 | 9.91  | 10.09 | 9.45  | 9.12 | 9.14 | 9.59  |
| 26   | 9.30 | 8.62  | 8.73 | 8.03 | 7.23  | 7.11 | 9.95  | 10.12 | 9.41  | 9.14 | 9.13 | 9.57  |
| 27   | 9.27 | 8.60  | 8.72 | 7.99 | 7.19  | 7.09 | 10.01 | 10.15 | 9.37  | 9.13 | 9.12 | 9.52  |
| 28   | 9.20 | 8.60  | 8.72 | 7.95 | 7.18  | 7.07 | 10.04 | 10.13 | 9.34  | 9.12 | 9.34 | 9.47  |
| 29   | 9.15 | 8.60  | 8.71 | 7.91 | ----- | 7.05 | 10.11 | 10.15 | 9.32  | 9.10 | 9.77 | 9.40  |
| 30   | 9.10 | 8.70  | 8.67 | 7.87 | ----- | 7.01 | 10.19 | 10.16 | 9.28  | 9.11 | 9.91 | 9.42  |
| 31   | 9.04 | ----- | 8.62 | 7.82 | ----- | 6.99 | ----- | 10.10 | ----- | 9.17 | 9.93 | ----- |
| MEAN | 9.28 | 8.61  | 8.80 | 8.33 | 7.37  | 7.09 | 8.35  | 10.32 | 9.65  | 9.09 | 9.26 | 9.67  |
| MAX  | 9.56 | 9.02  | 8.97 | 8.62 | 7.79  | 7.18 | 10.19 | 10.80 | 10.05 | 9.26 | 9.93 | 9.91  |
| MIN  | 9.04 | 8.35  | 8.62 | 7.82 | 7.18  | 6.91 | 6.94  | 10.09 | 9.28  | 8.97 | 9.07 | 9.40  |

CAL YR 1970 MEAN 8.84 MAX 10.97 MIN 6.93  
 WTR YR 1971 MEAN 8.83 MAX 10.80 MIN 6.91

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



04296000 Black River at Coventry, Vt.

LOCATION.--Lat 44°52'08", long 72°16'14", Orleans County, on right bank 15 ft downstream from highway bridge, 800 ft upstream from Stony Brook, and 0.4 mile northwest of Coventry.

DRAINAGE AREA.--122 sq mi.

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 725 ft (from topographic map).

AVERAGE DISCHARGE.--20 years, 189 cfs (21.04 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,790 cfs May 4 (gage height, 6.23 ft); minimum daily, 23 cfs Aug. 20.

Period of record: Maximum discharge, 3,110 cfs Apr. 18, 1970 (gage height, 7.28 ft); minimum daily, 11 cfs Aug. 29 to Sept. 1, 1953.

REMARKS.--Records excellent except those for winter period, which are fair. Occasional diurnal fluctuation at low flow by mill above station; greater regulation prior to 1960.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 128   | 77    | 195   | 74    | 64    | 165   | 120    | 1,110  | 104   | 94    | 70    | 130   |
| 2     | 100   | 78    | 194   | 74    | 63    | 155   | 141    | 1,050  | 93    | 331   | 62    | 84    |
| 3     | 96    | 72    | 181   | 73    | 62    | 145   | 270    | 1,140  | 96    | 225   | 53    | 64    |
| 4     | 139   | 69    | 150   | 73    | 61    | 136   | 360    | 1,710  | 136   | 119   | 58    | 54    |
| 5     | 137   | 67    | 149   | 80    | 61    | 125   | 330    | 1,560  | 113   | 72    | 74    | 48    |
| 6     | 113   | 66    | 139   | 100   | 60    | 120   | 320    | 1,210  | 92    | 57    | 58    | 52    |
| 7     | 92    | 65    | 127   | 105   | 64    | 120   | 347    | 1,030  | 85    | 51    | 45    | 57    |
| 8     | 79    | 62    | 105   | 95    | 63    | 117   | 300    | 900    | 252   | 49    | 39    | 51    |
| 9     | 71    | 59    | 115   | 86    | 66    | 116   | 285    | 799    | 271   | 48    | 35    | 45    |
| 10    | 63    | 59    | 115   | 82    | 74    | 110   | 362    | 723    | 147   | 45    | 33    | 41    |
| 11    | 56    | 69    | 110   | 78    | 83    | 111   | 444    | 644    | 105   | 40    | 32    | 38    |
| 12    | 53    | 104   | 105   | 76    | 92    | 110   | 670    | 577    | 86    | 35    | 30    | 40    |
| 13    | 58    | 96    | 105   | 74    | 86    | 110   | 885    | 524    | 74    | 34    | 29    | 68    |
| 14    | 79    | 81    | 100   | 72    | 150   | 112   | 937    | 456    | 67    | 44    | 28    | 138   |
| 15    | 177   | 107   | 96    | 70    | 225   | 137   | 768    | 383    | 61    | 70    | 27    | 157   |
| 16    | 398   | 186   | 92    | 69    | 230   | 261   | 683    | 317    | 57    | 84    | 26    | 132   |
| 17    | 361   | 160   | 89    | 68    | 215   | 320   | 586    | 268    | 56    | 67    | 25    | 87    |
| 18    | 310   | 117   | 87    | 67    | 188   | 300   | 629    | 249    | 54    | 77    | 25    | 66    |
| 19    | 164   | 107   | 86    | 66    | 164   | 280   | 905    | 219    | 50    | 71    | 24    | 74    |
| 20    | 116   | 141   | 85    | 65    | 146   | 262   | 1,330  | 183    | 47    | 67    | 23    | 88    |
| 21    | 101   | 303   | 84    | 64    | 133   | 234   | 1,610  | 194    | 52    | 69    | 29    | 179   |
| 22    | 99    | 306   | 83    | 64    | 125   | 210   | 1,580  | 275    | 84    | 58    | 33    | 225   |
| 23    | 154   | 260   | 81    | 64    | 120   | 180   | 1,230  | 268    | 82    | 46    | 65    | 160   |
| 24    | 209   | 189   | 90    | 64    | 113   | 165   | 926    | 198    | 60    | 42    | 103   | 101   |
| 25    | 166   | 144   | 80    | 62    | 110   | 155   | 915    | 159    | 55    | 44    | 94    | 81    |
| 26    | 123   | 114   | 79    | 65    | 109   | 140   | 875    | 173    | 96    | 45    | 55    | 70    |
| 27    | 108   | 118   | 78    | 68    | 125   | 135   | 880    | 197    | 109   | 44    | 42    | 59    |
| 28    | 105   | 228   | 77    | 70    | 156   | 135   | 926    | 200    | 74    | 49    | 373   | 53    |
| 29    | 96    | 275   | 76    | 68    | ----- | 140   | 1,100  | 189    | 55    | 50    | 643   | 50    |
| 30    | 86    | 231   | 75    | 66    | ----- | 135   | 1,100  | 146    | 48    | 45    | 383   | 49    |
| 31    | 81    | ----- | 75    | 65    | ----- | 129   | -----  | 120    | ----- | 52    | 263   | ----- |
| TOTAL | 4,118 | 4,009 | 3,293 | 2,267 | 3,198 | 5,070 | 21,814 | 17,171 | 2,761 | 2,224 | 2,879 | 2,541 |
| MEAN  | 133   | 134   | 106   | 73.1  | 114   | 164   | 727    | 554    | 92.0  | 71.7  | 92.9  | 84.7  |
| MAX   | 398   | 306   | 195   | 105   | 230   | 320   | 1,610  | 1,710  | 271   | 331   | 643   | 225   |
| MIN   | 53    | 59    | 75    | 62    | 60    | 110   | 120    | 120    | 47    | 34    | 23    | 38    |
| CFSM  | 1.09  | 1.10  | .87   | .60   | .93   | 1.34  | 5.96   | 4.54   | .75   | .59   | .76   | .69   |
| IN.   | 1.26  | 1.22  | 1.00  | .69   | .98   | 1.55  | 6.65   | 5.24   | .84   | .68   | .88   | .77   |

CAL YR 1970 TOTAL 65,950 MEAN 181 MAX 2,820 MIN 22 CFSM 1.48 IN 20.11  
WTR YR 1971 TOTAL 71,345 MEAN 195 MAX 1,710 MIN 23 CFSM 1.60 IN 21.75

## PEAK DISCHARGE (BASE, 1,700 CFS)

| DATE | TIME | G. H. | DISCHARGE | DATE | TIME | G. H. | DISCHARGE |
|------|------|-------|-----------|------|------|-------|-----------|
| 4-21 | 0015 | 6.16  | 1,730     |      |      |       |           |
| 5-4  | 1045 | 6.23  | 1,790     |      |      |       |           |

04296200 Brownington Branch near Evansville, Vt.

LOCATION.--Lat 44°50'02", long 72°04'00", Orleans County, on right bank 10 ft upstream from culvert on State Highway 5A, 0.5 mile upstream from Moody Brook, and 4 miles northeast of Evansville.

DRAINAGE AREA.--2.15 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 1,170 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 3.27 cfs (20.65 inches per year).

EXTREMES.--Current year: Maximum discharge, 43 cfs May 7 (gage height, 4.48 ft); maximum gage height, 5.11 ft Feb. 14 (backwater from ice); no flow Aug. 8-22.

Period of record: Maximum discharge, 158 cfs May 20, 1969 (gage height, 7.68 ft), from rating curve extended above 89 cfs on basis of computation of flow through culvert at gage height 6.67 ft; no flow at times in water years 1966, 1968-71.

REMARKS.--Records good except those for winter period or periods of no gage-height record, which are fair. Recording rain gage at station since April 1964 (no winter records).

REVISIONS (WATER YEARS)--WRD Mass., N.H., R.I., Vt., 1968: 1967(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC  | JAN   | FEB   | MAR  | APR   | MAY   | JUN   | JUL  | AUG   | SEP   |
|-------|-------|-------|------|-------|-------|------|-------|-------|-------|------|-------|-------|
| 1     | 2.5   | 1.1   | 4.5  | 1.2   | .48   | 2.2  | 1.7   | 16    | 1.0   | 1.8  | .07   | .41   |
| 2     | 1.9   | 1.0   | 5.1  | 1.2   | .47   | 2.0  | 2.7   | 16    | .77   | 1.6  | .04   | .18   |
| 3     | 2.2   | .97   | 4.5  | 1.2   | .46   | 1.9  | 4.0   | 17    | 1.1   | .48  | .07   | .11   |
| 4     | 3.1   | .95   | 3.4  | 1.2   | .45   | 1.8  | 5.6   | 16    | .93   | .18  | .22   | .11   |
| 5     | 2.3   | .93   | 3.1  | 1.4   | .45   | 1.7  | 5.0   | 16    | .55   | .11  | .08   | .10   |
| 6     | 1.8   | .91   | 2.5  | 2.0   | .45   | 1.7  | 4.7   | 18    | .41   | .07  | .05   | .10   |
| 7     | 1.4   | .93   | 2.5  | 1.7   | .48   | 1.7  | 4.5   | 20    | .41   | .07  | .02   | .10   |
| 8     | 1.2   | .93   | 2.1  | 1.5   | .47   | 1.6  | 3.8   | 18    | 9.3   | .06  | 0     | .08   |
| 9     | 1.0   | .77   | 2.2  | 1.3   | .40   | 1.6  | 3.6   | 21    | 3.5   | .05  | 0     | .04   |
| 10    | .93   | .77   | 2.2  | 1.2   | .55   | 1.6  | 5.8   | 17    | 1.7   | .03  | 0     | .02   |
| 11    | .81   | 1.4   | 2.0  | 1.1   | .64   | 1.5  | 7.8   | 13    | 1.2   | .01  | 0     | .02   |
| 12    | .77   | 1.6   | 2.0  | 1.0   | .62   | 1.5  | 13    | 9.5   | .70   | .01  | 0     | 1.8   |
| 13    | .90   | 1.4   | 1.9  | .95   | .70   | 1.5  | 19    | 9.9   | .55   | .01  | 0     | 1.9   |
| 14    | 1.2   | 1.2   | 1.9  | .90   | 1.3   | 1.6  | 14    | 7.1   | .41   | .13  | 0     | 1.9   |
| 15    | 3.5   | 2.2   | 1.7  | .85   | 2.2   | 2.0  | 9.9   | 5.1   | .28   | .18  | 0     | 2.3   |
| 16    | 5.0   | 3.8   | 1.6  | .80   | 2.0   | 3.6  | 7.3   | 4.1   | .18   | .07  | 0     | 1.0   |
| 17    | 7.0   | 2.7   | 1.5  | .77   | 1.8   | 4.6  | 6.1   | 5.0   | .13   | .07  | 0     | .48   |
| 18    | 5.1   | 2.0   | 1.5  | .74   | 1.7   | 4.2  | 6.5   | 4.1   | .11   | .18  | 0     | 2.3   |
| 19    | 3.1   | 2.2   | 1.4  | .71   | 1.6   | 3.9  | 14    | 3.0   | .08   | .10  | 0     | 1.2   |
| 20    | 2.0   | 3.4   | 1.4  | .69   | 1.5   | 3.5  | 20    | 2.3   | .07   | .62  | 0     | 1.6   |
| 21    | 1.7   | 11    | 1.4  | .65   | 1.4   | 3.0  | 15    | 2.3   | .48   | .18  | 0     | 5.3   |
| 22    | 1.6   | 5.6   | 1.3  | .62   | 1.3   | 2.7  | 15    | 4.4   | .55   | .07  | 0     | 2.4   |
| 23    | 2.1   | 4.9   | 1.3  | .60   | 1.3   | 2.4  | 12    | 3.0   | .15   | .04  | 1.2   | 1.3   |
| 24    | 3.5   | 3.7   | 1.3  | .58   | 1.2   | 2.2  | 12    | 2.3   | .11   | .02  | .48   | .77   |
| 25    | 2.6   | 2.5   | 1.3  | .56   | 1.2   | 2.1  | 15    | 1.9   | .70   | .02  | .10   | .48   |
| 26    | 2.1   | 2.2   | 1.3  | .56   | 1.3   | 1.9  | 14    | 4.2   | 1.6   | .02  | .05   | .34   |
| 27    | 1.8   | 2.2   | 1.3  | .58   | 1.7   | 1.8  | 15    | 3.3   | .48   | .03  | .04   | .22   |
| 28    | 1.6   | 6.0   | 1.2  | .56   | 2.3   | 1.8  | 18    | 4.5   | .18   | .05  | 13    | .18   |
| 29    | 1.5   | 7.7   | 1.2  | .54   | ----- | 1.9  | 15    | 2.6   | .11   | .02  | 6.3   | .15   |
| 30    | 1.3   | 6.4   | 1.2  | .52   | ----- | 1.8  | 17    | 1.7   | .10   | .04  | 1.8   | .18   |
| 31    | 1.2   | ----- | 1.2  | .50   | ----- | 1.7  | ----- | 1.3   | ----- | .04  | .93   | ----- |
| TOTAL | 72.71 | 83.36 | 64.2 | 28.68 | 30.51 | 69.0 | 307.0 | 269.6 | 27.84 | 6.36 | 24.45 | 27.07 |
| MEAN  | 2.35  | 2.78  | 2.07 | .93   | 1.09  | 2.23 | 10.2  | 8.70  | .93   | .21  | .79   | .90   |
| MAX   | 9.0   | 11    | 5.1  | 2.0   | 2.3   | 4.6  | 20    | 21    | 9.3   | 1.8  | 13    | 5.3   |
| MIN   | .77   | .77   | 1.2  | .50   | .45   | 1.5  | 1.7   | 1.3   | .07   | .01  | 0     | .02   |
| CFSM  | 1.09  | 1.29  | .96  | .43   | .51   | 1.04 | 4.74  | 4.05  | .43   | .10  | .37   | .42   |
| IN.   | 1.26  | 1.44  | 1.11 | .50   | .53   | 1.19 | 5.31  | 4.66  | .48   | .11  | .42   | .47   |

CAL YR 1970 TOTAL 1,185.47 MEAN 3.25 MAX 69 MIN 0 CFSM 1.51 IN 20.51  
 WTR YR 1971 TOTAL 1,010.78 MEAN 2.77 MAX 21 MIN 0 CFSM 1.29 IN 17.49

PEAK DISCHARGE (BASE, 80 CFS, REVISED).--No peak above base.

NOTE.--No gage-height record Oct. 8 to Nov. 6, Feb. 14 to Mar. 12.

04296500 Clyde River at Newport, Vt.

LOCATION.--Lat 44°56'22", long 72°11'23", Orleans County, on right bank in Newport, just downstream from small right-bank tributary and 1 mile upstream from mouth.

DRAINAGE AREA.--142 sq mi.

PERIOD OF RECORD.--May 1909 to September 1919, May 1920 to August 1922, October 1922 to September 1924, November 1928 to May 1936, September 1938 to current year. Prior to November 1928, published as "at West Derby."

GAGE.--Water-stage recorder and, since Mar. 6, 1957, records of power generation. Datum of gage is 682.36 ft above mean sea level. May 25, 1909, to Sept. 20, 1915, nonrecording gage, and Sept. 21, 1915, to Sept. 30, 1924, Nov. 16, 1928, to May 4, 1936, water-stage recorder, at site 0.65 mile upstream at different datum.

AVERAGE DISCHARGE.--52 years (1909-19, 1920-21, 1922-24, 1929-35, 1938-71), 251 cfs (24.00 inches per year).

EXTREMES.--Current year: Maximum daily discharge, 1,600 cfs May 6; minimum daily, 32 cfs June 20, 26.

Period of record: Maximum discharge, 3,900 cfs Mar. 20, 1936 (gage height, 5.76 ft, site and datum then in use), from rating curve extended above 2,800 cfs on basis of computation of peak flow over dam; minimum daily, 2.6 cfs June 18, 1956.

REMARKS.--Records fair. Flow regulated by powerplant and reservoirs above station and, since Mar. 6, 1957, by diversion around station through canal and penstock of powerplant below station. Diversion computed from relation of kilowatt-hour output and measured discharge; discharge computed by adding flow over control to flow diverted through powerplant.

COOPERATION.--Records of power generation furnished by Citizens Utilities Co.

REVISIONS (WATER YEARS).--WSP 744: 1913(M), drainage area. WSP 924: 1940. WSP 1307: 1913-15(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR    | MAY    | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1     | 323   | 137   | 208   | 105   | 160   | 155   | 224    | 1,060  | 400   | 170   | 48    | 325   |
| 2     | 331   | 192   | 224   | 180   | 165   | 152   | 190    | 1,080  | 349   | 172   | 141   | 314   |
| 3     | 233   | 186   | 212   | 155   | 160   | 155   | 241    | 1,140  | 348   | 169   | 97    | 291   |
| 4     | 214   | 138   | 221   | 220   | 150   | 167   | 298    | 1,320  | 275   | 37    | 80    | 190   |
| 5     | 217   | 156   | 179   | 220   | 150   | 156   | 219    | 1,540  | 226   | 98    | 127   | 144   |
| 6     | 191   | 169   | 210   | 210   | 75    | 72    | 305    | 1,600  | 284   | 187   | 122   | 139   |
| 7     | 203   | 66    | 222   | 200   | 68    | 37    | 303    | 1,520  | 265   | 196   | 76    | 180   |
| 8     | 210   | 36    | 245   | 205   | 135   | 200   | 293    | 1,430  | 287   | 132   | 56    | 144   |
| 9     | 199   | 172   | 187   | 135   | 121   | 193   | 299    | 1,420  | 252   | 92    | 170   | 174   |
| 10    | 149   | 197   | 132   | 90    | 144   | 219   | 295    | 1,410  | 265   | 37    | 119   | 170   |
| 11    | 150   | 234   | 156   | 215   | 168   | 189   | 307    | 1,390  | 253   | 38    | 81    | 52    |
| 12    | 130   | 196   | 112   | 200   | 226   | 202   | 340    | 1,350  | 264   | 83    | 104   | 35    |
| 13    | 206   | 200   | 89    | 225   | 185   | 135   | 406    | 1,320  | 269   | 82    | 105   | 196   |
| 14    | 182   | 90    | 206   | 170   | 87    | 128   | 406    | 1,240  | 254   | 68    | 40    | 230   |
| 15    | 170   | 65    | 139   | 190   | 180   | 150   | 408    | 1,090  | 214   | 43    | 48    | 136   |
| 16    | 209   | 142   | 157   | 140   | 175   | 214   | 431    | 920    | 232   | 194   | 56    | 168   |
| 17    | 243   | 197   | 161   | 85    | 215   | 209   | 543    | 777    | 210   | 133   | 55    | 192   |
| 18    | 309   | 193   | 207   | 220   | 164   | 215   | 565    | 692    | 236   | 37    | 57    | 257   |
| 19    | 329   | 200   | 101   | 185   | 221   | 241   | 600    | 637    | 95    | 71    | 56    | 253   |
| 20    | 327   | 158   | 135   | 150   | 201   | 320   | 673    | 599    | 32    | 55    | 49    | 206   |
| 21    | 329   | 146   | 180   | 140   | 128   | 319   | 810    | 578    | 182   | 109   | 35    | 264   |
| 22    | 328   | 99    | 205   | 160   | 178   | 302   | 959    | 566    | 85    | 126   | 35    | 263   |
| 23    | 256   | 240   | 210   | 125   | 168   | 245   | 1,020  | 539    | 176   | 162   | 150   | 263   |
| 24    | 220   | 238   | 180   | 34    | 156   | 225   | 1,020  | 508    | 123   | 115   | 109   | 177   |
| 25    | 217   | 211   | 165   | 160   | 188   | 196   | 993    | 482    | 148   | 63    | 91    | 177   |
| 26    | 219   | 218   | 235   | 175   | 190   | 200   | 965    | 466    | 32    | 108   | 182   | 166   |
| 27    | 207   | 207   | 175   | 210   | 203   | 206   | 919    | 450    | 126   | 82    | 175   | 175   |
| 28    | 217   | 154   | 215   | 165   | 88    | 185   | 913    | 431    | 172   | 79    | 227   | 170   |
| 29    | 216   | 286   | 205   | 155   | ----- | 197   | 959    | 410    | 161   | 89    | 326   | 170   |
| 30    | 173   | 213   | 210   | 64    | ----- | 101   | 1,010  | 416    | 165   | 99    | 343   | 116   |
| 31    | 158   | ----- | 190   | 70    | ----- | 238   | -----  | 409    | ----- | 54    | 335   | ----- |
| TOTAL | 7,065 | 5,105 | 5,673 | 5,038 | 4,449 | 5,923 | 16,914 | 28,790 | 6,380 | 3,180 | 3,695 | 5,737 |
| MEAN  | 228   | 170   | 183   | 163   | 159   | 191   | 564    | 929    | 213   | 103   | 119   | 191   |
| MAX   | 331   | 286   | 245   | 225   | 226   | 320   | 1,020  | 1,600  | 400   | 196   | 343   | 325   |
| MIN   | 130   | 36    | 89    | 34    | 68    | 37    | 190    | 409    | 32    | 37    | 35    | 35    |
| CFSM  | 1.61  | 1.20  | 1.29  | 1.15  | 1.12  | 1.35  | 3.97   | 6.54   | 1.50  | .73   | .84   | 1.35  |
| IN.   | 1.85  | 1.34  | 1.49  | 1.32  | 1.17  | 1.55  | 4.43   | 7.54   | 1.67  | .83   | .97   | 1.50  |

CAL YR 1970 TOTAL 93,351 MEAN 256 MAX 1,850 MIN 35 CFSM 1.80 IN 24.46  
WTR YR 1971 TOTAL 97,949 MEAN 268 MAX 1,600 MIN 32 CFSM 1.89 IN 25.66

NOTE.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

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 are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second, a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

#### Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1971

| Station No.           | Station name                                         | Location                                                                                                                                               | Drainage area (sq mi) | Period of record          | Measurements                  |                   |
|-----------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------|-------------------------------|-------------------|
|                       |                                                      |                                                                                                                                                        |                       |                           | Date                          | Discharge (cfs)   |
| Merrimack River basin |                                                      |                                                                                                                                                        |                       |                           |                               |                   |
| 01093510              | Little Cohas Brook near Londonderry, N.H.            | Lat 42°53'53", long 71°23'15", Rockingham County, at culvert 2.4 miles north of Londonderry.                                                           | 0.85                  | 1964-65, 1967-68, 1970-71 | 9-24-71                       | 0                 |
| 01093900              | Tucker Brook near Wilton, N.H.                       | Lat 42°49'44", long 71°42'13", Hillsborough County, at bridge on Whitten Rd., 2 miles southeast of Wilton.                                             | 2.70                  | 1964-65, 1967-68, 1970-71 | 9-24-71                       | .04               |
| 01093910              | Tucker Brook near Milford, N.H.                      | Lat 42°50'26", long 71°40'59", Hillsborough County, at culvert on State Highway 101, 1.5 miles west of Milford.                                        | 3.88                  | 1964-65, 1967-68, 1970-71 | 9-24-71                       | 0                 |
| 01094010              | Naticook Brook near South Merrimack, N.H.            | Lat 42°49'44", long 71°30'56", Hillsborough County, at culvert just below Green Pond, and 2.7 miles northeast of South Merrimack.                      | 1.36                  | 1964-65, 1967-68, 1970-71 | 9-24-71                       | 0                 |
| 01094020              | Naticook Brook near Merrimack, N.H.                  | Lat 42°50'26", long 71°29'56", Hillsborough County, at culvert on Amherst Rd., 1.5 miles southeast of Merrimack and 0.5 mile west of Thorntons Ferry.  | 2.23                  | 1964-65, 1967-68, 1970-71 | 9-24-71                       | .14               |
| 01094040              | Chase Brook near Hudson Center, N.H.                 | Lat 42°48'55", long 71°24'32", Hillsborough County, at culvert on Robinson Rd., 3 miles north of Hudson Center.                                        | 1.73                  | 1964-65, 1967-68, 1970-71 | 9-24-71                       | .14               |
| 01094050              | Chase Brook near Litchfield, N.H.                    | Lat 42°48'50", long 71°28'15", Hillsborough County, at culvert on State Highway 3A, 2 miles south of Litchfield.                                       | 8.24                  | 1964-65, 1967-68, 1970-71 | 9-24-71                       | 1.5               |
| 01094150              | Witches Brook near Ponemah, N.H.                     | Lat 42°47'31", long 71°35'59", Hillsborough County, at bridge on State Highway 122, 2.2 miles south of Ponemah.                                        | 4.28                  | 1964-65, 1967-68, 1970-71 | 9-24-71                       | .87               |
| 01094340              | North Nashua River tributary near Westminster, Mass. | Lat 42°33'24", long 71°52'25", Worcester County, at bridge on Depot Rd., 2 miles northeast of Westminster.                                             | -                     | 1971                      | 9- 4-71<br>9- 9-71            | 2.5<br>2.6        |
| 01094350              | Flag Brook near Westminster, Mass.                   | Lat 42°32'07", long 71°51'01", Worcester County, at access road to Fitchburg municipal dump, 0.5 mile above Sawmill Pond, 3 miles east of Westminster. | 1.28                  | 1971                      | 9- 4-71<br>9- 9-71<br>9-29-71 | .62<br>.67<br>.64 |
| 01094370              | Phillips Brook near Ashburnham, Mass.                | Lat 42°37'32", long 71°52'58", Worcester County, at bridge on Whitney Hill Rd., 1.5 miles southeast of Ashburnham.                                     | 7.06                  | 1971                      | 9- 4-71<br>9- 9-71            | 1.7<br>1.1        |
| 01094390              | Phillips Brook near Fitchburg, Mass.                 | Lat 42°34'46", long 71°50'50", Worcester County, 0.5 mile above Westminster Hill Rd., 2.2 miles west of City Hall, Fitchburg.                          | 14.7                  | 1971                      | 9- 4-71<br>9- 9-71            | 1.7<br>2.3        |
| 01094460              | Monoosnoc Brook at Leominster, Mass.                 | Lat 42°31'47", long 71°45'08", Worcester County, at bridge on Whitney St., 2,500 ft northeast of intersection of Mechanic St. and Main St.             | 11.0                  | 1971                      | 8-26-71<br>9-27-71            | 1.3<br>1.2        |
| 01094480              | Fall Brook at Leominster, Mass.                      | Lat 42°30'32", long 71°44'43", Worcester County, at culvert on Elm Hill Ave., 2,200 ft above State Highway 117.                                        | 5.82                  | 1971                      | 8-26-71<br>9-27-71            | 3.3<br>6.3        |

## Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

| Discharge measurements made at low-flow partial-record stations during water year 1971--Continued |                                                          |                                                                                                                                                                                        |                       |                  |                               |                   |
|---------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|-------------------------------|-------------------|
| Station No.                                                                                       | Station name                                             | Location                                                                                                                                                                               | Drainage area (sq mi) | Period of record | Measurements                  |                   |
|                                                                                                   |                                                          |                                                                                                                                                                                        |                       |                  | Date                          | Discharge (cfs)   |
| Merrimack River basin--Continued                                                                  |                                                          |                                                                                                                                                                                        |                       |                  |                               |                   |
| 01094550                                                                                          | Wekepeke Brook near Lancaster, Mass.                     | Lat 42°29'19", long 71°42'51", Worcester County, at bridge on State Highway 117, 3 miles northwest of Lancaster.                                                                       | 11.5                  | 1971             | 8-26-71<br>9-28-71            | 3.5<br>3.5        |
| 01094750                                                                                          | Wauashacum Brook near Sterling, Mass.                    | Lat 42°24'34", long 71°45'56", Worcester County, 300 ft below outlet of West Wauashacum Pond, 2 miles south of Sterling.                                                               | 4.98                  | 1971             | 8-26-71                       | .03               |
| 01094760                                                                                          | Wauashacum Brook near West Boylston, Mass.               | Lat 42°23'49", long 71°46'45", Worcester County, at culvert on Prescott St., 1.5 miles north of intersection of State Highways 12, 110, and 140, West Boylston.                        | 7.42                  | 1971             | 8-26-71                       | .13               |
| 01095050                                                                                          | Stillwater River at Moores Corners, near Sterling, Mass. | Lat 42°26'00", long 71°48'41", Worcester County, at bridge on State Highway 62, 2.5 miles west of Sterling.                                                                            | 25.7                  | 1971             | 8-26-71<br>9- 9-71<br>9-30-71 | 1.9<br>1.7<br>3.2 |
| 01095220                                                                                          | Stillwater River near Sterling, Mass.                    | Lat 42°24'39", long 71°47'30", Worcester County, at bridge on Muddy Pond Rd., 2.5 miles southwest of Sterling.                                                                         | 30.3                  | 1971             | 8-26-71<br>9- 9-71<br>9-30-71 | 2.4<br>3.2<br>3.6 |
| 01095330                                                                                          | Quinapoxet River near Holden, Mass.                      | Lat 42°22'50", long 71°51'23", Worcester County, at culvert on Mills St., 2 miles north of Holden Center.                                                                              | 21.8                  | 1971             | 8-19-71<br>9-28-71            | .35<br>.60        |
| 01095360                                                                                          | Asnebumskit Brook at Jefferson, Mass.                    | Lat 42°21'40", long 71°53'05", Worcester County, at culvert on State Highway 122A, 1 mile west of Holden Center.                                                                       | -                     | 1971             | 8-19-71<br>9-28-71            | .85<br>.48        |
| 01095370                                                                                          | Asnebumskit Brook near Holden, Mass.                     | Lat 42°22'24", long 71°51'14", Worcester County, at culvert on Mills St., 1.5 miles north of Holden Center.                                                                            | -                     | 1971             | 8-17-71<br>9-28-71            | 2.0<br>1.9        |
| 01095380                                                                                          | Trout Brook near Holden, Mass.                           | Lat 42°23'00", long 71°50'12", Worcester County, at culvert on Manning St., 2.2 miles north of Holden Center.                                                                          | 6.80                  | 1971             | 8-26-71<br>9-27-71<br>9-29-71 | .14<br>.31<br>.44 |
| 01095410                                                                                          | Malden Brook at Oakdale, Mass.                           | Lat 42°22'53", long 71°47'45", Worcester County, at culvert on Thomas St., 0.5 mile south of intersection of Thomas St. and State Highway 140.                                         | 1.26                  | 1971             | 8-19-71<br>9-27-71<br>9-30-71 | .53<br>.62<br>.46 |
| 01095430                                                                                          | Gates Brook at West Boylston, Mass.                      | Lat 42°21'29", long 71°46'44", Worcester County, at culvert on State Highway 140, 0.2 mile south of intersection of State Highways 12 and 140.                                         | 2.80                  | 1971             | 8-19-71<br>9-28-71            | .41<br>.57        |
| 01095840                                                                                          | Catacoonamug Brook at Shirley, Mass.                     | Lat 42°32'38", long 71°39'25", Middlesex County, at culvert on Lancaster Rd., 1 mile above mouth.                                                                                      | 19.1                  | 1971             | 9- 3-71<br>9- 9-71<br>9-29-71 | 5.6<br>3.7<br>4.4 |
| 01095880                                                                                          | Nonacoicus Brook near Ayer, Mass.                        | Lat 42°33'43", long 71°36'36", Middlesex County, 200 ft above mouth, 1.2 miles west of Ayer.                                                                                           | 18.8                  | 1971             | 9- 3-71<br>9- 9-71<br>9-29-71 | 1.2<br>.69<br>1.7 |
| 01095910                                                                                          | Mulpus Brook near Lunenburg, Mass.                       | Lat 42°35'46", long 71°40'15", Worcester County, at culvert on State Highway 225, 2.2 miles east of Lunenburg.                                                                         | 10.4                  | 1971             | 9- 3-71<br>9- 9-71<br>9-29-71 | 1.1<br>1.4<br>.96 |
| 01095915                                                                                          | Mulpus Brook near Shirley, Mass.                         | Lat 42°34'26", long 71°37'43", Middlesex County, at culvert on State Highway 2A, 2.5 miles north-east of Shirley.                                                                      | 15.7                  | 1971             | 9- 3-71<br>9- 9-71<br>9-29-71 | 1.1<br>1.1<br>1.5 |
| 01095930                                                                                          | Willard Brook near West Townsend, Mass.                  | Lat 42°40'27", long 71°46'14", Middlesex County, at culvert on State Highway 119, 1,500 ft west of intersection of State Highway 119 and Wheeler Rd., 1.5 miles west of West Townsend. | 12.3*                 | 1971             | 9- 4-71<br>9-27-71            | 1.4<br>1.2        |
| 01095940                                                                                          | Locke Brook at West Townsend, Mass.                      | Lat 42°40'42", long 71°45'31", Middlesex County, at culvert on West Meadow Rd., 0.5 mile above mouth.                                                                                  | 4.20                  | 1971             | 9- 4-71                       | 0                 |
| 01095950                                                                                          | Mason Brook near West Townsend, Mass.                    | Lat 42°42'05", long 71°45'10", Middlesex County, 2,200 ft south of New Hampshire state line, 2 miles northwest of West Townsend.                                                       | 9.30                  | 1971             | 9- 3-71<br>9-27-71            | .05<br>.19        |
| 01095960                                                                                          | Walker Brook near West Townsend, Mass.                   | Lat 42°42'07", long 71°46'06", Middlesex County, at culvert on State Highway 124, 2 miles northwest of West Townsend.                                                                  | 5.83                  | 1971             | 9- 3-71<br>9-27-71            | .17<br>.10        |

\* Adjusted for diversion to North Nashua River basin.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

| Discharge measurements made at low-flow journal-record stations during water year 1971--Continued |                                                        |                                                                                                                                  |                       |                                 |                               |                   |
|---------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------|-------------------------------|-------------------|
| Station No.                                                                                       | Station name                                           | Location                                                                                                                         | Drainage area (sq mi) | Period of record                | Measurements                  |                   |
|                                                                                                   |                                                        |                                                                                                                                  |                       |                                 | Date                          | Discharge (cfs)   |
| Merrimack River basin--Continued                                                                  |                                                        |                                                                                                                                  |                       |                                 |                               |                   |
| 01095970                                                                                          | Pearl Hill Brook near West Townsend, Mass.             | Lat 42°39'40", long 71°45'13", Middlesex County, 1,800 ft below Pearl Hill Brook Pond, 1.5 miles southwest of West Townsend.     | 5.95                  | 1971                            | 9- 4-71<br>9-27-71            | 0.94<br>1.0       |
| 01095980                                                                                          | Squannacook River at Townsend, Mass.                   | Lat 42°39'45" long 71°42'33", Middlesex County, at bridge on Elm St., 1,800 ft southwest of intersection of Main St. and Elm St. | 51.1*                 | 1971                            | 9- 3-71<br>9-27-71<br>9-28-71 | 7.0<br>6.7<br>7.6 |
| 01096200                                                                                          | James Brook near Ayer, Mass.                           | Lat 42°34'46", long 71°35'20", Middlesex County, at culvert on State Highway 111, 1.5 miles north of Ayer.                       | 3.91                  | 1971                            | 9- 3-71<br>9- 9-71<br>9-29-71 | .05<br>.08<br>.24 |
| 01096300                                                                                          | Robinson Brook near Pepperell, Mass.                   | Lat 42°37'52", long 71°36'32", Middlesex County, at culvert on Shirley St., 2.5 miles southwest of Pepperell.                    | 3.09                  | 1971                            | 9- 3-71<br>9- 9-71<br>9-28-71 | .10<br>.12<br>.08 |
| 01096502                                                                                          | Nissitissit River near Hollis, N.H.                    | Lat 42°42'20", long 71°37'18", Hillsborough County, 500 ft above bridge on Pepperell Rd., 3 miles southwest of Hollis.           | 47.6                  | 1971                            | 9- 3-71<br>9-27-71            | 3.7<br>3.2        |
| 01096503                                                                                          | Nissitissit River at Pepperell, Mass.                  | Lat 42°40'19", long 71°34'39", Middlesex County, at bridge on Canal St., 4,000 ft above mouth.                                   | 59.6                  | 1971                            | 8-27-71<br>9-27-71            | 3.5<br>4.9        |
| 01096504                                                                                          | Reedy Meadow Brook at East Pepperell, Mass.            | Lat 42°40'03", long 71°33'55", Middlesex County, at culvert on Lowell Rd., 2,000 ft above mouth.                                 | 1.94                  | 1971                            | 8-27-71<br>9- 9-71<br>9-29-71 | .66<br>.46<br>.74 |
| 01096505                                                                                          | Unkety Brook near Pepperell, Mass.                     | Lat 42°41'23", long 71°32'54", Middlesex County, at culvert on River St., 2.5 miles northeast of Pepperell.                      | 6.84                  | 1971                            | 8-27-71<br>9- 9-71<br>9-29-71 | .93<br>1.1<br>1.8 |
| 01096510                                                                                          | Merrimack River tributary at Hudson Center, N.H.       | Lat 42°46'51", long 71°24'50", Hillsborough County, at culvert on Greeley Rd., 0.8 mile north of Hudson Center.                  | 1.33                  | 1964-65,<br>1967-68,<br>1970-71 | 9-24-71                       | .26               |
| 01096520                                                                                          | Old Maids Brook near Nashua, N.H.                      | Lat 42°43'13", long 71°28'22", Hillsborough County, at culvert on Browning St., 1.6 miles south of Nashua.                       | .30                   | 1964-65,<br>1967-68,<br>1970-71 | 9-24-71                       | .01               |
| 01096530                                                                                          | Musquash Brook tributary near Hudson, N.H.             | Lat 42°43'14", long 71°23'18", Hillsborough County, at culvert 0.25 mile above mouth and 4 miles southeast of Hudson.            | 1.50                  | 1964-65,<br>1967-68,<br>1970-71 | 9-24-71                       | .02               |
| 01100510                                                                                          | Providence Hill Brook near Salem, N.H.                 | Lat 42°49'50", long 71°11'31", Rockingham County, at downstream side of bridge on Sawyer Ave., 3 miles north of Salem.           | 8.36                  | 1964-65,<br>1967-68,<br>1970-71 | 9-24-71                       | .14               |
| 01100550                                                                                          | Porcupine Brook at Pelham Road, near Salem Depot, N.H. | Lat 42°46'23", long 71°15'24", Rockingham County, at culvert on Pelham Rd., 2.4 miles west of Salem Depot.                       | 1.72                  | 1964- 65<br>1968,<br>1970-71    | 9-24-71                       | 0                 |
| 01100560                                                                                          | Porcupine Brook at Highway 38, near Salem Depot, N.H.  | Lat 42°45'57", long 71°14'11", Rockingham County, at culvert on State Highway 38, 1.8 miles southwest of Salem Depot.            | 5.49                  | 1964-65,<br>1967-68,<br>1970-71 | 9-24-71                       | 0                 |
| 01100680                                                                                          | Bryant Brook near Plaistow, N.H.                       | Lat 42°50'49", long 71°06'38", Rockingham County, at culvert on Line Brook Rd., 1.2 miles northwest of Plaistow.                 | 3.96                  | 1964-65,<br>1967-68,<br>1970-71 | 9-24-71                       | .04               |
| Charles River basin                                                                               |                                                        |                                                                                                                                  |                       |                                 |                               |                   |
| 01103150                                                                                          | Charles River tributary at Bellingham, Mass.           | Lat 42°05'12", long 71°29'25", Norfolk County, at culvert on State Highway 140, 0.8 mile west of Bellingham.                     | 0.63                  | 1968-71                         | 10- 9-70                      | 0.02              |
| 01103210                                                                                          | Stall Brook at North Bellingham, Mass.                 | Lat 42°07'26", long 71°27'20", Norfolk County, at culvert on State Highway 126, 0.2 mile north of North Bellingham.              | 3.79                  | 1968-71                         | 10- 9-70                      | .19               |
| 01103220                                                                                          | Miscoe Brook near Franklin, Mass.                      | Lat 42°02'27", long 71°25'38", Norfolk County, at culvert on South St., at south limits of Franklin.                             | 1.15                  | 1968-71                         | 10- 8-70                      | .10               |
| 01103225                                                                                          | Miscoe Brook at Washington St., Franklin, Mass.        | Lat 42°03'21", long 71°26'00", Norfolk County, at culvert on Washington St., 2.6 miles southwest of Franklin.                    | 2.14                  | 1968-71                         | 10- 8-70                      | .12               |
| 01103230                                                                                          | Dix Brook near Franklin, Mass.                         | Lat 42°02'27", long 71°24'39", Norfolk County, at culvert on Vine St., at south limits of Franklin.                              | .24                   | 1968-71                         | 10- 8-70                      | .02               |

\* Adjusted for diversion to North Nashua River basin.



Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

| Station No.                    | Station name                                    | Location                                                                                                                                          | Drainage area (sq mi) | Period of record              | Measurements        |                 |
|--------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------|---------------------|-----------------|
|                                |                                                 |                                                                                                                                                   |                       |                               | Date                | Discharge (cfs) |
| Charles River basin--Continued |                                                 |                                                                                                                                                   |                       |                               |                     |                 |
| 01103250                       | Chicken Brook at Holliston, Mass.               | Lat 42°11'16", long 71°26'21", Middlesex County, at culvert on private road, 400 ft east of State Highway 16 and 1.0 mile southwest of Holliston. | 2.12                  | 1968-71                       | 10- 9-70            | 0.31            |
| 01103270                       | Shepards Brook tributary near Franklin, Mass.   | Lat 42°06'48", long 71°23'46", Norfolk County, at more southerly of two culverts on Lincoln St., 2.1 miles north of Franklin.                     | 1.05                  | 1968-71                       | 10- 8-70            | .07             |
| 01103273                       | Shepards Brook near Franklin, Mass.             | Lat 42°06'55", long 71°23'46", Norfolk County, at more northerly of two culverts on Lincoln St., 2.2 miles north of Franklin.                     | 2.11                  | 1968-71                       | 10- 8-70            | .29             |
| 01103290                       | Safe Meadow Brook near Wrentham, Mass.          | Lat 42°03'17", long 71°21'51", Norfolk County, at culvert on Whiting St., 2.0 miles southwest of Wrentham.                                        | .74                   | 1968-71                       | 4-23-71             | al.4            |
| 01103320                       | Stop River tributary at Norfolk, Mass.          | Lat 42°07'48", long 71°19'12", Norfolk County, at culvert on Boardman St., 0.8 mile northeast of Norfolk.                                         | .78                   | 1968-71                       | 10- 8-70            | .17             |
| 01103335                       | Stop River tributary No. 2 near Medfield, Mass. | Lat 42°09'01", long 71°18'24", Norfolk County, at culvert on Indian Hill Rd., 300 ft above mouth and 2.5 miles south of Medfield.                 | .71                   | 1968-71                       | 10- 8-70            | .02             |
| 01103370                       | Jar Brook near Holliston, Mass.                 | Lat 42°13'46", long 71°26'35", Middlesex County, at culvert on Winter St., 2.1 miles north of Holliston.                                          | .66                   | 1968-71                       | 10- 9-70<br>4-22-71 | .08<br>al.1     |
| 01103405                       | Sewall Brook near Sherborn, Mass.               | Lat 42°13'22", long 71°21'20", Middlesex County, at culvert on Forest St., 1.5 miles south of Sherborn.                                           | 2.68                  | 1968-71                       | 10- 9-70            | .25             |
| 01103425                       | Bogle Brook tributary near Weston, Mass.        | Lat 42°19'56", long 71°19'35", Middlesex County, at culvert on State Highway 30, at west limits of Weston.                                        | .82                   | 1968-71                       | 10-12-70            | .09             |
| 01103430                       | Boulder Brook near Wellesley, Mass.             | Lat 42°18'23", long 71°18'52", Norfolk County, at culvert on Weston Rd., at northwest limits of Wellesley.                                        | .87                   | 1968-71                       | 10-12-70            | .16             |
| 01103440                       | Fuller Brook at Wellesley, Mass.                | Lat 42°17'45", long 71°17'18", Norfolk County, at culvert on Brook St., at Wellesley.                                                             | 3.94                  | 1959-60,<br>1968-71           | 10- 9-70<br>4-22-71 | .63<br>a5.0     |
| 01103450                       | Trout Brook tributary at Dover, Mass.           | Lat 42°14'44", long 71°17'15", Norfolk County, at culvert on Springdale Ave., 0.2 mile west of Dover.                                             | .63                   | 1968-71                       | 10- 9-70            | .52             |
| 01103455                       | Trout Brook at Dover, Mass.                     | Lat 42°15'14", long 71°17'38", Norfolk County, at culvert on Haven St., 0.8 mile northwest of Dover.                                              | 3.74                  | 1968-71                       | 10- 9-70            | 1.4             |
| 01103480                       | Noanet Brook near Dover, Mass.                  | Lat 42°15'08", long 71°15'48", Norfolk County, at culvert on Dedham St., 1.1 miles northeast of Dover.                                            | 1.92                  | 1968-71                       | 10- 9-70            | .33             |
| 01104050                       | Sawmill Brook near West Roxbury, Mass.          | Lat 42°17'27", long 71°10'28", Suffolk County, at culvert on Baker St., at west limits of Boston, 1.1 miles northwest of West Roxbury.            | 1.94                  | 1968-71                       | 10- 9-70            | .49             |
| 01104300                       | Stony Brook near Weston, Mass.                  | Lat 42°23'51", long 71°18'07", Middlesex County, at culvert on Merriam St., 2.1 miles north of Weston.                                            | 5.84                  | 1968-71                       | 10-12-70            | .25             |
| 01104350                       | Cherry Brook near Weston, Mass.                 | Lat 42°23'20", long 71°17'50", Middlesex County, at culvert on Conant Rd., 1.5 miles north of Weston.                                             | 2.15                  | 1968-71                       | 10-12-70            | .46             |
| Weir River basin               |                                                 |                                                                                                                                                   |                       |                               |                     |                 |
| 01105630                       | Crooked Meadow River near Hingham Center, Mass. | Lat 42°12'53", long 70°53'06", Plymouth County, at culvert on Main St., 1.3 miles south of Hingham Center.                                        | 5.00                  | 1969-71                       | 10-12-70<br>7- 9-71 | 0.85<br>.51     |
| North River basin              |                                                 |                                                                                                                                                   |                       |                               |                     |                 |
| 01105680                       | Cushing Brook at West Hanover, Mass.            | Lat 42°07'05", long 70°52'48", Plymouth County, at culvert on State Highway 139, at West Hanover.                                                 | 4.28                  | 1969-71                       | 10-13-70<br>7- 9-71 | 0.16<br>.24     |
| 01105700                       | Indian Head Brook near Hanson, Mass.            | Lat 42°05'13", long 70°51'26", Plymouth County, at bridge on Washington St., 0.3 mile above mouth, and 1.5 miles northeast of Hanson.             | 4.39                  | 1958-60†,<br>1965,<br>1969-71 | 10-13-70<br>7- 9-71 | .51<br>.67      |
| 01105770                       | Herring Brook at Pembroke, Mass.                | Lat 42°03'43", long 70°48'09", Plymouth County, at culvert on Mountain Ave., 0.7 mile southeast of Pembroke.                                      | 5.48                  | 1965,<br>1969-71              | 10-13-70<br>7- 9-71 | 1.1<br>.95      |

† Operated as a continuous-record station.  
a Not base flow.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

| Discharge measurements made at low-flow partial-record stations during water year 1971--Continued |                                                 |                                                                                                                       |                       |                  |                                                                                                                                   |                                                                                |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Station No.                                                                                       | Station name                                    | Location                                                                                                              | Drainage area (sq mi) | Period of record | Measurements                                                                                                                      |                                                                                |
|                                                                                                   |                                                 |                                                                                                                       |                       |                  | Date                                                                                                                              | Discharge (cfs)                                                                |
| North River basin--Continued                                                                      |                                                 |                                                                                                                       |                       |                  |                                                                                                                                   |                                                                                |
| 01105805                                                                                          | Pudding Brook at North Pembroke, Mass.          | Lat 42°05'25", long 70°47'32", Plymouth County, at culvert on State Highway 53 at North Pembroke.                     | 4.53                  | 1969-71          | 10-12-70                                                                                                                          | 0.96                                                                           |
| 01105810                                                                                          | Third Herring Brook at Hanover, Mass.           | Lat 42°07'01", long 70°48'35", Plymouth County, at culvert on River St., 0.5 mile northeast of Hanover.               | 9.85                  | 1969-71          | 10-13-70<br>7- 9-71                                                                                                               | .54<br>.60                                                                     |
| 01105820                                                                                          | Second Herring Brook at Norwell, Mass.          | Lat 42°09'36", long 70°47'20", Plymouth County, at culvert on State Highway 123, at Norwell.                          | 3.22                  | 1969-71          | 10-12-70<br>7- 9-71                                                                                                               | .26<br>2.1                                                                     |
| 01105830                                                                                          | First Herring Brook near Scituate Center, Mass. | Lat 42°11'30", long 70°46'49", Plymouth County, at culvert on Grove St., 1.2 miles southwest of Scituate Center.      | 1.72                  | 1969-71          | 10-12-70<br>2- 9-71<br>2-25-71<br>3-10-71<br>4- 5-71<br>5- 5-71<br>5-14-71<br>5-17-71<br>6- 2-71<br>7- 8-71<br>8- 9-71<br>9-16-71 | .06<br>11<br>8.6<br>6.1<br>2.8<br>5.4<br>6.5<br>12<br>3.6<br>.04<br>.04<br>.01 |
| South River basin                                                                                 |                                                 |                                                                                                                       |                       |                  |                                                                                                                                   |                                                                                |
| 01105845                                                                                          | South River at Marshfield, Mass.                | Lat 42°05'32", long 70°43'50", Plymouth County, at culvert on Old Ocean St., 0.8 mile west of Marshfield.             | 7.5                   | 1969-71          | 10-12-70<br>7- 9-71                                                                                                               | 2.6<br>2.1                                                                     |
| Jones River basin                                                                                 |                                                 |                                                                                                                       |                       |                  |                                                                                                                                   |                                                                                |
| 01105860                                                                                          | Jones River Brook near Plympton, Mass.          | Lat 41°59'18", long 70°48'10", Plymouth County, at culvert on State Highway 106, 2.3 miles north of Plympton.         | 3.60                  | 1965,<br>1969-71 | 10-14-70<br>7-12-71                                                                                                               | 1.3<br>1.0                                                                     |
| 01105872                                                                                          | Halls Brook at Kingston, Mass.                  | Lat 41°59'57", long 70°43'56", Plymouth County, 600 ft above culvert on State Highway 3A, 0.4 mile north of Kingston. | 4.2                   | 1969-71          | 10-14-70<br>7-12-71                                                                                                               | 1.9<br>1.8                                                                     |
| Coastal river basins                                                                              |                                                 |                                                                                                                       |                       |                  |                                                                                                                                   |                                                                                |
| 01105874                                                                                          | Town Brook at Plymouth, Mass.                   | Lat 41°57'22", long 70°39'44", Plymouth County, at mouth, at Plymouth.                                                | 9.04                  | 1969-71          | 10-15-70<br>7-12-71<br>8-18-71                                                                                                    | 15<br>11<br>12                                                                 |
| 01105878                                                                                          | Beaver Dam Brook at White Horse Beach, Mass.    | Lat 41°55'43", long 70°33'20", Plymouth County, at culvert 800 ft above mouth at White Horse Beach.                   | 5.52                  | 1969-71          | 10-15-70<br>5-24-71<br>7-12-71<br>8-18-71                                                                                         | 20<br>25<br>9.6<br>11                                                          |

## 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 1971 |                                                    |                                                                                                                                                                                          |                       |                          |                |                    |                 |
|----------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------|----------------|--------------------|-----------------|
| Station No.                                                                            | Station name                                       | Location                                                                                                                                                                                 | Drainage area (sq mi) | Period of record         | Annual maximum |                    |                 |
|                                                                                        |                                                    |                                                                                                                                                                                          |                       |                          | Date           | Gage height (feet) | Discharge (cfs) |
| Saco River basin                                                                       |                                                    |                                                                                                                                                                                          |                       |                          |                |                    |                 |
| 01064380                                                                               | East Branch Saco River near Lower Bartlett, N. H.  | Lat 44°07'21", long 71°07'50", Carroll County, at bridge on gravel road, 1.7 miles northeast of Lower Bartlett.                                                                          | 32.0                  | 1967-71                  | 5- 4-71        | 1.65               | 1,750           |
| Merrimack River basin                                                                  |                                                    |                                                                                                                                                                                          |                       |                          |                |                    |                 |
| 01074500                                                                               | East Branch Pemigewasset River near Lincoln, N. H. | Lat 44°03'23", long 71°38'18", Grafton County, at dam of Franconia Paper Company, 0.9 mile below Clear Brook, 1.2 miles below former gaging station, and 1.8 miles northeast of Lincoln. | 109                   | 1929-53†, 1968-71        | -              | (a)                | <2,800          |
| 01084500                                                                               | Beards Brook near Hillsboro, N. H.                 | Lat 43°06'51", long 71°55'36", Hillsborough County, 300 ft above bridge on State Highway 9, 500 ft above mouth, and 1.5 miles west of Hillsboro.                                         | 55.4                  | 1946-70‡, 1971           | 4-14-71        | 4.16               | 850             |
| 01089500                                                                               | Suncook River at North Chichester, N. H.           | Lat 43°15'23", long 71°22'10", Merrimack County, 100 ft below bridge on Depot Road at North Chichester and 3.1 miles above Little Suncook River.                                         | 157                   | 1918-27‡, 1929-70‡, 1971 | 4-14-71        | 68.12              | 1,200           |
| 01095200                                                                               | Houghton Brook near Oakdale, Mass.                 | Lat 42°24'57", long 71°48'12", Worcester County, at culvert on State Highway 140, 2 miles north of Oakdale.                                                                              | .69                   | 1964-71                  | 5-13-71        | 6.36               | 10              |
| 01095800                                                                               | Easter Brook near North Leominster, Mass.          | Lat 42°32'46", long 71°42'45", Worcester County, at culvert on Lancaster Ave., 1.5 miles east of North Leominster.                                                                       | .92                   | 1964-71                  | 4- 3-71        | 12.39              | 16              |
| 01097200                                                                               | Heath Hen Meadow Brook at Stow, Mass.              | Lat 42°26'44", long 71°30'02", Middlesex County, at culvert on West Acton Rd., 0.7 mile northeast of Stow.                                                                               | 3.89                  | 1964-71                  | 3-17-71        | 4.71               | 35              |
| 01097450                                                                               | Jackstraw Brook at Westborough, Mass.              | Lat 42°15'14", long 71°36'14", Worcester County, at culvert on Upton Rd., 1.1 miles southeast of Westborough.                                                                            | 1.11                  | 1964-71                  | 3-17-71        | 10.79              | 15              |
| 01098700                                                                               | Hayward Brook at Wayland, Mass.                    | Lat 42°21'40", long 71°20'51", Middlesex County, at culvert on U.S. Highway 20, 0.7 mile east of Wayland.                                                                                | 2.32                  | 1964-71                  | 3-17-71        | 6.27               | 16              |
| 01100100                                                                               | Richardson Brook near Lowell, Mass.                | Lat 42°39'48", long 71°16'02", Middlesex County, at culvert on Methuen St., 2 miles northeast of Lowell.                                                                                 | 4.32                  | 1963-71                  | 3-17-71        | 12.66              | 99              |
| 01100800                                                                               | Cobbler Brook near Merrimac, Mass.                 | Lat 42°50'55", long 71°01'10", Essex County, at culvert on Highland St., 1.3 miles northwest of Merrimac.                                                                                | .77                   | 1963-71                  | 7-30-71        | 8.16               | 49              |
| Parker River basin                                                                     |                                                    |                                                                                                                                                                                          |                       |                          |                |                    |                 |
| 01100900                                                                               | Parker River tributary near Georgetown, Mass.      | Lat 42°44'03", long 70°58'22", Essex County, at culvert on North St., 1.2 miles northeast of Georgetown.                                                                                 | 0.65                  | 1964-71                  | 3-17-71        | 10.68              | 24              |
| 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 mile southwest of Belmont.                                                              | 4.09                  | 1963-71                  | 3-17-71        | 10.43              | 93              |
| Neponset River basin                                                                   |                                                    |                                                                                                                                                                                          |                       |                          |                |                    |                 |
| 01104900                                                                               | Mill Brook at Westwood, Mass.                      | Lat 42°12'21", long 71°14'26", Norfolk County, at culvert on State Highway 109, at Westwood.                                                                                             | 1.52                  | 1964-71                  | 5-17-71        | 6.03               | 16              |
| 01105550                                                                               | Plantingfield Brook at Norwood, Mass.              | Lat 42°12'17", long 71°11'13", Norfolk County, at culvert on State Highway 1, 1.0 mile northeast of Norwood.                                                                             | 1.52                  | 1964-71                  | 2-14-71        | 14.10              | 135             |

† Operated as a continuous-record gaging station.

a Peak stage did not reach bottom of the gage.

b Backwater from ice.

c About.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

| Station No.                      | Station name                                       | Location                                                                                                            | Drainage area (sq mi) | Period of record | Annual maximum |                    |                 |
|----------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|----------------|--------------------|-----------------|
|                                  |                                                    |                                                                                                                     |                       |                  | Date           | Gage height (feet) | Discharge (cfs) |
| 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 miles northwest of Marshfield.       | 1.61                  | 1964-71          | 5-17-71        | 9.40               | 54              |
| East Branch Westport River basin |                                                    |                                                                                                                     |                       |                  |                |                    |                 |
| 01105950                         | Kirby Brook near Head of Westport, Mass.           | Lat 41°36'02", long 71°04'25", Bristol County, at culvert on Drift Rd., 1.5 miles south of Head of Westport.        | 3.69                  | 1964-71          | 2-14-71        | 8.35               | 68              |
| Cold Brook basin                 |                                                    |                                                                                                                     |                       |                  |                |                    |                 |
| 01106100                         | Cold Brook near Adamsville, R.I.                   | Lat 41°32'37", long 71°09'05", Newport County, at culvert on Cold Brook Rd., 1.3 miles southwest of Adamsville.     | 1.15                  | 1966-71          | 2-14-71        | 8.10               | 29              |
| Taunton River basin              |                                                    |                                                                                                                     |                       |                  |                |                    |                 |
| 01106485                         | Meadow Brook tributary near Whitman, Mass.         | Lat 42°04'11", long 70°57'34", Plymouth County, at culvert on Auburn St., 1.3 miles southwest of Whitman.           | 1.04                  | 1967-71          | 2-14-71        | 9.22               | 38              |
| 01108100                         | Snows Brook near Bridgewater, Mass.                | Lat 41°56'53", long 70°59'37", Plymouth County, at culvert on Cross St., 3 miles south of Bridgewater.              | 1.41                  | 1964-71          | 2-14-71        | 7.6                | 54              |
| 01109050                         | Threemile River tributary near Oakland, Mass.      | Lat 41°55'38", long 71°09'17", Bristol County, at culvert on State Highway 140, 1.3 miles northwest of Oakland.     | .50                   | 1964-71          | 2-14-71        | 6.52               | 13              |
| 01109075                         | Holloway Brook near Myricks, Mass.                 | Lat 41°49'34", long 70°59'25", Plymouth County, at culvert on Pickens St., 2.0 miles east of Myricks.               | 1.16                  | 1967-71          | 2-14-71        | 6.45               | 32              |
| 01109085                         | Quaker Brook near Myricks, Mass.                   | Lat 41°49'29", long 71°03'18", Bristol County, at culvert on Bryant St., 1.5 miles southwest of Myricks.            | 1.94                  | 1967-71          | 2-14-71        | 9.34               | 117             |
| 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 miles northeast of Fall River.     | .25                   | 1964-71          | 8-27-71        | 11.24              | 54              |
| 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 mile north of Seekonk.               | 4.24                  | 1967-71          | 2-14-71        | 6.51               | 94              |
| Metacomet Brook basin            |                                                    |                                                                                                                     |                       |                  |                |                    |                 |
| 01109300                         | Metacomet Brook at East Providence, R.I.           | Lat 41°48'19", long 71°22'25", Providence County, at culvert on South Broadway at East Providence.                  | 0.82                  | 1966-71          | 7-19-71        | 10.72              | 94              |
| 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 miles south of Wallum Lake.  | 1.74                  | 1966-71          | 2-27-71        | 7.11               | 20              |
| 01111450                         | Mowry Paine Brook near Chepachet, R.I.             | Lat 41°55'19", long 71°37'26", Providence County, at culvert on Cooper Rd., 2.5 miles northeast of Chepachet.       | 1.87                  | 1966-71          | 2-27-71        | 5.71               | 35              |
| 01112300                         | Bungay Brook near Sheldonville, Mass.              | Lat 42°01'29", long 71°27'24", Bristol County, at culvert on Wrentham St., 3.5 miles west of Sheldonville.          | 2.66                  | 1964-71          | 2-14-71        | 6.66               | 48              |
| 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 mile south-east of Berkeley. | 1.04                  | 1966-71          | 10-23-70       | 6.53               | 47              |
| Pawtuxet River basin             |                                                    |                                                                                                                     |                       |                  |                |                    |                 |
| 01115200                         | Shippee Brook tributary at North Foster, R.I.      | Lat 41°49'53", long 71°45'10", Providence County, at culvert on Willoughby Young Rd., at North Foster.              | 0.55                  | 1966-71          | 11- 3-70       | 10.43              | 55              |
| 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 miles east of Clayville.      | 4.61                  | 1966-71          | 2- 8-71        | 11.44              | 80              |
| 01115830                         | Bear Brook near Coventry, R.I.                     | Lat 41°39'37", long 71°37'42", Kent County, at culvert on Fish Hill Rd., 3 miles south of Coventry.                 | 3.98                  | 1966-71          | 2-14-71        | 7.52               | 62              |
| 01116600                         | Pocasset River near North Scituate, R.I.           | Lat 41°50'13", long 71°31'49", Providence County, at culvert on Belfield Drive, 3 miles east of North Scituate.     | 1.34                  | 1966-71          | 2-14-71        | 7.46               | 12              |

c. About.

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

| Station No.             | Station name                                                       | Location                                                                                                                         | Drainage area (sq mi) | Period of record | Annual maximum |                    |                 |
|-------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|----------------|--------------------|-----------------|
|                         |                                                                    |                                                                                                                                  |                       |                  | Date           | Gage height (feet) | Discharge (cfs) |
| Hardig Brook basin      |                                                                    |                                                                                                                                  |                       |                  |                |                    |                 |
| 01116650                | Hardig Brook near West Warwick, R.I.                               | Lat 41°41'38", long 71°28'52", Providence County, at culvert on Hardig Rd., 2.5 miles southeast of West Warwick.                 | 3.16                  | 1966-71          | 2-14-71        | 4.33               | 152             |
| Potowomut River basin   |                                                                    |                                                                                                                                  |                       |                  |                |                    |                 |
| 01116870                | Frenchtown Brook near Davisville, R.I.                             | Lat 41°37'47", long 71°30'51", Providence County, at culvert on Tillinghast Rd., 2.3 miles northwest of Davisville.              | 3.12                  | 1966-71          | 2-14-71        | 4.06               | 39              |
| Smelt Brook basin       |                                                                    |                                                                                                                                  |                       |                  |                |                    |                 |
| 01117250                | Browns Brook at Wakefield, R.I.                                    | Lat 41°25'56", long 71°31'24", Washington County, at culvert on Tuckertown Rd., 1 mile southwest of Wakefield.                   | 0.50                  | 1966-71          | 2-27-71        | 10.68              | 20              |
| Pawcatuck River basin   |                                                                    |                                                                                                                                  |                       |                  |                |                    |                 |
| 01117400                | Glen Rock Brook tributary at Usquepaug, R.I.                       | Lat 41°31'04", long 71°36'18", Washington County, at culvert on Glen Rock Rd., 1 mile north of Usquepaug.                        | 1.04                  | 1966-71          | 2-27-71        | 4.51               | 32              |
| 01117820                | Wood River tributary near Arcadia, R.I.                            | Lat 41°34'32", long 71°42'52", Washington County, at culvert on State Highway 165, 1.8 miles northwest of Arcadia.               | .77                   | 1966-71          | 2-14-71        | 7.88               | 8               |
| 01118020                | Perry Healy Brook near Bradford, R.I.                              | Lat 41°22'41", long 71°43'42", Washington County, at culvert on State Highway 216, 2 miles southeast of Bradford.                | 1.82                  | 1966-71          | 11- 3-70       | 6.99               | 16              |
| 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 miles northeast of Wales.                          | 0.71                  | 1964-71          | 7-31-71        | 8.09               | 29              |
| 01124050                | Tufts Branch at Dudley, Mass.                                      | Lat 42°03'11", long 71°56'22", Worcester County, at culvert on Dudley-Southbridge Rd., 0.7 mile northwest of Dudley.             | 1.06                  | 1963-71          | 3-16-71        | 9.83               | 24              |
| Connecticut River basin |                                                                    |                                                                                                                                  |                       |                  |                |                    |                 |
| 01129400                | Black Brook at Averill, Vt.                                        | Lat 45°00'14", long 71°41'34", Essex County, at culvert on State Highway 114, 1 mile northeast of Averill.                       | 0.58                  | 1964-71          | 8-28-71        | 11.10              | 22              |
| 01129700                | Paul Stream tributary near Brunswick, Vt.                          | Lat 44°41'06", long 71°37'18", Essex County, at culvert on macadam road leading to Maidstone Lake, 3.5 miles south of Brunswick. | 1.29                  | 1966-71          | 8- 3-71        | 8.36               | 37              |
| 01133200                | Quimby Brook near Lyndonville, Vt.                                 | Lat 44°34'52", long 71°59'11", Caledonia County, at culvert on dirt road, 3.5 miles north of Lyndonville.                        | 2.32                  | 1964-71          | 8- 3-71        | 12.73              | 75              |
| 01133300                | Cold Hill Brook near Lyndon, Vt.                                   | Lat 44°31'47", long 72°03'01", Caledonia County, at culvert on dirt road, 2 miles northwest of Lyndon.                           | 1.52                  | 1964-71          | 8- 3-71        | 11.96              | 78              |
| 01135700                | Joes Brook tributary near East Barnet, Vt.                         | Lat 44°20'40", long 72°03'52", Caledonia County, at culvert on dirt road, 1.8 miles northwest of East Barnet.                    | .76                   | 1964-71          | 5- 3-71        | 10.27              | 18              |
| 01138800                | Keenan Brook at Groton, Vt.                                        | Lat 44°12'10", long 72°12'05", Caledonia County, at culvert on macadam road, 0.6 mile south of Groton.                           | 4.26                  | 1964-71          | 5- 4-71        | 13.61              | 132             |
| 01139700                | Waits River tributary near West Topsham, Vt.                       | Lat 44°08'29", long 72°18'52", Orange County, at culvert on U.S. Highway 302, 2 miles north of West Topsham.                     | 1.09                  | 1964-71          | 5- 4-71        | 10.22              | 63              |
| 01140100                | South Branch Waits River tributary near Bradford Center, Vt.       | Lat 44°01'14", long 72°12'14", Orange County, at culvert on macadam road, 2 miles northwest of Bradford Center.                  | .27                   | 1964-71          | 5- 4-71        | 10.48              | 5               |
| 01140800                | West Branch Ompompa-noosuc River tributary at South Strafford, Vt. | Lat 43°49'56", long 72°22'20", Orange County, at culvert on dirt road at South Strafford.                                        | 1.33                  | 1964-71          | 5- 4-71        | 10.90              | 70              |
| 01142400                | Third Branch White River tributary at Randolph, Vt.                | Lat 43°55'54", long 72°40'58", Orange County, at culvert on State Highway 12A, 1 mile northwest of Randolph.                     | .77                   | 1964-71          | 4-21-71        | 10.59              | 41              |
| 01151200                | Ottawaquechee River tributary near Quechee, Vt.                    | Lat 43°39'37", long 72°25'55", Windsor County, at culvert on Quechee Rd., 1.2 miles northwest of Quechee.                        | .82                   | 1964-71          | 8-28-71        | 10.21              | 25              |



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

| Station No.                        | Station name                                               | Location                                                                                                         | Drainage area (sq mi) | Period of record | Annual maximum                            |                              |                         |
|------------------------------------|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|-------------------------------------------|------------------------------|-------------------------|
|                                    |                                                            |                                                                                                                  |                       |                  | Date                                      | Gage height (feet)           | Dis-charge (cfs)        |
| Connecticut River basin--Continued |                                                            |                                                                                                                  |                       |                  |                                           |                              |                         |
| 01153300                           | Middle Branch Williams River tributary at Chester, Vt.     | Lat 43°16'13", long 72°36'32", Windsor County, at culvert on macadam road at Chester.                            | 3.16                  | 1964-71          | 4-21-71                                   | 18.58                        | 106                     |
| 01153800                           | Bull Creek tributary near Athens, Vt.                      | Lat 43°06'08", long 72°34'55", Windham County, at culvert on gravel road, 2 miles southwest of Athens.           | .60                   | 1967-71          | 4-21-71                                   | 10.53                        | 15                      |
| 01155350                           | West River tributary near Jamaica, Vt.                     | Lat 43°07'32", long 72°48'47", Windham County, at culvert on State Highway 100, 2.5 miles northwest of Jamaica.  | .90                   | 1964-71          | 4-21-71                                   | 8.23                         | 25                      |
| 01156300                           | Whetstone Brook tributary near Marlboro, Vt.               | Lat 42°52'42", long 72°42'30", Windham County, at culvert on State Highway 9, 1.5 miles northeast of Marlboro.   | 1.05                  | 1963-71          | 8-28-71                                   | 5.63                         | 117                     |
| 01156450                           | Connecticut River tributary near Vernon, Vt.               | Lat 42°47'01", long 72°31'57", Windham County, at culvert on macadam road, 1.5 miles northwest of Vernon.        | 1.12                  | 1964-71          | 8-28-71                                   | 7.63                         | 27                      |
| 01161300                           | Millers Brook at Northfield, Mass.                         | Lat 42°41'07", long 72°27'11", Franklin County, at culvert on Beers Plain Rd., 0.8 mile south of Northfield.     | 2.33                  | 1964-71          | 8-28-71                                   | 15.22                        | 54                      |
| 01163100                           | Wilder Brook near Gardner, Mass.                           | Lat 42°35'42", long 72°00'53", Worcester County, at culvert on Clark St., 1.5 miles northwest of Gardner.        | 2.50                  | 1964-71          | 4- 3-71                                   | 11.56                        | 38                      |
| 01170200                           | Allen Brook near Shelburne Falls, Mass.                    | Lat 42°36'46", long 72°40'02", Franklin County, at culvert on Peckville Rd., 3.5 miles east of Shelburne Falls.  | .73                   | 1964-71          | 8-28-71                                   | 5.73                         | 17                      |
| 01170900                           | Mill River near South Deerfield, Mass.                     | Lat 42°28'09", long 72°38'31", Franklin County, at culvert on North St., 2 miles southwest of South Deerfield.   | 6.37                  | 1963-71          | 4-13-71                                   | 10.82                        | 144                     |
| 01171200                           | Scarboro Brook at Dwight, Mass.                            | Lat 42°19'44", long 72°26'47", Hampshire County, at culvert on State Highway 9, at Dwight.                       | 2.92                  | 1963-66, 1968-71 | 4- 3-71                                   | c13.74                       | c38                     |
| 01171910                           | Broad Brook near Holyoke, Mass.                            | Lat 42°11'59", long 72°41'11", Hampden County, at culvert on Keys Rd., 3.5 miles west of Holyoke.                | 2.26                  | 1965-71          | 4- 3-71                                   | 17.37                        | 88                      |
| 01173040                           | Pleasant Brook near Barre, Mass.                           | Lat 42°25'44", long 72°04'35", Worcester County, at culvert on State Highway 62, 1.5 miles east of Barre.        | 1.11                  | 1965-71          | 4- 3-71                                   | 6.32                         | 32                      |
| 01173330                           | Fish Brook near Gilbertville, Mass.                        | Lat 42°19'24", long 72°11'11", Worcester County, at culvert on Goddard Rd., 1.2 miles northwest of Gilbertville. | 1.01                  | 1964-71          | 2-15-71                                   | 13.17                        | 25                      |
| 01173900                           | Middle Branch Swift River at North New Salem, Mass.        | Lat 42°32'45", long 72°19'10", Franklin County, at culvert on Elm St., at North New Salem.                       | 4.73                  | 1964-71          | 4- 3-71                                   | 6.90                         | 49                      |
| 01175600                           | Caruth Brook near Paxton, Mass.                            | Lat 42°19'00", long 71°58'16", Worcester County, at culvert on Spring St., 2.2 miles west of Paxton.             | 2.35                  | 1964-71          | 4- 3-71                                   | 7.64                         | 58                      |
| 01176450                           | Roaring Brook near Belchertown, Mass.                      | Lat 42°14'07", long 72°24'18", Hampshire County, at culvert on State Highway 21, 4 miles south of Belchertown.   | 2.77                  | 1963-71          | 2-15-71                                   | 11.66                        | 103                     |
| 01178230                           | Mill Brook at Plainfield, Mass.                            | Lat 42°30'57", long 72°55'30", Hampshire County, at culvert on High St., 0.4 mile west of Plainfield.            | 4.47                  | 1964-71          | 8-28-71                                   | 14.54                        | 200                     |
| 01180100                           | Fuller Brook near Peru, Mass.                              | Lat 42°25'59", long 73°01'19", Hampshire County, at culvert on State Highway 143, 1.3 miles south-east of Peru.  | 2.07                  | 1967-71          | 8-28-71                                   | 16.50                        | 133                     |
| 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                   | 1964-71          | 7-17-71                                   | c9.8                         | 8                       |
| 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 miles southwest of Longmeadow.     | 4.15                  | 1967-71          | 5-26-67<br>3-18-68<br>d7-29-69<br>7-17-71 | 3.35<br>3.72<br>3.98<br>3.74 | d45<br>d52<br>d66<br>49 |
| 01184900                           | Haley Pond Outlet (tributary to Big Pond) near Otis, Mass. | Lat 42°12'15", long 73°01'56", Berkshire County, at culvert on Algeria Rd., 3 miles northeast of Otis.           | .27                   | 1964-71          | 5-13-71                                   | 10.70                        | 15                      |

c About.  
d Revised.



## Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

| Station No.              | Station name                                       | Location                                                                                                                   | Drainage area (sq mi) | Period of record | Annual maximum |                    |                  |
|--------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|----------------|--------------------|------------------|
|                          |                                                    |                                                                                                                            |                       |                  | Date           | Gage height (feet) | Dis-charge (cfs) |
| Housatonic River basin   |                                                    |                                                                                                                            |                       |                  |                |                    |                  |
| 01196990                 | Windsor Brook tributary at Windsor, Mass.          | Lat 42°30'41", long 73°04'37", Berkshire County, at culvert on State Highway 9, 0.9 mile west of Windsor.                  | 0.29                  | 1964-71          | 4-13-71        | 10.33              | 18               |
| 01197050                 | Churchill Brook at Pittsfield, Mass.               | Lat 42°29'28", long 73°16'56", Berkshire County, at culvert on Churchill St., at north limits of Pittsfield.               | 1.16                  | 1964-71          | 8-28-71        | 9.87               | 26               |
| 01197155                 | Housatonic River tributary No. 2 at Lee, Mass.     | Lat 42°18'21", long 73°13'49", Berkshire County, at culvert on East St., 1.0 mile east of Lee.                             | .73                   | 1965-71          | 8-28-71        | 5.45               | 18               |
| 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 mile southeast of Risingdale.        | .69                   | 1963-71          | 8-28-71        | 15.59              | 17               |
| Hudson River basin       |                                                    |                                                                                                                            |                       |                  |                |                    |                  |
| 01328900                 | Tanner Brook near Sunderland, Vt.                  | Lat 43°07'52", long 73°05'45", Bennington County, at culvert on U.S. Highway 7, 1.3 miles north of Sunderland.             | 2.60                  | 1964-71          | 8-28-71        | 10.42              | 30               |
| 01333800                 | South Stream near Bennington, Vt.                  | Lat 42°49'53", long 73°10'04", Bennington County, at culvert on South Stream Rd., 3.5 miles southeast of Bennington.       | 7.70                  | 1963-71          | 8-28-71        | 9.77               | 75               |
| 01333900                 | Paran Creek near South Shaftsbury, Vt.             | Lat 42°58'13", long 73°11'19", Bennington County, at culvert on dirt road, 2 miles northeast of South Shaftsbury.          | 2.38                  | 1964-71          | 8-28-71        | 6.96               | 39               |
| St. Lawrence River basin |                                                    |                                                                                                                            |                       |                  |                |                    |                  |
| 04279400                 | Poultney River tributary at East Poultney, Vt.     | Lat 43°32'17", long 73°12'36", Rutland County, at culvert 1.0 mile north of East Poultney.                                 | 1.13                  | 1964-71          | 8-28-71        | 10.55              | 43               |
| 04280200                 | Mettawee River tributary No. 2 at East Rupert, Vt. | Lat 43°16'16", long 73°07'23", Bennington County, at culvert on State Highway 30, at East Rupert.                          | 1.86                  | 1963-71          | 4- 6-71        | 13.41              | 59               |
| 04280900                 | Moon Brook at Rutland, Vt.                         | Lat 43°36'33", long 72°57'25", Rutland County, at culvert on macadam road, 1.0 mile east of Rutland.                       | 2.12                  | 1964-71          | 7-19-71        | 10.31              | 44               |
| 04282200                 | Neshobe River at Brandon, Vt.                      | Lat 43°48'37", long 73°04'36", Rutland County, at bridge on dirt road, 1.0 mile northeast of Brandon.                      | 20.1                  | 1968-71          | 8-28-71        | 7.43               | 563              |
| 04282300                 | Brandy Brook at Bread Loaf, Vt.                    | Lat 43°57'19", long 72°59'49", Addison County, at culvert on State Highway 125, at Bread Loaf, and 2 miles east of Ripton. | 2.24                  | 1963-71          | 8-28-71        | 12.03              | 120              |
| 04282550                 | Beaver Brook at Cornwall, Vt.                      | Lat 43°57'29", long 73°12'51", Addison County, at culvert on State Highway 74, at Cornwall.                                | 1.11                  | 1964-71          | 4-21-71        | 10.41              | 51               |
| 04282600                 | Little Otter Creek tributary near Bristol, Vt.     | Lat 44°08'44", long 73°07'05", Addison County, at culvert on dirt road, 2 miles northwest of Bristol.                      | 1.48                  | 1964-71          | 8-28-71        | 12.60              | 52               |
| 04282750                 | Lewis Creek tributary No. 2 near Rockville, Vt.    | Lat 44°15'54", long 73°04'02", Addison County, at culvert on State Highway 116, 1.3 miles north of Rockville.              | 1.07                  | 1964-71          | 8-28-71        | 11.80              | 35               |
| 04282850                 | Winooski River tributary No. 2 near Cabot, Vt.     | Lat 44°25'53", long 72°18'09", Washington County, at culvert on macadam road, 2 miles north of Cabot.                      | 1.10                  | 1964-71          | 8-28-71        | 10.99              | 18               |
| 04284300                 | Stevens Branch tributary at South Barre, Vt.       | Lat 44°10'51", long 72°31'11", Washington County, at culvert on dirt road, 0.7 mile west of South Barre.                   | .39                   | 1964-71          | 8-28-71        | 10.22              | 10               |
| 04288400                 | Bryant Brook at Waterbury Center, Vt.              | Lat 44°22'41", long 72°43'29", Washington County, at culvert on State Highway 100, at Waterbury Center.                    | 2.64                  | 1964-71          | 8-28-71        | 11.98              | 146              |
| 04289600                 | Winooski River tributary near Richmond, Vt.        | Lat 44°26'09", long 72°58'46", Chittenden County, at culvert on macadam road, 2 miles north of Richmond.                   | .71                   | 1964-71          | 5- 4-71        | 11.46              | 31               |
| 04290700                 | Bailey Brook at East Hardwick, Vt.                 | Lat 44°31'41", long 72°18'16", Caledonia County, at culvert on macadam road, 0.5 mile northeast of East Hardwick.          | 2.52                  | 1964-71          | 8-28-71        | 11.88              | 99               |
| 04292150                 | Gihon River tributary near Johnson, Vt.            | Lat 44°39'36", long 72°37'44", Lamoille County, at culvert on State Highway 100 C, 3 miles northeast of Johnson.           | .31                   | 1964-71          | 7- 1-71        | 10.71              | 40               |

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

| Annual maximum discharge of crest-stage partial-record stations during water year 1971--Continued |                                                     |                                                                                                                   |                       |                  |                |                    |                  |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|----------------|--------------------|------------------|
| Station No.                                                                                       | Station name                                        | Location                                                                                                          | Drainage area (sq mi) | Period of record | Annual maximum |                    |                  |
|                                                                                                   |                                                     |                                                                                                                   |                       |                  | Date           | Gage height (feet) | Dis-charge (cfs) |
| St. Lawrence River basin--Continued                                                               |                                                     |                                                                                                                   |                       |                  |                |                    |                  |
| 04292200                                                                                          | Lamoille River tributary at Jeffersonville, Vt.     | Lat 44°39'13", long 72°49'42", Lamoille County, at culvert on State Highway 108, at Jeffersonville.               | 0.58                  | 1964-71          | 8-28-71        | 11.65              | 42               |
| 04293400                                                                                          | Whittaker Brook at Richford, Vt.                    | Lat 44°59'14", long 72°39'13", Franklin County, at culvert on State Highway 105, 1 mile east of Richford.         | .64                   | 1963-71          | 8-28-71        | 10.63              | 99               |
| 04293800                                                                                          | Missisquoi River tributary at Sheldon Junction, Vt. | Lat 44°54'01", long 72°57'35", Franklin County, at culvert on State Highway 105, at Sheldon Junction.             | 1.69                  | 1963-71          | 8-28-71        | 12.55              | 52               |
| 04294200                                                                                          | Saxe Brook near Highgate Springs, Vt.               | Lat 44°59'38", long 73°03'59", Franklin County, at culvert on dirt road, 2.5 miles northeast of Highgate Springs. | 2.79                  | 1963-71          | 4-13-71        | 11.07              | 24               |
| 04295900                                                                                          | Ware Brook near Coventry, Vt.                       | Lat 44°51'02", long 72°17'33", Orleans County, at culvert on dirt road, 2 miles southwest of Coventry.            | 2.87                  | 1963-71          | 8-28-71        | 14.28              | 145              |
| 04296150                                                                                          | Lord Brook near Evansville, Vt.                     | Lat 44°46'59", long 72°07'08", Orleans County, at culvert on State Highway 16, 1.5 miles south of Evansville.     | 4.76                  | 1964-71          | 5- 7-71        | 11.68              | 123              |
| 04296300                                                                                          | Pherrins River tributary near Island Pond, Vt.      | Lat 44°50'33", long 71°54'32", Essex County, at culvert on State Highway 114, 2.3 miles northwest of Island Pond. | 1.05                  | 1964-71          | 5- 7-71        | 10.55              | 45               |

## Discharge measurements at miscellaneous sites

Measurements of streamflow at points other than gaging 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 1971

Discharge measurements made at miscellaneous sites during water year 1971

| Stream                             | Tributary to   | Location                                                                                                                                                | Drainage area (sq mi) | Measured previously (water years) | Measurements        |                 |
|------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------|---------------------|-----------------|
|                                    |                |                                                                                                                                                         |                       |                                   | Date                | Discharge (cfs) |
| Part I Ipswich River basin         |                |                                                                                                                                                         |                       |                                   |                     |                 |
| Ipswich River                      | Atlantic Ocean | Lat 42°32'30", long 71°10'56", Middlesex County, at culvert on Burlington Ave., 0.6 mile west of Wilmington, Mass.                                      | -                     | 1970                              | 10-13-70<br>5-25-71 | 0.04<br>1.8     |
| Ipswich River                      | do             | Lat 42°33'10", long 71°09'25", Middlesex County, at culvert on Wildwood St., 1.0 mile northeast of Wilmington, Mass.                                    | -                     | 1970                              | 10-13-70<br>5-25-71 | 1.2<br>13       |
| Lubber Brook                       | Ipswich River  | Lat 42°33'50", long 71°11'05", Middlesex County, at culvert on Main St., 1.4 miles north of Wilmington, Mass.                                           | -                     | 1970                              | 10-13-70<br>5-25-71 | .17<br>4.7      |
| Lubber Brook                       | do             | Lat 42°33'32", long 71°08'49", Middlesex County, at dual culverts on Concord Rd., 1.7 miles north-east of Wilmington, Mass.                             | -                     | 1970                              | 10-13-70<br>5-25-71 | .52<br>11       |
| Ipswich River                      | Atlantic Ocean | Lat 42°33'13", long 71°08'39", Middlesex County, at culvert on Woburn St., 1.6 miles east of Wilmington, Mass.                                          | -                     | 1970                              | 10-13-70<br>5-25-71 | 2.0<br>24       |
| Bear Meadow Brook                  | Ipswich River  | Lat 42°33'30", long 71°05'39", Middlesex County, at culvert on Haverhill St., 1.3 miles southwest of North Reading, Mass.                               | -                     | -                                 | 5-25-71             | 6.5             |
| Skug River (head of Martins Brook) | do             | Lat 42°35'57", long 71°06'38", Middlesex County, at culvert on Central St., 0.8 mile above Martins Pond and 2.3 miles northwest of North Reading, Mass. | -                     | 1970                              | 5-25-71             | 11              |
| Martins Brook                      | do             | Lat 42°34'15", long 71°06'05", Middlesex County, at bridge on Park St., 1.2 miles west of North Reading, Mass.                                          | -                     | 1970                              | 10-13-70<br>5-25-71 | 4.2<br>30       |
| Ipswich River                      | Atlantic Ocean | Lat 42°34'20", long 71°05'25", Middlesex County, at bridge on Central St., 0.6 mile west of North Reading, Mass.                                        | -                     | 1970                              | 10-13-70<br>5-25-71 | 6.0<br>75       |
| Ipswich River tributary            | Ipswich River  | Lat 42°34'38", long 71°04'18", Middlesex County, at culvert on Willow St., 1.2 miles below Eisenhaures Pond and 0.4 mile east of North Reading, Mass.   | -                     | 1970                              | 5-26-71             | 3.3             |
| Wills Brook                        | do             | Lat 42°34'13", long 71°02'57", Essex County, at culvert on old railroad grade near city of Lynn pumping station, 1.5 miles east of North Reading, Mass. | -                     | -                                 | 5-26-71             | 3.6             |
| Boston Brook                       | do             | Lat 42°38'29", long 71°03'18", Essex County, at culvert on Essex Rd., 4.0 miles northwest of Middleton, Mass.                                           | -                     | 1970                              | 5-26-71             | 12              |
| Boston Brook                       | do             | Lat 42°37'15", long 71°01'14", Essex County, at bridge on Liberty Rd., 200 ft above pond and 1.9 miles north of Middleton, Mass.                        | -                     | 1970                              | 5-26-71             | 20              |
| Fish Brook                         | do             | Lat 42°38'04", long 70°58'31", Essex County, at bridge on River Rd., 1.2 miles west of Topsfield, Mass.                                                 | -                     | 1970                              | 5-24-71             | 42              |
| Pye Brook (head of Howlett Brook)  | do             | Lat 42°39'17", long 70°57'12", Essex County, at bridge on Haverhill St., 1.2 miles north of Topsfield, Mass.                                            | -                     | 1970                              | 5-24-71             | 23              |
| Howlett Brook                      | do             | Lat 42°39'17", long 70°55'03", Essex County, at culvert on Ipswich Rd., 2.0 miles northeast of Topsfield, Mass.                                         | -                     | 1970                              | 5-24-71             | 35              |
| Miles River                        | do             | Lat 42°36'58", long 70°51'09", Essex County, at culvert on Bridge St., 0.3 mile east of Hamilton, Mass.                                                 | -                     | -                                 | 5-24-71             | 19              |
| Miles River                        | do             | Lat 42°39'28", long 70°50'37", Essex County, at bridge on Main St., 1.6 miles south of Ipswich, Mass.                                                   | -                     | 1970                              | 5-24-71             | 35              |

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1971--Continued

| Discharge measurements made at miscellaneous sites during water year 1971--Continued |                                    |                                                                                                                                                                                 |                       |                                   |                                                                                                                                                                                            |                                                                                                                   |
|--------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Stream                                                                               | Tributary to                       | Location                                                                                                                                                                        | Drainage area (sq mi) | Measured previously (water years) | Measurements                                                                                                                                                                               |                                                                                                                   |
|                                                                                      |                                    |                                                                                                                                                                                 |                       |                                   | Date                                                                                                                                                                                       | Discharge (cfs)                                                                                                   |
| Charles River basin                                                                  |                                    |                                                                                                                                                                                 |                       |                                   |                                                                                                                                                                                            |                                                                                                                   |
| Beaver Brook                                                                         | Hopping Brook                      | Lat 42°10'48", long 71°28'46", Middlesex County, at culvert on Marshall St., 2.9 miles southwest of Holliston, Mass.                                                            | 1.98                  | 1968-70                           | 10-12-70<br>4-23-71                                                                                                                                                                        | *0.07<br>3.9                                                                                                      |
| Hopping Brook                                                                        | Charles River                      | Lat 42°08'31", long 71°27'21", Norfolk County, at culvert on West St., 1.2 miles west of West Medway, Mass.                                                                     | 10.0                  | 1968-70                           | 4-22-71                                                                                                                                                                                    | 20                                                                                                                |
| Chicken Brook                                                                        | do                                 | Lat 42°08'27", long 71°25'26", Norfolk County, at culvert on Cottage St., 0.5 mile southeast of West Medway, Mass.                                                              | 7.19                  | 1968-69                           | 10-12-70                                                                                                                                                                                   | .71                                                                                                               |
| Charles River                                                                        | Boston Harbor (Atlantic Ocean)     | Lat 42°08'12", long 71°25'08", Norfolk County, at bridge on Shaw St., at south limits of West Medway, Mass.                                                                     | 60.1                  | 1968-70                           | 4-22-71                                                                                                                                                                                    | 113                                                                                                               |
| Mill River                                                                           | Charles River                      | Lat 42°07'21", long 71°21'59", Norfolk County, at bridge on Miller St., 0.9 mile above mouth and 2.1 miles west of Norfolk, Mass.                                               | 13.8                  | 1968-69                           | 10- 8-70<br>4-22-71                                                                                                                                                                        | 4.2<br>26                                                                                                         |
| Stop River                                                                           | do                                 | Lat 42°09'03", long 71°18'18", Norfolk County, at culvert on South St., 2.5 miles south of Medfield, Mass.                                                                      | 12.8                  | 1967-70                           | 10-12-70                                                                                                                                                                                   | 3.8                                                                                                               |
| Vine Brook                                                                           | do                                 | Lat 42°11'16", long 71°18'26", at culvert on State Highway 27, at Medfield, Mass.                                                                                               | .94                   | 1968-69                           | 10- 8-70                                                                                                                                                                                   | .35                                                                                                               |
| Bogastow Brook                                                                       | do                                 | Lat 42°11'01", long 71°23'27", Norfolk County, at culvert on Orchard St., 1.9 miles northwest of Millis, Mass.                                                                  | 13.1                  | 1968-70                           | 4-23-71                                                                                                                                                                                    | 22                                                                                                                |
| Hobbs Brook                                                                          | Stony Brook                        | Lat 42°26'17", long 71°16'51", Middlesex County, at abandoned road, 750 ft north of Concord Turnpike, 0.6 mile above Cambridge Reservoir, 1.5 miles northeast of Lincoln, Mass. | 1.31                  | 1969-70                           | 10-12-70<br>4-22-71                                                                                                                                                                        | .03<br>2.2                                                                                                        |
| Weir River basin                                                                     |                                    |                                                                                                                                                                                 |                       |                                   |                                                                                                                                                                                            |                                                                                                                   |
| Accord Brook                                                                         | Weir River                         | Lat 42°12'14", long 70°51'49", Plymouth County, 0.9 mile downstream from Prospect Street Bridge and 3 miles southeast of Hingham, Mass.                                         | 3.68                  | 1970 <u>a</u>                     | 7-20-70<br>7-30-70<br>8-25-70<br>9- 9-70<br>10- 8-70<br>10-26-70<br>11- 6-70<br>1-11-71<br>2-11-71<br>3-18-71<br>4- 5-71<br>5- 5-71<br>5-17-71<br>6-14-71<br>7- 8-71<br>8- 9-71<br>9-16-71 | 0.70<br>2.3<br>1.1<br>.11<br>.19<br>2.5<br>7.5<br>4.7<br>7.4<br>13<br>5.7<br>12<br>18<br>8.3<br>.15<br>.05<br>.06 |
| Weir River                                                                           | Massachusetts Bay (Atlantic Ocean) | Lat 42°14'31", long 70°51'36", Plymouth County, at culvert on macadam road, 0.3 mile above Foundry Pond and 1.5 miles east of Hingham, Mass.                                    | 14.6                  | 1969-70                           | 10-12-70<br>7- 9-71                                                                                                                                                                        | 1.1<br>.82                                                                                                        |
| North River basin                                                                    |                                    |                                                                                                                                                                                 |                       |                                   |                                                                                                                                                                                            |                                                                                                                   |
| French Stream                                                                        | Drinkwater River                   | Lat 42°06'33", long 70°54'35", Plymouth County, at culvert on Summer St., 1.3 miles south of Rockland, Mass.                                                                    | 4.99                  | 1969-70                           | 10-13-70                                                                                                                                                                                   | 1.5                                                                                                               |
| South River basin                                                                    |                                    |                                                                                                                                                                                 |                       |                                   |                                                                                                                                                                                            |                                                                                                                   |
| Furnace Brook                                                                        | South River                        | Lat 42°07'06", long 70°44'34", Plymouth County, at School Street Bridge, 2.5 miles northwest of Marshfield, Mass.                                                               | .94                   | 1970                              | 10-12-70                                                                                                                                                                                   | .04                                                                                                               |
| Coastal river basins                                                                 |                                    |                                                                                                                                                                                 |                       |                                   |                                                                                                                                                                                            |                                                                                                                   |
| Herring River                                                                        | Cape Cod Canal                     | Lat 41°46'21", long 70°33'46", Barnstable County, at mouth, at Bourne, Mass.                                                                                                    | 7.74                  | 1969-70                           | 10-15-70<br>5-24-71<br>7-12-71<br>8-18-71                                                                                                                                                  | 5.0<br>27<br>4.2<br>4.9                                                                                           |
| Red Brook                                                                            | Buttermilk Bay (Buzzards Bay)      | Lat 41°45'48", long 70°37'59", Plymouth County, at culvert on Red Brook Road, 1.5 miles northwest of Buzzards Bay, Mass.                                                        | 9.83                  | 1969-70                           | 10-15-70<br>5-24-71<br>7-19-71<br>8-18-71                                                                                                                                                  | 6.1<br>6.4<br>4.9<br>4.8                                                                                          |

<sup>a</sup> Discharge measurements not previously published.

Discharge measurements made at miscellaneous sites during water year 1971--Continued

| Stream                           | Tributary to                 | Location                                                                                                                                                        | Drainage area (sq mi) | Measured previously (water years) | Measurements                              |                       |
|----------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------|-------------------------------------------|-----------------------|
|                                  |                              |                                                                                                                                                                 |                       |                                   | Date                                      | Discharge (cfs)       |
| Coastal river basins--Continued  |                              |                                                                                                                                                                 |                       |                                   |                                           |                       |
| Agawam River                     | Wareham River (Buzzards Bay) | Lat 41°50'44", long 70°37'12", Plymouth County, at culvert 600 ft below outlet of Halfway Pond, 4 miles west of Ellenville, Mass.                               | 6.71                  | 1969-70                           | 10-14-70<br>5-24-71<br>7-12-71<br>8-18-71 | 11<br>13<br>10<br>9.4 |
| Agawam River                     | do                           | Lat 41°45'40", long 70°40'40", Plymouth County, at culvert 800 ft below Mill Pond, at East Wareham, Mass.                                                       | 17.1                  | 1969-70                           | 10-15-70<br>8-18-71                       | 31<br>24              |
| Wankinco River                   | do                           | Lat 41°45'58", long 70°43'20", Plymouth County, 1,000 ft below Parker Mills Pond at Wareham, Mass.                                                              | 20.5                  | 1969-70                           | 10-15-70<br>5-24-71<br>8-18-71            | 18<br>11<br>14        |
| Blackstone River basin           |                              |                                                                                                                                                                 |                       |                                   |                                           |                       |
| Millers River                    | Abbot Run                    | Lat 41°55'38", long 71°23'07", Providence County, at culvert on Curran Road in Cumberland, R.I., 0.5 mile above mouth, 1.5 miles north of Valley Falls.         | -                     | -                                 | 10- 1-70<br>6-22-71                       | 0.12<br>.43           |
| Connecticut River basin          |                              |                                                                                                                                                                 |                       |                                   |                                           |                       |
| Beaver Brook                     | Ashuelot River               | Lat 42°56'21", long 72°16'24", Cheshire County, at bridge on cemetery road in Keene, N.H.                                                                       | -                     | -                                 | 11- 3-70<br>4- 8-71<br>4-14-71            | 1.4<br>36<br>80       |
| Mountain Brook                   | Ashuelot River               | Lat 42°42'40", long 72°21'23", Franklin County, at culvert on State Highway 78, 2.1 miles north of Warwick, Mass.                                               | -                     | -                                 | 9-21-71                                   | 3.3                   |
| Dry Brook                        | Connecticut River            | Lat 42°38'31", long 72°29'53", Franklin County, at culvert on Main Road, 0.1 mile northeast of Gill, Mass.                                                      | -                     | -                                 | 9-21-71                                   | 2.1                   |
| Fourmile Brook                   | do                           | Lat 42°37'13", long 72°28'15", Franklin County, at culvert on State Highway 63, at south limits of Northfield, Mass.                                            | -                     | -                                 | 9-21-71                                   | 2.1                   |
| Couch Brook                      | Falls River                  | Lat 42°42'15", long 72°33'54", Franklin County, at culvert on State Highway 5, 1.2 miles south of North Bernardston, Mass.                                      | -                     | -                                 | 9-21-71                                   | .94                   |
| Falls River                      | Connecticut River            | Lat 42°41'15", long 72°32'43", Franklin County, at bridge on Burke Falls Road, 1.0 mile northeast of Bernardston, Mass.                                         | -                     | -                                 | 9-21-71                                   | 5.7                   |
| Red Brook                        | Sawmill River                | Lat 42°30'15", long 72°26'52", Franklin County, at culvert on Lake View Road, 2.3 miles east of North Leverett, Mass.                                           | -                     | -                                 | 9-22-71                                   | .69                   |
| Long Plain Brook                 | Connecticut River            | Lat 42°27'28", long 72°31'23", Franklin County, at culvert on Central Vermont Railroad, 200 ft west of State Highway 63, 1.2 miles northwest of Leverett, Mass. | -                     | -                                 | 9-22-71                                   | .48                   |
| Roaring Brook                    | do                           | Lat 42°26'18", long 72°28'59", Franklin County, at culvert on Cushman Road, at East Leverett, Mass.                                                             | -                     | -                                 | 9-22-71                                   | 3.6                   |
| Roaring Brook                    | Mill River                   | Lat 42°28'19", long 72°40'21", Franklin County, at culvert on Roaring Brook Road, 2.9 miles southeast of Conway, Mass.                                          | -                     | -                                 | 9-24-71                                   | .93                   |
| Scarboro Brook <sup>b</sup>      | Hop Brook                    | Lat 42°19'44", long 72°26'47", Hampshire County, at culvert on State Highway 9, at Dwight, Mass.                                                                | 2.92                  | 1965                              | 9-24-71                                   | .96                   |
| Hop Brook tributary              | do                           | Lat 42°19'44", long 72°27'47", Hampshire County, at culvert on Warren Wright Street, 0.7 mile west of Dwight, Mass.                                             | -                     | -                                 | 9-24-71                                   | .18                   |
| Hop Brook                        | Fort River                   | Lat 42°20'31", long 72°29'38", Hampshire County, at culvert on Station Road, 0.5 mile east of South Amherst, Mass.                                              | -                     | -                                 | 9-24-71                                   | 4.9                   |
| East Branch Mill River tributary | East Branch Mill River       | Lat 42°23'59", long 72°43'57", Hampshire County, 100 feet north of Bullard Street, 55 feet above mouth, 0.5 mile north of Williamsburg, Mass.                   | -                     | -                                 | 9-23-71                                   | 0.21                  |
| East Branch Mill River           | Mill River                   | Lat 42°23'58", long 72°43'55", Hampshire County, at bridge on Bullard Street, 0.5 mile north of Williamsburg, Mass.                                             | -                     | -                                 | 9-23-71                                   | 2.9                   |

<sup>b</sup> Also a crest-stage partial-record station.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1971--Continued

| Discharge measurements made at miscellaneous sites during water year 1971--Continued |                   |                                                                                                                                                     |                       |                                   |              |                 |
|--------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------|--------------|-----------------|
| Stream                                                                               | Tributary to      | Location                                                                                                                                            | Drainage area (sq mi) | Measured previously (water years) | Measurements |                 |
|                                                                                      |                   |                                                                                                                                                     |                       |                                   | Date         | Discharge (cfs) |
| Connecticut River basin--Continued                                                   |                   |                                                                                                                                                     |                       |                                   |              |                 |
| Roberts Meadow Brook                                                                 | do                | Lat 42°20'13", long 72°45'14", Hampshire County, at bridge on North Road, 2.5 miles northeast of Westhampton, Mass.                                 | -                     | -                                 | 9-23-71      | 2.1             |
| North Branch Manhan River tributary                                                  | Manhan River      | Lat 42°15'49", long 72°44'12", Hampshire County, at culvert on Lead Mine Road, 2.4 miles north of Southampton, Mass.                                | -                     | -                                 | 9-22-71      | .22             |
| Manhan River                                                                         | Connecticut River | Lat 42°15'59", long 72°41'31", Hampshire County, at bridge on Loudville Road, 1.0 mile west of Easthampton, Mass.                                   | -                     | -                                 | 9-23-71      | 28              |
| Broad Brook                                                                          | Manhan River      | Lat 42°11'36", long 72°40'31", Hampden County, at culvert on Rock Valley Street, 2.8 miles west of Holyoke, Mass.                                   | 1.44                  | 1957-58                           | 9-20-71      | .63             |
| Bachelor Brook                                                                       | Manhan River      | Lat 42°16'12", long 72°35'14", Hampshire County at bridge on State Highway 47, 1.0 mile northwest of South Hadley, Mass., and 1.0 mile above mouth. | 31.1                  | 1955†, 1965                       | 9-22-71      | 66              |
| Muddy Brook                                                                          | Stony Brook       | Lat 42°13'51", long 72°30'53", Hampshire County, at twin culverts on Truby Street, 1.8 miles south of Granby, Mass.                                 | -                     | -                                 | 9-22-71      | 1.4             |
| North Branch Mill River                                                              | Mill River        | Lat 42°07'02", long 72°28'18", Hampden County, at culvert on Springfield Street, 2.1 miles west of Wilbraham, Mass.                                 | 7.61                  | 1957-58                           | 9-20-71      | 3.3             |
| Pecausic Brook                                                                       | Connecticut River | Lat 42°03'56", long 72°32'24", Hampden County, at culvert on Dwight Road, at south limits of Springfield, Mass.                                     | -                     | -                                 | 9-20-71      | 2.3             |
| Still Brook                                                                          | Muddy Brook       | Lat 42°02'31", long 72°41'00", at bridge on State Highway 187, 3 miles southwest of West Agawam, Mass.                                              | 5.33                  | 1957-58, 1962-65                  | 9-20-71      | 2.0             |
| Part 4 St. Lawrence River basin                                                      |                   |                                                                                                                                                     |                       |                                   |              |                 |
| Poultney River                                                                       | Lake Champlain    | Lat 43°34'02", long 73°15'48", Washington County, at bridge on new State Highway 22A, and 1.5 miles northwest of Hampton, N.Y.                      | -                     | -                                 | 4- 6-71      | 401             |

† Peak flow.



## PART 2. WATER QUALITY RECORDS



## MERRIMACK RIVER BASIN

01094700 NORTH NASHUA RIVER AT NORTH VILLAGE, MASS.

LOCATION.--Lat 42°28'47" long 71°41'04", Worcester County, multiple-parameter monitor on right bank 600 ft downstream from bridge at Ponakin Mill, 0.6 mile upstream from Ponakin Brook, 0.9 mile northwest of North Village, and 5 miles downstream from gaging station near North Leominster.

DRAINAGE AREA.--124 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1971.

Water temperatures: October 1968 to September 1971.

EXTREMES.--1970-71:

Specific conductance: Maximum, 537 micromhos Feb. 10; minimum, 105 micromhos Apr. 14.

pH: Maximum, 7.8 Feb. 24; minimum, 5.6 May 10.

Dissolved oxygen: Maximum, 14.8 mg/l Mar. 6; minimum, 0.0 mg/l June 22.

Water temperatures: Maximum, 28.0°C June 26, July 1; minimum, freezing point several days during winter period.

Period of record:

Specific conductance: Maximum, 857 micromhos Jan. 29, 1970; minimum, 70 micromhos Apr. 23, 1969.

pH: Maximum, 7.9 Sept. 13, 14, 1969; minimum, 5.1 Sept. 3, 1969.

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, 30.0°C July 29, 1970; minimum, freezing point several days during winter periods.

REMARKS.--Figures of daily discharge, computed on basis of records for gaging station near Leominster, are available at district office.

## SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|---------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | 264     | 243 | 254  | 218      | 204 | 208  | 267      | 204 | 226  | 344     | 320 | 330  |
| 2     | 286     | 252 | 269  | 216      | 198 | 207  | 240      | 225 | 230  | 350     | 320 | 327  |
| 3     | 291     | 241 | 269  | 250      | 191 | 208  | 250      | 225 | 239  | 348     | 320 | 332  |
| 4     | 273     | 189 | 220  | 251      | 231 | 236  | 247      | 176 | 204  | 357     | 322 | 339  |
| 5     | 215     | 187 | 203  | 251      | 209 | 230  | 187      | 171 | 180  | ---     | --- | ---  |
| 6     | 247     | 222 | 237  | 222      | 200 | 216  | 301      | 189 | 230  | 483     | 295 | 359  |
| 7     | 267     | 237 | 252  | 232      | 216 | 222  | 349      | 223 | 295  | 306     | 239 | 297  |
| 8     | 267     | 240 | 255  | 235      | 206 | 222  | 246      | 221 | 231  | 306     | 280 | 295  |
| 9     | 269     | 225 | 247  | 212      | 197 | 202  | 249      | 230 | 239  | 327     | 309 | 316  |
| 10    | 268     | 218 | 239  | 255      | 201 | 214  | 413      | 240 | 271  | 329     | 318 | 324  |
| 11    | 269     | 224 | 249  | 258      | 200 | 227  | 532      | 387 | 467  | 329     | 318 | 325  |
| 12    | 242     | 231 | 236  | 226      | 194 | 206  | 368      | 255 | 288  | 320     | 308 | 315  |
| 13    | 264     | 227 | 247  | 234      | 216 | 227  | 263      | 251 | 256  | 318     | 300 | 308  |
| 14    | 270     | 227 | 246  | 235      | 187 | 206  | 279      | 248 | 260  | 294     | 272 | 283  |
| 15    | 273     | 234 | 255  | 222      | 164 | 197  | 318      | 253 | 281  | 307     | 254 | 282  |
| 16    | 272     | 167 | 216  | 183      | 158 | 164  | 304      | 290 | 295  | 338     | 273 | 296  |
| 17    | 224     | 177 | 202  | 210      | 185 | 198  | 296      | 263 | 275  | 318     | 277 | 300  |
| 18    | 252     | 224 | 239  | 232      | 209 | 221  | 284      | 251 | 263  | 281     | 266 | 273  |
| 19    | 233     | 219 | 227  | 242      | 231 | 237  | 299      | 270 | 289  | 284     | 246 | 261  |
| 20    | 261     | 214 | 238  | 231      | 210 | 221  | 396      | 273 | 352  | 296     | 266 | 278  |
| 21    | 264     | 214 | 231  | 234      | 170 | 193  | 395      | 290 | 345  | 292     | 264 | 279  |
| 22    | 252     | 210 | 229  | 201      | 184 | 191  | 304      | 280 | 288  | 311     | 251 | 272  |
| 23    | 233     | 118 | 195  | 201      | 175 | 188  | 311      | 281 | 294  | 305     | 273 | 284  |
| 24    | 148     | 117 | 134  | 216      | 177 | 195  | 314      | 284 | 297  | ---     | --- | ---  |
| 25    | 168     | 151 | 161  | 225      | 206 | 215  | 311      | 252 | 283  | ---     | --- | ---  |
| 26    | 176     | 168 | 173  | 241      | 215 | 227  | 262      | 253 | 257  | ---     | --- | ---  |
| 27    | 179     | 172 | 175  | 238      | 199 | 220  | 286      | 268 | 278  | ---     | --- | ---  |
| 28    | 198     | 175 | 189  | 242      | 198 | 209  | 297      | 271 | 283  | ---     | --- | ---  |
| 29    | 213     | 198 | 207  | ---      | --- | ---  | 304      | 275 | 283  | ---     | --- | ---  |
| 30    | 222     | 207 | 216  | 213      | 200 | 205  | 323      | 296 | 305  | ---     | --- | ---  |
| 31    | 226     | 216 | 222  | ---      | --- | ---  | 341      | 308 | 316  | ---     | --- | ---  |
| MONTH | 291     | 117 | 224  | 258      | 158 | 211  | 532      | 171 | 277  | ---     | --- | ---  |

## MERRIMACK RIVER BASIN

01094700 NORTH NASHUA RIVER AT NORTH VILLAGE, MASS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DAY   | FEBRUARY |     |      | MARCH |     |      | APRIL |     |      | MAY |     |      |
|-------|----------|-----|------|-------|-----|------|-------|-----|------|-----|-----|------|
|       | MAX      | MIN | MEAN | MAX   | MIN | MEAN | MAX   | MIN | MEAN | MAX | MIN | MEAN |
| 1     | ---      | --- | ---  | 227   | 215 | 219  | 193   | 172 | 179  | 156 | 134 | 139  |
| 2     | 342      | 269 | 351  | 225   | 218 | 221  | 183   | 149 | 166  | 161 | 142 | 148  |
| 3     | 313      | 290 | 299  | 224   | 222 | 222  | 153   | 141 | 145  | 153 | 132 | 139  |
| 4     | 328      | 296 | 307  | 225   | 221 | 223  | 145   | 141 | 143  | 138 | 117 | 125  |
| 5     | 316      | 280 | 295  | 225   | 219 | 222  | 147   | 143 | 145  | 149 | 121 | 130  |
| 6     | 363      | 278 | 302  | 230   | 220 | 224  | ---   | --- | ---  | 159 | 137 | 144  |
| 7     | 364      | 352 | 358  | 228   | 224 | 225  | 177   | 151 | 164  | 162 | 145 | 152  |
| 8     | 373      | 360 | 364  | 227   | 222 | 224  | 168   | 148 | 155  | 172 | 154 | 161  |
| 9     | 534      | 376 | 446  | 223   | 219 | 221  | 166   | 156 | 159  | 176 | 121 | 146  |
| 10    | 537      | 312 | 426  | ---   | --- | ---  | 172   | 144 | 156  | 142 | 111 | 121  |
| 11    | 340      | 279 | 304  | ---   | --- | ---  | 139   | 127 | 131  | 160 | 135 | 142  |
| 12    | 354      | 283 | 311  | ---   | --- | ---  | 131   | 116 | 123  | 167 | 147 | 157  |
| 13    | 362      | 305 | 344  | ---   | --- | ---  | 127   | 113 | 119  | 173 | 124 | 147  |
| 14    | ---      | --- | ---  | ---   | --- | ---  | 122   | 105 | 111  | 136 | 111 | 120  |
| 15    | ---      | --- | ---  | ---   | --- | ---  | 124   | 118 | 121  | 157 | 128 | 135  |
| 16    | ---      | --- | ---  | ---   | --- | ---  | 126   | 122 | 124  | 149 | 137 | 143  |
| 17    | ---      | --- | ---  | ---   | --- | ---  | 129   | 125 | 127  | --- | --- | ---  |
| 18    | 425      | 283 | 324  | ---   | --- | ---  | 131   | 127 | 129  | 169 | 136 | 149  |
| 19    | 536      | 271 | 382  | ---   | --- | ---  | 133   | 130 | 132  | 180 | 152 | 162  |
| 20    | 350      | 253 | 290  | ---   | --- | ---  | 144   | 125 | 131  | 183 | 161 | 170  |
| 21    | ---      | --- | ---  | ---   | --- | ---  | 146   | 122 | 132  | 198 | 167 | 179  |
| 22    | 253      | 236 | 243  | 247   | 225 | 231  | 146   | 126 | 134  | 198 | 163 | 174  |
| 23    | 347      | 255 | 289  | 261   | 235 | 244  | 147   | 126 | 133  | 187 | 163 | 172  |
| 24    | 358      | 280 | 310  | 257   | 235 | 243  | 160   | 132 | 140  | 194 | 166 | 173  |
| 25    | 364      | 260 | 307  | 266   | 238 | 250  | 157   | 129 | 137  | 214 | 186 | 197  |
| 26    | 450      | 271 | 353  | 259   | 229 | 240  | 149   | 124 | 132  | 214 | 186 | 198  |
| 27    | 394      | 257 | 307  | 259   | 225 | 234  | 163   | 141 | 147  | 216 | 185 | 198  |
| 28    | 280      | 196 | 230  | 237   | 214 | 220  | 168   | 147 | 155  | 214 | 188 | 197  |
| 29    | ---      | --- | ---  | 220   | 199 | 205  | 173   | 133 | 150  | 214 | 190 | 200  |
| 30    | ---      | --- | ---  | 214   | 193 | 199  | 148   | 122 | 131  | 225 | 199 | 208  |
| 31    | ---      | --- | ---  | 199   | 187 | 191  | ---   | --- | ---  | 223 | 176 | 199  |
| MONTH | 537      | 196 | 325  | ---   | --- | ---  | 193   | 105 | 140  | 225 | 111 | 161  |

| DAY   | JUNE |     |      | JULY |     |      | AUGUST |     |      | SEPTEMBER |     |      |
|-------|------|-----|------|------|-----|------|--------|-----|------|-----------|-----|------|
|       | MAX  | MIN | MEAN | MAX  | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1     | 187  | 178 | 182  | 280  | 270 | 275  | 216    | 195 | 206  | 293       | 259 | 272  |
| 2     | 216  | 190 | 204  | ---  | --- | ---  | ---    | --- | ---  | 317       | 256 | 287  |
| 3     | 240  | 211 | 222  | ---  | --- | ---  | 242    | 200 | 217  | 326       | 283 | 304  |
| 4     | 237  | 214 | 220  | ---  | --- | ---  | 238    | 193 | 207  | 334       | 293 | 308  |
| 5     | 234  | 211 | 222  | ---  | --- | ---  | 227    | 192 | 206  | 331       | 289 | 310  |
| 6     | 245  | 221 | 232  | ---  | --- | ---  | 226    | 209 | 218  | 304       | 291 | 299  |
| 7     | 247  | 218 | 236  | ---  | --- | ---  | 249    | 230 | 241  | 309       | 268 | 293  |
| 8     | 233  | 211 | 220  | ---  | --- | ---  | 287    | 235 | 262  | 284       | 247 | 266  |
| 9     | 234  | 194 | 211  | 260  | 242 | 252  | 298    | 256 | 276  | 292       | 254 | 273  |
| 10    | 232  | 201 | 215  | 290  | 246 | 262  | 293    | 245 | 275  | 315       | 275 | 296  |
| 11    | 238  | 215 | 225  | 265  | 242 | 253  | 306    | 201 | 270  | 331       | 280 | 305  |
| 12    | 260  | 228 | 242  | 284  | 262 | 274  | 229    | 170 | 194  | 300       | 106 | 195  |
| 13    | 258  | 231 | 243  | 307  | 257 | 279  | 259    | 236 | 244  | 184       | 129 | 165  |
| 14    | 244  | 223 | 234  | 301  | 255 | 278  | 268    | 250 | 261  | 225       | 182 | 204  |
| 15    | 238  | 215 | 227  | 345  | 287 | 322  | 288    | 251 | 275  | 280       | 208 | 238  |
| 16    | 280  | 245 | 255  | 317  | 298 | 307  | 287    | 250 | 270  | 301       | 266 | 281  |
| 17    | 315  | 254 | 277  | 330  | 291 | 308  | 309    | 248 | 285  | 304       | 273 | 291  |
| 18    | 288  | 257 | 274  | 314  | 246 | 288  | 310    | 254 | 275  | 292       | 258 | 269  |
| 19    | 287  | 248 | 266  | 275  | 246 | 260  | 292    | 255 | 273  | 301       | 270 | 289  |
| 20    | 276  | 266 | 272  | 262  | 182 | 214  | 286    | 194 | 243  | 301       | 272 | 288  |
| 21    | 283  | 241 | 263  | 259  | 239 | 247  | 245    | 204 | 223  | 298       | 235 | 265  |
| 22    | 256  | 146 | 183  | 284  | 260 | 274  | 283    | 247 | 262  | 289       | 258 | 274  |
| 23    | 205  | 168 | 180  | 312  | 271 | 295  | 271    | 250 | 260  | 299       | 273 | 285  |
| 24    | 237  | 209 | 227  | 335  | 289 | 308  | 271    | 239 | 253  | 326       | 284 | 305  |
| 25    | 257  | 234 | 240  | 338  | 297 | 322  | 316    | 240 | 279  | 308       | 286 | 296  |
| 26    | ---  | --- | ---  | 330  | 305 | 317  | 322    | 282 | 300  | 308       | 289 | 297  |
| 27    | ---  | --- | ---  | 336  | 160 | 253  | 305    | 274 | 300  | 298       | 273 | 288  |
| 28    | ---  | --- | ---  | 242  | 154 | 205  | 274    | 146 | 216  | 301       | 242 | 270  |
| 29    | ---  | --- | ---  | 263  | 231 | 251  | 230    | 148 | 193  | 299       | 257 | 289  |
| 30    | 271  | 251 | 255  | 274  | 216 | 243  | 271    | 224 | 243  | 338       | 290 | 316  |
| 31    | ---  | --- | ---  | 251  | 197 | 229  | 280    | 241 | 263  | ---       | --- | ---  |
| MONTH | 315  | 146 | 232  | ---  | --- | ---  | 322    | 146 | 250  | 338       | 106 | 277  |

YEAR ~~537~~ 105 238

01094700 NORTH NASHUA RIVER AT NORTH VILLAGE, MASS.--Continued

PH (UNITS), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER  |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|----------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | 7.2      | 6.7 | 6.9  | 6.7      | 6.3 | 6.4  | 6.8      | 6.6 | 6.7  | 6.9     | 6.8 | 6.9  |
| 2     | 7.1      | 6.8 | 6.9  | 6.6      | 6.3 | 6.5  | 6.7      | 6.5 | 6.6  | 7.0     | 6.9 | 6.9  |
| 3     | 7.1      | 6.0 | 6.9  | 6.7      | 6.3 | 6.5  | 6.8      | 6.5 | 6.6  | 7.0     | 6.9 | 6.9  |
| 4     | 6.8      | 6.5 | 6.6  | 6.8      | 6.5 | 6.7  | 6.6      | 6.4 | 6.5  | 6.9     | 6.9 | 6.9  |
| 5     | 7.0      | 6.6 | 6.8  | 6.8      | 6.5 | 6.6  | 6.7      | 6.4 | 6.6  | 6.9     | 6.6 | 6.8  |
| 6     | 7.1      | 6.7 | 6.8  | 6.8      | 6.6 | 6.7  | 6.7      | 6.6 | 6.6  | 6.9     | 6.6 | 6.7  |
| 7     | 7.0      | 6.6 | 6.8  | 6.9      | 6.7 | 6.8  | 6.9      | 6.7 | 6.7  | 6.9     | 6.8 | 6.9  |
| 8     | 7.0      | 6.6 | 6.7  | 6.9      | 6.8 | 6.8  | 6.8      | 6.7 | 6.8  | 6.8     | 6.7 | 6.8  |
| 9     | 7.0      | 6.6 | 6.7  | 7.1      | 6.8 | 6.9  | 6.8      | 6.6 | 6.7  | 6.8     | 6.7 | 6.7  |
| 10    | 6.7      | 6.6 | 6.6  | 7.0      | 6.7 | 6.9  | 6.7      | 6.6 | 6.6  | 6.7     | 6.5 | 6.6  |
| 11    | 7.0      | 6.6 | 6.8  | 6.8      | 6.6 | 6.7  | 6.7      | 6.6 | 6.6  | 6.7     | 6.6 | 6.6  |
| 12    | 7.0      | 6.7 | 6.9  | 6.8      | 6.6 | 6.7  | 6.7      | 6.6 | 6.7  | 6.7     | 6.6 | 6.6  |
| 13    | 6.9      | 6.7 | 6.8  | 7.0      | 6.8 | 6.9  | 6.7      | 6.6 | 6.7  | 7.1     | 6.5 | 6.7  |
| 14    | 6.7      | 6.5 | 6.6  | 7.0      | 6.8 | 6.9  | 7.0      | 6.6 | 6.8  | 7.1     | 6.9 | 7.0  |
| 15    | 6.6      | 6.5 | 6.5  | 7.1      | 6.9 | 7.0  | 7.1      | 6.9 | 7.0  | 7.0     | 6.9 | 6.9  |
| 16    | 6.5      | 6.1 | 6.3  | 7.1      | 7.0 | 7.0  | 6.9      | 6.8 | 6.9  | 7.0     | 6.9 | 6.9  |
| 17    | 6.5      | 6.4 | 6.4  | 7.2      | 7.0 | 7.1  | 6.9      | 6.8 | 6.9  | 6.9     | 6.7 | 6.8  |
| 18    | 7.0      | 6.5 | 6.7  | 7.1      | 6.9 | 7.0  | 6.9      | 6.8 | 6.8  | 6.8     | 6.5 | 6.6  |
| 19    | 6.7      | 6.4 | 6.6  | 7.0      | 6.8 | 6.9  | 6.9      | 6.7 | 6.8  | 6.5     | 6.5 | 6.5  |
| 20    | 6.9      | 6.4 | 6.7  | 6.9      | 6.6 | 6.7  | 6.9      | 6.8 | 6.8  | 6.5     | 6.4 | 6.4  |
| 21    | 6.7      | 6.5 | 6.6  | 6.8      | 6.4 | 6.7  | 6.9      | 6.8 | 6.8  | 6.5     | 6.3 | 6.4  |
| 22    | 6.6      | 6.5 | 6.5  | 6.9      | 6.7 | 6.8  | 7.0      | 6.9 | 6.9  | 6.5     | 6.4 | 6.4  |
| 23    | 6.5      | 6.2 | 6.4  | 6.8      | 6.7 | 6.7  | 6.9      | 6.8 | 6.9  | 6.5     | 6.5 | 6.5  |
| 24    | 6.5      | 6.2 | 6.4  | 6.9      | 6.7 | 6.8  | 6.9      | 6.8 | 6.8  | 6.5     | 6.5 | 6.5  |
| 25    | 6.4      | 6.3 | 6.4  | 6.8      | 6.7 | 6.8  | 6.9      | 6.8 | 6.8  | 6.5     | 6.5 | 6.5  |
| 26    | 6.4      | 6.3 | 6.4  | 6.8      | 6.7 | 6.7  | 7.0      | 6.9 | 6.9  | 6.5     | 6.2 | 6.4  |
| 27    | 6.3      | 6.2 | 6.2  | 6.8      | 6.7 | 6.8  | 7.0      | 6.9 | 6.9  | 6.5     | 6.2 | 6.4  |
| 28    | 7.4      | 6.1 | 6.4  | 6.8      | 6.7 | 6.8  | 7.0      | 6.9 | 6.9  | 6.5     | 6.4 | 6.5  |
| 29    | 7.1      | 6.2 | 6.4  | 6.8      | 6.7 | 6.8  | 7.0      | 6.8 | 6.9  | 6.5     | 6.4 | 6.5  |
| 30    | 7.1      | 6.2 | 6.4  | 6.8      | 6.7 | 6.8  | 6.9      | 6.8 | 6.9  | 6.5     | 6.4 | 6.5  |
| 31    | 7.0      | 6.2 | 6.4  | ---      | --- | ---  | 6.9      | 6.8 | 6.8  | 6.5     | 6.5 | 6.5  |
| MOATH | 7.4      | 6.0 | 6.6  | 7.2      | 6.3 | 6.8  | 7.1      | 6.4 | 6.8  | 7.1     | 6.2 | 6.6  |
| DAY   | FEBRUARY |     |      | MARCH    |     |      | APRIL    |     |      | MAY     |     |      |
|       | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | 6.5      | 6.5 | 6.5  | 7.0      | 6.6 | 6.8  | 6.7      | 5.8 | 6.3  | 6.3     | 6.1 | 6.3  |
| 2     | 7.0      | 6.5 | 6.7  | 6.9      | 6.6 | 6.8  | 6.6      | 5.9 | 6.2  | 6.3     | 6.1 | 6.2  |
| 3     | 6.8      | 6.6 | 6.7  | 7.2      | 6.8 | 7.0  | ---      | --- | ---  | 6.3     | 6.1 | 6.2  |
| 4     | 6.7      | 6.5 | 6.6  | 7.4      | 7.2 | 7.3  | ---      | --- | ---  | 6.2     | 5.8 | 6.1  |
| 5     | 6.6      | 6.6 | 6.6  | 7.5      | 6.9 | 7.3  | ---      | --- | ---  | 6.1     | 5.8 | 5.9  |
| 6     | 6.7      | 6.5 | 6.6  | 7.5      | 6.6 | 7.2  | ---      | --- | ---  | 6.0     | 5.8 | 5.9  |
| 7     | 6.7      | 6.6 | 6.6  | 7.5      | 7.2 | 7.4  | 6.7      | 6.5 | 6.6  | 6.0     | 5.7 | 5.9  |
| 8     | 6.8      | 6.7 | 6.7  | 7.6      | 7.5 | 7.6  | 6.6      | 6.4 | 6.5  | 5.8     | 5.7 | 5.7  |
| 9     | 6.9      | 6.6 | 6.7  | ---      | --- | ---  | 6.5      | 6.4 | 6.4  | 5.8     | 5.7 | 5.7  |
| 10    | 6.9      | 6.7 | 6.8  | ---      | --- | ---  | 6.4      | 6.3 | 6.3  | 5.8     | 5.6 | 5.7  |
| 11    | 6.9      | 6.7 | 6.8  | ---      | --- | ---  | 6.3      | 6.2 | 6.3  | ---     | --- | ---  |
| 12    | 6.8      | 6.7 | 6.7  | ---      | --- | ---  | 6.4      | 6.0 | 6.2  | 6.3     | 6.2 | 6.2  |
| 13    | 6.8      | 6.5 | 6.7  | ---      | --- | ---  | 6.3      | 6.0 | 6.2  | 6.3     | 5.9 | 6.1  |
| 14    | ---      | --- | ---  | ---      | --- | ---  | 6.2      | 6.1 | 6.1  | 6.2     | 6.0 | 6.1  |
| 15    | ---      | --- | ---  | ---      | --- | ---  | 6.3      | 6.1 | 6.1  | 6.2     | 6.0 | 6.1  |
| 16    | ---      | --- | ---  | ---      | --- | ---  | 6.2      | 6.1 | 6.2  | 6.2     | 6.0 | 6.1  |
| 17    | ---      | --- | ---  | ---      | --- | ---  | 6.2      | 6.1 | 6.1  | ---     | --- | ---  |
| 18    | 7.0      | 6.6 | 6.7  | ---      | --- | ---  | 6.2      | 6.1 | 6.1  | 6.4     | 6.1 | 6.3  |
| 19    | 6.5      | 6.2 | 6.3  | ---      | --- | ---  | 6.2      | 6.1 | 6.2  | 6.3     | 6.1 | 6.2  |
| 20    | 6.5      | 6.1 | 6.3  | ---      | --- | ---  | 6.3      | 6.1 | 6.2  | 6.3     | 6.1 | 6.1  |
| 21    | ---      | --- | ---  | ---      | --- | ---  | 6.2      | 6.1 | 6.2  | 6.2     | 6.1 | 6.1  |
| 22    | 7.2      | 6.8 | 7.1  | 6.8      | 6.6 | 6.7  | 6.3      | 6.1 | 6.2  | 6.2     | 6.1 | 6.1  |
| 23    | 7.6      | 7.2 | 7.4  | ---      | --- | ---  | 6.3      | 6.2 | 6.2  | 6.4     | 6.1 | 6.2  |
| 24    | 7.8      | 7.5 | 7.6  | ---      | --- | ---  | 6.3      | 6.2 | 6.3  | 6.3     | 6.1 | 6.2  |
| 25    | ---      | --- | ---  | ---      | --- | ---  | 6.3      | 6.1 | 6.1  | 6.3     | 6.1 | 6.2  |
| 26    | 7.5      | 6.7 | 7.1  | ---      | --- | ---  | 6.3      | 6.1 | 6.2  | 6.4     | 6.2 | 6.3  |
| 27    | 7.0      | 6.8 | 6.9  | ---      | --- | ---  | 6.3      | 6.1 | 6.2  | 6.5     | 6.3 | 6.4  |
| 28    | 7.0      | 6.5 | 6.8  | ---      | --- | ---  | 6.4      | 6.2 | 6.3  | 6.5     | 6.3 | 6.4  |
| 29    | ---      | --- | ---  | ---      | --- | ---  | 6.3      | 6.2 | 6.2  | 6.6     | 6.2 | 6.4  |
| 30    | ---      | --- | ---  | ---      | --- | ---  | 6.3      | 6.2 | 6.2  | 6.5     | 6.2 | 6.3  |
| 31    | ---      | --- | ---  | ---      | --- | ---  | ---      | --- | ---  | 6.5     | 6.3 | 6.4  |
| MONTH | 7.8      | 6.1 | 6.8  | ---      | --- | ---  | 6.7      | 5.8 | 6.2  | 6.6     | 5.6 | 6.1  |

01094700 NORTH NASHUA RIVER AT NORTH VILLAGE, MASS.--Continued

PH (UNITS), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DAY   | JUNE |     |      | JULY |     |      | AUGUST |     |      | SEPTEMBER |     |      |
|-------|------|-----|------|------|-----|------|--------|-----|------|-----------|-----|------|
|       | MAX  | MIN | MEAN | MAX  | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1     | 6.6  | 6.3 | 6.4  | 6.6  | 6.4 | 6.5  | ---    | --- | ---  | 6.8       | 6.4 | 6.6  |
| 2     | 6.7  | 6.4 | 6.6  | ---  | --- | ---  | ---    | --- | ---  | 6.8       | 6.4 | 6.6  |
| 3     | 6.8  | 6.4 | 6.5  | ---  | --- | ---  | 6.8    | 6.6 | 6.7  | 6.8       | 6.5 | 6.6  |
| 4     | 6.9  | 6.4 | 6.6  | ---  | --- | ---  | 6.6    | 6.5 | 6.5  | 6.8       | 6.6 | 6.7  |
| 5     | 6.9  | 6.4 | 6.7  | ---  | --- | ---  | 6.6    | 6.3 | 6.4  | 6.8       | 6.5 | 6.6  |
| 6     | 7.0  | 6.6 | 6.7  | ---  | --- | ---  | 6.6    | 6.3 | 6.4  | 6.5       | 6.4 | 6.5  |
| 7     | 7.2  | 6.6 | 6.8  | ---  | --- | ---  | 6.6    | 6.3 | 6.5  | 7.0       | 6.4 | 6.7  |
| 8     | 6.9  | 6.4 | 6.6  | ---  | --- | ---  | 6.7    | 6.3 | 6.5  | 7.0       | 6.7 | 6.8  |
| 9     | 6.6  | 6.2 | 6.4  | 7.2  | 6.7 | 7.0  | 6.7    | 6.4 | 6.5  | 6.9       | 6.5 | 6.7  |
| 10    | 6.7  | 6.3 | 6.5  | 7.3  | 6.7 | 6.9  | 6.6    | 6.4 | 6.5  | 6.8       | 6.5 | 6.6  |
| 11    | 6.8  | 6.4 | 6.6  | 7.1  | 6.7 | 6.9  | ---    | --- | ---  | 6.8       | 6.6 | 6.7  |
| 12    | 6.9  | 6.6 | 6.7  | 7.2  | 6.7 | 7.0  | 6.7    | 6.5 | 6.6  | 6.7       | 6.4 | 6.6  |
| 13    | 6.9  | 6.6 | 6.7  | 7.5  | 6.8 | 7.1  | 6.8    | 6.5 | 6.6  | 6.7       | 6.5 | 6.6  |
| 14    | 6.9  | 6.6 | 6.7  | 7.2  | 6.8 | 7.1  | 6.8    | 6.5 | 6.6  | 6.8       | 6.6 | 6.7  |
| 15    | 6.9  | 6.5 | 6.7  | 7.3  | 6.8 | 7.0  | 6.8    | 6.5 | 6.7  | 6.8       | 6.7 | 6.7  |
| 16    | 6.8  | 6.5 | 6.6  | 7.2  | 6.8 | 7.0  | 6.8    | 6.5 | 6.6  | 7.1       | 6.7 | 6.9  |
| 17    | 6.7  | 6.4 | 6.6  | 7.2  | 6.9 | 7.0  | 6.9    | 6.5 | 6.6  | 6.9       | 6.8 | 6.9  |
| 18    | 6.8  | 6.4 | 6.6  | 7.1  | 6.6 | 6.9  | 6.8    | 6.4 | 6.6  | 6.9       | 6.8 | 6.9  |
| 19    | 6.9  | 6.5 | 6.6  | 7.0  | 6.7 | 6.9  | 6.7    | 6.5 | 6.6  | 7.0       | 6.8 | 6.9  |
| 20    | 7.0  | 6.5 | 6.7  | 7.0  | 6.7 | 6.8  | 6.6    | 6.3 | 6.4  | 7.0       | 6.9 | 7.0  |
| 21    | 7.0  | 6.5 | 6.8  | 7.0  | 6.6 | 6.8  | 6.8    | 6.5 | 6.5  | 7.0       | 6.6 | 6.8  |
| 22    | 6.5  | 5.8 | 6.2  | 7.0  | 6.7 | 6.8  | 6.9    | 6.6 | 6.8  | 6.9       | 6.5 | 6.7  |
| 23    | 6.5  | 6.3 | 6.4  | 7.1  | 6.8 | 6.9  | 6.9    | 6.6 | 6.7  | 6.9       | 6.5 | 6.7  |
| 24    | 6.5  | 6.3 | 6.4  | 7.1  | 6.8 | 6.9  | 6.8    | 6.7 | 6.8  | 6.9       | 6.5 | 6.7  |
| 25    | 6.5  | 6.3 | 6.4  | 7.0  | 6.7 | 6.8  | 7.0    | 6.6 | 6.8  | 6.8       | 6.4 | 6.5  |
| 26    | 6.6  | 6.3 | 6.4  | 7.0  | 6.7 | 6.9  | 6.9    | 6.7 | 6.8  | 7.0       | 6.4 | 6.6  |
| 27    | ---  | --- | ---  | 7.0  | 6.5 | 6.7  | 6.8    | 6.6 | 6.7  | 7.2       | 6.5 | 6.9  |
| 28    | ---  | --- | ---  | 6.8  | 6.5 | 6.7  | 6.8    | 5.9 | 6.5  | 7.2       | 7.0 | 7.0  |
| 29    | ---  | --- | ---  | 7.0  | 6.7 | 6.8  | 6.8    | 6.5 | 6.7  | 7.1       | 6.8 | 7.0  |
| 30    | 6.7  | 6.4 | 6.6  | 6.8  | 6.7 | 6.7  | 6.9    | 6.6 | 6.7  | 7.1       | 6.6 | 6.9  |
| 31    | ---  | --- | ---  | 6.8  | 6.6 | 6.7  | 6.8    | 6.5 | 6.7  | ---       | --- | ---  |
| MONTH | 7.2  | 5.8 | 6.6  | ---  | --- | ---  | 7.0    | 5.9 | 6.6  | 7.2       | 6.4 | 6.7  |
| YEAR  | 7.8  | 5.6 | 6.6  |      |     |      |        |     |      |           |     |      |

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |      |      | JANUARY |      |      |
|-------|---------|-----|------|----------|-----|------|----------|------|------|---------|------|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN  | MEAN | MAX     | MIN  | MEAN |
| 1     | 8.5     | 5.1 | 6.4  | 7.9      | 5.4 | 6.4  | 8.3      | 7.2  | 7.7  | 9.2     | 8.4  | 8.6  |
| 2     | 8.8     | 5.3 | 6.7  | 8.1      | 5.5 | 6.8  | 7.6      | 5.7  | 6.4  | 8.5     | 7.7  | 8.2  |
| 3     | 8.1     | 5.2 | 6.0  | 7.1      | 4.6 | 5.9  | 7.4      | 6.3  | 6.8  | 8.7     | 8.1  | 8.3  |
| 4     | 5.3     | 2.5 | 4.6  | 7.2      | 4.6 | 5.8  | 7.5      | 5.9  | 6.6  | 8.9     | 8.6  | 8.8  |
| 5     | 9.0     | 5.5 | 7.3  | 5.4      | 4.0 | 4.8  | 10.3     | 7.7  | 9.4  | 9.0     | 6.4  | 8.5  |
| 6     | 9.1     | 5.7 | 7.4  | 7.7      | 5.7 | 6.7  | 9.8      | 9.2  | 9.4  | 10.5    | 8.2  | 9.6  |
| 7     | 8.5     | 4.8 | 6.5  | 8.3      | 6.0 | 7.3  | 11.0     | 9.7  | 10.4 | 10.7    | 10.2 | 10.4 |
| 8     | 8.3     | 4.5 | 6.1  | 8.7      | 6.1 | 7.3  | 11.2     | 9.4  | 10.3 | 11.0    | 10.1 | 10.6 |
| 9     | 8.3     | 4.8 | 6.1  | 9.8      | 7.3 | 8.6  | 10.0     | 8.9  | 9.5  | 11.1    | 9.8  | 10.4 |
| 10    | 6.3     | 4.7 | 5.4  | 8.5      | 5.6 | 7.6  | 9.1      | 7.6  | 8.3  | 10.7    | 10.1 | 10.4 |
| 11    | 7.9     | 5.3 | 6.2  | 6.3      | 5.3 | 5.9  | 9.1      | 8.1  | 8.7  | 10.2    | 9.4  | 9.8  |
| 12    | 8.5     | 5.3 | 6.5  | 7.2      | 5.8 | 6.4  | 9.2      | 8.7  | 8.9  | 9.6     | 8.3  | 8.9  |
| 13    | 7.4     | 5.0 | 6.1  | 7.0      | 5.8 | 6.2  | 9.7      | 8.7  | 9.2  | 10.8    | 9.5  | 10.1 |
| 14    | 7.4     | 4.6 | 5.6  | 7.0      | 5.9 | 6.4  | 9.5      | 7.9  | 8.3  | 10.9    | 9.8  | 10.3 |
| 15    | 6.2     | 4.4 | 5.1  | 7.7      | 6.2 | 6.9  | 9.6      | 9.0  | 9.4  | 10.5    | 8.8  | 9.5  |
| 16    | 4.9     | 1.8 | 3.5  | 8.7      | 7.4 | 8.1  | 10.0     | 8.8  | 9.6  | 10.8    | 9.2  | 9.7  |
| 17    | 7.8     | 4.6 | 6.6  | 9.1      | 7.5 | 8.3  | 9.8      | 9.0  | 9.6  | 10.9    | 9.4  | 10.1 |
| 18    | 8.5     | 6.5 | 7.4  | 9.2      | 6.9 | 8.0  | 9.8      | 8.4  | 9.1  | 10.2    | 8.8  | 9.5  |
| 19    | 7.7     | 6.0 | 6.7  | 7.1      | 5.1 | 6.7  | 9.1      | 7.7  | 8.4  | 9.3     | 8.3  | 8.8  |
| 20    | 7.8     | 5.6 | 6.5  | 6.5      | 5.9 | 6.1  | 8.2      | 7.7  | 7.9  | 9.1     | 7.8  | 8.4  |
| 21    | 7.3     | 4.8 | 6.2  | 7.6      | 1.8 | 5.5  | 9.6      | 8.4  | 9.1  | 8.6     | 7.3  | 8.0  |
| 22    | 5.7     | 4.2 | 5.0  | 8.6      | 7.8 | 8.3  | 10.1     | 9.8  | 10.0 | 7.6     | 7.0  | 7.3  |
| 23    | 4.4     | 1.9 | 3.3  | 7.7      | 7.2 | 7.5  | 10.1     | 9.3  | 9.6  | 8.1     | 7.3  | 7.8  |
| 24    | 5.9     | 3.9 | 5.3  | 8.7      | 7.6 | 8.2  | 9.7      | 8.8  | 9.2  | 9.6     | 7.9  | 9.0  |
| 25    | 5.7     | 4.5 | 5.1  | 8.6      | 8.0 | 8.4  | 10.2     | 9.3  | 9.6  | 9.2     | 7.6  | 8.6  |
| 26    | 5.6     | 5.3 | 5.3  | 8.5      | 7.2 | 8.0  | 10.4     | 10.1 | 10.3 | 9.0     | 6.3  | 7.8  |
| 27    | 6.3     | 5.3 | 5.8  | 7.8      | 7.2 | 7.5  | 10.4     | 9.2  | 9.8  | 11.1    | 6.8  | 8.9  |
| 28    | 7.1     | 5.2 | 6.0  | 7.9      | 6.3 | 7.2  | 9.9      | 9.3  | 9.7  | 11.2    | 10.6 | 10.8 |
| 29    | 7.3     | 5.4 | 6.2  | 7.8      | 6.8 | 7.2  | 9.9      | 8.8  | 9.3  | 11.3    | 10.4 | 10.7 |
| 30    | 7.4     | 5.2 | 6.2  | 8.2      | 7.2 | 7.8  | 9.5      | 8.9  | 9.3  | ---     | ---  | ---  |
| 31    | 7.3     | 5.1 | 6.2  | ---      | --- | ---  | 9.7      | 8.8  | 9.3  | ---     | ---  | ---  |
| MONTH | 9.1     | 1.8 | 5.9  | 9.8      | 1.8 | 7.0  | 11.2     | 5.7  | 9.0  | 11.3    | 6.3  | 9.2  |



DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| FEBRUARY |      |      |      | MARCH |      |      | APRIL  |      |      | MAY       |     |      |
|----------|------|------|------|-------|------|------|--------|------|------|-----------|-----|------|
| DAY      | MAX  | MIN  | MEAN | MAX   | MIN  | MEAN | MAX    | MIN  | MEAN | MAX       | MIN | MEAN |
| 1        | ---  | ---  | ---  | 13.2  | 11.0 | 11.7 | 11.4   | 9.6  | 10.6 | 10.1      | 8.4 | 9.3  |
| 2        | 11.7 | 10.8 | 11.0 | 14.6  | 13.2 | 13.7 | 10.5   | 8.7  | 9.7  | 9.3       | 7.9 | 8.7  |
| 3        | 11.8 | 10.0 | 10.7 | 14.0  | 13.0 | 13.5 | 11.3   | 9.6  | 10.4 | 9.5       | 8.0 | 8.9  |
| 4        | 10.4 | 9.0  | 9.7  | 13.9  | 13.5 | 13.7 | 11.0   | 9.7  | 10.4 | 9.6       | 8.3 | 9.4  |
| 5        | 9.4  | 8.3  | 8.9  | 14.3  | 13.2 | 13.8 | 11.0   | 10.6 | 10.9 | 10.0      | 7.6 | 9.1  |
| 6        | 9.1  | 7.6  | 8.4  | 14.8  | 11.9 | 13.6 | ---    | ---  | ---  | 8.9       | 7.7 | 8.2  |
| 7        | 9.2  | 8.1  | 8.5  | 14.1  | 13.0 | 13.6 | 12.7   | 11.8 | 12.0 | 8.9       | 6.8 | 8.1  |
| 8        | 10.6 | 9.3  | 10.0 | 13.4  | 11.3 | 12.6 | 12.5   | 11.0 | 12.0 | 8.5       | 6.8 | 7.8  |
| 9        | 9.9  | 7.9  | 8.6  | 12.9  | 12.2 | 12.5 | 12.4   | 10.7 | 11.6 | 9.3       | 6.7 | 8.4  |
| 10       | 10.8 | 8.7  | 9.7  | ---   | ---  | ---  | 11.7   | 10.7 | 11.2 | 10.2      | 9.5 | 9.8  |
| 11       | 10.1 | 9.2  | 9.7  | ---   | ---  | ---  | 12.3   | 11.3 | 11.8 | ---       | --- | ---  |
| 12       | 9.8  | 8.2  | 8.8  | ---   | ---  | ---  | 12.3   | 10.8 | 11.6 | 8.4       | 6.9 | 7.7  |
| 13       | 8.7  | 7.7  | 8.0  | ---   | ---  | ---  | 11.8   | 10.4 | 11.1 | 8.3       | 6.6 | 7.3  |
| 14       | ---  | ---  | ---  | ---   | ---  | ---  | 11.2   | 10.7 | 11.0 | ---       | --- | ---  |
| 15       | ---  | ---  | ---  | ---   | ---  | ---  | ---    | ---  | ---  | 9.4       | 7.5 | 8.6  |
| 16       | ---  | ---  | ---  | ---   | ---  | ---  | ---    | ---  | ---  | 9.0       | 7.4 | 8.3  |
| 17       | ---  | ---  | ---  | ---   | ---  | ---  | ---    | ---  | ---  | 8.6       | 7.9 | 8.4  |
| 18       | 10.6 | 9.7  | 10.3 | ---   | ---  | ---  | ---    | ---  | ---  | 7.7       | 5.6 | 6.8  |
| 19       | 10.2 | 9.5  | 9.8  | ---   | ---  | ---  | ---    | ---  | ---  | 7.9       | 6.0 | 6.9  |
| 20       | 10.7 | 5.6  | 9.2  | ---   | ---  | ---  | 10.2   | 8.8  | 9.5  | 7.6       | 6.1 | 6.7  |
| 21       | ---  | ---  | ---  | ---   | ---  | ---  | 9.7    | 8.5  | 9.2  | 7.7       | 6.0 | 6.7  |
| 22       | 11.3 | 10.7 | 11.1 | 11.7  | 10.4 | 11.2 | 9.9    | 8.6  | 9.3  | 7.7       | 5.9 | 6.8  |
| 23       | 10.6 | 9.7  | 10.1 | 11.3  | 10.2 | 10.7 | 9.3    | 8.5  | 8.9  | 8.4       | 6.3 | 7.3  |
| 24       | 10.0 | 8.5  | 9.5  | 11.5  | 10.5 | 11.0 | 9.3    | 7.9  | 8.8  | 8.4       | 5.9 | 7.3  |
| 25       | ---  | ---  | ---  | 11.6  | 10.4 | 11.0 | 9.0    | 8.0  | 8.6  | 6.9       | 5.6 | 6.2  |
| 26       | ---  | ---  | ---  | 11.6  | 9.9  | 10.8 | 9.6    | 8.7  | 9.2  | 7.6       | 5.3 | 6.5  |
| 27       | ---  | ---  | ---  | 11.5  | 7.4  | 9.3  | 9.9    | 8.5  | 9.2  | 8.3       | 6.3 | 7.2  |
| 28       | ---  | ---  | ---  | 11.4  | 10.2 | 10.7 | 9.8    | 8.4  | 9.3  | 8.7       | 6.7 | 7.7  |
| 29       | ---  | ---  | ---  | 11.2  | 9.9  | 10.6 | 9.7    | 9.1  | 9.0  | 9.1       | 6.2 | 7.7  |
| 30       | ---  | ---  | ---  | 11.3  | 9.9  | 10.6 | 10.6   | 8.9  | 9.9  | 8.7       | 6.0 | 7.4  |
| 31       | ---  | ---  | ---  | 10.4  | 10.0 | 10.3 | ---    | ---  | ---  | 8.8       | 6.6 | 7.8  |
| MONTH    | ---  | ---  | ---  | ---   | ---  | ---  | 12.7   | 7.9  | 10.2 | 10.2      | 5.3 | 7.8  |
|          |      |      |      |       |      |      |        |      |      |           |     |      |
| JUNE     |      |      |      | JULY  |      |      | AUGUST |      |      | SEPTEMBER |     |      |
| DAY      | MAX  | MIN  | MEAN | MAX   | MIN  | MEAN | MAX    | MIN  | MEAN | MAX       | MIN | MEAN |
| 1        | 10.0 | 7.4  | 8.1  | 5.8   | 2.4  | 3.7  | ---    | ---  | ---  | 5.5       | 3.0 | 4.1  |
| 2        | 9.4  | 6.8  | 8.2  | ---   | ---  | ---  | ---    | ---  | ---  | 5.3       | 3.5 | 4.3  |
| 3        | 9.5  | 6.4  | 7.4  | ---   | ---  | ---  | 5.6    | 3.4  | 3.9  | 6.3       | 3.6 | 4.7  |
| 4        | 9.1  | 6.0  | 7.4  | ---   | ---  | ---  | 5.1    | 3.7  | 4.3  | 6.0       | 2.9 | 4.0  |
| 5        | 9.2  | 5.8  | 7.4  | ---   | ---  | ---  | 6.3    | 4.2  | 5.0  | 5.7       | 2.7 | 3.8  |
| 6        | 10.3 | 6.6  | 8.3  | ---   | ---  | ---  | 6.5    | 4.1  | 5.1  | 4.6       | 2.8 | 3.6  |
| 7        | 9.2  | 5.7  | 7.7  | ---   | ---  | ---  | 6.4    | 3.9  | 4.9  | 6.6       | 3.7 | 4.6  |
| 8        | 8.8  | 4.4  | 6.2  | ---   | ---  | ---  | 6.3    | 2.0  | 4.8  | 5.9       | 3.2 | 4.5  |
| 9        | 7.6  | 3.6  | 5.6  | 8.5   | 3.8  | 6.7  | 6.0    | 3.6  | 4.5  | 5.7       | 2.9 | 4.0  |
| 10       | 8.7  | 4.2  | 6.8  | 8.9   | 2.9  | 5.4  | 6.0    | 3.1  | 4.3  | 5.9       | 3.1 | 4.3  |
| 11       | 9.0  | 5.6  | 7.2  | 7.5   | 3.1  | 5.2  | 5.4    | 2.3  | 3.7  | 6.1       | 3.4 | 4.5  |
| 12       | 8.6  | 5.5  | 6.8  | 9.0   | 3.6  | 5.7  | 4.4    | 2.2  | 3.3  | ---       | --- | ---  |
| 13       | 8.1  | 4.9  | 6.3  | 8.3   | 3.8  | 5.5  | 5.6    | 3.3  | 4.2  | ---       | --- | ---  |
| 14       | 9.8  | 5.5  | 7.1  | 7.5   | 3.6  | 5.2  | 5.9    | 3.4  | 4.4  | ---       | --- | ---  |
| 15       | 8.4  | 5.1  | 6.7  | 7.4   | 3.4  | 5.1  | 5.8    | 3.5  | 4.5  | ---       | --- | ---  |
| 16       | 8.1  | 4.8  | 6.3  | 7.8   | 3.5  | 5.4  | 6.1    | 3.9  | 4.9  | ---       | --- | ---  |
| 17       | 7.4  | 1.5  | 4.9  | 6.9   | 3.4  | 4.7  | 6.2    | 4.2  | 5.0  | ---       | --- | ---  |
| 18       | 7.5  | 3.4  | 5.2  | 6.8   | 3.3  | 4.8  | 6.3    | 3.7  | 4.9  | ---       | --- | ---  |
| 19       | 7.9  | 3.8  | 5.5  | 5.9   | 3.7  | 4.7  | 6.2    | 3.2  | 4.5  | ---       | --- | ---  |
| 20       | 7.9  | 3.7  | 5.6  | 6.3   | 3.8  | 4.8  | 4.0    | 2.2  | 3.3  | ---       | --- | ---  |
| 21       | 8.2  | 0.4  | 5.2  | 6.8   | 3.8  | 5.1  | 5.6    | 2.7  | 3.9  | ---       | --- | ---  |
| 22       | 4.6  | 0.0  | 2.7  | 6.6   | 3.6  | 4.8  | 5.4    | 3.2  | 4.1  | ---       | --- | ---  |
| 23       | 5.4  | 3.2  | 4.3  | 6.3   | 3.3  | 4.6  | 5.5    | 3.0  | 4.1  | ---       | --- | ---  |
| 24       | 4.9  | 2.0  | 3.5  | 6.4   | 2.9  | 4.3  | 5.6    | 2.8  | 4.3  | ---       | --- | ---  |
| 25       | 5.0  | 2.3  | 3.4  | 5.6   | 2.6  | 3.8  | 6.2    | 3.0  | 4.5  | ---       | --- | ---  |
| 26       | ---  | ---  | ---  | 5.8   | 3.2  | 4.3  | 6.1    | 3.0  | 4.4  | ---       | --- | ---  |
| 27       | ---  | ---  | ---  | 4.2   | 0.3  | 2.3  | 4.6    | 2.8  | 3.7  | ---       | --- | ---  |
| 28       | ---  | ---  | ---  | 4.8   | 2.8  | 3.6  | 4.1    | 1.5  | 3.1  | ---       | --- | ---  |
| 29       | ---  | ---  | ---  | 4.5   | 2.8  | 3.5  | 5.3    | 3.3  | 4.3  | ---       | --- | ---  |
| 30       | 6.5  | 2.8  | 5.1  | 3.7   | 2.6  | 3.1  | 5.0    | 3.0  | 3.9  | ---       | --- | ---  |
| 31       | ---  | ---  | ---  | 4.0   | 1.6  | 3.2  | 4.9    | 2.9  | 3.7  | ---       | --- | ---  |
| MCNTH    | 10.3 | 0.0  | 6.1  | ---   | ---  | ---  | 6.5    | 1.5  | 4.2  | ---       | --- | ---  |
| YEAR     | 14.8 | 0.0  | 7.5  |       |      |      |        |      |      |           |     |      |

011094700 NORTH NASHUA RIVER AT NORTH VILLAGE, MASS.--Continued  
 TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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



## 01096550 MERRIMACK RIVER ABOVE LOWELL, MASS.

LOCATION.--Lat 42°38'20", long 71°22'17", Middlesex County, on left bank at intake of Lowell water treatment plant, 2.7 miles upstream from Pawtucket Dam, and 6 miles downstream from Massachusetts-New Hampshire State line.

PERIOD OF RECORD.--Chemical analyses: August 1969 to September 1971.

REMARKS.--Additional chemical analyses for this station in radiochemical and pesticide tables and in table of composited samples.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE  | TIME | DIS-<br>CHARGE<br>(CFS) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) | PH<br>(UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | AIR<br>TEM-<br>PERA-<br>TURE<br>(DEG C) | IMME-<br>DIATE<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) |
|-------|------|-------------------------|------------------------------------------------------------|------------------------------------|---------------|----------------------------------|-----------------------------------------|------------------------------------------------------------|
| OCT.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 05... | 1100 | 3940                    | 99                                                         | 6.7                                | 7.1           | 17.3                             | 12.5                                    | 180000                                                     |
| NOV.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 02... | 0900 | 4610                    | 93                                                         | 8.0                                | 6.5           | 9.8                              | 8.3                                     | 24000                                                      |
| DEC.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 07... | 1000 | 6630                    | 82                                                         | 12.3                               | 6.6           | 1.8                              | 11.9                                    | 27000                                                      |
| JAN.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 05... | 1200 | 4460                    | 103                                                        | 12.4                               | 6.7           | .2                               | 4.5                                     | 120000                                                     |
| FEB.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 08... | 0900 | 5990                    | 115                                                        | 10.6                               | 6.7           | .5                               | 2.9                                     | 77000                                                      |
| MAR.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 02... | 1000 | 8780                    | 113                                                        | 12.6                               | 6.7           | 1.7                              | 7.3                                     | 26000                                                      |
| APR.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 05... | 1000 | 22000                   | 76                                                         | 13.1                               | 6.5           | 3.3                              | 11.0                                    | 8000                                                       |
| MAY   |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 03... | 1000 | 16600                   | 54                                                         | 11.8                               | 6.2           | 8.1                              | 12.0                                    | 21000                                                      |
| JUNE  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 07... | 0900 | 7370                    | 104                                                        | 8.2                                | 6.9           | 20.1                             | 27.5                                    | 46000                                                      |
| JULY  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 13... | 1000 | 1530                    | 143                                                        | 5.2                                | 7.0           | 25.2                             | 25.4                                    | 16000                                                      |
| AUG.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 09... | 0900 | 2690                    | 108                                                        | 7.0                                | 7.0           | 25.0                             | 30.5                                    | 18700                                                      |
| SEP.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 13... | 1600 | 2490                    | 159                                                        | 5.2                                | 6.7           | 22.8                             | 18.0                                    | 41000                                                      |

| DATE  | FECAL<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>KJEL-<br>DAHL<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | METH-<br>YLENE<br>BLUE<br>ACTIVE<br>SUB-<br>STANCE<br>(MG/L) | CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(LOW<br>LEVEL)<br>(MG/L) | CHLORO-<br>PHYLL A<br>(UG/L) | TUR-<br>BID-<br>ITY<br>(JTU) |
|-------|---------------------------------------------------|--------------------------|----------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|------------------------------|------------------------------|
| OCT.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 05... | 280                                               | .4                       | 2.5                                                      | .13                                       | .06                                                          | 13                                                            | 7.8                          | 3                            |
| NOV.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 02... | 770                                               | .2                       | 1.4                                                      | .15                                       | .10                                                          | 15                                                            | 1.6                          | 1                            |
| DEC.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 07... | 850                                               | .2                       | .98                                                      | .12                                       | .04                                                          | 14                                                            | .0                           | 2                            |
| JAN.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 05... | 2900                                              | .2                       | 1.5                                                      | .14                                       | .04                                                          | 8                                                             | .9                           | 2                            |
| FEB.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 08... | 2000                                              | .2                       | 1.5                                                      | .18                                       | .04                                                          | 14                                                            | .2                           | 1                            |
| MAR.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 02... | 820                                               | .3                       | .92                                                      | .10                                       | .05                                                          | 10                                                            | .0                           | 5                            |
| APR.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 05... | 640                                               | .2                       | .78                                                      | .12                                       | .04                                                          | 19                                                            | 2.7                          | 30                           |
| MAY   |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 03... | 900                                               | .2                       | .55                                                      | .050                                      | .02                                                          | 12                                                            | 2.6                          | 2                            |
| JUNE  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 07... | 680                                               | 2.7                      | 1.4                                                      | .10                                       | .07                                                          | 12                                                            | 11                           | 1                            |
| JULY  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 13... | 530                                               | .2                       | 3.4                                                      | .27                                       | .05                                                          | 22                                                            | 24                           | 9                            |
| AUG.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 09... | 226                                               | .1                       | 1.4                                                      | .18                                       | .05                                                          | 21                                                            | 27                           | 8                            |
| SEP.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 13... | 1000                                              | .4                       | 3.4                                                      | .24                                       | .07                                                          | 24                                                            | 24                           | 7                            |

01096550 MERRIMACK RIVER ABOVE LOWELL, MASS.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE       | DIS-<br>SOLVED<br>SOLIDS<br>(RESI-<br>DUE AT<br>180 C)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTI-<br>TUENTS)<br>(MG/L) | LCSS<br>ON<br>IGNI-<br>TION<br>(MG/L) | ALKA-<br>LINITY<br>AS<br>CaCO3<br>(MG/L) | TOTAL<br>ACIDITY<br>AS<br>CaCO3<br>(MG/L) | BIO-<br>CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(MG/L) | CYANIDE<br>(CN)<br>(MG/L) | ORGANIC<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | OIL<br>AND<br>GREASE<br>(MG/L) | PHENOLS<br>(UG/L) |
|------------|------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------|------------------------------------------|-------------------------------------------|-----------------------------------------------------|---------------------------|-------------------------------------------|-----------------------------------------|--------------------------------|-------------------|
| JULY, 1971 |                                                                  |                                                                     |                                       |                                          |                                           |                                                     |                           |                                           |                                         |                                |                   |
| 13...      | --                                                               | --                                                                  | --                                    | 21                                       | --                                        | --                                                  | --                        | 1.6                                       | --                                      | --                             | --                |
| SEP.       |                                                                  |                                                                     |                                       |                                          |                                           |                                                     |                           |                                           |                                         |                                |                   |
| 13...      | 99                                                               | 87                                                                  | 23                                    | 25                                       | 3                                         | 6.2                                                 | .06                       | 1.4                                       | 3.8                                     | 5.0                            | 0                 |

| DATE       | SILICA<br>(SiO2)<br>(MG/L) | DIS-<br>SOLVED<br>CAL-<br>CIUM<br>(CA)<br>(MG/L) | DIS-<br>SOLVED<br>MAG-<br>NE-<br>SIUM<br>(MG)<br>(MG/L) | SODIUM<br>(NA)<br>(MG/L) | PO-<br>TAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO3)<br>(MG/L) | SULFATE<br>(SO4)<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) |
|------------|----------------------------|--------------------------------------------------|---------------------------------------------------------|--------------------------|--------------------------------------|-------------------------------------------|--------------------------------------|----------------------------|---------------------------------|--------------------------------------------------|--------------------------|
| JULY, 1971 |                            |                                                  |                                                         |                          |                                      |                                           |                                      |                            |                                 |                                                  |                          |
| 13...      | --                         | 8.0                                              | --                                                      | --                       | --                                   | 1.8                                       | 26                                   | --                         | --                              | --                                               | .020                     |
| AUG.       |                            |                                                  |                                                         |                          |                                      |                                           |                                      |                            |                                 |                                                  |                          |
| 09...      | --                         | --                                               | --                                                      | --                       | --                                   | .51                                       | --                                   | --                         | --                              | --                                               | .020                     |
| SEP.       |                            |                                                  |                                                         |                          |                                      |                                           |                                      |                            |                                 |                                                  |                          |
| 13...      | 4.1                        | 8.0                                              | 1.2                                                     | 16                       | 1.9                                  | 2.0                                       | 30                                   | 14                         | 20                              | .5                                               | .050                     |

| DATE       | HARD-<br>NESS<br>(CA,MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | COLOR<br>(PLAT-<br>INUM<br>COBALT<br>UNITS) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | DIS-<br>SOLVED<br>ARSENIC<br>(AS)<br>(UG/L) | DIS-<br>SOLVED<br>CAD-<br>MIUM<br>(CD)<br>(UG/L) | HEXA-<br>VALENT<br>CHRO-<br>MIUM<br>(CR6)<br>(UG/L) | DIS-<br>SOLVED<br>COBALT<br>(CO)<br>(UG/L) | DIS-<br>SOLVED<br>LEAD<br>(PB)<br>(UG/L) | DIS-<br>SOLVED<br>MERCURY<br>(HG)<br>(UG/L) | DIS-<br>SOLVED<br>ZINC<br>(ZN)<br>(UG/L) |
|------------|------------------------------------|---------------------------------------------------|---------------------------------------------|------------------------------------------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------|--------------------------------------------|------------------------------------------|---------------------------------------------|------------------------------------------|
| OCT., 1970 |                                    |                                                   |                                             |                                                            |                                             |                                                  |                                                     |                                            |                                          |                                             |                                          |
| 14...      | --                                 | --                                                | --                                          | 106                                                        | 0                                           | 0                                                | 0                                                   | 3                                          | 9                                        | <.5                                         | 20                                       |
| SEP., 1971 |                                    |                                                   |                                             |                                                            |                                             |                                                  |                                                     |                                            |                                          |                                             |                                          |
| 13...      | 25                                 | 0                                                 | 26                                          | 159                                                        | 0                                           | --                                               | --                                                  | --                                         | --                                       | 1.2                                         | --                                       |

## 01096570 MERRIMACK RIVER ABOVE CONCORD RIVER, AT LOWELL, MASS.

LOCATION.--Lat 42°38'57", long 71°19'50", Middlesex County, at Mammoth Road Bridge, multiple-parameter monitor in gatehouse at Pawtucket Dam, 0.8 mile upstream from Beaver Brook, 1.8 miles upstream from Concord River, and 2 miles upstream from gaging station below Concord River.

DRAINAGE AREA.--Total above gage, 4,131 sq mi; net above gage, 4,014 sq mi (diversions as needed from 117 sq mi for use of Boston metropolitan district and city of Worcester).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1971.  
Water temperatures: October 1967 to September 1971.

## EXTREMES.--1970-71:

Specific conductance: Maximum, 173 micromhos Aug. 29; minimum, 47 micromhos Apr. 24, May 7.

Water temperatures: Maximum, 29.0°C July 9, 10; minimum, freezing point on many days during winter period.

## Period of record:

Specific conductance: Maximum, 254 micromhos Aug. 2, 1970; minimum, 34 micromhos Apr. 22, 1969.

Water temperatures: Maximum, 31.5°C July 29, 1970; minimum, freezing point on many days during winter periods.

REMARKS.--Figures of daily discharge, computed on basis of records for gaging station below Concord River (sta 01100000) and gaging station on Concord River (sta 01099500) are available at district office.

## SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|---------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | ---     | --- | ---  | 98       | 89  | 94   | 90       | 75  | 81   | ---     | --- | ---  |
| 2     | ---     | --- | ---  | 98       | 88  | 93   | 90       | 83  | 86   | ---     | --- | ---  |
| 3     | ---     | --- | ---  | 99       | 88  | 94   | 93       | 81  | 87   | ---     | --- | ---  |
| 4     | ---     | --- | ---  | 109      | 89  | 102  | ---      | --- | ---  | ---     | --- | ---  |
| 5     | 112     | 107 | 109  | 115      | 106 | 109  | ---      | --- | ---  | ---     | --- | ---  |
| 6     | 123     | 109 | 116  | 109      | 92  | 101  | ---      | --- | ---  | ---     | --- | ---  |
| 7     | 120     | 112 | 114  | 103      | 93  | 98   | ---      | --- | ---  | ---     | --- | ---  |
| 8     | 129     | 113 | 122  | 104      | 95  | 100  | ---      | --- | ---  | ---     | --- | ---  |
| 9     | 130     | 110 | 124  | 107      | 95  | 99   | ---      | --- | ---  | ---     | --- | ---  |
| 10    | 125     | 108 | 115  | 107      | 98  | 102  | ---      | --- | ---  | ---     | --- | ---  |
| 11    | 109     | 104 | 107  | 115      | 105 | 109  | ---      | --- | ---  | ---     | --- | ---  |
| 12    | 107     | 98  | 102  | 117      | 112 | 115  | ---      | --- | ---  | ---     | --- | ---  |
| 13    | 115     | 102 | 107  | 118      | 113 | 116  | ---      | --- | ---  | ---     | --- | ---  |
| 14    | 124     | 115 | 117  | 120      | 108 | 115  | ---      | --- | ---  | ---     | --- | ---  |
| 15    | 140     | 122 | 133  | 117      | 100 | 112  | ---      | --- | ---  | ---     | --- | ---  |
| 16    | 139     | 123 | 129  | 103      | 96  | 100  | ---      | --- | ---  | ---     | --- | ---  |
| 17    | 121     | 101 | 107  | 107      | 97  | 101  | ---      | --- | ---  | ---     | --- | ---  |
| 18    | 102     | 94  | 98   | 114      | 108 | 110  | ---      | --- | ---  | ---     | --- | ---  |
| 19    | 96      | 85  | 92   | 117      | 107 | 111  | ---      | --- | ---  | ---     | --- | ---  |
| 20    | 95      | 80  | 86   | 112      | 98  | 105  | ---      | --- | ---  | ---     | --- | ---  |
| 21    | 101     | 93  | 98   | 109      | 98  | 104  | ---      | --- | ---  | ---     | --- | ---  |
| 22    | 131     | 99  | 116  | 114      | 95  | 106  | ---      | --- | ---  | ---     | --- | ---  |
| 23    | 128     | 123 | 125  | 95       | 85  | 89   | ---      | --- | ---  | ---     | --- | ---  |
| 24    | 132     | 116 | 125  | 96       | 88  | 92   | ---      | --- | ---  | ---     | --- | ---  |
| 25    | 118     | 106 | 110  | 92       | 89  | 90   | ---      | --- | ---  | ---     | --- | ---  |
| 26    | 113     | 91  | 99   | 91       | 89  | 90   | ---      | --- | ---  | ---     | --- | ---  |
| 27    | 90      | 78  | 81   | 91       | 80  | 89   | ---      | --- | ---  | ---     | --- | ---  |
| 28    | 87      | 78  | 82   | 80       | 77  | 79   | ---      | --- | ---  | ---     | --- | ---  |
| 29    | 91      | 81  | 87   | 77       | 73  | 75   | ---      | --- | ---  | ---     | --- | ---  |
| 30    | 97      | 86  | 91   | 77       | 69  | 74   | ---      | --- | ---  | ---     | --- | ---  |
| 31    | 98      | 93  | 96   | ---      | --- | ---  | ---      | --- | ---  | ---     | --- | ---  |
| MONTH | 140     | 78  | 107  | 120      | 69  | 99   | ---      | --- | ---  | ---     | --- | ---  |



SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| FEBRUARY |     |     |      | MARCH |     |      | APRIL  |     |      | MAY       |     |      |
|----------|-----|-----|------|-------|-----|------|--------|-----|------|-----------|-----|------|
| DAY      | MAX | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | --- | --- | ---  | 117   | 109 | 113  | 105    | 101 | 104  | 57        | 55  | 56   |
| 2        | --- | --- | ---  | 116   | 110 | 112  | 104    | 100 | 103  | 58        | 55  | 57   |
| 3        | 134 | 121 | 129  | 114   | 107 | 110  | 106    | 99  | 104  | 54        | 52  | 53   |
| 4        | 128 | 116 | 122  | 109   | 100 | 106  | 99     | 84  | 91   | 59        | 53  | 55   |
| 5        | 130 | 117 | 124  | 110   | 106 | 108  | 83     | 77  | 79   | 60        | 52  | 55   |
| 6        | 135 | 126 | 129  | 110   | 107 | 109  | 77     | 73  | 74   | 61        | 48  | 53   |
| 7        | 135 | 120 | 125  | 110   | 109 | 110  | 78     | 73  | 76   | 56        | 47  | 53   |
| 8        | 138 | 116 | 126  | 111   | 100 | 109  | 79     | 73  | 76   | 62        | 57  | 60   |
| 9        | 148 | 127 | 134  | 115   | 106 | 111  | 77     | 71  | 73   | 64        | 53  | 62   |
| 10       | 164 | 129 | 144  | 115   | 111 | 112  | ---    | --- | ---  | 57        | 53  | 54   |
| 11       | 155 | 128 | 144  | 111   | 109 | 110  | ---    | --- | ---  | 60        | 54  | 57   |
| 12       | 137 | 122 | 125  | 115   | 110 | 113  | ---    | --- | ---  | 62        | 56  | 59   |
| 13       | 149 | 127 | 138  | 117   | 108 | 114  | ---    | --- | ---  | 61        | 54  | 57   |
| 14       | 147 | 122 | 139  | 122   | 108 | 117  | ---    | --- | ---  | 61        | 59  | 60   |
| 15       | 134 | 120 | 126  | 117   | 111 | 115  | ---    | --- | ---  | 61        | 56  | 58   |
| 16       | 142 | 124 | 133  | 123   | 111 | 118  | ---    | --- | ---  | 57        | 56  | 56   |
| 17       | 131 | 115 | 120  | 121   | 116 | 119  | ---    | --- | ---  | 62        | 54  | 57   |
| 18       | 124 | 111 | 115  | 115   | 104 | 110  | ---    | --- | ---  | 59        | 62  | 65   |
| 19       | 118 | 110 | 113  | 104   | 99  | 101  | ---    | --- | ---  | 73        | 64  | 70   |
| 20       | 127 | 110 | 117  | 102   | 97  | 99   | 64     | 62  | 53   | 76        | 70  | 73   |
| 21       | 119 | 109 | 113  | 109   | 102 | 105  | 64     | 60  | 62   | 73        | 66  | 69   |
| 22       | 111 | 105 | 109  | 102   | 99  | 100  | 60     | 54  | 56   | 70        | 66  | 68   |
| 23       | 118 | 106 | 110  | 105   | 100 | 102  | 53     | 48  | 52   | 66        | 64  | 65   |
| 24       | 127 | 114 | 120  | 110   | 106 | 108  | 51     | 47  | 49   | 68        | 65  | 66   |
| 25       | 122 | 113 | 117  | 108   | 104 | 106  | 54     | 52  | 53   | 69        | 67  | 68   |
| 26       | 127 | 112 | 119  | 107   | 102 | 105  | 56     | 52  | 54   | 75        | 70  | 73   |
| 27       | 131 | 115 | 124  | 108   | 107 | 107  | 57     | 54  | 56   | 82        | 75  | 79   |
| 28       | 135 | 112 | 123  | 107   | 105 | 106  | 58     | 54  | 56   | 81        | 77  | 79   |
| 29       | --- | --- | ---  | 107   | 104 | 106  | 60     | 56  | 58   | 80        | 77  | 78   |
| 30       | --- | --- | ---  | 110   | 100 | 108  | 61     | 55  | 58   | 79        | 73  | 75   |
| 31       | --- | --- | ---  | 108   | 103 | 105  | ---    | --- | ---  | 78        | 74  | 76   |
| MONTH    | 164 | 105 | 125  | 123   | 97  | 109  | ---    | --- | ---  | 82        | 47  | 63   |
|          |     |     |      |       |     |      |        |     |      |           |     |      |
| JUNE     |     |     |      | JULY  |     |      | AUGUST |     |      | SEPTEMBER |     |      |
| DAY      | MAX | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | 81  | 75  | 78   | 125   | 120 | 123  | ---    | --- | ---  | 110       | 100 | 105  |
| 2        | 86  | 75  | 83   | 129   | 124 | 126  | ---    | --- | ---  | 118       | 109 | 113  |
| 3        | 88  | 84  | 86   | 133   | 124 | 128  | ---    | --- | ---  | 127       | 118 | 122  |
| 4        | 95  | 86  | 88   | 131   | 123 | 128  | ---    | --- | ---  | 132       | 123 | 127  |
| 5        | 97  | 89  | 92   | 124   | 120 | 121  | ---    | --- | ---  | 132       | 125 | 128  |
| 6        | 99  | 93  | 96   | 127   | 120 | 124  | 113    | 102 | 105  | 128       | 125 | 127  |
| 7        | 100 | 93  | 97   | 120   | 116 | 117  | 107    | 99  | 103  | 126       | 122 | 125  |
| 8        | 101 | 92  | 97   | 119   | 115 | 117  | 114    | 103 | 109  | 142       | 124 | 134  |
| 9        | 116 | 97  | 106  | 127   | 116 | 121  | 113    | 109 | 111  | 140       | 133 | 136  |
| 10       | 109 | 95  | 103  | 139   | 130 | 135  | ---    | --- | ---  | 147       | 137 | 142  |
| 11       | 104 | 96  | 100  | 140   | 136 | 138  | 109    | 107 | 108  | 141       | 136 | 138  |
| 12       | 111 | 100 | 107  | 148   | 140 | 144  | 119    | 107 | 111  | 143       | 139 | 141  |
| 13       | 113 | 103 | 109  | 151   | 142 | 146  | 120    | 114 | 118  | 158       | 141 | 149  |
| 14       | 119 | 110 | 115  | 144   | 138 | 140  | 115    | 112 | 114  | 158       | 143 | 150  |
| 15       | 116 | 106 | 110  | 147   | 135 | 140  | 120    | 115 | 118  | 143       | 121 | 132  |
| 16       | 121 | 109 | 113  | 151   | 146 | 144  | 119    | 114 | 116  | 149       | 123 | 132  |
| 17       | 133 | 117 | 123  | 152   | 146 | 148  | 128    | 116 | 122  | 126       | 113 | 120  |
| 18       | 130 | 116 | 122  | 152   | 148 | 150  | 131    | 125 | 128  | 116       | 109 | 114  |
| 19       | 128 | 119 | 123  | 158   | 152 | 154  | 131    | 126 | 128  | 120       | 105 | 109  |
| 20       | 125 | 118 | 121  | 162   | 151 | 158  | 128    | 121 | 126  | 122       | 117 | 119  |
| 21       | 130 | 124 | 126  | 150   | 129 | 140  | 139    | 127 | 134  | 116       | 105 | 112  |
| 22       | 133 | 128 | 131  | 130   | 119 | 126  | 144    | 135 | 139  | 104       | 98  | 101  |
| 23       | 129 | 123 | 125  | 133   | 123 | 127  | 145    | 138 | 142  | 118       | 104 | 110  |
| 24       | 136 | 124 | 130  | 136   | 131 | 133  | 141    | 134 | 139  | 120       | 116 | 118  |
| 25       | 143 | 126 | 136  | 135   | 131 | 134  | 135    | 129 | 133  | 118       | 110 | 112  |
| 26       | 136 | 126 | 132  | 136   | 126 | 135  | 136    | 126 | 132  | 119       | 112 | 116  |
| 27       | 138 | 133 | 136  | ---   | --- | ---  | 146    | 129 | 135  | 126       | 119 | 122  |
| 28       | 133 | 124 | 129  | ---   | --- | ---  | 172    | 146 | 159  | 126       | 120 | 123  |
| 29       | 127 | 111 | 120  | ---   | --- | ---  | 173    | 158 | 167  | 119       | 108 | 114  |
| 30       | 119 | 106 | 112  | ---   | --- | ---  | 161    | 126 | 143  | 121       | 106 | 113  |
| 31       | --- | --- | ---  | ---   | --- | ---  | 127    | 104 | 117  | ---       | --- | ---  |
| MONTH    | 143 | 75  | 111  | 162   | 115 | 135  | 173    | 99  | 126  | 158       | 98  | 124  |
| YEAR     | 173 | 47  | 107  |       |     |      |        |     |      |           |     |      |

01096570 MERRIMACK RIVER ABOVE CONCORD RIVER, AT LOWELL, MASS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

[illegible]

## MERRIMACK RIVER BASIN

01100000 MERRIMACK RIVER BELOW CONCORD RIVER, AT LOWELL, MASS.  
(International Hydrological Decade River Station)

LOCATION.--Lat 42°38'45", long 71°17'56", Middlesex County, at gaging station on right bank 1,100 ft downstream from Concord River at Lowell. Samples for chemical analyses and suspended-sediment loads taken from Hunts Falls Bridge, 300 ft upstream from gage.

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

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1971 (partial-record station).  
Water temperatures: January 1966 to September 1967.  
Sediment records: April 1967 to September 1971.

## EXTREMES.--1970-71:

Sediment concentrations: Maximum daily, 98 mg/l May 5; minimum daily, 1 mg/l many days during year.

Sediment discharges: Maximum daily, 7,810 tons May 5; minimum daily, 8.1 tons Nov. 12.

## Period of record:

Sediment concentrations: Maximum daily, 270 mg/l Feb. 13, 1970; minimum daily, 1 mg/l on several days each year.

Sediment discharges: Maximum daily, 29,000 tons Feb. 13, 1970; minimum daily, 2.0 tons July 20, 27, 1969.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE          | DIS-<br>CHARGE<br>(CFS) | SILICA<br>(SiO <sub>2</sub> )<br>(MG/L) | DIS-<br>SOLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SOLVED<br>MANGANESE<br>(MN)<br>(UG/L) | DIS-<br>SOLVED<br>CALCIUM<br>(CA)<br>(MG/L) | DIS-<br>SOLVED<br>MAGNESIUM<br>(MG) | SODIUM<br>(NA)<br>(MG/L) | PO-<br>TAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO <sub>3</sub> )<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) |
|---------------|-------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------------|---------------------------------------------|-------------------------------------|--------------------------|--------------------------------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------|---------------------------------|
| DEC.<br>07... | 7300                    | 6.0                                     | 100                                      | 40                                            | 5.0                                         | 1.0                                 | 8.9                      | .9                                   | --                                        | 10                                                | 10                                      | 11                              |
| MAR.<br>02... | 9360                    | 6.5                                     | 150                                      | 130                                           | 6.0                                         | 1.1                                 | 14                       | 1.1                                  | .77                                       | 10                                                | 12                                      | 23                              |
| JUNE<br>07... | 4280                    | 4.2                                     | 340                                      | 80                                            | 6.1                                         | .9                                  | 10                       | .9                                   | .06                                       | 10                                                | 11                                      | 15                              |
| SEP.<br>13... | 2520                    | 4.1                                     | 260                                      | 90                                            | 8.0                                         | 1.4                                 | 16                       | 2.0                                  | 1.3                                       | 25                                                | 15                                      | 17                              |

| DATE          | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>FHC-<br>FLOURS<br>(P)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(RESI-<br>DUE AT<br>180 C)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CON-<br>TENTS)<br>(MG/L) | HARD-<br>NESS<br>(CA, MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | PH<br>(UNITS) | COLOR<br>(PLAT-<br>INUM-<br>COBALT<br>UNITS) | LOSS<br>ON<br>IGNI-<br>TION<br>(MG/L) |
|---------------|--------------------------------------------------|--------------------------|--------------------------|------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------|---------------------------------------------------|------------------------------------------------------------|---------------|----------------------------------------------|---------------------------------------|
| DEC.<br>07... | .0                                               | .14                      | .4                       | --                                       | 54                                                               | 51                                                              | 16                                  | 8                                                 | 93                                                         | 6.5           | 10                                           | 11                                    |
| MAR.<br>02... | .1                                               | .021                     | .3                       | .20                                      | 91                                                               | 72                                                              | 20                                  | 12                                                | 131                                                        | 6.8           | 16                                           | 13                                    |
| JUNE<br>07... | .0                                               | .010                     | 1.1                      | --                                       | 64                                                               | 58                                                              | 19                                  | 11                                                | 103                                                        | 6.7           | 12                                           | 18                                    |
| SEP.<br>13... | .0                                               | --                       | 2.2                      | .29                                      | --                                                               | 89                                                              | 26                                  | 5                                                 | 148                                                        | 6.4           | --                                           | --                                    |

## CHEMICAL ANALYSES, MINOR ELEMENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE                     | DIS-<br>CHARGE<br>(CFS) | DIS-<br>SOLVED<br>ARSENIC<br>(AS)<br>(UG/L) | DIS-<br>SOLVED<br>CAD-<br>MIUM<br>(CD)<br>(UG/L) | HEXA-<br>VALENT<br>CHRO-<br>MIUM<br>(CR6)<br>(UG/L) | DIS-<br>SOLVED<br>COBALT<br>(CO)<br>(UG/L) | DIS-<br>SOLVED<br>LEAD<br>(PB)<br>(UG/L) | DIS-<br>SOLVED<br>MERCURY<br>(HG)<br>(UG/L) | DIS-<br>SOLVED<br>ZINC<br>(ZN)<br>(UG/L) |
|--------------------------|-------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------|--------------------------------------------|------------------------------------------|---------------------------------------------|------------------------------------------|
| OCT., 1970<br>16... 1650 |                         | 0                                           | 6                                                | 0                                                   | 4                                          | 12                                       | 4.7                                         | 40                                       |

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER                    |                                      |                                     | NOVEMBER                   |                                      |                                     | DECEMBER                   |                                      |                                     |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|
|       | MEAN<br>DISCHARGE<br>(CFS) | MEAN<br>CONCEN-<br>TRATION<br>(MG/L) | SEDIMENT<br>DISCHARGE<br>(TONS/DAY) | MEAN<br>DISCHARGE<br>(CFS) | MEAN<br>CONCEN-<br>TRATION<br>(MG/L) | SEDIMENT<br>DISCHARGE<br>(TONS/DAY) | MEAN<br>DISCHARGE<br>(CFS) | MEAN<br>CONCEN-<br>TRATION<br>(MG/L) | SEDIMENT<br>DISCHARGE<br>(TONS/DAY) |
| 1     | 1990                       | 12                                   | 64                                  | 3350                       | 4                                    | 36                                  | 5020                       | 8                                    | 108                                 |
| 2     | 2380                       | 7                                    | 45                                  | 3830                       | 2                                    | 21                                  | 4830                       | 7                                    | 91                                  |
| 3     | 2080                       | 16                                   | 90                                  | 3200                       | 5                                    | 43                                  | 4450                       | 10                                   | 120                                 |
| 4     | 1330                       | 12                                   | 43                                  | 2880                       | 2                                    | 16                                  | 5170                       | 2                                    | 28                                  |
| 5     | 2440                       | 7                                    | 46                                  | 3450                       | 4                                    | 37                                  | 7440                       | 4                                    | 80                                  |
| 6     | 3350                       | 12                                   | 109                                 | 3620                       | 2                                    | 20                                  | 7410                       | 11                                   | 220                                 |
| 7     | 3130                       | 9                                    | 76                                  | 3010                       | 4                                    | 33                                  | 6880                       | 5                                    | 93                                  |
| 8     | 3330                       | 11                                   | 99                                  | 2800                       | 3                                    | 23                                  | 5860                       | 2                                    | 32                                  |
| 9     | 3270                       | 12                                   | 106                                 | 3480                       | 4                                    | 38                                  | 4600                       | 15                                   | 186                                 |
| 10    | 3060                       | 13                                   | 107                                 | 3640                       | 2                                    | 20                                  | 4710                       | 4                                    | 51                                  |
| 11    | 2400                       | 6                                    | 39                                  | 3280                       | 2                                    | 18                                  | 4680                       | 18                                   | 227                                 |
| 12    | 2490                       | 12                                   | 81                                  | 3000                       | 1                                    | 8.1                                 | 4360                       | 18                                   | 212                                 |
| 13    | 2440                       | 5                                    | 33                                  | 3330                       | 1                                    | 9.0                                 | 4690                       | 2                                    | 25                                  |
| 14    | 1640                       | 11                                   | 49                                  | 2630                       | 3                                    | 21                                  | 5090                       | 22                                   | 302                                 |
| 15    | 1700                       | 7                                    | 32                                  | 2790                       | 5                                    | 38                                  | 5280                       | 16                                   | 228                                 |
| 16    | 2190                       | 9                                    | 53                                  | 4340                       | 4                                    | 47                                  | 5070                       | 9                                    | 123                                 |
| 17    | 2050                       | 10                                   | 55                                  | 4260                       | 1                                    | 12                                  | 4810                       | 2                                    | 26                                  |
| 18    | 2330                       | 8                                    | 50                                  | 3750                       | 1                                    | 10                                  | 4580                       | 16                                   | 198                                 |
| 19    | 2390                       | 15                                   | 97                                  | 4040                       | 1                                    | 11                                  | 4320                       | 5                                    | 58                                  |
| 20    | 2560                       | 7                                    | 48                                  | 4070                       | 1                                    | 11                                  | 5190                       | 2                                    | 28                                  |
| 21    | 2340                       | 6                                    | 38                                  | 4900                       | 1                                    | 13                                  | 4940                       | 8                                    | 107                                 |
| 22    | 2360                       | 7                                    | 45                                  | 6480                       | 1                                    | 17                                  | 4640                       | 2                                    | 25                                  |
| 23    | 3030                       | 9                                    | 74                                  | 8040                       | 1                                    | 22                                  | 4250                       | 1                                    | 11                                  |
| 24    | 5490                       | 9                                    | 133                                 | 7270                       | 2                                    | 39                                  | 4500                       | 2                                    | 24                                  |
| 25    | 6620                       | 8                                    | 143                                 | 7390                       | 2                                    | 40                                  | 3570                       | 3                                    | 29                                  |
| 26    | 6640                       | 6                                    | 108                                 | 6270                       | 1                                    | 17                                  | 4210                       | 5                                    | 57                                  |
| 27    | 5720                       | 1                                    | 15                                  | 5220                       | 2                                    | 28                                  | 4810                       | 7                                    | 91                                  |
| 28    | 4920                       | 1                                    | 13                                  | 4430                       | 2                                    | 24                                  | 4780                       | 7                                    | 90                                  |
| 29    | 3980                       | 4                                    | 43                                  | 4000                       | 6                                    | 65                                  | 4670                       | 6                                    | 76                                  |
| 30    | 3390                       | 4                                    | 37                                  | 4960                       | 1                                    | 13                                  | 4780                       | 5                                    | 65                                  |
| 31    | 2840                       | 4                                    | 31                                  | --                         | --                                   | --                                  | 4460                       | 2                                    | 24                                  |
| TOTAL | 95880                      | --                                   | 2002                                | 127710                     | --                                   | 750.1                               | 154050                     | --                                   | 3035                                |
|       |                            |                                      |                                     |                            |                                      |                                     |                            |                                      |                                     |
| DAY   | JANUARY                    |                                      |                                     | FEBRUARY                   |                                      |                                     | MARCH                      |                                      |                                     |
|       | MEAN<br>DISCHARGE<br>(CFS) | MEAN<br>CONCEN-<br>TRATION<br>(MG/L) | SEDIMENT<br>DISCHARGE<br>(TONS/DAY) | MEAN<br>DISCHARGE<br>(CFS) | MEAN<br>CONCEN-<br>TRATION<br>(MG/L) | SEDIMENT<br>DISCHARGE<br>(TONS/DAY) | MEAN<br>DISCHARGE<br>(CFS) | MEAN<br>CONCEN-<br>TRATION<br>(MG/L) | SEDIMENT<br>DISCHARGE<br>(TONS/DAY) |
| 1     | 3430                       | 1                                    | 9.3                                 | 4330                       | 2                                    | 23                                  | 8880                       | 6                                    | 144                                 |
| 2     | 4220                       | 3                                    | 34                                  | 3900                       | 2                                    | 21                                  | 9240                       | 7                                    | 175                                 |
| 3     | 4070                       | 5                                    | 55                                  | 3750                       | 2                                    | 20                                  | 9520                       | 10                                   | 257                                 |
| 4     | 4360                       | 6                                    | 71                                  | 3570                       | 2                                    | 19                                  | 9200                       | 13                                   | 323                                 |
| 5     | 4450                       | 2                                    | 24                                  | 3680                       | 4                                    | 40                                  | 8260                       | 11                                   | 245                                 |
| 6     | 4810                       | 2                                    | 26                                  | 3210                       | 5                                    | 43                                  | 8080                       | 9                                    | 196                                 |
| 7     | 4990                       | 3                                    | 40                                  | 3350                       | 3                                    | 27                                  | 7960                       | 13                                   | 279                                 |
| 8     | 4940                       | 3                                    | 40                                  | 3850                       | 1                                    | 10                                  | 7960                       | 17                                   | 365                                 |
| 9     | 4520                       | 2                                    | 24                                  | 3880                       | 4                                    | 42                                  | 7690                       | 20                                   | 415                                 |
| 10    | 4230                       | 2                                    | 23                                  | 4080                       | 2                                    | 22                                  | 7640                       | 14                                   | 289                                 |
| 11    | 4330                       | 1                                    | 12                                  | 4150                       | 1                                    | 11                                  | 7620                       | 18                                   | 370                                 |
| 12    | 4300                       | 1                                    | 12                                  | 4430                       | 3                                    | 36                                  | 7540                       | 14                                   | 285                                 |
| 13    | 4330                       | 1                                    | 12                                  | 4250                       | 5                                    | 57                                  | 6920                       | 10                                   | 187                                 |
| 14    | 3620                       | 3                                    | 29                                  | 5040                       | 3                                    | 41                                  | 7160                       | 6                                    | 116                                 |
| 15    | 3790                       | 5                                    | 51                                  | 5710                       | 1                                    | 15                                  | 7540                       | 16                                   | 326                                 |
| 16    | 4590                       | 4                                    | 50                                  | 6820                       | 3                                    | 55                                  | 8920                       | 7                                    | 169                                 |
| 17    | 4000                       | 3                                    | 32                                  | 6890                       | 5                                    | 93                                  | 12000                      | 6                                    | 194                                 |
| 18    | 4000                       | 3                                    | 32                                  | 7430                       | 4                                    | 80                                  | 14400                      | 14                                   | 544                                 |
| 19    | 3630                       | 3                                    | 29                                  | 7400                       | 4                                    | 80                                  | 14400                      | 34                                   | 1320                                |
| 20    | 3980                       | 3                                    | 32                                  | 6840                       | 6                                    | 111                                 | 13900                      | 16                                   | 600                                 |
| 21    | 3750                       | 3                                    | 30                                  | 6210                       | 5                                    | 84                                  | 13100                      | 2                                    | 71                                  |
| 22    | 3480                       | 4                                    | 38                                  | 6550                       | 5                                    | 88                                  | 12400                      | 10                                   | 335                                 |
| 23    | 3280                       | 6                                    | 53                                  | 6400                       | 7                                    | 121                                 | 11500                      | 11                                   | 342                                 |
| 24    | 3310                       | 6                                    | 54                                  | 6280                       | 12                                   | 203                                 | 10900                      | 6                                    | 177                                 |
| 25    | 4040                       | 6                                    | 65                                  | 6230                       | 4                                    | 67                                  | 10800                      | 8                                    | 233                                 |
| 26    | 3870                       | 5                                    | 52                                  | 6030                       | 4                                    | 65                                  | 10200                      | 5                                    | 138                                 |
| 27    | 4840                       | 4                                    | 52                                  | 5830                       | 5                                    | 79                                  | 9720                       | 6                                    | 157                                 |
| 28    | 5190                       | 4                                    | 56                                  | 6500                       | 6                                    | 105                                 | 9680                       | 9                                    | 235                                 |
| 29    | 4440                       | 4                                    | 48                                  | --                         | --                                   | --                                  | 10000                      | 15                                   | 405                                 |
| 30    | 4430                       | 4                                    | 48                                  | --                         | --                                   | --                                  | 10600                      | 8                                    | 229                                 |
| 31    | 4020                       | 3                                    | 33                                  | --                         | --                                   | --                                  | 11400                      | 10                                   | 308                                 |
| TOTAL | 129240                     | --                                   | 1166.3                              | 146590                     | --                                   | 1658                                | 305130                     | --                                   | 9429                                |

## MERRIMACK RIVER BASIN

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DAY   | APRIL                      |                                      |                                     | MAY                        |                                      |                                     | JUNE                       |                                      |                                     |
|-------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------------------|
|       | MEAN<br>DISCHARGE<br>(CFS) | MEAN<br>CONCEN-<br>TRATION<br>(MG/L) | SEDIMENT<br>DISCHARGE<br>(TONS/DAY) | MEAN<br>DISCHARGE<br>(CFS) | MEAN<br>CONCEN-<br>TRATION<br>(MG/L) | SEDIMENT<br>DISCHARGE<br>(TONS/DAY) | MEAN<br>DISCHARGE<br>(CFS) | MEAN<br>CONCEN-<br>TRATION<br>(MG/L) | SEDIMENT<br>DISCHARGE<br>(TONS/DAY) |
| 1     | 11700                      | 12                                   | 379                                 | 19100                      | 15                                   | 774                                 | 7170                       | 2                                    | 39                                  |
| 2     | 12300                      | 1                                    | 33                                  | 18000                      | 16                                   | 778                                 | 6770                       | 8                                    | 146                                 |
| 3     | 15300                      | 29                                   | 1200                                | 17400                      | 16                                   | 752                                 | 5990                       | 6                                    | 97                                  |
| 4     | 20700                      | 84                                   | 4690                                | 21500                      | 26                                   | 1510                                | 5680                       | 8                                    | 123                                 |
| 5     | 23300                      | 59                                   | 3710                                | 29500                      | 98                                   | 7810                                | 5160                       | 8                                    | 111                                 |
| 6     | 23300                      | 53                                   | 3330                                | 30600                      | 77                                   | 6360                                | 5100                       | 6                                    | 83                                  |
| 7     | 22300                      | 34                                   | 2050                                | 26200                      | 37                                   | 2620                                | 4720                       | 11                                   | 140                                 |
| 8     | 22200                      | 23                                   | 1380                                | 21700                      | 26                                   | 1520                                | 4120                       | 4                                    | 44                                  |
| 9     | 20300                      | 19                                   | 1040                                | 19300                      | 19                                   | 990                                 | 4310                       | 9                                    | 105                                 |
| 10    | 18300                      | 12                                   | 593                                 | 19000                      | 13                                   | 667                                 | 4370                       | 6                                    | 71                                  |
| 11    | 20100                      | 15                                   | 814                                 | 19200                      | 19                                   | 985                                 | 4310                       | 6                                    | 70                                  |
| 12    | 24100                      | 26                                   | 1690                                | 17700                      | 22                                   | 1050                                | 3780                       | 7                                    | 71                                  |
| 13    | 26700                      | 37                                   | 2670                                | 17800                      | 24                                   | 1150                                | 3250                       | 8                                    | 70                                  |
| 14    | 29900                      | 59                                   | 4760                                | 20300                      | 26                                   | 1430                                | 3150                       | 8                                    | 68                                  |
| 15    | 31200                      | 83                                   | 6990                                | 21300                      | 24                                   | 1380                                | 2730                       | 7                                    | 52                                  |
| 16    | 29400                      | 65                                   | 5160                                | 18800                      | 23                                   | 1170                                | 2770                       | 14                                   | 105                                 |
| 17    | 25300                      | 25                                   | 1710                                | 17000                      | 21                                   | 964                                 | 2580                       | 7                                    | 49                                  |
| 18    | 21400                      | 7                                    | 404                                 | 15300                      | 33                                   | 1360                                | 2380                       | 7                                    | 45                                  |
| 19    | 19600                      | 30                                   | 1590                                | 14600                      | 18                                   | 710                                 | 1740                       | 6                                    | 28                                  |
| 20    | 20100                      | 10                                   | 543                                 | 14100                      | 17                                   | 647                                 | 1580                       | 9                                    | 38                                  |
| 21    | 23300                      | 18                                   | 1130                                | 13200                      | 18                                   | 642                                 | 2080                       | 12                                   | 67                                  |
| 22    | 26400                      | 30                                   | 2140                                | 13100                      | 16                                   | 566                                 | 2180                       | 8                                    | 47                                  |
| 23    | 26200                      | 37                                   | 2620                                | 12900                      | 18                                   | 627                                 | 2300                       | 4                                    | 25                                  |
| 24    | 24100                      | 17                                   | 1110                                | 12300                      | 21                                   | 697                                 | 2340                       | 4                                    | 25                                  |
| 25    | 21400                      | 18                                   | 1040                                | 11300                      | 20                                   | 610                                 | 2290                       | 4                                    | 25                                  |
| 26    | 19900                      | 16                                   | 860                                 | 9500                       | 10                                   | 257                                 | 2040                       | 2                                    | 11                                  |
| 27    | 19300                      | 10                                   | 521                                 | 8960                       | 10                                   | 242                                 | 1860                       | 6                                    | 30                                  |
| 28    | 18000                      | 10                                   | 486                                 | 9570                       | 13                                   | 336                                 | 3030                       | 11                                   | 90                                  |
| 29    | 16900                      | 10                                   | 456                                 | 8310                       | 5                                    | 112                                 | 2960                       | 3                                    | 24                                  |
| 30    | 18000                      | 15                                   | 729                                 | 7180                       | 5                                    | 97                                  | 2590                       | 5                                    | 35                                  |
| 31    | --                         | --                                   | --                                  | 7130                       | 3                                    | 58                                  | --                         | --                                   | --                                  |
| TOTAL | 651000                     | --                                   | 55928                               | 511850                     | --                                   | 38871                               | 105330                     | --                                   | 1934                                |
| DAY   | JULY                       |                                      |                                     | AUGUST                     |                                      |                                     | SEPTEMBER                  |                                      |                                     |
|       | MEAN<br>DISCHARGE<br>(CFS) | MEAN<br>CONCEN-<br>TRATION<br>(MG/L) | SEDIMENT<br>DISCHARGE<br>(TONS/DAY) | MEAN<br>DISCHARGE<br>(CFS) | MEAN<br>CONCEN-<br>TRATION<br>(MG/L) | SEDIMENT<br>DISCHARGE<br>(TONS/DAY) | MEAN<br>DISCHARGE<br>(CFS) | MEAN<br>CONCEN-<br>TRATION<br>(MG/L) | SEDIMENT<br>DISCHARGE<br>(TONS/DAY) |
| 1     | 2500                       | 26                                   | 176                                 | 2980                       | 22                                   | 177                                 | 2430                       | 7                                    | 46                                  |
| 2     | 2370                       | 29                                   | 186                                 | 2880                       | 16                                   | 124                                 | 2340                       | 6                                    | 38                                  |
| 3     | 1920                       | 2                                    | 10                                  | 3100                       | 11                                   | 92                                  | 2370                       | 9                                    | 58                                  |
| 4     | 1760                       | 4                                    | 19                                  | 3390                       | 9                                    | 82                                  | 1440                       | 7                                    | 27                                  |
| 5     | 782                        | 20                                   | 42                                  | 3760                       | 10                                   | 102                                 | 1080                       | 5                                    | 15                                  |
| 6     | 2190                       | 9                                    | 53                                  | 3120                       | 16                                   | 135                                 | 337                        | 5                                    | 4.5                                 |
| 7     | 2240                       | 13                                   | 79                                  | 3040                       | 1                                    | 8.2                                 | 2180                       | 5                                    | 29                                  |
| 8     | 2150                       | 10                                   | 58                                  | 2370                       | 8                                    | 51                                  | 2160                       | 6                                    | 35                                  |
| 9     | 1760                       | 49                                   | 233                                 | 2330                       | 14                                   | 88                                  | 2030                       | 6                                    | 33                                  |
| 10    | 1160                       | 11                                   | 34                                  | 2340                       | 9                                    | 57                                  | 1760                       | 7                                    | 33                                  |
| 11    | 618                        | 13                                   | 22                                  | 2240                       | 6                                    | 36                                  | 960                        | 2                                    | 5.2                                 |
| 12    | 1540                       | 23                                   | 96                                  | 2530                       | 6                                    | 41                                  | 901                        | 9                                    | 22                                  |
| 13    | 1610                       | 13                                   | 57                                  | 2260                       | 6                                    | 37                                  | 1780                       | 8                                    | 38                                  |
| 14    | 1490                       | 14                                   | 56                                  | 1570                       | 6                                    | 25                                  | 2160                       | 7                                    | 41                                  |
| 15    | 1330                       | 20                                   | 72                                  | 806                        | 5                                    | 11                                  | 2510                       | 7                                    | 47                                  |
| 16    | 1240                       | 10                                   | 33                                  | 2160                       | 6                                    | 35                                  | 3390                       | 2                                    | 18                                  |
| 17    | 588                        | 25                                   | 40                                  | 2090                       | 5                                    | 28                                  | 3070                       | 3                                    | 25                                  |
| 18    | 518                        | 15                                   | 21                                  | 2170                       | 4                                    | 23                                  | 1910                       | 2                                    | 10                                  |
| 19    | 1420                       | 14                                   | 54                                  | 1870                       | 12                                   | 61                                  | 2560                       | 2                                    | 14                                  |
| 20    | 1540                       | 19                                   | 79                                  | 1380                       | 6                                    | 22                                  | 3220                       | 11                                   | 96                                  |
| 21    | 1580                       | 14                                   | 60                                  | 1020                       | 9                                    | 25                                  | 2520                       | 8                                    | 54                                  |
| 22    | 1550                       | 15                                   | 63                                  | 970                        | 12                                   | 31                                  | 2510                       | 5                                    | 34                                  |
| 23    | 1620                       | 14                                   | 61                                  | 1790                       | 15                                   | 72                                  | 2500                       | 10                                   | 68                                  |
| 24    | 1220                       | 12                                   | 40                                  | 1700                       | 17                                   | 78                                  | 2310                       | 6                                    | 37                                  |
| 25    | 1080                       | 15                                   | 44                                  | 1360                       | 8                                    | 29                                  | 1440                       | 1                                    | 3.9                                 |
| 26    | 1720                       | 11                                   | 51                                  | 1050                       | 11                                   | 31                                  | 1500                       | 9                                    | 36                                  |
| 27    | 2100                       | 24                                   | 136                                 | 1070                       | 14                                   | 40                                  | 2380                       | 10                                   | 64                                  |
| 28    | 1850                       | 15                                   | 75                                  | 988                        | 18                                   | 48                                  | 2410                       | 4                                    | 26                                  |
| 29    | 1810                       | 13                                   | 64                                  | 1140                       | 4                                    | 12                                  | 2180                       | 10                                   | 59                                  |
| 30    | 1780                       | 14                                   | 67                                  | 3240                       | 5                                    | 44                                  | 1870                       | 9                                    | 45                                  |
| 31    | 1540                       | 15                                   | 62                                  | 2650                       | 1                                    | 7.2                                 | --                         | --                                   | --                                  |
| TOTAL | 48576                      | --                                   | 2143                                | 65364                      | --                                   | 1652.4                              | 62208                      | --                                   | 1061.6                              |

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

2402928

119530.4



## 01100750 MERRIMACK RIVER AT WEST NEWBURY, MASS.

LOCATION.--Lat 42°48'38", long 71°00'02", Essex County, multiple-parameter monitor at Bridge Street Bridge, 0.9 mile northwest of West Newbury.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1971.

Water temperatures: October 1968 to September 1971.

EXTREMES.--1970-71:

Specific conductance: Maximum, greater than 1000 micromhos Sept. 7; minimum, 56 micromhos May 7.

pH: Maximum, 8.6 Oct. 10; minimum, 5.6 Oct. 1.

Dissolved oxygen: Maximum, 18.2 mg/l Apr. 9; minimum, 0.3 mg/l Oct. 2.

Water temperatures: Maximum, 27.5°C July 1, Aug. 10, 11; minimum, freezing point on many days during winter period.

Period of record:

Specific conductance: Maximum, greater than 1000 micromhos Aug. 17, 18, 20, 1970, Sept. 7, 1971; minimum, 50 micromhos Apr. 19, 1970.

pH: Maximum, 8.6 Oct. 10, 1970; minimum, 5.4 Sept. 30, 1970.

Dissolved oxygen: Maximum, 18.2 mg/l Apr. 9, 1971; minimum, 0.1 mg/l Oct. 21, 1968, Sept. 11, 1970.

Water temperatures: Maximum, 29.5°C July 29, 1970; minimum, freezing point on many days during winter periods.

REMARKS.--Dissolved-oxygen probe not operating Dec. 6 to Jan. 31, Feb. 18 to Apr. 8. Water-temperature probe not operating July 2-15, Aug. 21 to Sept. 2.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE       | DIS-<br>SOLVED<br>COPPER<br>(CO)<br>(UG/L) | DIS-<br>SOLVED<br>LEAD<br>(PB)<br>(UG/L) | DIS-<br>SOLVED<br>MERCURY<br>(HG)<br>(UG/L) | DIS-<br>SOLVED<br>ZINC<br>(ZN)<br>(UG/L) | DIS-<br>SOLVED<br>ARSENIC<br>(AS)<br>(UG/L) | DIS-<br>SOLVED<br>CAD-<br>MIUM<br>(CD)<br>(UG/L) | HEXA-<br>VALENT<br>CHRO-<br>MIUM<br>(CR6)<br>(UG/L) |
|------------|--------------------------------------------|------------------------------------------|---------------------------------------------|------------------------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------|
| OCT., 1970 |                                            |                                          |                                             |                                          |                                             |                                                  |                                                     |
| 14...      | 4                                          | 5                                        | <.5                                         | 70                                       | 0                                           | 1                                                | 0                                                   |

## SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|---------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | 214     | 160 | 169  | 118      | 108 | 112  | 113      | 104 | 107  | 143     | 100 | 135  |
| 2     | 216     | 167 | 174  | 119      | 109 | 114  | 115      | 105 | 110  | 145     | 132 | 138  |
| 3     | 216     | 154 | 173  | 131      | 112 | 121  | 125      | 111 | 116  | 142     | 133 | 136  |
| 4     | 226     | 147 | 167  | 134      | 122 | 127  | 130      | 119 | 122  | 139     | 130 | 134  |
| 5     | 190     | 141 | 155  | 133      | 123 | 128  | 126      | 110 | 119  | 150     | 124 | 132  |
| 6     | 158     | 141 | 146  | ---      | --- | ---  | 122      | 110 | 114  | 151     | 137 | 144  |
| 7     | 159     | 146 | 152  | ---      | --- | ---  | 120      | 107 | 114  | 168     | 141 | 156  |
| 8     | 151     | 134 | 143  | ---      | --- | ---  | 109      | 103 | 106  | 177     | 162 | 169  |
| 9     | 138     | 132 | 134  | 158      | 133 | 144  | 113      | 106 | 110  | 168     | 156 | 162  |
| 10    | 136     | 113 | 128  | ---      | --- | ---  | 134      | 109 | 118  | 164     | 146 | 152  |
| 11    | 146     | 118 | 123  | ---      | --- | ---  | 137      | 122 | 130  | 153     | 143 | 148  |
| 12    | 162     | 119 | 125  | ---      | --- | ---  | 141      | 125 | 134  | 162     | 147 | 152  |
| 13    | 177     | 118 | 126  | ---      | --- | ---  | 140      | 123 | 130  | 160     | 143 | 151  |
| 14    | 195     | 119 | 134  | ---      | --- | ---  | 137      | 120 | 129  | 157     | 141 | 148  |
| 15    | 642     | 121 | 180  | ---      | --- | ---  | 136      | 120 | 129  | 172     | 142 | 157  |
| 16    | 551     | 124 | 184  | ---      | --- | ---  | 128      | 119 | 124  | 172     | 160 | 166  |
| 17    | 316     | 124 | 153  | ---      | --- | ---  | 126      | 117 | 123  | 169     | 156 | 163  |
| 18    | 186     | 125 | 136  | ---      | --- | ---  | ---      | --- | ---  | 167     | 159 | 164  |
| 19    | 163     | 127 | 135  | 144      | 134 | 140  | ---      | --- | ---  | 168     | 160 | 165  |
| 20    | 145     | 135 | 140  | 149      | 118 | 140  | ---      | --- | ---  | ---     | --- | ---  |
| 21    | 146     | 129 | 138  | 150      | 141 | 146  | 141      | 132 | 139  | ---     | --- | ---  |
| 22    | 136     | 125 | 130  | 142      | 118 | 134  | 151      | 134 | 144  | ---     | --- | ---  |
| 23    | 135     | 121 | 129  | 128      | 121 | 125  | 152      | 142 | 148  | ---     | --- | ---  |
| 24    | 132     | 119 | 124  | 124      | 106 | 113  | 153      | 137 | 145  | ---     | --- | ---  |
| 25    | 144     | 130 | 138  | 110      | 106 | 108  | 148      | 134 | 140  | ---     | --- | ---  |
| 26    | 134     | 99  | 112  | 109      | 102 | 106  | 144      | 100 | 139  | ---     | --- | ---  |
| 27    | 121     | 101 | 113  | 104      | 100 | 103  | 148      | 141 | 144  | 192     | 165 | 179  |
| 28    | 121     | 117 | 118  | 106      | 101 | 104  | 148      | 127 | 138  | 196     | 165 | 180  |
| 29    | 121     | 109 | 115  | 111      | 104 | 108  | 136      | 126 | 130  | 190     | 175 | 182  |
| 30    | 119     | 106 | 112  | 111      | 100 | 107  | 142      | 127 | 132  | 221     | 183 | 192  |
| 31    | 111     | 100 | 109  | ---      | --- | ---  | 143      | 130 | 136  | 216     | 142 | 198  |
| MCNTH | 642     | 99  | 139  | ---      | --- | ---  | 153      | 100 | 128  | ---     | --- | ---  |

01100750 MERRIMACK RIVER AT WEST NEWBURY, MASS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| FEBRUARY |       |     |      | MARCH |     |      | APRIL  |     |      | MAY       |     |      |
|----------|-------|-----|------|-------|-----|------|--------|-----|------|-----------|-----|------|
| DAY      | MAX   | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | 203   | 170 | 184  | 182   | 161 | 169  | 131    | 125 | 127  | 73        | 70  | 71   |
| 2        | 202   | 180 | 186  | 167   | 154 | 159  | 126    | 122 | 124  | 74        | 71  | 73   |
| 3        | 201   | 178 | 187  | 159   | 149 | 156  | 122    | 116 | 120  | 74        | 69  | 71   |
| 4        | 187   | 174 | 181  | 157   | 148 | 151  | 115    | 100 | 108  | 71        | 70  | 70   |
| 5        | 195   | 174 | 185  | 168   | 147 | 155  | 99     | 90  | 94   | 72        | 70  | 71   |
| 6        | 213   | 194 | 204  | 153   | 150 | 152  | 90     | 85  | 88   | 71        | 57  | 61   |
| 7        | ---   | --- | ---  | 154   | 148 | 151  | 90     | 84  | 87   | 59        | 56  | 58   |
| 8        | ---   | --- | ---  | 152   | 148 | 150  | 94     | 88  | 90   | 63        | 59  | 60   |
| 9        | 214   | 177 | 192  | 160   | 152 | 155  | 91     | 87  | 89   | 66        | 62  | 64   |
| 10       | 207   | 181 | 196  | 164   | 158 | 160  | 92     | 88  | 90   | 74        | 65  | 7    |
| 11       | 200   | 191 | 194  | 165   | 160 | 162  | 95     | 59  | 89   | 77        | 73  | 75   |
| 12       | 206   | 179 | 190  | 166   | 160 | 162  | 90     | 83  | 87   | 79        | 75  | 77   |
| 13       | 205   | 179 | 193  | 164   | 159 | 161  | 83     | 79  | 81   | 79        | 77  | 78   |
| 14       | 197   | 168 | 184  | 164   | 157 | 161  | 78     | 72  | 76   | 80        | 77  | 79   |
| 15       | 196   | 174 | 185  | 163   | 152 | 158  | 76     | 72  | 74   | 78        | 75  | 76   |
| 16       | 192   | 167 | 178  | 164   | 156 | 159  | 74     | 71  | 72   | 76        | 73  | 74   |
| 17       | 175   | 169 | 173  | 159   | 152 | 156  | 75     | 72  | 73   | 80        | 73  | 76   |
| 18       | 171   | 165 | 168  | 153   | 141 | 147  | 73     | 71  | 72   | 85        | 78  | 82   |
| 19       | 169   | 167 | 168  | 142   | 130 | 137  | 75     | 70  | 73   | 93        | 88  | 90   |
| 20       | 166   | 158 | 162  | ---   | --- | ---  | 83     | 74  | 79   | 96        | 93  | 95   |
| 21       | 164   | 152 | 161  | ---   | --- | ---  | 79     | 71  | 76   | 99        | 95  | 97   |
| 22       | ---   | --- | ---  | ---   | --- | ---  | 72     | 66  | 67   | 101       | 99  | 100  |
| 23       | ---   | --- | ---  | ---   | --- | ---  | 68     | 66  | 67   | 103       | 99  | 101  |
| 24       | ---   | --- | ---  | ---   | --- | ---  | 68     | 66  | 67   | 101       | 86  | 95   |
| 25       | ---   | --- | ---  | 143   | 139 | 141  | 67     | 66  | 67   | 90        | 86  | 88   |
| 26       | 184   | 167 | 172  | 140   | 136 | 138  | 66     | 64  | 65   | 95        | 89  | 93   |
| 27       | 185   | 162 | 175  | 140   | 136 | 138  | 66     | 64  | 65   | 102       | 94  | 98   |
| 28       | 186   | 164 | 174  | 140   | 136 | 138  | 67     | 65  | 66   | 106       | 102 | 103  |
| 29       | ---   | --- | ---  | 138   | 132 | 137  | 68     | 66  | 67   | 105       | 101 | 103  |
| 30       | ---   | --- | ---  | 137   | 133 | 135  | 70     | 68  | 69   | 104       | 100 | 102  |
| 31       | ---   | --- | ---  | 138   | 128 | 135  | ---    | --- | ---  | 105       | 98  | 102  |
| MCNTH    | 214   | 152 | 181  | 182   | 128 | 151  | 131    | 59  | 82   | 106       | 56  | 82   |
| JUNE     |       |     |      | JULY  |     |      | AUGUST |     |      | SEPTEMBER |     |      |
| DAY      | MAX   | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | 102   | 58  | 100  | 163   | 137 | 142  | 207    | 156 | 166  | ---       | --- | ---  |
| 2        | 105   | 102 | 106  | ---   | --- | ---  | 206    | 155 | 166  | ---       | --- | ---  |
| 3        | 113   | 100 | 109  | ---   | --- | ---  | 165    | 156 | 162  | 186       | 136 | 148  |
| 4        | 118   | 114 | 117  | ---   | --- | ---  | 166    | 142 | 156  | 190       | 122 | 140  |
| 5        | 120   | 117 | 119  | ---   | --- | ---  | 162    | 135 | 141  | 356       | 123 | 157  |
| 6        | 126   | 118 | 122  | ---   | --- | ---  | 150    | 132 | 136  | 959       | 124 | 281  |
| 7        | 125   | 121 | 123  | ---   | --- | ---  | 161    | 132 | 137  | >1000     | 128 | 317  |
| 8        | 127   | 120 | 123  | ---   | --- | ---  | 188    | 132 | 141  | 949       | 136 | 256  |
| 9        | 130   | 121 | 126  | ---   | --- | ---  | 217    | 129 | 145  | 397       | 140 | 179  |
| 10       | 130   | 120 | 127  | ---   | --- | ---  | 208    | 125 | 142  | 305       | 141 | 165  |
| 11       | 138   | 126 | 133  | ---   | --- | ---  | 207    | 124 | 139  | 301       | 140 | 160  |
| 12       | 137   | 125 | 132  | ---   | --- | ---  | 172    | 127 | 136  | 381       | 140 | 173  |
| 13       | 137   | 124 | 129  | ---   | --- | ---  | 163    | 130 | 135  | 444       | 141 | 184  |
| 14       | 135   | 127 | 130  | ---   | --- | ---  | 158    | 131 | 135  | 225       | 151 | 165  |
| 15       | 137   | 130 | 133  | ---   | --- | ---  | 199    | 130 | 139  | 182       | 161 | 165  |
| 16       | 140   | 133 | 137  | ---   | --- | ---  | 193    | 130 | 143  | 174       | 162 | 167  |
| 17       | 149   | 139 | 143  | ---   | --- | ---  | 192    | 131 | 147  | 177       | 164 | 171  |
| 18       | 164   | 140 | 146  | ---   | --- | ---  | 208    | 141 | 150  | 179       | 159 | 165  |
| 19       | ---   | --- | ---  | ---   | --- | ---  | 180    | 137 | 147  | 182       | 160 | 166  |
| 20       | ---   | --- | ---  | 707   | 167 | 238  | 224    | 168 | 183  | 169       | 162 | 166  |
| 21       | ---   | --- | ---  | 692   | 165 | 214  | ---    | --- | ---  | ---       | --- | ---  |
| 22       | 159   | 153 | 155  | 409   | 167 | 198  | ---    | --- | ---  | ---       | --- | ---  |
| 23       | 168   | 122 | 153  | 381   | 173 | 203  | ---    | --- | ---  | 141       | 118 | 134  |
| 24       | 173   | 137 | 145  | 367   | 176 | 201  | ---    | --- | ---  | 140       | 100 | 120  |
| 25       | 184   | 130 | 160  | 312   | 170 | 195  | ---    | --- | ---  | 113       | 100 | 108  |
| 26       | 175   | 136 | 166  | 463   | 162 | 221  | ---    | --- | ---  | 116       | 102 | 105  |
| 27       | 169   | 125 | 143  | 314   | 156 | 180  | ---    | --- | ---  | 112       | 104 | 106  |
| 28       | 162   | 116 | 142  | 174   | 153 | 159  | ---    | --- | ---  | 113       | 109 | 111  |
| 29       | 161   | 153 | 157  | 165   | 152 | 156  | ---    | --- | ---  | 116       | 111 | 113  |
| 30       | 170   | 140 | 154  | 158   | 150 | 153  | ---    | --- | ---  | 118       | 112 | 113  |
| 31       | ---   | --- | ---  | 157   | 148 | 153  | ---    | --- | ---  | ---       | --- | ---  |
| MCNTH    | 184   | 98  | 134  | ---   | --- | ---  | ---    | --- | ---  | >1000     | 100 | 163  |
| YEAR     | >1000 | 56  | 135  |       |     |      |        |     |      |           |     |      |

## PH (UNITS), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

01100750 MERRIMACK RIVER AT WEST NEWBURY, MASS.--Continued

PH (UNITS), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

[illegible]

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.-- Continued

| FEBRUARY |      |      |      | MARCH |     |      | APRIL  |      |      | MAY       |      |      |
|----------|------|------|------|-------|-----|------|--------|------|------|-----------|------|------|
| DAY      | MAX  | MIN  | MEAN | MAX   | MIN | MEAN | MAX    | MIN  | MEAN | MAX       | MIN  | MEAN |
| 1        | 16.0 | 14.7 | 15.5 | ---   | --- | ---  | ---    | ---  | ---  | ---       | ---  | ---  |
| 2        | 15.7 | 14.7 | 15.2 | ---   | --- | ---  | ---    | ---  | ---  | ---       | ---  | ---  |
| 3        | 15.3 | 14.4 | 14.8 | ---   | --- | ---  | ---    | ---  | ---  | ---       | ---  | ---  |
| 4        | 15.2 | 14.1 | 14.5 | ---   | --- | ---  | ---    | ---  | ---  | ---       | ---  | ---  |
| 5        | 14.7 | 13.5 | 14.0 | ---   | --- | ---  | ---    | ---  | ---  | ---       | ---  | ---  |
| 6        | 14.1 | 13.7 | 13.9 | ---   | --- | ---  | ---    | ---  | ---  | ---       | ---  | ---  |
| 7        | ---  | ---  | ---  | ---   | --- | ---  | ---    | ---  | ---  | ---       | ---  | ---  |
| 8        | ---  | ---  | ---  | ---   | --- | ---  | ---    | ---  | ---  | ---       | ---  | ---  |
| 9        | 15.0 | 13.4 | 14.3 | ---   | --- | ---  | 18.2   | 15.8 | 17.5 | ---       | ---  | ---  |
| 10       | 15.9 | 14.4 | 15.0 | ---   | --- | ---  | 18.1   | 15.5 | 16.9 | ---       | ---  | ---  |
| 11       | 15.5 | 13.7 | 14.7 | ---   | --- | ---  | 16.3   | 15.3 | 16.0 | 11.7      | 10.6 | 11.2 |
| 12       | 14.8 | 12.7 | 13.9 | ---   | --- | ---  | ---    | ---  | ---  | 12.0      | 10.0 | 11.1 |
| 13       | 14.3 | 12.1 | 13.1 | ---   | --- | ---  | 13.8   | 13.1 | 13.5 | ---       | ---  | ---  |
| 14       | 16.5 | 11.9 | 13.9 | ---   | --- | ---  | 14.6   | 13.7 | 14.1 | ---       | ---  | ---  |
| 15       | 16.4 | 15.6 | 16.0 | ---   | --- | ---  | 14.5   | 14.0 | 14.3 | ---       | ---  | ---  |
| 16       | 16.5 | 15.5 | 15.9 | ---   | --- | ---  | 16.1   | 14.5 | 15.5 | ---       | ---  | ---  |
| 17       | 16.3 | 15.3 | 15.9 | ---   | --- | ---  | 16.2   | 14.8 | 15.7 | 11.0      | 10.3 | 10.5 |
| 18       | ---  | ---  | ---  | ---   | --- | ---  | 16.1   | 15.2 | 15.8 | 11.0      | 9.4  | 10.3 |
| 19       | ---  | ---  | ---  | ---   | --- | ---  | 15.2   | 13.5 | 14.4 | 10.1      | 8.9  | 9.7  |
| 20       | ---  | ---  | ---  | ---   | --- | ---  | 13.8   | 12.3 | 13.2 | 9.6       | 8.9  | 9.3  |
| 21       | ---  | ---  | ---  | ---   | --- | ---  | 12.8   | 11.5 | 12.3 | 9.1       | 8.5  | 8.9  |
| 22       | ---  | ---  | ---  | ---   | --- | ---  | 12.8   | 12.2 | 12.5 | 9.4       | 8.7  | 9.0  |
| 23       | ---  | ---  | ---  | ---   | --- | ---  | 12.7   | 12.4 | 12.5 | 9.6       | 9.2  | 9.4  |
| 24       | ---  | ---  | ---  | ---   | --- | ---  | 13.0   | 11.5 | 12.5 | 10.0      | 9.3  | 11.2 |
| 25       | ---  | ---  | ---  | ---   | --- | ---  | 12.7   | 12.4 | 12.5 | 9.6       | 9.1  | 9.4  |
| 26       | ---  | ---  | ---  | ---   | --- | ---  | 12.8   | 12.0 | 12.6 | 9.1       | 8.7  | 9.0  |
| 27       | ---  | ---  | ---  | ---   | --- | ---  | 12.8   | 11.9 | 12.5 | 9.0       | 8.5  | 8.8  |
| 28       | ---  | ---  | ---  | ---   | --- | ---  | 12.7   | 12.4 | 12.5 | 9.0       | 8.5  | 8.8  |
| 29       | ---  | ---  | ---  | ---   | --- | ---  | ---    | ---  | ---  | 9.2       | 8.6  | 8.9  |
| 30       | ---  | ---  | ---  | ---   | --- | ---  | ---    | ---  | ---  | 9.2       | 8.6  | 9.0  |
| 31       | ---  | ---  | ---  | ---   | --- | ---  | ---    | ---  | ---  | 9.2       | 8.6  | 9.0  |
| MONTH    | ---  | ---  | ---  | ---   | --- | ---  | ---    | ---  | ---  | ---       | ---  | ---  |
|          |      |      |      |       |     |      |        |      |      |           |      |      |
| JUNE     |      |      |      | JULY  |     |      | AUGUST |      |      | SEPTEMBER |      |      |
| DAY      | MAX  | MIN  | MEAN | MAX   | MIN | MEAN | MAX    | MIN  | MEAN | MAX       | MIN  | MEAN |
| 1        | 9.2  | 8.6  | 9.0  | 4.1   | 2.7 | 3.4  | 6.3    | 2.6  | 4.4  | ---       | ---  | ---  |
| 2        | 9.1  | 8.1  | 8.6  | ---   | --- | ---  | 5.6    | 2.9  | 4.3  | ---       | ---  | ---  |
| 3        | 8.6  | 7.8  | 8.2  | ---   | --- | ---  | 4.7    | 2.8  | 3.8  | 5.7       | 4.1  | 5.0  |
| 4        | 8.3  | 7.1  | 7.7  | ---   | --- | ---  | 5.0    | 1.9  | 3.1  | 5.6       | 3.0  | 4.6  |
| 5        | 8.4  | 7.3  | 7.7  | ---   | --- | ---  | 5.1    | 1.6  | 3.0  | 6.1       | 3.1  | 4.7  |
| 6        | 8.6  | 7.2  | 7.7  | ---   | --- | ---  | 5.5    | 2.9  | 4.5  | 5.8       | 3.3  | 4.7  |
| 7        | 8.5  | 7.2  | 8.0  | ---   | --- | ---  | 6.5    | 4.2  | 5.2  | 5.9       | 2.3  | 4.2  |
| 8        | 8.3  | 6.6  | 7.5  | ---   | --- | ---  | 7.2    | 4.2  | 5.9  | 6.1       | 2.2  | 4.0  |
| 9        | 7.2  | 4.8  | 6.1  | ---   | --- | ---  | 8.1    | 5.4  | 6.7  | 5.6       | 2.0  | 3.6  |
| 10       | 7.0  | 4.7  | 6.1  | ---   | --- | ---  | 8.3    | 4.9  | 6.8  | 5.7       | 2.0  | 3.6  |
| 11       | 7.8  | 5.5  | 6.5  | ---   | --- | ---  | 7.6    | 4.2  | 6.1  | 5.7       | 2.4  | 3.8  |
| 12       | 7.9  | 6.0  | 7.0  | ---   | --- | ---  | 7.4    | 3.4  | 5.2  | 4.5       | 2.2  | 3.4  |
| 13       | 7.4  | 5.7  | 6.6  | ---   | --- | ---  | 7.3    | 3.6  | 5.2  | 4.4       | 2.0  | 3.0  |
| 14       | 7.2  | 5.4  | 6.5  | ---   | --- | ---  | 7.1    | 3.3  | 4.9  | 3.6       | 1.1  | 2.4  |
| 15       | 6.7  | 5.0  | 6.0  | ---   | --- | ---  | 6.7    | 3.2  | 4.6  | 2.6       | 1.0  | 1.9  |
| 16       | 5.6  | 4.1  | 5.0  | 10.5  | 9.4 | 9.9  | 7.9    | 3.8  | 5.5  | 2.4       | 1.2  | 2.0  |
| 17       | 5.2  | 3.5  | 4.4  | 9.5   | 8.0 | 8.6  | 8.2    | 3.2  | 5.5  | 2.7       | 1.5  | 2.0  |
| 18       | 5.5  | 3.5  | 4.6  | ---   | --- | ---  | 7.5    | 1.9  | 4.6  | 2.6       | 1.5  | 2.0  |
| 19       | ---  | ---  | ---  | ---   | --- | ---  | 7.1    | 2.8  | 4.6  | 2.6       | 1.4  | 1.9  |
| 20       | ---  | ---  | ---  | 8.3   | 6.4 | 7.9  | 5.7    | 2.6  | 3.7  | 2.8       | 1.6  | 2.1  |
| 21       | ---  | ---  | ---  | 9.4   | 5.4 | 7.8  | ---    | ---  | ---  | ---       | ---  | ---  |
| 22       | 5.0  | 3.1  | 4.1  | 8.8   | 6.1 | 7.8  | ---    | ---  | ---  | ---       | ---  | ---  |
| 23       | 4.5  | 1.5  | 2.8  | 9.6   | 6.4 | 8.0  | ---    | ---  | ---  | ---       | ---  | ---  |
| 24       | 3.1  | 1.3  | 2.2  | 9.5   | 7.0 | 8.1  | ---    | ---  | ---  | ---       | ---  | ---  |
| 25       | 3.6  | 0.9  | 2.3  | 8.6   | 6.7 | 7.7  | ---    | ---  | ---  | ---       | ---  | ---  |
| 26       | 4.5  | 1.4  | 3.0  | 8.7   | 6.0 | 7.3  | ---    | ---  | ---  | ---       | ---  | ---  |
| 27       | 4.6  | 2.2  | 3.5  | 7.7   | 3.6 | 6.5  | ---    | ---  | ---  | ---       | ---  | ---  |
| 28       | 5.0  | 2.3  | 3.7  | 7.7   | 2.8 | 5.5  | ---    | ---  | ---  | ---       | ---  | ---  |
| 29       | 5.1  | 2.7  | 3.7  | 7.3   | 3.9 | 5.6  | ---    | ---  | ---  | ---       | ---  | ---  |
| 30       | 4.8  | 2.8  | 3.9  | 5.7   | 3.3 | 4.5  | ---    | ---  | ---  | ---       | ---  | ---  |
| 31       | ---  | ---  | ---  | 5.6   | 1.6 | 3.7  | ---    | ---  | ---  | ---       | ---  | ---  |
| MONTH    | 9.2  | 0.9  | 5.6  | ---   | --- | ---  | ---    | ---  | ---  | ---       | ---  | ---  |
| YEAR     | 18.2 | 0.3  | 8.4  | ---   | --- | ---  | ---    | ---  | ---  | ---       | ---  | ---  |

## MERRIMACK RIVER BASIN

01100750 MERRIMACK RIVER AT WEST NEWBURY, MASS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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



TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

[illegible]

## NORTH RIVER BASIN

01105730 INDIAN HEAD RIVER AT HANOVER, MASS.

LOCATION.--Lat 42°06'02", long 70°49'23", Plymouth County, two-parameter monitor at gaging station on right bank at downstream side of Elm Street Bridge, 0.3 mile upstream from Iron Mine Brook, and 1 mile southwest of Hanover.

DRAINAGE AREA.--30.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1969 to September 1971 (discontinued).

Water temperatures: November 1969 to September 1971 (discontinued).

EXTREMES.--1970-71:

Specific conductance: Maximum, 528 micromhos Feb. 6; minimum, 175 micromhos May 19.

Water temperatures: Maximum, 31.0° C July 8; minimum, freezing point on many days during winter period.

Period of record:

Specific conductance: Maximum, 528 micromhos Feb. 6, 1971; minimum, 111 micromhos Dec. 28, 1969.

Water temperatures: Maximum, 32.0° C July 29, 31, 1970; minimum, freezing point on many days during winter periods.

REMARKS.--Additional chemical analyses for this station in table of samples collected at miscellaneous sites.

## SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| FEBRUARY |     |     |      | MARCH |     |      | APRIL  |     |      | MAY       |     |      |
|----------|-----|-----|------|-------|-----|------|--------|-----|------|-----------|-----|------|
| DAY      | MAX | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | --- | --- | ---  | 252   | 220 | 237  | 238    | 231 | 233  | 222       | 218 | 220  |
| 2        | --- | --- | ---  | 238   | 176 | 220  | 235    | 227 | 232  | 228       | 218 | 223  |
| 3        | --- | --- | ---  | 225   | 220 | 222  | 233    | 226 | 230  | 220       | 209 | 216  |
| 4        | --- | --- | ---  | 242   | 190 | 226  | 235    | 229 | 232  | 213       | 206 | 209  |
| 5        | 407 | 366 | 377  | ---   | --- | ---  | 236    | 233 | 235  | 211       | 205 | 208  |
| 6        | 528 | 409 | 467  | ---   | --- | ---  | 237    | 229 | 233  | 213       | 207 | 210  |
| 7        | 458 | 410 | 432  | ---   | --- | ---  | 233    | 194 | 209  | 217       | 209 | 213  |
| 8        | 510 | 462 | 487  | ---   | --- | ---  | 196    | 181 | 187  | 221       | 214 | 217  |
| 9        | 470 | 293 | 365  | ---   | --- | ---  | 191    | 180 | 185  | 213       | 208 | 211  |
| 10       | 287 | 251 | 261  | ---   | --- | ---  | 198    | 191 | 195  | 218       | 208 | 211  |
| 11       | 260 | 245 | 255  | ---   | --- | ---  | 203    | 199 | 201  | 210       | 200 | 203  |
| 12       | 279 | 257 | 269  | ---   | --- | ---  | 208    | 202 | 205  | 212       | 204 | 207  |
| 13       | 280 | 227 | 265  | ---   | --- | ---  | 212    | 207 | 210  | 218       | 206 | 212  |
| 14       | 223 | 177 | 194  | ---   | --- | ---  | 215    | 210 | 212  | 223       | 209 | 215  |
| 15       | 196 | 183 | 189  | ---   | --- | ---  | 219    | 211 | 214  | 220       | 215 | 218  |
| 16       | 226 | 208 | 215  | ---   | --- | ---  | 221    | 217 | 219  | 221       | 194 | 213  |
| 17       | 239 | 222 | 231  | ---   | --- | ---  | 226    | 217 | 222  | 196       | 188 | 193  |
| 18       | 242 | 230 | 236  | ---   | --- | ---  | 227    | 222 | 225  | 184       | 177 | 179  |
| 19       | 253 | 240 | 244  | ---   | --- | ---  | 227    | 223 | 225  | 189       | 175 | 179  |
| 20       | 255 | 245 | 252  | ---   | --- | ---  | 229    | 225 | 227  | 201       | 184 | 191  |
| 21       | 255 | 248 | 252  | ---   | --- | ---  | 230    | 224 | 227  | 212       | 195 | 199  |
| 22       | 249 | 244 | 247  | ---   | --- | ---  | 226    | 224 | 225  | 213       | 198 | 203  |
| 23       | 246 | 236 | 240  | ---   | --- | ---  | 230    | 222 | 225  | 209       | 200 | 206  |
| 24       | 236 | 231 | 234  | ---   | --- | ---  | 229    | 219 | 224  | 214       | 205 | 210  |
| 25       | 237 | 221 | 231  | ---   | --- | ---  | 238    | 221 | 225  | 222       | 212 | 215  |
| 26       | 249 | 233 | 240  | 228   | 225 | 227  | 225    | 226 | 227  | 223       | 214 | 218  |
| 27       | 256 | 249 | 251  | 233   | 225 | 229  | 229    | 224 | 227  | 225       | 216 | 221  |
| 28       | 255 | 233 | 251  | 233   | 230 | 231  | 230    | 226 | 228  | 219       | 212 | 216  |
| 29       | --- | --- | ---  | 236   | 230 | 233  | 229    | 216 | 224  | 221       | 215 | 217  |
| 30       | --- | --- | ---  | 236   | 229 | 232  | 220    | 216 | 218  | 221       | 212 | 217  |
| 31       | --- | --- | ---  | 234   | 230 | 232  | ---    | --- | ---  | 219       | 210 | 215  |
| MONTH    | 528 | 177 | 279  | ---   | --- | ---  | 238    | 180 | 219  | 228       | 175 | 209  |
|          |     |     |      |       |     |      |        |     |      |           |     |      |
| JUNE     |     |     |      | JULY  |     |      | AUGUST |     |      | SEPTEMBER |     |      |
| DAY      | MAX | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | 227 | 213 | 218  | 270   | 256 | 265  | 287    | 264 | 277  | 295       | 280 | 287  |
| 2        | 230 | 214 | 221  | 269   | 255 | 261  | 289    | 277 | 282  | 290       | 280 | 284  |
| 3        | 225 | 212 | 218  | 274   | 255 | 264  | 295    | 278 | 287  | 294       | 284 | 290  |
| 4        | 226 | 208 | 217  | 285   | 263 | 270  | 294    | 277 | 286  | 303       | 285 | 292  |
| 5        | 226 | 213 | 220  | 283   | 267 | 272  | 286    | 273 | 281  | 303       | 291 | 296  |
| 6        | 219 | 213 | 217  | 291   | 273 | 280  | 285    | 274 | 279  | 302       | 291 | 295  |
| 7        | 237 | 214 | 220  | 287   | 272 | 280  | 289    | 276 | 281  | 297       | 287 | 291  |
| 8        | 241 | 217 | 224  | 286   | 271 | 278  | 285    | 271 | 276  | 306       | 291 | 296  |
| 9        | 227 | 209 | 217  | 291   | 273 | 281  | 281    | 273 | 277  | 306       | 293 | 301  |
| 10       | 222 | 196 | 210  | 291   | 273 | 282  | 285    | 272 | 277  | 311       | 297 | 302  |
| 11       | 213 | 190 | 205  | 288   | 273 | 281  | 280    | 272 | 276  | 304       | 294 | 300  |
| 12       | 227 | 196 | 207  | 286   | 269 | 277  | 282    | 271 | 276  | 306       | 291 | 296  |
| 13       | 253 | 229 | 240  | 285   | 267 | 273  | 294    | 272 | 275  | 305       | 296 | 299  |
| 14       | 239 | 228 | 233  | 295   | 279 | 288  | 282    | 275 | 279  | 302       | 286 | 296  |
| 15       | 239 | 227 | 233  | 302   | 282 | 293  | 284    | 277 | 280  | 298       | 283 | 290  |
| 16       | 241 | 226 | 230  | 295   | 275 | 286  | 288    | 277 | 281  | 295       | 283 | 289  |
| 17       | 248 | 224 | 234  | 292   | 273 | 282  | 293    | 281 | 288  | 297       | 287 | 293  |
| 18       | 257 | 230 | 239  | 291   | 279 | 285  | 292    | 277 | 283  | 302       | 290 | 297  |
| 19       | 255 | 229 | 240  | 289   | 257 | 273  | 295    | 277 | 286  | 302       | 291 | 296  |
| 20       | 265 | 231 | 244  | 265   | 251 | 258  | 297    | 277 | 285  | 301       | 291 | 295  |
| 21       | 248 | 229 | 240  | 262   | 246 | 252  | 293    | 279 | 286  | 297       | 287 | 292  |
| 22       | 255 | 238 | 247  | 269   | 252 | 259  | 291    | 277 | 285  | 297       | 289 | 291  |
| 23       | 261 | 247 | 253  | 283   | 259 | 266  | 294    | 277 | 286  | 296       | 290 | 292  |
| 24       | 256 | 243 | 250  | 283   | 265 | 271  | 283    | 275 | 279  | 299       | 291 | 295  |
| 25       | 262 | 250 | 257  | 281   | 263 | 272  | 284    | 277 | 280  | 300       | 291 | 295  |
| 26       | 268 | 255 | 261  | 279   | 267 | 273  | 279    | 276 | 277  | 297       | 292 | 294  |
| 27       | 271 | 257 | 263  | 283   | 260 | 273  | 279    | 261 | 275  | ---       | --- | ---  |
| 28       | 277 | 260 | 267  | 277   | 265 | 271  | 278    | 271 | 275  | ---       | --- | ---  |
| 29       | 272 | 255 | 262  | 277   | 261 | 268  | 286    | 275 | 281  | ---       | --- | ---  |
| 30       | 273 | 253 | 263  | 271   | 257 | 265  | 293    | 279 | 285  | ---       | --- | ---  |
| 31       | --- | --- | ---  | 271   | 249 | 261  | 295    | 285 | 289  | ---       | --- | ---  |
| MONTH    | 293 | 190 | 235  | 302   | 246 | 273  | 297    | 261 | 281  | 311       | 280 | 294  |
| YEAR     | 528 | 175 | 258  |       |     |      |        |     |      |           |     |      |

01105730 INDIAN HEAD RIVER AT HANOVER, MASS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

[illegible]

## 01105870 JONES RIVER AT KINGSTON, MASS.

LOCATION.--Lat 41°59'27", long 70°44'03", Plymouth County, two-parameter monitor at gaging station on left bank 100 ft downstream from Elm Street Bridge, at Kingston, 2.8 miles upstream from mouth.

DRAINAGE AREA.--15.8 sq mi, excludes 4.09 sq mi above outlet of Silver Lake, from which flow is diverted for municipal supply of Brockton and Whitman.

PERIOD OF RECORD.--Chemical analyses: November 1969 to September 1971 (discontinued).  
Water temperatures: November 1969 to September 1971 (discontinued).

EXTREMES.--1970-71:

Water temperatures: Maximum, 24.0° C Aug. 2, 3; minimum, freezing point Feb. 10.

Period of record:

Specific conductance: Maximum, 354 micromhos Feb. 5, 1971; minimum, 56 micromhos Feb. 4, 1970.

Water temperatures: Maximum, 25.0° C June 25, July 31, Aug. 2, 1970; minimum freezing point on many days during winter periods.

REMARKS.--Additional chemical analyses for this station in table of samples collected at miscellaneous sites.

## SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|---------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | 105     | 99  | 102  | 109      | 104 | 107  | 100      | 95  | 96   | 106     | 103 | 104  |
| 2     | 106     | 98  | 101  | 106      | 95  | 103  | 97       | 96  | 97   | 107     | 102 | 104  |
| 3     | 108     | 99  | 104  | 96       | 88  | 90   | 98       | 96  | 97   | 107     | 103 | 105  |
| 4     | 107     | 97  | 100  | 94       | 88  | 91   | 98       | 96  | 97   | 111     | 103 | 107  |
| 5     | 100     | 97  | 99   | 91       | 89  | 90   | 97       | 95  | 96   | 121     | 106 | 112  |
| 6     | 102     | 97  | 99   | 90       | 90  | 90   | 126      | 94  | 99   | 106     | 104 | 105  |
| 7     | 102     | 98  | 100  | 90       | 89  | 90   | 96       | 93  | 94   | 107     | 104 | 105  |
| 8     | 104     | 99  | 102  | 89       | 88  | 89   | 102      | 97  | 100  | 93      | 90  | 91   |
| 9     | 107     | 102 | 104  | 91       | 88  | 89   | 102      | 98  | 100  | 93      | 90  | 91   |
| 10    | 104     | 102 | 102  | 90       | 89  | 89   | 100      | 96  | 99   | 92      | 90  | 91   |
| 11    | 107     | 102 | 105  | 89       | 88  | 88   | 101      | 97  | 98   | 92      | 91  | 91   |
| 12    | 115     | 105 | 108  | 90       | 89  | 89   | 121      | 97  | 102  | 93      | 91  | 92   |
| 13    | 108     | 105 | 107  | 91       | 84  | 88   | 105      | 96  | 99   | 93      | 91  | 92   |
| 14    | 114     | 106 | 110  | 85       | 81  | 83   | 100      | 96  | 97   | 101     | 94  | 97   |
| 15    | 115     | 111 | 113  | 83       | 81  | 82   | 100      | 96  | 97   | 98      | 95  | 96   |
| 16    | 111     | 100 | 103  | 86       | 82  | 84   | 99       | 96  | 97   | 98      | 96  | 96   |
| 17    | 105     | 99  | 101  | 83       | 82  | 83   | 158      | 97  | 115  | 99      | 97  | 98   |
| 18    | 124     | 106 | 112  | 84       | 83  | 83   | 108      | 103 | 105  | 113     | 99  | 102  |
| 19    | 121     | 110 | 115  | 89       | 84  | 87   | 103      | 98  | 100  | 110     | 100 | 103  |
| 20    | 111     | 106 | 107  | 91       | 87  | 90   | 99       | 96  | 97   | 103     | 102 | 103  |
| 21    | 119     | 111 | 116  | 91       | 88  | 90   | 97       | 95  | 96   | 109     | 102 | 105  |
| 22    | 119     | 110 | 116  | 91       | 90  | 91   | 100      | 95  | 97   | 111     | 103 | 105  |
| 23    | 110     | 100 | 105  | 92       | 92  | 92   | 98       | 96  | 97   | 109     | 102 | 103  |
| 24    | 116     | 107 | 110  | 93       | 91  | 91   | 129      | 96  | 113  | 111     | 104 | 107  |
| 25    | 121     | 117 | 119  | 91       | 90  | 91   | 110      | 104 | 107  | 113     | 105 | 108  |
| 26    | 126     | 119 | 123  | 92       | 88  | 90   | 107      | 98  | 103  | 140     | 105 | 114  |
| 27    | 123     | 118 | 119  | 94       | 91  | 92   | 104      | 99  | 101  | 120     | 105 | 112  |
| 28    | 118     | 107 | 112  | 99       | 93  | 94   | 105      | 100 | 102  | 115     | 107 | 109  |
| 29    | 112     | 110 | 111  | 94       | 93  | 93   | 103      | 102 | 102  | 113     | 108 | 111  |
| 30    | 111     | 109 | 110  | 97       | 94  | 95   | 104      | 102 | 103  | 171     | 108 | 132  |
| 31    | 116     | 111 | 113  | ---      | --- | ---  | 105      | 103 | 104  | 139     | 117 | 130  |
| MONTH | 126     | 97  | 108  | 109      | 81  | 90   | 158      | 93  | 100  | 171     | 90  | 104  |



SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| FEBRUARY |     |     |      | MARCH |     |      | APRIL  |     |      | MAY       |     |      |
|----------|-----|-----|------|-------|-----|------|--------|-----|------|-----------|-----|------|
| DAY      | MAX | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | 134 | 110 | 118  | 78    | 74  | 76   | 84     | 80  | 82   | 86        | 84  | 85   |
| 2        | 114 | 109 | 111  | 74    | 72  | 73   | 82     | 77  | 80   | 86        | 82  | 84   |
| 3        | 120 | 109 | 113  | 75    | 73  | 74   | 77     | 74  | 76   | 82        | 81  | 82   |
| 4        | 117 | 112 | 114  | 82    | 73  | 78   | 77     | 74  | 75   | 85        | 82  | 86   |
| 5        | 354 | 112 | 195  | 79    | 75  | 76   | 86     | 74  | 77   | 87        | 83  | 85   |
| 6        | 223 | 155 | 199  | ---   | --- | ---  | 85     | 83  | 84   | 85        | 75  | 81   |
| 7        | 194 | 134 | 157  | ---   | --- | ---  | 84     | 80  | 83   | 84        | 75  | 80   |
| 8        | 139 | 105 | 120  | 78    | 74  | 76   | 84     | 75  | 81   | 81        | 79  | 80   |
| 9        | 102 | 94  | 98   | 77    | 70  | 73   | 85     | 79  | 82   | 75        | 77  | 75   |
| 10       | 109 | 96  | 100  | 77    | 71  | 74   | 81     | 75  | 80   | 77        | 75  | 75   |
| 11       | 102 | 98  | 99   | 75    | 72  | 73   | 80     | 78  | 79   | 78        | 74  | 76   |
| 12       | 101 | 97  | 99   | 78    | 71  | 74   | 89     | 80  | 82   | 76        | 74  | 75   |
| 13       | 101 | 80  | 95   | 77    | 71  | 75   | 86     | 82  | 83   | 82        | 75  | 76   |
| 14       | 80  | 74  | 76   | 76    | 69  | 71   | 86     | 82  | 83   | 78        | 76  | 77   |
| 15       | 84  | 79  | 82   | 79    | 69  | 74   | 84     | 81  | 83   | 78        | 76  | 77   |
| 16       | 84  | 81  | 82   | 80    | 76  | 78   | 90     | 82  | 84   | 77        | 74  | 76   |
| 17       | 89  | 83  | 85   | 77    | 74  | 76   | 87     | 83  | 84   | 75        | 73  | 74   |
| 18       | 86  | 84  | 85   | 77    | 73  | 75   | 89     | 84  | 86   | 77        | 74  | 75   |
| 19       | 86  | 84  | 85   | 76    | 73  | 74   | 90     | 86  | 88   | 80        | 75  | 75   |
| 20       | 86  | 85  | 85   | 73    | 71  | 72   | 89     | 86  | 87   | 80        | 75  | 76   |
| 21       | 85  | 84  | 85   | 72    | 70  | 71   | 95     | 88  | 90   | 77        | 76  | 76   |
| 22       | 86  | 84  | 85   | 75    | 70  | 73   | 92     | 88  | 89   | 78        | 76  | 77   |
| 23       | 84  | 83  | 84   | 77    | 71  | 74   | 96     | 89  | 91   | 78        | 77  | 78   |
| 24       | 83  | 82  | 82   | 74    | 70  | 72   | 94     | 86  | 89   | 109       | 77  | 80   |
| 25       | 84  | 82  | 83   | 76    | 71  | 73   | 103    | 95  | 97   | 96        | 79  | 81   |
| 26       | 85  | 81  | 82   | 76    | 71  | 73   | 97     | 94  | 95   | 85        | 82  | 83   |
| 27       | 82  | 78  | 80   | 73    | 71  | 72   | 97     | 86  | 92   | 85        | 83  | 84   |
| 28       | 78  | 76  | 77   | 75    | 71  | 72   | 88     | 85  | 87   | 85        | 83  | 84   |
| 29       | --- | --- | ---  | 84    | 71  | 75   | 90     | 86  | 87   | 87        | 83  | 84   |
| 30       | --- | --- | ---  | 86    | 82  | 83   | 90     | 84  | 85   | 85        | 82  | 84   |
| 31       | --- | --- | ---  | 88    | 80  | 82   | ---    | --- | ---  | 82        | 80  | 80   |
| MONTH    | 354 | 74  | 102  | 88    | 69  | 75   | 103    | 74  | 85   | 109       | 73  | 80   |
| JUNE     |     |     |      | JULY  |     |      | AUGUST |     |      | SEPTEMBER |     |      |
| DAY      | MAX | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | 82  | 78  | 80   | 101   | 98  | 99   | 98     | 96  | 97   | 104       | 101 | 103  |
| 2        | 80  | 76  | 78   | 102   | 97  | 99   | 98     | 97  | 98   | 104       | 101 | 103  |
| 3        | 81  | 76  | 79   | 98    | 97  | 97   | 99     | 97  | 98   | 105       | 103 | 104  |
| 4        | 86  | 80  | 82   | 99    | 96  | 97   | 100    | 91  | 95   | 106       | 103 | 105  |
| 5        | 83  | 81  | 82   | 99    | 97  | 98   | 94     | 91  | 92   | 106       | 105 | 106  |
| 6        | 86  | 82  | 84   | 102   | 98  | 100  | 99     | 95  | 97   | 109       | 106 | 108  |
| 7        | 90  | 86  | 88   | 110   | 102 | 107  | 98     | 96  | 97   | 109       | 107 | 107  |
| 8        | 91  | 88  | 89   | 109   | 105 | 107  | 99     | 97  | 98   | 111       | 107 | 109  |
| 9        | 89  | 88  | 88   | 110   | 106 | 108  | 99     | 98  | 98   | 109       | 103 | 106  |
| 10       | 96  | 87  | 89   | 107   | 105 | 106  | 106    | 98  | 101  | 107       | 103 | 105  |
| 11       | 94  | 88  | 89   | 106   | 102 | 103  | 99     | 97  | 99   | 116       | 104 | 110  |
| 12       | 89  | 88  | 88   | 104   | 102 | 103  | 99     | 96  | 97   | 110       | 107 | 108  |
| 13       | 90  | 88  | 89   | 109   | 104 | 107  | 98     | 95  | 97   | 110       | 106 | 108  |
| 14       | 92  | 85  | 91   | 107   | 103 | 106  | 97     | 95  | 96   | 109       | 105 | 107  |
| 15       | 91  | 88  | 89   | 112   | 103 | 108  | 96     | 96  | 96   | 110       | 106 | 107  |
| 16       | 94  | 88  | 89   | 125   | 104 | 114  | 98     | 96  | 97   | 109       | 106 | 107  |
| 17       | 94  | 90  | 92   | 123   | 102 | 109  | 100    | 97  | 99   | 118       | 106 | 114  |
| 18       | 58  | 92  | 94   | 107   | 99  | 102  | 103    | 99  | 100  | 120       | 106 | 112  |
| 19       | 94  | 92  | 92   | 99    | 90  | 96   | 108    | 99  | 104  | 111       | 106 | 108  |
| 20       | 94  | 92  | 93   | 96    | 91  | 93   | 130    | 80  | 95   | 109       | 105 | 107  |
| 21       | 97  | 94  | 95   | 104   | 92  | 99   | 96     | 81  | 88   | 114       | 104 | 108  |
| 22       | 102 | 96  | 99   | 103   | 100 | 102  | 102    | 96  | 99   | 107       | 103 | 105  |
| 23       | 104 | 97  | 100  | 99    | 98  | 98   | 104    | 102 | 103  | 106       | 103 | 105  |
| 24       | 101 | 97  | 99   | 98    | 97  | 98   | 103    | 100 | 101  | 107       | 102 | 105  |
| 25       | 99  | 96  | 97   | 98    | 97  | 98   | 103    | 99  | 101  | 103       | 100 | 101  |
| 26       | 98  | 96  | 97   | 99    | 97  | 98   | 100    | 96  | 97   | 102       | 100 | 101  |
| 27       | 97  | 95  | 96   | 99    | 98  | 99   | 98     | 94  | 96   | 101       | 98  | 99   |
| 28       | 97  | 95  | 96   | 98    | 97  | 98   | 99     | 95  | 97   | 103       | 97  | 100  |
| 29       | 108 | 95  | 100  | 99    | 97  | 98   | 100    | 97  | 98   | 108       | 100 | 104  |
| 30       | 101 | 99  | 100  | 100   | 94  | 98   | 101    | 98  | 99   | 107       | 104 | 105  |
| 31       | --- | --- | ---  | 98    | 96  | 97   | 102    | 101 | 102  | ---       | --- | ---  |
| MONTH    | 108 | 76  | 91   | 125   | 90  | 101  | 130    | 80  | 98   | 120       | 97  | 106  |
| YEAR     | 354 | 69  | 95   |       |     |      |        |     |      |           |     |      |

01105870 JONES RIVER AT KINGSTON, MASS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

| FEBRUARY |     |     |      | MARCH |     |      | APRIL |     |      | MAY  |      |      |
|----------|-----|-----|------|-------|-----|------|-------|-----|------|------|------|------|
| DAY      | MAX | MIN | MEAN | MAX   | MIN | MEAN | MAX   | MIN | MEAN | MAX  | MIN  | MEAN |
| 1        | 1.0 | 0.5 | 1.0  | 5.5   | 3.0 | 4.0  | 8.5   | 5.5 | 7.0  | 12.0 | 7.5  | 10.0 |
| 2        | 1.0 | 0.5 | 0.5  | 4.5   | 2.5 | 4.0  | 11.0  | 7.0 | 9.0  | 12.5 | 9.5  | 11.0 |
| 3        | 1.0 | 0.5 | 1.0  | 4.0   | 2.5 | 3.5  | 10.5  | 9.5 | 10.0 | 11.5 | 10.5 | 11.0 |
| 4        | 1.5 | 0.5 | 1.0  | 3.0   | 1.5 | 2.5  | 11.0  | 7.5 | 9.5  | 10.5 | 9.5  | 10.0 |
| 5        | 1.5 | 0.5 | 1.0  | 1.5   | 1.0 | 1.0  | 10.0  | 8.0 | 9.0  | 14.5 | 8.5  | 11.0 |
| 6        | 1.5 | 0.5 | 1.0  | ---   | --- | ---  | 8.5   | 7.0 | 8.0  | 13.5 | 12.0 | 12.5 |
| 7        | 1.0 | 0.5 | 1.0  | ---   | --- | ---  | 6.5   | 4.5 | 5.5  | 15.0 | 10.5 | 13.0 |
| 8        | 1.0 | 0.5 | 1.0  | 3.5   | 2.0 | 3.0  | 8.0   | 3.5 | 5.5  | 14.0 | 12.0 | 13.0 |
| 9        | 0.5 | 0.5 | 0.5  | 3.5   | 0.5 | 2.0  | 9.0   | 4.5 | 6.5  | 12.0 | 9.5  | 10.5 |
| 10       | 0.5 | 0   | 0.5  | 4.0   | 1.0 | 2.5  | 12.0  | 7.5 | 9.5  | 10.0 | 8.5  | 9.0  |
| 11       | 1.0 | 0.5 | 0.5  | 3.0   | 1.5 | 2.0  | 10.0  | 6.5 | 8.0  | 15.5 | 8.0  | 11.5 |
| 12       | 1.5 | 0.5 | 1.0  | 5.0   | 1.0 | 2.5  | 10.5  | 6.0 | 8.0  | 17.0 | 13.5 | 15.5 |
| 13       | 1.5 | 0.5 | 1.0  | 5.5   | 3.0 | 4.0  | 12.5  | 8.5 | 10.5 | 16.0 | 14.0 | 15.0 |
| 14       | 1.0 | 0.5 | 0.5  | 5.0   | 4.0 | 4.5  | 11.5  | 8.5 | 10.5 | 17.5 | 13.5 | 15.5 |
| 15       | 1.0 | 0.5 | 0.5  | 7.5   | 4.0 | 5.0  | 9.5   | 6.5 | 8.0  | 17.0 | 13.5 | 15.0 |
| 16       | 1.0 | 0.5 | 0.5  | 10.5  | 7.0 | 8.5  | 8.0   | 6.5 | 7.0  | 15.0 | 11.5 | 13.0 |
| 17       | 1.5 | 0.5 | 0.5  | 8.5   | 6.0 | 7.0  | 9.5   | 5.5 | 7.5  | 14.0 | 11.0 | 12.0 |
| 18       | 1.5 | 0.5 | 1.0  | 7.0   | 4.0 | 5.5  | 8.0   | 7.0 | 7.0  | 17.0 | 12.0 | 14.5 |
| 19       | 2.5 | 0.5 | 1.5  | 5.0   | 3.5 | 4.5  | 9.5   | 6.5 | 8.0  | 17.5 | 14.0 | 15.5 |
| 20       | 1.5 | 1.0 | 1.5  | 5.5   | 4.0 | 5.0  | 10.0  | 7.5 | 8.5  | 18.5 | 15.0 | 17.0 |
| 21       | 1.5 | 1.0 | 1.0  | 5.0   | 3.5 | 4.5  | 12.0  | 8.5 | 10.5 | 17.5 | 16.0 | 16.5 |
| 22       | 2.0 | 1.0 | 1.5  | 7.0   | 3.0 | 5.0  | 11.0  | 9.5 | 10.5 | 16.0 | 15.0 | 15.0 |
| 23       | 2.0 | 1.5 | 1.5  | 7.0   | 4.5 | 5.5  | 10.0  | 8.0 | 9.0  | 17.5 | 13.5 | 15.5 |
| 24       | 1.5 | 0.5 | 1.0  | 6.0   | 3.5 | 5.0  | 12.5  | 7.5 | 10.0 | 17.5 | 13.5 | 15.5 |
| 25       | 1.5 | 0.5 | 1.0  | 6.0   | 2.5 | 4.5  | 11.0  | 8.5 | 9.5  | 18.5 | 15.0 | 17.0 |
| 26       | 3.5 | 0.5 | 2.0  | 5.5   | 3.0 | 4.5  | 9.0   | 7.5 | 8.5  | 19.5 | 16.5 | 18.0 |
| 27       | 3.5 | 2.5 | 3.0  | 4.5   | 3.0 | 4.0  | 11.0  | 8.0 | 9.5  | 18.0 | 16.5 | 17.0 |
| 28       | 5.0 | 3.0 | 4.0  | 5.5   | 2.0 | 4.0  | 9.5   | 8.0 | 9.0  | 16.5 | 14.5 | 16.0 |
| 29       | --- | --- | ---  | 6.0   | 4.0 | 5.5  | 8.5   | 7.0 | 7.5  | 17.5 | 14.0 | 16.0 |
| 30       | --- | --- | ---  | 7.0   | 5.0 | 6.0  | 9.0   | 6.0 | 7.5  | 16.0 | 14.0 | 15.0 |
| 31       | --- | --- | ---  | 8.0   | 5.0 | 6.5  | ---   | --- | ---  | 15.0 | 13.5 | 14.0 |
| MONTH    | 5.0 | 0   | 1.0  | 10.5  | 0.5 | 4.5  | 12.5  | 3.5 | 8.5  | 19.5 | 7.5  | 14.0 |

## TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

|       | JUNE |      |      | JULY |      |      | AUGUST |      |      | SEPTEMBER |      |      |
|-------|------|------|------|------|------|------|--------|------|------|-----------|------|------|
| DAY   | MAX  | MIN  | MEAN | MAX  | MIN  | MEAN | MAX    | MIN  | MEAN | MAX       | MIN  | MEAN |
| 1     | 18.0 | 14.0 | 16.0 | 22.5 | 20.5 | 21.5 | 23.5   | 22.0 | 23.0 | 19.5      | 17.5 | 18.5 |
| 2     | 18.5 | 14.5 | 16.5 | 22.5 | 21.5 | 22.0 | 24.0   | 22.5 | 23.0 | 17.5      | 16.5 | 17.0 |
| 3     | 17.5 | 15.5 | 16.5 | 22.0 | 20.0 | 20.5 | 24.0   | 23.0 | 23.5 | 18.0      | 16.5 | 17.0 |
| 4     | 20.0 | 16.0 | 18.0 | 20.5 | 18.5 | 19.5 | 23.5   | 20.5 | 22.0 | 19.5      | 17.5 | 18.5 |
| 5     | 20.5 | 17.5 | 18.5 | 20.5 | 18.5 | 19.5 | 22.0   | 19.0 | 20.5 | 21.0      | 19.0 | 20.0 |
| 6     | 19.0 | 16.0 | 17.5 | 22.0 | 20.5 | 21.0 | 21.0   | 18.5 | 20.0 | 21.0      | 19.5 | 20.5 |
| 7     | 21.0 | 16.5 | 18.5 | 23.0 | 21.5 | 22.0 | 20.5   | 19.0 | 20.0 | 19.5      | 18.5 | 19.0 |
| 8     | 22.0 | 19.0 | 20.5 | 22.5 | 21.0 | 22.0 | 20.5   | 18.5 | 19.5 | 20.0      | 18.5 | 19.5 |
| 9     | 21.5 | 19.0 | 20.5 | 23.0 | 21.5 | 22.0 | 22.0   | 19.5 | 20.5 | 21.0      | 20.0 | 20.5 |
| 10    | 20.5 | 17.5 | 19.0 | 23.0 | 22.0 | 22.5 | 22.5   | 21.0 | 21.5 | 21.5      | 20.0 | 21.0 |
| 11    | 19.5 | 16.5 | 18.0 | 22.0 | 20.5 | 21.5 | 23.5   | 21.5 | 22.5 | 20.5      | 19.0 | 19.5 |
| 12    | 19.5 | 16.0 | 18.0 | 21.0 | 19.5 | 20.5 | 23.0   | 21.5 | 22.0 | 19.0      | 18.5 | 19.0 |
| 13    | 19.5 | 17.5 | 18.5 | 21.0 | 19.0 | 20.0 | 21.0   | 19.5 | 20.5 | 19.5      | 19.0 | 19.0 |
| 14    | 18.5 | 17.0 | 18.0 | 21.0 | 19.5 | 20.0 | 20.0   | 18.5 | 19.5 | 19.5      | 19.0 | 19.0 |
| 15    | 18.0 | 16.0 | 17.0 | 20.5 | 19.0 | 20.0 | 20.0   | 19.0 | 19.0 | 19.0      | 18.5 | 19.0 |
| 16    | 18.5 | 16.0 | 17.0 | 21.0 | 19.0 | 20.0 | 19.5   | 17.5 | 18.5 | 19.5      | 18.0 | 19.0 |
| 17    | 19.0 | 16.5 | 18.0 | 22.0 | 20.0 | 20.5 | 19.5   | 17.5 | 18.5 | 19.5      | 19.0 | 19.5 |
| 18    | 20.0 | 17.5 | 19.0 | 22.0 | 20.0 | 21.0 | 20.5   | 18.5 | 19.5 | 19.0      | 18.5 | 19.0 |
| 19    | 20.5 | 18.0 | 19.5 | 21.0 | 19.5 | 20.0 | 21.5   | 19.0 | 20.5 | 18.5      | 18.0 | 18.0 |
| 20    | 21.0 | 19.0 | 20.0 | 20.5 | 18.5 | 19.5 | 22.0   | 20.5 | 21.0 | 18.0      | 17.5 | 17.5 |
| 21    | 21.5 | 19.5 | 20.5 | 21.5 | 18.5 | 20.0 | 22.5   | 20.0 | 21.5 | 18.0      | 17.5 | 18.0 |
| 22    | 22.5 | 21.0 | 22.0 | 21.0 | 19.5 | 20.5 | 23.0   | 20.5 | 22.0 | 17.5      | 17.0 | 17.5 |
| 23    | 22.0 | 20.0 | 21.0 | 20.5 | 18.5 | 20.0 | 22.0   | 20.0 | 21.0 | 17.0      | 15.5 | 16.0 |
| 24    | 21.0 | 19.0 | 20.0 | 21.5 | 19.5 | 20.5 | 20.0   | 17.5 | 18.5 | 17.0      | 15.5 | 16.0 |
| 25    | 21.5 | 19.5 | 20.5 | 21.5 | 20.5 | 21.0 | 18.5   | 16.5 | 17.5 | 15.5      | 13.5 | 14.5 |
| 26    | 22.0 | 20.5 | 21.5 | 21.0 | 20.0 | 21.0 | 19.0   | 17.0 | 18.0 | 14.0      | 13.0 | 13.5 |
| 27    | 21.0 | 19.5 | 20.5 | 21.5 | 20.5 | 21.0 | 18.5   | 17.5 | 17.5 | 13.0      | 12.0 | 12.5 |
| 28    | 21.0 | 19.5 | 20.5 | 22.0 | 20.0 | 21.0 | 20.0   | 17.0 | 18.5 | 14.0      | 12.5 | 13.5 |
| 29    | 20.0 | 18.0 | 18.5 | 21.5 | 20.5 | 21.0 | 21.0   | 18.5 | 20.0 | 16.0      | 14.0 | 15.0 |
| 30    | 20.5 | 18.0 | 19.0 | 22.0 | 21.0 | 21.5 | 20.5   | 19.0 | 20.0 | 17.0      | 16.0 | 16.5 |
| 31    | ---  | ---  | ---  | 23.0 | 21.0 | 22.0 | 20.5   | 19.5 | 20.0 | ---       | ---  | ---  |
| MONTH | 22.5 | 14.0 | 19.0 | 23.0 | 18.5 | 21.0 | 24.0   | 16.5 | 20.5 | 21.5      | 12.0 | 17.5 |
| YEAR  | 24.0 | 0    | 11.0 |      |      |      |        |      |      |           |      |      |

## 01105876 EEL RIVER NEAR PLYMOUTH, MASS.

LOCATION.--Lat 41°56'30", long 70°37'23", Plymouth County, two-parameter monitor at gaging station on right bank 10 ft upstream from bridge on State Highway 3A, 0.6 mile upstream from mouth, and 2.9 miles southeast of Plymouth.

DRAINAGE AREA.--14.7 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1970 to May 1971 (discontinued).  
Water temperatures: August 1970 to May 1971 (discontinued).

EXTREMES.--Period of record:

Specific conductance: Maximum, 741 micromhos Apr. 28; minimum, 35 micromhos Dec. 24.

Water temperatures: Maximum, 29.0° C Aug. 15; minimum, freezing point on several days during winter period.

REMARKS.--Additional chemical analyses for this station in table of samples collected at miscellaneous sites.

## SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), NOVEMBER 1970 TO MAY 1971

| DAY   | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | ---      | --- | ---  | 57       | 53  | 55   | 595     | 63  | 135  |
| 2     | ---      | --- | ---  | 58       | 53  | 56   | 189     | 116 | 150  |
| 3     | ---      | --- | ---  | 165      | 53  | 77   | 159     | 116 | 133  |
| 4     | ---      | --- | ---  | 76       | 65  | 69   | 157     | 112 | 126  |
| 5     | ---      | --- | ---  | 75       | 70  | 72   | 166     | 113 | 146  |
| 6     | ---      | --- | ---  | 71       | 64  | 67   | 198     | 130 | 173  |
| 7     | ---      | --- | ---  | 71       | 64  | 68   | 184     | 122 | 149  |
| 8     | ---      | --- | ---  | 66       | 58  | 62   | 185     | 133 | 162  |
| 9     | 81       | 79  | 80   | 62       | 56  | 58   | 176     | 128 | 144  |
| 10    | 82       | 77  | 75   | 60       | 56  | 57   | 134     | 111 | 123  |
| 11    | 80       | 75  | 77   | 60       | 57  | 58   | 136     | 122 | 132  |
| 12    | 83       | 77  | 80   | 56       | 50  | 54   | 205     | 131 | 151  |
| 13    | 596      | 77  | 127  | 57       | 48  | 51   | 328     | 176 | 256  |
| 14    | 110      | 81  | 90   | 58       | 54  | 56   | 170     | 130 | 138  |
| 15    | 84       | 70  | 75   | 58       | 53  | 56   | 134     | 115 | 123  |
| 16    | 74       | 69  | 72   | 57       | 51  | 54   | 278     | 128 | 217  |
| 17    | 82       | 69  | 75   | 61       | 44  | 53   | 209     | 118 | 139  |
| 18    | 76       | 69  | 72   | 61       | 57  | 60   | 115     | 106 | 111  |
| 19    | 75       | 65  | 69   | 63       | 48  | 55   | 114     | 105 | 109  |
| 20    | 72       | 61  | 65   | 50       | 46  | 48   | 116     | 105 | 112  |
| 21    | 64       | 61  | 63   | 52       | 48  | 50   | 109     | 104 | 107  |
| 22    | 72       | 62  | 66   | 53       | 46  | 51   | 126     | 110 | 118  |
| 23    | 70       | 63  | 65   | 50       | 43  | 48   | 145     | 112 | 124  |
| 24    | 65       | 63  | 64   | 61       | 35  | 48   | 148     | 125 | 136  |
| 25    | 67       | 63  | 65   | 60       | 35  | 57   | 149     | 135 | 140  |
| 26    | 67       | 63  | 65   | 439      | 55  | 110  | 583     | 140 | 240  |
| 27    | 69       | 62  | 65   | 68       | 51  | 60   | 348     | 243 | 299  |
| 28    | 66       | 63  | 64   | 67       | 56  | 62   | 367     | 205 | 289  |
| 29    | 63       | 56  | 60   | 63       | 56  | 59   | 192     | 136 | 155  |
| 30    | 56       | 54  | 55   | 66       | 60  | 62   | 352     | 127 | 225  |
| 31    | ---      | --- | ---  | 70       | 60  | 65   | 303     | 167 | 213  |
| MONTH | ---      | --- | ---  | 439      | 35  | 60   | 595     | 63  | 161  |

01105876 EEL RIVER NEAR PLYMOUTH, MASS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) NOVEMBER 1970 TO MAY 1971.--Continued

| DAY    | FEBRUARY |     |      | MARCH |     |      | APRIL |     |      | MAY |     |      |
|--------|----------|-----|------|-------|-----|------|-------|-----|------|-----|-----|------|
|        | MAX      | MIN | MEAN | MAX   | MIN | MEAN | MAX   | MIN | MEAN | MAX | MIN | MEAN |
| 1      | 164      | 130 | 142  | 140   | 93  | 110  | 647   | 611 | 628  | 527 | 283 | 338  |
| 2      | 134      | 121 | 127  | 133   | 100 | 112  | 635   | 473 | 559  | 574 | 390 | 430  |
| 3      | 127      | 120 | 124  | 138   | 122 | 132  | 607   | 398 | 523  | 579 | 392 | 481  |
| 4      | 134      | 119 | 127  | 489   | 121 | 246  | 650   | 400 | 509  | 501 | 384 | 434  |
| 5      | 233      | 137 | 153  | 196   | 120 | 161  | 653   | 291 | 475  | --- | --- | ---  |
| 6      | 293      | 213 | 257  | ---   | --- | ---  | 510   | 235 | 360  | --- | --- | ---  |
| 7      | 303      | 174 | 230  | ---   | --- | ---  | 551   | 349 | 494  | --- | --- | ---  |
| 8      | 209      | 136 | 164  | 135   | 105 | 120  | 526   | 253 | 349  | --- | --- | ---  |
| 9      | 338      | 205 | 303  | 125   | 111 | 117  | 582   | 218 | 416  | --- | --- | ---  |
| 10     | 284      | 163 | 227  | 135   | 103 | 110  | 669   | 491 | 576  | --- | --- | ---  |
| 11     | 215      | 117 | 154  | 103   | 90  | 98   | 660   | 392 | 516  | --- | --- | ---  |
| 12     | 207      | 156 | 172  | 115   | 94  | 99   | 413   | 237 | 286  | --- | --- | ---  |
| 13     | 220      | 154 | 178  | 111   | 94  | 97   | 238   | 167 | 199  | --- | --- | ---  |
| 14     | 284      | 227 | 249  | 96    | 87  | 91   | 246   | 180 | 202  | --- | --- | ---  |
| 15     | 241      | 107 | 154  | 89    | 80  | 85   | 200   | 186 | 192  | --- | --- | ---  |
| 16     | 162      | 95  | 124  | 95    | 76  | 84   | 206   | 174 | 191  | --- | --- | ---  |
| 17     | 133      | 97  | 115  | 92    | 86  | 89   | 200   | 175 | 185  | --- | --- | ---  |
| 18     | 121      | 103 | 111  | 103   | 85  | 89   | 286   | 168 | 242  | --- | --- | ---  |
| 19     | 121      | 101 | 113  | 103   | 74  | 92   | 181   | 172 | 176  | --- | --- | ---  |
| 20     | 118      | 86  | 97   | 80    | 74  | 77   | 194   | 184 | 189  | --- | --- | ---  |
| 21     | 121      | 95  | 113  | 96    | 82  | 85   | 288   | 187 | 206  | --- | --- | ---  |
| 22     | 109      | 90  | 96   | 105   | 86  | 91   | 336   | 302 | 321  | --- | --- | ---  |
| 23     | 113      | 81  | 90   | 97    | 94  | 96   | 334   | 315 | 323  | --- | --- | ---  |
| 24     | 112      | 82  | 97   | 98    | 83  | 91   | 595   | 208 | 306  | --- | --- | ---  |
| 25     | 593      | 92  | 188  | 94    | 89  | 91   | 636   | 416 | 501  | --- | --- | ---  |
| 26     | 611      | 128 | 216  | 96    | 92  | 94   | 592   | 370 | 443  | --- | --- | ---  |
| 27     | 423      | 118 | 208  | 452   | 93  | 184  | ---   | --- | ---  | --- | --- | ---  |
| 28     | 227      | 126 | 162  | ---   | --- | ---  | 741   | 433 | 643  | --- | --- | ---  |
| 29     | ---      | --- | ---  | 640   | 470 | 535  | 721   | 403 | 571  | --- | --- | ---  |
| 30     | ---      | --- | ---  | 636   | 491 | 560  | 488   | 286 | 360  | --- | --- | ---  |
| 31     | ---      | --- | ---  | ---   | --- | ---  | ---   | --- | ---  | --- | --- | ---  |
| MONTH  | 611      | 81  | 160  | 640   | 74  | 144  | 741   | 167 | 377  | --- | --- | ---  |
| PERIOD | 741      | 35  | 171  |       |     |      |       |     |      |     |     |      |

TEMPERATURE (°C) OF WATER, AUGUST 1970 TO MAY 1971

| DAY   | AUGUST |      |      | SEPTEMBER |      |      |
|-------|--------|------|------|-----------|------|------|
|       | MAX    | MIN  | MEAN | MAX       | MIN  | MEAN |
| 1     | ---    | ---  | ---  | 22.5      | 21.0 | 22.0 |
| 2     | ---    | ---  | ---  | 21.5      | 19.5 | 20.0 |
| 3     | ---    | ---  | ---  | 20.5      | 18.5 | 19.5 |
| 4     | ---    | ---  | ---  | 21.0      | 19.5 | 20.0 |
| 5     | ---    | ---  | ---  | 23.5      | 20.5 | 21.5 |
| 6     | ---    | ---  | ---  | 23.0      | 20.5 | 21.5 |
| 7     | ---    | ---  | ---  | 21.5      | 19.5 | 20.0 |
| 8     | ---    | ---  | ---  | 19.5      | 18.0 | 18.5 |
| 9     | ---    | ---  | ---  | 18.0      | 17.0 | 17.5 |
| 10    | ---    | ---  | ---  | 19.5      | 17.0 | 18.5 |
| 11    | ---    | ---  | ---  | 21.0      | 19.0 | 20.0 |
| 12    | ---    | ---  | ---  | 22.0      | 18.5 | 20.0 |
| 13    | 27.0   | 24.0 | 25.5 | 21.5      | 18.5 | 20.0 |
| 14    | 27.5   | 23.0 | 25.5 | 21.0      | 18.0 | 19.0 |
| 15    | 29.0   | 24.5 | 26.5 | 18.0      | 16.5 | 17.5 |
| 16    | 28.5   | 24.5 | 26.5 | 18.5      | 16.5 | 17.0 |
| 17    | 27.0   | 25.0 | 26.5 | 19.0      | 16.5 | 17.5 |
| 18    | 26.5   | 24.0 | 25.0 | 18.0      | 17.5 | 17.5 |
| 19    | 27.0   | 23.5 | 25.0 | 20.0      | 17.5 | 18.5 |
| 20    | 24.5   | 23.0 | 23.5 | 20.0      | 17.5 | 18.5 |
| 21    | 24.5   | 23.0 | 23.5 | 21.0      | 18.0 | 19.5 |
| 22    | 25.0   | 22.0 | 23.5 | 24.0      | 19.5 | 21.5 |
| 23    | 23.0   | 22.0 | 22.5 | 25.0      | 22.0 | 23.5 |
| 24    | 24.0   | 21.5 | 22.5 | 24.5      | 23.0 | 24.0 |
| 25    | 24.0   | 21.0 | 22.5 | 25.0      | 22.5 | 24.0 |
| 26    | 24.5   | 21.5 | 23.0 | 25.5      | 24.0 | 24.5 |
| 27    | 25.5   | 22.5 | 24.0 | 25.0      | 23.5 | 24.0 |
| 28    | 25.5   | 22.5 | 24.0 | 23.5      | 20.0 | 22.0 |
| 29    | 25.0   | 23.0 | 24.0 | 20.5      | 19.0 | 19.5 |
| 30    | 24.5   | 22.5 | 23.5 | 19.0      | 17.5 | 18.0 |
| 31    | 25.0   | 22.5 | 23.5 | ---       | ---  | ---  |
| MONTH | ---    | ---  | ---  | 25.5      | 16.5 | 20.0 |

01105876 EEL RIVER NEAR PLYMOUTH, MASS.--Continued

TEMPERATURE (°C) OF WATER, AUGUST 1970 TO MAY 1971.--Continued

| OCTOBER  |      |      |      | NOVEMBER |      |      | DECEMBER |      |      | JANUARY |      |      |
|----------|------|------|------|----------|------|------|----------|------|------|---------|------|------|
| DAY      | MAX  | MIN  | MEAN | MAX      | MIN  | MEAN | MAX      | MIN  | MEAN | MAX     | MIN  | MEAN |
| 1        | 18.0 | 16.5 | 17.0 | ---      | ---  | ---  | 7.5      | 6.0  | 6.5  | 1.5     | 0.0  | 1.0  |
| 2        | 27.5 | 15.0 | 16.5 | ---      | ---  | ---  | 8.0      | 6.0  | 7.0  | 1.0     | 0.5  | 1.0  |
| 3        | 19.0 | 16.0 | 17.5 | ---      | ---  | ---  | 7.0      | 5.5  | 6.5  | 1.5     | 1.0  | 1.0  |
| 4        | 18.5 | 17.0 | 17.5 | ---      | ---  | ---  | 8.0      | 5.0  | 7.0  | 2.0     | 1.0  | 1.5  |
| 5        | 18.0 | 15.5 | 16.5 | ---      | ---  | ---  | 5.0      | 2.5  | 3.5  | 2.0     | 1.5  | 2.0  |
| 6        | 16.0 | 14.5 | 15.0 | ---      | ---  | ---  | 3.0      | 1.5  | 2.0  | 4.0     | 1.5  | 3.0  |
| 7        | ---  | ---  | ---  | ---      | ---  | ---  | 1.0      | 0.0  | 0.0  | 3.5     | 2.5  | 3.0  |
| 8        | ---  | ---  | ---  | ---      | ---  | ---  | 0.0      | 0.0  | 0.0  | 3.0     | 2.5  | 2.5  |
| 9        | ---  | ---  | ---  | 9.5      | 8.5  | 9.0  | 1.0      | 0.0  | 1.0  | 3.0     | 2.5  | 2.5  |
| 10       | ---  | ---  | ---  | 9.5      | 8.5  | 9.0  | 2.5      | 1.5  | 2.0  | 3.5     | 2.5  | 3.0  |
| 11       | ---  | ---  | ---  | 11.5     | 9.0  | 10.5 | 2.0      | 1.5  | 1.5  | 4.0     | 3.5  | 3.5  |
| 12       | ---  | ---  | ---  | 11.5     | 10.5 | 11.0 | 1.5      | 1.5  | 1.5  | 4.5     | 3.0  | 4.0  |
| 13       | ---  | ---  | ---  | 10.5     | 10.0 | 10.5 | 1.5      | 1.5  | 1.5  | 3.0     | 2.0  | 2.0  |
| 14       | ---  | ---  | ---  | 10.0     | 9.0  | 9.5  | 2.0      | 1.5  | 2.0  | 2.5     | 2.0  | 2.5  |
| 15       | ---  | ---  | ---  | 9.0      | 8.5  | 9.0  | 2.0      | 1.0  | 1.5  | 2.5     | 2.0  | 2.5  |
| 16       | ---  | ---  | ---  | 9.0      | 8.0  | 8.5  | 1.5      | 0.5  | 1.5  | 2.0     | 1.5  | 1.5  |
| 17       | ---  | ---  | ---  | 8.0      | 6.5  | 7.5  | 2.0      | 1.5  | 1.5  | 2.0     | 2.5  | 1.5  |
| 18       | ---  | ---  | ---  | 7.0      | 5.5  | 6.5  | 2.0      | 1.5  | 2.0  | 2.0     | 1.5  | 1.5  |
| 19       | ---  | ---  | ---  | 7.5      | 6.5  | 7.0  | 2.0      | 1.0  | 1.5  | 2.0     | 1.5  | 1.5  |
| 20       | ---  | ---  | ---  | 9.5      | 7.5  | 8.5  | 3.0      | 2.0  | 2.5  | 2.0     | 1.5  | 1.5  |
| 21       | ---  | ---  | ---  | 10.0     | 9.0  | 9.5  | 2.5      | 1.0  | 1.5  | 2.0     | 1.5  | 1.5  |
| 22       | ---  | ---  | ---  | 9.0      | 7.5  | 8.5  | 1.0      | 0.0  | 0.5  | 2.0     | 1.5  | 2.0  |
| 23       | ---  | ---  | ---  | 9.0      | 8.0  | 8.5  | 1.0      | 0.5  | 0.5  | 2.5     | 2.0  | 2.0  |
| 24       | ---  | ---  | ---  | 8.0      | 5.0  | 7.0  | 1.5      | 1.0  | 1.0  | 2.5     | 2.0  | 2.5  |
| 25       | ---  | ---  | ---  | 5.0      | 2.5  | 4.0  | 1.0      | 0.5  | 0.5  | 3.0     | 2.5  | 2.5  |
| 26       | ---  | ---  | ---  | 3.5      | 1.0  | 2.5  | 1.0      | 0.0  | 0.5  | 3.5     | 0.5  | 3.0  |
| 27       | ---  | ---  | ---  | 4.5      | 2.0  | 3.5  | 0        | 0.0  | 0    | 3.0     | 1.5  | 2.0  |
| 28       | ---  | ---  | ---  | 5.5      | 3.5  | 5.0  | 0.5      | 0.0  | 0.5  | 1.5     | 1.0  | 1.5  |
| 29       | ---  | ---  | ---  | 6.0      | 5.5  | 6.0  | 1.0      | 0.5  | 0.5  | 2.5     | 1.5  | 2.0  |
| 30       | ---  | ---  | ---  | 7.5      | 6.0  | 6.5  | 1.0      | 0.5  | 0.5  | 3.0     | 2.0  | 2.5  |
| 31       | ---  | ---  | ---  | ---      | ---  | ---  | 1.0      | 0.5  | 0.5  | 2.5     | 2.0  | 2.0  |
| MONTH    | ---  | ---  | ---  | ---      | ---  | ---  | 8.0      | 0    | 2.0  | 4.5     | 0    | 2.0  |
|          |      |      |      |          |      |      |          |      |      |         |      |      |
| FEBRUARY |      |      |      | MARCH    |      |      | APRIL    |      |      | MAY     |      |      |
| DAY      | MAX  | MIN  | MEAN | MAX      | MIN  | MEAN | MAX      | MIN  | MEAN | MAX     | MIN  | MEAN |
| 1        | 2.0  | 1.5  | 1.5  | 7.5      | 5.5  | 6.0  | 9.0      | 4.5  | 6.5  | 13.5    | 9.0  | 11.5 |
| 2        | 2.0  | 1.5  | 1.5  | 7.5      | 5.5  | 6.5  | 11.0     | 6.0  | 8.5  | 14.5    | 11.5 | 13.0 |
| 3        | 2.0  | 1.5  | 1.5  | 7.0      | 5.0  | 6.0  | 12.5     | 8.5  | 9.5  | 13.0    | 10.5 | 12.0 |
| 4        | 2.0  | 1.0  | 1.5  | 5.5      | 3.5  | 5.0  | 11.5     | 7.0  | 9.0  | 12.0    | 10.0 | 11.0 |
| 5        | 2.0  | 1.0  | 1.5  | 3.5      | 2.5  | 3.0  | 10.0     | 7.5  | 8.5  | ---     | ---  | ---  |
| 6        | 2.5  | 1.5  | 2.0  | ---      | ---  | ---  | 8.5      | 6.0  | 8.0  | ---     | ---  | ---  |
| 7        | 3.0  | 2.0  | 2.5  | ---      | ---  | ---  | 6.0      | 4.0  | 5.0  | ---     | ---  | ---  |
| 8        | 3.0  | 1.5  | 2.0  | 8.0      | 6.0  | 7.0  | 6.5      | 3.5  | 5.0  | ---     | ---  | ---  |
| 9        | 2.0  | 1.5  | 1.5  | 8.5      | 5.0  | 6.5  | 8.5      | 4.0  | 6.0  | ---     | ---  | ---  |
| 10       | 2.5  | 1.5  | 2.0  | 8.0      | 5.0  | 6.5  | 12.5     | 7.5  | 9.5  | ---     | ---  | ---  |
| 11       | 3.0  | 1.5  | 2.0  | 7.0      | 5.5  | 6.0  | 10.0     | 7.0  | 8.5  | ---     | ---  | ---  |
| 12       | 3.5  | 2.5  | 3.0  | 7.5      | 4.5  | 6.0  | 9.5      | 6.5  | 8.0  | ---     | ---  | ---  |
| 13       | 4.0  | 3.5  | 3.5  | 8.5      | 5.5  | 7.0  | 13.0     | 3.5  | 10.5 | ---     | ---  | ---  |
| 14       | 4.0  | 2.5  | 3.5  | 8.0      | 7.0  | 7.5  | 11.0     | 9.5  | 10.5 | ---     | ---  | ---  |
| 15       | 2.5  | 1.5  | 2.0  | 10.0     | 6.5  | 8.0  | 10.0     | 7.5  | 9.0  | ---     | ---  | ---  |
| 16       | 3.5  | 1.5  | 2.5  | 12.0     | 8.5  | 10.0 | 8.5      | 6.5  | 7.5  | ---     | ---  | ---  |
| 17       | 4.0  | 2.5  | 3.0  | 10.5     | 8.5  | 9.5  | 9.0      | 6.0  | 7.5  | ---     | ---  | ---  |
| 18       | 4.0  | 3.5  | 3.5  | 8.0      | 6.0  | 7.0  | 7.5      | 6.5  | 7.0  | ---     | ---  | ---  |
| 19       | 5.0  | 4.0  | 4.5  | 7.5      | 5.0  | 5.5  | 8.5      | 6.5  | 7.5  | ---     | ---  | ---  |
| 20       | 4.5  | 3.5  | 4.0  | 6.5      | 5.0  | 5.5  | 9.0      | 7.5  | 8.0  | ---     | ---  | ---  |
| 21       | 3.5  | 2.5  | 3.0  | 8.0      | 4.5  | 5.5  | 12.0     | 8.0  | 10.0 | ---     | ---  | ---  |
| 22       | 3.0  | 2.5  | 3.0  | 8.0      | 3.5  | 5.0  | 11.0     | 9.5  | 10.5 | ---     | ---  | ---  |
| 23       | 3.5  | 2.5  | 3.0  | 7.0      | 5.0  | 6.0  | 10.0     | 8.5  | 9.5  | ---     | ---  | ---  |
| 24       | 2.5  | 2.0  | 2.0  | 6.5      | 4.0  | 5.5  | 13.5     | 8.0  | 10.5 | ---     | ---  | ---  |
| 25       | 4.0  | 1.0  | 1.5  | 6.0      | 3.5  | 5.0  | 11.0     | 7.5  | 10.0 | ---     | ---  | ---  |
| 26       | 5.0  | 2.0  | 3.5  | 6.5      | 3.0  | 5.0  | 10.5     | 8.5  | 9.5  | ---     | ---  | ---  |
| 27       | 5.5  | 3.5  | 4.5  | 4.5      | 0.5  | 3.5  | 12.5     | 8.0  | 11.0 | ---     | ---  | ---  |
| 28       | 6.5  | 5.5  | 6.0  | 5.0      | 0.5  | 3.0  | 12.5     | 10.0 | 11.5 | ---     | ---  | ---  |
| 29       | ---  | ---  | ---  | 6.0      | 2.0  | 4.5  | 11.0     | 8.0  | 9.5  | ---     | ---  | ---  |
| 30       | ---  | ---  | ---  | 8.0      | 4.0  | 6.0  | 10.5     | 7.5  | 8.5  | ---     | ---  | ---  |
| 31       | ---  | ---  | ---  | 9.0      | 4.5  | 6.5  | ---      | ---  | ---  | ---     | ---  | ---  |
| MONTH    | 6.5  | 1.0  | 2.5  | 12.0     | 0.5  | 6.0  | 13.5     | 3.5  | 8.5  | ---     | ---  | ---  |
| PERIOD   | 29.0 | 0    | ---  |          |      |      |          |      |      |         |      |      |



01105895 WEWEANTIC RIVER AT SOUTH WAREHAM, MASS.

LOCATION.--Lat 41°46'12", long 70°45'18" Plymouth County, two-parameter monitor at gaging station on left bank at upstream side of bridge on Squire Island Road at South Wareham and 0.2 mile upstream from Horseshoe Pond.

DRAINAGE AREA.--56.1 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1970 to September 1971 (discontinued).  
Water temperatures: August 1970 to September 1971 (discontinued).

EXTREMES.--August to September 1970:

Specific conductance: Maximum, 89 micromhos Sept. 15; minimum, 62 micromhos Aug. 23.

Water temperatures: Maximum, 24.0° C Aug. 16, 17; minimum, 14.5° C Sept. 13, 15, 16.

October 1970 to September 1971:

Specific conductance: Maximum, 437 micromhos Jan. 30; minimum, 44 micromhos Mar. 21, 22, 24, 25, 29.

Water temperatures: Maximum, 25.0° C July 24; minimum, 1.5° C Feb. 10, 11.

REMARKS.--Additional chemical analyses for this station in table of samples collected at miscellaneous sites. Temperature probe not operating Jan. 7 to Feb. 9, Feb. 26 to Mar. 7.

## SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), AUGUST TO SEPTEMBER 1970

| DAY   | AUGUST |     |      | SEPTEMBER |     |      |
|-------|--------|-----|------|-----------|-----|------|
|       | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1     | ---    | --- | ---  | 68        | 65  | 66   |
| 2     | ---    | --- | ---  | 67        | 65  | 66   |
| 3     | ---    | --- | ---  | 69        | 66  | 67   |
| 4     | ---    | --- | ---  | 73        | 66  | 68   |
| 5     | ---    | --- | ---  | 70        | 66  | 68   |
| 6     | ---    | --- | ---  | 69        | 67  | 68   |
| 7     | ---    | --- | ---  | 70        | 67  | 68   |
| 8     | ---    | --- | ---  | 69        | 67  | 68   |
| 9     | ---    | --- | ---  | 69        | 67  | 68   |
| 10    | ---    | --- | ---  | 70        | 66  | 68   |
| 11    | ---    | --- | ---  | 73        | 67  | 70   |
| 12    | ---    | --- | ---  | 71        | 68  | 69   |
| 13    | 69     | 65  | 66   | 72        | 69  | 71   |
| 14    | 68     | 64  | 66   | 74        | 70  | 71   |
| 15    | 67     | 65  | 66   | 89        | 72  | 78   |
| 16    | 68     | 65  | 67   | 84        | 71  | 79   |
| 17    | 69     | 65  | 67   | 79        | 71  | 74   |
| 18    | 68     | 66  | 67   | 75        | 70  | 72   |
| 19    | 68     | 66  | 67   | 81        | 73  | 77   |
| 20    | 68     | 65  | 67   | 75        | 71  | 73   |
| 21    | 81     | 64  | 73   | 76        | 71  | 72   |
| 22    | 77     | 66  | 69   | 76        | 71  | 73   |
| 23    | 66     | 62  | 65   | 74        | 70  | 72   |
| 24    | 69     | 63  | 65   | 73        | 71  | 71   |
| 25    | 67     | 63  | 65   | 73        | 71  | 72   |
| 26    | 66     | 63  | 65   | 73        | 71  | 72   |
| 27    | 66     | 64  | 65   | 78        | 71  | 73   |
| 28    | 66     | 64  | 65   | 87        | 77  | 80   |
| 29    | 70     | 64  | 65   | 87        | 76  | 79   |
| 30    | 66     | 64  | 66   | 82        | 74  | 77   |
| 31    | 69     | 64  | 66   | ---       | --- | ---  |
| MONTH | ---    | --- | ---  | 89        | 65  | 72   |
| YEAR  | 89     | 62  | 70   |           |     |      |

## WEWEANTIC RIVER BASIN

01105895 WEWEANTIC RIVER AT SOUTH WAREHAM, MASS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|---------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | 80      | 75  | 77   | 77       | 73  | 76   | 74       | 71  | 72   | 102     | 80  | 87   |
| 2     | 81      | 76  | 78   | 77       | 73  | 75   | 76       | 71  | 73   | 88      | 83  | 85   |
| 3     | 87      | 77  | 80   | 76       | 69  | 73   | 73       | 70  | 71   | 98      | 87  | 93   |
| 4     | 113     | 82  | 93   | 68       | 64  | 66   | 78       | 69  | 73   | 90      | 78  | 84   |
| 5     | 102     | 83  | 93   | 67       | 63  | 65   | 126      | 69  | 73   | 130     | 80  | 96   |
| 6     | 85      | 78  | 81   | 69       | 65  | 67   | 73       | 69  | 71   | 82      | 75  | 78   |
| 7     | 79      | 76  | 78   | 70       | 62  | 66   | 113      | 71  | 81   | 60      | 54  | 55   |
| 8     | 80      | 75  | 77   | 69       | 67  | 68   | 116      | 77  | 88   | 94      | 54  | 63   |
| 9     | 90      | 77  | 78   | 69       | 66  | 68   | 96       | 75  | 82   | 82      | 60  | 62   |
| 10    | 78      | 75  | 77   | 69       | 64  | 65   | 81       | 73  | 67   | 63      | 60  | 62   |
| 11    | 79      | 74  | 77   | 73       | 68  | 70   | 99       | 77  | 82   | 66      | 62  | 64   |
| 12    | 81      | 74  | 76   | 77       | 71  | 73   | 80       | 78  | 79   | 68      | 63  | 65   |
| 13    | 79      | 71  | 74   | 76       | 72  | 73   | 80       | 76  | 78   | 94      | 67  | 72   |
| 14    | 77      | 70  | 74   | 75       | 70  | 72   | 85       | 79  | 82   | 101     | 66  | 69   |
| 15    | 82      | 73  | 79   | 70       | 62  | 67   | 106      | 81  | 86   | 89      | 66  | 72   |
| 16    | 78      | 71  | 74   | 63       | 58  | 60   | 107      | 82  | 90   | 111     | 67  | 72   |
| 17    | 75      | 71  | 72   | 64       | 59  | 61   | 165      | 77  | 96   | 108     | 73  | 81   |
| 18    | 74      | 71  | 73   | 65       | 60  | 63   | 84       | 78  | 81   | 108     | 81  | 94   |
| 19    | 74      | 71  | 72   | 66       | 62  | 64   | 81       | 73  | 77   | 112     | 94  | 98   |
| 20    | 71      | 69  | 70   | 67       | 62  | 65   | 76       | 72  | 74   | 111     | 96  | 103  |
| 21    | 72      | 70  | 71   | 71       | 62  | 66   | 80       | 73  | 76   | 112     | 102 | 108  |
| 22    | 72      | 70  | 71   | 70       | 64  | 66   | 78       | 75  | 76   | 155     | 96  | 113  |
| 23    | 84      | 71  | 76   | 68       | 64  | 66   | 105      | 76  | 84   | 144     | 84  | 98   |
| 24    | 82      | 71  | 75   | 69       | 67  | 68   | 104      | 82  | 87   | 88      | 73  | 78   |
| 25    | 74      | 70  | 72   | 125      | 66  | 75   | 101      | 88  | 96   | 107     | 73  | 84   |
| 26    | 72      | 69  | 71   | 116      | 67  | 76   | 99       | 81  | 89   | 142     | 77  | 88   |
| 27    | 77      | 70  | 73   | 71       | 65  | 69   | 93       | 79  | 83   | 115     | 70  | 81   |
| 28    | 76      | 72  | 74   | 72       | 67  | 69   | 101      | 79  | 82   | 115     | 70  | 95   |
| 29    | 78      | 74  | 76   | 73       | 70  | 72   | 102      | 83  | 86   | 116     | 78  | 93   |
| 30    | 78      | 74  | 77   | 74       | 70  | 72   | 106      | 84  | 90   | 437     | 79  | 157  |
| 31    | 78      | 74  | 76   | ---      | --- | ---  | 121      | 89  | 96   | 119     | 87  | 101  |
| MONTH | 113     | 69  | 76   | 125      | 58  | 68   | 165      | 69  | 81   | 437     | 54  | 85   |

| DAY   | FEBRUARY |     |      | MARCH |     |      | APRIL |     |      | MAY |     |      |
|-------|----------|-----|------|-------|-----|------|-------|-----|------|-----|-----|------|
|       | MAX      | MIN | MEAN | MAX   | MIN | MEAN | MAX   | MIN | MEAN | MAX | MIN | MEAN |
| 1     | 116      | 82  | 104  | 56    | 51  | 53   | 54    | 48  | 51   | 84  | 72  | 78   |
| 2     | 118      | 89  | 103  | 54    | 52  | 53   | 53    | 48  | 51   | 93  | 80  | 86   |
| 3     | 117      | 84  | 96   | 55    | 52  | 54   | 57    | 48  | 51   | 88  | 62  | 74   |
| 4     | 116      | 85  | 93   | 103   | 49  | 62   | 57    | 49  | 52   | 60  | 53  | 55   |
| 5     | 368      | 86  | 167  | 47    | 45  | 46   | 56    | 48  | 52   | 56  | 53  | 54   |
| 6     | 173      | 107 | 136  | ---   | --- | ---  | 55    | 51  | 53   | 57  | 51  | 53   |
| 7     | 131      | 86  | 109  | ---   | --- | ---  | 64    | 51  | 58   | 58  | 50  | 54   |
| 8     | 118      | 74  | 85   | 53    | 52  | 52   | 62    | 56  | 58   | 60  | 52  | 55   |
| 9     | 78       | 61  | 65   | 55    | 51  | 53   | 62    | 45  | 52   | 64  | 55  | 58   |
| 10    | 63       | 58  | 60   | 58    | 53  | 56   | 59    | 45  | 50   | 56  | 51  | 53   |
| 11    | 66       | 60  | 63   | 76    | 51  | 56   | 60    | 50  | 54   | 56  | 47  | 51   |
| 12    | 69       | 63  | 65   | 53    | 49  | 51   | 61    | 52  | 55   | 52  | 46  | 49   |
| 13    | 65       | 59  | 63   | 53    | 48  | 50   | 56    | 50  | 53   | 49  | 45  | 46   |
| 14    | 60       | 55  | 56   | 56    | 48  | 51   | 56    | 49  | 53   | 59  | 46  | 53   |
| 15    | 58       | 55  | 56   | 51    | 46  | 48   | 59    | 51  | 55   | 58  | 50  | 52   |
| 16    | 60       | 57  | 58   | 59    | 48  | 52   | 60    | 54  | 56   | 60  | 50  | 54   |
| 17    | 60       | 58  | 59   | 53    | 47  | 49   | 60    | 56  | 58   | 58  | 47  | 52   |
| 18    | 91       | 58  | 65   | 50    | 46  | 48   | 59    | 55  | 57   | 59  | 45  | 49   |
| 19    | 61       | 57  | 59   | 54    | 46  | 48   | 60    | 55  | 58   | 52  | 45  | 48   |
| 20    | 70       | 57  | 61   | 54    | 46  | 49   | 61    | 56  | 58   | 59  | 47  | 51   |
| 21    | 62       | 59  | 61   | 50    | 44  | 46   | 66    | 57  | 61   | 61  | 49  | 52   |
| 22    | 62       | 59  | 61   | 50    | 44  | 47   | 65    | 59  | 62   | 58  | 49  | 53   |
| 23    | 94       | 61  | 67   | 51    | 45  | 48   | 65    | 58  | 61   | 59  | 48  | 53   |
| 24    | 62       | 59  | 61   | 52    | 44  | 47   | 70    | 60  | 65   | 58  | 46  | 52   |
| 25    | 60       | 56  | 58   | 51    | 44  | 47   | 69    | 66  | 66   | 58  | 46  | 50   |
| 26    | 59       | 56  | 58   | 52    | 45  | 49   | 72    | 65  | 69   | 60  | 47  | 52   |
| 27    | 62       | 55  | 57   | 53    | 47  | 50   | 85    | 69  | 73   | 61  | 49  | 55   |
| 28    | 57       | 52  | 54   | 53    | 46  | 50   | 81    | 67  | 72   | 61  | 52  | 56   |
| 29    | ---      | --- | ---  | 53    | 44  | 48   | 74    | 64  | 71   | 62  | 52  | 56   |
| 30    | ---      | --- | ---  | 55    | 45  | 49   | 71    | 63  | 67   | 62  | 53  | 57   |
| 31    | ---      | --- | ---  | 61    | 49  | 53   | ---   | --- | ---  | 60  | 50  | 54   |
| MONTH | 368      | 52  | 75   | 103   | 44  | 51   | 85    | 45  | 58   | 93  | 45  | 55   |

01105895 WEWEANTIC RIVER AT SOUTH WAREHAM, MASS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DAY   | JUNE |     |      | JULY |     |      | AUGUST |     |      | SEPTEMBER |     |      |
|-------|------|-----|------|------|-----|------|--------|-----|------|-----------|-----|------|
|       | MAX  | MIN | MEAN | MAX  | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1     | 58   | 49  | 53   | 100  | 79  | 86   | ---    | --- | ---  | 73        | 59  | 62   |
| 2     | 58   | 46  | 52   | 96   | 80  | 86   | ---    | --- | ---  | 84        | 60  | 66   |
| 3     | 53   | 46  | 48   | 89   | 77  | 82   | 63     | 61  | 61   | 70        | 61  | 64   |
| 4     | 58   | 47  | 53   | 86   | 78  | 81   | 61     | 59  | 60   | 92        | 62  | 71   |
| 5     | 59   | 50  | 54   | 89   | 80  | 83   | 64     | 59  | 61   | 73        | 64  | 67   |
| 6     | 57   | 48  | 53   | 96   | 82  | 86   | 63     | 59  | 61   | 71        | 65  | 67   |
| 7     | 59   | 49  | 53   | 107  | 82  | 86   | 65     | 60  | 62   | 68        | 63  | 65   |
| 8     | 62   | 49  | 54   | 89   | 81  | 84   | 64     | 60  | 62   | 71        | 63  | 66   |
| 9     | 66   | 51  | 56   | 97   | 81  | 85   | 67     | 61  | 63   | 88        | 64  | 71   |
| 10    | 68   | 51  | 58   | 87   | 83  | 85   | 67     | 62  | 64   | 75        | 65  | 68   |
| 11    | 64   | 54  | 57   | 87   | 83  | 85   | 66     | 63  | 64   | 75        | 64  | 69   |
| 12    | 67   | 54  | 59   | 95   | 84  | 87   | 67     | 60  | 64   | 74        | 66  | 69   |
| 13    | 63   | 56  | 59   | 92   | 84  | 88   | 64     | 60  | 62   | 75        | 67  | 70   |
| 14    | 62   | 55  | 58   | 118  | 88  | 94   | 64     | 60  | 62   | 118       | 59  | 97   |
| 15    | 63   | 56  | 59   | 95   | 86  | 90   | 62     | 60  | 61   | 92        | 68  | 73   |
| 16    | 68   | 57  | 61   | 121  | 87  | 93   | 64     | 61  | 62   | 72        | 65  | 68   |
| 17    | 68   | 58  | 63   | 94   | 90  | 91   | 65     | 61  | 63   | 69        | 66  | 67   |
| 18    | 77   | 60  | 65   | 95   | 90  | 92   | 73     | 62  | 65   | 69        | 66  | 67   |
| 19    | 83   | 62  | 68   | 93   | 89  | 92   | 75     | 62  | 66   | 71        | 65  | 67   |
| 20    | 74   | 63  | 68   | 110  | 90  | 99   | 69     | 57  | 65   | 71        | 66  | 68   |
| 21    | 74   | 64  | 68   | 95   | 87  | 90   | 64     | 61  | 63   | 74        | 67  | 69   |
| 22    | 74   | 63  | 68   | 90   | 86  | 88   | 63     | 60  | 62   | 76        | 68  | 70   |
| 23    | 74   | 66  | 69   | 91   | 86  | 88   | 62     | 59  | 61   | 77        | 67  | 71   |
| 24    | 74   | 66  | 69   | 93   | 88  | 90   | 62     | 58  | 60   | 74        | 67  | 70   |
| 25    | 78   | 67  | 71   | 94   | 89  | 91   | 62     | 58  | 60   | 84        | 66  | 71   |
| 26    | 80   | 69  | 73   | 94   | 89  | 91   | 63     | 59  | 61   | 83        | 70  | 74   |
| 27    | 77   | 70  | 73   | 92   | 88  | 90   | 67     | 57  | 61   | 84        | 72  | 77   |
| 28    | 90   | 71  | 77   | ---  | --- | ---  | 66     | 58  | 61   | 89        | 73  | 79   |
| 29    | 78   | 72  | 75   | ---  | --- | ---  | 65     | 60  | 62   | 91        | 74  | 81   |
| 30    | 95   | 76  | 81   | ---  | --- | ---  | 76     | 60  | 63   | 87        | 73  | 79   |
| 31    | ---  | --- | ---  | ---  | --- | ---  | 64     | 59  | 61   | ---       | --- | ---  |
| MONTH | 95   | 46  | 63   | 121  | 77  | 88   | 76     | 57  | 62   | 118       | 59  | 71   |
| YEAR  | 437  | 44  | 70   |      |     |      |        |     |      |           |     |      |

TEMPERATURE (°C) OF WATER, AUGUST TO SEPTEMBER 1970

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

## WEWEANTIC RIVER BASIN

01105895 WEWEANTIC RIVER AT SOUTH WAREHAM, MASS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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



## 0111230 BLACKSTONE RIVER AT MILLVILLE, MASS.

LOCATION.--Lat 42°01'16", long 71°34'04", Worcester County, multiple-parameter monitor on left bank 400 ft above railroad bridge, 0.8 mile south-east of Millville, and 1.4 miles upstream from Branch River.

DRAINAGE AREA.--277 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1971.  
Water temperatures: July 1969 to September 1971.

## EXTREMES.--1970-71:

Specific conductance: Maximum, 792 micromhos Feb. 8; minimum, 145 micromhos July 29.

pH: Maximum, 7.3 Dec. 7, 8, 12-15, Aug. 22; minimum, 5.8 July 13, on several days during July and August.

Dissolved oxygen: Maximum, 14.9 mg/l Feb. 25; minimum, 0.0 mg/l July 12, 15-20, 26-30, Aug. 2, 3.

Water temperatures: Maximum, 27.5°C July 8; minimum, freezing point on many days during winter period.

## Period of record:

Specific conductance: Maximum, 792 micromhos Feb. 8, 1971; minimum, 130 micromhos Feb. 11, 1970.

pH: Maximum, 8.1 July 9, 1970; minimum, 5.5 Sept. 9, 1970.

Dissolved oxygen: Maximum, 14.9 mg/l Feb. 25, 1971; minimum, 0.0 mg/l July 12, 15-20, 26-30, Aug. 2, 3.

Water temperatures: Maximum, 29.0°C July 29, 1970; minimum, freezing point on many days during winter periods.

REMARKS.--Figures of daily discharge, computed on basis of records for gaging station at Woonsocket and for Branch River at Forestdale, are available at district office. Dissolved-oxygen probe not operating Oct. 1-29, Mar. 7 to Apr. 7.

## SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|---------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | ---     | --- | ---  | 357      | 337 | 349  | 282      | 260 | 275  | 320     | 304 | 314  |
| 2     | ---     | --- | ---  | 350      | 325 | 340  | 279      | 260 | 271  | 314     | 298 | 308  |
| 3     | ---     | --- | ---  | 323      | 283 | 305  | 306      | 283 | 294  | 304     | 280 | 296  |
| 4     | ---     | --- | ---  | 304      | 271 | 281  | 306      | 267 | 284  | 300     | 279 | 288  |
| 5     | ---     | --- | ---  | 313      | 275 | 299  | 310      | 221 | 262  | 365     | 302 | 337  |
| 6     | ---     | --- | ---  | 324      | 287 | 311  | 226      | 212 | 221  | 563     | 325 | 413  |
| 7     | ---     | --- | ---  | 324      | 256 | 291  | 244      | 223 | 234  | 656     | 411 | 556  |
| 8     | ---     | --- | ---  | 255      | 244 | 253  | 320      | 238 | 269  | 402     | 322 | 349  |
| 9     | ---     | --- | ---  | 269      | 241 | 254  | 327      | 309 | 319  | 320     | 310 | 316  |
| 10    | ---     | --- | ---  | 307      | 268 | 293  | 322      | 300 | 306  | 315     | 307 | 311  |
| 11    | ---     | --- | ---  | 301      | 264 | 275  | 349      | 290 | 306  | 309     | 289 | 295  |
| 12    | ---     | --- | ---  | 356      | 266 | 337  | 418      | 359 | 397  | 290     | 280 | 283  |
| 13    | ---     | --- | ---  | 335      | 240 | 276  | 389      | 322 | 347  | 297     | 277 | 286  |
| 14    | ---     | --- | ---  | 257      | 226 | 253  | 319      | 298 | 304  | 308     | 295 | 301  |
| 15    | ---     | --- | ---  | 295      | 237 | 275  | 314      | 293 | 305  | 314     | 293 | 299  |
| 16    | ---     | --- | ---  | 244      | 221 | 234  | 371      | 298 | 337  | 312     | 293 | 298  |
| 17    | ---     | --- | ---  | 244      | 221 | 228  | 397      | 322 | 370  | 302     | 293 | 297  |
| 18    | ---     | --- | ---  | 272      | 222 | 245  | 317      | 294 | 306  | 350     | 306 | 337  |
| 19    | ---     | --- | ---  | 289      | 269 | 275  | 349      | 283 | 313  | 332     | 297 | 317  |
| 20    | ---     | --- | ---  | 291      | 275 | 283  | 365      | 345 | 356  | 301     | 286 | 292  |
| 21    | 356     | 339 | 351  | 320      | 280 | 294  | ---      | --- | ---  | 312     | 292 | 302  |
| 22    | 366     | 345 | 354  | 289      | 234 | 272  | ---      | --- | ---  | 288     | 275 | 281  |
| 23    | 357     | 319 | 342  | 221      | 214 | 222  | ---      | --- | ---  | 275     | 259 | 270  |
| 24    | 406     | 244 | 310  | 255      | 232 | 246  | ---      | --- | ---  | 261     | 253 | 255  |
| 25    | 238     | 209 | 218  | 273      | 250 | 257  | ---      | --- | ---  | ---     | --- | ---  |
| 26    | 234     | 211 | 220  | 288      | 270 | 276  | ---      | --- | ---  | 490     | 366 | 379  |
| 27    | 265     | 237 | 253  | 287      | 277 | 281  | ---      | --- | ---  | 512     | 357 | 431  |
| 28    | 287     | 261 | 267  | 297      | 281 | 289  | ---      | --- | ---  | 490     | 446 | 469  |
| 29    | 311     | 285 | 299  | 281      | 261 | 268  | ---      | --- | ---  | 454     | 324 | 379  |
| 30    | 323     | 305 | 311  | 291      | 273 | 283  | ---      | --- | ---  | 367     | 275 | 319  |
| 31    | 342     | 326 | 335  | ---      | --- | ---  | 325      | 315 | 319  | 331     | 269 | 310  |
| MCNTH | ---     | --- | ---  | 357      | 214 | 278  | ---      | --- | ---  | 656     | 253 | 330  |





## BLACKSTONE RIVER BASIN

0111230 BLACKSTONE RIVER AT MILLVILLE, MASS.--Continued

PH (UNITS), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|---------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | ---     | --- | ---  | 6.7      | 6.6 | 6.7  | 7.1      | 7.0 | 7.1  | 6.7     | 6.7 | 6.7  |
| 2     | ---     | --- | ---  | 5.7      | 6.6 | 6.7  | 6.9      | 6.8 | 6.9  | 6.8     | 6.6 | 6.7  |
| 3     | ---     | --- | ---  | 6.7      | 6.6 | 6.7  | 7.2      | 6.8 | 6.9  | 6.8     | 6.6 | 6.7  |
| 4     | ---     | --- | ---  | 6.7      | 6.7 | 6.7  | 7.1      | 6.8 | 6.9  | 6.8     | 6.7 | 6.8  |
| 5     | ---     | --- | ---  | 6.7      | 6.4 | 6.5  | 7.2      | 7.0 | 7.1  | 6.9     | 6.8 | 6.8  |
| 6     | ---     | --- | ---  | 6.8      | 6.6 | 6.7  | 7.2      | 7.0 | 7.1  | 7.0     | 6.8 | 6.9  |
| 7     | ---     | --- | ---  | 6.8      | 6.7 | 6.7  | 7.3      | 7.2 | 7.2  | 6.9     | 6.7 | 6.8  |
| 8     | ---     | --- | ---  | 6.7      | 6.6 | 6.7  | 7.3      | 6.8 | 7.2  | 7.0     | 6.8 | 6.9  |
| 9     | ---     | --- | ---  | 6.8      | 6.7 | 6.7  | 7.2      | 7.0 | 7.1  | 7.1     | 6.9 | 7.0  |
| 10    | ---     | --- | ---  | 6.8      | 6.7 | 6.8  | 7.0      | 6.9 | 7.0  | 7.0     | 6.9 | 7.0  |
| 11    | ---     | --- | ---  | 6.8      | 6.7 | 6.7  | 7.2      | 6.9 | 7.1  | 6.9     | 6.9 | 6.9  |
| 12    | ---     | --- | ---  | 6.8      | 6.7 | 6.7  | 7.3      | 7.1 | 7.2  | 7.0     | 6.9 | 6.9  |
| 13    | ---     | --- | ---  | 6.7      | 6.5 | 6.6  | 7.3      | 7.2 | 7.3  | 6.9     | 6.8 | 6.9  |
| 14    | ---     | --- | ---  | 6.7      | 6.5 | 6.6  | 7.3      | 7.2 | 7.2  | 6.9     | 6.7 | 6.8  |
| 15    | ---     | --- | ---  | 6.7      | 6.6 | 6.7  | 7.3      | 7.0 | 7.1  | 6.7     | 6.5 | 6.6  |
| 16    | ---     | --- | ---  | 6.7      | 6.6 | 6.7  | 7.0      | 6.8 | 6.9  | 6.7     | 6.6 | 6.6  |
| 17    | ---     | --- | ---  | 6.7      | 6.7 | 6.7  | 6.7      | 6.6 | 6.7  | 6.7     | 6.6 | 6.7  |
| 18    | ---     | --- | ---  | 6.7      | 6.6 | 6.7  | 6.7      | 6.6 | 6.6  | 6.8     | 6.7 | 6.7  |
| 19    | ---     | --- | ---  | 6.7      | 6.6 | 6.6  | 6.6      | 6.6 | 6.6  | 7.0     | 6.9 | 6.9  |
| 20    | ---     | --- | ---  | 5.6      | 6.5 | 6.6  | 6.7      | 6.6 | 6.6  | 6.9     | 6.8 | 6.9  |
| 21    | 6.7     | 6.6 | 6.7  | 6.7      | 6.4 | 6.6  | ---      | --- | ---  | 6.9     | 6.6 | 6.8  |
| 22    | 6.7     | 6.7 | 6.7  | 6.7      | 6.6 | 6.6  | ---      | --- | ---  | 6.8     | 6.7 | 6.8  |
| 23    | 6.8     | 6.7 | 6.7  | 6.6      | 6.6 | 6.6  | ---      | --- | ---  | 6.8     | 6.7 | 6.8  |
| 24    | 6.8     | 6.6 | 6.7  | 6.9      | 6.7 | 6.8  | ---      | --- | ---  | 6.8     | 6.8 | 6.8  |
| 25    | 6.6     | 6.5 | 6.5  | 7.0      | 6.9 | 6.9  | ---      | --- | ---  | ---     | --- | ---  |
| 26    | 6.6     | 6.5 | 6.5  | 7.2      | 7.0 | 7.1  | ---      | --- | ---  | 6.9     | 6.8 | 6.9  |
| 27    | 6.7     | 6.5 | 6.6  | 7.1      | 7.0 | 7.1  | ---      | --- | ---  | 6.8     | 6.6 | 6.7  |
| 28    | 6.8     | 6.7 | 6.7  | 7.1      | 6.9 | 7.0  | ---      | --- | ---  | 6.7     | 6.4 | 6.6  |
| 29    | 6.8     | 6.7 | 6.7  | 7.0      | 6.9 | 7.0  | ---      | --- | ---  | 6.6     | 6.4 | 6.5  |
| 30    | 6.8     | 6.7 | 6.7  | 7.1      | 7.0 | 7.0  | ---      | --- | ---  | 6.7     | 6.6 | 6.7  |
| 31    | 6.8     | 6.7 | 6.7  | ---      | --- | ---  | 6.8      | 6.7 | 6.7  | 6.7     | 6.6 | 6.6  |
| MONTH | ---     | --- | ---  | 7.2      | 6.4 | 6.7  | ---      | --- | ---  | 7.1     | 6.4 | 6.8  |

| DAY   | FEBRUARY |     |      | MARCH |     |      | APRIL |     |      | MAY |     |      |
|-------|----------|-----|------|-------|-----|------|-------|-----|------|-----|-----|------|
|       | MAX      | MIN | MEAN | MAX   | MIN | MEAN | MAX   | MIN | MEAN | MAX | MIN | MEAN |
| 1     | 6.7      | 6.4 | 6.6  | ---   | --- | ---  | 6.7   | 6.5 | 6.6  | 6.7 | 6.4 | 6.5  |
| 2     | 6.7      | 6.7 | 6.7  | ---   | --- | ---  | 6.6   | 6.5 | 6.6  | 6.7 | 6.4 | 6.5  |
| 3     | 7.0      | 6.6 | 6.7  | ---   | --- | ---  | 6.5   | 6.3 | 6.4  | 6.5 | 6.3 | 6.4  |
| 4     | 6.7      | 6.6 | 6.7  | 6.8   | 6.4 | 6.6  | 6.6   | 6.1 | 6.4  | 6.6 | 6.3 | 6.5  |
| 5     | 6.8      | 6.6 | 6.7  | 6.8   | 6.4 | 6.5  | 6.6   | 6.5 | 6.5  | 6.7 | 6.3 | 6.5  |
| 6     | 6.7      | 6.4 | 6.6  | 6.8   | 6.7 | 6.8  | 6.6   | 6.5 | 6.5  | 6.6 | 6.4 | 6.5  |
| 7     | 6.7      | 6.5 | 6.6  | ---   | --- | ---  | 6.7   | 6.5 | 6.6  | 6.8 | 6.4 | 6.5  |
| 8     | 6.7      | 6.6 | 6.7  | ---   | --- | ---  | 6.8   | 6.4 | 6.6  | 6.6 | 6.3 | 6.4  |
| 9     | 6.8      | 6.7 | 6.8  | ---   | --- | ---  | 6.8   | 6.4 | 6.6  | 6.4 | 6.3 | 6.4  |
| 10    | 6.9      | 6.6 | 6.8  | ---   | --- | ---  | 6.8   | 6.5 | 6.6  | 6.8 | 6.3 | 6.5  |
| 11    | 6.8      | 6.6 | 6.7  | 6.7   | 6.7 | 6.7  | 6.9   | 6.7 | 6.8  | 6.7 | 6.4 | 6.5  |
| 12    | ---      | --- | ---  | 6.8   | 6.7 | 6.7  | 7.0   | 6.8 | 6.9  | 6.6 | 6.2 | 6.4  |
| 13    | ---      | --- | ---  | 6.9   | 6.7 | 6.8  | 6.9   | 6.7 | 6.8  | 6.3 | 6.1 | 6.2  |
| 14    | ---      | --- | ---  | 7.0   | 6.8 | 6.9  | 6.8   | 6.5 | 6.7  | 6.3 | 6.1 | 6.2  |
| 15    | ---      | --- | ---  | 7.0   | 6.9 | 6.9  | 6.8   | 6.6 | 6.7  | 6.5 | 6.2 | 6.3  |
| 16    | ---      | --- | ---  | 6.9   | 6.6 | 6.8  | 6.7   | 6.4 | 6.6  | 6.4 | 6.2 | 6.3  |
| 17    | ---      | --- | ---  | 6.6   | 6.5 | 6.6  | 6.9   | 6.5 | 6.7  | 6.4 | 6.2 | 6.3  |
| 18    | 6.9      | 6.5 | 6.7  | 6.7   | 6.5 | 6.6  | 6.8   | 6.7 | 6.8  | 6.5 | 6.1 | 6.3  |
| 19    | 6.8      | 6.4 | 6.6  | 6.5   | 6.4 | 6.5  | 7.0   | 6.7 | 6.8  | 6.5 | 6.2 | 6.3  |
| 20    | 6.9      | 6.5 | 6.6  | 6.6   | 6.4 | 6.5  | 6.9   | 6.6 | 6.8  | 6.5 | 6.2 | 6.3  |
| 21    | 6.9      | 6.1 | 6.7  | 6.6   | 6.5 | 6.6  | 6.8   | 6.5 | 6.6  | 6.3 | 6.2 | 6.3  |
| 22    | 7.0      | 6.9 | 7.0  | 6.8   | 6.4 | 6.5  | 6.8   | 6.6 | 6.7  | 6.3 | 6.1 | 6.2  |
| 23    | 7.0      | 6.5 | 6.8  | 6.7   | 6.5 | 6.6  | 6.8   | 6.6 | 6.7  | 6.4 | 6.1 | 6.3  |
| 24    | 7.0      | 6.7 | 6.9  | 6.8   | 6.7 | 6.8  | 6.9   | 6.5 | 6.7  | 6.4 | 6.1 | 6.3  |
| 25    | 7.1      | 6.9 | 7.0  | 6.8   | 6.7 | 6.8  | 6.7   | 6.4 | 6.6  | 7.0 | 6.1 | 6.5  |
| 26    | 7.0      | 6.8 | 6.9  | 6.8   | 6.6 | 6.7  | 6.9   | 6.6 | 6.8  | 6.2 | 6.0 | 6.1  |
| 27    | ---      | --- | ---  | 6.8   | 6.6 | 6.7  | 6.9   | 6.7 | 6.8  | 6.5 | 5.9 | 6.1  |
| 28    | ---      | --- | ---  | 6.8   | 6.6 | 6.7  | 6.8   | 6.5 | 6.7  | 7.0 | 6.0 | 6.1  |
| 29    | ---      | --- | ---  | 6.8   | 6.6 | 6.7  | 6.7   | 6.6 | 6.7  | 6.5 | 6.1 | 6.3  |
| 30    | ---      | --- | ---  | 6.7   | 6.6 | 6.7  | 6.7   | 6.4 | 6.5  | 6.4 | 6.2 | 6.2  |
| 31    | ---      | --- | ---  | 6.6   | 6.4 | 6.5  | ---   | --- | ---  | 6.6 | 6.3 | 6.4  |
| MONTH | ---      | --- | ---  | ---   | --- | ---  | 7.0   | 6.1 | 6.7  | 7.0 | 5.9 | 6.3  |

## 01111230 BLACKSTONE RIVER AT MILLVILLE, MASS.--Continued

PH (UNITS), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DAY   | JUNE |     |      | JULY |     |      | AUGUST |     |      | SEPTEMBER |     |      |
|-------|------|-----|------|------|-----|------|--------|-----|------|-----------|-----|------|
|       | MAX  | MIN | MEAN | MAX  | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1     | 6.9  | 6.4 | 6.6  | 6.6  | 6.2 | 6.4  | 6.8    | 6.4 | 6.6  | ---       | --- | ---  |
| 2     | 6.6  | 6.2 | 6.3  | 6.6  | 6.3 | 6.4  | 6.7    | 6.4 | 6.6  | ---       | --- | ---  |
| 3     | 6.4  | 6.1 | 6.2  | 6.4  | 6.0 | 6.2  | 6.8    | 6.4 | 6.6  | 6.7       | 6.5 | 6.6  |
| 4     | 6.5  | 6.1 | 6.3  | 6.6  | 5.9 | 6.3  | 6.6    | 6.5 | 6.6  | 6.7       | 6.4 | 6.5  |
| 5     | 6.4  | 6.1 | 6.2  | 6.6  | 5.9 | 6.3  | 6.9    | 6.6 | 6.7  | 6.7       | 6.4 | 6.5  |
| 6     | 6.7  | 6.0 | 6.3  | 6.6  | 6.0 | 6.3  | 7.0    | 6.6 | 6.8  | 6.6       | 6.4 | 6.5  |
| 7     | 6.7  | 6.3 | 6.4  | 7.0  | 6.2 | 6.5  | 7.1    | 6.6 | 6.8  | 7.2       | 6.6 | 6.7  |
| 8     | 6.6  | 6.2 | 6.4  | 7.1  | 6.4 | 6.7  | 6.9    | 6.5 | 6.7  | 7.0       | 6.6 | 6.7  |
| 9     | 6.5  | 6.3 | 6.4  | 6.7  | 6.3 | 6.5  | 6.9    | 6.5 | 6.7  | 6.8       | 6.5 | 6.7  |
| 10    | 6.4  | 6.2 | 6.3  | 6.7  | 6.3 | 6.5  | ---    | --- | ---  | 6.9       | 6.5 | 6.7  |
| 11    | 6.5  | 6.2 | 6.3  | 6.6  | 6.1 | 6.4  | ---    | --- | ---  | 6.9       | 6.6 | 6.8  |
| 12    | 6.7  | 6.3 | 6.5  | 6.4  | 6.2 | 6.3  | 7.0    | 6.7 | 6.8  | 6.7       | 6.6 | 6.6  |
| 13    | 6.7  | 6.5 | 6.6  | 6.4  | 5.8 | 6.2  | 7.1    | 6.5 | 6.8  | 6.6       | 6.3 | 6.5  |
| 14    | 6.8  | 6.6 | 6.7  | 6.7  | 6.3 | 6.5  | 7.1    | 6.4 | 6.7  | 6.5       | 6.2 | 6.4  |
| 15    | 6.9  | 6.5 | 6.7  | 6.7  | 6.2 | 6.5  | 7.0    | 6.6 | 6.7  | 6.4       | 6.2 | 6.3  |
| 16    | 6.8  | 6.4 | 6.6  | 6.7  | 6.2 | 6.5  | 7.0    | 6.6 | 6.8  | 6.5       | 6.2 | 6.3  |
| 17    | 6.9  | 6.4 | 6.6  | 6.7  | 6.3 | 6.5  | 7.0    | 6.3 | 6.6  | 6.3       | 6.2 | 6.3  |
| 18    | 6.7  | 6.5 | 6.6  | 6.7  | 6.1 | 6.4  | 7.0    | 6.5 | 6.7  | 6.5       | 6.3 | 6.4  |
| 19    | ---  | --- | ---  | 6.6  | 6.1 | 6.4  | 6.9    | 6.2 | 6.6  | 6.6       | 6.2 | 6.5  |
| 20    | ---  | --- | ---  | 6.5  | 6.3 | 6.5  | 7.0    | 6.5 | 6.8  | 6.8       | 6.6 | 6.7  |
| 21    | ---  | --- | ---  | 6.4  | 6.1 | 6.3  | 7.1    | 6.7 | 6.9  | 6.6       | 6.5 | 6.6  |
| 22    | ---  | --- | ---  | ---  | --- | ---  | 7.3    | 6.8 | 7.0  | 6.7       | 6.5 | 6.6  |
| 23    | ---  | --- | ---  | ---  | --- | ---  | 6.9    | 6.7 | 6.8  | 6.8       | 6.5 | 6.6  |
| 24    | ---  | --- | ---  | ---  | --- | ---  | 6.7    | 6.4 | 6.5  | 6.8       | 6.5 | 6.7  |
| 25    | ---  | --- | ---  | ---  | --- | ---  | ---    | --- | ---  | 6.9       | 6.4 | 6.7  |
| 26    | ---  | --- | ---  | 6.5  | 6.2 | 6.4  | ---    | --- | ---  | 6.9       | 6.6 | 6.8  |
| 27    | ---  | --- | ---  | 6.7  | 6.2 | 6.4  | ---    | --- | ---  | 6.8       | 6.7 | 6.7  |
| 28    | ---  | --- | ---  | 6.8  | 6.4 | 6.5  | ---    | --- | ---  | 6.8       | 6.6 | 6.7  |
| 29    | 6.5  | 6.3 | 6.4  | 6.9  | 6.3 | 6.6  | ---    | --- | ---  | 6.7       | 6.6 | 6.6  |
| 30    | 6.6  | 6.4 | 6.5  | 6.7  | 6.5 | 6.6  | ---    | --- | ---  | 6.7       | 6.5 | 6.7  |
| 31    | ---  | --- | ---  | 6.8  | 6.5 | 6.6  | ---    | --- | ---  | ---       | --- | ---  |
| MONTH | ---  | --- | ---  | 7.1  | 5.8 | 6.4  | ---    | --- | ---  | 7.2       | 6.2 | 6.6  |
| YEAR  | 7.3  | 5.8 | 6.6  |      |     |      |        |     |      |           |     |      |

## DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |      |      | JANUARY |      |      |
|-------|---------|-----|------|----------|-----|------|----------|------|------|---------|------|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN  | MEAN | MAX     | MIN  | MEAN |
| 1     | ---     | --- | ---  | 7.3      | 6.2 | 6.7  | 8.8      | 8.0  | 8.4  | 10.9    | 10.5 | 10.7 |
| 2     | ---     | --- | ---  | 6.4      | 5.7 | 6.1  | 8.8      | 7.7  | 8.3  | 11.0    | 10.6 | 10.8 |
| 3     | ---     | --- | ---  | 7.1      | 5.7 | 6.4  | 8.6      | 7.5  | 8.0  | 11.3    | 10.8 | 11.0 |
| 4     | ---     | --- | ---  | 6.6      | 5.7 | 6.1  | 8.0      | 7.5  | 7.8  | 11.5    | 11.1 | 11.4 |
| 5     | ---     | --- | ---  | 6.3      | 5.3 | 5.8  | 9.8      | 8.0  | 8.9  | 11.1    | 10.9 | 11.0 |
| 6     | ---     | --- | ---  | 6.5      | 5.2 | 6.1  | 10.3     | 9.8  | 10.0 | 11.2    | 10.6 | 11.0 |
| 7     | ---     | --- | ---  | 6.8      | 5.7 | 6.2  | 11.2     | 10.4 | 10.9 | 12.0    | 11.2 | 11.5 |
| 8     | ---     | --- | ---  | 6.5      | 6.0 | 6.3  | 12.1     | 11.0 | 11.6 | 12.2    | 11.9 | 12.1 |
| 9     | ---     | --- | ---  | 7.7      | 6.1 | 6.8  | 11.5     | 10.6 | 11.3 | 12.4    | 11.7 | 12.1 |
| 10    | ---     | --- | ---  | 6.5      | 5.7 | 6.0  | 10.7     | 9.9  | 10.5 | 12.0    | 11.4 | 11.7 |
| 11    | ---     | --- | ---  | 6.2      | 5.2 | 5.6  | 10.7     | 9.9  | 10.3 | 11.6    | 10.0 | 11.4 |
| 12    | ---     | --- | ---  | 5.8      | 4.5 | 5.3  | 10.7     | 9.9  | 10.3 | 11.5    | 11.0 | 11.2 |
| 13    | ---     | --- | ---  | 5.0      | 4.2 | 4.6  | 11.0     | 10.4 | 10.7 | 11.7    | 11.1 | 11.5 |
| 14    | ---     | --- | ---  | 6.6      | 4.8 | 5.8  | 10.8     | 10.5 | 10.7 | 11.3    | 11.1 | 11.2 |
| 15    | ---     | --- | ---  | 6.2      | 5.9 | 6.0  | 11.0     | 10.5 | 10.7 | 11.2    | 10.7 | 11.1 |
| 16    | ---     | --- | ---  | 6.8      | 6.3 | 6.7  | 11.3     | 10.7 | 11.0 | 11.1    | 10.6 | 10.9 |
| 17    | ---     | --- | ---  | 8.3      | 6.6 | 7.6  | 10.9     | 10.5 | 10.7 | 10.9    | 10.6 | 10.7 |
| 18    | ---     | --- | ---  | 8.7      | 7.7 | 8.1  | 11.1     | 10.7 | 10.9 | 10.7    | 10.0 | 10.3 |
| 19    | ---     | --- | ---  | 7.8      | 7.1 | 7.6  | 11.1     | 10.7 | 11.0 | 10.3    | 10.0 | 10.1 |
| 20    | ---     | --- | ---  | 7.4      | 6.6 | 7.0  | 11.0     | 10.6 | 10.8 | 10.4    | 10.0 | 10.3 |
| 21    | ---     | --- | ---  | 7.3      | 6.5 | 6.8  | ---      | ---  | ---  | 10.0    | 9.5  | 9.7  |
| 22    | ---     | --- | ---  | 7.4      | 7.0 | 7.1  | ---      | ---  | ---  | 9.6     | 9.4  | 9.5  |
| 23    | ---     | --- | ---  | 7.7      | 6.6 | 7.4  | ---      | ---  | ---  | 9.6     | 9.0  | 9.3  |
| 24    | ---     | --- | ---  | 8.5      | 6.9 | 7.8  | ---      | ---  | ---  | 9.4     | 9.3  | 9.4  |
| 25    | ---     | --- | ---  | 9.7      | 7.8 | 8.8  | ---      | ---  | ---  | ---     | ---  | ---  |
| 26    | ---     | --- | ---  | 10.5     | 9.7 | 10.1 | ---      | ---  | ---  | 10.2    | 9.7  | 10.0 |
| 27    | ---     | --- | ---  | 10.0     | 9.3 | 9.7  | ---      | ---  | ---  | 10.4    | 9.7  | 10.0 |
| 28    | ---     | --- | ---  | 9.2      | 8.9 | 9.1  | ---      | ---  | ---  | 10.4    | 9.9  | 10.1 |
| 29    | ---     | --- | ---  | 9.2      | 8.8 | 9.0  | ---      | ---  | ---  | 10.9    | 10.4 | 10.7 |
| 30    | 7.3     | 5.9 | 6.5  | 8.8      | 8.1 | 8.6  | ---      | ---  | ---  | 10.6    | 10.1 | 10.4 |
| 31    | 7.4     | 5.7 | 6.5  | ---      | --- | ---  | 10.8     | 10.6 | 10.7 | 10.7    | 10.1 | 10.4 |
| MONTH | ---     | --- | ---  | 10.5     | 4.2 | 7.0  | ---      | ---  | ---  | 12.4    | 9.0  | 10.7 |

## BLACKSTONE RIVER BASIN

01111230 BLACKSTONE RIVER AT MILLVILLE, MASS.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| FEBRUARY |      |      |      | MARCH |      |      | APRIL  |      |      | MAY       |     |      |
|----------|------|------|------|-------|------|------|--------|------|------|-----------|-----|------|
| DAY      | MAX  | MIN  | MEAN | MAX   | MIN  | MEAN | MAX    | MIN  | MEAN | MAX       | MIN | MEAN |
| 1        | 11.1 | 10.4 | 10.8 | ---   | ---  | ---  | ---    | ---  | ---  | 10.6      | 8.3 | 9.4  |
| 2        | 11.4 | 10.5 | 11.1 | ---   | ---  | ---  | ---    | ---  | ---  | 10.0      | 7.9 | 8.9  |
| 3        | 11.2 | 10.0 | 10.6 | ---   | ---  | ---  | ---    | ---  | ---  | 8.9       | 8.2 | 8.6  |
| 4        | 9.9  | 9.4  | 9.6  | 12.1  | 11.8 | 12.0 | ---    | ---  | ---  | 8.7       | 8.2 | 8.4  |
| 5        | 9.4  | 8.9  | 9.3  | 12.4  | 12.1 | 12.3 | ---    | ---  | ---  | 10.3      | 8.0 | 9.1  |
| 6        | 9.5  | 9.2  | 9.4  | 12.3  | 12.0 | 12.2 | ---    | ---  | ---  | 8.3       | 6.8 | 7.7  |
| 7        | 9.9  | 9.1  | 9.3  | ---   | ---  | ---  | ---    | ---  | ---  | 9.6       | 6.7 | 8.0  |
| 8        | 9.9  | 9.5  | 9.7  | ---   | ---  | ---  | 10.9   | 10.3 | 10.6 | 8.2       | 6.5 | 7.4  |
| 9        | 10.4 | 9.9  | 10.2 | ---   | ---  | ---  | 11.0   | 10.2 | 10.6 | 8.5       | 7.0 | 7.7  |
| 10       | 10.5 | 9.5  | 10.0 | ---   | ---  | ---  | 10.1   | 9.6  | 9.9  | 9.5       | 8.2 | 8.7  |
| 11       | 10.5 | 10.5 | 10.5 | ---   | ---  | ---  | 10.0   | 9.5  | 9.8  | 9.2       | 7.2 | 8.5  |
| 12       | ---  | ---  | ---  | ---   | ---  | ---  | 10.3   | 8.0  | 10.0 | 8.4       | 6.3 | 7.3  |
| 13       | ---  | ---  | ---  | ---   | ---  | ---  | 9.4    | 8.2  | 9.0  | 7.0       | 5.9 | 6.5  |
| 14       | ---  | ---  | ---  | ---   | ---  | ---  | 8.6    | 8.1  | 8.4  | 7.5       | 6.5 | 7.1  |
| 15       | ---  | ---  | ---  | ---   | ---  | ---  | 10.5   | 8.6  | 9.6  | 8.3       | 7.7 | 8.0  |
| 16       | ---  | ---  | ---  | ---   | ---  | ---  | 9.8    | 8.8  | 9.2  | 8.8       | 8.0 | 8.3  |
| 17       | ---  | ---  | ---  | ---   | ---  | ---  | 10.4   | 8.9  | 9.6  | 9.3       | 8.8 | 9.1  |
| 18       | 11.8 | 11.1 | 11.5 | ---   | ---  | ---  | 10.2   | 8.7  | 9.5  | 9.0       | 7.0 | 8.0  |
| 19       | 11.1 | 10.4 | 10.9 | ---   | ---  | ---  | 10.5   | 9.2  | 9.8  | 7.2       | 6.2 | 6.8  |
| 20       | 10.9 | 10.4 | 10.6 | ---   | ---  | ---  | 10.1   | 8.5  | 9.3  | 7.2       | 5.6 | 6.3  |
| 21       | 11.3 | 10.7 | 11.0 | ---   | ---  | ---  | 9.2    | 7.8  | 8.4  | 6.0       | 5.1 | 5.6  |
| 22       | 11.7 | 11.2 | 11.4 | ---   | ---  | ---  | 9.6    | 7.4  | 8.4  | 6.9       | 5.4 | 6.2  |
| 23       | 11.4 | 11.0 | 11.3 | ---   | ---  | ---  | 9.9    | 7.8  | 8.7  | 8.3       | 5.9 | 6.9  |
| 24       | 13.9 | 11.0 | 11.9 | ---   | ---  | ---  | 10.1   | 7.9  | 8.8  | 8.4       | 6.3 | 7.1  |
| 25       | 14.0 | 11.4 | 13.6 | ---   | ---  | ---  | 9.2    | 7.4  | 8.3  | 6.1       | 4.6 | 5.6  |
| 26       | 11.7 | 11.4 | 11.6 | ---   | ---  | ---  | 10.1   | 8.2  | 9.0  | 5.7       | 4.0 | 4.7  |
| 27       | ---  | ---  | ---  | ---   | ---  | ---  | 10.3   | 8.6  | 9.4  | 5.7       | 4.2 | 4.9  |
| 28       | ---  | ---  | ---  | ---   | ---  | ---  | 9.4    | 8.4  | 8.8  | 6.0       | 4.7 | 5.3  |
| 29       | ---  | ---  | ---  | ---   | ---  | ---  | 9.5    | 8.1  | 8.7  | 7.0       | 4.9 | 5.8  |
| 30       | ---  | ---  | ---  | ---   | ---  | ---  | 9.9    | 8.5  | 9.1  | 6.0       | 4.9 | 5.5  |
| 31       | ---  | ---  | ---  | ---   | ---  | ---  | ---    | ---  | ---  | 6.4       | 5.8 | 6.0  |
| MONTH    | ---  | ---  | ---  | ---   | ---  | ---  | ---    | ---  | ---  | 10.6      | 4.0 | 7.2  |
|          |      |      |      |       |      |      |        |      |      |           |     |      |
| JUNE     |      |      |      | JULY  |      |      | AUGUST |      |      | SEPTEMBER |     |      |
| DAY      | MAX  | MIN  | MEAN | MAX   | MIN  | MEAN | MAX    | MIN  | MEAN | MAX       | MIN | MEAN |
| 1        | 9.1  | 6.0  | 6.9  | 4.7   | 0.6  | 2.0  | 4.1    | 0.8  | 2.0  | 2.6       | 1.0 | 1.7  |
| 2        | 7.7  | 5.4  | 6.3  | 2.7   | 0.4  | 1.5  | 4.5    | 0.0  | 2.1  | 2.6       | 1.1 | 1.8  |
| 3        | 6.5  | 5.0  | 5.6  | 3.4   | 0.4  | 1.7  | 3.9    | 0.0  | 2.6  | 4.4       | 1.0 | 2.5  |
| 4        | 6.4  | 4.7  | 5.4  | 3.8   | 0.4  | 1.9  | 1.7    | 0.1  | 0.8  | 4.5       | 0.8 | 2.4  |
| 5        | 6.9  | 4.0  | 5.3  | 5.0   | 0.7  | 2.4  | 3.9    | 0.2  | 1.6  | 4.4       | 0.8 | 2.3  |
| 6        | 6.8  | 4.5  | 5.5  | 5.1   | 0.5  | 2.5  | 3.5    | 0.1  | 1.4  | 2.0       | 0.8 | 1.3  |
| 7        | 7.1  | 4.2  | 5.5  | ---   | ---  | ---  | 4.9    | 0.2  | 2.0  | 3.3       | 1.0 | 1.8  |
| 8        | 7.4  | 3.5  | 5.0  | ---   | ---  | ---  | 5.2    | 0.2  | 2.2  | 2.8       | 0.4 | 1.4  |
| 9        | 4.4  | 3.2  | 3.9  | ---   | ---  | ---  | 5.6    | 0.1  | 2.4  | 3.2       | 0.4 | 1.4  |
| 10       | 6.1  | 3.7  | 4.6  | ---   | ---  | ---  | ---    | ---  | ---  | 3.5       | 0.3 | 1.5  |
| 11       | 6.3  | 3.8  | 4.9  | ---   | ---  | ---  | ---    | ---  | ---  | 2.7       | 0.3 | 1.2  |
| 12       | 6.3  | 3.8  | 4.8  | 3.9   | 0.0  | 1.4  | 5.4    | 1.7  | 3.2  | 1.6       | 0.2 | 0.8  |
| 13       | 5.5  | 3.1  | 4.2  | 4.3   | 0.3  | 2.0  | 4.4    | 1.4  | 2.6  | 2.0       | 0.1 | 1.3  |
| 14       | 5.6  | 3.0  | 4.2  | 5.3   | 0.5  | 2.3  | 5.7    | 1.4  | 3.1  | 3.0       | 2.0 | 2.4  |
| 15       | 5.8  | 2.9  | 4.3  | 5.2   | 0.0  | 1.8  | 5.7    | 1.3  | 3.2  | 3.0       | 1.8 | 2.2  |
| 16       | 5.9  | 2.9  | 4.3  | 4.9   | 0.0  | 1.7  | 5.4    | 0.9  | 2.7  | 3.6       | 1.6 | 2.4  |
| 17       | 5.4  | 2.6  | 3.9  | 3.7   | 0.0  | 1.3  | 2.2    | 0.6  | 1.4  | 2.8       | 1.2 | 1.8  |
| 18       | 4.9  | 2.3  | 3.2  | 4.1   | 0.0  | 1.2  | 2.5    | 0.8  | 1.5  | 2.3       | 1.2 | 1.6  |
| 19       | ---  | ---  | ---  | 1.4   | 0.0  | 0.5  | 2.7    | 0.8  | 1.6  | 4.2       | 1.4 | 2.7  |
| 20       | ---  | ---  | ---  | 3.7   | 0.0  | 1.5  | 2.4    | 0.8  | 1.4  | 2.3       | 1.4 | 1.7  |
| 21       | ---  | ---  | ---  | ---   | ---  | ---  | 2.0    | 0.8  | 1.2  | 3.5       | 1.1 | 2.0  |
| 22       | ---  | ---  | ---  | ---   | ---  | ---  | 1.9    | 0.7  | 1.2  | 3.6       | 1.1 | 2.2  |
| 23       | ---  | ---  | ---  | ---   | ---  | ---  | 2.4    | 0.7  | 1.4  | 3.4       | 1.2 | 2.0  |
| 24       | ---  | ---  | ---  | ---   | ---  | ---  | 2.6    | 0.9  | 1.6  | 3.9       | 1.1 | 2.2  |
| 25       | ---  | ---  | ---  | ---   | ---  | ---  | 2.4    | 0.8  | 1.5  | 3.9       | 1.2 | 2.2  |
| 26       | ---  | ---  | ---  | 2.0   | 0.0  | 0.4  | 2.5    | 0.8  | 1.5  | 3.8       | 1.3 | 2.2  |
| 27       | ---  | ---  | ---  | 2.1   | 0.0  | 0.4  | 1.5    | 0.8  | 1.1  | 4.1       | 1.2 | 2.3  |
| 28       | ---  | ---  | ---  | 4.8   | 0.0  | 0.8  | 1.5    | 0.9  | 1.1  | 3.2       | 1.1 | 1.9  |
| 29       | 4.2  | 1.9  | 3.3  | 1.2   | 0.0  | 0.2  | 1.4    | 0.9  | 1.1  | 2.6       | 1.0 | 1.6  |
| 30       | 5.5  | 0.9  | 2.5  | 3.5   | 0.0  | 1.3  | 2.0    | 0.9  | 1.4  | 3.2       | 0.8 | 1.7  |
| 31       | ---  | ---  | ---  | 4.8   | 0.8  | 2.0  | 2.4    | 0.9  | 1.5  | ---       | --- | ---  |
| MONTH    | ---  | ---  | ---  | ---   | ---  | ---  | 5.7    | 0.0  | 1.8  | 4.5       | 0.1 | 1.9  |
| YEAR     | 14.9 | 0.0  | 6.5  |       |      |      |        |      |      |           |     |      |

01111230 BLACKSTONE RIVER AT MILLVILLE, MASS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

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

01111230 BLACKSTONE RIVER AT MILLVILLE, MASS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

[illegible]



## 01116500 PAWTUXET RIVER AT CRANSTON, R. I.

LOCATION.--Lat 41°45'03", long 71°26'44", Providence County, two-parameter monitor at gaging station on left bank at Cranston, 0.7 mile upstream from Pocasset River.

DRAINAGE AREA.--200 sq mi.

PERIOD OF RECORD.--Chemical analyses: June 1969 to September 1971.  
Water temperatures: November 1961 to September 1971.

## EXTREMES.--1970-71:

Specific conductance: Maximum, greater than 550 micromhos Jan. 30, 31, Feb. 5, 6; minimum, 113 micromhos May 18.  
Water temperatures: Maximum, 28.0°C July 8, Aug. 3; minimum, 0.5°C on many days during winter period.

## Period of record:

Specific conductance: Maximum greater than 550 micromhos Jan. 30, 31, Feb. 5, 6, 1971; minimum, 65 micromhos Apr. 5, 1970.  
Water temperatures: Maximum, 30.0°C July 1, 1964; minimum, freezing point on many days during winter periods 1965-70.

## SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|---------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | 322     | 278 | 300  | 362      | 340 | 354  | 214      | 201 | 206  | 216     | 188 | 201  |
| 2     | 318     | 290 | 301  | 348      | 263 | 326  | 221      | 200 | 211  | 216     | 188 | 203  |
| 3     | 329     | 293 | 312  | 265      | 213 | 232  | 256      | 217 | 236  | 196     | 175 | 183  |
| 4     | 354     | 289 | 312  | 232      | 218 | 227  | 280      | 231 | 261  | 181     | 165 | 175  |
| 5     | 338     | 306 | 323  | 228      | 211 | 220  | 253      | 217 | 229  | 262     | 180 | 226  |
| 6     | 346     | 307 | 317  | 223      | 212 | 220  | 272      | 223 | 258  | 257     | 213 | 223  |
| 7     | 317     | 310 | 314  | 250      | 221 | 237  | ---      | --- | ---  | ---     | --- | ---  |
| 8     | ---     | --- | ---  | 278      | 250 | 261  | 183      | 175 | 180  | ---     | --- | ---  |
| 9     | ---     | --- | ---  | 295      | 277 | 287  | 197      | 174 | 185  | ---     | --- | ---  |
| 10    | ---     | --- | ---  | 277      | 258 | 272  | 234      | 198 | 214  | 216     | 196 | 209  |
| 11    | ---     | --- | ---  | 255      | 232 | 240  | 284      | 252 | 271  | 205     | 160 | 188  |
| 12    | ---     | --- | ---  | 256      | 244 | 250  | 275      | 264 | 269  | 174     | 161 | 166  |
| 13    | ---     | --- | ---  | 295      | 243 | 268  | 287      | 276 | 282  | 230     | 214 | 221  |
| 14    | ---     | --- | ---  | 258      | 227 | 234  | 294      | 258 | 284  | 316     | 238 | 274  |
| 15    | ---     | --- | ---  | 252      | 235 | 245  | 266      | 226 | 254  | 269     | 224 | 251  |
| 16    | ---     | --- | ---  | 249      | 228 | 239  | 255      | 223 | 242  | 251     | 226 | 238  |
| 17    | ---     | --- | ---  | 272      | 234 | 258  | 288      | 215 | 266  | 253     | 215 | 242  |
| 18    | ---     | --- | ---  | 240      | 225 | 231  | 206      | 194 | 200  | 212     | 160 | 187  |
| 19    | ---     | --- | ---  | 256      | 225 | 244  | 220      | 188 | 198  | 178     | 161 | 170  |
| 20    | ---     | --- | ---  | 277      | 252 | 264  | 218      | 185 | 205  | 251     | 175 | 221  |
| 21    | 326     | 292 | 312  | 290      | 261 | 274  | 189      | 158 | 168  | 266     | 221 | 244  |
| 22    | 284     | 260 | 274  | 269      | 261 | 265  | 193      | 168 | 174  | 285     | 223 | 252  |
| 23    | 256     | 177 | 222  | 269      | 228 | 245  | 245      | 200 | 224  | 363     | 266 | 316  |
| 24    | 262     | 258 | 260  | 302      | 244 | 281  | 398      | 232 | 307  | 427     | 333 | 381  |
| 25    | 278     | 262 | 271  | 240      | 216 | 227  | 315      | 215 | 247  | 350     | 260 | 293  |
| 26    | 290     | 260 | 274  | 251      | 232 | 239  | 214      | 181 | 193  | 384     | 277 | 325  |
| 27    | 277     | 253 | 264  | 260      | 239 | 253  | 190      | 159 | 171  | 368     | 271 | 292  |
| 28    | 271     | 241 | 253  | 265      | 238 | 246  | 164      | 147 | 156  | 276     | 244 | 254  |
| 29    | 306     | 240 | 257  | 275      | 267 | 272  | 193      | 150 | 162  | 279     | 224 | 260  |
| 30    | 350     | 313 | 322  | 275      | 216 | 256  | 214      | 199 | 208  | >550    | 251 | 419  |
| 31    | 355     | 321 | 334  | ---      | --- | ---  | 219      | 189 | 205  | >550    | 393 | ---  |
| MONTH | ---     | --- | ---  | 362      | 211 | 256  | 398      | 147 | 222  | >550    | 160 | 245  |

01116500 PAWTUXET RIVER AT CRANSTON, R.I.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| FEBRUARY |      |     |      | MARCH |     |      | APRIL  |     |      | MAY       |     |      |
|----------|------|-----|------|-------|-----|------|--------|-----|------|-----------|-----|------|
| DAY      | MAX  | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | 305  | 320 | 371  | 134   | 120 | 126  | 220    | 202 | 208  | 282       | 251 | 270  |
| 2        | 401  | 285 | 345  | 170   | 123 | 144  | 219    | 197 | 207  | 276       | 246 | 257  |
| 3        | 290  | 220 | 262  | 206   | 130 | 171  | 210    | 204 | 208  | 276       | 149 | 214  |
| 4        | 263  | 224 | 248  | 340   | 176 | 248  | 235    | 202 | 211  | 155       | 133 | 141  |
| 5        | >550 | 247 | ---  | 197   | 171 | 183  | 239    | 149 | 204  | 189       | 145 | 169  |
| 6        | >550 | 309 | ---  | 182   | 145 | 161  | 170    | 148 | 160  | 178       | 155 | 171  |
| 7        | 407  | 364 | 377  | 153   | 117 | 140  | 210    | 165 | 194  | 206       | 168 | 182  |
| 8        | 370  | 267 | 335  | 137   | 118 | 124  | 171    | 143 | 155  | 197       | 182 | 187  |
| 9        | 257  | 195 | 207  | ---   | --- | ---  | 162    | 140 | 146  | 182       | 171 | 176  |
| 10       | 220  | 194 | 202  | 207   | 147 | 184  | 158    | 134 | 144  | 176       | 169 | 172  |
| 11       | 227  | 214 | 223  | 217   | 153 | 187  | 146    | 135 | 139  | 215       | 170 | 185  |
| 12       | 267  | 214 | 236  | 202   | 163 | 187  | 155    | 133 | 148  | 233       | 206 | 219  |
| 13       | 293  | 177 | 267  | 189   | 157 | 171  | 156    | 128 | 136  | 244       | 221 | 232  |
| 14       | 190  | 170 | 180  | 192   | 144 | 161  | 199    | 153 | 170  | 276       | 237 | 255  |
| 15       | 176  | 165 | 168  | 143   | 135 | 138  | 267    | 184 | 214  | 269       | 225 | 245  |
| 16       | 190  | 182 | 187  | 153   | 135 | 143  | 227    | 171 | 209  | 266       | 203 | 245  |
| 17       | 187  | 180 | 183  | ---   | --- | ---  | 240    | 202 | 210  | 195       | 115 | 142  |
| 18       | 229  | 189 | 208  | ---   | --- | ---  | 224    | 199 | 209  | 132       | 113 | 123  |
| 19       | 255  | 229 | 248  | 180   | 151 | 169  | 251    | 152 | 217  | 164       | 129 | 146  |
| 20       | 241  | 223 | 232  | 160   | 137 | 148  | 220    | 150 | 173  | 166       | 146 | 156  |
| 21       | 236  | 203 | 219  | 142   | 133 | 139  | 258    | 214 | 229  | 180       | 137 | 157  |
| 22       | 201  | 171 | 183  | 143   | 121 | 132  | 262    | 222 | 239  | ---       | --- | ---  |
| 23       | 184  | 165 | 173  | 164   | 123 | 140  | 254    | 221 | 238  | ---       | --- | ---  |
| 24       | 204  | 166 | 189  | 181   | 152 | 166  | 272    | 241 | 251  | ---       | --- | ---  |
| 25       | 199  | 184 | 191  | 210   | 158 | 181  | 296    | 258 | 272  | ---       | --- | ---  |
| 26       | 200  | 165 | 183  | 193   | 183 | 188  | 329    | 277 | 304  | ---       | --- | ---  |
| 27       | 183  | 136 | 164  | 204   | 194 | 200  | 305    | 238 | 274  | 244       | 219 | 230  |
| 28       | 144  | 122 | 137  | 207   | 202 | 205  | 254    | 226 | 233  | 295       | 245 | 269  |
| 29       | ---  | --- | ---  | 222   | 186 | 209  | 279    | 239 | 257  | 326       | 280 | 306  |
| 30       | ---  | --- | ---  | 185   | 169 | 176  | 281    | 269 | 273  | 301       | 260 | 282  |
| 31       | ---  | --- | ---  | 201   | 180 | 189  | ---    | --- | ---  | 295       | 214 | 278  |
| MONTH    | >550 | 122 | 236  | 340   | 117 | 168  | 329    | 128 | 208  | 326       | 113 | 208  |
|          |      |     |      |       |     |      |        |     |      |           |     |      |
| JUNE     |      |     |      | JULY  |     |      | AUGUST |     |      | SEPTEMBER |     |      |
| DAY      | MAX  | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | 253  | 162 | 195  | 400   | 328 | 365  | 395    | 342 | 358  | 474       | 388 | 411  |
| 2        | 180  | 162 | 173  | 375   | 303 | 329  | 351    | 325 | 337  | 387       | 350 | 368  |
| 3        | 230  | 175 | 211  | 350   | 319 | 338  | 357    | 307 | 325  | 386       | 351 | 37   |

01116500 PAWTUXET RIVER AT CRANSTON, R.I.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER  |      |      | NOVEMBER |      |      | DECEMBER |      |      | JANUARY |      |      |
|-------|----------|------|------|----------|------|------|----------|------|------|---------|------|------|
|       | MAX      | MIN  | MEAN | MAX      | MIN  | MEAN | MAX      | MIN  | MEAN | MAX     | MIN  | MEAN |
| 1     | 19.5     | 17.5 | 18.5 | 11.0     | 9.0  | 10.0 | 7.5      | 6.5  | 7.0  | 1.5     | 1.0  | 1.5  |
| 2     | 26.0     | 16.5 | 17.5 | 11.0     | 10.5 | 10.5 | 9.0      | 7.5  | 8.0  | 6.5     | 1.0  | 2.0  |
| 3     | 18.5     | 16.5 | 17.5 | 11.0     | 10.0 | 10.5 | 8.0      | 7.5  | 8.0  | 2.5     | 1.0  | 1.5  |
| 4     | 19.0     | 16.5 | 17.5 | 11.5     | 11.0 | 11.5 | 9.0      | 8.0  | 8.5  | 2.5     | 1.5  | 2.0  |
| 5     | 18.0     | 15.5 | 16.5 | 11.5     | 10.5 | 11.0 | 6.5      | 6.0  | 6.0  | 3.5     | 2.0  | 3.0  |
| 6     | 18.0     | 14.5 | 16.5 | 11.0     | 10.0 | 10.5 | 6.0      | 4.5  | 5.5  | 3.0     | 2.0  | 2.5  |
| 7     | 17.0     | 15.5 | 16.0 | 11.0     | 9.5  | 10.0 | ---      | ---  | ---  | ---     | ---  | ---  |
| 8     | ---      | ---  | ---  | 10.5     | 9.5  | 10.0 | 3.0      | 2.0  | 2.5  | ---     | ---  | ---  |
| 9     | ---      | ---  | ---  | 10.0     | 9.0  | 9.5  | 3.0      | 2.5  | 3.0  | ---     | ---  | ---  |
| 10    | ---      | ---  | ---  | 10.0     | 9.0  | 9.5  | 4.5      | 3.0  | 3.5  | 2.0     | 1.0  | 1.5  |
| 11    | ---      | ---  | ---  | 12.0     | 10.0 | 11.0 | 3.5      | 3.0  | 3.5  | 2.5     | 2.0  | 2.5  |
| 12    | ---      | ---  | ---  | 12.5     | 11.0 | 11.5 | 3.0      | 2.0  | 2.5  | ---     | ---  | ---  |
| 13    | ---      | ---  | ---  | 11.5     | 11.0 | 11.5 | 3.0      | 2.0  | 2.5  | 2.0     | 1.5  | 2.0  |
| 14    | ---      | ---  | ---  | 11.0     | 10.5 | 10.5 | 3.5      | 2.5  | 3.0  | 2.0     | 1.0  | 1.5  |
| 15    | ---      | ---  | ---  | 10.5     | 10.0 | 10.5 | 3.0      | 2.0  | 2.5  | 2.0     | 0.5  | 1.0  |
| 16    | ---      | ---  | ---  | 10.0     | 9.0  | 9.5  | 2.5      | 1.5  | 2.0  | 1.5     | 0.5  | 1.0  |
| 17    | ---      | ---  | ---  | 9.0      | 8.0  | 8.5  | 2.5      | 1.5  | 2.0  | 1.5     | 0.5  | 1.0  |
| 18    | ---      | ---  | ---  | 8.5      | 7.0  | 8.0  | 2.5      | 2.0  | 2.5  | 1.5     | 0.5  | 1.0  |
| 19    | ---      | ---  | ---  | 9.0      | 8.0  | 8.5  | 3.5      | 2.5  | 3.0  | 1.5     | 0.5  | 1.0  |
| 20    | ---      | ---  | ---  | 10.0     | 8.5  | 9.0  | 3.5      | 3.5  | 3.5  | 1.5     | 0.5  | 1.0  |
| 21    | 13.0     | 12.5 | 13.0 | 10.5     | 9.5  | 10.0 | 3.5      | 3.0  | 3.0  | 1.5     | 0.5  | 1.0  |
| 22    | 13.5     | 11.5 | 12.5 | 10.0     | 8.5  | 9.5  | 2.0      | 2.0  | 2.0  | 2.5     | 1.0  | 1.5  |
| 23    | 15.0     | 12.5 | 14.0 | 10.0     | 9.0  | 9.5  | 2.0      | 1.5  | 1.5  | 3.0     | 1.5  | 2.0  |
| 24    | 15.5     | 15.0 | 15.0 | 9.0      | 7.0  | 8.0  | 2.0      | 1.5  | 1.5  | 3.5     | 1.0  | 2.0  |
| 25    | 15.0     | 14.5 | 15.0 | 7.0      | 5.5  | 6.5  | 2.0      | 1.0  | 1.5  | 3.5     | 2.0  | 2.5  |
| 26    | 14.5     | 13.5 | 14.0 | 6.5      | 5.0  | 5.5  | 2.0      | 1.0  | 1.5  | 2.5     | 1.5  | 2.0  |
| 27    | 13.0     | 11.5 | 12.5 | 7.0      | 5.5  | 6.0  | 2.0      | 0.5  | 1.0  | ---     | ---  | ---  |
| 28    | 12.0     | 10.5 | 11.0 | 7.0      | 5.5  | 6.5  | 2.0      | 1.0  | 1.5  | 1.5     | 0.5  | 1.0  |
| 29    | 11.5     | 10.0 | 10.5 | 7.0      | 6.5  | 7.0  | 2.0      | 1.0  | 1.5  | 2.0     | 0.5  | 1.0  |
| 30    | 11.0     | 9.5  | 10.0 | 8.5      | 7.0  | 7.5  | 2.0      | 1.0  | 1.5  | 2.5     | 0.5  | 1.5  |
| 31    | 10.5     | 9.0  | 10.0 | ---      | ---  | ---  | 2.0      | 0.5  | 1.5  | 2.5     | 0.5  | 1.5  |
| MONTH | ---      | ---  | ---  | 12.5     | 5.0  | 9.0  | 9.0      | 0.5  | 3.0  | 6.5     | 0.5  | 1.5  |
| DAY   | FEBRUARY |      |      | MARCH    |      |      | APRIL    |      |      | MAY     |      |      |
|       | MAX      | MIN  | MEAN | MAX      | MIN  | MEAN | MAX      | MIN  | MEAN | MAX     | MIN  | MEAN |
| 1     | 1.5      | 0.5  | 1.0  | 5.5      | 4.0  | 4.5  | 8.5      | 6.5  | 7.5  | 13.0    | 10.5 | 12.0 |
| 2     | 1.5      | 0.5  | 1.0  | 5.5      | 3.5  | 4.5  | 10.5     | 7.5  | 9.0  | 13.0    | 11.5 | 12.0 |
| 3     | 1.5      | 0.5  | 1.0  | 4.5      | 3.0  | 4.0  | 11.0     | 9.5  | 10.0 | 12.5    | 11.5 | 12.0 |
| 4     | 2.0      | 0.5  | 1.0  | 3.0      | 2.0  | 2.5  | 11.5     | 8.5  | 10.0 | 11.5    | 7.0  | 10.5 |
| 5     | 1.5      | 0.5  | 1.0  | 2.5      | 1.5  | 2.0  | 11.5     | 10.0 | 10.5 | 13.0    | 9.5  | 11.5 |
| 6     | 2.5      | 1.0  | 1.5  | 4.0      | 2.0  | 3.0  | 9.5      | 7.5  | 9.0  | 13.0    | 10.0 | 12.0 |
| 7     | 3.0      | 1.0  | 2.0  | 4.0      | 3.5  | 3.5  | 7.0      | 6.0  | 6.5  | 14.0    | 10.5 | 12.0 |
| 8     | 2.0      | 1.0  | 1.5  | 4.0      | 3.0  | 3.5  | 8.0      | 5.5  | 7.0  | 19.5    | 15.5 | 18.5 |
| 9     | 2.5      | 1.5  | 2.0  | ---      | ---  | ---  | 9.5      | 6.5  | 8.0  | 19.5    | 18.5 | 19.0 |
| 10    | 2.5      | 1.0  | 2.0  | 4.0      | 2.5  | 3.0  | 10.5     | 8.5  | 9.5  | 19.0    | 13.0 | 17.0 |
| 11    | 2.5      | 1.0  | 2.0  | 4.0      | 3.5  | 3.5  | 9.5      | 8.0  | 8.5  | 16.0    | 12.0 | 14.0 |
| 12    | 2.5      | 2.0  | 2.0  | 5.0      | 3.0  | 4.0  | 11.0     | 8.0  | 9.5  | 17.5    | 14.5 | 16.0 |
| 13    | 4.5      | 3.0  | 4.0  | 5.0      | 4.0  | 5.0  | 11.0     | 9.0  | 10.0 | 16.0    | 15.5 | 16.0 |
| 14    | 3.5      | 2.0  | 3.0  | 5.5      | 4.5  | 5.0  | 10.5     | 9.5  | 10.0 | 17.5    | 15.0 | 16.0 |
| 15    | 2.5      | 1.5  | 2.0  | 7.0      | 5.0  | 5.5  | 11.0     | 8.0  | 9.5  | 18.0    | 15.0 | 16.0 |
| 16    | 2.5      | 1.5  | 2.0  | 8.0      | 6.5  | 7.0  | 11.5     | 8.0  | 9.0  | 16.0    | 14.0 | 15.0 |
| 17    | 3.5      | 2.0  | 3.0  | ---      | ---  | ---  | 10.5     | 7.5  | 9.0  | 15.5    | 13.0 | 14.0 |
| 18    | 4.5      | 2.5  | 3.5  | ---      | ---  | ---  | 10.0     | 8.0  | 9.0  | 16.5    | 14.0 | 15.5 |
| 19    | ---      | ---  | ---  | 5.0      | 4.5  | 5.0  | 13.5     | 9.0  | 10.5 | 17.0    | 15.0 | 16.0 |
| 20    | 4.5      | 4.0  | 4.5  | 5.0      | 4.0  | 4.5  | 13.0     | 9.0  | 11.0 | 17.5    | 15.5 | 16.5 |
| 21    | 4.0      | 3.5  | 3.5  | 5.5      | 4.5  | 5.0  | 13.5     | 10.5 | 12.0 | 17.5    | 16.0 | 16.5 |
| 22    | 3.5      | 3.5  | 3.5  | 6.5      | 4.0  | 5.0  | 12.5     | 10.5 | 11.5 | 17.5    | 15.5 | 16.5 |
| 23    | 3.5      | 3.0  | 3.5  | 6.5      | 5.0  | 6.0  | 12.0     | 10.0 | 11.5 | 18.5    | 16.0 | 17.0 |
| 24    | 3.0      | 2.5  | 3.0  | 6.0      | 4.5  | 5.0  | 14.0     | 10.5 | 12.0 | 18.5    | 16.0 | 17.5 |
| 25    | 4.0      | 3.0  | 3.5  | 5.5      | 3.5  | 4.5  | 14.0     | 11.0 | 12.5 | 19.5    | 17.5 | 18.5 |
| 26    | 5.0      | 3.5  | 4.5  | 5.5      | 4.0  | 5.0  | 12.5     | 11.0 | 11.5 | 20.5    | 18.5 | 19.5 |
| 27    | 5.0      | 4.5  | 4.5  | 6.0      | 4.5  | 5.0  | 13.5     | 11.0 | 12.0 | 20.0    | 18.0 | 19.0 |
| 28    | 5.0      | 4.0  | 4.5  | 7.0      | 4.0  | 5.5  | 12.5     | 11.0 | 11.5 | 19.0    | 17.5 | 18.5 |
| 29    | ---      | ---  | ---  | 7.0      | 6.0  | 6.5  | 11.5     | 10.0 | 11.0 | 20.5    | 17.0 | 18.5 |
| 30    | ---      | ---  | ---  | 8.0      | 6.0  | 7.0  | 11.5     | 10.0 | 11.0 | 18.0    | 16.5 | 17.0 |
| 31    | ---      | ---  | ---  | 8.5      | 6.5  | 7.5  | ---      | ---  | ---  | 18.0    | 16.5 | 17.5 |
| MONTH | 5.0      | 0.5  | 2.5  | 8.5      | 1.5  | 5.0  | 14.0     | 5.5  | 10.0 | 20.5    | 7.0  | 15.5 |



LOCATION.--Lat 41°23'58", long 71°48'00", Washington County, two-parameter monitor on right bank 15 feet upstream from bridge on Route 3 at Hopkinton-Westerly town line and 2.3 miles southwest of South Hopkinton.

Water temperatures: May to October 1971.

Dissolved oxygen: Maximum, 10.9 mg/l May 11; minimum, 0 mg/l July 8.  
Water temperatures: Maximum, 27.0°C Aug. 3; minimum, 9.5°C May 1, 5.

[illegible]

01118100 PAWCATUCK RIVER NEAR SOUTH HOPKINTON, R.I.--Continued

TEMPERATURE (°C) OF WATER, MAY TO OCTOBER 1971

[illegible]



## 01118470 PAWCATUCK RIVER AT WHITE ROCK, R.I.

LOCATION.--Lat 41°23'51", long 71°50'33", Washington County, two-parameter monitor on old trolley bridge 0.2 mile southwest of White Rock and 1.2 miles upstream from gaging station at Westerly.

PERIOD OF RECORD.--Chemical analyses: May to October 1971.

Water temperatures: May to October 1971.

EXTREMES.--May to October 1971:

Dissolved oxygen: Maximum, 14.0 mg/l Aug. 14; minimum, 4.0 mg/l July 9, Aug. 22, 23.

Water temperatures: Maximum, 30.0°C Aug. 14; minimum, 9.5°C May 4, 5.

## DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, MAY TO OCTOBER 1971

[illegible]

01118470 PAWCATUCK RIVER AT WHITE ROCK, R.I.--Continued

TEMPERATURE (°C) OF WATER, MAY TO OCTOBER 1971

[illegible]

## 01124000 QUINEBAUG RIVER AT QUINEBAUG, CONN.

LOCATION.--Lat 42°01'20", long 71°57'22", Windham County, on right bank at Quinebaug, 500 ft upstream from bridge on State Highway 197, 0.2 mile downstream from Massachusetts-Connecticut State line. Multiple-parameter monitor on right bank 50 ft upstream from bridge on Massachusetts State Highway 131, 0.2 mile upstream from State line, 0.4 mile upstream from gaging station, and 2.0 miles southwest of Dudley, Mass.

DRAINAGE AREA.--157 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1959 to September 1960, October 1968 to September 1971.  
Water temperatures: October 1959 to September 1960, October 1968 to September 1971.

## EXTREMES.--1970-71:

Specific conductance: Maximum, 381 micromhos Feb. 7; minimum, 87 micromhos Apr. 6.

pH: Maximum, 9.0 July 13, 16; minimum, 5.9 June 7, Aug. 4, 19.

Dissolved oxygen: Maximum recorded, 15.5 mg/l Feb. 3; minimum, 1.0 mg/l Aug. 2, 3, Sept. 10.

Water temperatures: Maximum, 30.5°C July 8; minimum, freezing point on many days during winter period.

## Period of record:

Specific conductance: Maximum recorded, 393 micromhos Sept. 24, 1970; minimum observed, 49 micromhos Apr. '2 1960.

pH (1968-71): Maximum, 9.0 July 13, 16, 1971; minimum, 4.9 July 18, 1970.

Dissolved oxygen (1968-71): Maximum, 15.5 mg/l Feb. 3, 1971; minimum, 0.4 mg/l Aug. 28, 1970.

Water temperatures: Maximum recorded, 32.5°C July 29, 1970; minimum, freezing point on many days during winter periods.

REMARKS.--Miscellaneous samples of chemical data published for water year 1962. PH probe not operating Oct. 1 to Nov. 5.

## SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|---------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | 176     | 170 | 172  | 162      | 157 | 158  | 158      | 145 | 151  | 152     | 144 | 148  |
| 2     | 178     | 170 | 174  | 152      | 150 | 151  | 159      | 155 | 157  | 146     | 142 | 144  |
| 3     | 188     | 155 | 170  | 147      | 143 | 145  | 152      | 150 | 155  | 150     | 143 | 152  |
| 4     | 165     | 157 | 163  | 156      | 143 | 148  | 149      | 127 | 139  | 166     | 148 | 155  |
| 5     | 169     | 155 | 160  | 163      | 152 | 158  | 148      | 139 | 144  | 244     | 150 | 191  |
| 6     | 157     | 142 | 150  | 164      | 156 | 159  | 148      | 137 | 141  | 244     | 194 | 214  |
| 7     | 153     | 146 | 150  | 168      | 156 | 162  | 154      | 145 | 149  | 221     | 199 | 209  |
| 8     | 151     | 143 | 146  | 166      | 159 | 162  | 157      | 150 | 153  | 196     | 167 | 189  |
| 9     | 156     | 140 | 148  | 166      | 156 | 161  | 158      | 138 | 150  | 185     | 175 | 178  |
| 10    | 153     | 143 | 146  | 170      | 159 | 164  | 163      | 141 | 148  | 177     | 158 | 168  |
| 11    | 143     | 133 | 138  | 167      | 152 | 161  | 142      | 136 | 139  | 172     | 153 | 161  |
| 12    | 140     | 133 | 136  | 164      | 145 | 158  | 138      | 136 | 137  | 159     | 148 | 153  |
| 13    | 149     | 138 | 142  | 177      | 159 | 170  | 141      | 135 | 138  | 159     | 151 | 154  |
| 14    | 151     | 144 | 148  | 178      | 159 | 171  | 138      | 135 | 136  | 155     | 147 | 152  |
| 15    | ---     | --- | ---  | ---      | --- | ---  | 142      | 138 | 139  | 155     | 148 | 152  |
| 16    | ---     | --- | ---  | ---      | --- | ---  | 174      | 144 | 162  | 163     | 155 | 158  |
| 17    | ---     | --- | ---  | ---      | --- | ---  | 166      | 150 | 154  | 162     | 155 | 157  |
| 18    | ---     | --- | ---  | 142      | 139 | 141  | 163      | 148 | 154  | 160     | 155 | 158  |
| 19    | ---     | --- | ---  | 145      | 137 | 141  | 169      | 143 | 156  | 169     | 162 | 166  |
| 20    | ---     | --- | ---  | 141      | 129 | 137  | 170      | 145 | 159  | 173     | 156 | 160  |
| 21    | 125     | 120 | 122  | 137      | 122 | 131  | 164      | 156 | 160  | 165     | 150 | 162  |
| 22    | 125     | 118 | 123  | 141      | 134 | 138  | 184      | 155 | 164  | 172     | 163 | 167  |
| 23    | 134     | 119 | 125  | 142      | 138 | 139  | 202      | 165 | 182  | 165     | 155 | 160  |
| 24    | 136     | 116 | 126  | 147      | 140 | 143  | 171      | 160 | 167  | 172     | 167 | 170  |
| 25    | 152     | 127 | 141  | 142      | 126 | 133  | ---      | --- | ---  | 178     | 147 | 165  |
| 26    | 157     | 148 | 151  | 133      | 126 | 129  | ---      | --- | ---  | 172     | 148 | 156  |
| 27    | 165     | 154 | 160  | 128      | 125 | 127  | ---      | --- | ---  | ---     | --- | ---  |
| 28    | 168     | 150 | 159  | 129      | 124 | 126  | ---      | --- | ---  | ---     | --- | ---  |
| 29    | 160     | 152 | 155  | 131      | 124 | 127  | 181      | 158 | 165  | ---     | --- | ---  |
| 30    | 163     | 157 | 159  | 144      | 131 | 136  | 163      | 155 | 159  | ---     | --- | ---  |
| 31    | 164     | 155 | 161  | ---      | --- | ---  | 159      | 145 | 152  | ---     | --- | ---  |
| MONTH | 188     | 116 | 149  | 178      | 122 | 147  | 202      | 127 | 152  | 244     | 142 | 165  |

01124000 QUINEBAUG RIVER AT QUINEBAUG, CONN.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| FEBRUARY |     |     |      | MARCH |     |      | APRIL  |     |      | MAY       |     |      |
|----------|-----|-----|------|-------|-----|------|--------|-----|------|-----------|-----|------|
| DAY      | MAX | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | --- | --- | ---  | 156   | 150 | 152  | 115    | 108 | 111  | 134       | 123 | 128  |
| 2        | --- | --- | ---  | 159   | 140 | 155  | 114    | 108 | 111  | 124       | 118 | 121  |
| 3        | 171 | 142 | 149  | 140   | 137 | 138  | 109    | 97  | 102  | 120       | 115 | 118  |
| 4        | 152 | 140 | 148  | 167   | 123 | 143  | 99     | 92  | 95   | 126       | 116 | 120  |
| 5        | 150 | 142 | 146  | 164   | 142 | 149  | 94     | 91  | 92   | 128       | 115 | 121  |
| 6        | 204 | 143 | 174  | 157   | 143 | 148  | 95     | 87  | 91   | 119       | 111 | 114  |
| 7        | 381 | 190 | 268  | 158   | 145 | 150  | 110    | 94  | 104  | 118       | 111 | 114  |
| 8        | 207 | 183 | 194  | 163   | 152 | 156  | 105    | 99  | 101  | 119       | 108 | 112  |
| 9        | 186 | 177 | 180  | 164   | 153 | 159  | 103    | 95  | 100  | 111       | 108 | 110  |
| 10       | 238 | 195 | 203  | 161   | 152 | 157  | 103    | 98  | 100  | 126       | 108 | 116  |
| 11       | 220 | 183 | 201  | 184   | 154 | 161  | 102    | 99  | 100  | 126       | 121 | 123  |
| 12       | 188 | 169 | 176  | 187   | 159 | 171  | 101    | 96  | 99   | ---       | --- | ---  |
| 13       | 201 | 157 | 176  | 176   | 158 | 164  | 101    | 98  | 99   | ---       | --- | ---  |
| 14       | 178 | 162 | 168  | 166   | 160 | 163  | 104    | 96  | 99   | ---       | --- | ---  |
| 15       | 168 | 158 | 162  | 168   | 155 | 164  | 108    | 100 | 105  | ---       | --- | ---  |
| 16       | 167 | 157 | 161  | 174   | 160 | 166  | 124    | 109 | 113  | ---       | --- | ---  |
| 17       | 165 | 140 | 150  | 140   | 134 | 138  | 129    | 119 | 121  | ---       | --- | ---  |
| 18       | 145 | 139 | 142  | 140   | 131 | 135  | 122    | 118 | 120  | 112       | 106 | 109  |
| 19       | 178 | 138 | 156  | 131   | 121 | 124  | 124    | 110 | 118  | 114       | 108 | 112  |
| 20       | 177 | 157 | 165  | 142   | 119 | 130  | 119    | 114 | 116  | 117       | 111 | 114  |
| 21       | 177 | 166 | 172  | 131   | 126 | 129  | 119    | 112 | 116  | 123       | 115 | 119  |
| 22       | 174 | 170 | 172  | 131   | 124 | 127  | 118    | 113 | 116  | 121       | 115 | 118  |
| 23       | --- | --- | ---  | 129   | 124 | 127  | 119    | 114 | 117  | 118       | 114 | 116  |
| 24       | 194 | 162 | 176  | 135   | 119 | 128  | 122    | 114 | 118  | 127       | 116 | 121  |
| 25       | 183 | 163 | 172  | 131   | 116 | 123  | 121    | 115 | 118  | 130       | 123 | 127  |
| 26       | 176 | 164 | 168  | 133   | 124 | 129  | 124    | 115 | 119  | 132       | 127 | 130  |
| 27       | 172 | 160 | 168  | 133   | 124 | 128  | 124    | 119 | 121  | 139       | 130 | 134  |
| 28       | 176 | 156 | 168  | 128   | 119 | 123  | 125    | 119 | 122  | 135       | 135 | 137  |
| 29       | --- | --- | ---  | 126   | 114 | 119  | 122    | 117 | 120  | 140       | 134 | 137  |
| 30       | --- | --- | ---  | 124   | 116 | 119  | 132    | 120 | 126  | 138       | 134 | 136  |
| 31       | --- | --- | ---  | 121   | 111 | 116  | ---    | --- | ---  | 137       | 133 | 135  |
| MONTH    | 381 | 138 | 173  | 187   | 111 | 142  | 132    | 87  | 110  | 140       | 106 | 122  |
|          |     |     |      |       |     |      |        |     |      |           |     |      |
| JUNE     |     |     |      | JULY  |     |      | AUGUST |     |      | SEPTEMBER |     |      |
| DAY      | MAX | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | 144 | 133 | 138  | 174   | 162 | 166  | 207    | 180 | 191  | 172       | 161 | 166  |
| 2        | 147 | 140 | 142  | 168   | 151 | 163  | 210    | 183 | 192  | 176       | 163 | 170  |
| 3        | 145 | 133 | 139  | 166   | 147 | 156  | 229    | 204 | 215  | 184       | 169 | 176  |
| 4        | 136 | 125 | 130  | 184   | 160 | 167  | 230    | 182 | 203  | 190       | 178 | 181  |
| 5        | 137 | 129 | 134  | 160   | 155 | 158  | 199    | 165 | 184  | 185       | 178 | 182  |
| 6        | 128 | 119 | 123  | 161   | 153 | 157  | 167    | 154 | 162  | 184       | 177 | 180  |
| 7        | 135 | 119 | 123  | 169   | 155 | 162  | 151    | 131 | 145  | 191       | 177 | 182  |
| 8        | 133 | 125 | 128  | 165   | 149 | 156  | 132    | 121 | 127  | 204       | 185 | 195  |
| 9        | 133 | 122 | 128  | 172   | 160 | 166  | 130    | 121 | 125  | 213       | 199 | 208  |
| 10       | 134 | 120 | 126  | 177   | 167 | 172  | 146    | 130 | 137  | 230       | 215 | 223  |
| 11       | 125 | 118 | 122  | 175   | 167 | 170  | 146    | 123 | 141  | 247       | 227 | 239  |
| 12       | 127 | 120 | 122  | 180   | 167 | 173  | 144    | 122 | 137  | 232       | 88  | 150  |
| 13       | 123 | 118 | 121  | 179   | 173 | 175  | 142    | 134 | 138  | 182       | 132 | 161  |
| 14       | 128 | 121 | 124  | 182   | 172 | 178  | 143    | 136 | 138  | 174       | 129 | 160  |
| 15       | 148 | 125 | 137  | 186   | 178 | 181  | 141    | 135 | 138  | 152       | 139 | 146  |
| 16       | 150 | 144 | 148  | 193   | 183 | 186  | 151    | 136 | 143  | 151       | 145 | 147  |
| 17       | 159 | 145 | 152  | 194   | 182 | 190  | 180    | 140 | 149  | 151       | 144 | 147  |
| 18       | 161 | 151 | 156  | 193   | 182 | 190  | 197    | 155 | 170  | 156       | 149 | 153  |
| 19       | 157 | 148 | 154  | 187   | 180 | 184  | 183    | 155 | 170  | 152       | 145 | 149  |
| 20       | 149 | 146 | 148  | 191   | 186 | 189  | 181    | 168 | 175  | 165       | 147 | 155  |
| 21       | 159 | 146 | 151  | 194   | 184 | 189  | 193    | 178 | 184  | 180       | 165 | 171  |
| 22       | 156 | 145 | 150  | 197   | 186 | 191  | 187    | 174 | 181  | 180       | 163 | 168  |
| 23       | 163 | 148 | 153  | 191   | 178 | 185  | 194    | 173 | 182  | 183       | 170 | 178  |
| 24       | 168 | 154 | 161  | 199   | 184 | 189  | 189    | 176 | 180  | 185       | 178 | 181  |
| 25       | 174 | 158 | 165  | 192   | 182 | 185  | 285    | 270 | 278  | 187       | 179 | 183  |
| 26       | 163 | 155 | 159  | 197   | 183 | 189  | 330    | 270 | 297  | 185       | 180 | 183  |
| 27       | 176 | 150 | 160  | 203   | 181 | 195  | 293    | 178 | 209  | 189       | 181 | 185  |
| 28       | 174 | 161 | 167  | 243   | 190 | 203  | 189    | 170 | 180  | 191       | 179 | 184  |
| 29       | 179 | 156 | 168  | 214   | 199 | 207  | ---    | --- | ---  | 191       | 179 | 183  |
| 30       | 180 | 171 | 175  | 205   | 187 | 197  | 161    | 155 | 157  | 207       | 185 | 195  |
| 31       | --- | --- | ---  | 210   | 181 | 198  | 167    | 155 | 160  | ---       | --- | ---  |
| MONTH    | 180 | 118 | 143  | 243   | 147 | 180  | 330    | 121 | 173  | 247       | 88  | 176  |
| YEAR     | 381 | 87  | 153  |       |     |      |        |     |      |           |     |      |

01124000 QUINEBAUG RIVER AT QUINEBAUG, CONN.--Continued

PH (UNITS), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|---------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | ---     | --- | ---  | ---      | --- | ---  | 7.1      | 6.7 | 6.9  | 6.9     | 6.8 | 6.9  |
| 2     | ---     | --- | ---  | ---      | --- | ---  | 7.1      | 6.8 | 6.9  | 6.9     | 6.8 | 6.8  |
| 3     | ---     | --- | ---  | ---      | --- | ---  | 7.0      | 6.8 | 6.9  | 6.9     | 6.7 | 6.8  |
| 4     | ---     | --- | ---  | ---      | --- | ---  | 6.9      | 6.8 | 6.9  | 6.8     | 6.7 | 6.8  |
| 5     | ---     | --- | ---  | ---      | --- | ---  | 7.0      | 6.9 | 6.9  | 6.8     | 6.7 | 6.8  |
| 6     | ---     | --- | ---  | 6.9      | 6.7 | 6.8  | 7.0      | 6.9 | 6.9  | 6.8     | 6.7 | 6.8  |
| 7     | ---     | --- | ---  | 7.0      | 6.7 | 6.8  | 7.0      | 6.8 | 6.9  | 6.8     | 6.7 | 6.7  |
| 8     | ---     | --- | ---  | 6.9      | 6.7 | 6.8  | 7.0      | 6.8 | 6.9  | 6.7     | 6.5 | 6.6  |
| 9     | ---     | --- | ---  | 6.8      | 6.7 | 6.7  | 6.9      | 6.8 | 6.9  | 6.8     | 6.6 | 6.7  |
| 10    | ---     | --- | ---  | 6.8      | 6.7 | 6.7  | 6.9      | 6.7 | 6.8  | 6.8     | 6.7 | 6.7  |
| 11    | ---     | --- | ---  | 6.7      | 6.7 | 6.7  | 6.8      | 6.7 | 6.8  | 6.8     | 6.6 | 6.7  |
| 12    | ---     | --- | ---  | 6.8      | 6.6 | 6.7  | 6.8      | 6.6 | 6.7  | 6.8     | 6.6 | 6.7  |
| 13    | ---     | --- | ---  | 6.8      | 6.7 | 6.7  | 6.8      | 6.7 | 6.8  | 6.8     | 6.7 | 6.8  |
| 14    | ---     | --- | ---  | 7.0      | 6.7 | 6.8  | 6.8      | 6.5 | 6.7  | 6.8     | 6.7 | 6.7  |
| 15    | ---     | --- | ---  | ---      | --- | ---  | 6.7      | 6.5 | 6.6  | 6.8     | 6.7 | 6.7  |
| 16    | ---     | --- | ---  | ---      | --- | ---  | 7.0      | 6.6 | 6.8  | 6.8     | 6.7 | 6.7  |
| 17    | ---     | --- | ---  | ---      | --- | ---  | 6.9      | 6.5 | 6.7  | 6.8     | 6.6 | 6.7  |
| 18    | ---     | --- | ---  | 6.8      | 6.7 | 6.8  | 6.8      | 6.7 | 6.7  | 6.7     | 6.5 | 6.6  |
| 19    | ---     | --- | ---  | 6.8      | 6.7 | 6.7  | 6.9      | 6.7 | 6.8  | 6.7     | 6.5 | 6.6  |
| 20    | ---     | --- | ---  | 6.7      | 6.6 | 6.7  | 6.9      | 6.8 | 6.8  | 7.0     | 6.7 | 6.9  |
| 21    | ---     | --- | ---  | 6.7      | 6.6 | 6.6  | 6.9      | 6.6 | 6.8  | 6.9     | 6.8 | 6.9  |
| 22    | ---     | --- | ---  | 5.7      | 6.6 | 6.7  | 6.7      | 6.5 | 6.6  | 6.8     | 6.7 | 6.7  |
| 23    | ---     | --- | ---  | 6.7      | 6.6 | 6.6  | 6.8      | 6.5 | 6.7  | ---     | --- | ---  |
| 24    | ---     | --- | ---  | 6.8      | 6.6 | 6.6  | 6.8      | 6.6 | 6.7  | ---     | --- | ---  |
| 25    | ---     | --- | ---  | 6.8      | 6.6 | 6.7  | 6.8      | 6.7 | 6.8  | 7.0     | 6.8 | 6.9  |
| 26    | ---     | --- | ---  | 6.8      | 6.7 | 6.7  | 6.8      | 6.7 | 6.8  | 7.0     | 6.7 | 6.8  |
| 27    | ---     | --- | ---  | 6.8      | 6.7 | 6.7  | 6.9      | 6.7 | 6.8  | ---     | --- | ---  |
| 28    | ---     | --- | ---  | 6.7      | 6.6 | 6.6  | 6.8      | 6.6 | 6.7  | ---     | --- | ---  |
| 29    | ---     | --- | ---  | 6.7      | 6.6 | 6.7  | 7.1      | 6.6 | 6.8  | ---     | --- | ---  |
| 30    | ---     | --- | ---  | 6.8      | 6.6 | 6.7  | 7.0      | 6.8 | 6.9  | ---     | --- | ---  |
| 31    | ---     | --- | ---  | ---      | --- | ---  | 7.0      | 6.8 | 6.9  | ---     | --- | ---  |
| MONTH | ---     | --- | ---  | ---      | --- | ---  | 7.1      | 6.5 | 6.8  | ---     | --- | ---  |

| DAY   | FEBRUARY |     |      | MARCH |     |      | APRIL |     |      | MAY |     |      |
|-------|----------|-----|------|-------|-----|------|-------|-----|------|-----|-----|------|
|       | MAX      | MIN | MEAN | MAX   | MIN | MEAN | MAX   | MIN | MEAN | MAX | MIN | MEAN |
| 1     | ---      | --- | ---  | ---   | --- | ---  | 6.3   | 6.0 | 6.1  | 6.6 | 6.3 | 6.5  |
| 2     | ---      | --- | ---  | ---   | --- | ---  | 6.5   | 6.1 | 6.3  | 6.6 | 6.3 | 6.5  |
| 3     | 7.0      | 6.8 | 6.9  | ---   | --- | ---  | 6.3   | 6.2 | 6.3  | 6.6 | 6.3 | 6.5  |
| 4     | 7.3      | 7.0 | 7.2  | 6.9   | 6.7 | 6.7  | 6.4   | 6.3 | 6.3  | --- | --- | ---  |
| 5     | 7.2      | 7.1 | 7.1  | 6.8   | 6.7 | 6.8  | 6.4   | 6.3 | 6.4  | --- | --- | ---  |
| 6     | 7.1      | 7.0 | 7.1  | 6.9   | 6.8 | 6.8  | 6.4   | 6.4 | 6.4  | --- | --- | ---  |
| 7     | 7.1      | 6.9 | 7.0  | 6.8   | 6.8 | 6.8  | 6.7   | 6.5 | 6.7  | --- | --- | ---  |
| 8     | 6.9      | 6.9 | 6.9  | 6.9   | 6.8 | 6.8  | 6.8   | 6.4 | 6.6  | --- | --- | ---  |
| 9     | 6.9      | 6.8 | 6.9  | 6.9   | 6.8 | 6.9  | 6.5   | 6.2 | 6.4  | --- | --- | ---  |
| 10    | 7.0      | 6.7 | 6.9  | 6.8   | 6.7 | 6.8  | 6.3   | 6.1 | 6.2  | --- | --- | ---  |
| 11    | 6.9      | 6.8 | 6.9  | 6.8   | 6.7 | 6.8  | 6.3   | 6.1 | 6.2  | --- | --- | ---  |
| 12    | 7.0      | 6.9 | 6.9  | 6.8   | 6.7 | 6.8  | 6.5   | 6.1 | 6.4  | --- | --- | ---  |
| 13    | 7.1      | 6.8 | 6.9  | 6.9   | 6.7 | 6.8  | 6.4   | 6.2 | 6.3  | --- | --- | ---  |
| 14    | 6.9      | 6.8 | 6.9  | 6.9   | 6.9 | 6.9  | 6.4   | 6.2 | 6.3  | --- | --- | ---  |
| 15    | 7.0      | 6.9 | 6.9  | 6.9   | 6.8 | 6.9  | 6.4   | 6.2 | 6.3  | --- | --- | ---  |
| 16    | 6.9      | 6.7 | 6.8  | 6.9   | 6.8 | 6.8  | 6.3   | 6.2 | 6.2  | --- | --- | ---  |
| 17    | 6.8      | 6.7 | 6.8  | 6.9   | 6.6 | 6.8  | 6.4   | 6.2 | 6.3  | --- | --- | ---  |
| 18    | 6.9      | 6.7 | 6.8  | 7.0   | 6.9 | 6.9  | 6.5   | 6.3 | 6.4  | 6.9 | 6.6 | 6.8  |
| 19    | 6.9      | 6.7 | 6.8  | 7.0   | 6.8 | 7.0  | 6.8   | 6.4 | 6.5  | 6.9 | 6.4 | 6.6  |
| 20    | 6.7      | 6.7 | 6.7  | 7.1   | 6.8 | 6.9  | 6.6   | 6.3 | 6.5  | 6.9 | 6.3 | 6.6  |
| 21    | 6.8      | 6.7 | 6.7  | 7.1   | 7.0 | 7.0  | 6.7   | 6.3 | 6.5  | 6.7 | 6.4 | 6.6  |
| 22    | 6.8      | 6.7 | 6.8  | 7.0   | 6.8 | 6.9  | 6.4   | 6.2 | 6.3  | 6.8 | 6.4 | 6.6  |
| 23    | 6.8      | 6.7 | 6.7  | 6.8   | 6.6 | 6.7  | 6.4   | 6.3 | 6.3  | 6.9 | 6.5 | 6.7  |
| 24    | 6.8      | 6.7 | 6.7  | 6.8   | 6.6 | 6.7  | 6.4   | 6.3 | 6.4  | 6.8 | 6.5 | 6.6  |
| 25    | 6.8      | 6.7 | 6.8  | 6.8   | 6.7 | 6.7  | 6.5   | 6.3 | 6.3  | 6.9 | 6.4 | 6.7  |
| 26    | 6.8      | 6.8 | 6.8  | 6.7   | 6.6 | 6.6  | 6.9   | 6.4 | 6.5  | 6.8 | 6.4 | 6.6  |
| 27    | 6.9      | 6.8 | 6.8  | 6.7   | 6.6 | 6.6  | 6.6   | 6.3 | 6.4  | 6.7 | 6.5 | 6.6  |
| 28    | 6.9      | 6.7 | 6.8  | 6.6   | 6.5 | 6.6  | 6.5   | 6.2 | 6.3  | 6.9 | 6.2 | 6.7  |
| 29    | ---      | --- | ---  | 6.8   | 6.4 | 6.5  | 6.5   | 6.3 | 6.4  | 7.0 | 6.7 | 6.8  |
| 30    | ---      | --- | ---  | 6.6   | 6.4 | 6.5  | 6.6   | 6.2 | 6.5  | 6.9 | 6.6 | 6.8  |
| 31    | ---      | --- | ---  | 6.4   | 6.1 | 6.3  | ---   | --- | ---  | 7.0 | 6.8 | 6.9  |
| MONTH | 7.3      | 6.7 | 6.9  | 7.1   | 6.1 | 6.8  | 6.9   | 6.0 | 6.4  | --- | --- | ---  |

## 01124000 QUINEBAUG RIVER AT QUINEBAUG, CONN.--Continued

PH (UNITS), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DAY   | JUNE |     |      | JULY |     |      | AUGUST |     |      | SEPTEMBER |     |      |
|-------|------|-----|------|------|-----|------|--------|-----|------|-----------|-----|------|
|       | MAX  | MIN | MEAN | MAX  | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1     | 7.2  | 6.8 | 6.9  | 6.7  | 6.0 | 6.2  | 6.4    | 6.2 | 6.3  | 6.3       | 6.2 | 6.3  |
| 2     | 7.0  | 6.6 | 6.8  | 6.4  | 6.1 | 6.2  | 6.3    | 6.2 | 6.2  | 6.3       | 6.1 | 6.2  |
| 3     | 6.7  | 6.4 | 6.6  | 6.6  | 6.1 | 6.3  | 6.2    | 6.1 | 6.2  | 6.3       | 6.1 | 6.2  |
| 4     | 6.8  | 6.4 | 6.6  | 6.7  | 6.3 | 6.4  | 6.3    | 5.9 | 6.1  | 6.5       | 6.1 | 6.3  |
| 5     | 6.7  | 6.3 | 6.6  | 6.9  | 6.3 | 6.5  | 6.6    | 6.2 | 6.4  | 6.7       | 6.3 | 6.4  |
| 6     | 6.6  | 6.1 | 6.4  | 7.9  | 6.4 | 6.8  | 6.4    | 6.2 | 6.3  | 6.5       | 6.3 | 6.3  |
| 7     | 6.4  | 5.9 | 6.3  | 7.8  | 6.4 | 6.9  | 6.5    | 6.2 | 6.3  | 6.5       | 6.2 | 6.3  |
| 8     | 6.4  | 6.3 | 6.4  | 8.4  | 6.2 | 6.9  | 6.5    | 6.2 | 6.4  | 6.6       | 6.2 | 6.4  |
| 9     | ---  | --- | ---  | 8.3  | 6.3 | 7.0  | 6.5    | 6.2 | 6.3  | 7.1       | 6.5 | 6.7  |
| 10    | ---  | --- | ---  | 8.6  | 6.4 | 7.2  | 6.4    | 6.2 | 6.3  | 7.4       | 6.6 | 6.7  |
| 11    | ---  | --- | ---  | 8.1  | 6.5 | 7.0  | 6.6    | 6.3 | 6.4  | 7.0       | 6.6 | 6.7  |
| 12    | ---  | --- | ---  | 8.3  | 6.5 | 7.1  | 6.5    | 6.1 | 6.3  | 6.9       | 6.6 | 6.7  |
| 13    | ---  | --- | ---  | 9.0  | 6.4 | 7.2  | 6.6    | 6.2 | 6.4  | 6.9       | 6.7 | 6.8  |
| 14    | ---  | --- | ---  | 8.7  | 6.4 | 7.2  | 6.7    | 6.1 | 6.3  | 6.8       | 6.6 | 6.7  |
| 15    | ---  | --- | ---  | 8.9  | 6.4 | 7.3  | 6.9    | 6.2 | 6.4  | 6.8       | 6.4 | 6.7  |
| 16    | ---  | --- | ---  | 9.0  | 6.5 | 7.3  | 7.0    | 6.2 | 6.5  | 6.7       | 6.5 | 6.6  |
| 17    | ---  | --- | ---  | 7.3  | 6.5 | 6.7  | 6.9    | 6.2 | 6.5  | 6.7       | 6.5 | 6.6  |
| 18    | ---  | --- | ---  | 7.8  | 6.4 | 6.8  | 6.8    | 6.3 | 6.5  | 6.7       | 6.6 | 6.6  |
| 19    | ---  | --- | ---  | 6.5  | 6.2 | 6.4  | 6.4    | 5.9 | 6.2  | 6.8       | 6.6 | 6.7  |
| 20    | ---  | --- | ---  | 6.6  | 6.1 | 6.3  | 6.3    | 6.0 | 6.1  | 6.9       | 6.4 | 6.7  |
| 21    | ---  | --- | ---  | 6.5  | 6.0 | 6.3  | 6.3    | 6.0 | 6.1  | 6.7       | 6.5 | 6.6  |
| 22    | ---  | --- | ---  | 6.8  | 6.3 | 6.5  | 6.5    | 6.0 | 6.3  | 6.8       | 6.4 | 6.7  |
| 23    | ---  | --- | ---  | 7.2  | 6.4 | 6.6  | 6.6    | 6.1 | 6.4  | 6.8       | 6.6 | 6.7  |
| 24    | ---  | --- | ---  | 7.3  | 6.4 | 6.7  | 6.1    | 6.1 | 6.1  | 6.9       | 6.5 | 6.7  |
| 25    | ---  | --- | ---  | 7.1  | 6.5 | 6.7  | 6.4    | 6.3 | 6.4  | 7.0       | 6.5 | 6.7  |
| 26    | 7.0  | 6.3 | 6.6  | 7.2  | 6.4 | 6.7  | 6.4    | 6.3 | 6.4  | 7.0       | 6.6 | 6.8  |
| 27    | 6.4  | 6.2 | 6.3  | 6.9  | 6.3 | 6.6  | 6.3    | 6.0 | 6.2  | 7.0       | 6.5 | 6.8  |
| 28    | 6.3  | 6.0 | 6.2  | 7.3  | 6.2 | 6.6  | 6.6    | 6.1 | 6.4  | 6.7       | 6.3 | 6.5  |
| 29    | 6.4  | 6.0 | 6.1  | 6.9  | 6.5 | 6.6  | 6.5    | 6.3 | 6.4  | 7.0       | 6.4 | 6.6  |
| 30    | 6.7  | 6.0 | 6.3  | 6.5  | 6.3 | 6.4  | 6.4    | 6.2 | 6.3  | 6.6       | 6.3 | 6.5  |
| 31    | ---  | --- | ---  | 6.7  | 6.3 | 6.5  | 6.4    | 6.2 | 6.3  | ---       | --- | ---  |
| MONTH | ---  | --- | ---  | 9.0  | 6.0 | 6.7  | 7.0    | 5.9 | 6.3  | 7.4       | 6.1 | 6.6  |
| YEAR  | 9.0  | 5.9 | 6.6  |      |     |      |        |     |      |           |     |      |

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |      |      | DECEMBER |      |      | JANUARY |      |      |
|-------|---------|-----|------|----------|------|------|----------|------|------|---------|------|------|
|       | MAX     | MIN | MEAN | MAX      | MIN  | MEAN | MAX      | MIN  | MEAN | MAX     | MIN  | MEAN |
| 1     | 6.3     | 4.0 | 4.9  | 9.8      | 8.3  | 8.9  | 11.6     | 11.0 | 11.3 | 13.5    | 13.1 | 13.3 |
| 2     | 6.6     | 4.2 | 5.1  | 9.5      | 8.3  | 8.7  | 11.6     | 10.7 | 11.1 | 13.6    | 13.3 | 13.4 |
| 3     | 6.0     | 4.2 | 4.8  | 9.5      | 8.1  | 8.7  | 11.7     | 11.0 | 11.3 | 13.6    | 13.3 | 13.5 |
| 4     | 7.4     | 4.8 | 6.1  | 11.4     | 7.5  | 8.1  | 11.4     | 11.0 | 11.2 | 13.7    | 13.1 | 13.4 |
| 5     | 7.6     | 5.4 | 6.3  | 8.8      | 7.6  | 8.1  | 12.6     | 11.6 | 12.2 | 13.0    | 12.7 | 12.9 |
| 6     | ---     | --- | ---  | 9.7      | 8.2  | 8.8  | 12.8     | 12.3 | 12.6 | ---     | ---  | ---  |
| 7     | ---     | --- | ---  | 10.4     | 9.1  | 9.6  | 13.3     | 12.8 | 13.0 | 14.3    | 13.3 | 13.6 |
| 8     | ---     | --- | ---  | 10.8     | 9.3  | 9.9  | 13.5     | 13.1 | 13.2 | 13.7    | 13.1 | 13.4 |
| 9     | ---     | --- | ---  | 11.1     | 9.5  | 10.1 | 13.4     | 12.8 | 13.0 | 13.8    | 13.3 | 13.5 |
| 10    | ---     | --- | ---  | 10.1     | 8.9  | 9.5  | 13.3     | 12.8 | 13.0 | 13.7    | 13.3 | 13.5 |
| 11    | ---     | --- | ---  | 9.3      | 8.4  | 8.9  | 13.5     | 12.9 | 13.2 | 13.9    | 13.4 | 13.7 |
| 12    | ---     | --- | ---  | 9.2      | 8.3  | 8.7  | 13.5     | 12.9 | 13.2 | 13.9    | 13.4 | 13.7 |
| 13    | ---     | --- | ---  | 8.9      | 8.4  | 8.6  | 13.7     | 13.2 | 13.4 | 14.4    | 13.8 | 14.1 |
| 14    | ---     | --- | ---  | 9.8      | 8.9  | 9.2  | 13.7     | 13.2 | 13.4 | 13.9    | 13.5 | 13.8 |
| 15    | 7.4     | 6.3 | 7.0  | ---      | ---  | ---  | 13.6     | 13.0 | 13.3 | 13.9    | 13.5 | 13.7 |
| 16    | 8.2     | 7.0 | 7.7  | ---      | ---  | ---  | 13.7     | 13.0 | 13.2 | 14.0    | 13.4 | 13.8 |
| 17    | 9.2     | 8.1 | 8.7  | ---      | ---  | ---  | 13.0     | 12.6 | 12.8 | 14.3    | 13.6 | 13.9 |
| 18    | 9.7     | 9.0 | 9.3  | 11.2     | 11.1 | 11.2 | 13.1     | 12.3 | 12.7 | 13.7    | 13.4 | 13.6 |
| 19    | 9.7     | 9.0 | 9.3  | 11.1     | 10.7 | 10.9 | 12.6     | 10.7 | 11.9 | 13.5    | 13.4 | 13.4 |
| 20    | 9.8     | 9.2 | 9.4  | 10.8     | 10.1 | 10.4 | ---      | ---  | ---  | ---     | ---  | ---  |
| 21    | 9.5     | 8.6 | 9.1  | 10.7     | 10.1 | 10.4 | ---      | ---  | ---  | 13.3    | 12.6 | 13.1 |
| 22    | 8.9     | 7.9 | 8.4  | 11.4     | 10.5 | 11.0 | ---      | ---  | ---  | 12.8    | 12.3 | 12.5 |
| 23    | 8.1     | 7.4 | 7.7  | 11.0     | 10.4 | 10.6 | ---      | ---  | ---  | ---     | ---  | ---  |
| 24    | 7.9     | 6.6 | 7.3  | 11.6     | 10.5 | 11.2 | ---      | ---  | ---  | ---     | ---  | ---  |
| 25    | 8.5     | 6.8 | 7.6  | 12.2     | 11.5 | 12.0 | 13.6     | 13.2 | 13.3 | 13.5    | 13.0 | 13.2 |
| 26    | 8.5     | 7.5 | 8.0  | 12.6     | 12.0 | 12.2 | 13.5     | 13.0 | 13.2 | 13.0    | 12.4 | 12.7 |
| 27    | 9.1     | 7.7 | 8.4  | 12.3     | 11.9 | 12.1 | 13.3     | 13.0 | 13.1 | ---     | ---  | ---  |
| 28    | 9.4     | 7.9 | 8.5  | 12.1     | 11.5 | 11.9 | 13.3     | 12.8 | 13.1 | ---     | ---  | ---  |
| 29    | 9.3     | 8.1 | 8.7  | 11.8     | 11.4 | 11.6 | 13.1     | 12.6 | 13.0 | ---     | ---  | ---  |
| 30    | 9.7     | 8.3 | 8.9  | 11.9     | 11.0 | 11.4 | 13.4     | 13.0 | 13.2 | ---     | ---  | ---  |
| 31    | 9.6     | 8.4 | 8.9  | ---      | ---  | ---  | 13.5     | 13.2 | 13.3 | ---     | ---  | ---  |
| MONTH | ---     | --- | ---  | 12.6     | 7.5  | 10.1 | 13.7     | 10.7 | 12.7 | ---     | ---  | ---  |



DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| FEBRUARY |      |      |      | MARCH |      |      | APRIL  |      |      | MAY       |      |      |
|----------|------|------|------|-------|------|------|--------|------|------|-----------|------|------|
| DAY      | MAX  | MIN  | MEAN | MAX   | MIN  | MEAN | MAX    | MIN  | MEAN | MAX       | MIN  | MEAN |
| 1        | ---  | ---  | ---  | ---   | ---  | ---  | 13.3   | 12.1 | 12.7 | 11.5      | 10.1 | 10.8 |
| 2        | ---  | ---  | ---  | ---   | ---  | ---  | 12.8   | 11.5 | 12.2 | 11.1      | 10.1 | 10.6 |
| 3        | 15.5 | 13.9 | 15.1 | ---   | ---  | ---  | 12.5   | 11.5 | 12.0 | 10.7      | 10.0 | 10.3 |
| 4        | 15.3 | 14.9 | 15.1 | 14.2  | 13.1 | 13.8 | 12.8   | 11.9 | 12.3 | 10.9      | 10.0 | 10.5 |
| 5        | 14.7 | 14.0 | 14.3 | 14.5  | 14.2 | 14.3 | 12.7   | 12.1 | 12.3 | 11.1      | 9.6  | 10.4 |
| 6        | 14.6 | 13.5 | 14.1 | 14.6  | 14.1 | 14.3 | 12.7   | 12.0 | 12.3 | 10.4      | 9.3  | 9.7  |
| 7        | 14.8 | 14.0 | 14.4 | 14.2  | 13.8 | 14.0 | 12.6   | 12.0 | 12.3 | 11.0      | 9.4  | 10.2 |
| 8        | 14.4 | 13.6 | 14.0 | 14.2  | 13.8 | 14.0 | 12.7   | 11.9 | 12.3 | 10.6      | 9.4  | 10.0 |
| 9        | 13.8 | 13.1 | 13.5 | 14.4  | 13.9 | 14.1 | 12.7   | 11.7 | 12.2 | 10.4      | 9.7  | 10.1 |
| 10       | 14.3 | 12.5 | 13.8 | 14.4  | 13.7 | 14.1 | 12.1   | 11.4 | 11.8 | 11.1      | 10.2 | 10.6 |
| 11       | 14.6 | 13.9 | 14.2 | 14.0  | 13.7 | 13.9 | 12.2   | 11.4 | 11.8 | 10.8      | 10.2 | 10.5 |
| 12       | 14.3 | 13.6 | 13.9 | 14.1  | 13.3 | 13.7 | 12.0   | 10.8 | 11.4 | ---       | ---  | ---  |
| 13       | 14.0 | 13.3 | 13.6 | 13.9  | 13.3 | 13.6 | 11.5   | 10.4 | 11.0 | ---       | ---  | ---  |
| 14       | 13.9 | 13.2 | 13.6 | 13.8  | 13.3 | 13.5 | 11.0   | 10.4 | 10.7 | ---       | ---  | ---  |
| 15       | 14.1 | 13.7 | 13.9 | 13.6  | 12.7 | 13.2 | 11.6   | 10.6 | 11.1 | ---       | ---  | ---  |
| 16       | 14.3 | 13.7 | 13.9 | 13.4  | 12.7 | 13.1 | 11.2   | 10.7 | 10.9 | ---       | ---  | ---  |
| 17       | 14.3 | 13.6 | 14.0 | 13.6  | 13.2 | 13.4 | 11.9   | 10.7 | 11.3 | ---       | ---  | ---  |
| 18       | 13.9 | 13.4 | 13.6 | 14.0  | 13.3 | 13.7 | 11.7   | 10.8 | 11.2 | 9.5       | 8.3  | 8.8  |
| 19       | 13.8 | 13.3 | 13.5 | 13.9  | 13.4 | 13.7 | 11.5   | 10.3 | 11.0 | 9.4       | 8.2  | 8.8  |
| 20       | 13.6 | 13.3 | 13.4 | 13.6  | 13.1 | 13.3 | 11.5   | 10.0 | 10.8 | 9.2       | 8.1  | 8.6  |
| 21       | 13.8 | 13.3 | 13.5 | 13.4  | 13.2 | 13.3 | 11.2   | 9.8  | 10.5 | 9.1       | 8.3  | 8.6  |
| 22       | 13.8 | 13.3 | 13.5 | 13.6  | 12.9 | 13.3 | 11.1   | 9.9  | 10.4 | 9.5       | 8.5  | 8.9  |
| 23       | 13.3 | 13.1 | 13.2 | 13.3  | 12.7 | 13.0 | 11.1   | 9.9  | 10.4 | 9.9       | 8.7  | 9.3  |
| 24       | 13.4 | 12.9 | 13.2 | 13.3  | 12.8 | 13.1 | 11.2   | 9.6  | 10.4 | 10.2      | 8.5  | 9.4  |
| 25       | 13.5 | 13.1 | 13.3 | 13.8  | 13.1 | 13.5 | 11.3   | 9.5  | 10.5 | 9.2       | 7.8  | 8.6  |
| 26       | 13.8 | 13.2 | 13.4 | 13.7  | 13.1 | 13.4 | 11.4   | 10.0 | 10.7 | 8.9       | 7.6  | 8.1  |
| 27       | 13.5 | 13.0 | 13.3 | 13.6  | 12.7 | 13.2 | 11.3   | 10.1 | 10.6 | 9.0       | 7.7  | 8.3  |
| 28       | 13.4 | 13.1 | 13.3 | 13.3  | 12.3 | 12.8 | 11.3   | 10.1 | 10.6 | 9.1       | 7.7  | 8.4  |
| 29       | ---  | ---  | ---  | 12.8  | 12.1 | 12.5 | 11.2   | 10.0 | 10.6 | 9.1       | 7.6  | 8.3  |
| 30       | ---  | ---  | ---  | 13.1  | 12.3 | 12.7 | 11.2   | 10.4 | 10.6 | 9.1       | 7.7  | 8.3  |
| 31       | ---  | ---  | ---  | 13.3  | 12.2 | 12.7 | ---    | ---  | ---  | 9.2       | 8.1  | 8.5  |
| MONTH    | 15.5 | 12.5 | 13.8 | 14.6  | 12.1 | 13.5 | 13.3   | 9.5  | 11.3 | 11.5      | 7.6  | 9.4  |
|          |      |      |      |       |      |      |        |      |      |           |      |      |
| JUNE     |      |      |      | JULY  |      |      | AUGUST |      |      | SEPTEMBER |      |      |
| DAY      | MAX  | MIN  | MEAN | MAX   | MIN  | MEAN | MAX    | MIN  | MEAN | MAX       | MIN  | MEAN |
| 1        | 10.1 | 8.1  | 8.8  | 7.4   | 2.1  | 3.9  | 5.8    | 1.5  | 3.1  | 3.9       | 2.0  | 2.8  |
| 2        | 9.8  | 7.7  | 8.7  | 5.3   | 2.8  | 3.9  | 4.6    | 1.0  | 2.5  | 4.1       | 1.7  | 2.8  |
| 3        | 9.1  | 7.6  | 9.1  | 7.0   | 2.9  | 4.6  | 4.3    | 1.0  | 2.2  | 4.9       | 1.5  | 2.9  |
| 4        | 8.8  | 7.3  | 8.0  | 7.5   | 3.8  | 5.5  | 3.9    | 1.1  | 2.1  | 4.9       | 1.2  | 2.5  |
| 5        | 9.0  | 7.2  | 8.0  | 8.5   | 4.1  | 6.1  | 5.2    | 2.0  | 3.7  | 5.9       | 1.2  | 2.9  |
| 6        | 9.3  | 7.4  | 8.2  | 9.3   | 4.5  | 6.7  | 5.3    | 3.4  | 4.2  | 4.5       | 1.3  | 2.6  |
| 7        | 9.2  | 6.5  | 7.9  | 9.0   | 4.3  | 6.7  | 5.6    | 3.5  | 4.3  | 5.5       | 1.5  | 3.1  |
| 8        | 8.4  | 6.2  | 7.0  | 9.6   | 4.0  | 6.6  | 6.5    | 3.8  | 5.0  | 3.5       | 1.2  | 1.9  |
| 9        | 7.8  | 5.9  | 6.7  | 9.9   | 4.0  | 6.7  | 6.8    | 3.2  | 5.0  | 4.1       | 1.1  | 2.2  |
| 10       | 8.1  | 6.4  | 7.1  | 10.1  | 3.8  | 6.9  | 6.0    | 1.9  | 3.9  | 4.8       | 1.0  | 2.3  |
| 11       | 8.0  | 6.4  | 7.1  | 10.4  | 4.1  | 6.9  | 6.8    | 1.6  | 3.1  | 4.7       | 1.1  | 2.3  |
| 12       | 8.1  | 6.1  | 7.0  | 10.0  | 4.4  | 7.0  | 7.2    | 1.9  | 4.1  | ---       | ---  | ---  |
| 13       | 7.8  | 6.1  | 6.8  | 10.5  | 4.1  | 7.1  | 7.1    | 1.3  | 3.8  | ---       | ---  | ---  |
| 14       | 8.1  | 6.2  | 6.9  | 10.5  | 4.3  | 7.0  | 7.5    | 1.4  | 3.4  | ---       | ---  | ---  |
| 15       | 8.2  | 6.0  | 6.9  | 11.0  | 4.2  | 7.3  | 8.0    | 1.8  | 3.8  | 7.4       | 6.9  | 7.1  |
| 16       | 7.9  | 5.9  | 6.7  | 11.6  | 4.0  | 7.5  | 8.0    | 1.7  | 4.0  | 7.5       | 6.5  | 7.0  |
| 17       | 8.5  | 5.2  | 6.9  | 9.0   | 3.8  | 5.7  | 7.6    | 1.2  | 3.6  | 7.6       | 6.5  | 7.0  |
| 18       | 8.4  | 5.3  | 6.6  | 9.9   | 3.7  | 6.5  | 7.8    | 1.1  | 3.3  | 7.2       | 6.5  | 6.8  |
| 19       | 8.5  | 5.3  | 6.7  | 7.4   | 3.6  | 5.1  | 7.2    | 1.1  | 3.1  | 8.3       | 7.0  | 7.6  |
| 20       | 9.0  | 5.1  | 6.7  | 8.4   | 3.6  | 5.9  | 6.2    | 1.1  | 2.7  | 8.1       | 5.6  | 7.4  |
| 21       | 9.1  | 4.8  | 6.6  | 7.8   | 2.8  | 5.0  | 5.9    | 1.1  | 2.6  | 7.3       | 6.1  | 6.6  |
| 22       | 8.4  | 3.7  | 5.8  | 8.2   | 2.3  | 4.8  | 4.6    | 1.2  | 2.3  | 7.6       | 5.7  | 6.6  |
| 23       | 7.9  | 3.6  | 5.2  | 7.9   | 1.6  | 4.1  | 4.8    | 1.3  | 2.4  | 7.5       | 5.7  | 6.4  |
| 24       | 8.4  | 2.8  | 5.2  | 7.8   | 2.1  | 4.5  | 4.3    | 1.6  | 2.5  | 7.5       | 5.3  | 6.2  |
| 25       | 9.1  | 2.7  | 5.7  | 7.7   | 2.0  | 4.3  | 2.8    | 1.5  | 1.9  | 6.9       | 5.4  | 6.2  |
| 26       | 8.7  | 3.0  | 5.6  | 5.5   | 1.9  | 3.5  | 2.8    | 1.4  | 2.0  | 8.8       | 6.0  | 7.0  |
| 27       | 9.4  | 3.5  | 6.2  | 7.6   | 2.1  | 4.0  | 3.5    | 1.4  | 2.2  | 8.8       | 5.9  | 7.1  |
| 28       | 9.3  | 3.7  | 6.1  | 8.8   | 1.9  | 4.9  | 4.7    | 1.6  | 3.2  | 8.0       | 5.4  | 6.5  |
| 29       | 6.9  | 2.7  | 5.0  | 7.3   | 1.8  | 3.7  | 4.9    | 2.9  | 3.9  | 8.6       | 5.1  | 6.5  |
| 30       | 8.2  | 2.3  | 5.0  | 2.8   | 1.1  | 1.8  | 4.8    | 2.9  | 3.7  | 8.6       | 4.8  | 6.2  |
| 31       | ---  | ---  | ---  | 6.5   | 1.7  | 3.4  | 4.5    | 2.2  | 3.2  | ---       | ---  | ---  |
| MONTH    | 10.1 | 2.3  | 6.8  | 11.6  | 1.1  | 5.4  | 8.0    | 1.0  | 3.2  | 8.8       | 1.0  | 5.0  |
| YEAR     | 15.5 | 1.0  | 9.2  |       |      |      |        |      |      |           |      |      |

## THAMES RIVER BASIN

01124000 QUINEBAUG RIVER AT QUINEBAUG, CONN.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| OCTOBER  |      |      |      | NOVEMBER |      |      | DECEMBER |      |      | JANUARY |      |      |
|----------|------|------|------|----------|------|------|----------|------|------|---------|------|------|
| DAY      | MAX  | MIN  | MEAN | MAX      | MIN  | MEAN | MAX      | MIN  | MEAN | MAX     | MIN  | MEAN |
| 1        | 19.0 | 15.5 | 17.5 | 12.0     | 8.0  | 9.5  | 6.5      | 5.0  | 5.5  | 0.5     | 0.0  | 0.0  |
| 2        | 18.5 | 15.0 | 16.5 | 10.5     | 8.0  | 9.0  | 7.5      | 5.5  | 6.5  | 1.0     | 0.0  | 0.0  |
| 3        | 20.0 | 16.0 | 17.5 | 12.0     | 8.5  | 10.0 | 7.0      | 5.5  | 6.0  | 1.0     | 0.0  | 0.0  |
| 4        | 18.5 | 15.0 | 16.5 | 12.5     | 10.5 | 11.5 | 7.5      | 5.0  | 6.5  | 0.5     | 0.0  | 0.5  |
| 5        | 18.0 | 13.5 | 15.0 | 12.0     | 10.5 | 11.5 | 4.5      | 3.0  | 3.5  | 2.5     | 1.0  | 1.5  |
| 6        | 17.5 | 12.0 | 14.5 | 11.0     | 8.5  | 9.5  | 3.0      | 1.5  | 2.0  | 3.0     | 2.0  | 2.5  |
| 7        | 20.0 | 14.0 | 16.5 | 11.0     | 7.5  | 9.0  | 1.0      | 0.5  | 1.0  | 2.0     | 0.0  | 1.0  |
| 8        | 21.0 | 16.5 | 18.5 | 10.0     | 7.5  | 8.5  | 1.5      | 0.5  | 1.0  | 1.0     | 0.0  | 0.5  |
| 9        | 22.0 | 18.0 | 19.5 | 9.5      | 6.0  | 7.5  | 2.0      | 1.5  | 1.5  | 1.0     | 0.0  | 0.0  |
| 10       | 19.5 | 18.0 | 18.5 | 9.0      | 7.0  | 8.0  | 3.0      | 2.0  | 2.5  | 1.0     | 0.0  | 0.5  |
| 11       | 20.5 | 18.0 | 19.0 | 11.0     | 9.0  | 10.0 | 2.5      | 1.5  | 1.5  | 1.5     | 0.0  | 0.5  |
| 12       | 20.0 | 17.0 | 18.5 | 12.0     | 10.5 | 11.0 | 2.0      | 0.5  | 1.5  | 1.5     | 0.5  | 1.0  |
| 13       | 22.0 | 18.0 | 20.0 | 11.0     | 10.0 | 11.0 | 0.5      | 0.0  | 0.5  | 0.5     | 0.0  | 0.0  |
| 14       | 22.0 | 19.5 | 20.5 | 11.0     | 10.5 | 10.5 | 1.5      | 0.5  | 0.5  | 0.5     | 0.0  | 0.0  |
| 15       | 21.0 | 19.5 | 20.0 | ---      | ---  | ---  | 2.0      | 0.0  | 1.0  | 0.5     | 0.0  | 0.0  |
| 16       | 19.5 | 15.5 | 17.5 | ---      | ---  | ---  | 2.0      | 0.0  | 0.5  | 0.5     | 0.0  | 0.0  |
| 17       | 15.5 | 11.0 | 13.0 | ---      | ---  | ---  | 2.5      | 0.0  | 1.0  | 0.0     | 0.0  | 0.0  |
| 18       | 12.0 | 10.0 | 11.0 | 6.0      | 6.0  | 6.0  | 2.5      | 1.0  | 1.5  | 0.0     | 0.0  | 0.0  |
| 19       | 13.0 | 10.5 | 11.5 | 7.5      | 6.0  | 7.0  | 2.5      | 1.0  | 1.5  | 0.5     | 0.0  | 0.0  |
| 20       | 12.5 | 9.5  | 10.5 | 9.0      | 7.5  | 8.0  | 3.0      | 2.0  | 2.5  | 0.5     | 0.0  | 0.0  |
| 21       | 13.0 | 10.0 | 11.5 | 9.5      | 8.0  | 8.5  | 2.0      | 1.5  | 1.5  | 0.5     | 0.0  | 0.0  |
| 22       | 14.0 | 12.0 | 13.0 | 7.5      | 6.5  | 7.0  | 1.5      | 1.0  | 1.0  | 0.5     | 0.0  | 0.0  |
| 23       | 15.5 | 14.0 | 15.0 | 8.0      | 7.5  | 7.5  | 2.0      | 1.0  | 1.5  | ---     | ---  | ---  |
| 24       | 18.0 | 15.5 | 16.5 | 7.5      | 4.5  | 5.5  | 2.0      | 0.0  | 1.5  | ---     | ---  | ---  |
| 25       | 16.5 | 14.5 | 15.5 | 4.5      | 3.0  | 3.5  | 0.5      | 0.0  | 0.0  | 1.5     | 0.5  | 1.0  |
| 26       | 14.5 | 12.5 | 14.0 | 3.0      | 2.5  | 3.0  | 0.5      | 0.0  | 0.0  | 2.0     | 1.0  | 1.5  |
| 27       | 12.5 | 10.5 | 12.0 | 4.0      | 3.0  | 3.5  | 0.5      | 0.0  | 0.0  | ---     | ---  | ---  |
| 28       | 12.5 | 9.0  | 10.5 | 4.5      | 3.5  | 4.0  | 0        | 0.0  | 0.0  | ---     | ---  | ---  |
| 29       | 11.5 | 8.5  | 9.5  | 4.5      | 4.0  | 4.5  | 0.5      | 0.0  | 0.0  | ---     | ---  | ---  |
| 30       | 11.5 | 7.5  | 9.0  | 6.0      | 4.5  | 5.0  | 0.5      | 0.0  | 0.0  | ---     | ---  | ---  |
| 31       | 11.5 | 7.5  | 9.0  | ---      | ---  | ---  | 1.0      | 0.0  | 0.0  | ---     | ---  | ---  |
| MONTH    | 22.0 | 7.5  | 15.0 | 12.5     | 2.5  | 8.0  | 7.5      | 0.0  | 1.5  | ---     | ---  | ---  |
| FEBRUARY |      |      |      | MARCH    |      |      | APRIL    |      |      | MAY     |      |      |
| DAY      | MAX  | MIN  | MEAN | MAX      | MIN  | MEAN | MAX      | MIN  | MEAN | MAX     | MIN  | MEAN |
| 1        | ---  | ---  | ---  | ---      | ---  | ---  | 6.0      | 3.0  | 5.0  | 11.5    | 8.0  | 9.5  |
| 2        | ---  | ---  | ---  | ---      | ---  | ---  | 9.0      | 5.0  | 7.0  | 10.5    | 9.5  | 10.0 |
| 3        | 0.0  | 0.0  | 0.0  | ---      | ---  | ---  | 8.5      | 6.5  | 7.5  | 10.5    | 10.0 | 10.5 |
| 4        | 0.5  | 0.0  | 0.0  | 1.0      | 0.0  | 0.5  | 8.5      | 5.5  | 7.0  | 10.5    | 9.5  | 10.0 |
| 5        | 0.5  | 0.0  | 0.0  | 1.5      | 0.0  | 0.5  | 8.0      | 6.0  | 7.0  | 13.0    | 8.5  | 11.0 |
| 6        | 2.0  | 0.5  | 1.0  | 2.0      | 0.0  | 1.0  | 7.5      | 5.0  | 6.5  | 12.5    | 11.5 | 12.0 |
| 7        | 1.5  | 0.0  | 0.5  | 1.0      | 0.5  | 1.0  | 6.5      | 3.5  | 4.5  | 14.5    | 10.0 | 12.5 |
| 8        | 1.0  | 0.0  | 0.5  | 1.5      | 0.0  | 1.0  | 6.5      | 3.5  | 5.0  | 13.5    | 12.0 | 12.5 |
| 9        | 1.5  | 0.5  | 1.0  | 1.5      | 0.0  | 0.5  | 7.5      | 3.5  | 6.0  | 12.0    | 10.0 | 11.0 |
| 10       | 2.5  | 0.0  | 0.5  | 2.5      | 0.0  | 1.0  | 9.0      | 6.0  | 7.5  | 12.0    | 10.0 | 11.0 |
| 11       | 1.5  | 0.0  | 0.5  | 1.5      | 0.5  | 1.0  | 9.0      | 6.5  | 8.0  | 16.0    | 10.0 | 13.0 |
| 12       | 2.0  | 0.5  | 1.0  | 3.0      | 0.0  | 1.5  | 11.0     | 7.0  | 9.0  | ---     | ---  | ---  |
| 13       | 1.5  | 1.0  | 1.5  | 2.5      | 1.0  | 1.5  | 12.0     | 8.0  | 10.0 | ---     | ---  | ---  |
| 14       | 1.0  | 0.0  | 0.5  | 2.0      | 1.0  | 1.5  | 11.0     | 8.5  | 10.0 | ---     | ---  | ---  |
| 15       | 0.5  | 0.0  | 0.5  | 3.5      | 1.5  | 2.5  | 9.5      | 7.0  | 8.5  | ---     | ---  | ---  |
| 16       | 1.0  | 0.0  | 0.5  | 4.5      | 2.0  | 3.0  | 8.0      | 6.5  | 7.5  | ---     | ---  | ---  |
| 17       | 1.0  | 0.0  | 0.5  | 3.0      | 1.0  | 2.0  | 9.0      | 5.5  | 7.5  | ---     | ---  | ---  |
| 18       | 2.0  | 0.5  | 1.0  | 3.0      | 0.5  | 1.5  | 8.5      | 6.5  | 7.5  | 18.0    | 17.0 | 17.5 |
| 19       | 2.0  | 0.5  | 1.0  | 2.0      | 1.0  | 1.5  | 11.5     | 7.5  | 9.5  | 20.0    | 16.0 | 18.0 |
| 20       | 1.0  | 0.5  | 0.5  | 2.0      | 0.5  | 1.5  | 12.0     | 9.0  | 11.0 | 20.5    | 17.0 | 19.0 |
| 21       | 0.5  | 0.0  | 0.5  | 2.5      | 1.0  | 1.5  | 12.0     | 10.0 | 11.0 | 19.5    | 17.5 | 18.5 |
| 22       | 1.0  | 0.5  | 0.5  | 3.5      | 0.5  | 2.0  | 11.0     | 9.5  | 10.5 | 18.5    | 16.5 | 17.5 |
| 23       | 1.0  | 0.5  | 0.5  | 4.0      | 1.5  | 2.5  | 11.0     | 9.0  | 10.0 | 18.0    | 15.0 | 16.5 |
| 24       | 1.0  | 0.0  | 1.0  | 4.0      | 1.5  | 2.0  | 12.0     | 8.5  | 10.5 | 19.0    | 14.5 | 17.0 |
| 25       | 2.0  | 0.5  | 1.0  | 3.5      | 0.5  | 2.0  | 11.5     | 9.5  | 10.0 | 19.5    | 16.5 | 18.0 |
| 26       | 2.5  | 0.0  | 1.5  | 3.5      | 1.0  | 2.0  | 10.0     | 9.0  | 9.5  | 19.5    | 18.5 | 19.0 |
| 27       | 1.5  | 1.0  | 1.0  | 4.5      | 1.5  | 3.0  | 10.5     | 9.0  | 10.0 | 18.5    | 16.5 | 17.5 |
| 28       | 2.0  | 0.5  | 1.0  | 5.0      | 2.0  | 3.5  | 10.0     | 8.5  | 9.5  | 17.5    | 15.5 | 16.5 |
| 29       | ---  | ---  | ---  | 6.0      | 3.5  | 4.5  | 9.5      | 8.5  | 9.0  | 18.0    | 15.5 | 17.0 |
| 30       | ---  | ---  | ---  | 5.5      | 3.5  | 4.5  | 9.5      | 8.5  | 9.0  | 18.0    | 16.0 | 16.5 |
| 31       | ---  | ---  | ---  | 6.0      | 3.0  | 4.5  | ---      | ---  | ---  | 17.0    | 16.0 | 16.5 |
| MONTH    | 2.5  | 0.0  | 0.5  | 6.0      | 0.0  | 2.0  | 12.0     | 3.0  | 8.5  | 20.5    | 8.0  | 14.5 |



## 01141900 CONNECTICUT RIVER AT WILDER, VT.

LOCATION.--Lat 43°40'04", long 72°18'13", Windsor County, at Wilder Dam at Wilder.

PERIOD OF RECORD.--Chemical analyses: August 1969 to September 1971.

REMARKS.--Additional chemical analyses for this station in radiochemical and pesticide tables and in table of composited samples.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE  | TIME | DIS-<br>CHARGE<br>(CFS) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) | PH<br>(UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | AIR<br>TEM-<br>PERA-<br>TURE<br>(DEG C) | IMME-<br>DIATE<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) |
|-------|------|-------------------------|------------------------------------------------------------|------------------------------------|---------------|----------------------------------|-----------------------------------------|------------------------------------------------------------|
| OCT.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 06... | 0800 | 4600                    | 116                                                        | 6.6                                | 7.2           | 15.1                             | 8.1                                     | 110                                                        |
| NOV.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 02... | 1600 | 4200                    | 114                                                        | 7.7                                | 6.9           | 10.8                             | 18.7                                    | 34                                                         |
| DEC.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 07... | 1530 | 4000                    | 96                                                         | 9.9                                | 6.9           | 4.0                              | -12.0                                   | 550                                                        |
| JAN.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 06... | 1000 | 3500                    | 114                                                        | 10.9                               | 6.9           | .8                               | -1.0                                    | 750                                                        |
| FEB.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 08... | 1515 | 3800                    | 106                                                        | 10.3                               | 7.1           | .4                               | 4.0                                     | 1000                                                       |
| MAR.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 02... | 1500 | 4000                    | 110                                                        | 11.1                               | 7.0           | .4                               | 4.1                                     | 160                                                        |
| APR.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 05... | 1700 | 70000                   | 112                                                        | 11.2                               | 6.8           | 3.2                              | 6.5                                     | 150                                                        |
| MAY   |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 04... | 1600 | 5600                    | 66                                                         | 11.9                               | 6.9           | 4.9                              | 9.2                                     | 160                                                        |
| JUNE  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 08... | 0900 | 8800                    | 98                                                         | 5.0                                | 7.0           | 17.5                             | 31.6                                    | 270                                                        |
| JULY  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 12... | 1500 | 8000                    | 108                                                        | 6.2                                | 7.1           | 23.5                             | 24.0                                    | 483                                                        |
| AUG.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 10... | 1000 | 8500                    | 118                                                        | 8.6                                | 7.2           | 22.0                             | 29.0                                    | 286                                                        |
| SEP.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 14... | 1600 | 4200                    | 110                                                        | 6.2                                | 6.8           | 21.6                             | 22.5                                    | 430                                                        |

| DATE  | FECAL<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>KJEL-<br>DAHL<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | METH-<br>YLENE<br>BLUE<br>ACTIVE<br>SUB-<br>STANCE<br>(MG/L) | CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(LOW<br>LEVEL)<br>(MG/L) | CHLORO-<br>PHYLL A<br>(UG/L) | TUR-<br>BID-<br>ITY<br>(JTU) |
|-------|---------------------------------------------------|--------------------------|----------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|------------------------------|------------------------------|
| OCT.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 06... | 18                                                | .4                       | .91                                                      | .020                                      | .03                                                          | 17                                                            | .0                           | 2                            |
| NOV.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 02... | 5                                                 | .4                       | .60                                                      | .040                                      | .04                                                          | 23                                                            | .6                           | 2                            |
| DEC.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 07... | 74                                                | .1                       | 1.3                                                      | .040                                      | .06                                                          | 33                                                            | .0                           | 3                            |
| JAN.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 06... | 80                                                | .3                       | .92                                                      | .020                                      | .06                                                          | 25                                                            | .0                           | 3                            |
| FEB.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 08... | 150                                               | .3                       | .61                                                      | .040                                      | .04                                                          | 26                                                            | .0                           | 1                            |
| MAR.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 02... | 67                                                | .9                       | .71                                                      | .020                                      | .04                                                          | 22                                                            | .0                           | 2                            |
| APR.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 05... | 17                                                | .8                       | .81                                                      | .030                                      | .05                                                          | 27                                                            | .8                           | 10                           |
| MAY   |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 04... | 120                                               | .4                       | .44                                                      | .040                                      | .03                                                          | 15                                                            | 5.0                          | 5                            |
| JUNE  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 08... | 2                                                 | .3                       | .29                                                      | .010                                      | .04                                                          | 39                                                            | 1.1                          | 2                            |
| JULY  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 12... | 5                                                 | .1                       | .32                                                      | .030                                      | .04                                                          | 15                                                            | 3.6                          | 2                            |
| AUG.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 10... | 4                                                 | .1                       | .29                                                      | .020                                      | .03                                                          | 14                                                            | 5.1                          | 4                            |
| SEP.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 14... | 11                                                | .2                       | .57                                                      | .020                                      | .04                                                          | 22                                                            | 2.0                          | 4                            |

01141900 CONNECTICUT RIVER AT WILDER, VT.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE       | DIS-<br>CHARGE<br>(CFS) | DIS-<br>SOLVED<br>SOLIDS<br>(RESI-<br>DUE AT<br>180 C)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM CF<br>CONSTI-<br>TENTS)<br>(MG/L) | LCSS<br>ON<br>IGNI-<br>TION<br>(MG/L) | ALKA-<br>LINITY<br>AS<br>CACO <sub>3</sub><br>(MG/L) | TOTAL<br>ACIDITY<br>AS<br>CACO <sub>3</sub><br>(MG/L) | BIO-<br>CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(MG/L) | CYANIDE<br>(CN)<br>(MG/L) | ORGANIC<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | CIL<br>AND<br>GREASE<br>(MG/L) | PHENOLS<br>(UG/L) |
|------------|-------------------------|------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------|------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------|---------------------------|-------------------------------------------|-----------------------------------------|--------------------------------|-------------------|
| JULY, 1971 |                         |                                                                  |                                                                    |                                       |                                                      |                                                       |                                                     |                           |                                           |                                         |                                |                   |
| 12...      | 8000                    | --                                                               | --                                                                 | --                                    | 31                                                   | --                                                    | --                                                  | --                        | .26                                       | --                                      | --                             | --                |
| 14...      | 4200                    | 97                                                               | 64                                                                 | 28                                    | 30                                                   | 2                                                     | 1.6                                                 | .00                       | .32                                       | .79                                     | .0                             | 2                 |

| DATE       | DIS-<br>CHARGE<br>(CFS) | SILICA<br>(SiO <sub>2</sub> )<br>(MG/L) | DIS-<br>SOLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SOLVED<br>CAL-<br>CIUM<br>(CA)<br>(MG/L) | DIS-<br>SOLVED<br>MAG-<br>NE-<br>SIUM<br>(MG) | SODIUM<br>(NA)<br>(MG/L) | PO-<br>TAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO <sub>3</sub> )<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) |
|------------|-------------------------|-----------------------------------------|------------------------------------------|--------------------------------------------------|-----------------------------------------------|--------------------------|--------------------------------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------|---------------------------------|
| JULY, 1971 |                         |                                         |                                          |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 12...      | 8000                    | --                                      | --                                       | 15                                               | --                                            | --                       | --                                   | .06                                       | 38                                                | --                                      | --                              |
| AUG.       |                         |                                         |                                          |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 10...      | 8500                    | --                                      | --                                       | --                                               | --                                            | --                       | --                                   | .07                                       | --                                                | --                                      | --                              |
| SEP.       |                         |                                         |                                          |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 14...      | 4200                    | 4.8                                     | 280                                      | 13                                               | 1.5                                           | 5.5                      | 1.3                                  | .25                                       | 37                                                | 11                                      | 6.9                             |

| DATE       | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) | HARD-<br>NESS<br>(CA,MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | COLOR<br>(PLAT-<br>INUM<br>COBALT<br>UNITS) | DIS-<br>SOLVED<br>ARSENIC<br>(AS)<br>(UG/L) | DIS-<br>SOLVED<br>MERCURY<br>(HG)<br>(UG/L) |
|------------|--------------------------------------------------|--------------------------|------------------------------------|---------------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|
| JULY, 1971 |                                                  |                          |                                    |                                                   |                                             |                                             |                                             |
| 12...      | --                                               | .010                     | --                                 | --                                                | --                                          | --                                          | --                                          |
| AUG.       |                                                  |                          |                                    |                                                   |                                             |                                             |                                             |
| 10...      | --                                               | .010                     | --                                 | --                                                | --                                          | --                                          | --                                          |
| SEP.       |                                                  |                          |                                    |                                                   |                                             |                                             |                                             |
| 14...      | .1                                               | .020                     | 39                                 | 8                                                 | 30                                          | 0                                           | 3.4                                         |

## CONNECTICUT RIVER BASIN

01160000 SOUTH BRANCH ASHUELOT RIVER AT WEBB, NEAR MARLBOROUGH, N.H.

LOCATION.--Lat 42°52'20", long 72°12'51", Cheshire County, temperature recorder at gaging station on right bank 15 ft downstream from bridge, at Webb, 2.5 miles south of Marlborough.

DRAINAGE AREA.--36.0 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1954 to September 1971.

EXTREMES.--1970-71:

Water temperatures: Maximum, 26.0° C July 27; minimum, freezing point on many days during winter period.

Period of record:

Water temperatures: Maximum, 33.5° C July 14, 1965; minimum, freezing point on many days during winter periods.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971  
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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



TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.---Continued  
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

[illegible]

## CONNECTICUT RIVER BASIN

01161200 CONNECTICUT RIVER AT NORTHFIELD, MASS.

LOCATION.--Lat 42°42'44", long 72°27'14", Franklin County, at bridge on State Highway 142, at Northfield, 1.1 miles downstream from Massachusetts-New Hampshire State line.

PERIOD OF RECORD.--Chemical analyses: August 1969 to September 1971.

REMARKS.--Additional chemical analyses for this station in radiochemical and pesticide tables and in table of composited samples.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE          | TIME | DIS-CHARGE<br>(CFS) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) | PH<br>(UNITS) | COLOR<br>(PLAT-<br>INUM<br>COBALT<br>UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | AIR<br>TEM-<br>PERA-<br>TURE<br>(DEG C) | IMME-<br>DIATE<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) |
|---------------|------|---------------------|------------------------------------------------------------|------------------------------------|---------------|---------------------------------------------|----------------------------------|-----------------------------------------|------------------------------------------------------------|
| OCT.<br>06... | 1400 | 9330                | 130                                                        | 7.8                                | 7.6           | --                                          | 15.3                             | 14.2                                    | 20000                                                      |
| NOV.<br>03... | 0915 | 3730                | 114                                                        | 8.9                                | 6.9           | --                                          | 9.6                              | 13.1                                    | 4000                                                       |
| APR.<br>06... | 0900 | 13600               | 102                                                        | 12.9                               | 7.0           | --                                          | 1.5                              | 7.7                                     | 790                                                        |
| MAY<br>05...  | 0830 | 67000               | 65                                                         | 12.9                               | 6.8           | --                                          | 5.4                              | 15.3                                    | 1300                                                       |
| JUNE<br>08... | 1800 | 9560                | 116                                                        | 7.8                                | 7.6           | --                                          | 20.0                             | 20.7                                    | 1800                                                       |
| JULY<br>13... | 1500 | 1020                | 133                                                        | 9.0                                | 7.3           | --                                          | 24.4                             | 27.5                                    | 27                                                         |
| AUG.<br>10... | 1700 | 1510                | 148                                                        | 9.3                                | 7.9           | --                                          | 25.0                             | 32.5                                    | 109                                                        |
| SEP.<br>15... | 1000 | 8890                | 124                                                        | 7.5                                | 7.1           | 32                                          | 21.5                             | 19.0                                    | >2000                                                      |

| DATE          | FECAL<br>COLI-<br>FORM<br>(CCL.<br>PER<br>100 ML) | NITRITE<br>(N)<br>(MG/L) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>KJEL-<br>CAHL<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | METHY-<br>LENE<br>BLUE<br>ACTIVE<br>SUB-<br>STANCE<br>(MG/L) | CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(LOW<br>LEVEL)<br>(MG/L) | CHLORO-<br>PHYLL A<br>(UG/L) | TUR-<br>BID-<br>ITY<br>(JTU) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO3)<br>(MG/L) |
|---------------|---------------------------------------------------|--------------------------|--------------------------|----------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|------------------------------|------------------------------|-------------------------------------------|--------------------------------------|
| OCT.<br>06... | 75                                                | --                       | .5                       | .68                                                      | .050                                      | .04                                                          | 13                                                            | 1.4                          | 5                            | --                                        | --                                   |
| NOV.<br>03... | 44                                                | --                       | .4                       | .66                                                      | .080                                      | .04                                                          | 21                                                            | .1                           | 1                            | --                                        | --                                   |
| APR.<br>06... | 43                                                | --                       | .3                       | .90                                                      | .050                                      | .04                                                          | 15                                                            | 1.9                          | 10                           | --                                        | --                                   |
| MAY<br>05...  | 95                                                | --                       | .3                       | .58                                                      | .12                                       | .02                                                          | 22                                                            | 2.0                          | 20                           | --                                        | --                                   |
| JUNE<br>08... | 16                                                | --                       | .2                       | .60                                                      | .020                                      | .06                                                          | 12                                                            | 5.4                          | 2                            | --                                        | --                                   |
| JULY<br>13... | C                                                 | .010                     | .1                       | .57                                                      | .040                                      | .03                                                          | 14                                                            | 8.0                          | 10                           | .11                                       | 44                                   |
| AUG.<br>10... | 1                                                 | .020                     | .1                       | .53                                                      | .040                                      | .03                                                          | 17                                                            | 8.0                          | 7                            | .07                                       | --                                   |
| SEP.<br>15... | --                                                | .010                     | .1                       | .48                                                      | .030                                      | .05                                                          | 20                                                            | 4.9                          | 5                            | .08                                       | 46                                   |

| DATE                | DIS-<br>SOLVED<br>SOLIDS<br>(RESI-<br>DUE AT<br>180 C)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTITUENTS)<br>(MG/L) | LOSS<br>ON<br>IGNI-<br>TION<br>(MG/L) | ALKA-<br>LINITY<br>AS<br>CACO3<br>(MG/L) | TOTAL<br>ACIDITY<br>AS<br>CACO3<br>(MG/L) | BIO-<br>CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(MG/L) | CYANIDE<br>(CN)<br>(MG/L) | ORGANIC<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | OIL<br>AND<br>GREASE<br>(MG/L) | PHENOLS<br>(UG/L) | DIS-<br>SOLVED<br>CAL-<br>CIUM<br>(CA)<br>(MG/L) |
|---------------------|------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------|------------------------------------------|-------------------------------------------|-----------------------------------------------------|---------------------------|-------------------------------------------|-----------------------------------------|--------------------------------|-------------------|--------------------------------------------------|
| JULY, 1971<br>13... | --                                                               | --                                                             | --                                    | 36                                       | --                                        | --                                                  | --                        | .46                                       | --                                      | --                             | --                | 18                                               |
| SEP.<br>15...       | 100                                                              | 71                                                             | 24                                    | 38                                       | 3                                         | 1.6                                                 | .00                       | .40                                       | .59                                     | .0                             | 0                 | 16                                               |

| DATE                | SILICA<br>(SiO2)<br>(MG/L) | DIS-<br>SOLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SOLVED<br>MAGNE-<br>SIUM<br>(MG)<br>(MG/L) | SODIUM<br>(NA)<br>(MG/L) | POTAS-<br>SIUM<br>(K)<br>(MG/L) | SULFATE<br>(SO4)<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | HARD-<br>NESS<br>(CA, MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>NESS<br>(MG/L) | DIS-<br>SOLVED<br>ARSENIC<br>(AS)<br>(UG/L) | DIS-<br>SOLVED<br>MERCURY<br>(HG)<br>(UG/L) |
|---------------------|----------------------------|------------------------------------------|----------------------------------------------------|--------------------------|---------------------------------|----------------------------|---------------------------------|--------------------------------------------------|-------------------------------------|------------------------------------------|---------------------------------------------|---------------------------------------------|
| SEP., 1971<br>15... | 4.1                        | 110                                      | 1.6                                                | 6.0                      | 1.5                             | 10                         | 8.5                             | .1                                               | 47                                  | 9                                        | 0                                           | 2.5                                         |

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.  
(International Hydrological Decade River Station and radiochemical program)

LOCATION.--Lat 41°59'14", long 72°36'21", Hartford County, at gaging station on canal of Connecticut Light and Power Co., 1 mile downstream from Thompsonville. Multiple-parameter monitor on right bank at Agawam, Mass., 4.5 miles upstream from gaging station and 1.4 miles upstream from Massachusetts-Connecticut State line.

DRAINAGE AREA.--9,661 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1955 to September 1956, January 1966 to September 1971.  
Water temperatures: October 1955 to September 1956, January 1969 to September 1971.

EXTREMES.--1970-71:

Specific conductance: Maximum, 217 micromhos Feb. 9; minimum, 58 micromhos Apr. 20.  
pH: Maximum, 8.7 July 22; minimum, 6.3 Aug. 4, 10, 11.  
Dissolved oxygen: Maximum, 15.9 mg/l Feb. 17; minimum, 1.0 mg/l Aug. 20.  
Water temperatures: Maximum, 29.0° C Aug. 22; minimum, freezing point on several days during winter period.

Period of record:

Specific conductance: Maximum, 217 micromhos Feb. 9, 1971; minimum, 49 micromhos Apr. 23, 1969.  
pH: Maximum, 9.7 Aug. 9, 1970; minimum, 5.9 July 20, 21, 1969, May 26, 1970.  
Dissolved oxygen (1966-71): 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, freezing point on several days during winter periods of 1970 and 1971, ~~water years~~.

REMARKS.--Recorder stopped Dec. 10-28, May 6-25, Sept. 19-28. PH probe not operating Oct. 1-27, June 26 to July 15. Additional chemical analyses for this station in table of composited samples.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE  | DIS-<br>CHARGE<br>(CFS) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) | PER-<br>CENT<br>SATUR-<br>ATION | PH<br>(UNITS) | IMME-<br>DIATE<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) | FECAL<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) | STREP-<br>TOCOCCI<br>(COL-<br>ONIES<br>PER<br>100 ML) | TEM-<br>PERA-<br>TURE<br>(DEG C) | AIR<br>TEM-<br>PERA-<br>TURE<br>(DEG C) |
|-------|-------------------------|------------------------------------------------------------|------------------------------------|---------------------------------|---------------|------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------|----------------------------------|-----------------------------------------|
| CCT.  |                         |                                                            |                                    |                                 |               |                                                            |                                                   |                                                       |                                  |                                         |
| 09... | 5930                    | 136                                                        | --                                 | --                              | --            | --                                                         | --                                                | --                                                    | 17.0                             | --                                      |
| 15... | 4570                    | 158                                                        | 4.8                                | 63                              | 6.4           | 260000                                                     | 23000                                             | 1800                                                  | 18.0                             | 20.0                                    |
| NOV.  |                         |                                                            |                                    |                                 |               |                                                            |                                                   |                                                       |                                  |                                         |
| 12... | 4850                    | 130                                                        | 5.5                                | 47                              | 6.3           | 480000                                                     | 11000                                             | 3200                                                  | 9.0                              | 15.0                                    |
| DEC.  |                         |                                                            |                                    |                                 |               |                                                            |                                                   |                                                       |                                  |                                         |
| 10... | 8570                    | 130                                                        | 11.0                               | 79                              | 6.5           | 130000                                                     | 6300                                              | 9000                                                  | 2.0                              | 6.5                                     |
| JAN.  |                         |                                                            |                                    |                                 |               |                                                            |                                                   |                                                       |                                  |                                         |
| 14... | 5950                    | 137                                                        | 11.6                               | 81                              | 6.7           | 150000                                                     | 400                                               | 9800                                                  | .5                               | --                                      |
| FEB.  |                         |                                                            |                                    |                                 |               |                                                            |                                                   |                                                       |                                  |                                         |
| 11... | 6660                    | 168                                                        | 10.5                               | 75                              | 6.9           | 60000                                                      | 6300                                              | 7800                                                  | 1.5                              | -3.5                                    |
| MAR.  |                         |                                                            |                                    |                                 |               |                                                            |                                                   |                                                       |                                  |                                         |
| 11... | 14200                   | 140                                                        | 11.3                               | 84                              | 7.4           | 25000                                                      | 1700                                              | 3600                                                  | 3.0                              | .1                                      |
| APR.  |                         |                                                            |                                    |                                 |               |                                                            |                                                   |                                                       |                                  |                                         |
| 15... | 63600                   | 78                                                         | 10.2                               | 82                              | 7.1           | 3000                                                       | 760                                               | 430                                                   | 6.0                              | 6.0                                     |
| MAY   |                         |                                                            |                                    |                                 |               |                                                            |                                                   |                                                       |                                  |                                         |
| 13... | 50900                   | 75                                                         | 10.0                               | 93                              | 7.0           | 20000                                                      | 240                                               | 550                                                   | 12.0                             | 12.0                                    |
| JUNE  |                         |                                                            |                                    |                                 |               |                                                            |                                                   |                                                       |                                  |                                         |
| 10... | 8570                    | 110                                                        | 7.2                                | 82                              | 6.3           | 78000                                                      | 3700                                              | 280                                                   | 22.0                             | 22.0                                    |
| JULY  |                         |                                                            |                                    |                                 |               |                                                            |                                                   |                                                       |                                  |                                         |
| 15... | 2530                    | 134                                                        | 9.8                                | 120                             | 6.3           | 25000                                                      | 2000                                              | 1600                                                  | 26.0                             | 24.5                                    |
| AUG.  |                         |                                                            |                                    |                                 |               |                                                            |                                                   |                                                       |                                  |                                         |
| 19... | 2250                    | 150                                                        | 4.5                                | 55                              | 6.6           | 100000                                                     | 2300                                              | 900                                                   | 26.5                             | 29.0                                    |
| SEP.  |                         |                                                            |                                    |                                 |               |                                                            |                                                   |                                                       |                                  |                                         |
| 16... | 6480                    | 120                                                        | 4.0                                | 47                              | 6.6           | 110000                                                     | 16000                                             | 230                                                   | 24.0                             | 28.0                                    |

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE          | SILICA<br>(SiO <sub>2</sub> )<br>(MG/L) | DIS-<br>SOLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SOLVED<br>MAN-<br>GANESE<br>(MN)<br>(UG/L) | DIS-<br>SOLVED<br>CAL-<br>CIUM<br>(CA)<br>(MG/L) | DIS-<br>SOLVED<br>MAGNE-<br>SIUM<br>(MG) | SODIUM<br>(NA)<br>(MG/L) | POTAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO <sub>3</sub> )<br>(MG/L) | CAR-<br>BONATE<br>(CO <sub>3</sub> )<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) |
|---------------|-----------------------------------------|------------------------------------------|----------------------------------------------------|--------------------------------------------------|------------------------------------------|--------------------------|---------------------------------|-------------------------------------------|---------------------------------------------------|------------------------------------------------|---------------------------------|-----------------------------------------|
| OCT.<br>15... | --                                      | --                                       | --                                                 | 14                                               | 1.7                                      | --                       | --                              | --                                        | 34                                                | 0                                              | 12                              | 15                                      |
| NOV.<br>12... | 5.3                                     | --                                       | --                                                 | 11                                               | 1.6                                      | 8.1                      | 1.4                             | --                                        | 28                                                | 0                                              | 12                              | 15                                      |
| DEC.<br>10... | 6.0                                     | 210                                      | 80                                                 | 10                                               | 1.7                                      | 6.4                      | 1.1                             | --                                        | 22                                                | 0                                              | 9.7                             | 12                                      |
| JAN.<br>14... | 6.4                                     | 200                                      | 60                                                 | 13                                               | 1.8                                      | 7.6                      | 1.2                             | --                                        | 30                                                | 0                                              | 11                              | 16                                      |
| FEB.<br>11... | 6.5                                     | 260                                      | 70                                                 | 13                                               | 1.8                                      | 11                       | 1.3                             | --                                        | 33                                                | 0                                              | 18                              | 16                                      |
| MAR.<br>11... | 6.0                                     | 190                                      | 0                                                  | 11                                               | 1.9                                      | 8.8                      | 1.2                             | --                                        | 27                                                | 0                                              | 15                              | 13                                      |
| APR.<br>15... | 4.6                                     | 80                                       | 40                                                 | 6.7                                              | 1.1                                      | 4.1                      | .8                              | .21                                       | 14                                                | 0                                              | 7.5                             | 10                                      |
| MAY<br>13...  | 4.4                                     | 110                                      | 0                                                  | 8.0                                              | 1.1                                      | 3.6                      | .8                              | .00                                       | 18                                                | 0                                              | 5.4                             | 8.6                                     |
| JUNE<br>10... | 4.1                                     | 260                                      | 50                                                 | 11                                               | 1.7                                      | 6.5                      | 1.6                             | --                                        | 20                                                | 0                                              | 10                              | 11                                      |
| JULY<br>15... | .3                                      | --                                       | --                                                 | 13                                               | 2.3                                      | 9.7                      | 3.1                             | .42                                       | 32                                                | 0                                              | 14                              | 16                                      |
| AUG.<br>19... | .7                                      | 80                                       | 70                                                 | 14                                               | 2.1                                      | 10                       | 1.6                             | .32                                       | 39                                                | 0                                              | 15                              | 16                                      |
| SEP.<br>16... | 3.9                                     | 140                                      | 50                                                 | 12                                               | 1.8                                      | 8.5                      | 1.6                             | .33                                       | 34                                                | 0                                              | 10                              | 13                                      |

| DATE          | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRATE<br>(N)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) | TOTAL<br>KJEL-<br>DAHL<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | ORGANIC<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | HARD-<br>NESS<br>(CA, MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | ALKA-<br>LINITY<br>AS<br>CaCO <sub>3</sub><br>(MG/L) | METH-<br>YLENE<br>BLUE<br>ACTIVE<br>SUB-<br>STANCE<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(RESI-<br>DUE AT<br>180 C)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTITUENTS)<br>(MG/L) |
|---------------|--------------------------------------------------|--------------------------|--------------------------|----------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------|---------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------|
| OCT.<br>15... | --                                               | .6                       | --                       | .96                                                      | --                                        | .22                                       | 42                                  | 14                                                | 28                                                   | .03                                                          | --                                                               | --                                                             |
| NOV.<br>12... | .1                                               | .4                       | --                       | 1.1                                                      | --                                        | .19                                       | 34                                  | 11                                                | 23                                                   | .04                                                          | 89                                                               | 73                                                             |
| DEC.<br>10... | .1                                               | .4                       | --                       | 1.3                                                      | --                                        | .16                                       | 32                                  | 14                                                | 18                                                   | .06                                                          | 71                                                               | 63                                                             |
| JAN.<br>14... | .1                                               | .5                       | --                       | 1.1                                                      | --                                        | .18                                       | 40                                  | 16                                                | 25                                                   | .04                                                          | 82                                                               | 76                                                             |
| FEB.<br>11... | .1                                               | .4                       | --                       | 1.0                                                      | --                                        | .19                                       | 40                                  | 13                                                | 27                                                   | .04                                                          | 95                                                               | --                                                             |
| MAR.<br>11... | .1                                               | .5                       | --                       | .78                                                      | --                                        | .11                                       | 36                                  | 14                                                | 22                                                   | .05                                                          | 98                                                               | --                                                             |
| APR.<br>15... | .1                                               | .4                       | .006                     | .75                                                      | .54                                       | .19                                       | 21                                  | 9                                                 | 11                                                   | .04                                                          | 54                                                               | 44                                                             |
| MAY<br>13...  | .0                                               | .2                       | .062                     | --                                                       | --                                        | .050                                      | 25                                  | 10                                                | 15                                                   | .01                                                          | 54                                                               | 42                                                             |
| JUNE<br>10... | .1                                               | .3                       | --                       | .66                                                      | --                                        | .090                                      | 34                                  | 18                                                | 16                                                   | .07                                                          | 79                                                               | 68                                                             |
| JULY<br>15... | .1                                               | .3                       | .010                     | 1.5                                                      | 1.1                                       | .20                                       | 42                                  | 16                                                | 26                                                   | .09                                                          | --                                                               | 77                                                             |
| AUG.<br>19... | .1                                               | .2                       | .040                     | 1.0                                                      | .73                                       | .17                                       | 44                                  | 12                                                | 32                                                   | .08                                                          | --                                                               | 81                                                             |
| SEP.<br>16... | .2                                               | .2                       | .020                     | .78                                                      | .45                                       | .14                                       | 37                                  | 9                                                 | 28                                                   | .04                                                          | 95                                                               | 69                                                             |

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.-- Continued

| DATE          | LOSS<br>ON<br>IGNI-<br>TION<br>(MG/L) | TUR-<br>BID-<br>ITY<br>(JTU) | COLOR<br>(PLAT-<br>INUM-<br>COBALT<br>UNITS) | CHLORO-<br>PHYLL A<br>(UG/L) | CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(LOW<br>LEVEL)<br>(MG/L) | BIO-<br>CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(MG/L) | TOTAL<br>ACIDITY<br>AS<br>CAO3<br>(MG/L) | OIL<br>AND<br>GREASE<br>(MG/L) | CYANIDE<br>(CN)<br>(MG/L) | PHENOLS<br>(UG/L) |
|---------------|---------------------------------------|------------------------------|----------------------------------------------|------------------------------|---------------------------------------------------------------|-----------------------------------------------------|------------------------------------------|--------------------------------|---------------------------|-------------------|
| CCT.<br>15... | --                                    | 3                            | --                                           | 3.1                          | 17                                                            | --                                                  | --                                       | --                             | --                        | --                |
| NOV.<br>12... | 16                                    | 6                            | 20                                           | 1.5                          | 16                                                            | 4.3                                                 | --                                       | --                             | --                        | --                |
| DEC.<br>10... | 10                                    | 2                            | 20                                           | --                           | 14                                                            | 2.1                                                 | --                                       | --                             | --                        | --                |
| JAN.<br>14... | 11                                    | 7                            | 20                                           | .7                           | 25                                                            | --                                                  | --                                       | --                             | --                        | --                |
| FEB.<br>11... | 3                                     | 2                            | 13                                           | .8                           | 24                                                            | 3.6                                                 | --                                       | --                             | --                        | --                |
| MAR.<br>11... | 9                                     | 5                            | 8                                            | .6                           | 14                                                            | 3.5                                                 | --                                       | --                             | --                        | --                |
| APR.<br>15... | 14                                    | 25                           | 10                                           | 5.0                          | 18                                                            | 4.7                                                 | --                                       | --                             | --                        | --                |
| 23...         | --                                    | --                           | --                                           | --                           | --                                                            | --                                                  | --                                       | --                             | --                        | --                |
| MAY<br>13...  | 17                                    | 10                           | 6                                            | 1.3                          | 13                                                            | 2.0                                                 | --                                       | --                             | --                        | --                |
| JUNE<br>10... | 30                                    | 2                            | 6                                            | 7.9                          | 15                                                            | 3.2                                                 | --                                       | --                             | --                        | --                |
| JULY<br>15... | --                                    | 3                            | --                                           | 32                           | 29                                                            | 6.3                                                 | --                                       | --                             | --                        | --                |
| AUG.<br>19... | --                                    | 8                            | --                                           | 14                           | 26                                                            | --                                                  | --                                       | --                             | --                        | --                |
| SEP.<br>16... | 19                                    | 8                            | 22                                           | 4.0                          | 15                                                            | 2.2                                                 | 3                                        | .0                             | .01                       | 0                 |

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

UNITS OF MEASUREMENT, GROSS ALPHA RADIATION, AS BOTH MICROGRAMS AND PICOCURIES OF URANIUM EQUIVALENT PER LITER OF WATER, GROSS BETA RADIATION AS BOTH STRONTIUM-90/YTTRIUM-90 AND CESIUM-137, IN PICOCURIES PER LITER OF WATER.

| DATE                | DIS-<br>SOLVED<br>GROSS<br>ALPHA<br>AS<br>U-NAT.<br>(UG/L) | DIS-<br>SOLVED<br>GROSS<br>ALPHA<br>AS<br>U-NAT.<br>(PC/L) | DIS-<br>SOLVED<br>GROSS<br>BETA<br>AS SR90<br>(PC/L) | DIS-<br>SOLVED<br>GROSS<br>BETA<br>AS<br>CS-137<br>(PC/L) | TOTAL<br>FIL-<br>TRABLE<br>RESIDUE<br>(MG/L) | SUS-<br>PENDE<br>D GROSS<br>ALPHA<br>AS<br>U-NAT.<br>(UG/L) | SUS-<br>PENDE<br>D GROSS<br>ALPHA<br>AS<br>U-NAT.<br>(PC/L) | SUS-<br>PENDE<br>D GROSS<br>BETA<br>AS SR90<br>(PC/L) | SUS-<br>PENDE<br>D GROSS<br>BETA<br>AS<br>CS-137<br>(PC/L) | TOTAL<br>NON-<br>FIL-<br>TRABLE<br>RESIDUE<br>(MG/L) |
|---------------------|------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------|
| CCT., 1970<br>15... | 2.7                                                        | .8                                                         | 3.6                                                  | 4.6                                                       | 84                                           | <.4                                                         | <.1                                                         | 1.0                                                   | 1.1                                                        | 6                                                    |
| NOV.<br>12...       | <.9                                                        | <.3                                                        | 3.6                                                  | 4.5                                                       | 84                                           | .4                                                          | .1                                                          | .9                                                    | .9                                                         | 5                                                    |
| DEC.<br>10...       | <1.0                                                       | <.2                                                        | 2.9                                                  | 3.7                                                       | 76                                           | <.4                                                         | <.1                                                         | <.4                                                   | <.4                                                        | 4                                                    |
| APR., 1971<br>23... | .5                                                         | .2                                                         | 2.5                                                  | 3.2                                                       | 51                                           | 1.7                                                         | .6                                                          | 4.2                                                   | 5.0                                                        | 51                                                   |
| SEP.<br>16...       | --                                                         | --                                                         | --                                                   | --                                                        | --                                           | --                                                          | --                                                          | --                                                    | --                                                         | 11                                                   |

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE                | ALDRIN<br>(UG/L) | DDD<br>(UG/L) | DDE<br>(UG/L) | DDT<br>(UG/L) | DI-<br>AZINON<br>(UG/L) | DI-<br>ELDRIN<br>(UG/L) | ENDRIN<br>(UG/L) | ETHION<br>(UG/L) | HEPTA-<br>CHLOR<br>(UG/L) |
|---------------------|------------------|---------------|---------------|---------------|-------------------------|-------------------------|------------------|------------------|---------------------------|
| DEC., 1970<br>10... | .00              | .00           | .00           | .00           | --                      | .00                     | .00              | .00              | .00                       |
| MAR., 1971<br>11... | --               | --            | --            | --            | <.01                    | --                      | --               | .00              | --                        |
| JUNE<br>10...       | --               | .00           | .00           | .00           | .01                     | .00                     | .00              | .00              | --                        |

MINOR ELEMENTS ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE                | DIS-<br>SOLVED<br>ARSENIC<br>(AS)<br>(UG/L) | DIS-<br>SOLVED<br>CAD-<br>MIUM<br>(CD)<br>(UG/L) | HEXA-<br>VALENT<br>CHRO-<br>MIUM<br>(CR6)<br>(UG/L) | DIS-<br>SOLVED<br>COBALT<br>(CO)<br>(UG/L) | DIS-<br>SOLVED<br>LEAD<br>(PB)<br>(UG/L) | DIS-<br>SOLVED<br>MERCURY<br>(HG)<br>(UG/L) | DIS-<br>SOLVED<br>ZINC<br>(ZN)<br>(UG/L) |
|---------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------|--------------------------------------------|------------------------------------------|---------------------------------------------|------------------------------------------|
| OCT., 1970<br>09... | 10                                          | 1                                                | 1                                                   | 0                                          | 10                                       | <.5                                         | 10                                       |
| SEP., 1971<br>16... | 0                                           | --                                               | --                                                  | --                                         | --                                       | <.5                                         | --                                       |

## 01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|---------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | 138     | 132 | 135  | 152      | 123 | 136  | 118      | 110 | 113  | 136     | 128 | 131  |
| 2     | 133     | 127 | 130  | 152      | 131 | 143  | 112      | 100 | 108  | 146     | 132 | 139  |
| 3     | 136     | 129 | 133  | 134      | 127 | 131  | 113      | 108 | 110  | 152     | 132 | 144  |
| 4     | 134     | 129 | 132  | 131      | 123 | 128  | 114      | 106 | 111  | 153     | 129 | 143  |
| 5     | 131     | 128 | 129  | 132      | 110 | 127  | 117      | 96  | 107  | 156     | 148 | 152  |
| 6     | 129     | 123 | 126  | 133      | 129 | 131  | 103      | 96  | 99   | 164     | 139 | 153  |
| 7     | 131     | 123 | 129  | 129      | 123 | 126  | 109      | 100 | 105  | 142     | 132 | 137  |
| 8     | 132     | 123 | 129  | 145      | 123 | 131  | 109      | 101 | 107  | 139     | 130 | 134  |
| 9     | 131     | 124 | 128  | 130      | 123 | 127  | 110      | 101 | 106  | 130     | 123 | 127  |
| 10    | 134     | 123 | 129  | 133      | 125 | 130  | ---      | --- | ---  | 126     | 120 | 123  |
| 11    | 132     | 123 | 126  | 138      | 129 | 133  | ---      | --- | ---  | 128     | 123 | 126  |
| 12    | 132     | 123 | 130  | 132      | 123 | 129  | ---      | --- | ---  | 135     | 128 | 131  |
| 13    | 133     | 128 | 131  | 123      | 114 | 120  | ---      | --- | ---  | 132     | 123 | 128  |
| 14    | 134     | 128 | 131  | 125      | 100 | 120  | ---      | --- | ---  | 129     | 123 | 126  |
| 15    | 140     | 129 | 134  | 130      | 116 | 123  | ---      | --- | ---  | 136     | 122 | 126  |
| 16    | 139     | 123 | 131  | 131      | 121 | 128  | ---      | --- | ---  | 137     | 131 | 134  |
| 17    | 131     | 123 | 126  | 124      | 109 | 121  | ---      | --- | ---  | 144     | 132 | 137  |
| 18    | 127     | 121 | 123  | 121      | 100 | 118  | ---      | --- | ---  | 154     | 130 | 143  |
| 19    | 121     | 101 | 117  | 123      | 109 | 119  | ---      | --- | ---  | 140     | 131 | 134  |
| 20    | 120     | 109 | 117  | 120      | 109 | 117  | ---      | --- | ---  | 134     | 125 | 129  |
| 21    | 124     | 120 | 122  | 118      | 116 | 117  | ---      | --- | ---  | 134     | 123 | 131  |
| 22    | 125     | 101 | 120  | 116      | 100 | 109  | ---      | --- | ---  | 148     | 123 | 134  |
| 23    | 127     | 101 | 121  | 109      | 106 | 108  | ---      | --- | ---  | 163     | 133 | 142  |
| 24    | 125     | 109 | 122  | 109      | 100 | 106  | ---      | --- | ---  | 173     | 144 | 153  |
| 25    | 116     | 110 | 114  | 107      | 100 | 104  | ---      | --- | ---  | 166     | 143 | 157  |
| 26    | 115     | 110 | 113  | 106      | 100 | 103  | ---      | --- | ---  | 169     | 133 | 152  |
| 27    | 116     | 110 | 113  | 109      | 104 | 107  | ---      | --- | ---  | 160     | 141 | 152  |
| 28    | 118     | 110 | 114  | 113      | 100 | 108  | ---      | --- | ---  | 139     | 131 | 133  |
| 29    | 118     | 110 | 115  | 116      | 110 | 114  | 129      | 123 | 127  | 131     | 121 | 126  |
| 30    | 119     | 110 | 115  | 119      | 110 | 116  | 127      | 122 | 125  | 158     | 122 | 136  |
| 31    | 128     | 110 | 123  | ---      | --- | ---  | 136      | 126 | 131  | 155     | 132 | 140  |
| MONTH | 140     | 101 | 124  | 152      | 100 | 121  | ---      | --- | ---  | 173     | 120 | 137  |

| DAY   | FEBRUARY |     |      | MARCH |     |      | APRIL |     |      | MAY |     |      |
|-------|----------|-----|------|-------|-----|------|-------|-----|------|-----|-----|------|
|       | MAX      | MIN | MEAN | MAX   | MIN | MEAN | MAX   | MIN | MEAN | MAX | MIN | MEAN |
| 1     | 137      | 123 | 131  | 125   | 110 | 119  | 119   | 110 | 116  | 72  | 68  | 70   |
| 2     | 130      | 121 | 126  | 121   | 110 | 115  | 119   | 110 | 115  | 72  | 70  | 71   |
| 3     | 129      | 121 | 126  | 123   | 109 | 120  | 116   | 90  | 104  | 72  | 70  | 71   |
| 4     | 130      | 123 | 128  | 144   | 121 | 128  | 88    | 81  | 84   | 72  | 63  | 67   |
| 5     | 152      | 123 | 132  | 143   | 127 | 138  | 81    | 79  | 80   | 64  | 63  | 64   |
| 6     | 202      | 144 | 172  | ---   | --- | ---  | 85    | 79  | 82   | --- | --- | ---  |
| 7     | 188      | 159 | 170  | ---   | --- | ---  | 105   | 82  | 91   | --- | --- | ---  |
| 8     | 198      | 163 | 177  | 149   | 139 | 144  | 101   | 90  | 93   | --- | --- | ---  |
| 9     | 217      | 162 | 181  | 142   | 132 | 138  | 98    | 92  | 95   | --- | --- | ---  |
| 10    | 160      | 138 | 145  | 136   | 130 | 133  | 98    | 87  | 94   | --- | --- | ---  |
| 11    | 140      | 128 | 133  | 136   | 123 | 131  | 86    | 79  | 82   | --- | --- | ---  |
| 12    | 143      | 123 | 133  | 149   | 134 | 140  | 81    | 75  | 78   | --- | --- | ---  |
| 13    | 181      | 135 | 145  | 135   | 130 | 133  | 77    | 70  | 73   | --- | --- | ---  |
| 14    | 177      | 113 | 145  | 140   | 109 | 133  | 70    | 62  | 65   | --- | --- | ---  |
| 15    | 180      | 121 | 141  | 144   | 132 | 139  | 74    | 67  | 70   | --- | --- | ---  |
| 16    | 126      | 104 | 118  | 137   | 133 | 136  | 76    | 73  | 74   | --- | --- | ---  |
| 17    | 125      | 93  | 115  | 132   | 115 | 123  | 76    | 73  | 75   | --- | --- | ---  |
| 18    | 143      | 87  | 124  | 115   | 110 | 112  | 80    | 77  | 78   | --- | --- | ---  |
| 19    | 136      | 129 | 132  | 118   | 110 | 115  | 78    | 70  | 74   | --- | --- | ---  |
| 20    | 147      | 128 | 133  | 135   | 118 | 127  | 68    | 58  | 62   | --- | --- | ---  |
| 21    | 143      | 129 | 135  | 134   | 120 | 126  | 62    | 60  | 61   | --- | --- | ---  |
| 22    | 134      | 130 | 133  | 121   | 109 | 117  | 65    | 62  | 64   | --- | --- | ---  |
| 23    | 139      | 128 | 135  | 123   | 118 | 121  | 68    | 65  | 66   | --- | --- | ---  |
| 24    | 150      | 139 | 145  | 125   | 122 | 124  | 67    | 65  | 66   | --- | --- | ---  |
| 25    | 147      | 141 | 145  | 127   | 123 | 125  | 66    | 65  | 66   | --- | --- | ---  |
| 26    | 140      | 132 | 138  | 128   | 121 | 124  | 69    | 65  | 67   | 110 | 103 | 108  |
| 27    | 157      | 135 | 142  | 128   | 123 | 125  | 74    | 70  | 72   | 109 | 100 | 106  |
| 28    | 149      | 123 | 134  | 136   | 123 | 130  | 73    | 72  | 72   | 107 | 100 | 103  |
| 29    | ---      | --- | ---  | 135   | 123 | 130  | 75    | 71  | 73   | 107 | 100 | 105  |
| 30    | ---      | --- | ---  | 129   | 123 | 126  | 71    | 68  | 69   | 106 | 102 | 104  |
| 31    | ---      | --- | ---  | 124   | 113 | 119  | ---   | --- | ---  | 113 | 101 | 110  |
| MONTH | 217      | 87  | 140  | 149   | 109 | 127  | 119   | 58  | 79   | --- | --- | ---  |



## G1184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DAY   | JUNE |     |      | JULY |     |      | AUGUST |     |      | SEPTEMBER |     |      |
|-------|------|-----|------|------|-----|------|--------|-----|------|-----------|-----|------|
|       | MAX  | MIN | MEAN | MAX  | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1     | 115  | 100 | 109  | 144  | 132 | 137  | 149    | 141 | 145  | 116       | 100 | 110  |
| 2     | 113  | 107 | 109  | 138  | 132 | 135  | 146    | 141 | 144  | 125       | 109 | 119  |
| 3     | 116  | 100 | 112  | 140  | 130 | 135  | 141    | 132 | 138  | 127       | 123 | 126  |
| 4     | 114  | 109 | 111  | 143  | 132 | 136  | 137    | 131 | 134  | 131       | 121 | 128  |
| 5     | 123  | 112 | 118  | 146  | 140 | 142  | 139    | 131 | 134  | 131       | 121 | 128  |
| 6     | 131  | 115 | 121  | 149  | 143 | 146  | 140    | 132 | 138  | 144       | 132 | 138  |
| 7     | 134  | 123 | 129  | 148  | 141 | 145  | 138    | 135 | 136  | 148       | 142 | 145  |
| 8     | 126  | 120 | 123  | 151  | 143 | 147  | 137    | 132 | 134  | 146       | 139 | 143  |
| 9     | 127  | 101 | 121  | 153  | 143 | 150  | 146    | 140 | 143  | 140       | 135 | 137  |
| 10    | 126  | 120 | 123  | 147  | 141 | 144  | 145    | 141 | 143  | 134       | 123 | 129  |
| 11    | 124  | 120 | 122  | 151  | 142 | 148  | 149    | 143 | 146  | 131       | 128 | 129  |
| 12    | 140  | 123 | 131  | 154  | 146 | 151  | 153    | 144 | 148  | 136       | 131 | 134  |
| 13    | 156  | 134 | 144  | 153  | 144 | 148  | 149    | 143 | 146  | 136       | 126 | 132  |
| 14    | 145  | 137 | 141  | 151  | 143 | 146  | 151    | 143 | 148  | 136       | 130 | 133  |
| 15    | 149  | 138 | 145  | 156  | 143 | 149  | 159    | 151 | 156  | 133       | 123 | 128  |
| 16    | 154  | 145 | 149  | 159  | 152 | 156  | 157    | 154 | 156  | 129       | 123 | 126  |
| 17    | 158  | 143 | 150  | 160  | 155 | 158  | 157    | 149 | 153  | 127       | 121 | 124  |
| 18    | 149  | 139 | 145  | 163  | 153 | 156  | 158    | 153 | 156  | 120       | 118 | 118  |
| 19    | 145  | 139 | 142  | 163  | 154 | 159  | 166    | 155 | 160  | ---       | --- | ---  |
| 20    | 145  | 141 | 143  | 158  | 144 | 149  | 166    | 162 | 164  | ---       | --- | ---  |
| 21    | 150  | 142 | 146  | 158  | 143 | 150  | 165    | 153 | 157  | ---       | --- | ---  |
| 22    | 146  | 136 | 140  | 160  | 138 | 151  | 165    | 157 | 162  | ---       | --- | ---  |
| 23    | 147  | 136 | 140  | 143  | 140 | 141  | 165    | 158 | 161  | ---       | --- | ---  |
| 24    | 145  | 140 | 143  | 143  | 138 | 140  | 159    | 153 | 154  | ---       | --- | ---  |
| 25    | 145  | 136 | 140  | 148  | 142 | 145  | 158    | 147 | 151  | ---       | --- | ---  |
| 26    | 149  | 132 | 142  | 150  | 143 | 148  | 162    | 158 | 160  | ---       | --- | ---  |
| 27    | 144  | 135 | 140  | 153  | 144 | 149  | 163    | 144 | 155  | ---       | --- | ---  |
| 28    | 141  | 132 | 136  | 147  | 143 | 145  | 144    | 132 | 140  | ---       | --- | ---  |
| 29    | 140  | 138 | 139  | 153  | 146 | 149  | 135    | 117 | 122  | 143       | 140 | 141  |
| 30    | 144  | 136 | 139  | 158  | 152 | 156  | 115    | 98  | 105  | 150       | 142 | 145  |
| 31    | ---  | --- | ---  | 160  | 143 | 153  | 116    | 104 | 112  | ---       | --- | ---  |
| MONTH | 158  | 100 | 133  | 163  | 130 | 147  | 166    | 98  | 145  | ---       | --- | ---  |
| YEAR  | 217  | 58  | 126  |      |     |      |        |     |      |           |     |      |

PH (UNITS), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|---------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | ---     | --- | ---  | 6.8      | 6.6 | 6.7  | 7.0      | 7.0 | 7.0  | 7.1     | 6.9 | 7.0  |
| 2     | ---     | --- | ---  | 6.7      | 6.5 | 6.6  | 7.0      | 6.8 | 6.9  | 7.0     | 6.8 | 6.9  |
| 3     | ---     | --- | ---  | 6.8      | 6.6 | 6.7  | 6.9      | 6.8 | 6.9  | 6.5     | 6.8 | 6.5  |
| 4     | ---     | --- | ---  | 6.8      | 6.7 | 6.7  | 6.9      | 6.7 | 6.8  | 7.0     | 6.8 | 6.9  |
| 5     | ---     | --- | ---  | 6.7      | 6.5 | 6.6  | 7.0      | 6.9 | 6.9  | 7.0     | 6.9 | 6.9  |
| 6     | ---     | --- | ---  | 6.7      | 6.5 | 6.6  | 7.0      | 7.0 | 7.0  | 7.0     | 6.9 | 6.9  |
| 7     | ---     | --- | ---  | 6.7      | 6.6 | 6.6  | 7.0      | 6.9 | 6.9  | 7.0     | 6.9 | 7.0  |
| 8     | ---     | --- | ---  | 6.7      | 6.4 | 6.6  | 7.0      | 6.9 | 6.9  | 7.0     | 7.0 | 7.0  |
| 9     | ---     | --- | ---  | 6.6      | 6.5 | 6.5  | 7.0      | 6.9 | 7.0  | 7.0     | 7.0 | 7.0  |
| 10    | ---     | --- | ---  | 6.6      | 6.5 | 6.5  | ---      | --- | ---  | 7.0     | 6.9 | 7.0  |
| 11    | ---     | --- | ---  | 6.6      | 6.4 | 6.5  | ---      | --- | ---  | 7.0     | 6.9 | 7.0  |
| 12    | ---     | --- | ---  | 6.6      | 6.5 | 6.6  | ---      | --- | ---  | 7.0     | 6.8 | 6.5  |
| 13    | ---     | --- | ---  | 6.6      | 6.6 | 6.6  | ---      | --- | ---  | 7.0     | 6.9 | 6.9  |
| 14    | ---     | --- | ---  | 6.7      | 6.6 | 6.7  | ---      | --- | ---  | 6.9     | 6.9 | 6.9  |
| 15    | ---     | --- | ---  | 6.7      | 6.6 | 6.6  | ---      | --- | ---  | 6.9     | 6.9 | 6.5  |
| 16    | ---     | --- | ---  | 6.7      | 6.6 | 6.7  | ---      | --- | ---  | 6.9     | 6.8 | 6.9  |
| 17    | ---     | --- | ---  | 6.8      | 6.7 | 6.8  | ---      | --- | ---  | 6.9     | 6.8 | 6.8  |
| 18    | ---     | --- | ---  | 7.0      | 6.8 | 6.9  | ---      | --- | ---  | 6.8     | 6.7 | 6.8  |
| 19    | ---     | --- | ---  | 7.0      | 6.9 | 7.0  | ---      | --- | ---  | 6.8     | 6.7 | 6.8  |
| 20    | ---     | --- | ---  | 7.0      | 7.0 | 7.0  | ---      | --- | ---  | 7.0     | 6.8 | 6.9  |
| 21    | ---     | --- | ---  | 7.0      | 6.9 | 7.0  | ---      | --- | ---  | 6.9     | 6.9 | 6.9  |
| 22    | ---     | --- | ---  | 7.0      | 7.0 | 7.0  | ---      | --- | ---  | 6.9     | 6.8 | 6.9  |
| 23    | ---     | --- | ---  | 7.0      | 7.0 | 7.0  | ---      | --- | ---  | 6.9     | 6.8 | 6.8  |
| 24    | ---     | --- | ---  | 7.1      | 7.0 | 7.1  | ---      | --- | ---  | 6.9     | 6.7 | 6.8  |
| 25    | ---     | --- | ---  | 7.2      | 7.1 | 7.2  | ---      | --- | ---  | 6.9     | 6.6 | 6.8  |
| 26    | ---     | --- | ---  | 7.2      | 7.1 | 7.2  | ---      | --- | ---  | 6.9     | 6.9 | 6.9  |
| 27    | ---     | --- | ---  | 7.2      | 7.0 | 7.1  | ---      | --- | ---  | 6.9     | 6.8 | 6.9  |
| 28    | 7.1     | 6.9 | 6.9  | 7.1      | 7.0 | 7.0  | ---      | --- | ---  | 6.9     | 6.9 | 6.9  |
| 29    | 7.0     | 6.8 | 6.9  | 7.0      | 6.9 | 6.9  | 7.0      | 6.9 | 7.0  | 6.9     | 6.8 | 6.9  |
| 30    | 7.0     | 6.9 | 6.9  | ---      | --- | ---  | 7.0      | 7.0 | 7.0  | 6.9     | 6.8 | 6.8  |
| 31    | 6.9     | 6.8 | 6.8  | ---      | --- | ---  | 7.0      | 6.9 | 7.0  | 6.8     | 6.8 | 6.8  |
| MONTH | ---     | --- | ---  | 7.2      | 6.4 | 6.8  | ---      | --- | ---  | 7.1     | 6.6 | 6.9  |

## 01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN. --Continued

PH (UNITS), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| FEBRUARY |     |     |      | MARCH |     |      | APRIL  |     |      | MAY       |     |      |
|----------|-----|-----|------|-------|-----|------|--------|-----|------|-----------|-----|------|
| CAY      | MAX | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | 6.8 | 6.7 | 6.8  | 6.9   | 6.9 | 6.9  | 7.0    | 6.9 | 6.9  | 7.5       | 7.3 | 7.5  |
| 2        | 6.8 | 6.7 | 6.8  | 7.0   | 6.9 | 6.9  | 6.9    | 6.8 | 6.9  | 7.5       | 7.5 | 7.5  |
| 3        | 6.8 | 6.7 | 6.7  | 7.1   | 6.9 | 7.0  | 6.9    | 6.8 | 6.8  | 7.5       | 7.5 | 7.5  |
| 4        | 6.8 | 6.7 | 6.7  | 7.1   | 7.0 | 7.0  | 6.9    | 6.8 | 6.8  | 7.6       | 7.5 | 7.5  |
| 5        | 6.8 | 6.9 | 6.8  | 7.1   | 7.0 | 7.0  | 6.9    | 6.8 | 6.9  | 7.6       | 7.5 | 7.5  |
| 6        | 6.9 | 6.8 | 6.9  | ---   | --- | ---  | 6.9    | 6.9 | 6.9  | ---       | --- | ---  |
| 7        | 6.9 | 6.7 | 6.8  | ---   | --- | ---  | 6.9    | 6.9 | 6.9  | ---       | --- | ---  |
| 8        | 6.8 | 6.7 | 6.8  | 7.1   | 7.0 | 7.0  | 6.9    | 6.9 | 6.9  | ---       | --- | ---  |
| 9        | 6.9 | 6.8 | 6.8  | 7.1   | 7.0 | 7.0  | 7.0    | 6.8 | 7.0  | ---       | --- | ---  |
| 10       | 6.8 | 6.8 | 6.8  | 7.1   | 7.0 | 7.0  | 7.0    | 6.9 | 6.9  | ---       | --- | ---  |
| 11       | 6.8 | 6.8 | 6.8  | 7.0   | 7.0 | 7.0  | 6.9    | 6.9 | 6.9  | ---       | --- | ---  |
| 12       | 7.0 | 6.8 | 6.9  | 7.0   | 7.0 | 7.0  | 6.9    | 6.8 | 6.9  | ---       | --- | ---  |
| 13       | 7.0 | 6.9 | 6.9  | 7.0   | 6.9 | 7.0  | 6.8    | 6.7 | 6.8  | ---       | --- | ---  |
| 14       | 7.3 | 7.0 | 7.2  | 7.0   | 6.9 | 6.9  | 6.8    | 6.7 | 6.7  | ---       | --- | ---  |
| 15       | 7.2 | 7.1 | 7.1  | 7.0   | 6.9 | 6.9  | 6.8    | 6.8 | 6.8  | ---       | --- | ---  |
| 16       | 7.1 | 7.0 | 7.1  | 7.4   | 6.9 | 7.1  | 6.9    | 6.8 | 6.8  | ---       | --- | ---  |
| 17       | 7.1 | 7.0 | 7.0  | 7.4   | 6.9 | 7.0  | 6.9    | 6.8 | 6.8  | ---       | --- | ---  |
| 18       | 7.0 | 6.8 | 6.9  | 7.0   | 6.9 | 6.9  | 6.9    | 6.8 | 6.8  | ---       | --- | ---  |
| 19       | 6.9 | 6.8 | 6.8  | 7.0   | 6.9 | 6.9  | 6.9    | 6.8 | 6.9  | ---       | --- | ---  |
| 20       | 6.9 | 6.8 | 6.9  | 7.0   | 6.9 | 6.9  | 6.9    | 6.8 | 6.8  | ---       | --- | ---  |
| 21       | 6.9 | 6.8 | 6.9  | 7.0   | 6.8 | 6.9  | 6.9    | 6.8 | 6.9  | ---       | --- | ---  |
| 22       | 6.9 | 6.8 | 6.8  | 7.2   | 7.0 | 7.0  | 6.9    | 6.9 | 6.9  | ---       | --- | ---  |
| 23       | 7.0 | 6.8 | 6.9  | 7.1   | 6.9 | 7.0  | 7.0    | 6.7 | 6.9  | ---       | --- | ---  |
| 24       | 7.0 | 7.0 | 7.0  | 7.0   | 6.9 | 6.9  | 6.7    | 6.6 | 6.7  | ---       | --- | ---  |
| 25       | 7.0 | 6.9 | 7.0  | 7.0   | 6.9 | 6.9  | 6.7    | 6.6 | 6.6  | ---       | --- | ---  |
| 26       | 6.9 | 6.9 | 6.9  | 7.0   | 6.9 | 6.9  | 6.7    | 6.6 | 6.7  | 7.4       | 6.9 | 7.1  |
| 27       | 6.9 | 6.9 | 6.9  | 6.9   | 6.9 | 6.9  | 6.8    | 6.7 | 6.7  | 7.4       | 7.2 | 7.2  |
| 28       | 6.9 | 6.9 | 6.9  | 6.9   | 6.8 | 6.9  | 6.8    | 6.7 | 6.8  | 7.2       | 7.0 | 7.1  |
| 29       | --- | --- | ---  | 6.9   | 6.8 | 6.9  | 7.3    | 6.9 | 7.0  | 7.1       | 7.0 | 7.1  |
| 30       | --- | --- | ---  | 7.0   | 6.9 | 6.9  | 7.5    | 7.3 | 7.4  | 7.1       | 7.1 | 7.1  |
| 31       | --- | --- | ---  | 7.0   | 6.9 | 7.0  | ---    | --- | ---  | 7.1       | 6.9 | 7.0  |
| MONTH    | 7.3 | 6.7 | 6.9  | 7.4   | 6.8 | 7.0  | 7.5    | 6.6 | 6.9  | ---       | --- | ---  |
|          |     |     |      |       |     |      |        |     |      |           |     |      |
| JUNE     |     |     |      | JULY  |     |      | AUGUST |     |      | SEPTEMBER |     |      |
| CAY      | MAX | MIN | MEAN | MAX   | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1        | 7.1 | 6.8 | 7.0  | ---   | --- | ---  | 6.7    | 6.5 | 6.6  | 8.0       | 7.0 | 7.4  |
| 2        | 6.8 | 6.6 | 6.7  | ---   | --- | ---  | 6.8    | 6.4 | 6.6  | 7.9       | 6.9 | 7.2  |
| 3        | 6.6 | 6.5 | 6.6  | ---   | --- | ---  | 7.0    | 6.4 | 6.6  | 8.6       | 7.0 | 7.5  |
| 4        | 6.7 | 6.5 | 6.6  | ---   | --- | ---  | 6.6    | 6.3 | 6.5  | 8.2       | 7.0 | 7.4  |
| 5        | 6.7 | 6.5 | 6.6  | ---   | --- | ---  | 7.0    | 6.5 | 6.8  | 8.3       | 7.0 | 7.3  |
| 6        | 7.6 | 6.6 | 6.8  | ---   | --- | ---  | 7.0    | 6.7 | 6.8  | 7.4       | 6.9 | 7.1  |
| 7        | 6.9 | 6.7 | 6.8  | ---   | --- | ---  | 7.1    | 6.5 | 6.8  | 7.0       | 6.8 | 6.9  |
| 8        | 7.0 | 6.8 | 6.9  | ---   | --- | ---  | 8.0    | 6.6 | 7.1  | 7.3       | 6.9 | 7.1  |
| 9        | 7.0 | 6.8 | 6.9  | ---   | --- | ---  | 7.1    | 6.5 | 6.7  | 7.1       | 6.9 | 7.0  |
| 10       | 6.8 | 6.6 | 6.7  | ---   | --- | ---  | 7.0    | 6.3 | 6.6  | 7.1       | 6.8 | 6.9  |
| 11       | 6.7 | 6.5 | 6.6  | ---   | --- | ---  | 6.8    | 6.3 | 6.5  | 7.0       | 6.8 | 6.9  |
| 12       | 6.7 | 6.6 | 6.6  | ---   | --- | ---  | 6.9    | 6.7 | 6.8  | 6.9       | 6.7 | 6.8  |
| 13       | --- | --- | ---  | ---   | --- | ---  | 7.1    | 6.6 | 6.8  | 6.9       | 6.6 | 6.8  |
| 14       | --- | --- | ---  | ---   | --- | ---  | 7.7    | 6.6 | 6.9  | 7.1       | 6.8 | 6.9  |
| 15       | --- | --- | ---  | ---   | --- | ---  | 7.6    | 6.7 | 6.9  | 6.9       | 6.8 | 6.9  |
| 16       | 7.7 | 7.1 | 7.4  | 7.9   | 6.9 | 7.4  | 6.8    | 6.7 | 6.7  | 7.0       | 6.9 | 6.9  |
| 17       | 7.3 | 6.9 | 7.0  | 8.0   | 6.7 | 7.1  | 7.1    | 6.7 | 6.9  | 7.2       | 6.8 | 7.0  |
| 18       | 7.3 | 6.8 | 7.2  | 7.0   | 6.5 | 6.7  | 7.1    | 6.7 | 6.9  | 7.0       | 6.8 | 6.9  |
| 19       | 7.1 | 7.1 | 7.1  | 6.9   | 6.5 | 6.7  | 6.8    | 6.5 | 6.6  | ---       | --- | ---  |
| 20       | 7.3 | 7.0 | 7.2  | 6.8   | 6.4 | 6.6  | 6.6    | 6.5 | 6.6  | ---       | --- | ---  |
| 21       | 7.2 | 7.1 | 7.2  | 8.1   | 6.6 | 7.0  | 6.6    | 6.5 | 6.5  | ---       | --- | ---  |
| 22       | 7.3 | 7.1 | 7.2  | 8.7   | 6.6 | 7.3  | 6.9    | 6.5 | 6.6  | ---       | --- | ---  |
| 23       | 7.4 | 7.1 | 7.3  | 8.5   | 6.7 | 7.3  | 6.8    | 6.5 | 6.7  | ---       | --- | ---  |
| 24       | 7.3 | 7.2 | 7.3  | 8.6   | 6.8 | 7.3  | 6.8    | 6.5 | 6.6  | ---       | --- | ---  |
| 25       | 7.2 | 7.1 | 7.2  | 8.0   | 6.8 | 7.1  | 7.1    | 6.7 | 6.8  | ---       | --- | ---  |
| 26       | --- | --- | ---  | 7.2   | 6.7 | 6.9  | 7.0    | 6.7 | 6.9  | ---       | --- | ---  |
| 27       | --- | --- | ---  | 7.1   | 6.5 | 6.8  | 6.9    | 6.8 | 6.8  | ---       | --- | ---  |
| 28       | --- | --- | ---  | 8.0   | 6.7 | 7.1  | 7.1    | 6.7 | 6.9  | ---       | --- | ---  |
| 29       | --- | --- | ---  | 7.6   | 6.8 | 7.0  | 7.1    | 6.9 | 7.0  | ---       | --- | ---  |
| 30       | --- | --- | ---  | 6.8   | 6.6 | 6.7  | 7.1    | 6.9 | 7.0  | ---       | --- | ---  |
| 31       | --- | --- | ---  | 6.8   | 6.4 | 6.6  | 7.4    | 7.1 | 7.2  | ---       | --- | ---  |
| MONTH    | --- | --- | ---  | ---   | --- | ---  | 8.0    | 6.3 | 6.8  | ---       | --- | ---  |
| YEAR     | 8.7 | 6.3 | 6.9  |       |     |      |        |     |      |           |     |      |

## 01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |      |      | DECEMBER |      |      | JANUARY |      |      |
|-------|---------|-----|------|----------|------|------|----------|------|------|---------|------|------|
|       | MAX     | MIN | MEAN | MAX      | MIN  | MEAN | MAX      | MIN  | MEAN | MAX     | MIN  | MEAN |
| 1     | 7.5     | 5.1 | 6.2  | 7.3      | 5.2  | 6.2  | 10.8     | 9.0  | 10.0 | 11.7    | 11.1 | 11.4 |
| 2     | 7.8     | 6.1 | 6.8  | 6.1      | 4.9  | 5.6  | 10.8     | 10.5 | 10.6 | 11.4    | 10.8 | 11.1 |
| 3     | 8.0     | 6.3 | 7.1  | 7.0      | 5.0  | 6.3  | 10.8     | 10.2 | 10.5 | 11.4    | 10.8 | 11.1 |
| 4     | 8.4     | 6.8 | 7.6  | 7.3      | 6.0  | 6.7  | 10.7     | 10.2 | 10.4 | 12.4    | 10.8 | 11.3 |
| 5     | 8.0     | 6.2 | 6.9  | 7.1      | 5.1  | 6.5  | 11.7     | 10.4 | 11.0 | 11.7    | 11.2 | 11.4 |
| 6     | 7.6     | 6.0 | 6.8  | 7.6      | 5.6  | 6.9  | 11.9     | 11.7 | 11.8 | 11.8    | 11.0 | 11.5 |
| 7     | 8.0     | 6.7 | 7.2  | 8.1      | 6.6  | 7.6  | 12.4     | 11.6 | 11.9 | 13.1    | 11.1 | 11.7 |
| 8     | 7.2     | 6.1 | 6.6  | 8.1      | 6.0  | 7.2  | 12.3     | 11.9 | 12.1 | 11.6    | 11.2 | 11.4 |
| 9     | 7.1     | 6.4 | 6.7  | 7.3      | 6.2  | 6.9  | 12.4     | 12.1 | 12.3 | 13.0    | 11.2 | 11.5 |
| 10    | 6.9     | 6.0 | 6.5  | 7.1      | 6.0  | 6.7  | ---      | ---  | ---  | 12.0    | 11.2 | 11.5 |
| 11    | 6.4     | 5.1 | 5.9  | 6.4      | 4.7  | 5.6  | ---      | ---  | ---  | 11.6    | 11.1 | 11.4 |
| 12    | 5.5     | 4.6 | 5.0  | 7.1      | 5.5  | 6.3  | ---      | ---  | ---  | 11.7    | 11.0 | 11.4 |
| 13    | 5.6     | 4.2 | 4.9  | 7.7      | 6.2  | 7.1  | ---      | ---  | ---  | 11.6    | 11.3 | 11.4 |
| 14    | 6.3     | 5.1 | 5.7  | 8.0      | 7.4  | 7.7  | ---      | ---  | ---  | 11.7    | 11.1 | 11.4 |
| 15    | 5.7     | 5.0 | 5.3  | 7.6      | 7.1  | 7.4  | ---      | ---  | ---  | 11.7    | 11.2 | 11.4 |
| 16    | 5.9     | 4.8 | 5.4  | 8.0      | 7.0  | 7.6  | ---      | ---  | ---  | 11.7    | 11.2 | 11.4 |
| 17    | 6.7     | 5.5 | 6.2  | 8.6      | 7.8  | 8.2  | ---      | ---  | ---  | 11.7    | 11.1 | 11.5 |
| 18    | 7.6     | 6.8 | 7.2  | 9.2      | 8.5  | 8.8  | ---      | ---  | ---  | 12.1    | 10.7 | 11.4 |
| 19    | 8.1     | 7.3 | 7.6  | 9.1      | 8.5  | 8.9  | ---      | ---  | ---  | 11.9    | 11.2 | 11.5 |
| 20    | 8.1     | 7.5 | 7.8  | 9.4      | 9.1  | 9.2  | ---      | ---  | ---  | 11.6    | 10.9 | 11.4 |
| 21    | 8.3     | 7.7 | 8.0  | 9.3      | 8.8  | 9.1  | ---      | ---  | ---  | 11.6    | 11.1 | 11.4 |
| 22    | 8.0     | 7.6 | 7.8  | 9.9      | 9.4  | 9.6  | ---      | ---  | ---  | 12.2    | 10.8 | 11.2 |
| 23    | 7.8     | 7.3 | 7.5  | 9.9      | 9.6  | 9.8  | ---      | ---  | ---  | 11.3    | 10.8 | 11.1 |
| 24    | 7.4     | 7.1 | 7.3  | 10.7     | 10.0 | 10.3 | ---      | ---  | ---  | 11.5    | 10.7 | 11.2 |
| 25    | 7.3     | 6.9 | 7.2  | 11.3     | 10.8 | 11.1 | ---      | ---  | ---  | 11.3    | 10.0 | 10.6 |
| 26    | 7.4     | 6.8 | 7.1  | 11.6     | 11.3 | 11.5 | ---      | ---  | ---  | 11.4    | 10.8 | 11.1 |
| 27    | 7.7     | 7.2 | 7.4  | 11.6     | 11.4 | 11.5 | ---      | ---  | ---  | 11.1    | 10.7 | 11.0 |
| 28    | 7.7     | 6.8 | 7.4  | 11.4     | 10.8 | 11.1 | ---      | ---  | ---  | 12.1    | 11.2 | 11.5 |
| 29    | 8.0     | 6.6 | 7.4  | 11.1     | 10.8 | 10.9 | 11.7     | 11.2 | 11.4 | 11.6    | 10.8 | 11.3 |
| 30    | 8.1     | 7.2 | 7.7  | 10.8     | 9.3  | 9.7  | 12.9     | 11.3 | 11.5 | 11.6    | 10.7 | 11.0 |
| 31    | 7.8     | 6.6 | 7.3  | ---      | ---  | ---  | 11.7     | 11.1 | 11.4 | 11.8    | 10.7 | 11.1 |
| MONTH | 8.4     | 4.2 | 6.8  | 11.6     | 4.7  | 8.3  | ---      | ---  | ---  | 13.1    | 10.0 | 11.3 |

| DAY   | FEBRUARY |      |      | MARCH |      |      | APRIL |      |      | MAY  |      |      |
|-------|----------|------|------|-------|------|------|-------|------|------|------|------|------|
|       | MAX      | MIN  | MEAN | MAX   | MIN  | MEAN | MAX   | MIN  | MEAN | MAX  | MIN  | MEAN |
| 1     | 11.8     | 10.8 | 11.2 | 13.1  | 12.3 | 12.7 | 12.0  | 11.5 | 11.8 | 12.0 | 11.6 | 11.8 |
| 2     | 11.6     | 11.0 | 11.3 | 13.2  | 12.6 | 13.0 | 11.9  | 11.4 | 11.7 | 11.7 | 11.4 | 11.5 |
| 3     | 11.4     | 10.7 | 11.1 | 13.1  | 12.7 | 12.9 | 12.1  | 11.1 | 11.6 | 11.4 | 11.3 | 11.4 |
| 4     | 11.5     | 10.5 | 11.0 | 13.1  | 12.5 | 12.9 | 12.7  | 12.0 | 12.5 | 11.7 | 11.2 | 11.5 |
| 5     | 11.1     | 10.3 | 10.7 | 13.1  | 12.9 | 13.0 | 13.1  | 12.5 | 12.8 | 11.9 | 11.7 | 11.8 |
| 6     | 11.1     | 10.5 | 10.8 | ---   | ---  | ---  | 13.7  | 12.9 | 13.3 | ---  | ---  | ---  |
| 7     | 11.1     | 10.0 | 10.7 | ---   | ---  | ---  | 13.1  | 12.9 | 13.0 | ---  | ---  | ---  |
| 8     | 11.0     | 10.2 | 10.7 | 12.7  | 12.2 | 12.5 | 13.2  | 12.8 | 13.0 | ---  | ---  | ---  |
| 9     | 11.3     | 10.5 | 10.8 | 12.7  | 12.4 | 12.5 | 13.0  | 12.1 | 12.7 | ---  | ---  | ---  |
| 10    | 11.0     | 10.6 | 10.8 | 12.7  | 12.0 | 12.3 | 12.1  | 11.9 | 12.0 | ---  | ---  | ---  |
| 11    | 11.2     | 10.8 | 10.9 | 12.3  | 12.0 | 12.2 | 12.6  | 12.1 | 12.4 | ---  | ---  | ---  |
| 12    | 11.1     | 10.7 | 10.9 | 12.0  | 11.8 | 11.9 | 12.5  | 12.1 | 12.3 | ---  | ---  | ---  |
| 13    | 11.0     | 10.2 | 10.7 | 11.7  | 11.4 | 11.5 | 12.2  | 12.0 | 12.1 | ---  | ---  | ---  |
| 14    | 15.2     | 11.1 | 14.0 | 12.0  | 11.3 | 11.5 | 12.6  | 11.9 | 12.2 | ---  | ---  | ---  |
| 15    | 15.6     | 14.7 | 15.0 | 12.2  | 11.9 | 12.1 | 13.3  | 12.5 | 13.0 | ---  | ---  | ---  |
| 16    | 15.7     | 14.6 | 15.0 | 12.4  | 11.9 | 12.1 | 13.2  | 12.8 | 13.0 | ---  | ---  | ---  |
| 17    | 15.9     | 15.4 | 15.7 | 12.5  | 12.0 | 12.2 | 13.0  | 12.7 | 12.9 | ---  | ---  | ---  |
| 18    | 15.8     | 11.6 | 13.8 | 12.8  | 12.4 | 12.7 | 12.6  | 12.4 | 12.5 | ---  | ---  | ---  |
| 19    | 11.9     | 11.4 | 11.7 | 12.7  | 12.5 | 12.6 | 12.5  | 11.8 | 12.2 | ---  | ---  | ---  |
| 20    | 11.7     | 11.4 | 11.6 | 12.8  | 12.5 | 12.6 | 12.0  | 11.8 | 11.9 | ---  | ---  | ---  |
| 21    | 11.9     | 11.3 | 11.6 | 12.6  | 12.0 | 12.5 | 12.1  | 11.9 | 12.0 | ---  | ---  | ---  |
| 22    | 12.0     | 11.3 | 11.6 | 12.8  | 12.4 | 12.5 | 12.3  | 12.0 | 12.2 | ---  | ---  | ---  |
| 23    | 12.0     | 11.7 | 11.9 | 12.8  | 12.5 | 12.7 | 12.3  | 12.0 | 12.2 | ---  | ---  | ---  |
| 24    | 12.0     | 11.5 | 11.7 | 12.9  | 12.0 | 12.5 | 12.2  | 11.1 | 11.9 | ---  | ---  | ---  |
| 25    | 12.0     | 11.7 | 11.8 | 12.9  | 12.4 | 12.6 | 12.2  | 12.0 | 12.1 | ---  | ---  | ---  |
| 26    | 11.9     | 11.6 | 11.7 | 12.4  | 12.0 | 12.2 | 12.6  | 12.0 | 12.3 | 8.0  | 7.7  | 7.9  |
| 27    | 12.1     | 11.7 | 11.8 | 12.3  | 12.0 | 12.1 | 12.3  | 12.0 | 12.2 | 8.3  | 7.9  | 8.1  |
| 28    | 12.5     | 12.1 | 12.3 | 12.1  | 11.6 | 11.8 | 12.2  | 12.0 | 12.1 | 8.7  | 8.1  | 8.5  |
| 29    | ---      | ---  | ---  | 11.8  | 11.3 | 11.5 | 12.0  | 11.7 | 11.9 | 8.8  | 8.4  | 8.6  |
| 30    | ---      | ---  | ---  | 11.8  | 11.3 | 11.5 | 12.0  | 11.7 | 11.9 | 8.8  | 8.5  | 8.6  |
| 31    | ---      | ---  | ---  | 12.1  | 11.3 | 11.7 | ---   | ---  | ---  | 8.6  | 8.1  | 8.4  |
| MONTH | 15.9     | 10.0 | 11.9 | 13.2  | 11.3 | 12.3 | 13.7  | 11.1 | 12.3 | ---  | ---  | ---  |

## CONNECTICUT RIVER BASIN

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DAY   | JUNE |     |      | JULY |     |      | AUGUST |     |      | SEPTEMBER |     |      |
|-------|------|-----|------|------|-----|------|--------|-----|------|-----------|-----|------|
|       | MAX  | MIN | MEAN | MAX  | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1     | 8.5  | 8.2 | 8.4  | 8.6  | 5.5 | 6.6  | 4.6    | 3.1 | 3.8  | ---       | --- | ---  |
| 2     | 8.4  | 7.7 | 8.0  | 7.9  | 4.4 | 6.2  | 6.0    | 3.3 | 4.7  | ---       | --- | ---  |
| 3     | 7.9  | 7.3 | 7.5  | 9.0  | 6.1 | 7.7  | 7.0    | 3.6 | 4.9  | ---       | --- | ---  |
| 4     | 7.9  | 7.4 | 7.6  | 11.6 | 7.0 | 9.1  | 5.5    | 3.6 | 4.4  | ---       | --- | ---  |
| 5     | 7.7  | 7.2 | 7.5  | 13.0 | 8.1 | 10.4 | 6.6    | 3.5 | 5.2  | ---       | --- | ---  |
| 6     | 8.2  | 6.3 | 7.5  | 13.3 | 8.6 | 10.6 | 7.3    | 5.1 | 6.1  | ---       | --- | ---  |
| 7     | 8.1  | 7.2 | 7.6  | 10.6 | 6.9 | 9.0  | 7.5    | 4.7 | 6.2  | ---       | --- | ---  |
| 8     | 8.5  | 7.2 | 7.8  | 10.9 | 5.7 | 8.1  | 9.0    | 5.5 | 7.4  | 6.2       | 3.7 | 4.4  |
| 9     | 8.0  | 6.7 | 7.4  | 7.9  | 3.2 | 5.8  | 8.0    | 5.7 | 6.8  | 5.4       | 4.3 | 4.7  |
| 10    | 7.7  | 6.8 | 7.3  | 8.8  | 3.0 | 5.7  | 7.1    | 4.5 | 5.4  | 7.5       | 5.8 | 6.5  |
| 11    | 8.3  | 7.2 | 7.8  | 7.7  | 5.1 | 6.4  | ---    | --- | ---  | 7.5       | 6.7 | 7.1  |
| 12    | 8.2  | 7.2 | 7.6  | 9.4  | 3.1 | 6.2  | 5.9    | 2.7 | 4.0  | 7.1       | 4.8 | 6.1  |
| 13    | 7.9  | 6.0 | 7.2  | 8.8  | 4.4 | 6.7  | 5.9    | 3.4 | 4.9  | 5.3       | 4.5 | 4.9  |
| 14    | 8.2  | 5.9 | 7.1  | 8.4  | 5.0 | 6.5  | 6.6    | 5.6 | 6.2  | 5.5       | 5.0 | 5.2  |
| 15    | 8.9  | 6.6 | 7.8  | 8.9  | 4.2 | 6.7  | 6.4    | 6.0 | 6.2  | 5.5       | 5.1 | 5.3  |
| 16    | 9.2  | 7.2 | 8.2  | 9.0  | 4.5 | 6.9  | 6.2    | 5.8 | 6.1  | 5.6       | 5.2 | 5.5  |
| 17    | 9.6  | 6.5 | 8.0  | 9.3  | 4.7 | 6.7  | 6.3    | 5.5 | 5.9  | 5.8       | 5.6 | 5.7  |
| 18    | 9.2  | 5.8 | 7.2  | 7.9  | 3.9 | 5.6  | 6.0    | 1.9 | 5.1  | 5.7       | 5.6 | 5.7  |
| 19    | 8.3  | 5.8 | 7.1  | 7.3  | 3.9 | 6.0  | 1.7    | 1.1 | 1.2  | ---       | --- | ---  |
| 20    | 9.7  | 5.8 | 7.8  | 6.5  | 3.3 | 5.2  | 1.2    | 1.0 | 1.1  | ---       | --- | ---  |
| 21    | 9.1  | 6.1 | 7.5  | 10.0 | 5.3 | 7.5  | 1.5    | 1.1 | 1.3  | ---       | --- | ---  |
| 22    | 8.4  | 5.6 | 6.9  | 11.3 | 6.3 | 8.6  | 2.1    | 1.3 | 1.6  | ---       | --- | ---  |
| 23    | 8.3  | 6.0 | 7.0  | 10.7 | 5.5 | 8.0  | 1.8    | 1.5 | 1.7  | ---       | --- | ---  |
| 24    | 8.9  | 5.7 | 7.0  | 10.2 | 5.1 | 7.6  | 2.4    | 1.8 | 2.1  | ---       | --- | ---  |
| 25    | 8.5  | 4.8 | 6.7  | 9.5  | 5.1 | 6.8  | 2.8    | 2.3 | 2.5  | ---       | --- | ---  |
| 26    | 8.5  | 5.3 | 6.8  | 7.8  | 4.2 | 5.7  | 3.3    | 2.5 | 2.7  | ---       | --- | ---  |
| 27    | 9.2  | 5.2 | 7.6  | 5.8  | 1.7 | 3.8  | ---    | --- | ---  | ---       | --- | ---  |
| 28    | 11.0 | 7.3 | 8.8  | 7.9  | 3.0 | 5.3  | ---    | --- | ---  | ---       | --- | ---  |
| 29    | 9.4  | 6.3 | 7.8  | 7.0  | 3.7 | 5.2  | ---    | --- | ---  | 5.4       | 5.1 | 5.2  |
| 30    | 9.5  | 4.6 | 7.7  | 4.4  | 3.0 | 3.8  | ---    | --- | ---  | 5.2       | 5.1 | 5.1  |
| 31    | ---  | --- | ---  | 4.8  | 1.3 | 3.1  | ---    | --- | ---  | ---       | --- | ---  |
| MONTH | 11.0 | 4.6 | 7.5  | 13.3 | 1.3 | 6.7  | 9.0    | 1.0 | 4.3  | ---       | --- | ---  |
| YEAR  | 15.9 | 1.0 | 9.1  |      |     |      |        |     |      |           |     |      |

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

## TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| FEBRUARY |      |      |      | MARCH |      |      | APRIL  |      |      | MAY       |      |      |
|----------|------|------|------|-------|------|------|--------|------|------|-----------|------|------|
| DAY      | MAX  | MIN  | MEAN | MAX   | MIN  | MEAN | MAX    | MIN  | MEAN | MAX       | MIN  | MEAN |
| 1        | 1.0  | 0.5  | 1.0  | 3.0   | 2.0  | 2.5  | 5.5    | 4.5  | 5.0  | 8.0       | 6.0  | 7.0  |
| 2        | 1.0  | 0.5  | 1.0  | 2.5   | 1.5  | 2.0  | 7.0    | 5.5  | 6.0  | 8.5       | 7.0  | 7.5  |
| 3        | 1.0  | 0.5  | 1.0  | 2.0   | 1.0  | 2.0  | 7.5    | 5.5  | 7.0  | 8.0       | 7.5  | 8.0  |
| 4        | 1.5  | 0.5  | 1.0  | 1.0   | 0.0  | 0.5  | 5.5    | 4.5  | 5.0  | 8.0       | 7.5  | 7.5  |
| 5        | 1.0  | 0.5  | 1.0  | 1.0   | 0.5  | 1.0  | 4.5    | 3.5  | 4.0  | 7.0       | 6.5  | 7.0  |
| 6        | 1.5  | 1.0  | 1.5  | ---   | ---  | ---  | 4.0    | 3.5  | 3.5  | ---       | ---  | ---  |
| 7        | 2.0  | 0.5  | 1.0  | ---   | ---  | ---  | 3.5    | 3.0  | 3.5  | ---       | ---  | ---  |
| 8        | 1.5  | 0.5  | 1.0  | 2.0   | 1.5  | 2.0  | 4.5    | 3.0  | 4.0  | ---       | ---  | ---  |
| 9        | 1.5  | 1.0  | 1.5  | 2.5   | 1.0  | 2.0  | 6.0    | 4.0  | 5.0  | ---       | ---  | ---  |
| 10       | 1.5  | 0.5  | 1.0  | 2.5   | 1.0  | 2.0  | 6.5    | 5.5  | 6.0  | ---       | ---  | ---  |
| 11       | 1.5  | 0.5  | 1.0  | 2.0   | 1.0  | 1.5  | 6.5    | 5.0  | 6.0  | ---       | ---  | ---  |
| 12       | 2.0  | 1.0  | 1.5  | 3.0   | 1.0  | 2.0  | 7.0    | 6.0  | 6.5  | ---       | ---  | ---  |
| 13       | 2.0  | 1.5  | 2.0  | 2.5   | 1.5  | 2.0  | 6.5    | 6.0  | 6.5  | ---       | ---  | ---  |
| 14       | 3.5  | 2.0  | 2.5  | 2.0   | 1.0  | 1.5  | 6.5    | 5.5  | 6.0  | ---       | ---  | ---  |
| 15       | 2.5  | 1.5  | 2.0  | 3.5   | 1.5  | 2.5  | 5.0    | 4.5  | 5.0  | ---       | ---  | ---  |
| 16       | 3.5  | 1.5  | 2.5  | 6.0   | 2.5  | 4.5  | 5.0    | 4.5  | 4.5  | ---       | ---  | ---  |
| 17       | 3.0  | 1.5  | 2.0  | 5.0   | 3.0  | 4.0  | 5.5    | 4.0  | 4.5  | ---       | ---  | ---  |
| 18       | 3.5  | 2.0  | 2.5  | 3.5   | 1.5  | 2.5  | 6.0    | 5.0  | 5.5  | ---       | ---  | ---  |
| 19       | 2.5  | 2.0  | 2.5  | 2.5   | 2.0  | 2.0  | 7.5    | 5.0  | 6.5  | ---       | ---  | ---  |
| 20       | 2.0  | 0.5  | 1.5  | 2.0   | 1.0  | 1.5  | 8.0    | 7.5  | 8.0  | ---       | ---  | ---  |
| 21       | 1.5  | 1.0  | 1.5  | 2.5   | 1.0  | 2.0  | 7.5    | 7.0  | 7.5  | ---       | ---  | ---  |
| 22       | 2.5  | 0.5  | 2.0  | 4.0   | 1.5  | 3.0  | 7.5    | 6.5  | 7.0  | ---       | ---  | ---  |
| 23       | 2.0  | 1.5  | 2.0  | 5.0   | 3.0  | 4.0  | 7.0    | 6.5  | 7.0  | ---       | ---  | ---  |
| 24       | 2.0  | 1.5  | 1.5  | 4.5   | 3.0  | 3.5  | 7.5    | 6.5  | 7.0  | ---       | ---  | ---  |
| 25       | 3.5  | 1.5  | 2.5  | 4.0   | 1.5  | 3.0  | 7.0    | 6.5  | 6.5  | ---       | ---  | ---  |
| 26       | 4.0  | 2.0  | 3.0  | 4.0   | 2.0  | 3.0  | 7.0    | 6.0  | 6.5  | 17.5      | 17.0 | 17.0 |
| 27       | 3.0  | 2.5  | 2.5  | 5.0   | 2.5  | 4.0  | 8.0    | 6.5  | 7.0  | 17.0      | 16.0 | 16.0 |
| 28       | 3.0  | 1.5  | 2.5  | 6.0   | 3.0  | 4.5  | 7.5    | 7.0  | 7.5  | 16.5      | 15.0 | 16.0 |
| 29       | ---  | ---  | ---  | 6.5   | 4.5  | 5.5  | 7.0    | 7.0  | 7.0  | 17.0      | 15.0 | 16.0 |
| 30       | ---  | ---  | ---  | 6.5   | 5.0  | 6.0  | 7.0    | 6.0  | 6.5  | 16.0      | 15.5 | 15.5 |
| 31       | ---  | ---  | ---  | 6.0   | 5.5  | 5.5  | ---    | ---  | ---  | 16.0      | 15.5 | 16.0 |
| MCNTH    | 4.0  | 0.5  | 1.5  | 6.5   | 0.0  | 3.0  | 8.0    | 3.0  | 6.0  | ---       | ---  | ---  |
|          |      |      |      |       |      |      |        |      |      |           |      |      |
| JUNE     |      |      |      | JULY  |      |      | AUGUST |      |      | SEPTEMBER |      |      |
| DAY      | MAX  | MIN  | MEAN | MAX   | MIN  | MEAN | MAX    | MIN  | MEAN | MAX       | MIN  | MEAN |
| 1        | 17.0 | 15.0 | 16.0 | 27.5  | 26.0 | 26.5 | 27.0   | 26.0 | 26.5 | 23.0      | 21.5 | 22.5 |
| 2        | 17.5 | 16.0 | 17.0 | 26.5  | 26.0 | 26.0 | 27.0   | 26.0 | 26.5 | 23.0      | 21.5 | 22.5 |
| 3        | 18.0 | 16.5 | 17.5 | 26.5  | 25.0 | 25.5 | 27.0   | 25.5 | 26.0 | 23.5      | 21.5 | 22.5 |
| 4        | 19.0 | 17.5 | 18.0 | 27.5  | 25.0 | 26.0 | 26.5   | 25.0 | 26.0 | 24.0      | 22.5 | 23.0 |
| 5        | 20.0 | 18.0 | 19.0 | 28.0  | 24.5 | 26.0 | 26.0   | 24.5 | 25.5 | 25.5      | 23.0 | 24.0 |
| 6        | 20.5 | 18.5 | 19.5 | 27.5  | 24.5 | 26.0 | 26.0   | 24.5 | 25.0 | 25.0      | 23.5 | 24.5 |
| 7        | 21.5 | 18.5 | 20.5 | 27.0  | 25.5 | 26.5 | 26.0   | 24.5 | 25.5 | 24.0      | 23.0 | 23.5 |
| 8        | 23.0 | 21.0 | 22.0 | 28.0  | 26.0 | 27.0 | 27.5   | 25.0 | 26.5 | 25.0      | 23.0 | 24.0 |
| 9        | 23.0 | 21.5 | 22.5 | 28.0  | 26.5 | 27.5 | 27.5   | 26.0 | 26.5 | 25.5      | 24.0 | 24.5 |
| 10       | 23.0 | 20.5 | 22.0 | 28.0  | 26.5 | 27.0 | 28.0   | 26.5 | 27.0 | 25.5      | 24.0 | 24.5 |
| 11       | 22.5 | 21.0 | 22.0 | 27.0  | 25.5 | 26.5 | 27.5   | 26.5 | 27.0 | 24.5      | 23.5 | 24.0 |
| 12       | 22.5 | 21.0 | 22.0 | 27.0  | 25.0 | 26.0 | 27.5   | 25.5 | 26.5 | 25.0      | 24.0 | 24.5 |
| 13       | 23.0 | 21.5 | 22.0 | 26.0  | 24.0 | 25.0 | 27.0   | 25.0 | 26.5 | 24.5      | 24.0 | 24.0 |
| 14       | 22.5 | 21.5 | 22.0 | 26.5  | 24.0 | 25.5 | 28.5   | 25.0 | 26.5 | 24.5      | 23.5 | 24.0 |
| 15       | 23.0 | 21.0 | 22.0 | 26.0  | 25.0 | 25.5 | 27.5   | 25.5 | 26.5 | 24.5      | 23.5 | 24.0 |
| 16       | 23.5 | 21.0 | 22.0 | 26.5  | 25.0 | 25.5 | 27.0   | 24.5 | 26.0 | 24.5      | 23.5 | 24.0 |
| 17       | 24.5 | 20.5 | 22.5 | 26.0  | 25.0 | 25.5 | 27.0   | 24.5 | 25.5 | 24.5      | 23.0 | 24.0 |
| 18       | 24.5 | 21.5 | 23.0 | 26.0  | 24.5 | 25.0 | 27.5   | 25.0 | 26.5 | 23.5      | 23.0 | 23.0 |
| 19       | 25.0 | 23.0 | 24.0 | 24.5  | 24.0 | 24.5 | 27.5   | 26.0 | 26.5 | ---       | ---  | ---  |
| 20       | 26.0 | 23.5 | 24.5 | 25.5  | 23.5 | 24.5 | 27.5   | 26.5 | 27.0 | ---       | ---  | ---  |
| 21       | 26.0 | 23.5 | 25.0 | 26.0  | 24.0 | 25.0 | 28.0   | 26.0 | 27.0 | ---       | ---  | ---  |
| 22       | 26.5 | 24.5 | 25.5 | 26.5  | 24.0 | 25.0 | 29.0   | 25.5 | 27.0 | ---       | ---  | ---  |
| 23       | 27.5 | 25.0 | 26.0 | 27.0  | 25.0 | 26.0 | 27.0   | 25.5 | 26.0 | ---       | ---  | ---  |
| 24       | 27.5 | 25.5 | 26.5 | 27.0  | 25.0 | 26.0 | 25.5   | 24.0 | 24.5 | ---       | ---  | ---  |
| 25       | 27.0 | 25.5 | 26.5 | 28.0  | 25.5 | 27.0 | 25.5   | 23.5 | 24.5 | ---       | ---  | ---  |
| 26       | 27.5 | 25.5 | 26.5 | 27.0  | 26.0 | 26.5 | 24.0   | 23.5 | 24.0 | ---       | ---  | ---  |
| 27       | 27.0 | 25.5 | 26.0 | 27.5  | 26.0 | 27.0 | 24.0   | 23.0 | 23.5 | ---       | ---  | ---  |
| 28       | 27.5 | 25.5 | 26.0 | 28.0  | 25.5 | 27.0 | 22.5   | 21.5 | 22.0 | ---       | ---  | ---  |
| 29       | 25.5 | 25.0 | 25.0 | 28.0  | 25.5 | 27.0 | 22.5   | 21.0 | 22.0 | 20.0      | 19.5 | 20.0 |
| 30       | 26.0 | 24.5 | 25.0 | 27.0  | 26.0 | 26.5 | 22.5   | 21.0 | 22.0 | 21.0      | 19.5 | 20.0 |
| 31       | ---  | ---  | ---  | 27.0  | 26.0 | 26.5 | 23.0   | 21.5 | 22.0 | ---       | ---  | ---  |
| MCNTH    | 27.5 | 15.0 | 22.5 | 28.0  | 23.5 | 26.0 | 29.0   | 21.0 | 25.5 | ---       | ---  | ---  |
| YEAR     | 29.0 | 0    | 12.5 |       |      |      |        |      |      |           |      |      |

## 01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS.

LOCATION.--Lat 42°44'28", long 73°12'47", Berkshire County, multiple-parameter monitor on right bank 0.3 mile upstream from Massachusetts-Vermont State line, 2 miles northwest of Williamstown, and 3.9 miles downstream from gaging station on Hoosic River near Williamstown.

DRAINAGE AREA.--203 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1968 to September 1971.

Water temperatures: November 1968 to September 1971.

EXTREMES.--1970-71:

Specific conductance: Maximum, 525 micromhos Feb. 7; minimum, 68 micromhos Apr. 20.

pH: Maximum, 9.9 Dec. 24; minimum, 6.4 Oct. 15.

Dissolved oxygen: Maximum, 16.5 mg/l Feb. 15; minimum, 0.4 mg/l Oct. 14.

Water temperatures: Maximum, 24.5°C July 24, 26, Aug. 9; minimum, freezing point Dec. 8, Jan. 21.

Period of record:

Specific conductance: Maximum, 560 micromhos Aug. 20, 1970; minimum, 66 micromhos Apr. 16, 1970.

pH: Maximum, 9.9 Dec. 24, 1970; minimum, 5.8 July 5, 1970.

Dissolved oxygen: Maximum, 16.5 mg/l Feb. 15, 1971; minimum, 0.0 mg/l July 24, 25, 27, 28, 1970.

Water temperatures: Maximum, 26.5°C July 27, 1970; minimum, freezing point on several days in water years 1970-71.

REMARKS.--Figures of daily discharge (computed on basis of records for gaging station near Williamstown and for Green River near Williamstown) are available in district office. Recorder not in operation Aug. 21 to Sept. 30. Additional chemical analyses for this station in radiochemical and pesticide tables and in table of composited samples.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE  | TIME | DIS-<br>CHARGE<br>(CFS) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) | PH<br>(UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | AIR<br>TEM-<br>PERA-<br>TURE<br>(DEG C) | IMME-<br>DIATE<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) |
|-------|------|-------------------------|------------------------------------------------------------|------------------------------------|---------------|----------------------------------|-----------------------------------------|------------------------------------------------------------|
| OCT.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 07... | 0800 | 108                     | 245                                                        | 6.6                                | 7.8           | 12.3                             | 16.0                                    | 210000                                                     |
| NOV.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 03... | 1600 | 111                     | 285                                                        | 6.5                                | 8.5           | 10.5                             | 11.9                                    | 180000                                                     |
| DEC.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 08... | 1330 | 199                     | 230                                                        | 12.2                               | 8.3           | .7                               | -9.0                                    | 210000                                                     |
| JAN.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 06... | 1600 | 202                     | 217                                                        | 12.3                               | 8.2           | 1.2                              | -1.5                                    | 260000                                                     |
| FEB.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 09... | 0900 | 251                     | 340                                                        | 10.4                               | 9.0           | .6                               | 8.1                                     | 240000                                                     |
| MAR.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 03... | 1500 | 319                     | 247                                                        | 12.0                               | 7.8           | 2.5                              | .0                                      | 260000                                                     |
| APR.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 06... | 1600 | 750                     | 173                                                        | 11.9                               | 7.6           | 5.2                              | 8.8                                     | 60000                                                      |
| MAY   |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 05... | 1300 | 1340                    | 96                                                         | 10.7                               | 7.4           | 9.3                              | 18.8                                    | 31000                                                      |
| JUNE  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 09... | 1530 | 180                     | 280                                                        | 6.8                                | 8.1           | 19.4                             | 21.4                                    | 220000                                                     |
| JULY  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 14... | 1100 | 71                      | 293                                                        | 8.1                                | 7.8           | 20.1                             | 26.2                                    | 20000                                                      |
| AUG.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 11... | 1200 | 229                     | 375                                                        | 4.1                                | 7.8           | 23.1                             | 25.0                                    | 280000                                                     |
| SEP.  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 15... | 1600 | 360                     | 184                                                        | 7.2                                | 7.2           | 20.4                             | 21.6                                    | 100000                                                     |

| DATE  | FECAL<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>KJEL-<br>DAHL<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | METH-<br>YLENE<br>BLUE<br>ACTIVE<br>SUB-<br>STANCE<br>(MG/L) | CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(LOW<br>LEVEL)<br>(MG/L) | CHLORO-<br>PHYLL A<br>(UG/L) | TUR-<br>BID-<br>ITY<br>(JTU) |
|-------|---------------------------------------------------|--------------------------|----------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|------------------------------|------------------------------|
| OCT.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 07... | 33000                                             | .3                       | 1.3                                                      | .28                                       | .04                                                          | 8                                                             | 2.6                          | 3                            |
| NOV.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 03... | 28000                                             | .3                       | 1.3                                                      | .46                                       | .37                                                          | 18                                                            | 1.4                          | 1                            |
| DEC.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 08... | 31000                                             | .6                       | 1.7                                                      | 1.0                                       | .06                                                          | 42                                                            | 12                           | 9                            |
| JAN.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 06... | 27000                                             | .8                       | .96                                                      | .41                                       | .06                                                          | 15                                                            | 1.7                          | 20                           |
| FEB.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 09... | 67000                                             | 1.1                      | 1.8                                                      | .88                                       | .07                                                          | 30                                                            | 3.3                          | 1                            |
| MAR.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 03... | 14000                                             | .3                       | 1.2                                                      | .29                                       | .06                                                          | 12                                                            | .7                           | 4                            |
| APR.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 06... | 8600                                              | .4                       | .76                                                      | .17                                       | .06                                                          | 12                                                            | .7                           | 15                           |
| MAY   |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 05... | 3200                                              | .5                       | .70                                                      | .12                                       | .03                                                          | 9                                                             | 1.5                          | 10                           |
| JUNE  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 09... | 15000                                             | .5                       | .62                                                      | .25                                       | .10                                                          | 31                                                            | --                           | 25                           |
| JULY  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 14... | 5000                                              | 1.0                      | 1.2                                                      | .32                                       | .07                                                          | 18                                                            | 3.6                          | 7                            |
| AUG.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 11... | 6700                                              | .4                       | 2.2                                                      | .34                                       | .20                                                          | 19                                                            | 2.3                          | 4                            |
| SEP.  |                                                   |                          |                                                          |                                           |                                                              |                                                               |                              |                              |
| 15... | 21000                                             | .4                       | 2.0                                                      | 1.6                                       | .06                                                          | 41                                                            | 3.8                          | 55                           |



## 01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS.--Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE       | DIS-<br>CHARGE<br>(CFS) | DIS-<br>SOLVED<br>SOLIDS<br>(RESI-<br>DUE AT<br>180 C)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTI-<br>TUENTS)<br>(MG/L) | LCSS<br>ON<br>IGNI-<br>TION<br>(MG/L) | ALKA-<br>LITY<br>AS<br>CACO <sub>3</sub><br>(MG/L) | TOTAL<br>ACIDITY<br>AS<br>CACO <sub>3</sub><br>(MG/L) | BIO-<br>CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(MG/L) | CYANIDE<br>(CN)<br>(MG/L) | ORGANIC<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | CIL<br>AND<br>GREASE<br>(MG/L) | PHENOLS<br>(UG/L) |
|------------|-------------------------|------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------|----------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------|---------------------------|-------------------------------------------|-----------------------------------------|--------------------------------|-------------------|
| JULY, 1971 |                         |                                                                  |                                                                     |                                       |                                                    |                                                       |                                                     |                           |                                           |                                         |                                |                   |
| 14...      | 71                      | --                                                               | --                                                                  | --                                    | 97                                                 | --                                                    | --                                                  | --                        | .77                                       | --                                      | --                             | --                |
| SEP.       |                         |                                                                  |                                                                     |                                       |                                                    |                                                       |                                                     |                           |                                           |                                         |                                |                   |
| 15...      | 360                     | 128                                                              | 105                                                                 | 20                                    | 60                                                 | 7                                                     | 6.5                                                 | .00                       | 1.4                                       | 2.3                                     | 1.0                            | 1                 |

| DATE       | DIS-<br>CHARGE<br>(CFS) | SILICA<br>(SiO <sub>2</sub> )<br>(MG/L) | DIS-<br>SOLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SOLVED<br>CAL-<br>CIUM<br>(CA)<br>(MG/L) | DIS-<br>SOLVED<br>MAG-<br>NESIUM<br>(MG)<br>(MG/L) | SODIUM<br>(NA)<br>(MG/L) | PO-<br>TAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO <sub>3</sub> )<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) |
|------------|-------------------------|-----------------------------------------|------------------------------------------|--------------------------------------------------|----------------------------------------------------|--------------------------|--------------------------------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------|---------------------------------|--------------------------|
| JULY, 1971 |                         |                                         |                                          |                                                  |                                                    |                          |                                      |                                           |                                                   |                                         |                                 |                          |
| 14...      | 71                      | --                                      | --                                       | 40                                               | --                                                 | --                       | --                                   | .44                                       | 118                                               | --                                      | --                              | .080                     |
| AUG.       |                         |                                         |                                          |                                                  |                                                    |                          |                                      |                                           |                                                   |                                         |                                 |                          |
| 11...      | 225                     | --                                      | --                                       | --                                               | --                                                 | --                       | --                                   | .98                                       | --                                                | --                                      | --                              | .11                      |
| SEP.       |                         |                                         |                                          |                                                  |                                                    |                          |                                      |                                           |                                                   |                                         |                                 |                          |
| 15...      | 360                     | 4.2                                     | 90                                       | 20                                               | 5.2                                                | 7.8                      | 1.5                                  | .56                                       | 73                                                | 16                                      | 9.0                             | .030                     |

| DATE       | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | HARD-<br>NESS<br>(CA, MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | COLOR<br>(PLAT-<br>INUM<br>COBALT<br>UNITS) | DIS-<br>SOLVED<br>ARSENIC<br>(AS)<br>(UG/L) | DIS-<br>SOLVED<br>MERCURY<br>(HG)<br>(UG/L) |
|------------|--------------------------------------------------|-------------------------------------|---------------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|
| SEP., 1971 |                                                  |                                     |                                                   |                                             |                                             |                                             |
| 15...      | .1                                               | 71                                  | 11                                                | 13                                          | 0                                           | <.5                                         |

## SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|-------|---------|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
|       | MAX     | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1     | 271     | 203 | 232  | 234      | 211 | 219  | 201      | 138 | 153  | 316     | 231 | 254  |
| 2     | 292     | 213 | 251  | 291      | 224 | 245  | 240      | 156 | 191  | 234     | 225 | 229  |
| 3     | 270     | 155 | 221  | 319      | 232 | 274  | 254      | 196 | 227  | 235     | 220 | 227  |
| 4     | 158     | 141 | 153  | 356      | 239 | 279  | 256      | 115 | 165  | 266     | 220 | 236  |
| 5     | 215     | 161 | 185  | 312      | 241 | 277  | 138      | 113 | 123  | 315     | 251 | 271  |
| 6     | 258     | 189 | 228  | 320      | 272 | 297  | 154      | 131 | 140  | 241     | 198 | 213  |
| 7     | 305     | 220 | 264  | 269      | 230 | 244  | 211      | 139 | 157  | 298     | 211 | 249  |
| 8     | 309     | 247 | 275  | 269      | 198 | 224  | 234      | 179 | 204  | 277     | 237 | 247  |
| 9     | 366     | 277 | 320  | 307      | 257 | 279  | 249      | 199 | 212  | 253     | 224 | 240  |
| 10    | 405     | 279 | 308  | 360      | 279 | 312  | 300      | 220 | 250  | 221     | 204 | 212  |
| 11    | 304     | 267 | 283  | 354      | 228 | 266  | 280      | 210 | 236  | 238     | 206 | 219  |
| 12    | 372     | 269 | 312  | 333      | 236 | 272  | 254      | 200 | 219  | 286     | 229 | 248  |
| 13    | 427     | 295 | 347  | 339      | 250 | 294  | 213      | 202 | 207  | 309     | 248 | 270  |
| 14    | 435     | 310 | 359  | 363      | 247 | 280  | 256      | 202 | 219  | 280     | 239 | 255  |
| 15    | 424     | 202 | 288  | 253      | 163 | 208  | 295      | 228 | 258  | 283     | 230 | 243  |
| 16    | 227     | 189 | 203  | 188      | 155 | 171  | 338      | 232 | 288  | 254     | 215 | 243  |
| 17    | 265     | 187 | 208  | 230      | 186 | 207  | 293      | 222 | 251  | 239     | 227 | 233  |
| 18    | 214     | 133 | 194  | 252      | 188 | 219  | 299      | 217 | 240  | 264     | 214 | 230  |
| 19    | 250     | 174 | 210  | 265      | 205 | 231  | 271      | 220 | 231  | 274     | 221 | 245  |
| 20    | 289     | 188 | 244  | 230      | 161 | 190  | 245      | 206 | 223  | 256     | 230 | 240  |
| 21    | 322     | 196 | 264  | 205      | 133 | 161  | 261      | 202 | 221  | 273     | 231 | 252  |
| 22    | 334     | 180 | 241  | 141      | 128 | 134  | 303      | 232 | 268  | 274     | 245 | 254  |
| 23    | 237     | 153 | 175  | 156      | 120 | 140  | 278      | 226 | 250  | 273     | 234 | 254  |
| 24    | 190     | 151 | 163  | 181      | 151 | 164  | 300      | 223 | 249  | 260     | 227 | 238  |
| 25    | 166     | 149 | 158  | 229      | 145 | 183  | 290      | 203 | 223  | 395     | 228 | 266  |
| 26    | 205     | 147 | 167  | 240      | 144 | 173  | 216      | 203 | 207  | 374     | 282 | 319  |
| 27    | 229     | 160 | 191  | 158      | 143 | 151  | 216      | 205 | 210  | 335     | 279 | 295  |
| 28    | 251     | 171 | 210  | 164      | 143 | 151  | 293      | 206 | 229  | 293     | 263 | 279  |
| 29    | 247     | 185 | 217  | 148      | 135 | 140  | 292      | 233 | 260  | 289     | 244 | 265  |
| 30    | 254     | 200 | 230  | 158      | 134 | 141  | 297      | 237 | 266  | 284     | 251 | 259  |
| 31    | 270     | 203 | 226  | ---      | --- | ---  | 327      | 244 | 271  | 266     | 230 | 238  |
| MONTH | 435     | 133 | 236  | 363      | 120 | 218  | 338      | 113 | 221  | 395     | 198 | 249  |



01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS.--Continued

PH (UNITS), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| OCTOBER |     |     |      | NOVEMBER |     |      | DECEMBER |     |      | JANUARY |     |      |
|---------|-----|-----|------|----------|-----|------|----------|-----|------|---------|-----|------|
| DAY     | MAX | MIN | MEAN | MAX      | MIN | MEAN | MAX      | MIN | MEAN | MAX     | MIN | MEAN |
| 1       | 8.3 | 7.6 | 7.8  | 8.8      | 7.8 | 8.2  | 9.1      | 7.7 | 8.4  | 9.2     | 8.6 | 8.9  |
| 2       | 8.8 | 7.6 | 7.9  | 8.1      | 7.7 | 7.9  | 9.2      | 7.9 | 8.6  | 8.7     | 8.4 | 8.6  |
| 3       | 8.3 | 7.5 | 7.7  | 8.6      | 7.8 | 8.1  | 9.3      | 7.5 | 8.7  | 8.6     | 8.4 | 8.5  |
| 4       | 7.7 | 7.5 | 7.6  | 8.1      | 7.7 | 7.9  | 8.8      | 7.6 | 8.2  | 8.9     | 8.3 | 8.5  |
| 5       | 7.9 | 7.5 | 7.6  | 8.2      | 7.7 | 7.9  | 8.7      | 8.1 | 8.4  | 8.5     | 8.3 | 8.4  |
| 6       | 7.9 | 7.5 | 7.6  | 8.4      | 7.7 | 8.0  | 8.3      | 7.9 | 8.1  | 8.3     | 7.8 | 8.2  |
| 7       | 8.0 | 7.4 | 7.6  | 8.4      | 7.8 | 8.1  | 8.4      | 7.9 | 8.0  | 9.2     | 7.9 | 8.7  |
| 8       | 8.0 | 7.4 | 7.6  | 7.8      | 7.7 | 7.7  | 8.6      | 7.7 | 8.1  | 9.2     | 7.9 | 8.3  |
| 9       | 9.2 | 7.4 | 7.7  | 8.1      | 7.6 | 7.8  | 8.6      | 7.0 | 7.7  | 8.5     | 7.9 | 8.2  |
| 10      | 7.8 | 7.4 | 7.6  | 8.8      | 7.7 | 8.1  | 8.9      | 7.2 | 8.1  | 8.1     | 7.8 | 8.0  |
| 11      | 7.6 | 7.4 | 7.5  | 8.1      | 7.6 | 7.9  | 8.9      | 7.2 | 8.0  | 8.6     | 7.8 | 8.1  |
| 12      | 7.8 | 7.4 | 7.6  | 8.3      | 7.7 | 7.9  | 8.8      | 7.5 | 9.1  | 8.9     | 7.6 | 8.2  |
| 13      | 8.2 | 7.4 | 7.6  | 8.7      | 7.9 | 8.3  | 8.5      | 7.4 | 7.8  | 8.6     | 7.6 | 8.0  |
| 14      | 7.8 | 7.4 | 7.6  | 9.3      | 8.1 | 8.5  | 9.2      | 7.5 | 7.6  | 8.5     | 7.7 | 8.0  |
| 15      | 7.5 | 6.4 | 6.9  | 8.6      | 8.3 | 8.4  | 8.6      | 7.6 | 8.7  | 8.2     | 7.6 | 7.8  |
| 16      | 7.5 | 7.0 | 7.3  | 8.9      | 8.5 | 8.7  | 9.1      | 7.6 | 8.5  | 8.4     | 7.8 | 8.2  |
| 17      | 8.6 | 7.5 | 7.7  | 9.7      | 8.7 | 9.1  | 9.2      | 7.7 | 8.4  | 8.2     | 7.8 | 7.9  |
| 18      | 7.7 | 7.4 | 7.6  | 9.7      | 8.7 | 9.2  | 9.1      | 7.9 | 8.5  | 8.4     | 7.8 | 8.1  |
| 19      | 7.8 | 7.5 | 7.5  | 9.5      | 8.8 | 9.1  | 9.6      | 8.1 | 9.9  | 8.9     | 7.7 | 8.3  |
| 20      | 8.7 | 7.4 | 7.8  | 9.0      | 8.7 | 8.9  | 8.9      | 8.3 | 8.5  | 8.2     | 7.8 | 8.0  |
| 21      | 8.8 | 7.4 | 7.7  | 9.2      | 7.9 | 8.5  | 9.0      | 8.3 | 8.5  | 8.3     | 7.7 | 8.0  |
| 22      | 8.3 | 7.3 | 7.7  | 8.1      | 7.6 | 7.7  | 9.5      | 8.3 | 8.9  | 7.7     | 7.6 | 7.7  |
| 23      | 7.9 | 7.4 | 7.6  | 8.1      | 7.5 | 7.7  | 9.8      | 8.5 | 9.1  | 8.2     | 7.6 | 7.9  |
| 24      | 8.2 | 7.4 | 7.6  | 8.9      | 7.8 | 8.2  | 9.9      | 8.6 | 9.2  | 7.8     | 7.6 | 7.7  |
| 25      | 7.8 | 7.5 | 7.6  | 9.2      | 8.0 | 8.6  | 9.7      | 8.8 | 9.1  | 7.8     | 7.6 | 7.7  |
| 26      | 8.0 | 7.6 | 7.7  | 9.0      | 7.9 | 8.5  | 8.9      | 8.8 | 8.8  | 8.6     | 7.5 | 7.8  |
| 27      | 8.8 | 7.6 | 8.0  | 8.2      | 7.8 | 8.0  | 8.9      | 8.7 | 8.8  | 7.9     | 7.4 | 7.6  |
| 28      | 9.1 | 7.4 | 8.3  | 8.1      | 7.9 | 8.0  | 9.4      | 8.7 | 8.9  | 8.0     | 7.3 | 7.6  |
| 29      | 9.1 | 7.8 | 8.3  | 8.7      | 7.8 | 8.1  | 9.7      | 8.8 | 9.2  | 8.5     | 7.7 | 8.1  |
| 30      | 8.9 | 7.7 | 8.2  | 8.0      | 7.7 | 7.8  | 9.8      | 9.0 | 9.4  | 8.9     | 7.8 | 8.2  |
| 31      | 8.5 | 7.7 | 8.0  | ---      | --- | ---  | 9.4      | 9.0 | 9.2  | 8.1     | 7.8 | 7.9  |
| MONTH   | 9.1 | 6.4 | 7.7  | 9.7      | 7.5 | 8.2  | 9.9      | 7.0 | 8.5  | 9.2     | 7.3 | 8.1  |

| FEBRUARY |     |     |      | MARCH |     |      | APRIL |     |      | MAY |     |      |
|----------|-----|-----|------|-------|-----|------|-------|-----|------|-----|-----|------|
| DAY      | MAX | MIN | MEAN | MAX   | MIN | MEAN | MAX   | MIN | MEAN | MAX | MIN | MEAN |
| 1        | 8.8 | 7.9 | 8.1  | ---   | --- | ---  | 9.0   | 8.1 | 8.4  | --- | --- | ---  |
| 2        | 8.5 | 7.8 | 8.1  | ---   | --- | ---  | 8.7   | 7.5 | 8.2  | --- | --- | ---  |
| 3        | 8.4 | 7.6 | 8.0  | 7.8   | 7.3 | 7.6  | 7.6   | 7.4 | 7.5  | --- | --- | ---  |
| 4        | 9.4 | 7.6 | 7.9  | 8.1   | 7.3 | 7.6  | 7.8   | 7.5 | 7.7  | --- | --- | ---  |
| 5        | 8.7 | 7.6 | 8.1  | 8.0   | 7.5 | 7.7  | 8.2   | 7.4 | 7.7  | --- | --- | ---  |
| 6        | 8.8 | 7.9 | 8.2  | 8.2   | 7.7 | 7.9  | 7.6   | 7.0 | 7.3  | --- | --- | ---  |
| 7        | 8.4 | 7.9 | 8.1  | 7.8   | 7.3 | 7.4  | 8.3   | 7.5 | 7.7  | --- | --- | ---  |
| 8        | 9.1 | 8.0 | 8.2  | 7.9   | 7.3 | 7.5  | 8.0   | 7.5 | 7.7  | --- | --- | ---  |
| 9        | 9.1 | 8.0 | 8.5  | 8.3   | 7.4 | 7.7  | 7.8   | 7.5 | 7.7  | --- | --- | ---  |
| 10       | 9.0 | 7.8 | 8.3  | 9.1   | 7.4 | 7.7  | 7.7   | 7.5 | 7.6  | --- | --- | ---  |
| 11       | 9.2 | 7.9 | 8.4  | 8.4   | 7.4 | 7.7  | 7.9   | 7.4 | 7.6  | --- | --- | ---  |
| 12       | 8.7 | 7.8 | 8.2  | 8.5   | 7.5 | 7.9  | 8.1   | 7.1 | 7.7  | --- | --- | ---  |
| 13       | 8.5 | 7.5 | 7.9  | 8.8   | 7.6 | 7.9  | 7.5   | 6.7 | 7.2  | --- | --- | ---  |
| 14       | 7.8 | 7.3 | 7.5  | 7.7   | 7.6 | 7.6  | 8.0   | 7.4 | 7.5  | --- | --- | ---  |
| 15       | 7.6 | 7.3 | 7.4  | 8.0   | 7.5 | 7.7  | 8.4   | 7.8 | 8.1  | --- | --- | ---  |
| 16       | 7.9 | 7.3 | 7.6  | 8.2   | 7.5 | 7.8  | 8.4   | 7.8 | 8.1  | --- | --- | ---  |
| 17       | 8.0 | 7.3 | 7.7  | 7.9   | 7.2 | 7.4  | 8.1   | 7.8 | 7.9  | --- | --- | ---  |
| 18       | 8.5 | 7.5 | 7.9  | 8.0   | 7.5 | 7.8  | 7.9   | 7.7 | 7.8  | --- | --- | ---  |
| 19       | 8.3 | 7.6 | 7.9  | 8.3   | 7.7 | 8.0  | 8.0   | 7.4 | 7.7  | --- | --- | ---  |
| 20       | 8.8 | 7.6 | 8.0  | 8.3   | 7.7 | 7.9  | 8.0   | 7.4 | 7.7  | --- | --- | ---  |
| 21       | 8.0 | 7.7 | 7.8  | 7.8   | 7.7 | 7.7  | 7.4   | 7.2 | 7.3  | --- | --- | ---  |
| 22       | 8.4 | 7.7 | 8.0  | 8.1   | 7.7 | 7.8  | ---   | --- | ---  | --- | --- | ---  |
| 23       | 8.3 | 7.9 | 8.1  | 9.6   | 7.7 | 8.1  | ---   | --- | ---  | --- | --- | ---  |
| 24       | --- | --- | ---  | 9.0   | 7.4 | 8.0  | ---   | --- | ---  | --- | --- | ---  |
| 25       | --- | --- | ---  | 8.5   | 7.5 | 7.9  | ---   | --- | ---  | 7.7 | 7.4 | 7.5  |
| 26       | --- | --- | ---  | 8.6   | 7.4 | 7.9  | ---   | --- | ---  | 7.7 | 7.2 | 7.3  |
| 27       | --- | --- | ---  | 8.3   | 7.5 | 7.7  | ---   | --- | ---  | 7.5 | 7.2 | 7.3  |
| 28       | --- | --- | ---  | 7.9   | 7.8 | 7.9  | ---   | --- | ---  | 7.7 | 7.2 | 7.4  |
| 29       | --- | --- | ---  | 8.2   | 7.7 | 7.9  | ---   | --- | ---  | 7.5 | 7.2 | 7.4  |
| 30       | --- | --- | ---  | 9.0   | 7.6 | 8.2  | ---   | --- | ---  | 7.6 | 7.3 | 7.4  |
| 31       | --- | --- | ---  | 8.5   | 7.7 | 8.1  | ---   | --- | ---  | 7.8 | 7.3 | 7.5  |
| MONTH    | 9.2 | 7.3 | 8.0  | 9.0   | 7.2 | 7.8  | ---   | --- | ---  | --- | --- | ---  |

## HUDSON RIVER BASIN

01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS.--Continued

PH (UNITS), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DAY   | JUNE |     |      | JULY |     |      | AUGUST |     |      | SEPTEMBER |     |      |
|-------|------|-----|------|------|-----|------|--------|-----|------|-----------|-----|------|
|       | MAX  | MIN | MEAN | MAX  | MIN | MEAN | MAX    | MIN | MEAN | MAX       | MIN | MEAN |
| 1     | 7.8  | 7.3 | 7.5  | ---  | --- | ---  | 7.5    | 7.3 | 7.4  | ---       | --- | ---  |
| 2     | 8.0  | 7.4 | 7.7  | ---  | --- | ---  | 7.4    | 7.2 | 7.3  | ---       | --- | ---  |
| 3     | 7.9  | 7.4 | 7.5  | ---  | --- | ---  | 7.5    | 7.3 | 7.3  | ---       | --- | ---  |
| 4     | 8.2  | 7.4 | 7.7  | ---  | --- | ---  | 7.6    | 7.3 | 7.4  | ---       | --- | ---  |
| 5     | 8.2  | 7.5 | 7.9  | ---  | --- | ---  | 7.9    | 7.4 | 7.6  | ---       | --- | ---  |
| 6     | 8.4  | 7.7 | 8.0  | ---  | --- | ---  | 7.7    | 7.4 | 7.6  | ---       | --- | ---  |
| 7     | 8.5  | 7.7 | 8.1  | 8.0  | 7.5 | 7.8  | 7.8    | 7.4 | 7.6  | ---       | --- | ---  |
| 8     | 8.2  | 7.5 | 7.9  | 7.9  | 7.5 | 7.6  | 7.6    | 7.5 | 7.5  | ---       | --- | ---  |
| 9     | 8.1  | 7.6 | 7.9  | 8.0  | 7.4 | 7.6  | 7.7    | 7.5 | 7.6  | ---       | --- | ---  |
| 10    | 8.2  | 7.5 | 7.9  | 7.9  | 7.4 | 7.6  | 7.8    | 7.5 | 7.7  | ---       | --- | ---  |
| 11    | 8.3  | 7.5 | 7.7  | 8.0  | 6.6 | 7.7  | 7.8    | 7.7 | 7.7  | ---       | --- | ---  |
| 12    | 8.2  | 7.4 | 7.8  | 8.0  | 7.5 | 7.7  | ---    | --- | ---  | ---       | --- | ---  |
| 13    | 8.0  | 7.6 | 7.7  | 7.9  | 7.5 | 7.6  | ---    | --- | ---  | ---       | --- | ---  |
| 14    | 8.0  | 7.4 | 7.7  | 8.2  | 7.5 | 7.7  | ---    | --- | ---  | ---       | --- | ---  |
| 15    | 8.2  | 7.3 | 7.6  | 8.2  | 7.3 | 7.6  | ---    | --- | ---  | ---       | --- | ---  |
| 16    | 7.6  | 7.3 | 7.4  | 8.1  | 7.3 | 7.5  | ---    | --- | ---  | ---       | --- | ---  |
| 17    | ---  | --- | ---  | ---  | --- | ---  | ---    | --- | ---  | ---       | --- | ---  |
| 18    | ---  | --- | ---  | ---  | --- | ---  | ---    | --- | ---  | ---       | --- | ---  |
| 19    | ---  | --- | ---  | ---  | --- | ---  | 7.4    | 7.3 | 7.3  | ---       | --- | ---  |
| 20    | ---  | --- | ---  | ---  | --- | ---  | 7.5    | 7.3 | 7.4  | ---       | --- | ---  |
| 21    | ---  | --- | ---  | ---  | --- | ---  | ---    | --- | ---  | ---       | --- | ---  |
| 22    | ---  | --- | ---  | ---  | --- | ---  | ---    | --- | ---  | ---       | --- | ---  |
| 23    | ---  | --- | ---  | 8.2  | 7.5 | 7.8  | ---    | --- | ---  | ---       | --- | ---  |
| 24    | ---  | --- | ---  | 8.1  | 7.4 | 7.6  | ---    | --- | ---  | ---       | --- | ---  |
| 25    | ---  | --- | ---  | 8.0  | 7.3 | 7.6  | ---    | --- | ---  | ---       | --- | ---  |
| 26    | ---  | --- | ---  | 8.2  | 7.3 | 7.6  | ---    | --- | ---  | ---       | --- | ---  |
| 27    | ---  | --- | ---  | 8.0  | 7.3 | 7.5  | ---    | --- | ---  | ---       | --- | ---  |
| 28    | ---  | --- | ---  | 7.8  | 7.2 | 7.5  | ---    | --- | ---  | ---       | --- | ---  |
| 29    | ---  | --- | ---  | 7.7  | 7.3 | 7.5  | ---    | --- | ---  | ---       | --- | ---  |
| 30    | ---  | --- | ---  | 7.6  | 7.3 | 7.4  | ---    | --- | ---  | ---       | --- | ---  |
| 31    | ---  | --- | ---  | 7.5  | 7.3 | 7.4  | ---    | --- | ---  | ---       | --- | ---  |
| MONTH | ---  | --- | ---  | ---  | --- | ---  | ---    | --- | ---  | ---       | --- | ---  |
| YEAR  | 9.9  | 6.4 | 7.9  |      |     |      |        |     |      |           |     |      |

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DAY   | OCTOBER |     |      | NOVEMBER |      |      | DECEMBER |      |      | JANUARY |      |      |
|-------|---------|-----|------|----------|------|------|----------|------|------|---------|------|------|
|       | MAX     | MIN | MEAN | MAX      | MIN  | MEAN | MAX      | MIN  | MEAN | MAX     | MIN  | MEAN |
| 1     | ---     | --- | ---  | 11.2     | 6.9  | 8.0  | ---      | ---  | ---  | 12.0    | 11.0 | 11.5 |
| 2     | ---     | --- | ---  | 8.6      | 6.2  | 7.4  | ---      | ---  | ---  | 11.8    | 11.2 | 11.6 |
| 3     | ---     | --- | ---  | 7.5      | 4.7  | 6.2  | 10.7     | 9.7  | 10.1 | 11.7    | 11.1 | 11.4 |
| 4     | 8.6     | 7.1 | 8.0  | 6.6      | 4.5  | 5.4  | 12.4     | 9.4  | 10.7 | 11.5    | 10.6 | 11.1 |
| 5     | 7.0     | 4.2 | 5.8  | 6.2      | 4.2  | 5.0  | 13.5     | 12.1 | 13.0 | 11.0    | 10.2 | 10.7 |
| 6     | 8.1     | 4.2 | 5.7  | 6.3      | 4.5  | 5.3  | 12.7     | 12.1 | 12.4 | 12.4    | 10.8 | 11.4 |
| 7     | 6.5     | 3.5 | 4.9  | 6.2      | 4.4  | 5.3  | 13.1     | 12.2 | 12.7 | 12.3    | 11.6 | 11.9 |
| 8     | 5.0     | 2.7 | 3.9  | 6.8      | 5.4  | 6.2  | 12.5     | 11.8 | 12.3 | 12.1    | 11.4 | 11.7 |
| 9     | 4.1     | 2.1 | 3.1  | 7.8      | 5.9  | 6.8  | 13.0     | 12.0 | 12.4 | 11.9    | 11.5 | 11.7 |
| 10    | 3.9     | 2.0 | 3.0  | 7.6      | 5.9  | 6.4  | 12.8     | 11.8 | 12.2 | 12.2    | 11.8 | 11.9 |
| 11    | 4.5     | 2.3 | 3.2  | 7.1      | 4.0  | 6.0  | 12.9     | 11.7 | 12.4 | 12.1    | 11.6 | 11.8 |
| 12    | 4.6     | 1.9 | 3.1  | 7.3      | 4.8  | 5.9  | 12.7     | 12.0 | 12.5 | 12.6    | 11.1 | 12.0 |
| 13    | 3.8     | 1.2 | 2.3  | 6.9      | 4.4  | 5.6  | 13.1     | 12.1 | 12.5 | 13.5    | 12.6 | 13.0 |
| 14    | 3.0     | 0.4 | 1.4  | 7.3      | 5.4  | 6.2  | 12.8     | 12.1 | 12.4 | 12.9    | 12.3 | 12.6 |
| 15    | 2.8     | 0.5 | 1.8  | 9.0      | 6.2  | 8.0  | 12.9     | 11.8 | 12.4 | 12.5    | 11.5 | 12.2 |
| 16    | 3.6     | 2.8 | 3.4  | 10.1     | 9.0  | 9.7  | 12.7     | 11.9 | 12.4 | 12.4    | 12.0 | 12.2 |
| 17    | ---     | --- | ---  | 10.0     | 8.0  | 9.5  | 13.0     | 10.9 | 11.7 | 12.1    | 11.8 | 12.0 |
| 18    | ---     | --- | ---  | 10.3     | 8.6  | 9.3  | 11.9     | 11.0 | 11.6 | 11.7    | 11.2 | 11.5 |
| 19    | ---     | --- | ---  | 8.9      | 7.5  | 8.4  | 12.0     | 11.0 | 11.6 | 11.2    | 10.4 | 10.7 |
| 20    | ---     | --- | ---  | 9.0      | 8.0  | 8.6  | 12.2     | 11.6 | 12.0 | 10.6    | 10.0 | 10.4 |
| 21    | ---     | --- | ---  | 10.7     | 8.3  | 9.6  | 12.4     | 11.9 | 12.1 | 11.2    | 10.1 | 10.5 |
| 22    | 7.5     | 4.1 | 6.8  | 11.7     | 10.4 | 11.0 | 12.3     | 11.5 | 11.8 | 10.9    | 10.5 | 10.8 |
| 23    | 8.1     | 6.7 | 7.7  | 11.2     | 10.2 | 10.7 | 11.9     | 11.2 | 11.7 | 11.2    | 10.7 | 11.0 |
| 24    | 8.5     | 7.4 | 7.9  | 12.1     | 11.2 | 11.8 | 12.0     | 11.0 | 11.5 | 11.5    | 11.2 | 11.4 |
| 25    | 9.5     | 8.0 | 8.6  | 12.7     | 12.0 | 12.3 | 12.1     | 11.2 | 11.8 | 11.5    | 11.1 | 11.3 |
| 26    | 9.4     | 7.6 | 8.3  | 12.3     | 11.5 | 11.9 | 12.2     | 11.8 | 12.0 | 11.5    | 10.9 | 11.2 |
| 27    | 9.1     | 6.8 | 8.0  | 11.6     | 10.7 | 11.2 | 12.1     | 11.9 | 12.0 | 11.7    | 11.3 | 11.5 |
| 28    | 9.6     | 7.0 | 8.2  | 10.9     | 10.3 | 10.6 | 12.2     | 11.8 | 12.0 | 11.3    | 10.8 | 11.1 |
| 29    | 9.0     | 7.0 | 7.9  | 11.4     | 10.6 | 11.0 | 12.0     | 11.0 | 11.6 | 11.1    | 10.4 | 10.8 |
| 30    | 9.0     | 5.9 | 7.4  | ---      | ---  | ---  | 11.9     | 11.1 | 11.4 | 11.0    | 9.9  | 10.6 |
| 31    | 8.9     | 6.0 | 7.4  | ---      | ---  | ---  | 12.3     | 11.3 | 11.7 | 11.3    | 11.0 | 11.2 |
| MONTH | ---     | --- | ---  | 12.7     | 4.0  | 8.3  | 13.5     | 9.4  | 12.0 | 13.5    | 9.9  | 11.4 |

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| FEBRUARY |      |      |      | MARCH |      |      | APRIL  |      |      | MAY       |      |      |
|----------|------|------|------|-------|------|------|--------|------|------|-----------|------|------|
| DAY      | MAX  | MIN  | MEAN | MAX   | MIN  | MEAN | MAX    | MIN  | MEAN | MAX       | MIN  | MEAN |
| 1        | 11.3 | 10.8 | 11.1 | ---   | ---  | ---  | 12.1   | 10.2 | 11.1 | ---       | ---  | ---  |
| 2        | 10.9 | 9.9  | 10.3 | ---   | ---  | ---  | ---    | ---  | ---  | ---       | ---  | ---  |
| 3        | 15.0 | 9.0  | 10.4 | 12.2  | 11.9 | 12.1 | ---    | ---  | ---  | ---       | ---  | ---  |
| 4        | 10.7 | 8.8  | 10.2 | 12.1  | 11.5 | 11.9 | ---    | ---  | ---  | ---       | ---  | ---  |
| 5        | 9.7  | 8.4  | 8.9  | 12.1  | 11.6 | 12.0 | ---    | ---  | ---  | ---       | ---  | ---  |
| 6        | 9.8  | 8.0  | 9.3  | 12.4  | 11.7 | 12.1 | 12.6   | 11.9 | 12.3 | 11.4      | 11.0 | 11.2 |
| 7        | 10.4 | 10.0 | 10.3 | 12.5  | 11.9 | 12.3 | 13.5   | 11.6 | 12.5 | 11.8      | 10.1 | 11.0 |
| 8        | 10.6 | 10.1 | 10.4 | 12.6  | 12.0 | 12.3 | 12.9   | 11.5 | 12.1 | 11.8      | 11.0 | 11.4 |
| 9        | 10.6 | 9.3  | 10.2 | 12.6  | 11.4 | 12.3 | 13.5   | 11.3 | 12.3 | 11.9      | 11.5 | 11.7 |
| 10       | 10.9 | 10.1 | 10.5 | 12.4  | 11.7 | 12.2 | 13.4   | 11.8 | 12.8 | 12.1      | 10.4 | 11.4 |
| 11       | 11.0 | 10.0 | 10.5 | 11.9  | 11.5 | 11.7 | 14.0   | 12.1 | 13.1 | 11.7      | 9.4  | 10.7 |
| 12       | 11.1 | 9.9  | 10.7 | 11.9  | 10.6 | 11.3 | 13.8   | 11.1 | 12.8 | 10.9      | 7.5  | 10.0 |
| 13       | 11.2 | 10.1 | 10.8 | 12.0  | 10.8 | 11.4 | ---    | ---  | ---  | 10.7      | 9.4  | 10.4 |
| 14       | 16.3 | 11.2 | 14.5 | 12.1  | 11.0 | 11.6 | 13.1   | 12.8 | 12.9 | 10.8      | 9.2  | 10.1 |
| 15       | 16.5 | 11.7 | 12.8 | 12.4  | 11.0 | 11.6 | 13.2   | 11.9 | 12.5 | 10.6      | 8.7  | 9.7  |
| 16       | ---  | ---  | ---  | 12.6  | 11.8 | 12.3 | 12.6   | 12.0 | 12.3 | 9.7       | 8.8  | 9.3  |
| 17       | ---  | ---  | ---  | 13.0  | 11.5 | 12.3 | 12.9   | 11.5 | 12.3 | ---       | ---  | ---  |
| 18       | ---  | ---  | ---  | 13.2  | 12.0 | 12.5 | 12.8   | 11.9 | 12.4 | ---       | ---  | ---  |
| 19       | ---  | ---  | ---  | 12.9  | 12.0 | 12.5 | 12.8   | 11.2 | 12.1 | ---       | ---  | ---  |
| 20       | ---  | ---  | ---  | 12.6  | 11.8 | 12.2 | 12.6   | 10.6 | 11.8 | ---       | ---  | ---  |
| 21       | ---  | ---  | ---  | 12.5  | 11.8 | 12.1 | 12.3   | 11.3 | 11.9 | ---       | ---  | ---  |
| 22       | ---  | ---  | ---  | 12.7  | 11.2 | 11.9 | 12.7   | 12.1 | 12.4 | ---       | ---  | ---  |
| 23       | ---  | ---  | ---  | 12.1  | 11.1 | 11.5 | 12.8   | 11.9 | 12.4 | ---       | ---  | ---  |
| 24       | ---  | ---  | ---  | 12.8  | 10.8 | 12.0 | 15.4   | 11.6 | 12.4 | ---       | ---  | ---  |
| 25       | ---  | ---  | ---  | 13.1  | 11.9 | 12.4 | ---    | ---  | ---  | 9.1       | 7.7  | 8.5  |
| 26       | ---  | ---  | ---  | 13.0  | 11.8 | 12.4 | ---    | ---  | ---  | 9.2       | 7.5  | 8.6  |
| 27       | ---  | ---  | ---  | 13.1  | 11.6 | 12.2 | ---    | ---  | ---  | 9.4       | 8.3  | 9.0  |
| 28       | ---  | ---  | ---  | 13.1  | 11.6 | 12.3 | ---    | ---  | ---  | 9.7       | 7.6  | 8.8  |
| 29       | ---  | ---  | ---  | 12.5  | 11.5 | 12.0 | ---    | ---  | ---  | 9.3       | 6.9  | 8.2  |
| 30       | ---  | ---  | ---  | 12.4  | 10.9 | 11.7 | ---    | ---  | ---  | 9.2       | 6.9  | 8.3  |
| 31       | ---  | ---  | ---  | 12.4  | 10.4 | 11.4 | ---    | ---  | ---  | 9.3       | 7.6  | 8.3  |
| MONTH    | ---  | ---  | ---  | 13.2  | 10.4 | 12.0 | ---    | ---  | ---  | ---       | ---  | ---  |
|          |      |      |      |       |      |      |        |      |      |           |      |      |
| JUNE     |      |      |      | JULY  |      |      | AUGUST |      |      | SEPTEMBER |      |      |
| DAY      | MAX  | MIN  | MEAN | MAX   | MIN  | MEAN | MAX    | MIN  | MEAN | MAX       | MIN  | MEAN |
| 1        | ---  | ---  | ---  | ---   | ---  | ---  | 7.6    | 3.8  | 6.0  | ---       | ---  | ---  |
| 2        | 8.4  | 6.8  | 7.3  | ---   | ---  | ---  | 6.0    | 3.4  | 4.6  | ---       | ---  | ---  |
| 3        | 8.6  | 6.1  | 7.1  | ---   | ---  | ---  | 5.1    | 2.6  | 4.0  | ---       | ---  | ---  |
| 4        | 8.3  | 5.4  | 6.6  | ---   | ---  | ---  | 6.7    | 3.7  | 5.6  | ---       | ---  | ---  |
| 5        | 9.1  | 4.4  | 6.7  | ---   | ---  | ---  | 7.0    | 4.2  | 5.5  | ---       | ---  | ---  |
| 6        | 9.8  | 5.9  | 7.8  | ---   | ---  | ---  | 6.1    | 3.1  | 4.6  | ---       | ---  | ---  |
| 7        | 8.6  | 4.2  | 6.7  | 8.0   | 4.2  | 5.7  | 6.0    | 3.0  | 4.3  | ---       | ---  |      |

01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

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





## HUDSON RIVER BASIN

01333350 HOOSIC RIVER NEAR NORTH POWNAL, VT.

LOCATION.--Lat 42°48'33", long 73°17'12", Rensselaer County, N.Y., at bridge on New York-Vermont State Highway 346, at State line, 1.3 miles northwest of North Pownal, Vt.

PERIOD OF RECORD.--Chemical analyses: August 1969 to September 1971.

REMARKS.--Additional chemical analyses for this station in radiochemical and pesticide tables.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE          | TIME | DIS-<br>CHARGE<br>(CFS) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) | PH<br>(UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | AIR<br>TEM-<br>PERA-<br>TURE<br>(DEG C) | IMME-<br>DIATE<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) |
|---------------|------|-------------------------|------------------------------------------------------------|------------------------------------|---------------|----------------------------------|-----------------------------------------|------------------------------------------------------------|
| OCT.<br>06... | 1330 | 225                     | 200                                                        | 8.5                                | --            | 11.5                             | 12.0                                    | E240000                                                    |
| NOV.<br>05... | 1215 | 154                     | 365                                                        | --                                 | 7.7           | 9.0                              | 11.0                                    | 55000                                                      |
| DEC.<br>09... | 1500 | 349                     | --                                                         | 9.1                                | --            | 1.0                              | -5.5                                    | --                                                         |
| JAN.<br>07... | 1300 | --                      | --                                                         | 9.0                                | 7.5           | .5                               | -2.0                                    | 143000                                                     |
| FEB.<br>23... | 1200 | --                      | 286                                                        | 13.2                               | 7.9           | .0                               | .0                                      | --                                                         |
| MAR.<br>23... | 1200 | 449                     | 284                                                        | 9.2                                | 7.7           | 3.0                              | 6.0                                     | 15000                                                      |
| APR.<br>06... | 1100 | 588                     | 187                                                        | 13.8                               | 7.9           | 3.0                              | 13.5                                    | 7200                                                       |
| MAY<br>05...  | 1100 | 1900                    | 120                                                        | 9.6                                | 8.0           | 6.0                              | 10.5                                    | 5900                                                       |
| JUNE<br>10... | 1100 | 296                     | 274                                                        | 9.2                                | 8.4           | 18.5                             | 16.0                                    | 36000                                                      |
| JULY<br>01... | 1700 | 135                     | 320                                                        | 5.7                                | 7.6           | 23.5                             | 22.0                                    | 97000                                                      |
| AUG.<br>05... | 1030 | 262                     | 239                                                        | 14.1                               | 7.4           | 18.5                             | 26.0                                    | 100000                                                     |
| SEP.<br>01... | 1000 | 279                     | 260                                                        | 6.0                                | 7.5           | 17.5                             | 15.5                                    | 270000                                                     |

| DATE          | FECAL<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>KJEL-<br>DAHL<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | METH-<br>YLENE<br>BLUE<br>ACTIVE<br>SUB-<br>STANCE<br>(MG/L) | CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(LOW<br>LEVEL)<br>(MG/L) | CHLORO-<br>PHYLL A<br>(UG/L) | TUR-<br>BID-<br>ITY<br>(JTU) |
|---------------|---------------------------------------------------|--------------------------|----------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|------------------------------|------------------------------|
| OCT.<br>06... | 24000                                             | .6                       | 1.7                                                      | .26                                       | .05                                                          | 9                                                             | .1                           | 5                            |
| NOV.<br>05... | --                                                | .4                       | 1.2                                                      | .28                                       | .29                                                          | 15                                                            | 2.0                          | 3                            |
| DEC.<br>09... | 200000                                            | .7                       | 1.2                                                      | .36                                       | .07                                                          | 9                                                             | .0                           | 10                           |
| JAN.<br>07... | 2800                                              | .6                       | 1.3                                                      | .29                                       | .06                                                          | 12                                                            | .0                           | 7                            |
| FEB.<br>23... | --                                                | .7                       | 1.4                                                      | .21                                       | .03                                                          | 8                                                             | .0                           | 6                            |
| MAR.<br>23... | --                                                | .9                       | .98                                                      | .19                                       | .04                                                          | 14                                                            | --                           | 9                            |
| APR.<br>06... | 600                                               | .9                       | .72                                                      | .12                                       | .05                                                          | 11                                                            | .0                           | 8                            |
| MAY<br>05...  | 870                                               | .6                       | .15                                                      | .070                                      | .04                                                          | 12                                                            | 3.0                          | 6                            |
| JUNE<br>10... | 34                                                | .1                       | .93                                                      | .17                                       | .06                                                          | 17                                                            | 6.8                          | 3                            |
| JULY<br>01... | 1300                                              | .6                       | 1.8                                                      | .22                                       | .09                                                          | 13                                                            | 4.3                          | 28                           |
| AUG.<br>05... | 3800                                              | .4                       | .87                                                      | .23                                       | .05                                                          | 12                                                            | 3.1                          | 1                            |
| SEP.<br>01... | 9900                                              | .5                       | 1.4                                                      | .27                                       | .09                                                          | 20                                                            | .0                           | 20                           |

01333350 HOOSIC RIVER NEAR NORTH POWNAL, VT.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE       | DIS-<br>CHARGE<br>(CFS) | DIS-<br>SOLVED<br>SOLIDS<br>(RESI-<br>DUE AT<br>180 C)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTI-<br>TUENTS)<br>(MG/L) | LCSS<br>ON<br>IGNI-<br>TION<br>(MG/L) | ALKA-<br>LINITY<br>AS<br>CACO <sub>3</sub><br>(MG/L) | TOTAL<br>ACIDITY<br>AS<br>CACO <sub>3</sub><br>(MG/L) | BIO-<br>CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(MG/L) | CYANIDE<br>(CN)<br>(MG/L) | ORGANIC<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | CIL<br>AND<br>GREASE<br>(MG/L) | PHENOLS<br>(UG/L) |
|------------|-------------------------|------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------|------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------|---------------------------|-------------------------------------------|-----------------------------------------|--------------------------------|-------------------|
| JULY, 1971 |                         |                                                                  |                                                                     |                                       |                                                      |                                                       |                                                     |                           |                                           |                                         |                                |                   |
| 01...      | 135                     | --                                                               | --                                                                  | --                                    | 107                                                  | --                                                    | --                                                  | --                        | .93                                       | 2.5                                     | --                             | --                |
| AUG.       |                         |                                                                  |                                                                     |                                       |                                                      |                                                       |                                                     |                           |                                           |                                         |                                |                   |
| 05...      | 262                     | --                                                               | --                                                                  | --                                    | 79                                                   | --                                                    | --                                                  | --                        | --                                        | --                                      | --                             | --                |
| SEP.       |                         |                                                                  |                                                                     |                                       |                                                      |                                                       |                                                     |                           |                                           |                                         |                                |                   |
| 01...      | 279                     | 149                                                              | 163                                                                 | 22                                    | 90                                                   | 4                                                     | 2.6                                                 | .01                       | 1.0                                       | 1.8                                     | 180                            | 3                 |

| DATE       | SILICA<br>(SiO <sub>2</sub> )<br>(MG/L) | DIS-<br>SOLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SOLVED<br>MAN-<br>GANESE<br>(MN)<br>(UG/L) | DIS-<br>SOLVED<br>CAL-<br>CIUM<br>(CA)<br>(MG/L) | DIS-<br>SOLVED<br>MAG-<br>NESIUM<br>(MG)<br>(MG/L) | SODIUM<br>(NA)<br>(MG/L) | POTAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO <sub>3</sub> )<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) | CHLOR-<br>IDE<br>(CL)<br>(MG/L) |
|------------|-----------------------------------------|------------------------------------------|----------------------------------------------------|--------------------------------------------------|----------------------------------------------------|--------------------------|---------------------------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------|---------------------------------|
| JULY, 1971 |                                         |                                          |                                                    |                                                  |                                                    |                          |                                 |                                           |                                                   |                                         |                                 |
| 01...      | --                                      | --                                       | --                                                 | 33                                               | --                                                 | --                       | --                              | .85                                       | 130                                               | --                                      | --                              |
| AUG.,      |                                         |                                          |                                                    |                                                  |                                                    |                          |                                 |                                           |                                                   |                                         |                                 |
| 05...      | --                                      | --                                       | --                                                 | 29                                               | --                                                 | --                       | --                              | .30                                       | 96                                                | --                                      | --                              |
| SEP.,      |                                         |                                          |                                                    |                                                  |                                                    |                          |                                 |                                           |                                                   |                                         |                                 |
| 01...      | 4.4                                     | 130                                      | 140                                                | 28                                               | 6.8                                                | 15                       | 1.9                             | .35                                       | 110                                               | 34                                      | 14                              |

| DATE       | DIS<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | HARD-<br>NESS<br>(CA,MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | COLOR<br>(PLAT-<br>INUM-<br>COBALT<br>UNITS) | DIS-<br>SOLVED<br>ALUM-<br>INUM<br>(AL)<br>(UG/L) | DIS-<br>SOLVED<br>ARSENIC<br>(AS)<br>(UG/L) | DIS-<br>SOLVED<br>CHRO-<br>MIUM<br>(CR)<br>(UG/L) | DIS-<br>SOLVED<br>COPPER<br>(CU)<br>(UG/L) | DIS-<br>SOLVED<br>LEAD<br>(PB)<br>(UG/L) | DIS-<br>SOLVED<br>ZINC<br>(ZN)<br>(UG/L) |
|------------|-------------------------------------------------|--------------------------|-------------------------------------------|------------------------------------|---------------------------------------------------|----------------------------------------------|---------------------------------------------------|---------------------------------------------|---------------------------------------------------|--------------------------------------------|------------------------------------------|------------------------------------------|
| JULY, 1971 |                                                 |                          |                                           |                                    |                                                   |                                              |                                                   |                                             |                                                   |                                            |                                          |                                          |
| 01...      | --                                              | .13                      | .22                                       | --                                 | --                                                | --                                           | --                                                | --                                          | --                                                | --                                         | --                                       | --                                       |
| AUG.       |                                                 |                          |                                           |                                    |                                                   |                                              |                                                   |                                             |                                                   |                                            |                                          |                                          |
| 05...      | --                                              | .070                     | .23                                       | --                                 | --                                                | --                                           | --                                                | --                                          | --                                                | --                                         | --                                       | --                                       |
| SEP.       |                                                 |                          |                                           |                                    |                                                   |                                              |                                                   |                                             |                                                   |                                            |                                          |                                          |
| 01...      | .1                                              | .030                     | .27                                       | 98                                 | 8                                                 | 12                                           | 200                                               | 6                                           | 14                                                | 0                                          | 1                                        | 10                                       |

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS  
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE                                                                                              | TIME | DIS-<br>CHARGE<br>(CFS) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHQS) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) | PH<br>(UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | AIR<br>TEM-<br>PERA-<br>TURE<br>(DEG C) | IMME-<br>DIATE<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) |
|---------------------------------------------------------------------------------------------------|------|-------------------------|------------------------------------------------------------|------------------------------------|---------------|----------------------------------|-----------------------------------------|------------------------------------------------------------|
| MERRIMACK RIVER BASIN                                                                             |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 01075000 - PEMIGEWASSET RIVER AT WOODSTOCK N H (LAT 43 58 34 LONG 071 40 48)                      |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| OCT., 1970                                                                                        |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 05...                                                                                             | 1630 | 626                     | 52                                                         | 10.2                               | 6.3           | 9.8                              | 9.6                                     | --                                                         |
| MAY, 1971                                                                                         |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 04...                                                                                             | 1000 | 4300                    | 31                                                         | 12.1                               | 5.1           | 2.7                              | 9.3                                     | 100                                                        |
| JUNE                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 07...                                                                                             | 1700 | 475                     | 43                                                         | 9.5                                | 5.6           | 17.9                             | 33.5                                    | 45                                                         |
| JULY                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 12...                                                                                             | 1000 | 78                      | 52                                                         | 9.0                                | 6.4           | 17.8                             | 22.5                                    | 17                                                         |
| AUG.                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 09...                                                                                             | 1600 | 163                     | 47                                                         | 8.6                                | 6.1           | 23.0                             | 30.5                                    | 10                                                         |
| SEP.                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 14...                                                                                             | 1100 | 752                     | 37                                                         | 9.6                                | 5.9           | 15.6                             | 18.0                                    | >200                                                       |
| NARRAGANSETT BAY                                                                                  |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 01109150 - MCUNT HOPE BAY NEAR BRISTOL R I (LAT 41 39 45 LONG 071 13 45)                          |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| DEC., 1970                                                                                        |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 01...                                                                                             | --   | --                      | 40200                                                      | 9.4                                | 7.6           | 9.0                              | 11.0                                    | 12                                                         |
| MAR., 1971                                                                                        |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 01...                                                                                             | 1115 | --                      | 40300                                                      | 13.0                               | 8.0           | 4.6                              | 9.5                                     | 16                                                         |
| JUNE                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 16...                                                                                             | 1145 | --                      | 40800                                                      | 9.3                                | 8.0           | 17.8                             | 19.6                                    | 5                                                          |
| AUG.                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 31...                                                                                             | 1200 | --                      | 41400                                                      | 7.5                                | 7.7           | 21.6                             | 19.5                                    | 47                                                         |
| 01115050 - PROVIDENCE RIVER OFF FIELDS POINT, NEAR PROVIDENCE, R.I. (LAT 41 47 15 LONG 071 22 35) |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| DEC., 1970                                                                                        |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 01...                                                                                             | 1200 | --                      | 39100                                                      | 7.4                                | 7.4           | 9.2                              | 9.0                                     | 580                                                        |
| MAR., 1971                                                                                        |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 01...                                                                                             | 1315 | --                      | 38300                                                      | 10.4                               | 7.8           | 3.5                              | 9.6                                     | 130                                                        |
| JUNE                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 16...                                                                                             | 1320 | --                      | 37400                                                      | 3.0                                | 7.8           | 19.2                             | 18.0                                    | 850                                                        |
| AUG.                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 31...                                                                                             | 1420 | --                      | 41200                                                      | 2.6                                | 7.6           | 24.1                             | 22.5                                    | 410                                                        |
| 01116630 - PROVIDENCE RIVER OFF CONIMICUT POINT, NEAR WARWICK, R.I. (LAT 41 43 20 LONG 071 21 00) |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| DEC., 1970                                                                                        |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 01...                                                                                             | 1115 | --                      | 39100                                                      | 8.5                                | 7.5           | 9.0                              | 9.0                                     | 31                                                         |
| MAR., 1971                                                                                        |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 01...                                                                                             | 1230 | --                      | 38000                                                      | 12.3                               | 7.9           | 4.0                              | 9.6                                     | 95                                                         |
| JUNE                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 16...                                                                                             | 1245 | --                      | 37600                                                      | 11.8                               | 8.2           | 18.8                             | 18.0                                    | 13                                                         |
| AUG.                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 31...                                                                                             | 1320 | --                      | 41700                                                      | 4.8                                | 7.7           | 22.6                             | 22.4                                    | 6                                                          |
| 01117150 - WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 31 45 LONG 071 24 00)       |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| DEC., 1970                                                                                        |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 01...                                                                                             | 0830 | --                      | 40500                                                      | 9.0                                | 7.7           | 8.2                              | 7.5                                     | 9                                                          |
| MAR., 1971                                                                                        |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 01...                                                                                             | 0845 | --                      | 42900                                                      | 12.5                               | 7.9           | 2.2                              | 2.8                                     | 1                                                          |
| JUNE                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 16...                                                                                             | 0900 | --                      | 41100                                                      | 8.7                                | 8.0           | 15.5                             | 16.0                                    | 4                                                          |
| AUG.                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 31...                                                                                             | 0900 | --                      | 42900                                                      | 8.8                                | 7.9           | 20.8                             | 18.0                                    | 0                                                          |
| 01117160 - EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 30 45 LONG 071 21 00)       |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| DEC., 1970                                                                                        |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 01...                                                                                             | 0915 | --                      | 40700                                                      | 9.0                                | 7.8           | 10.0                             | 7.5                                     | 22                                                         |
| MAR., 1971                                                                                        |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 01...                                                                                             | 0920 | --                      | 43500                                                      | 10.6                               | 8.0           | 2.0                              | 6.4                                     | 52                                                         |
| JUNE                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 16...                                                                                             | 1000 | --                      | 41200                                                      | 9.4                                | 8.0           | 15.0                             | 18.5                                    | 2                                                          |
| AUG.                                                                                              |      |                         |                                                            |                                    |               |                                  |                                         |                                                            |
| 31...                                                                                             | 1000 | --                      | 42700                                                      | 9.7                                | 7.9           | 18.9                             | 19.2                                    | 91                                                         |

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS  
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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| DATE | FECAL<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>KJEL-<br>DAHL-<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | METH-<br>YLENE<br>BLUE<br>ACTIVE<br>SUB-<br>STANCE<br>(MG/L) | CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(LOW<br>LEVEL)<br>(MG/L) | CHLORO-<br>PHYLL A<br>(UG/L) | TUR-<br>BID-<br>ITY<br>(JTU) |
|------|---------------------------------------------------|--------------------------|-----------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|------------------------------|------------------------------|
|------|---------------------------------------------------|--------------------------|-----------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|------------------------------|------------------------------|

MERRIMACK RIVER BASIN

01075000 - PEMIGEWASSET RIVER AT WOODSTOCK N H (LAT 43 58 34 LONG 071 40 48)

|            |    |    |     |      |     |    |     |    |
|------------|----|----|-----|------|-----|----|-----|----|
| OCT., 1970 |    |    |     |      |     |    |     |    |
| 05...      | 1  | .2 | .40 | .000 | .02 | 4  | .0  | <1 |
| MAY, 1971  |    |    |     |      |     |    |     |    |
| 04...      | 1  | .4 | .42 | .020 | .03 | 21 | 1.5 | 2  |
| JUNE       |    |    |     |      |     |    |     |    |
| 07...      | 0  | .2 | .23 | .000 | .04 | 8  | .5  | 1  |
| JULY       |    |    |     |      |     |    |     |    |
| 12...      | <1 | .2 | .27 | .040 | .02 | 16 | .0  | 5  |
| AUG.       |    |    |     |      |     |    |     |    |
| 09...      | 0  | .1 | .27 | .020 | .02 | 8  | .3  | 3  |
| SEP.       |    |    |     |      |     |    |     |    |
| 14...      | 76 | .1 | .41 | .020 | .03 | 18 | .7  | 3  |

NARRAGANSETT BAY

01109150 - MCUNT HOPE BAY NEAR BRISTOL R I (LAT 41 39 45 LONG 071 13 45)

|            |    |     |     |      |     |    |     |   |
|------------|----|-----|-----|------|-----|----|-----|---|
| DEC., 1970 |    |     |     |      |     |    |     |   |
| 01...      | 1  | .00 | .28 | .10  | 1.0 | -- | .5  | 3 |
| MAR., 1971 |    |     |     |      |     |    |     |   |
| 01...      | 11 | .00 | .27 | .070 | 7.4 | -- | 3.5 | 1 |
| JUNE       |    |     |     |      |     |    |     |   |
| 16...      | <1 | .00 | .85 | .060 | .86 | -- | 6.1 | 2 |
| AUG.       |    |     |     |      |     |    |     |   |
| 31...      | 5  | .00 | .99 | .16  | 1.9 | -- | 5.2 | 2 |

01115050 - PROVIDENCE RIVER OFF FIELDS POINT, NEAR PROVIDENCE, R.I. (LAT 41 47 15 LONG 071 22 35)

|            |    |     |     |     |     |    |     |   |
|------------|----|-----|-----|-----|-----|----|-----|---|
| DEC., 1970 |    |     |     |     |     |    |     |   |
| 01...      | 41 | .00 | .65 | .17 | .93 | -- | 1.2 | 4 |
| MAR., 1971 |    |     |     |     |     |    |     |   |
| 01...      | 32 | .00 | .67 | .11 | 5.6 | -- | 3.3 | 3 |
| JUNE       |    |     |     |     |     |    |     |   |
| 16...      | 15 | .00 | 1.2 | .29 | .79 | -- | 9.6 | 2 |
| AUG.       |    |     |     |     |     |    |     |   |
| 31...      | 48 | .00 | 3.0 | .21 | .54 | -- | 1.6 | 2 |

01116630 - PROVIDENCE RIVER OFF CONIMICUT POINT, NEAR WARWICK, R.I. (LAT 41 43 20 LONG 071 21 00)

|            |    |     |     |     |     |    |     |   |
|------------|----|-----|-----|-----|-----|----|-----|---|
| DEC., 1970 |    |     |     |     |     |    |     |   |
| 01...      | 0  | .00 | .46 | .14 | 1.0 | -- | .8  | 4 |
| MAR., 1971 |    |     |     |     |     |    |     |   |
| 01...      | 14 | .00 | .56 | .13 | 5.6 | -- | 5.0 | 2 |
| JUNE       |    |     |     |     |     |    |     |   |
| 16...      | <1 | .00 | .30 | .13 | .82 | -- | 7.4 | 2 |
| AUG.       |    |     |     |     |     |    |     |   |
| 31...      | 1  | .00 | 1.3 | .19 | .58 | -- | 2.3 | 2 |

01117150 - WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 31 45 LONG 071 24 00)

|            |    |     |     |      |     |    |     |   |
|------------|----|-----|-----|------|-----|----|-----|---|
| DEC., 1970 |    |     |     |      |     |    |     |   |
| 01...      | 1  | .00 | .36 | .080 | 1.1 | -- | .8  | 3 |
| MAR., 1971 |    |     |     |      |     |    |     |   |
| 01...      | 1  | .00 | .10 | .070 | 1.9 | -- | 1.8 | 5 |
| JUNE       |    |     |     |      |     |    |     |   |
| 16...      | <1 | .00 | .76 | .060 | .66 | -- | 2.2 | 4 |
| AUG.       |    |     |     |      |     |    |     |   |
| 31...      | 0  | .00 | 1.4 | .11  | .57 | -- | 3.5 | 4 |

01117160 - EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 30 45 LONG 071 21 00)

|            |   |     |     |      |     |    |     |   |
|------------|---|-----|-----|------|-----|----|-----|---|
| DEC., 1970 |   |     |     |      |     |    |     |   |
| 01...      | 2 | .00 | .39 | .050 | 1.1 | -- | .7  | 2 |
| MAR., 1971 |   |     |     |      |     |    |     |   |
| 01...      | 8 | .00 | .10 | .040 | 6.5 | -- | 1.2 | 1 |
| JUNE       |   |     |     |      |     |    |     |   |
| 16...      | 1 | .00 | 1.3 | .030 | .84 | -- | 1.0 | 1 |
| AUG.       |   |     |     |      |     |    |     |   |
| 31...      | 6 | .00 | .98 | .090 | .57 | -- | 1.9 | 1 |

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS  
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE | TIME | DIS-<br>CHARGE<br>(CFS) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) | PH<br>(UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | AIR<br>TEM-<br>PERA-<br>TURE<br>(DEG C) | IMME-<br>DIATE<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) |
|------|------|-------------------------|------------------------------------------------------------|------------------------------------|---------------|----------------------------------|-----------------------------------------|------------------------------------------------------------|
|------|------|-------------------------|------------------------------------------------------------|------------------------------------|---------------|----------------------------------|-----------------------------------------|------------------------------------------------------------|

ST. LAWRENCE RIVER BASIN

04294402 - LAKE CHAMPLAIN (EAST BAY) NEAR WHITEHALL, N.Y. (LAT 43 34 55 LONG 073 25 19)

|            |      |    |     |     |     |      |      |       |
|------------|------|----|-----|-----|-----|------|------|-------|
| OCT., 1970 |      |    |     |     |     |      |      |       |
| 05...      | 1500 | -- | 185 | 9.0 | --  | 13.5 | 17.0 | 20000 |
| MAY, 1971  |      |    |     |     |     |      |      |       |
| 18...      | 1430 | -- | 197 | 9.3 | 8.0 | 15.5 | 33.0 | 190   |
| JUNE       |      |    |     |     |     |      |      |       |
| 08...      | 1500 | -- | 222 | 8.9 | 7.9 | 20.5 | 27.5 | 21000 |
| JULY       |      |    |     |     |     |      |      |       |
| 01...      | --   | -- | 202 | 6.7 | 7.9 | 24.0 | 34.0 | 18000 |
| AUG.       |      |    |     |     |     |      |      |       |
| 03...      | 1500 | -- | 224 | --  | 7.9 | 24.5 | 24.0 | 21000 |
| SEP.       |      |    |     |     |     |      |      |       |
| 09...      | 1430 | -- | 246 | 7.9 | 8.1 | 23.0 | 26.5 | 25000 |

04294408 - LAKE CHAMPLAIN NEAR TICONDEROGA, N.Y. (LAT 43 50 06 LONG 073 23 16)

|            |      |    |     |     |     |      |      |      |
|------------|------|----|-----|-----|-----|------|------|------|
| OCT., 1970 |      |    |     |     |     |      |      |      |
| 05...      | 1200 | -- | 225 | --  | --  | 15.5 | 19.5 | 3800 |
| MAY, 1971  |      |    |     |     |     |      |      |      |
| 18...      | 1100 | -- | 150 | 9.6 | 8.1 | 13.0 | 22.0 | 20   |
| JUNE       |      |    |     |     |     |      |      |      |
| 08...      | 1135 | -- | 204 | 8.2 | 7.8 | 19.5 | 27.0 | 180  |
| JULY       |      |    |     |     |     |      |      |      |
| 01...      | 1100 | -- | 193 | 7.5 | 7.8 | 23.5 | 28.0 | 180  |
| AUG.       |      |    |     |     |     |      |      |      |
| 03...      | 1200 | -- | 165 | --  | 8.1 | 24.0 | 23.0 | 3800 |
| SEP.       |      |    |     |     |     |      |      |      |
| 09...      | 1130 | -- | 178 | 7.4 | 8.2 | 23.0 | 22.5 | 1570 |

04294410 - LAKE CHAMPLAIN NEAR CROWN POINT, N.Y. (LAT 43 55 25 LONG 073 24 20)

|            |      |    |     |     |     |      |      |      |
|------------|------|----|-----|-----|-----|------|------|------|
| OCT., 1970 |      |    |     |     |     |      |      |      |
| 05...      | 1100 | -- | 210 | 6.6 | 7.0 | 15.0 | 19.5 | 8    |
| MAY, 1971  |      |    |     |     |     |      |      |      |
| 18...      | 1030 | -- | 162 | 8.7 | 8.2 | 13.5 | 20.0 | <1   |
| JUNE       |      |    |     |     |     |      |      |      |
| 08...      | 1105 | -- | 213 | 9.4 | 8.2 | 19.0 | 27.0 | 41   |
| JULY       |      |    |     |     |     |      |      |      |
| 01...      | 1000 | -- | 195 | 7.9 | 8.3 | 23.5 | 27.0 | 200  |
| AUG.       |      |    |     |     |     |      |      |      |
| 03...      | 1130 | -- | 222 | --  | 8.2 | 23.0 | 23.0 | 1600 |
| SEP.       |      |    |     |     |     |      |      |      |
| 09...      | 1030 | -- | 190 | 7.5 | 8.3 | 22.5 | 22.0 | 2600 |



## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE | FECAL<br>COLI-<br>FORM<br>(COL.<br>PER<br>100 ML) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>KJEL-<br>DAHL-<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | METH-<br>YLENE<br>BLUE<br>ACTIVE<br>SUB-<br>STANCE<br>(MG/L) | CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(LOW<br>LEVEL)<br>(MG/L) | CHLORO-<br>PHYLL A<br>(UG/L) | TUR-<br>BID-<br>ITY<br>(JTU) |
|------|---------------------------------------------------|--------------------------|-----------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|------------------------------|------------------------------|
|------|---------------------------------------------------|--------------------------|-----------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|------------------------------|------------------------------|

## ST. LAWRENCE RIVER BASIN

## 04294402 - LAKE CHAMPLAIN (EAST BAY) NEAR WHITEHALL, N.Y. (LAT 43 34 55 LONG 073 25 19)

|            |      |    |     |      |     |    |     |    |
|------------|------|----|-----|------|-----|----|-----|----|
| OCT., 1970 |      |    |     |      |     |    |     |    |
| 05...      | 1800 | .3 | .67 | .080 | .04 | 7  | .5  | 20 |
| MAY, 1971  |      |    |     |      |     |    |     |    |
| 18...      | 35   | .3 | .32 | .050 | .04 | 17 | 3.8 | 7  |
| JUNE       |      |    |     |      |     |    |     |    |
| 08...      | 660  | .3 | .67 | .050 | .03 | 12 | 5.7 | 8  |
| JULY       |      |    |     |      |     |    |     |    |
| 01...      | 260  | .4 | .53 | .050 | .03 | 8  | 5.8 | 9  |
| AUG.       |      |    |     |      |     |    |     |    |
| 03...      | 400  | .2 | .58 | .10  | .05 | 13 | 7.9 | 80 |
| SEP.       |      |    |     |      |     |    |     |    |
| 09...      | 300  | .3 | .53 | .060 | .03 | 12 | 3.2 | 10 |

## 04294408 - LAKE CHAMPLAIN NEAR TICONDEROGA, N.Y. (LAT 43 50 06 LONG 073 23 16)

|            |     |     |     |      |     |    |     |    |
|------------|-----|-----|-----|------|-----|----|-----|----|
| OCT., 1970 |     |     |     |      |     |    |     |    |
| 05...      | 164 | .00 | .72 | .060 | .06 | 27 | 2.0 | 25 |
| MAY, 1971  |     |     |     |      |     |    |     |    |
| 18...      | 26  | .09 | .26 | .020 | .03 | 18 | 1.9 | 3  |
| JUNE       |     |     |     |      |     |    |     |    |
| 08...      | 32  | .04 | .51 | .020 | .04 | 21 | 5.5 | 10 |
| JULY       |     |     |     |      |     |    |     |    |
| 01...      | 2   | .02 | .41 | .030 | .03 | 9  | 5.8 | 7  |
| AUG.       |     |     |     |      |     |    |     |    |
| 03...      | 180 | .00 | .38 | .040 | .02 | 9  | 9.3 | 2  |
| SEP.       |     |     |     |      |     |    |     |    |
| 09...      | 40  | .1  | .75 | .040 | .06 | 11 | 4.5 | 20 |

## 04294410 - LAKE CHAMPLAIN NEAR CROWN POINT, N.Y. (LAT 43 55 25 LONG 073 24 20)

|            |    |     |     |      |     |    |     |    |
|------------|----|-----|-----|------|-----|----|-----|----|
| OCT., 1970 |    |     |     |      |     |    |     |    |
| 05...      | <1 | .3  | .59 | .050 | .06 | 14 | 1.3 | 20 |
| MAY, 1971  |    |     |     |      |     |    |     |    |
| 18...      | 1  | .1  | .35 | .030 | .03 | 17 | 2.6 | 9  |
| JUNE       |    |     |     |      |     |    |     |    |
| 08...      | <1 | .06 | .40 | .020 | .03 | 16 | 1.9 | 15 |
| JULY       |    |     |     |      |     |    |     |    |
| 01...      | <1 | .05 | .44 | .030 | .03 | 12 | 6.9 | 10 |
| AUG.       |    |     |     |      |     |    |     |    |
| 03...      | 10 | .00 | .49 | .060 | .02 | 10 | 1.0 | 15 |
| SEP.       |    |     |     |      |     |    |     |    |
| 09...      | 0  | .1  | .55 | .040 | .03 | 18 | 2.5 | 35 |

## ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

UNITS OF MEASUREMENT: GROSS ALPHA RADIATION, AS BOTH MICROGRAMS AND PICOCURIES OF URANIUM EQUIVALENT PER LITER OF WATER; GROSS BETA RADIATION AS BOTH STRONTIUM-90/YTTRIUM-90 AND CESIUM-137, IN PICOCURIES PER LITER OF WATER.

| DATE                                                                                             | DIS-<br>SOLVED<br>GROSS<br>ALPHA<br>AS<br>U-NAT.<br>(UG/L) | DIS-<br>SOLVED<br>GROSS<br>ALPHA<br>AS<br>U-NAT.<br>(PC/L) | DIS-<br>SOLVED<br>GROSS<br>BETA<br>AS SR90<br>/Y90<br>(PC/L) | DIS-<br>SOLVED<br>GROSS<br>BETA<br>AS<br>CS-137<br>(PC/L) | TOTAL<br>FIL-<br>TRABLE<br>RESIDUE<br>(MG/L) | SUS-<br>PENDE<br>GROSS<br>ALPHA<br>AS<br>U-NAT.<br>(UG/L) | SUS-<br>PENDE<br>GROSS<br>ALPHA<br>AS<br>U-NAT.<br>(PC/L) | SUS-<br>PENDE<br>GROSS<br>BETA<br>AS SR90<br>/Y90<br>(PC/L) | SUS-<br>PENDE<br>GROSS<br>BETA<br>AS<br>CS-137<br>(PC/L) | TOTAL<br>NON-<br>FIL-<br>TRABLE<br>RESIDUE<br>(MG/L) |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------|
| MERRIMACK RIVER BASIN                                                                            |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| 01075000 - PEMIGEWASSET RIVER AT WOODSTOCK, N.H. (LAT 43 58 34 LONG 71 40 48)                    |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| SEP., 1971<br>14...                                                                              | 2.5                                                        | .8                                                         | 4.1                                                          | 5.0                                                       | 39                                           | 1.5                                                       | .5                                                        | 1.0                                                         | 1.1                                                      | 2                                                    |
| 01096550 - MERRIMACK RIVER ABOVE LOWELL, MASS. (LAT 42 38 20 LONG 71 22 17)                      |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| SEP., 1971<br>13...                                                                              | 1.8                                                        | .6                                                         | 3.4                                                          | 4.2                                                       | 99                                           | <.4                                                       | <.1                                                       | 1.2                                                         | 1.3                                                      | 6                                                    |
| NARRAGANSETT BAY                                                                                 |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| 01109150 - MOUNT HOPE BAY NEAR BRISTOL, R.I. (LAT 41 39 45 LONG 71 13 45)                        |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| AUG., 1971<br>31...                                                                              | <370                                                       | <120                                                       | 280                                                          | 350                                                       | 34000                                        | <.4                                                       | .1                                                        | <.4                                                         | .4                                                       | 4                                                    |
| 01115050 - PROVIDENCE RIVER OFF FIELDS POINT, NEAR PROVIDENCE, R.I. (LAT 41 47 15 LONG 71 22 35) |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| AUG., 1971<br>31...                                                                              | <360                                                       | <120                                                       | 280                                                          | 340                                                       | 33000                                        | <.4                                                       | <.1                                                       | <.4                                                         | <.4                                                      | 4                                                    |
| 01116630 - PROVIDENCE RIVER OFF CONIMICUT POINT, NEAR WARWICK, R.I. (LAT 41 43 20 LONG 71 21 00) |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| AUG., 1971<br>31...                                                                              | <350                                                       | <120                                                       | 320                                                          | 400                                                       | 32000                                        | <.4                                                       | <.1                                                       | <.4                                                         | .4                                                       | 6                                                    |
| 01117150 - WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 31 45 LONG 71 24 00)       |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| AUG., 1971<br>31...                                                                              | <370                                                       | <120                                                       | 330                                                          | 400                                                       | 34000                                        | <.4                                                       | <.1                                                       | <.4                                                         | <.4                                                      | 2                                                    |
| 01117160 - EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 30 45 LONG 71 21 00)       |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| AUG., 1971<br>31...                                                                              | <380                                                       | <130                                                       | 260                                                          | 320                                                       | 35000                                        | <.4                                                       | <.1                                                       | <.4                                                         | <.4                                                      | 0                                                    |
| CONNECTICUT RIVER BASIN                                                                          |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| 01141900 - CONNECTICUT RIVER AT WILDER, VT. (LAT 43 40 04 LONG 72 18 13)                         |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| SEP., 1971<br>14...                                                                              | 2.4                                                        | .8                                                         | 3.8                                                          | 4.5                                                       | 120                                          | <.4                                                       | <.1                                                       | .6                                                          | .7                                                       | 2                                                    |
| 01161200 - CONNECTICUT RIVER AT NORTHFIELD, MASS. (LAT 42 42 44 LONG 72 27 14)                   |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| SEP., 1971<br>15...                                                                              | .9                                                         | .3                                                         | 3.1                                                          | 3.9                                                       | 86                                           | <.4                                                       | <.1                                                       | .5                                                          | .5                                                       | 3                                                    |
| HUDSON RIVER BASIN                                                                               |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| 01333300 - HOOSIC RIVER BELOW WILLIAMSTOWN, MASS. (LAT 42 44 28 LONG 73 12 47)                   |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| SEP., 1971<br>15...                                                                              | 2.3                                                        | .8                                                         | 3.1                                                          | 3.9                                                       | 120                                          | 18                                                        | 6.0                                                       | 12                                                          | 15                                                       | 230                                                  |
| 01333350 - HOOSIC RIVER NEAR NORTH POONAL, VT. (LAT 42 48 33 LONG 73 17 12)                      |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| SEP., 1971<br>01...                                                                              | 2.7                                                        | .9                                                         | 3.4                                                          | 4.3                                                       | 150                                          | 1.3                                                       | .4                                                        | 1.4                                                         | 1.5                                                      | 18                                                   |

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

UNITS OF MEASUREMENT: GROSS ALPHA RADIATION, AS BOTH MICROGRAMS AND PICOCURIES OF URANIUM EQUIVALENT PER LITER OF WATER; GROSS BETA RADIATION AS BOTH STRONTIUM-90/YTTRIUM-90 AND CESIUM-137, IN PICOCURIES PER LITER OF WATER.

| DATE                                                                                   | DIS-<br>SOLVED<br>GROSS<br>ALPHA<br>AS<br>U-NAT.<br>(UG/L) | DIS-<br>SOLVED<br>GROSS<br>ALPHA<br>AS<br>U-NAT.<br>(PC/L) | DIS-<br>SOLVED<br>GROSS<br>BETA<br>AS SR90<br>/Y90<br>(PC/L) | DIS-<br>SOLVED<br>GROSS<br>BETA<br>AS<br>CS-137<br>(PC/L) | TOTAL<br>FIL-<br>TRABLE<br>RESIDUE<br>(MG/L) | SUS-<br>PENDE<br>GROSS<br>ALPHA<br>AS<br>U-NAT.<br>(UG/L) | SUS-<br>PENDE<br>GROSS<br>ALPHA<br>AS<br>U-NAT.<br>(PC/L) | SUS-<br>PENDE<br>GROSS<br>BETA<br>AS SR90<br>/Y90<br>(PC/L) | SUS-<br>PENDE<br>GROSS<br>BETA<br>AS<br>CS-137<br>(PC/L) | TOTAL<br>NON-<br>FIL-<br>TRABLE<br>RESIDUE<br>(MG/L) |
|----------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------|
| ST. LAWRENCE RIVER BASIN                                                               |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| 04294402 - LAKE CHAMPLAIN (EAST BAY) NEAR WHITEHALL, N.Y. (LAT 43 34 55 LONG 73 25 19) |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| SEP., 1971<br>09...                                                                    | 4.8                                                        | --                                                         | 4.0                                                          | --                                                        | 150                                          | .7                                                        | --                                                        | 1.4                                                         | --                                                       | 19                                                   |
| 04294408 - LAKE CHAMPLAIN NEAR TICONDEROGA, N.Y. (LAT 43 50 06 LONG 73 23 16)          |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| SEP., 1971<br>09...                                                                    | 1.4                                                        | --                                                         | 3.6                                                          | --                                                        | 110                                          | 1.1                                                       | --                                                        | 1.3                                                         | --                                                       | 11                                                   |
| 04294410 - LAKE CHAMPLAIN NEAR CROWN POINT, N.Y. (LAT 43 55 25 LONG 73 24 20)          |                                                            |                                                            |                                                              |                                                           |                                              |                                                           |                                                           |                                                             |                                                          |                                                      |
| SEP., 1971<br>09...                                                                    | 2.0                                                        | --                                                         | 3.4                                                          | --                                                        | 110                                          | 4.7                                                       | --                                                        | 3.6                                                         | --                                                       | 31                                                   |

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS  
PESTICIDE ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE                                                                                            | ALDRIN<br>(UG/L) | DDD<br>(UG/L) | DDE<br>(UG/L) | DDT<br>(UG/L) | DI-<br>AZINON<br>(UG/L) | DI-<br>ELDRIN<br>(UG/L) | ENDRIN<br>(UG/L) | ETHION<br>(UG/L) | HEPTA-<br>CHLOR<br>(UG/L) |
|-------------------------------------------------------------------------------------------------|------------------|---------------|---------------|---------------|-------------------------|-------------------------|------------------|------------------|---------------------------|
| MERRIMACK RIVER BASIN                                                                           |                  |               |               |               |                         |                         |                  |                  |                           |
| 01075000 - PEMIGEWASSET RIVER AT WOODSTOCK, N.H. (LAT 43 58 34 LONG 71 40 48)                   |                  |               |               |               |                         |                         |                  |                  |                           |
| SEP 14...                                                                                       | .00              | .00           | .00           | .00           | .00                     | .00                     | .00              | .00              | .00                       |
| 01096550 - MERRIMACK RIVER ABOVE LOWELL, MASS. (LAT 42 38 20 LONG 71 22 17)                     |                  |               |               |               |                         |                         |                  |                  |                           |
| SEP 13...                                                                                       | .00              | .00           | .00           | .00           | .00                     | .00                     | .00              | .00              | .00                       |
| NARRAGANSETT BAY                                                                                |                  |               |               |               |                         |                         |                  |                  |                           |
| 01109150 - MOUNT HOPE BAY NEAR BRISTOL, R.I. (LAT 41 39 45 LONG 71 13 45)                       |                  |               |               |               |                         |                         |                  |                  |                           |
| AUG 31...                                                                                       | .00              | .00           | .00           | .00           | .00                     | M.00                    | .00              | --               | .00                       |
| 01115050 - PROVIDENCE RIVER OFF FIELDS POINT NEAR PROVIDENCE, R.I. (LAT 41 47 15 LONG 71 22 35) |                  |               |               |               |                         |                         |                  |                  |                           |
| AUG 31...                                                                                       | .00              | .00           | .00           | .00           | .00                     | .01                     | .00              | .00              | .00                       |
| 01116630 - PROVIDENCE RIVER OFF CONIMICUT POINT NEAR WARWICK, R.I. (LAT 41 43 20 LONG 71 21 00) |                  |               |               |               |                         |                         |                  |                  |                           |
| AUG 31...                                                                                       | .00              | .00           | .00           | .00           | .00                     | .01                     | .00              | .00              | .00                       |
| 01117150 - WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 31 45 LONG 71 24 00)      |                  |               |               |               |                         |                         |                  |                  |                           |
| AUG 31...                                                                                       | .00              | .00           | .00           | .00           | .00                     | .00                     | .00              | .00              | .00                       |
| 01117160 - EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 30 45 LONG 71 21 00)      |                  |               |               |               |                         |                         |                  |                  |                           |
| AUG 31...                                                                                       | .00              | .00           | .00           | .00           | .00                     | .00                     | .00              | .00              | .00                       |
| CONNECTICUT RIVER BASIN                                                                         |                  |               |               |               |                         |                         |                  |                  |                           |
| 01141900 - CONNECTICUT RIVER AT WILDER, VT. (LAT 43 40 04 LONG 72 18 13)                        |                  |               |               |               |                         |                         |                  |                  |                           |
| SEP 14...                                                                                       | .00              | .00           | .00           | .00           | .00                     | .00                     | .00              | .00              | .00                       |
| 01161200 - CONNECTICUT RIVER AT NORTHFIELD, MASS. (LAT 42 42 44 LONG 72 27 14)                  |                  |               |               |               |                         |                         |                  |                  |                           |
| SEP 15...                                                                                       | .00              | .00           | .00           | .00           | .00                     | M.00                    | .00              | .00              | .00                       |
| HUDSON RIVER BASIN                                                                              |                  |               |               |               |                         |                         |                  |                  |                           |
| 01333300 - HOOSIC RIVER BELOW WILLIAMSTOWN, MASS. (LAT 42 44 28 LONG 73 12 47)                  |                  |               |               |               |                         |                         |                  |                  |                           |
| SEP 15...                                                                                       | .00              | .00           | .00           | .00           | .00                     | .00                     | .00              | .00              | .00                       |
| 01333350 - HOOSIC RIVER NEAR NORTH POBNAL, VT. (LAT 42 48 33 LONG 73 17 12)                     |                  |               |               |               |                         |                         |                  |                  |                           |
| SEP 1...                                                                                        | .00              | .00           | .00           | .00           | .00                     | .00                     | .00              | .00              | .00                       |
| ST. LAWRENCE RIVER BASIN                                                                        |                  |               |               |               |                         |                         |                  |                  |                           |
| 04294402 - LAKE CHAMPLAIN (EAST BAY) NEAR WHITEHALL, N.Y. (LAT 43 34 55 LONG 73 25 19)          |                  |               |               |               |                         |                         |                  |                  |                           |
| SEP 9...                                                                                        | .00              | .00           | .00           | .00           | .00                     | .00                     | .00              | .00              | .00                       |
| 04294408 - LAKE CHAMPLAIN NEAR TICONDEROGA, N.Y. (LAT 43 50 06 LONG 73 23 16)                   |                  |               |               |               |                         |                         |                  |                  |                           |
| SEP 9...                                                                                        | .00              | .00           | .00           | .00           | .00                     | .00                     | .00              | .00              | .00                       |
| 04294410 - LAKE CHAMPLAIN NEAR CROWN POINT, N.Y. (LAT 43 55 25 LONG 73 24 20)                   |                  |               |               |               |                         |                         |                  |                  |                           |
| SEP 9...                                                                                        | .00              | .00           | .00           | .00           | .00                     | .00                     | .00              | .00              | .00                       |

M Presence of material verified but not quantified.



ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS  
CHEMICAL ANALYSES, MINOR ELEMENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE                                                                                             | DIS-<br>CHARGE<br>(CFS) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | DIS-<br>SOLVED<br>ALUM-<br>INUM<br>(AL)<br>(UG/L) | DIS-<br>SOLVED<br>ARSENIC<br>(AS)<br>(UG/L) | DIS-<br>SOLVED<br>CHRO-<br>MIUM<br>(CR)<br>(UG/L) | DIS-<br>SOLVED<br>COPPER<br>(CU)<br>(UG/L) | DIS-<br>SOLVED<br>LEAD<br>(PB)<br>(UG/L) | DIS-<br>SOLVED<br>MERCURY<br>(HG)<br>(UG/L) | DIS-<br>SOLVED<br>ZINC<br>(ZN)<br>(UG/L) |
|--------------------------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------|---------------------------------------------------|---------------------------------------------|---------------------------------------------------|--------------------------------------------|------------------------------------------|---------------------------------------------|------------------------------------------|
| MERRIMACK RIVER BASIN                                                                            |                         |                                                            |                                                   |                                             |                                                   |                                            |                                          |                                             |                                          |
| 01075000 - PEMIGEWASSET RIVER AT WOODSTOCK, N.H. (LAT 43 58 34 LONG 71 40 48)                    |                         |                                                            |                                                   |                                             |                                                   |                                            |                                          |                                             |                                          |
| SEP., 1971<br>14...                                                                              | 752                     | 37                                                         | --                                                | 0                                           | --                                                | --                                         | --                                       | 3.7                                         | --                                       |
| NARRAGANSETT BAY                                                                                 |                         |                                                            |                                                   |                                             |                                                   |                                            |                                          |                                             |                                          |
| 01109150 - MOUNT HOPE BAY NEAR BRISTOL, R.I. (LAT 41 39 45 LONG 71 13 45)                        |                         |                                                            |                                                   |                                             |                                                   |                                            |                                          |                                             |                                          |
| AUG., 1971<br>31...                                                                              | --                      | 41400                                                      | --                                                | 1                                           | --                                                | --                                         | --                                       | <.5                                         | --                                       |
| 01115050 - PROVIDENCE RIVER OFF FIELDS POINT, NEAR PROVIDENCE, R.I. (LAT 41 47 15 LONG 71 22 35) |                         |                                                            |                                                   |                                             |                                                   |                                            |                                          |                                             |                                          |
| AUG., 1971<br>31...                                                                              | --                      | 41200                                                      | --                                                | 1                                           | --                                                | --                                         | --                                       | <.5                                         | --                                       |
| 01116630 - PROVIDENCE RIVER OFF COMIMICUT POINT NEAR WARWICK, R.I. (LAT 41 43 20 LONG 71 21 00)  |                         |                                                            |                                                   |                                             |                                                   |                                            |                                          |                                             |                                          |
| AUG., 1971<br>31...                                                                              | --                      | 41700                                                      | --                                                | 0                                           | --                                                | --                                         | --                                       | <.5                                         | --                                       |
| 01117150 - WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 31 45 LONG 71 24 00)       |                         |                                                            |                                                   |                                             |                                                   |                                            |                                          |                                             |                                          |
| AUG., 1971<br>31...                                                                              | --                      | 42900                                                      | --                                                | 0                                           | --                                                | --                                         | --                                       | <.5                                         | --                                       |
| 01117160 - EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 30 45 LONG 71 21 00)       |                         |                                                            |                                                   |                                             |                                                   |                                            |                                          |                                             |                                          |
| AUG., 1971<br>31...                                                                              | --                      | 42700                                                      | --                                                | 2                                           | --                                                | --                                         | --                                       | <.5                                         | --                                       |
| ST. LAWRENCE RIVER BASIN                                                                         |                         |                                                            |                                                   |                                             |                                                   |                                            |                                          |                                             |                                          |
| 04294402 - LAKE CHAMPLAIN (EAST BAY) NEAR WHITEHALL, N.Y. (LAT 43 34 55 LONG 73 25 19)           |                         |                                                            |                                                   |                                             |                                                   |                                            |                                          |                                             |                                          |
| SEP., 1971<br>09...                                                                              | --                      | 246                                                        | 100                                               | 3                                           | 0                                                 | 10                                         | 0                                        | --                                          | 20                                       |
| 04294408 - LAKE CHAMPLAIN NEAR TICONDEROGA, N.Y. (LAT 43 50 06 LONG 73 23 16)                    |                         |                                                            |                                                   |                                             |                                                   |                                            |                                          |                                             |                                          |
| SEP., 1971<br>09...                                                                              | --                      | 178                                                        | 0                                                 | 4                                           | 2                                                 | 10                                         | 1                                        | --                                          | 0                                        |
| 04294410 - LAKE CHAMPLAIN NEAR CROWN POINT, N.Y. (LAT 43 55 25 LONG 73 24 20)                    |                         |                                                            |                                                   |                                             |                                                   |                                            |                                          |                                             |                                          |
| SEP., 1971<br>09...                                                                              | --                      | 190                                                        | 0                                                 | 1                                           | 0                                                 | 20                                         | 0                                        | --                                          | 10                                       |



## SUPPLEMENTAL CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE                                                                                           | DIS-<br>CHARGE<br>(CFS) | DIS-<br>SOLVED<br>SOLIDS<br>(RESI-<br>DUE AT<br>180 C)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTITUENTS)<br>(MG/L) | LOSS<br>ON<br>IGNI-<br>TION<br>(MG/L) | ALKA-<br>LITY<br>AS<br>CAO3<br>(MG/L) | TOTAL<br>ACIDITY<br>AS<br>CAO3<br>(MG/L) | BIO-<br>CHEM-<br>ICAL<br>OXYGEN<br>DEMAND<br>(CN)<br>(MG/L) | CYANIDE<br>(CN)<br>(MG/L) | ORGANIC<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | TOTAL<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | OIL<br>AND<br>GREASE<br>(MG/L) | PHENOLS<br>(UG/L) |
|------------------------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------|---------------------------------------|------------------------------------------|-------------------------------------------------------------|---------------------------|-------------------------------------------|-----------------------------------------|--------------------------------|-------------------|
| MERRIMACK RIVER BASIN                                                                          |                         |                                                                  |                                                                |                                       |                                       |                                          |                                                             |                           |                                           |                                         |                                |                   |
| 01075000 - PEMIGEWASSET RIVER AT WOODSTOCK N H (LAT 43 58 34 LONG 071 40 48)                   |                         |                                                                  |                                                                |                                       |                                       |                                          |                                                             |                           |                                           |                                         |                                |                   |
| JULY, 1971<br>12...                                                                            | 78                      | --                                                               | --                                                             | --                                    | 7                                     | --                                       | --                                                          | --                        | .16                                       | --                                      | --                             | --                |
| SEP<br>14...                                                                                   | 752                     | 47                                                               | 26                                                             | 15                                    | 3                                     | 4                                        | .8                                                          | .00                       | .31                                       | .52                                     | 3.0                            | 1                 |
| NARRAGANSETT BAY                                                                               |                         |                                                                  |                                                                |                                       |                                       |                                          |                                                             |                           |                                           |                                         |                                |                   |
| 01109150 - MOUNT HOPE BAY NEAR BRISTOL R I (LAT 41 39 45 LONG 071 13 45)                       |                         |                                                                  |                                                                |                                       |                                       |                                          |                                                             |                           |                                           |                                         |                                |                   |
| AUG., 1971<br>31...                                                                            | --                      | 32000                                                            | 30410                                                          | 3620                                  | 105                                   | 20                                       | 2.0                                                         | .00                       | .87                                       | .99                                     | 1.0                            | 0                 |
| 01115050 - PROVIDENCE RIVER OFF FIELDS POINT NEAR PROVIDENCE R I (LAT 41 47 15 LONG 071 22 35) |                         |                                                                  |                                                                |                                       |                                       |                                          |                                                             |                           |                                           |                                         |                                |                   |
| AUG., 1971<br>31...                                                                            | --                      | 31900                                                            | 30120                                                          | 3750                                  | 107                                   | 21                                       | 1.0                                                         | .00                       | 1.2                                       | 3.0                                     | 1.0                            | 0                 |
| 01116630 - PROVIDENCE RIVER OFF CONIMICUT POINT NEAR WARWICK R I (LAT 41 43 20 LONG 071 21 00) |                         |                                                                  |                                                                |                                       |                                       |                                          |                                                             |                           |                                           |                                         |                                |                   |
| AUG., 1971<br>31...                                                                            | --                      | 32100                                                            | 29280                                                          | 3770                                  | 108                                   | 18                                       | 3.9                                                         | .01                       | .91                                       | 1.3                                     | 1.0                            | 1                 |
| 01117150 - WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN R I (LAT 41 31 45 LONG 071 24 00)      |                         |                                                                  |                                                                |                                       |                                       |                                          |                                                             |                           |                                           |                                         |                                |                   |
| AUG., 1971<br>31...                                                                            | --                      | 33300                                                            | 30920                                                          | 4040                                  | 109                                   | 20                                       | 2.5                                                         | .00                       | 1.3                                       | 1.4                                     | 1.0                            | 0                 |
| 01117160 - EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN R I (LAT 41 30 45 LONG 071 21 00)      |                         |                                                                  |                                                                |                                       |                                       |                                          |                                                             |                           |                                           |                                         |                                |                   |
| AUG., 1971<br>31...                                                                            | --                      | 33200                                                            | 31240                                                          | 3770                                  | 110                                   | 21                                       | 1.6                                                         | .00                       | .94                                       | .98                                     | 1.0                            | 0                 |
| ST. LAWRENCE RIVER BASIN                                                                       |                         |                                                                  |                                                                |                                       |                                       |                                          |                                                             |                           |                                           |                                         |                                |                   |
| 04294402 - LAKE CHAMPLAIN (EAST BAY) NEAR WHITEHALL N Y (LAT 43 34 55 LONG 073 25 19)          |                         |                                                                  |                                                                |                                       |                                       |                                          |                                                             |                           |                                           |                                         |                                |                   |
| JULY, 1971<br>01...                                                                            | --                      | --                                                               | --                                                             | --                                    | 64                                    | --                                       | --                                                          | --                        | .34                                       | .92                                     | --                             | --                |
| SEP.<br>09...                                                                                  | --                      | 155                                                              | 133                                                            | 28                                    | 87                                    | 1                                        | 3.4                                                         | .01                       | .44                                       | .84                                     | 1.0                            | 0                 |
| 04294408 - LAKE CHAMPLAIN NEAR TICONDEROGA N Y (LAT 43 50 06 LONG 073 23 16)                   |                         |                                                                  |                                                                |                                       |                                       |                                          |                                                             |                           |                                           |                                         |                                |                   |
| JULY, 1971<br>01...                                                                            | --                      | --                                                               | --                                                             | --                                    | 75                                    | --                                       | --                                                          | --                        | .31                                       | .44                                     | --                             | --                |
| SEP.<br>09...                                                                                  | --                      | 121                                                              | 95                                                             | 10                                    | 61                                    | 3                                        | 2.4                                                         | .01                       | .60                                       | .86                                     | 4.0                            | 0                 |
| 04294410 - LAKE CHAMPLAIN NEAR CROWN POINT N Y (LAT 43 55 25 LONG 073 24 20)                   |                         |                                                                  |                                                                |                                       |                                       |                                          |                                                             |                           |                                           |                                         |                                |                   |
| JULY, 1971<br>01...                                                                            | --                      | --                                                               | --                                                             | --                                    | 70                                    | --                                       | --                                                          | --                        | .31                                       | .51                                     | --                             | --                |
| SEP.<br>09...                                                                                  | --                      | 127                                                              | 100                                                            | 30                                    | 65                                    | 1                                        | 2.0                                                         | .00                       | .43                                       | .66                                     | 1.0                            | 0                 |

## ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

SUPPLEMENTAL CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--CONTINUED

| DATE                                                                                           | DIS-<br>CHARGE<br>(CFS) | SILICA<br>(SiO <sub>2</sub> )<br>(MG/L) | DIS-<br>SOLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SOLVED<br>MAN-<br>GANESE<br>(MN)<br>(UG/L) | DIS-<br>SOLVED<br>CAL-<br>CIUM<br>(CA)<br>(MG/L) | DIS-<br>SOLVED<br>MAG-<br>NE-<br>SIUM<br>(MG) | SCDIUM<br>(NA)<br>(MG/L) | PO-<br>TAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO <sub>3</sub> )<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) |
|------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|------------------------------------------|----------------------------------------------------|--------------------------------------------------|-----------------------------------------------|--------------------------|--------------------------------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------|---------------------------------|
| MERRIMACK RIVER BASIN                                                                          |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 01075000 - PEMIGEWASSET RIVER AT WOODSTOCK N H (LAT 43 58 34 LONG 071 40 48)                   |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| JULY, 1971                                                                                     |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 12...                                                                                          | 78                      | --                                      | --                                       | --                                                 | 5.0                                              | --                                            | --                       | --                                   | .11                                       | 8                                                 | --                                      | --                              |
| AUG.                                                                                           |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 09...                                                                                          | 163                     | --                                      | --                                       | --                                                 | --                                               | --                                            | --                       | --                                   | .11                                       | --                                                | --                                      | --                              |
| SEP.                                                                                           |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 14...                                                                                          | 752                     | 6.9                                     | 230                                      | --                                                 | 3.0                                              | .3                                            | 4.0                      | .5                                   | .10                                       | 4                                                 | 7.0                                     | .4                              |
| NARRAGANSETT BAY                                                                               |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 01109150 - MOUNT HOPE BAY NEAR BRISTOL R I (LAT 41 39 45 LONG 071 13 45)                       |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| AUG., 1971                                                                                     |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 31...                                                                                          | --                      | 1.2                                     | --                                       | --                                                 | 350                                              | 1000                                          | 10000                    | 390                                  | .12                                       | 128                                               | 2600                                    | 16000                           |
| 01115050 - PROVIDENCE RIVER OFF FIELDS POINT NEAR PROVIDENCE R I (LAT 41 47 15 LONG 071 22 35) |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| AUG., 1971                                                                                     |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 31...                                                                                          | --                      | 1.4                                     | --                                       | --                                                 | 370                                              | 1000                                          | 10000                    | 380                                  | 1.8                                       | 130                                               | 2300                                    | 16000                           |
| 01116630 - PROVIDENCE RIVER OFF CONIMICUT POINT NEAR WARWICK R I (LAT 41 43 20 LONG 071 21 00) |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| AUG., 1971                                                                                     |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 31...                                                                                          | --                      | 1.4                                     | --                                       | --                                                 | 370                                              | 340                                           | 9900                     | 400                                  | .38                                       | 132                                               | 2200                                    | 16000                           |
| 01117150 - WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN R I (LAT 41 31 45 LONG 071 24 00)      |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| AUG., 1971                                                                                     |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 31...                                                                                          | --                      | 1.1                                     | --                                       | --                                                 | 360                                              | 690                                           | 10000                    | 400                                  | .06                                       | 133                                               | 2400                                    | 17000                           |
| 01117160 - EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN R I (LAT 41 30 45 LONG 071 21 00)      |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| AUG., 1971                                                                                     |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 31...                                                                                          | --                      | .7                                      | --                                       | --                                                 | 370                                              | 1000                                          | 10000                    | 400                                  | .04                                       | 134                                               | 2400                                    | 17000                           |
| ST. LAWRENCE RIVER BASIN                                                                       |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 04294402 - LAKE CHAMPLAIN (EAST BAY) NEAR WHITEHALL, N.Y. (LAT 43 34 55 LONG 073 25 19)        |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| JULY, 1971                                                                                     |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 01...                                                                                          | --                      | --                                      | --                                       | --                                                 | 23                                               | --                                            | --                       | --                                   | .19                                       | 78                                                | --                                      | --                              |
| AUG.                                                                                           |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 03...                                                                                          | --                      | --                                      | --                                       | --                                                 | --                                               | --                                            | --                       | --                                   | .05                                       | --                                                | --                                      | --                              |
| SEP.                                                                                           |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 09...                                                                                          | --                      | 3.8                                     | 70                                       | 0                                                  | 32                                               | 6.7                                           | 5.3                      | 2.0                                  | .09                                       | 106                                               | 20                                      | 8.5                             |
| 04294408 - LAKE CHAMPLAIN NEAR TICONDEROGA, N.Y. (LAT 43 50 06 LONG 073 23 16)                 |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| JULY, 1971                                                                                     |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 01...                                                                                          | --                      | --                                      | --                                       | --                                                 | 28                                               | --                                            | --                       | --                                   | .10                                       | 91                                                | --                                      | --                              |
| AUG.                                                                                           |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 03...                                                                                          | --                      | --                                      | --                                       | --                                                 | --                                               | --                                            | --                       | --                                   | .04                                       | --                                                | --                                      | --                              |
| SEP.                                                                                           |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 09...                                                                                          | --                      | 2.1                                     | 500                                      | 0                                                  | 22                                               | 4.7                                           | 4.1                      | 2.0                                  | .15                                       | 74                                                | 16                                      | 6.0                             |
| 04294410 - LAKE CHAMPLAIN NEAR CROWN POINT, N.Y. (LAT 43 55 25 LONG 073 24 20)                 |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| JULY, 1971                                                                                     |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 01...                                                                                          | --                      | --                                      | --                                       | --                                                 | 25                                               | --                                            | --                       | --                                   | .14                                       | 85                                                | --                                      | --                              |
| AUG.                                                                                           |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 03...                                                                                          | --                      | --                                      | --                                       | --                                                 | --                                               | --                                            | --                       | --                                   | .04                                       | --                                                | --                                      | --                              |
| SEP.                                                                                           |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 09...                                                                                          | --                      | 1.4                                     | 370                                      | 0                                                  | 24                                               | 5.3                                           | 4.8                      | 2.1                                  | .12                                       | 79                                                | 16                                      | 6.8                             |

## SUPPLEMENTAL CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--CONTINUED

| DATE                                                                                           | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTI-<br>TUENTS)<br>(MG/L) | HARD-<br>NESS<br>(CA,MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | PH<br>(UNITS) | COLOR<br>(PLAT-<br>INUM<br>COBALT<br>UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) |
|------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------|--------------------------|-------------------------------------------|---------------------------------------------------------------------|------------------------------------|---------------------------------------------------|------------------------------------------------------------|---------------|---------------------------------------------|----------------------------------|------------------------------------|
| MERRIMACK RIVER BASIN                                                                          |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01075000 - PEMIGEWASSET RIVER AT WOODSTOCK N H (LAT 43 58 34 LONG 071 40 48)                   |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| JULY, 1971                                                                                     |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 12...                                                                                          | --                                               | .010                     | .2                       | .040                                      | --                                                                  | --                                 | --                                                | 52                                                         | 6.4           | --                                          | 17.8                             | 9.0                                |
| AUG.                                                                                           |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 09...                                                                                          | --                                               | .010                     | .1                       | .020                                      | --                                                                  | --                                 | --                                                | 47                                                         | 6.1           | --                                          | 23.0                             | 8.6                                |
| SEP.                                                                                           |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 14...                                                                                          | .6                                               | .010                     | .1                       | .020                                      | 26                                                                  | 9                                  | 5                                                 | 37                                                         | 5.9           | 35                                          | 15.6                             | 9.6                                |
| NARRAGANSETT BAY                                                                               |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01109150 - MCUNT HOPE BAY NEAR BRISTOL R I (LAT 41 39 45 LONG 071 13 45)                       |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| AUG., 1971                                                                                     |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 31...                                                                                          | 2.1                                              | .000                     | .00                      | .16                                       | 30410                                                               | 4990                               | 4885                                              | 41400                                                      | 7.7           | 4                                           | 21.6                             | 7.5                                |
| 01115050 - PROVIDENCE RIVER OFF FIELDS POINT NEAR PROVIDENCE R I (LAT 41 47 15 LONG 071 22 35) |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| AUG., 1971                                                                                     |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 31...                                                                                          | 2.2                                              | .000                     | .00                      | .21                                       | 30120                                                               | 5040                               | 4934                                              | 41200                                                      | 7.6           | 2                                           | 24.1                             | 2.6                                |
| 01116630 - PROVIDENCE RIVER OFF CONIMICUT POINT NEAR WARWICK R I (LAT 41 43 20 LONG 071 21 00) |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| AUG., 1971                                                                                     |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 31...                                                                                          | 2.2                                              | .000                     | .00                      | .19                                       | 29280                                                               | 2323                               | 2215                                              | 41700                                                      | 7.7           | 5                                           | 22.6                             | 4.8                                |
| 01117150 - WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN R I (LAT 41 31 45 LONG 071 24 00)      |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| AUG., 1971                                                                                     |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 31...                                                                                          | 2.2                                              | .000                     | .00                      | .11                                       | 30920                                                               | 3739                               | 3630                                              | 42900                                                      | 7.9           | 3                                           | 20.8                             | 8.8                                |
| 01117160 - EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN R I (LAT 41 30 45 LONG 071 21 00)      |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| AUG., 1971                                                                                     |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 31...                                                                                          | 2.2                                              | .000                     | .00                      | .090                                      | 31240                                                               | 5040                               | 4930                                              | 42700                                                      | 7.9           | 5                                           | 18.9                             | 9.7                                |
| ST. LAWRENCE RIVER BASIN                                                                       |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 04294402 - LAKE CHAMPLAIN (EAST BAY) NEAR WHITEHALL, N.Y. (LAT 43 34 55 LONG 073 25 19)        |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| JULY, 1971                                                                                     |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01...                                                                                          | --                                               | .020                     | .4                       | .050                                      | --                                                                  | --                                 | --                                                | 202                                                        | 7.9           | --                                          | 24.0                             | 6.7                                |
| AUG.                                                                                           |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 03...                                                                                          | --                                               | .010                     | .2                       | .10                                       | --                                                                  | --                                 | --                                                | 224                                                        | 7.9           | --                                          | 24.5                             | --                                 |
| SEP.                                                                                           |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 09...                                                                                          | .1                                               | .010                     | .3                       | .060                                      | 133                                                                 | 110                                | 21                                                | 246                                                        | 8.1           | 11                                          | 23.0                             | 7.9                                |
| 04294408 - LAKE CHAMPLAIN NEAR TICONDEROGA, N.Y. (LAT 43 50 06 LONG 073 23 16)                 |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| JULY, 1971                                                                                     |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01...                                                                                          | --                                               | .010                     | .02                      | .030                                      | --                                                                  | --                                 | --                                                | 193                                                        | 7.8           | --                                          | 23.5                             | 7.5                                |
| AUG.                                                                                           |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 03...                                                                                          | --                                               | .000                     | .00                      | .040                                      | --                                                                  | --                                 | --                                                | 165                                                        | 8.1           | --                                          | 24.0                             | --                                 |
| SEP.                                                                                           |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 09...                                                                                          | .1                                               | .010                     | .1                       | .040                                      | 95                                                                  | 74                                 | 14                                                | 178                                                        | 8.2           | 32                                          | 23.0                             | 7.4                                |
| 04294410 - LAKE CHAMPLAIN NEAR CROWN POINT, N.Y. (LAT 43 55 25 LONG 073 24 20)                 |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| JULY, 1971                                                                                     |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01...                                                                                          | --                                               | .010                     | .05                      | .030                                      | --                                                                  | --                                 | --                                                | 195                                                        | 8.3           | --                                          | 23.5                             | 7.9                                |
| AUG.                                                                                           |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 03...                                                                                          | --                                               | .000                     | .00                      | .060                                      | --                                                                  | --                                 | --                                                | 222                                                        | 8.2           | --                                          | 23.0                             | --                                 |
| SEP.                                                                                           |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 09...                                                                                          | .0                                               | .010                     | .1                       | .040                                      | 100                                                                 | 92                                 | 17                                                | 190                                                        | 8.3           | 8                                           | 22.5                             | 7.5                                |

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS  
CHEMICAL ANALYSES OF COMPOSITED SAMPLES, IN MICROGRAMS PER LITER

| DATE                                                                                             | NUMBER<br>OF<br>SAMPLES | ALUM-<br>INUM<br>(AL) | ANTI-<br>MONY<br>(SB) | ARSE-<br>NIC<br>(AS) | BAR-<br>IUM<br>(BA) | BERYL-<br>LIUM<br>(BE) | BIS-<br>MUTH<br>(BI) | BORON<br>(B) | CAD-<br>MIUM<br>(CD) | CHRO-<br>MIUM<br>(CR) | CO-<br>BALT<br>(CO) | COP-<br>PER<br>(CU) | GAL-<br>LIUM<br>(GA) | GER-<br>MA-<br>NIUM<br>(GE) | IRON<br>(FE) | LAN-<br>THA-<br>NIUM<br>(LA) |
|--------------------------------------------------------------------------------------------------|-------------------------|-----------------------|-----------------------|----------------------|---------------------|------------------------|----------------------|--------------|----------------------|-----------------------|---------------------|---------------------|----------------------|-----------------------------|--------------|------------------------------|
| MERRIMACK RIVER BASIN                                                                            |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| 01075000 PEMIGEWASSET RIVER AT WOODSTOCK, N.H. (LAT 43°58'34" LONG 71°40'48")                    |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| JUL-OCT 1970                                                                                     | 4                       | 260                   | --                    | --                   | 12                  | <1                     | <1                   | 11           | <9                   | <10                   | <1                  | 57                  | --                   | <1                          | 540          | --                           |
| 01096550 MERRIMACK RIVER ABOVE LOWELL, MASS. (LAT 42°38'20" LONG 71°22'17")                      |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| JUL-DEC 1970                                                                                     | 6                       | 45                    | --                    | --                   | 18                  | <1                     | <2                   | 20           | <14                  | 10                    | <1                  | 15                  | --                   | <2                          | 230          | --                           |
| JAN-JUN 1971                                                                                     | 6                       | 510                   | --                    | --                   | 16                  | <1                     | <2                   | 19           | <5                   | <10                   | <1                  | 18                  | <1                   | <2                          | 200          | --                           |
| NARRAGANSETT BAY                                                                                 |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| 01109150 MOUNT HOPE BAY NEAR BRISTOL, R.I. (LAT 41°39'45" LONG 71°13'45")                        |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| SEP-DEC 1970                                                                                     | 2                       | 340                   | <5                    | <22                  | <95                 | <1                     | <1                   | 2200         | <10                  | <10                   | <2                  | <22                 | --                   | <470                        | 56           | <5                           |
| 3-1, 6-16-71                                                                                     | 2                       | 260                   | <3                    | <100                 | <90                 | <1                     | <1                   | 2900         | <10                  | <10                   | <1                  | <22                 | <90                  | <450                        | 360          | <5                           |
| 01115050 PROVIDENCE RIVER OFF FIELDS POINT, NEAR PROVIDENCE, R.I. (LAT 41°47'15" LONG 71°22'35") |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| 9-3, 12-1-70                                                                                     | 2                       | 670                   | <5                    | <22                  | <90                 | <1                     | <1                   | 2100         | <10                  | <10                   | <2                  | <22                 | --                   | <450                        | 180          | <5                           |
| 3-1, 6-16-71                                                                                     | 2                       | 280                   | <3                    | <100                 | <85                 | <1                     | <1                   | 2200         | <10                  | <10                   | <1                  | <22                 | <85                  | <420                        | 630          | <5                           |
| 01116630 PROVIDENCE RIVER OFF CONIMICUT POINT, NEAR WARWICK, R.I. (LAT 41°43'20" LONG 71°21'00") |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| 9-3, 12-1-70                                                                                     | 2                       | 590                   | <5                    | <22                  | <95                 | <1                     | <1                   | 2300         | <10                  | <10                   | <2                  | <22                 | --                   | <460                        | 120          | <5                           |
| 3-1, 6-16-71                                                                                     | 2                       | 250                   | <3                    | <100                 | <85                 | <1                     | <1                   | 2500         | <10                  | <10                   | <1                  | <22                 | <85                  | <420                        | 460          | <5                           |
| 01117150 WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41°31'45" LONG 71°24'00")       |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| 9-3, 12-1-70                                                                                     | 2                       | 800                   | <5                    | <22                  | 97                  | <1                     | <1                   | 2600         | <10                  | <10                   | <2                  | <22                 | --                   | <490                        | 38           | <5                           |
| 3-1, 6-16-71                                                                                     | 2                       | 390                   | <3                    | <100                 | <95                 | <1                     | <1                   | 2900         | <10                  | <10                   | <1                  | <22                 | <95                  | <470                        | 490          | <5                           |
| 01117160 EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41°30'45" LONG 71°21'00")       |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| 9-3, 12-1-70                                                                                     | 2                       | 770                   | <5                    | <22                  | <100                | <1                     | <1                   | 2200         | <10                  | <10                   | <2                  | <22                 | --                   | <500                        | 18           | <5                           |
| 3-1, 6-16-71                                                                                     | 2                       | 150                   | <3                    | <100                 | <95                 | <1                     | <1                   | 2900         | <10                  | <10                   | <1                  | <22                 | <95                  | <480                        | 210          | <5                           |
| CONNECTICUT RIVER BASIN                                                                          |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| 01141900 CONNECTICUT RIVER AT WILDER, VT. (LAT 43°40'04" LONG 72°18'13")                         |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| JUL-DEC 1970                                                                                     | 6                       | 48                    | --                    | --                   | 16                  | <1                     | <2                   | 9            | <14                  | <10                   | <1                  | 13                  | --                   | <2                          | 250          | --                           |
| JAN-JUN 1971                                                                                     | 6                       | 76                    | --                    | --                   | 17                  | <1                     | <2                   | 12           | <6                   | <10                   | <1                  | 14                  | <1                   | <2                          | 180          | --                           |
| 01161200 CONNECTICUT RIVER AT NORTHFIELD, MASS. (LAT 42°42'44" LONG 72°27'14")                   |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| JUL-NOV 1970                                                                                     | 5                       | 35                    | --                    | --                   | 19                  | <1                     | <2                   | 9            | <20                  | <10                   | <2                  | 16                  | --                   | <2                          | 120          | --                           |
| APR-JUN 1971                                                                                     | 3                       | 51                    | --                    | --                   | 10                  | <1                     | <2                   | 4            | <5                   | <10                   | <1                  | 15                  | <1                   | <2                          | 76           | --                           |
| 01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN. (LAT 41°59'14" LONG 72°36'21")                |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| JUL-DEC 1970                                                                                     | 6                       | 66                    | --                    | --                   | 33                  | <1                     | <2                   | 31           | <20                  | <10                   | <2                  | 12                  | --                   | <2                          | 220          | --                           |
| JAN-JUN 1971                                                                                     | 6                       | 110                   | --                    | --                   | 26                  | <1                     | <1                   | 19           | <6                   | <10                   | <1                  | 9                   | <1                   | <1                          | 230          | --                           |
| HUDSON RIVER BASIN                                                                               |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| 01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS. (LAT 42°44'28" LONG 73°12'47")                   |                         |                       |                       |                      |                     |                        |                      |              |                      |                       |                     |                     |                      |                             |              |                              |
| JUL-DEC 1970                                                                                     | 6                       | 200                   | --                    | --                   | 25                  | <1                     | <5                   | 44           | <45                  | 30                    | <3                  | 3                   | --                   | <5                          | 70           | --                           |
| JAN-JUN 1971                                                                                     | 6                       | 190                   | --                    | --                   | 21                  | <1                     | <3                   | 44           | <12                  | 20                    | <1                  | 3                   | <1                   | <3                          | 67           | --                           |

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS  
CHEMICAL ANALYSES OF COMPOSITED SAMPLES, IN MICROGRAMS PER LITER

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| LEAD<br>(PB)                                                                                     | LITH-<br>IUM<br>(LI) | MAN-<br>GANESE<br>(MN) | MOLYB-<br>DENUM<br>(MO) | NICKEL<br>(NI) | RU-<br>BID-<br>IUM<br>(RB) | SILVER<br>(AG) | STRON-<br>TIUM<br>(SR) | TIN<br>(SN) | TITA-<br>NIUM<br>(TI) | VANA-<br>DIUM<br>(V) | YTTER-<br>BIUM<br>(YB) | YTTRIUM<br>(Y) | ZINC<br>(ZN) | ZIRCO-<br>NIUM<br>(ZR) | DIS-<br>SOLVED<br>SOLIDS<br>(RESI-<br>DUE AT<br>180°C)<br>(MG/L) |
|--------------------------------------------------------------------------------------------------|----------------------|------------------------|-------------------------|----------------|----------------------------|----------------|------------------------|-------------|-----------------------|----------------------|------------------------|----------------|--------------|------------------------|------------------------------------------------------------------|
| MERRIMACK RIVER BASIN                                                                            |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 01075000 PEMIGEWASSET RIVER AT WOODSTOCK, N.H. (LAT 43°58'34" LONG 71°40'48")                    |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 70                                                                                               | <1                   | 150                    | <1                      | 3              | 3                          | <1             | 20                     | 2           | 4                     | <1                   | --                     | --             | 230          | --                     | 57                                                               |
| 01096550 MERRIMACK RIVER ABOVE LOWELL, MASS. (LAT 42°38'20" LONG 71°22'17")                      |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 13                                                                                               | 1                    | 70                     | <1                      | 5              | 3                          | <1             | 67                     | <1          | 1                     | 1                    | --                     | --             | <40          | --                     | 91                                                               |
| 10                                                                                               | 1                    | 67                     | <1                      | 5              | 2                          | <1             | 34                     | 3           | 2                     | <1                   | --                     | --             | 41           | <1                     | 73                                                               |
| NARRAGANSETT BAY                                                                                 |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 01109150 MOUNT HOPE BAY NEAR BRISTOL, R.I. (LAT 41°39'45" LONG 71°13'45")                        |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 56                                                                                               | 150                  | 6                      | 25                      | 6              | <130                       | <1             | 9800                   | <280        | 4                     | <470                 | <1                     | <1             | 24           | <20                    | 31200                                                            |
| 32                                                                                               | 110                  | 13                     | 18                      | 160            | --                         | <1             | 9500                   | <90         | 12                    | <270                 | <1                     | <1             | 51           | <1                     | 29403                                                            |
| 01115050 PROVIDENCE RIVER OFF FIELDS POINT, NEAR PROVIDENCE, R.I. (LAT 41°47'15" LONG 71°22'35") |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 54                                                                                               | 150                  | 13                     | 20                      | 20             | <120                       | <1             | 9700                   | <270        | 10                    | <450                 | <1                     | <1             | 34           | <20                    | 29900                                                            |
| 24                                                                                               | 120                  | 30                     | 24                      | 26             | --                         | <1             | 7300                   | <85         | 13                    | <250                 | <1                     | <1             | 53           | <1                     | 27900                                                            |
| 01116630 PROVIDENCE RIVER OFF CONIMICUT POINT, NEAR WARWICK, R.I. (LAT 41°43'20" LONG 71°21'00") |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 50                                                                                               | 140                  | 12                     | 20                      | 16             | <120                       | <1             | 9800                   | <280        | 8                     | <460                 | <1                     | <1             | 26           | <20                    | 30400                                                            |
| 22                                                                                               | 110                  | 22                     | 14                      | 120            | --                         | <1             | 7600                   | <85         | 11                    | <260                 | <1                     | <1             | 22           | <1                     | 28100                                                            |
| 01117150 WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41°31'45" LONG 71°24'00")       |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 56                                                                                               | 150                  | 3                      | 22                      | 4              | <130                       | <1             | 10000                  | <290        | 3                     | <490                 | <1                     | <1             | 32           | <20                    | 32400                                                            |
| 18                                                                                               | 120                  | 7                      | 19                      | 48             | --                         | <1             | 9100                   | <95         | 15                    | <290                 | <1                     | <1             | <22          | <1                     | 31400                                                            |
| 01117160 EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41°30'45" LONG 71°21'00")       |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 22                                                                                               | 160                  | <2                     | 18                      | <3             | <140                       | <1             | 11000                  | <300        | 2                     | <500                 | <1                     | <1             | <22          | <20                    | 33200                                                            |
| 14                                                                                               | 120                  | 2                      | 22                      | 5              | --                         | <1             | 10000                  | <95         | 6                     | <290                 | <1                     | <1             | <22          | <1                     | 31900                                                            |
| CONNECTICUT RIVER BASIN                                                                          |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 01141900 CONNECTICUT RIVER AT WILDER, VT. (LAT 43°40'04" LONG 72°18'13")                         |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 4                                                                                                | 1                    | 65                     | <1                      | 2              | 4                          | <1             | 70                     | <1          | 2                     | <1                   | --                     | --             | <40          | --                     | 91                                                               |
| 3                                                                                                | <1                   | 69                     | <1                      | 5              | 2                          | <1             | 42                     | <2          | 2                     | <1                   | --                     | --             | <52          | <1                     | 80                                                               |
| 01161200 CONNECTICUT RIVER AT NORTHFIELD, MASS. (LAT 42°42'44" LONG 72°27'14")                   |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 30                                                                                               | 1                    | 17                     | <1                      | 2              | 3                          | <1             | 94                     | <2          | 2                     | <1                   | --                     | --             | 56           | --                     | 116                                                              |
| 14                                                                                               | <1                   | 34                     | <1                      | 2              | 1                          | <1             | 36                     | <2          | 2                     | <1                   | --                     | --             | 53           | <1                     | 74                                                               |
| 01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN. (LAT 41°59'14" LONG 72°36'21")                |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 5                                                                                                | 1                    | 56                     | <1                      | 9              | 4                          | <1             | 100                    | <2          | 1                     | 3                    | --                     | --             | <65          | --                     | --                                                               |
| 7                                                                                                | <1                   | 53                     | <1                      | 8              | 2                          | <1             | 51                     | <13         | 5                     | 3                    | --                     | --             | <60          | <3                     | --                                                               |
| HUDSON RIVER BASIN                                                                               |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS. (LAT 42°44'28" LONG 73°12'47")                   |                      |                        |                         |                |                            |                |                        |             |                       |                      |                        |                |              |                        |                                                                  |
| 3                                                                                                | 3                    | 100                    | <1                      | <4             | 2                          | <1             | 73                     | <3          | <3                    | <2                   | --                     | --             | <130         | --                     | 276                                                              |
| 3                                                                                                | 4                    | 58                     | <1                      | 5              | 1                          | <1             | 45                     | <3          | <2                    | <2                   | --                     | --             | <120         | <2                     | 182                                                              |

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS  
INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE                                                                                           | TEMPERATURE<br>(DEG C) | DISCHARGE<br>(CFS) | SUSPENDED<br>SEDIMENT<br>(MG/L) | SUSPENDED<br>SEDIMENT<br>DISCHARGE<br>(T/DAY) | TURBIDITY<br>(JTU) | SPECIFIC<br>CONDUCTANCE<br>(MICRO-<br>MHOS) |
|------------------------------------------------------------------------------------------------|------------------------|--------------------|---------------------------------|-----------------------------------------------|--------------------|---------------------------------------------|
| MERRIMACK RIVER BASIN                                                                          |                        |                    |                                 |                                               |                    |                                             |
| 01076500 - PEMIGEWASSET RIVER AT PLYMOUTH N H (LAT 43 45 33 LONG 071 41 10)                    |                        |                    |                                 |                                               |                    |                                             |
| OCT., 1970                                                                                     |                        |                    |                                 |                                               |                    |                                             |
| 22...                                                                                          | 8.0                    | 610                | 13                              | 21                                            | 2                  | 49                                          |
| NOV.                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 19...                                                                                          | 4.0                    | 487                | 9                               | 12                                            | 2                  | 50                                          |
| DEC.                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 22...                                                                                          | .0                     | 430                | 2                               | 2.3                                           | 1                  | 55                                          |
| JAN., 1971                                                                                     |                        |                    |                                 |                                               |                    |                                             |
| 25...                                                                                          | .0                     | 340                | 9                               | 8.3                                           | 1                  | 58                                          |
| FEB.                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 22...                                                                                          | .0                     | 570                | 6                               | 9.2                                           | 2                  | 53                                          |
| MAR.                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 24...                                                                                          | .5                     | 600                | 4                               | 6.5                                           | 3                  | 69                                          |
| MAY                                                                                            |                        |                    |                                 |                                               |                    |                                             |
| 21...                                                                                          | 10.5                   | 4180               | 2                               | 23                                            | 4                  | 32                                          |
| JUNE                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 23...                                                                                          | 22.0                   | 374                | 29                              | 29                                            | --                 | --                                          |
| AUG.                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 10...                                                                                          | 24.5                   | 319                | 22                              | 19                                            | 2                  | 56                                          |
| 23...                                                                                          | 21.0                   | 200                | 41                              | 22                                            | 4                  | 66                                          |
| SEP.                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 23...                                                                                          | 14.5                   | 454                | 12                              | 15                                            | 2                  | 47                                          |
| 01089000 - SOUCCOOK RIVER NEAR CONCORD N H (LAT 43 14 22 LONG 071 27 44)                       |                        |                    |                                 |                                               |                    |                                             |
| FEB., 1971                                                                                     |                        |                    |                                 |                                               |                    |                                             |
| 03...                                                                                          | .0                     | 48                 | 9                               | 1.2                                           | 1                  | 59                                          |
| MAY                                                                                            |                        |                    |                                 |                                               |                    |                                             |
| 24...                                                                                          | 11.0                   | 133                | 5                               | 1.8                                           | 2                  | 48                                          |
| AUG.                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 04...                                                                                          | 21.0                   | 37                 | 3                               | .30                                           | 3                  | 66                                          |
| SEP.                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 08...                                                                                          | 19.0                   | 9.2                | 0                               | .00                                           | 2                  | 70                                          |
| 01094000 - SOUHEGAN RIVER AT MERRIMACK N H (LAT 42 51 27 LONG 071 30 24)                       |                        |                    |                                 |                                               |                    |                                             |
| NOV., 1970                                                                                     |                        |                    |                                 |                                               |                    |                                             |
| 03...                                                                                          | 5.0                    | 51                 | 11                              | 1.5                                           | 2                  | 102                                         |
| JAN., 1971                                                                                     |                        |                    |                                 |                                               |                    |                                             |
| 22...                                                                                          | .0                     | 80                 | 10                              | 2.2                                           | 3                  | 89                                          |
| MAY                                                                                            |                        |                    |                                 |                                               |                    |                                             |
| 11...                                                                                          | 15.5                   | 598                | 10                              | 16                                            | 1                  | 93                                          |
| JUNE                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 15...                                                                                          | 20.5                   | 75                 | 7                               | 1.4                                           | 1                  | 66                                          |
| JULY                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 20...                                                                                          | 26.5                   | 39                 | 10                              | 1.1                                           | 3                  | 108                                         |
| AUG.                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 31...                                                                                          | 15.5                   | 47                 | 4                               | .51                                           | 2                  | 97                                          |
| 01097000 - ASSABET RIVER AT MAYNARD MASS (LAT 42 25 55 LONG 071 27 01)                         |                        |                    |                                 |                                               |                    |                                             |
| OCT., 1970                                                                                     |                        |                    |                                 |                                               |                    |                                             |
| 21...                                                                                          | 13.0                   | 23                 | 6                               | .37                                           | 3                  | 205                                         |
| DEC.                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 30...                                                                                          | .0                     | 104                | 0                               | .00                                           | --                 | --                                          |
| MAY, 1971                                                                                      |                        |                    |                                 |                                               |                    |                                             |
| 24...                                                                                          | 18.0                   | 239                | 2                               | 1.3                                           | 3                  | 151                                         |
| JUNE                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 25...                                                                                          | 24.5                   | 51                 | 2                               | .28                                           | 3                  | 181                                         |
| AUG.                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 02...                                                                                          | 26.0                   | 45                 | 1                               | .12                                           | 3                  | 207                                         |
| 01099500 - CONCORD RIVER BELOW RIVER MEADOW BROOK AT LOWELL MASS (LAT 42 38 12 LONG 071 18 09) |                        |                    |                                 |                                               |                    |                                             |
| MAR., 1971                                                                                     |                        |                    |                                 |                                               |                    |                                             |
| 17...                                                                                          | 3.0                    | 1660               | 13                              | 58                                            | 3                  | 214                                         |
| MAY                                                                                            |                        |                    |                                 |                                               |                    |                                             |
| 20...                                                                                          | --                     | 1160               | 13                              | 41                                            | 3                  | 182                                         |
| JULY                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 15...                                                                                          | 27.0                   | 66                 | 16                              | 2.9                                           | 4                  | 306                                         |
| AUG.                                                                                           |                        |                    |                                 |                                               |                    |                                             |
| 19...                                                                                          | 28.0                   | 63                 | 31                              | 5.3                                           | 2                  | 304                                         |



INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971, --Continued

| DATE                                                                                       | TEMPERATURE<br>(DEG C) | DISCHARGE<br>(CFS) | SUSPENDED<br>SEDIMENT<br>(MG/L) | SUSPENDED<br>SEDIMENT<br>DISCHARGE<br>(T/DAY) | TURBIDITY<br>(JTU) | SPECIFIC<br>CONDUCTANCE<br>(MICRO-<br>MHOS) |
|--------------------------------------------------------------------------------------------|------------------------|--------------------|---------------------------------|-----------------------------------------------|--------------------|---------------------------------------------|
| TAUNTON RIVER BASIN                                                                        |                        |                    |                                 |                                               |                    |                                             |
| 01108000 - TAUNTON RIVER AT STATE FARM NEAR BRIDGEWATER MASS (LAT 41 56 05 LONG 070 57 18) |                        |                    |                                 |                                               |                    |                                             |
| OCT., 1970                                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 22...                                                                                      | 14.0                   | 94                 | 14                              | 3.6                                           | 3                  | 218                                         |
| DEC.                                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 21...                                                                                      | 3.0                    | 786                | 16                              | 34                                            | 2                  | 180                                         |
| JAN., 1971                                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 25...                                                                                      | 2.0                    | 227                | 8                               | 4.9                                           | 3                  | 207                                         |
| MAR.                                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 23...                                                                                      | 5.0                    | 926                | 0                               | .00                                           | 4                  | 134                                         |
| APR.                                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 22...                                                                                      | 11.0                   | 409                | 24                              | 27                                            | --                 | --                                          |
| JULY                                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 13...                                                                                      | --                     | 53                 | 6                               | .86                                           | 6                  | 232                                         |
| SEP.                                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 28...                                                                                      | 17.0                   | 58                 | 8                               | 1.3                                           | 5                  | 286                                         |
| PAWCATUCK RIVER BASIN                                                                      |                        |                    |                                 |                                               |                    |                                             |
| 01117800 - WOOD RIVER NEAR ARCADIA R I (LAT 41 34 26 LONG 071 43 16)                       |                        |                    |                                 |                                               |                    |                                             |
| DEC., 1970                                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 05...                                                                                      | 3.5                    | 46                 | 11                              | 1.4                                           | 3                  | 37                                          |
| APR., 1971                                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 14...                                                                                      | 9.5                    | 103                | 4                               | 1.1                                           | 1                  | 39                                          |
| MAY                                                                                        |                        |                    |                                 |                                               |                    |                                             |
| 25...                                                                                      | 16.5                   | 72                 | 2                               | .39                                           | 1                  | 38                                          |
| SEP.                                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 15...                                                                                      | 19.0                   | 30                 | 11                              | .89                                           | 4                  | 42                                          |
| CONNECTICUT RIVER BASIN                                                                    |                        |                    |                                 |                                               |                    |                                             |
| 01135500 - PASSUMPSIC RIVER AT PASSUMPSIC VT (LAT 44 21 56 LONG 072 02 23)                 |                        |                    |                                 |                                               |                    |                                             |
| NOV., 1970                                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 06...                                                                                      | 5.5                    | 199                | 5                               | 2.7                                           | 1                  | 204                                         |
| JUNE, 1971                                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 02...                                                                                      | 15.0                   | 558                | 17                              | 26                                            | 3                  | 157                                         |
| 01137500 - AMMONOOSUC RIVER AT BETHLEHEM JUNCTION N H (LAT 44 16 08 LONG 071 37 52)        |                        |                    |                                 |                                               |                    |                                             |
| NOV., 1970                                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 05...                                                                                      | 3.5                    | 79                 | 4                               | .85                                           | 1                  | 43                                          |
| JAN., 1971                                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 29...                                                                                      | .0                     | 47                 | 8                               | 1.0                                           | 1                  | 53                                          |
| MAR.                                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 11...                                                                                      | 1.0                    | 49                 | 0                               | .00                                           | --                 | --                                          |
| JUNE                                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 04...                                                                                      | --                     | 311                | 0                               | .00                                           | 4                  | 29                                          |
| AUG.                                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 23...                                                                                      | 16.0                   | 105                | 4                               | 1.1                                           | 2                  | 176                                         |
| 01144000 - WHITE RIVER AT WEST HARTFORD VT (LAT 43 42 51 LONG 072 25 07)                   |                        |                    |                                 |                                               |                    |                                             |
| OCT., 1970                                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 27...                                                                                      | 9.5                    | 443                | 6                               | 7.2                                           | 1                  | 130                                         |
| APR., 1971                                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 23...                                                                                      | 4.0                    | 5960               | 20                              | 322                                           | --                 | --                                          |
| MAY                                                                                        |                        |                    |                                 |                                               |                    |                                             |
| 21...                                                                                      | 15.0                   | 1630               | 6                               | 26                                            | 1                  | 130                                         |
| JUNE                                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 22...                                                                                      | 22.0                   | 318                | 8                               | 6.9                                           | 2                  | 226                                         |
| JULY                                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 22...                                                                                      | 21.5                   | 223                | 6                               | 3.6                                           | 1                  | 196                                         |
| AUG.                                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 20...                                                                                      | 23.0                   | 122                | 30                              | 9.9                                           | 3                  | 213                                         |
| SEP.                                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 16...                                                                                      | 19.5                   | 543                | 0                               | .00                                           | 1                  | 159                                         |

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS  
INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE                                                                                    | TEM-<br>PERA-<br>TURE<br>(DEG C) | DIS-<br>CHARGE<br>(CFS) | SUS-<br>PEN-<br>DED<br>SEDI-<br>MENT<br>(MG/L) | SUS-<br>PEN-<br>DED<br>SEDI-<br>MENT<br>DIS-<br>CHARGE<br>(T/DAY) | TUR-<br>BID-<br>ITY<br>(JTU) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) |
|-----------------------------------------------------------------------------------------|----------------------------------|-------------------------|------------------------------------------------|-------------------------------------------------------------------|------------------------------|------------------------------------------------------------|
| CONNECTICUT RIVER BASIN.--CONTINUED                                                     |                                  |                         |                                                |                                                                   |                              |                                                            |
| 01153500 - WILLIAMS RIVER AT BROCKWAYS MILLS VT (LAT 43 12 31 LONG 072 31 05)           |                                  |                         |                                                |                                                                   |                              |                                                            |
| DEC., 1970                                                                              |                                  |                         |                                                |                                                                   |                              |                                                            |
| 02...                                                                                   | 5.0                              | 79                      | 12                                             | 2.6                                                               | 1                            | 91                                                         |
| FEB., 1971                                                                              |                                  |                         |                                                |                                                                   |                              |                                                            |
| 11...                                                                                   | .0                               | 55                      | 6                                              | .89                                                               | 1                            | 101                                                        |
| APR.                                                                                    |                                  |                         |                                                |                                                                   |                              |                                                            |
| 19...                                                                                   | 6.5                              | 746                     | 5                                              | 10                                                                | 9                            | 121                                                        |
| MAY                                                                                     |                                  |                         |                                                |                                                                   |                              |                                                            |
| 21...                                                                                   | 13.5                             | 166                     | 0                                              | .00                                                               | 15                           | 81                                                         |
| JULY                                                                                    |                                  |                         |                                                |                                                                   |                              |                                                            |
| 02...                                                                                   | 20.0                             | 22                      | 6                                              | .36                                                               | 5                            | 143                                                        |
| AUG.                                                                                    |                                  |                         |                                                |                                                                   |                              |                                                            |
| 17...                                                                                   | --                               | 11                      | 1                                              | .03                                                               | 2                            | 159                                                        |
| 01167800 - BEAVER BROOK AT WILMINGTON VT (LAT 42 51 38 LONG 072 51 04)                  |                                  |                         |                                                |                                                                   |                              |                                                            |
| DEC., 1970                                                                              |                                  |                         |                                                |                                                                   |                              |                                                            |
| 11...                                                                                   | .5                               | 10                      | 19                                             | .51                                                               | 2                            | 52                                                         |
| MAR., 1971                                                                              |                                  |                         |                                                |                                                                   |                              |                                                            |
| 10...                                                                                   | .0                               | 9.9                     | 3                                              | .08                                                               | 4                            | 69                                                         |
| APR.                                                                                    |                                  |                         |                                                |                                                                   |                              |                                                            |
| 22...                                                                                   | 6.5                              | 74                      | 11                                             | 2.2                                                               | 9                            | 38                                                         |
| MAY                                                                                     |                                  |                         |                                                |                                                                   |                              |                                                            |
| 25...                                                                                   | 15.0                             | 8.8                     | 4                                              | .10                                                               | 8                            | 50                                                         |
| AUG.                                                                                    |                                  |                         |                                                |                                                                   |                              |                                                            |
| 12...                                                                                   | --                               | 1.8                     | 6                                              | .03                                                               | 2                            | 90                                                         |
| 01181000 - WEST BRANCH WESTFIELD RIVER AT HUNTINGTON MASS (LAT 42 14 14 LONG 072 53 46) |                                  |                         |                                                |                                                                   |                              |                                                            |
| MAR., 1971                                                                              |                                  |                         |                                                |                                                                   |                              |                                                            |
| 03...                                                                                   | 1.0                              | 228                     | 22                                             | 14                                                                | 2                            | 95                                                         |
| SEP.                                                                                    |                                  |                         |                                                |                                                                   |                              |                                                            |
| 22...                                                                                   | 17.5                             | 115                     | 2                                              | .62                                                               | 1                            | 509                                                        |
| 01183500 - WESTFIELD RIVER NEAR WESTFIELD MASS (LAT 42 06 24 LONG 072 41 58)            |                                  |                         |                                                |                                                                   |                              |                                                            |
| DEC., 1970                                                                              |                                  |                         |                                                |                                                                   |                              |                                                            |
| 04...                                                                                   | 5.5                              | 535                     | 18                                             | 26                                                                | --                           | --                                                         |
| FEB., 1971                                                                              |                                  |                         |                                                |                                                                   |                              |                                                            |
| 16...                                                                                   | .0                               | 760                     | 24                                             | 49                                                                | 20                           | 138                                                        |
| SEP.                                                                                    |                                  |                         |                                                |                                                                   |                              |                                                            |
| 27...                                                                                   | 16.5                             | 176                     | 3                                              | 1.4                                                               | 5                            | 159                                                        |
| HOUSATONIC RIVER BASIN                                                                  |                                  |                         |                                                |                                                                   |                              |                                                            |
| 01197500 - HOUSATONIC RIVER NEAR GREAT BARRINGTON MASS (LAT 42 13 55 LONG 073 21 19)    |                                  |                         |                                                |                                                                   |                              |                                                            |
| SEP., 1971                                                                              |                                  |                         |                                                |                                                                   |                              |                                                            |
| 21...                                                                                   | 19.0                             | 355                     | 18                                             | 17                                                                | 14                           | 274                                                        |
| 01198000 - GREEN RIVER NEAR GREAT BARRINGTON MASS (LAT 42 11 31 LONG 073 23 28)         |                                  |                         |                                                |                                                                   |                              |                                                            |
| DEC., 1970                                                                              |                                  |                         |                                                |                                                                   |                              |                                                            |
| 06...                                                                                   | 3.5                              | 56                      | 6                                              | .91                                                               | --                           | --                                                         |
| MAR., 1971                                                                              |                                  |                         |                                                |                                                                   |                              |                                                            |
| 03...                                                                                   | .5                               | 189                     | 31                                             | 16                                                                | 4                            | 168                                                        |
| APR.                                                                                    |                                  |                         |                                                |                                                                   |                              |                                                            |
| 30...                                                                                   | 7.0                              | 136                     | 3                                              | 1.1                                                               | 1                            | 145                                                        |
| JUNE                                                                                    |                                  |                         |                                                |                                                                   |                              |                                                            |
| 16...                                                                                   | 19.0                             | 21                      | 9                                              | .51                                                               | 1                            | 219                                                        |

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE                                                                       | TEMPERATURE<br>(DEG C) | DISCHARGE<br>(CFS) | SUSPENDED<br>SEDIMENT<br>(MG/L) | SUSPENDED<br>SEDIMENT<br>DISCHARGE<br>(T/DAY) | TURBIDITY<br>(JTU) | SPECIFIC<br>CONDUCTANCE<br>(MICRO-<br>MHOS) |
|----------------------------------------------------------------------------|------------------------|--------------------|---------------------------------|-----------------------------------------------|--------------------|---------------------------------------------|
| ST. LAWRENCE RIVER BASIN                                                   |                        |                    |                                 |                                               |                    |                                             |
| 04282500 - OTTER CREEK AT MIDDLEBURY VT (LAT 44 00 47 LONG 073 10 06)      |                        |                    |                                 |                                               |                    |                                             |
| NOV., 1970                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 04...                                                                      | 9.0                    | 367                | 9                               | 8.9                                           | 1                  | 200                                         |
| DEC.                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 16...                                                                      | --                     | 540                | 6                               | 8.7                                           | --                 | --                                          |
| MAR., 1971                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 10...                                                                      | .0                     | 724                | 0                               | .00                                           | --                 | --                                          |
| APR.                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 21...                                                                      | 8.0                    | 2970               | 13                              | 104                                           | --                 | --                                          |
| JUNE                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 02...                                                                      | 16.0                   | 1070               | 4                               | 12                                            | 2                  | 185                                         |
| JULY                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 08...                                                                      | 20.5                   | 249                | 20                              | 13                                            | 4                  | 221                                         |
| AUG.                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 12...                                                                      | 22.0                   | 362                | 2                               | 2.0                                           | 3                  | 46                                          |
| 04288000 - MAD RIVER NEAR MORETOWN VT (LAT 44 16 42 LONG 072 44 37)        |                        |                    |                                 |                                               |                    |                                             |
| OCT., 1970                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 28...                                                                      | 8.0                    | 107                | 4                               | 1.2                                           | 1                  | 80                                          |
| APR., 1971                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 14...                                                                      | 3.0                    | 1250               | 53                              | 179                                           | --                 | --                                          |
| MAY                                                                        |                        |                    |                                 |                                               |                    |                                             |
| 26...                                                                      | 11.0                   | 508                | 12                              | 16                                            | 3                  | 50                                          |
| JUNE                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 30...                                                                      | 25.5                   | 39                 | 1                               | .11                                           | 2                  | 99                                          |
| AUG.                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 04...                                                                      | 16.5                   | 546                | 0                               | .00                                           | 8                  | 55                                          |
| SEP.                                                                       |                        |                    |                                 |                                               |                    |                                             |
| 29...                                                                      | 19.0                   | 68                 | 4                               | .73                                           | 1                  | 91                                          |
| 04292500 - LAMOILLE RIVER AT EAST GEORGIA VT (LAT 44 40 45 LONG 073 04 23) |                        |                    |                                 |                                               |                    |                                             |
| NOV., 1970                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 12...                                                                      | 6.0                    | 582                | 7                               | 11                                            | 1                  | 134                                         |
| JUNE, 1971                                                                 |                        |                    |                                 |                                               |                    |                                             |
| 01...                                                                      | 19.0                   | 753                | 18                              | 37                                            | 6                  | 106                                         |
| 04293500 - MISSISQUOI RIVER NEAR RICHFORD VT (LAT 44 57 30 LONG 072 41 55) |                        |                    |                                 |                                               |                    |                                             |
| MAY, 1971                                                                  |                        |                    |                                 |                                               |                    |                                             |
| 26...                                                                      | --                     | 908                | 7                               | 17                                            | 3                  | 71                                          |

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES  
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE                                                                                  | DIS-<br>CHARGE<br>(CFS) | SILICA<br>(SiO <sub>2</sub> )<br>(MG/L) | DIS-<br>SOLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SOLVED<br>MANGANESE<br>(MN)<br>(UG/L) | DIS-<br>SOLVED<br>CALCIUM<br>(CA)<br>(MG/L) | DIS-<br>SOLVED<br>MAGNESIUM<br>(MG)<br>(MG/L) | SODIUM<br>(NA)<br>(MG/L) | PO-<br>TAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCC3)<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) |
|---------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------------|---------------------------------------------|-----------------------------------------------|--------------------------|--------------------------------------|-------------------------------------------|--------------------------------------|-----------------------------------------|---------------------------------|
| CHARLES RIVER BASIN                                                                   |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| 01103214 - BEAVER BROOK NEAR HOLLISTON MASS (LAT 42 10 48 LONG 071 28 46)             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| APR., 1971<br>23...                                                                   | 3.9                     | 2.2                                     | 50                                       | 0                                             | 6.0                                         | 1.0                                           | 9.6                      | .7                                   | .13                                       | 5                                    | 9.6                                     | 18                              |
| 01103217 - HOPPING BROOK NEAR WEST MEDWAY MASS (LAT 42 08 31 LONG 071 27 21)          |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| APR., 1971<br>23...                                                                   | 20                      | .3                                      | 100                                      | 0                                             | 5.0                                         | 1.1                                           | 9.6                      | .8                                   | .13                                       | 2                                    | 11                                      | 20                              |
| 01103260 - CHARLES RIVER AT WEST MEDWAY MASS (LAT 42 08 12 LONG 071 25 08)            |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| APR., 1971<br>22...                                                                   | 113                     | 1.8                                     | 50                                       | 0                                             | 10                                          | 1.9                                           | 18                       | 2.0                                  | .12                                       | 14                                   | 15                                      | 33                              |
| 01103290 - SAFE MEADOW BROOK NEAR WRENTHAM, MASS. (LAT 42 03 17 LONG 071 21 51)       |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| APR., 1971<br>23...                                                                   | 1.4                     | 2.2                                     | 20                                       | 0                                             | 11                                          | 2.1                                           | 13                       | .6                                   | --                                        | 10                                   | 10                                      | 36                              |
| 01103300 - MILL RIVER NEAR NORFOLK MASS (LAT 42 07 21 LONG 071 21 59)                 |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| CCT., 1970<br>02...                                                                   | 4.2                     | 3.9                                     | 10                                       | 0                                             | 8.5                                         | 2.3                                           | 8.4                      | .8                                   | .05                                       | 18                                   | 9.5                                     | 18                              |
| APR., 1971<br>22...                                                                   | 26                      | 2.6                                     | 50                                       | 0                                             | 8.0                                         | 2.5                                           | 11                       | .8                                   | .04                                       | 18                                   | 11                                      | 22                              |
| 01103308 - STOP RIVER TRIBUTARY NO 3 NEAR WRENTHAM MASS (LAT 42 05 22 LONG 071 18 54) |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| CCT., 1970<br>02...                                                                   | .06                     | 19                                      | 20                                       | 10                                            | 11                                          | 3.5                                           | 47                       | 8.6                                  | .06                                       | 52                                   | 21                                      | 44                              |
| 01103350 - VINE BROOK AT MEDFIELD MASS (LAT 42 11 16 LONG 071 18 26)                  |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| CCT., 1970<br>02...                                                                   | .35                     | 12                                      | 130                                      | 50                                            | 13                                          | 2.2                                           | 17                       | 1.2                                  | .01                                       | 22                                   | 20                                      | 25                              |
| 01103355 - CHARLES RIVER TRIBUTARY NO 2 AT MILLIS MASS (LAT 42 10 50 LONG 071 20 44)  |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| CCT., 1970<br>02...                                                                   | .87                     | 15                                      | 10                                       | 20                                            | 20                                          | 5.4                                           | 33                       | 3.2                                  | 11                                        | 119                                  | 18                                      | 46                              |
| 01103370 - JAR BROOK NEAR HOLLISTON MASS (LAT 42 13 46 LONG 071 26 35)                |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| APR., 1971<br>22...                                                                   | 1.0                     | 8.0                                     | 30                                       | 0                                             | 13                                          | 3.7                                           | 24                       | 1.4                                  | .05                                       | 18                                   | 17                                      | 47                              |
| 01103390 - BEGASTON BROOK NEAR MILLIS MASS (LAT 42 11 01 LONG 071 23 27)              |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| APR., 1971<br>23...                                                                   | 22                      | 2.5                                     | 60                                       | 0                                             | 13                                          | 2.6                                           | 17                       | 1.8                                  | .34                                       | 19                                   | 13                                      | 33                              |
| 01103415 - INDIAN BROOK NEAR SHERBORN MASS (LAT 42 15 34 LONG 071 21 25)              |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| CCT., 1970<br>05...                                                                   | .40                     | 12                                      | 330                                      | 0                                             | 25                                          | 5.0                                           | 23                       | 6.3                                  | .16                                       | 82                                   | 16                                      | 42                              |
| 01103440 - FULLER BROOK AT WELLESLEY MASS (LAT 42 17 45 LONG 071 17 18)               |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| APR., 1971<br>22...                                                                   | 4.9                     | 4.9                                     | 140                                      | 0                                             | 21                                          | 5.2                                           | 21                       | 4.4                                  | .22                                       | 53                                   | 21                                      | 40                              |

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| DATE                                                                                  | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTI-<br>TUENTS)<br>(MG/L) | HARD-<br>NESS<br>(CA,MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | PH<br>(UNITS) | COLOR<br>(PLAT-<br>INUM<br>COBALT<br>UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) |
|---------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------|--------------------------|-------------------------------------------|---------------------------------------------------------------------|------------------------------------|---------------------------------------------------|------------------------------------------------------------|---------------|---------------------------------------------|----------------------------------|------------------------------------|
| CHARLES RIVER BASIN                                                                   |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01103214 - BEAVER BROOK NEAR HOLLISTON MASS (LAT 42 10 48 LONG 071 28 46)             |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| APR., 1971<br>23...                                                                   | .1                                               | .000                     | .1                       | .010                                      | 50                                                                  | 19                                 | 15                                                | 92                                                         | 6.2           | 20                                          | 9.0                              | —                                  |
| 01103217 - HOPPING BROOK NEAR WEST MEDWAY MASS (LAT 42 08 31 LONG 071 27 21)          |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| APR., 1971<br>23...                                                                   | .1                                               | .000                     | .1                       | .013                                      | 49                                                                  | 17                                 | 15                                                | 97                                                         | 6.3           | 60                                          | 9.0                              | —                                  |
| 01103260 - CHARLES RIVER AT WEST MEDWAY MASS (LAT 42 08 12 LONG 071 25 08)            |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| APR., 1971<br>22...                                                                   | .2                                               | .000                     | 1.0                      | .39                                       | 95                                                                  | 33                                 | 21                                                | 175                                                        | 6.7           | 33                                          | 11.0                             | —                                  |
| 01103290 - SAFE MEADOW BROOK NEAR WRENTHAM, MASS. (LAT 42 03 17 LONG 071 21 51)       |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| APR., 1971<br>23...                                                                   | .1                                               | —                        | .02                      | —                                         | 80                                                                  | 36                                 | 28                                                | 162                                                        | 6.7           | 2                                           | 11.0                             | —                                  |
| 01103300 - MILL RIVER NEAR NORFOLK MASS (LAT 42 07 21 LONG 071 21 59)                 |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| CCT., 1970<br>02...                                                                   | .1                                               | .000                     | .3                       | .013                                      | 62                                                                  | 30                                 | 16                                                | 118                                                        | 7.1           | 3                                           | 18.0                             | 12.8                               |
| APR., 1971<br>22...                                                                   | .1                                               | .000                     | .4                       | .010                                      | 69                                                                  | 30                                 | 15                                                | 134                                                        | 6.8           | 5                                           | 12.0                             | —                                  |
| 01103308 - STOP RIVER TRIBUTARY NO 3 NEAR WRENTHAM MASS (LAT 42 05 22 LONG 071 18 54) |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| CCT., 1970<br>02...                                                                   | 1.9                                              | .003                     | 8.6                      | 2.0                                       | 226                                                                 | 42                                 | 0                                                 | 351                                                        | 7.2           | 35                                          | 18.0                             | 1.9                                |
| 01103350 - VINE BROOK AT MEDFIELD MASS (LAT 42 11 16 LONG 071 18 26)                  |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| CCT., 1970<br>02...                                                                   | .0                                               | .000                     | 2.5                      | .013                                      | 112                                                                 | 42                                 | 24                                                | 191                                                        | 7.3           | 4                                           | 13.0                             | 10.7                               |
| 01103355 - CHARLES RIVER TRIBUTARY NO 2 AT MILLIS MASS (LAT 42 10 50 LONG 071 20 44)  |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| CCT., 1970<br>02...                                                                   | .0                                               | .015                     | .7                       | 2.7                                       | 224                                                                 | 72                                 | 0                                                 | 365                                                        | 6.7           | 25                                          | 17.0                             | 1.2                                |
| 01103370 - JAR BROOK NEAR HOLLISTON MASS (LAT 42 13 46 LONG 071 26 35)                |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| APR., 1971<br>22...                                                                   | .2                                               | .000                     | .7                       | .15                                       | 127                                                                 | 48                                 | 33                                                | 235                                                        | 7.0           | 15                                          | 10.0                             | —                                  |
| 01103390 - BOGASTOW BROOK NEAR MILLIS MASS (LAT 42 11 01 LONG 071 23 27)              |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| APR., 1971<br>23...                                                                   | .1                                               | .010                     | .3                       | .029                                      | 94                                                                  | 43                                 | 27                                                | 177                                                        | 7.2           | 38                                          | 8.0                              | —                                  |
| 01103415 - INDIAN BROOK NEAR SHERBORN MASS (LAT 42 15 34 LONG 071 21 25)              |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| CCT., 1970<br>05...                                                                   | .2                                               | .003                     | 1.2                      | .020                                      | 175                                                                 | 83                                 | 16                                                | 305                                                        | 7.9           | 70                                          | 12.0                             | 6.0                                |
| 01103440 - FULLER BROOK AT WELLESLEY MASS (LAT 42 17 45 LONG 071 17 18)               |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| APR., 1971<br>22...                                                                   | .1                                               | .000                     | .6                       | .023                                      | 147                                                                 | 74                                 | 30                                                | 266                                                        | 7.5           | 75                                          | 11.0                             | —                                  |

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES  
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| DATE                                                                                   | DIS-<br>CHARGE<br>(CFS) | SILICA<br>(SiO <sub>2</sub> )<br>(MG/L) | DIS-<br>SOLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SOLVED<br>MANGANESE<br>(MN)<br>(UG/L) | DIS-<br>SOLVED<br>CALCIUM<br>(CA)<br>(MG/L) | DIS-<br>SOLVED<br>MAGNESIUM<br>(MG)<br>(MG/L) | SODIUM<br>(NA)<br>(MG/L) | PO-<br>TAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO <sub>3</sub> )<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) |
|----------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------------|---------------------------------------------|-----------------------------------------------|--------------------------|--------------------------------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------|---------------------------------|
| CHARLES RIVER BASIN.--CONTINUED                                                        |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 01103500 - CHARLES RIVER AT CHARLES RIVER VILLAGE MASS (LAT 42 15 23 LONG 071 15 42)   |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| NOV., 1970                                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 09... 165                                                                              |                         | 7.2                                     | 6C                                       | C                                             | 1C                                          | 1.8                                           | 10                       | 1.7                                  | .07                                       | 13                                                | 16                                      | 19                              |
| DEC.                                                                                   |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 11... 144                                                                              |                         | 10                                      | 6C                                       | 0                                             | 13                                          | 2.8                                           | 19                       | 2.1                                  | .02                                       | 18                                                | 22                                      | 33                              |
| JAN., 1971                                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 22... 127                                                                              |                         | 11                                      | 19C                                      | 0                                             | 15                                          | 3.0                                           | 21                       | 2.3                                  | .60                                       | 26                                                | 21                                      | 38                              |
| FEB.                                                                                   |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 17... 600                                                                              |                         | 2.1                                     | 1C                                       | C                                             | 1C                                          | 2.1                                           | 20                       | 1.9                                  | .05                                       | 10                                                | 13                                      | 37                              |
| MAR.                                                                                   |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 18... 792                                                                              |                         | 4.8                                     | 2C                                       | 0                                             | 5.0                                         | 2.0                                           | 17                       | 1.5                                  | .09                                       | 14                                                | 13                                      | 31                              |
| APR.                                                                                   |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 23... 341                                                                              |                         | 2.4                                     | 4C                                       | 0                                             | 11                                          | 2.4                                           | 18                       | 1.5                                  | .12                                       | 18                                                | 14                                      | 34                              |
| 01103700 - ROCK MEADOW BROOK AT WESTWOOD MASS (LAT 42 13 57 LONG 071 13 25)            |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| CCT., 1970                                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 05... .27                                                                              |                         | 15                                      | 14C                                      | 0                                             | 15                                          | 2.6                                           | 36                       | 3.6                                  | .26                                       | 34                                                | 9.5                                     | 66                              |
| 01103990 - LOWDER BROOK AT DEDHAM MASS (LAT 42 15 07 LONG 071 10 21)                   |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| CCT., 1970                                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 05... .63                                                                              |                         | 12                                      | 1C                                       | 0                                             | 3C                                          | 5.3                                           | 23                       | 2.8                                  | .12                                       | 70                                                | 17                                      | 48                              |
| 01104100 - SCUTH MEADOW BROOK AT NEWTON MASS (LAT 42 18 55 LONG 071 11 45)             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| CCT., 1970                                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 05... .07                                                                              |                         | 8.5                                     | C                                        | 0                                             | 18                                          | 2.7                                           | 16                       | 2.6                                  | .02                                       | 30                                                | 19                                      | 36                              |
| 01104250 - ROSEMARY BROOK AT WELLESLEY MASS (LAT 42 18 13 LONG 071 15 08)              |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| CCT., 1970                                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 05... 2.7                                                                              |                         | 83                                      | 10                                       | C                                             | 21                                          | 3.9                                           | 21                       | 1.8                                  | .10                                       | 54                                                | 10                                      | 44                              |
| 01104400 - HOBBS BROOK NEAR LINCOLN MASS (LAT 42 26 17 LONG 071 16 51)                 |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| APR., 1971                                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 22... 2.2                                                                              |                         | 6.0                                     | 22C                                      | 0                                             | 9.0                                         | 1.8                                           | 14                       | 1.2                                  | —                                         | 6                                                 | 20                                      | 29                              |
| WEIR RIVER BASIN                                                                       |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 01105630 - CROOKED MEADOW RIVER NEAR PINGHAM CENTER MASS (LAT 42 12 53 LONG 070 53 06) |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| NOV., 1970                                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 24... --                                                                               |                         | 10                                      | 14C                                      | 60                                            | 9.2                                         | 3.0                                           | 18                       | 1.6                                  | .16                                       | 12                                                | 21                                      | 32                              |
| APR., 1971                                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 05... --                                                                               |                         | 4.7                                     | 17C                                      | 40                                            | 8.3                                         | 2.7                                           | 22                       | 1.7                                  | .12                                       | 12                                                | 17                                      | 36                              |
| 01105635 - ACCORD BROOK NEAR PINGHAM MASS (LAT 42 12 15 LONG 070 51 51)                |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| NOV., 1970                                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 30... 2.4                                                                              |                         | 9.7                                     | 30C                                      | 60                                            | 9.0                                         | 3.0                                           | 14                       | .9                                   | .18                                       | 8                                                 | 23                                      | 24                              |
| APR., 1971                                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 05... 4.0                                                                              |                         | 6.6                                     | 30C                                      | 70                                            | 6.2                                         | 2.2                                           | 12                       | .8                                   | .19                                       | 7                                                 | 17                                      | 22                              |
| 01105640 - WEIR RIVER NEAR PINGHAM MASS (LAT 42 14 31 LONG 070 51 36)                  |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| NOV., 1970                                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 24... --                                                                               |                         | 10                                      | 20C                                      | 110                                           | 9.3                                         | 3.3                                           | 14                       | 1.4                                  | .16                                       | 12                                                | 26                                      | 26                              |
| APR., 1971                                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 05... --                                                                               |                         | 5.0                                     | 130                                      | 90                                            | 9.0                                         | 2.7                                           | 17                       | 1.6                                  | .11                                       | 12                                                | 19                                      | 30                              |



## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTITU-<br>ENTS)<br>(MG/L) | HARD-<br>NESS<br>(CA,MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | PH<br>(UNITS) | COLOR<br>(PLAT-<br>INUM<br>COBALT<br>UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) |
|------|--------------------------------------------------|--------------------------|--------------------------|-------------------------------------------|---------------------------------------------------------------------|------------------------------------|---------------------------------------------------|------------------------------------------------------------|---------------|---------------------------------------------|----------------------------------|------------------------------------|
|------|--------------------------------------------------|--------------------------|--------------------------|-------------------------------------------|---------------------------------------------------------------------|------------------------------------|---------------------------------------------------|------------------------------------------------------------|---------------|---------------------------------------------|----------------------------------|------------------------------------|

## CHARLES RIVER BASIN.--CONTINUED

## 01103500 - CHARLES RIVER AT CHARLES RIVER VILLAGE MASS (LAT 42 15 23 LONG 071 15 42)

|            |    |      |     |      |     |    |    |     |     |    |      |    |
|------------|----|------|-----|------|-----|----|----|-----|-----|----|------|----|
| NOV., 1970 |    |      |     |      |     |    |    |     |     |    |      |    |
| 09...      | .1 | .006 | .6  | .18  | 75  | 32 | 22 | 127 | 7.2 | 37 | 8.0  | -- |
| DEC.       |    |      |     |      |     |    |    |     |     |    |      |    |
| 11...      | .1 | .006 | 1.3 | .25  | 118 | 44 | 29 | 203 | 7.2 | 50 | 1.0  | -- |
| JAN., 1971 |    |      |     |      |     |    |    |     |     |    |      |    |
| 22...      | .1 | .012 | .9  | .24  | 141 | 50 | 28 | 224 | 7.0 | 22 | 1.0  | -- |
| FEB.       |    |      |     |      |     |    |    |     |     |    |      |    |
| 17...      | .1 | .000 | 1.1 | .098 | 96  | 34 | 25 | 163 | 6.6 | 15 | 1.0  | -- |
| MAR.       |    |      |     |      |     |    |    |     |     |    |      |    |
| 18...      | .1 | .000 | .6  | .033 | 88  | 31 | 19 | 164 | 6.9 | 25 | 4.0  | -- |
| APR.       |    |      |     |      |     |    |    |     |     |    |      |    |
| 23...      | .1 | .000 | .6  | .13  | 95  | 37 | 22 | 182 | 6.7 | 35 | 10.0 | -- |

## 01103700 - ROCK MEADOW BROOK AT WESTWOOD MASS (LAT 42 13 57 LONG 071 13 25)

|            |    |      |    |     |     |    |    |     |     |    |      |     |
|------------|----|------|----|-----|-----|----|----|-----|-----|----|------|-----|
| CCT., 1970 |    |      |    |     |     |    |    |     |     |    |      |     |
| 05...      | .1 | .006 | .4 | .10 | 171 | 48 | 20 | 307 | 7.2 | 85 | 14.0 | 2.0 |

## 01103990 - LOWDER BROOK AT DEDHAM MASS (LAT 42 15 07 LONG 071 10 21)

|            |    |      |    |      |     |    |    |     |     |    |      |     |
|------------|----|------|----|------|-----|----|----|-----|-----|----|------|-----|
| OCT., 1970 |    |      |    |      |     |    |    |     |     |    |      |     |
| 05...      | .0 | .006 | .7 | .085 | 176 | 97 | 40 | 327 | 7.0 | 15 | 16.0 | 8.0 |

## 01104100 - SCUTH MEADOW BROOK AT NEWTON MASS (LAT 42 18 55 LONG 071 11 45)

|            |    |      |    |      |     |    |    |     |     |   |      |     |
|------------|----|------|----|------|-----|----|----|-----|-----|---|------|-----|
| CCT., 1970 |    |      |    |      |     |    |    |     |     |   |      |     |
| 05...      | .4 | .003 | .8 | .039 | 122 | 56 | 32 | 225 | 7.4 | 2 | 15.0 | 6.5 |

## 01104250 - ROSEMARY BROOK AT WELLESLEY MASS (LAT 42 18 13 LONG 071 15 08)

|            |    |     |    |      |     |    |    |     |     |    |      |     |
|------------|----|-----|----|------|-----|----|----|-----|-----|----|------|-----|
| CCT., 1970 |    |     |    |      |     |    |    |     |     |    |      |     |
| 05...      | .1 | .11 | .3 | .052 | 138 | 68 | 24 | 257 | 7.7 | 24 | 14.0 | 3.2 |

## 01104400 - HOBBS BROOK NEAR LINCOLN MASS (LAT 42 26 17 LONG 071 16 51)

|            |    |    |     |    |    |    |    |     |     |     |     |    |
|------------|----|----|-----|----|----|----|----|-----|-----|-----|-----|----|
| APR., 1971 |    |    |     |    |    |    |    |     |     |     |     |    |
| 22...      | .1 | -- | .04 | -- | 85 | 30 | 25 | 150 | 6.0 | 110 | 8.0 | -- |

## WEIR RIVER BASIN

## 01105630 - CROCKED MEADOW RIVER NEAR HINGHAM CENTER MASS (LAT 42 12 53 LONG 070 53 06)

|            |    |      |    |    |     |    |    |     |     |    |     |    |
|------------|----|------|----|----|-----|----|----|-----|-----|----|-----|----|
| NOV., 1970 |    |      |    |    |     |    |    |     |     |    |     |    |
| 24...      | .0 | .009 | .3 | -- | 103 | 36 | 26 | 170 | 6.9 | 55 | 6.0 | -- |
| APR., 1971 |    |      |    |    |     |    |    |     |     |    |     |    |
| 05...      | .1 | .010 | .6 | -- | 101 | 32 | 22 | 192 | 6.6 | 35 | 9.5 | -- |

## 01105635 - ACCORD BROOK NEAR HINGHAM MASS (LAT 42 12 15 LONG 070 51 51)

|            |    |      |    |    |    |    |    |     |     |    |     |    |
|------------|----|------|----|----|----|----|----|-----|-----|----|-----|----|
| NOV., 1970 |    |      |    |    |    |    |    |     |     |    |     |    |
| 30...      | .0 | .009 | .3 | -- | 89 | 35 | 28 | 148 | 6.3 | 90 | 6.5 | -- |
| APR., 1971 |    |      |    |    |    |    |    |     |     |    |     |    |
| 05...      | .1 | .010 | .2 | -- | 72 | 24 | 19 | 124 | 6.0 | 80 | 6.5 | -- |

## 01105640 - WEIR RIVER NEAR HINGHAM MASS (LAT 42 14 31 LONG 070 51 36)

|            |    |      |    |    |    |    |    |     |     |    |     |    |
|------------|----|------|----|----|----|----|----|-----|-----|----|-----|----|
| NOV., 1970 |    |      |    |    |    |    |    |     |     |    |     |    |
| 24...      | .1 | .012 | .5 | -- | 99 | 36 | 26 | 160 | 6.7 | 60 | 5.0 | -- |
| APR., 1971 |    |      |    |    |    |    |    |     |     |    |     |    |
| 05...      | .1 | .010 | .6 | -- | 93 | 33 | 24 | 170 | 6.7 | 28 | 8.5 | -- |

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES  
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE                                                                          | DIS-<br>CHARGE<br>(CFS) | SILICA<br>(SiO <sub>2</sub> )<br>(MG/L) | DIS-<br>SOLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SOLVED<br>MANGANESE<br>(MN)<br>(UG/L) | DIS-<br>SOLVED<br>CALCIUM<br>(CA)<br>(MG/L) | DIS-<br>SOLVED<br>MAGNESIUM<br>(MG)<br>(MG/L) | SODIUM<br>(NA)<br>(MG/L) | PO-<br>TAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO <sub>3</sub> )<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) |
|-------------------------------------------------------------------------------|-------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------------|---------------------------------------------|-----------------------------------------------|--------------------------|--------------------------------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------|---------------------------------|
| BOUND BROOK BASIN                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 01105660 - BOUND BROOK NEAR COHASSET MASS (LAT 42 12 44 LONG 070 49 18)       |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| NOV., 1970                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 30...                                                                         | 6.3                     | 9.4                                     | 830                                      | 290                                           | 4.5                                         | 1.8                                           | 11                       | .7                                   | .31                                       | 8                                                 | 17                                      | 16                              |
| APR., 1971                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 05...                                                                         | 8.1                     | 2.2                                     | 470                                      | 150                                           | 3.8                                         | 1.7                                           | 12                       | .7                                   | .19                                       | 3                                                 | 14                                      | 19                              |
| NORTH RIVER BASIN                                                             |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| C1105680 - CLISHING BROOK AT WEST HANOVER MASS (LAT 42 07 05 LONG 070 52 48)  |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| NOV., 1970                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 25...                                                                         | --                      | 11                                      | 740                                      | 200                                           | 9.0                                         | 3.2                                           | 21                       | 2.1                                  | .31                                       | 4                                                 | 33                                      | 28                              |
| APR., 1971                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 06...                                                                         | --                      | 2.5                                     | 540                                      | 80                                            | 7.1                                         | 2.0                                           | 25                       | 2.1                                  | .20                                       | 3                                                 | 21                                      | 44                              |
| C110569C - FRENCH STREAM NEAR ROCKLAND MASS (LAT 42 06 33 LONG 070 54 35)     |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| NOV., 1970                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 25...                                                                         | --                      | 7.6                                     | 100                                      | 650                                           | 14                                          | 4.0                                           | 25                       | 2.8                                  | .07                                       | 20                                                | 27                                      | 39                              |
| APR., 1971                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 06...                                                                         | --                      | 7.5                                     | 420                                      | 350                                           | 13                                          | 3.4                                           | 29                       | 2.8                                  | .67                                       | 25                                                | 20                                      | 48                              |
| C1105700 - INDIAN HEAD BROOK NEAR HANSON MASS (LAT 42 05 13 LONG 070 51 26)   |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| NOV., 1970                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 24...                                                                         | --                      | 8.2                                     | 450                                      | 160                                           | 6.7                                         | 2.0                                           | 21                       | 1.1                                  | .18                                       | 4                                                 | 16                                      | 36                              |
| APR., 1971                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 06...                                                                         | --                      | 3.5                                     | 270                                      | 70                                            | 6.0                                         | 1.6                                           | 24                       | 1.0                                  | .12                                       | 2                                                 | 11                                      | 41                              |
| C1105730 - INDIAN HEAD RIVER AT HANOVER MASS (LAT 42 06 02 LONG 070 49 23)    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| NOV., 1970                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 30...                                                                         | 34                      | 11                                      | 420                                      | 430                                           | 13                                          | 3.5                                           | 22                       | 2.0                                  | .93                                       | 12                                                | 44                                      | 39                              |
| MAR., 1971                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 08...                                                                         | 170                     | 6.2                                     | 220                                      | 130                                           | 6.5                                         | 2.0                                           | 25                       | 1.7                                  | .34                                       | 6                                                 | 15                                      | 44                              |
| APR., 1971                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 06...                                                                         | 48                      | 3.6                                     | 350                                      | 140                                           | 8.2                                         | 2.6                                           | 27                       | 1.9                                  | .50                                       | 12                                                | 17                                      | 49                              |
| 01105770 - FERRING BROOK AT PEMBROKE MASS (LAT 42 03 43 LONG 070 48 09)       |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| NOV., 1970                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 24...                                                                         | --                      | 7.0                                     | 250                                      | 90                                            | 5.0                                         | 1.6                                           | 10                       | 1.0                                  | .06                                       | 8                                                 | 12                                      | 16                              |
| APR., 1971                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 06...                                                                         | --                      | 4.5                                     | 250                                      | 60                                            | 4.0                                         | 1.6                                           | 11                       | .8                                   | .08                                       | 6                                                 | 10                                      | 19                              |
| 01105805 - PUDDING BROOK AT NORTH PEMBROKE MASS (LAT 42 05 25 LONG 070 47 32) |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| NOV., 1970                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 24...                                                                         | --                      | 3.2                                     | 200                                      | 20                                            | 4.0                                         | 1.5                                           | 11                       | .8                                   | .15                                       | 6                                                 | 11                                      | 19                              |
| APR., 1971                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 06...                                                                         | --                      | 1.0                                     | 210                                      | 0                                             | 4.2                                         | 1.6                                           | 13                       | 1.1                                  | .08                                       | 6                                                 | 10                                      | 23                              |
| 01105810 - THIRD HERRING BROOK AT HANOVER MASS (LAT 42 07 01 LONG 070 48 35)  |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| NOV., 1970                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 24...                                                                         | --                      | 9.7                                     | 660                                      | 210                                           | 7.1                                         | 2.7                                           | 24                       | 1.1                                  | .33                                       | 4                                                 | 19                                      | 38                              |
| APR., 1971                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 05...                                                                         | --                      | 2.6                                     | 470                                      | 140                                           | 6.5                                         | 1.9                                           | 30                       | 1.1                                  | .14                                       | 4                                                 | 14                                      | 55                              |
| 01105820 - SECOND HERRING BROOK AT NORWELL MASS (LAT 42 09 36 LONG 070 47 20) |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| NOV., 1970                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 24...                                                                         | --                      | 9.2                                     | 320                                      | 170                                           | 6.0                                         | 3.2                                           | 16                       | .9                                   | .16                                       | 4                                                 | 22                                      | 30                              |
| APR., 1971                                                                    |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 05...                                                                         | --                      | 2.5                                     | 190                                      | 80                                            | 5.0                                         | 1.8                                           | 22                       | .8                                   | .09                                       | 3                                                 | 13                                      | 41                              |

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE                                                                          | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTI-<br>TUENTS)<br>(MG/L) | HARD-<br>NESS<br>(CA,MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | PH<br>(UNITS) | COLOR<br>(PLAT-<br>INUM<br>COBALT<br>UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) |
|-------------------------------------------------------------------------------|--------------------------------------------------|--------------------------|--------------------------|-------------------------------------------|---------------------------------------------------------------------|------------------------------------|---------------------------------------------------|------------------------------------------------------------|---------------|---------------------------------------------|----------------------------------|------------------------------------|
| BOUND BROOK BASIN                                                             |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01105660 - BOUND BROOK NEAR COHASSET MASS (LAT 42 12 44 LONG 070 49 18)       |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 30...                                                                         | .1                                               | .009                     | .04                      | --                                        | 65                                                                  | 18                                 | 12                                                | 120                                                        | 5.7           | 110                                         | 6.0                              | --                                 |
| APR., 1971                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 05...                                                                         | .1                                               | .000                     | .02                      | --                                        | 55                                                                  | 16                                 | 14                                                | 110                                                        | 5.2           | 80                                          | 8.5                              | --                                 |
| NORTH RIVER BASIN                                                             |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01105680 - CUSHING BROOK AT WEST HANOVER MASS (LAT 42 07 05 LONG 070 52 48)   |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 25...                                                                         | .0                                               | .009                     | .1                       | --                                        | 110                                                                 | 36                                 | 32                                                | 208                                                        | 5.1           | 130                                         | 2.0                              | --                                 |
| APR., 1971                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 06...                                                                         | .0                                               | .010                     | .1                       | --                                        | 106                                                                 | 26                                 | 23                                                | 206                                                        | 5.5           | 100                                         | 7.0                              | --                                 |
| 01105690 - FRENCH STREAM NEAR ROCKLAND MASS (LAT 42 06 33 LONG 070 54 35)     |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 25...                                                                         | .1                                               | .009                     | 2.7                      | --                                        | 141                                                                 | 52                                 | 35                                                | 255                                                        | 6.9           | 15                                          | 3.0                              | --                                 |
| APR., 1971                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 06...                                                                         | .1                                               | .15                      | 1.1                      | --                                        | 142                                                                 | 46                                 | 26                                                | 261                                                        | 6.7           | 19                                          | 8.0                              | --                                 |
| 01105700 - INDIAN HEAD BROOK NEAR HANSON MASS (LAT 42 05 13 LONG 070 51 26)   |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 24...                                                                         | .1                                               | .006                     | .1                       | --                                        | 94                                                                  | 24                                 | 22                                                | 176                                                        | 5.7           | 80                                          | 5.5                              | --                                 |
| APR., 1971                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 06...                                                                         | .1                                               | .000                     | .1                       | --                                        | 90                                                                  | 21                                 | 20                                                | 187                                                        | 5.8           | 35                                          | 8.0                              | --                                 |
| 01105730 - INDIAN HEAD RIVER AT HANOVER MASS (LAT 42 06 02 LONG 070 49 23)    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 30...                                                                         | .1                                               | .033                     | .6                       | --                                        | 145                                                                 | 47                                 | 37                                                | 230                                                        | 6.7           | 90                                          | 6.0                              | --                                 |
| MAR., 1971                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 08...                                                                         | .1                                               | .010                     | .5                       | --                                        | 106                                                                 | 24                                 | 19                                                | 203                                                        | 6.2           | 30                                          | 2.0                              | --                                 |
| APR., 1971                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 06...                                                                         | .1                                               | .010                     | .3                       | --                                        | 117                                                                 | 31                                 | 21                                                | 223                                                        | 6.5           | 35                                          | 8.5                              | --                                 |
| 01105770 - FERRING BROOK AT PEMBROKE MASS (LAT 42 03 43 LONG 070 48 09)       |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 24...                                                                         | .0                                               | .003                     | .1                       | --                                        | 57                                                                  | 19                                 | 12                                                | 96                                                         | 6.6           | 30                                          | 6.0                              | --                                 |
| APR., 1971                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 06...                                                                         | .0                                               | .000                     | .00                      | --                                        | 54                                                                  | 16                                 | 11                                                | 99                                                         | 6.4           | 8                                           | 8.5                              | --                                 |
| 01105805 - PUDDING BROOK AT NORTH PEMBROKE MASS (LAT 42 05 25 LONG 070 47 32) |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 24...                                                                         | .1                                               | .006                     | .02                      | --                                        | 54                                                                  | 16                                 | 11                                                | 98                                                         | 6.4           | 45                                          | 5.5                              | --                                 |
| APR., 1971                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 06...                                                                         | .1                                               | .000                     | .00                      | --                                        | 57                                                                  | 17                                 | 12                                                | 110                                                        | 6.2           | 20                                          | 9.5                              | --                                 |
| 01105810 - THIRD HERRING BROOK AT HANOVER MASS (LAT 42 07 01 LONG 070 48 35)  |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 24...                                                                         | .1                                               | .006                     | .05                      | --                                        | 104                                                                 | 28                                 | 26                                                | 209                                                        | 5.6           | 75                                          | 5.5                              | --                                 |
| APR., 1971                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 05...                                                                         | .1                                               | .000                     | .00                      | --                                        | 113                                                                 | 24                                 | 21                                                | 227                                                        | 5.6           | 45                                          | 9.0                              | --                                 |
| 01105820 - SECOND HERRING BROOK AT NORWELL MASS (LAT 42 09 36 LONG 070 47 20) |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 24...                                                                         | .1                                               | .006                     | .04                      | --                                        | 90                                                                  | 28                                 | 25                                                | 154                                                        | 5.5           | 75                                          | 5.5                              | --                                 |
| APR., 1971                                                                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 05...                                                                         | .1                                               | .000                     | .00                      | --                                        | 88                                                                  | 20                                 | 17                                                | 172                                                        | 5.5           | 20                                          | 9.0                              | --                                 |

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES  
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE | DIS-<br>CHARGE<br>(CFS) | SILICA<br>(SiO <sub>2</sub> )<br>(MG/L) | CIS-<br>SCLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SCLVED<br>MANG-<br>NESE<br>(MN)<br>(UG/L) | DIS-<br>SCLVED<br>CAL-<br>CIUM<br>(CA)<br>(MG/L) | DIS-<br>SCLVED<br>MAG-<br>NE-<br>SIUM<br>(MG)<br>(MG/L) | SODIUM<br>(NA)<br>(MG/L) | PO-<br>TAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO <sub>3</sub> )<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) |
|------|-------------------------|-----------------------------------------|------------------------------------------|---------------------------------------------------|--------------------------------------------------|---------------------------------------------------------|--------------------------|--------------------------------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------|---------------------------------|
|------|-------------------------|-----------------------------------------|------------------------------------------|---------------------------------------------------|--------------------------------------------------|---------------------------------------------------------|--------------------------|--------------------------------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------|---------------------------------|

NORTH RIVER BASIN.--CONTINUED

01105830 - FIRST HERRING BROOK NEAR SCITUATE CENTER MASS (LAT 42 11 30 LONG 070 46 49)

|            |     |     |     |    |     |     |    |    |     |   |    |    |
|------------|-----|-----|-----|----|-----|-----|----|----|-----|---|----|----|
| NOV., 1970 |     |     |     |    |     |     |    |    |     |   |    |    |
| 30...      | --  | 10  | 45C | 7C | 6.1 | 3.1 | 14 | .4 | .12 | 1 | 26 | 23 |
| APR., 1971 |     |     |     |    |     |     |    |    |     |   |    |    |
| 05...      | 2.8 | 6.8 | 25C | 70 | 4.2 | 1.9 | 15 | .6 | .15 | 0 | 17 | 27 |

SOUTH RIVER BASIN

01105845 - SOUTH RIVER AT MARSHFIELD MASS (LAT 42 05 32 LONG 070 43 50)

|            |    |     |     |     |     |     |    |     |     |   |    |    |
|------------|----|-----|-----|-----|-----|-----|----|-----|-----|---|----|----|
| NOV., 1970 |    |     |     |     |     |     |    |     |     |   |    |    |
| 24...      | -- | 4.9 | 50C | 10C | 3.8 | 1.6 | 13 | .9  | .20 | 4 | 13 | 25 |
| APR., 1971 |    |     |     |     |     |     |    |     |     |   |    |    |
| 06...      | -- | 1.2 | 33C | 30  | 3.5 | 1.4 | 15 | 1.0 | .13 | 4 | 10 | 28 |

01105848 - FURNACE BROOK AT SCHOOL ST NEAR MARSHFIELD MASS (LAT 42 07 06 LONG 070 44 34)

|            |    |     |     |    |     |     |    |     |     |   |    |    |
|------------|----|-----|-----|----|-----|-----|----|-----|-----|---|----|----|
| NOV., 1970 |    |     |     |    |     |     |    |     |     |   |    |    |
| 24...      | -- | 8.6 | 34C | 30 | 4.6 | 2.5 | 13 | 1.0 | .10 | 0 | 17 | 23 |
| APR., 1971 |    |     |     |    |     |     |    |     |     |   |    |    |
| 05...      | -- | 5.4 | 15C | 0  | 3.3 | 2.0 | 14 | 1.0 | .05 | 0 | 13 | 26 |

JONES RIVER BASIN

01105860 - JONES RIVER BROOK NEAR PLYMPTON MASS (LAT 42 59 18 LONG 070 48 10)

|            |    |     |     |     |     |     |     |    |     |   |    |     |
|------------|----|-----|-----|-----|-----|-----|-----|----|-----|---|----|-----|
| NOV., 1970 |    |     |     |     |     |     |     |    |     |   |    |     |
| 24...      | -- | 10  | 77C | 130 | 3.0 | .9  | 5.4 | .5 | .21 | 4 | 10 | 9.2 |
| APR., 1971 |    |     |     |     |     |     |     |    |     |   |    |     |
| 05...      | -- | 2.8 | 46C | 30  | 3.0 | 1.0 | 5.6 | .7 | .15 | 2 | 10 | 9.6 |

01105870 - JONES RIVER AT KINGSTON MASS (LAT 41 59 27 LONG 070 44 03)

|            |    |     |     |    |     |     |     |    |     |   |     |    |
|------------|----|-----|-----|----|-----|-----|-----|----|-----|---|-----|----|
| NOV., 1970 |    |     |     |    |     |     |     |    |     |   |     |    |
| 30...      | 18 | 8.4 | 38C | 80 | 3.2 | 1.3 | 8.1 | .9 | .19 | 5 | 9.0 | 15 |
| MAR., 1971 |    |     |     |    |     |     |     |    |     |   |     |    |
| 08...      | 50 | 4.1 | 28C | 0  | 2.9 | 1.0 | 7.9 | .8 | .16 | 5 | 9.0 | 14 |
| APR.       |    |     |     |    |     |     |     |    |     |   |     |    |
| 06...      | 26 | 1.6 | 28C | 30 | 2.5 | 1.1 | 8.4 | .9 | .12 | 6 | 8.6 | 14 |

01105872 - HALLS BROOK AT KINGSTON MASS (LAT 41 59 57 LONG 070 43 56)

|            |    |     |     |    |     |     |    |     |     |   |     |    |
|------------|----|-----|-----|----|-----|-----|----|-----|-----|---|-----|----|
| NOV., 1970 |    |     |     |    |     |     |    |     |     |   |     |    |
| 24...      | -- | 7.2 | 37C | 50 | 4.2 | 1.6 | 16 | 1.0 | .16 | 6 | 8.5 | 26 |
| APR., 1971 |    |     |     |    |     |     |    |     |     |   |     |    |
| 05...      | -- | 1.0 | 24C | 20 | 4.0 | 1.6 | 19 | 1.3 | .11 | 5 | 9.0 | 35 |

COASTAL RIVER BASINS

01105874 - TOWN BROOK AT PLYMOUTH MASS (LAT 41 57 22 LONG 070 39 44)

|            |    |     |     |    |     |     |     |    |     |    |     |    |
|------------|----|-----|-----|----|-----|-----|-----|----|-----|----|-----|----|
| NOV., 1970 |    |     |     |    |     |     |     |    |     |    |     |    |
| 25...      | -- | 7.3 | 20C | 30 | 4.0 | 1.3 | 8.3 | .9 | .15 | 10 | 6.6 | 15 |
| APR., 1971 |    |     |     |    |     |     |     |    |     |    |     |    |
| 06...      | -- | 6.2 | 22C | 30 | 4.0 | 1.6 | 9.8 | .8 | .09 | 11 | 7.0 | 16 |

01105876 - EEL RIVER NEAR PLYMOUTH MASS (LAT 41 56 30 LONG 070 37 23)

|            |    |     |     |     |     |     |     |     |     |    |     |    |
|------------|----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|----|
| NOV., 1970 |    |     |     |     |     |     |     |     |     |    |     |    |
| 30...      | -- | 7.9 | 12C | 6C  | 2.0 | 1.1 | 8.1 | 7.0 | .13 | 10 | 5.3 | 13 |
| MAR., 1971 |    |     |     |     |     |     |     |     |     |    |     |    |
| 08...      | 26 | 6.5 | 16C | 0   | 3.0 | 1.5 | 12  | 1.1 | .22 | 10 | 7.0 | 20 |
| APR.       |    |     |     |     |     |     |     |     |     |    |     |    |
| 06...      | 28 | 5.9 | 23C | 150 | 5.0 | 5.3 | 42  | 2.1 | .12 | 10 | 18  | 75 |

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE                                                                                     | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTI-<br>TUENTS)<br>(MG/L) | HARD-<br>NESS<br>(CA,MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | PH<br>(UNITS) | COLOR<br>(PLAT-<br>INUM<br>COBALT<br>UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) |
|------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------|--------------------------|-------------------------------------------|---------------------------------------------------------------------|------------------------------------|---------------------------------------------------|------------------------------------------------------------|---------------|---------------------------------------------|----------------------------------|------------------------------------|
| NORTH RIVER BASIN.--CONTINUED                                                            |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01105830 - FIRST HERRING BROOK NEAR SCITUATE CENTER MASS (LAT 42 11 30 LONG 070 46 49)   |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970<br>30...                                                                      | .0                                               | .006                     | .09                      | --                                        | 84                                                                  | 28                                 | 27                                                | 145                                                        | 4.7           | 180                                         | 7.0                              | --                                 |
| APR., 1971<br>05...                                                                      | .1                                               | .010                     | .00                      | --                                        | 73                                                                  | 18                                 | 18                                                | 136                                                        | 4.8           | 120                                         | 7.5                              | --                                 |
| SOUTH RIVER BASIN                                                                        |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01105845 - SOUTH RIVER AT MARSHFIELD MASS (LAT 42 05 32 LONG 070 43 50)                  |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970<br>24...                                                                      | .0                                               | .006                     | .02                      | --                                        | 64                                                                  | 16                                 | 13                                                | 118                                                        | 5.6           | 70                                          | 5.5                              | --                                 |
| APR., 1971<br>06...                                                                      | .1                                               | .000                     | .00                      | --                                        | 62                                                                  | 14                                 | 11                                                | 123                                                        | 5.8           | 37                                          | 11.0                             | --                                 |
| 01105848 - FURNACE BROOK AT SCHOOL ST NEAR MARSHFIELD MASS (LAT 42 07 06 LONG 070 44 34) |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970<br>24...                                                                      | .0                                               | .006                     | .00                      | --                                        | 70                                                                  | 22                                 | 22                                                | 139                                                        | 4.5           | 90                                          | 5.5                              | --                                 |
| APR., 1971<br>05...                                                                      | .1                                               | .000                     | .00                      | --                                        | 65                                                                  | 16                                 | 16                                                | 133                                                        | 4.5           | 50                                          | 7.0                              | --                                 |
| JONES RIVER BASIN                                                                        |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01105860 - JONES RIVER BROOK NEAR PLYMPTON MASS (LAT 42 59 18 LONG 070 48 10)            |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970<br>24...                                                                      | .1                                               | .006                     | .04                      | --                                        | 42                                                                  | 11                                 | 8                                                 | 60                                                         | 5.7           | 90                                          | 5.0                              | --                                 |
| APR., 1971<br>05...                                                                      | .1                                               | .000                     | .00                      | --                                        | 34                                                                  | 12                                 | 10                                                | 58                                                         | 5.8           | 60                                          | 9.0                              | --                                 |
| 01105870 - JONES RIVER AT KINGSTON MASS (LAT 41 59 27 LONG 070 44 03)                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970<br>30...                                                                      | .0                                               | .006                     | .2                       | --                                        | 50                                                                  | 14                                 | 10                                                | 88                                                         | 6.7           | 33                                          | 7.0                              | --                                 |
| MAR., 1971<br>08...                                                                      | .2                                               | .000                     | .1                       | --                                        | 43                                                                  | 11                                 | 7                                                 | 72                                                         | 5.7           | 25                                          | 3.0                              | --                                 |
| APR.<br>06...                                                                            | .0                                               | .000                     | .00                      | --                                        | 40                                                                  | 11                                 | 6                                                 | 78                                                         | 6.1           | 22                                          | 8.0                              | --                                 |
| 01105872 - HALLS BROOK AT KINGSTON MASS (LAT 41 59 57 LONG 070 43 56)                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970<br>24...                                                                      | .1                                               | .006                     | .04                      | --                                        | 68                                                                  | 17                                 | 12                                                | 127                                                        | 6.0           | 50                                          | 5.5                              | --                                 |
| APR., 1971<br>05...                                                                      | .1                                               | .000                     | .00                      | --                                        | 74                                                                  | 16                                 | 12                                                | 144                                                        | 5.9           | 6                                           | 8.0                              | --                                 |
| COASTAL RIVER BASINS                                                                     |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01105874 - TOWN BROOK AT PLYMOUTH MASS (LAT 41 57 22 LONG 070 39 44)                     |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970<br>25...                                                                      | .0                                               | .006                     | .3                       | --                                        | 62                                                                  | 16                                 | 8                                                 | 84                                                         | 6.8           | 2                                           | 6.0                              | --                                 |
| APR., 1971<br>06...                                                                      | .0                                               | .000                     | .3                       | --                                        | 52                                                                  | 16                                 | 7                                                 | 92                                                         | 6.5           | 3                                           | 9.0                              | --                                 |
| 01105876 - EEL RIVER NEAR PLYMOUTH MASS (LAT 41 56 30 LONG 070 37 23)                    |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| NOV., 1970<br>30...                                                                      | .1                                               | .006                     | .1                       | --                                        | 44                                                                  | 10                                 | 2                                                 | 73                                                         | 6.8           | 7                                           | 7.0                              | --                                 |
| MAR., 1971<br>08...                                                                      | .2                                               | .010                     | .1                       | --                                        | 57                                                                  | 14                                 | 5                                                 | 98                                                         | 6.6           | 6                                           | 3.0                              | --                                 |
| APR.<br>06...                                                                            | .1                                               | .000                     | .00                      | --                                        | 158                                                                 | 34                                 | 26                                                | 301                                                        | 6.6           | 4                                           | 9.0                              | --                                 |

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES  
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE                                                                                | DIS-<br>CHARGE<br>(CFS) | SILICA<br>(SiO <sub>2</sub> )<br>(MG/L) | DIS-<br>SOLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SOLVED<br>MAN-<br>GANESE<br>(MN)<br>(UG/L) | DIS-<br>SOLVED<br>CAL-<br>CIUM<br>(CA)<br>(MG/L) | DIS-<br>SOLVED<br>MAG-<br>NE-<br>SIUM<br>(MG) | SODIUM<br>(NA)<br>(MG/L) | PO-<br>TAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCC3)<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) |
|-------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|------------------------------------------|----------------------------------------------------|--------------------------------------------------|-----------------------------------------------|--------------------------|--------------------------------------|-------------------------------------------|--------------------------------------|-----------------------------------------|---------------------------------|
| COASTAL RIVER BASINS.--CONTINUED                                                    |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| 01105878 - BEAVER DAM BROOK AT WHITE HORSE BEACH MASS (LAT 41 55 43 LONG 070 33 20) |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| NOV., 1970<br>25...                                                                 | --                      | 7.8                                     | 110                                      | 30                                                 | 8.0                                              | 14                                            | 120                      | 5.1                                  | .07                                       | 10                                   | 30                                      | 210                             |
| APR., 1971<br>06...                                                                 | --                      | 4.1                                     | 50                                       | 50                                                 | 26                                               | 58                                            | 500                      | 21                                   | .08                                       | 16                                   | 120                                     | 900                             |
| 01105883 - HERRING RIVER AT BURNEDALE MASS (LAT 41 46 21 LONG 070 33 46)            |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| NOV., 1970<br>25...                                                                 | --                      | .0                                      | 20                                       | 0                                                  | 1.3                                              | .9                                            | 5.5                      | .4                                   | .11                                       | 6                                    | 4.4                                     | 9.4                             |
| APR., 1971<br>06...                                                                 | --                      | .0                                      | 100                                      | 0                                                  | 1.3                                              | .8                                            | 5.8                      | .4                                   | .15                                       | 6                                    | 5.4                                     | 9.0                             |
| 01105886 - RED BROOK NEAR BUZZARDS BAY MASS (LAT 41 45 48 LONG 070 37 59)           |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| NOV., 1970<br>25...                                                                 | --                      | 6.8                                     | 350                                      | 40                                                 | 2.0                                              | 1.3                                           | 9.2                      | .6                                   | .07                                       | 8                                    | 6.0                                     | 15                              |
| APR., 1971<br>06...                                                                 | --                      | 4.5                                     | 220                                      | 0                                                  | 1.8                                              | 1.1                                           | 7.3                      | .6                                   | .05                                       | 5                                    | 6.3                                     | 12                              |
| 01105888 - AGAWAM RIVER NEAR ELLISVILLE MASS (LAT 41 50 44 LONG 070 37 12)          |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| NOV., 1970<br>25...                                                                 | --                      | 2.6                                     | 40                                       | 0                                                  | 2.1                                              | .8                                            | 4.8                      | .4                                   | .09                                       | 8                                    | 4.0                                     | 7.7                             |
| APR., 1971<br>06...                                                                 | --                      | 2.2                                     | 30                                       | 0                                                  | 2.1                                              | .8                                            | 4.8                      | .3                                   | .06                                       | 10                                   | 5.0                                     | 6.0                             |
| 01105890 - AGAWAM RIVER AT EAST WAREHAM MASS (LAT 41 45 40 LONG 070 40 40)          |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| NOV., 1970<br>25...                                                                 | --                      | 2.4                                     | 120                                      | 20                                                 | 2.0                                              | .8                                            | 4.9                      | .4                                   | .07                                       | 10                                   | 4.3                                     | 7.5                             |
| APR., 1971<br>06...                                                                 | --                      | 2.4                                     | 180                                      | 30                                                 | 2.0                                              | .8                                            | 4.9                      | .5                                   | .05                                       | 8                                    | 5.1                                     | 7.0                             |
| 01105892 - WANKINCO RIVER AT WAREHAM MASS (LAT 41 45 58 LONG 070 43 20)             |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| NOV., 1970<br>25...                                                                 | --                      | 5.3                                     | 500                                      | 60                                                 | 3.0                                              | 1.4                                           | 10                       | 1.0                                  | .07                                       | 8                                    | 8.2                                     | 16                              |
| APR., 1971<br>06...                                                                 | --                      | 3.3                                     | 170                                      | 80                                                 | 2.5                                              | 1.1                                           | 6.7                      | .7                                   | .05                                       | 6                                    | 7.0                                     | 11                              |
| 01105895 - WEWEANTIC RIVER AT SOUTH WAREHAM MASS (LAT 41 46 12 LONG 070 45 18)      |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| NOV., 1970<br>30... 69                                                              |                         | 6.2                                     | 720                                      | 100                                                | 3.0                                              | .9                                            | 5.7                      | .6                                   | .21                                       | 4                                    | 10                                      | 9.5                             |
| MAR., 1971<br>08... 185                                                             |                         | 3.2                                     | 450                                      | 0                                                  | 2.5                                              | .7                                            | 4.6                      | .7                                   | .17                                       | 3                                    | 9.3                                     | 8.3                             |
| APR., 1971<br>06... 115                                                             |                         | 1.5                                     | 410                                      | 60                                                 | 2.2                                              | .8                                            | 5.2                      | .6                                   | .12                                       | 3                                    | 7.6                                     | 9.3                             |
| BLACKSTONE RIVER BASIN                                                              |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| 01112905 - BLACKSTONE RIVER NEAR MANVILLE R I (LAT 41 57 45 LONG 071 27 49)         |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| MAY, 1971<br>24...                                                                  | --                      | 4.4                                     | 330                                      | 160                                                | 9.0                                              | 1.7                                           | 16                       | 2.0                                  | .12                                       | 10                                   | 17                                      | 26                              |
| 01113700 - CATAMINT BROOK NEAR DIAMOND HILL R I (LAT 41 59 00 LONG 071 24 44)       |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| OCT., 1970<br>01...                                                                 | .13                     | 10                                      | 130                                      | 100                                                | 7.3                                              | 1.3                                           | 5.3                      | .9                                   | .12                                       | 19                                   | 10                                      | 7.8                             |
| 01113750 - ABBOTT RUN NEAR SOUTH ATTLEBORO MASS (LAT 41 55 43 LONG 071 22 23)       |                         |                                         |                                          |                                                    |                                                  |                                               |                          |                                      |                                           |                                      |                                         |                                 |
| OCT., 1970<br>01... 44                                                              |                         | 4.2                                     | 600                                      | 10                                                 | 6.8                                              | 1.3                                           | 5.1                      | .8                                   | .12                                       | 12                                   | 11                                      | 11                              |



## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTI-<br>TUENTS)<br>(MG/L) | HARD-<br>NESS<br>(CA,MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | PH<br>(UNITS) | COLOR<br>(PLAT-<br>INUM<br>COBALT<br>UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) |
|------|--------------------------------------------------|--------------------------|--------------------------|-------------------------------------------|---------------------------------------------------------------------|------------------------------------|---------------------------------------------------|------------------------------------------------------------|---------------|---------------------------------------------|----------------------------------|------------------------------------|
|------|--------------------------------------------------|--------------------------|--------------------------|-------------------------------------------|---------------------------------------------------------------------|------------------------------------|---------------------------------------------------|------------------------------------------------------------|---------------|---------------------------------------------|----------------------------------|------------------------------------|

## COASTAL RIVER BASINS.--CONTINUED

## 01105878 - BEAVER DAM BROOK AT WHITE HORSE BEACH MASS (LAT 41 55 43 LONG 070 33 20)

|                     |    |      |     |    |      |     |     |      |     |   |      |    |
|---------------------|----|------|-----|----|------|-----|-----|------|-----|---|------|----|
| NOV., 1970<br>25... | .1 | .003 | .07 | -- | 400  | 78  | 70  | 802  | 6.9 | 8 | 3.0  | -- |
| APR., 1971<br>06... | .1 | .000 | .00 | -- | 1640 | 300 | 290 | 3090 | 6.8 | 3 | 10.5 | -- |

## 01105883 - FERRING RIVER AT BURNEDALE MASS (LAT 41 46 21 LONG 070 33 46)

|                     |    |      |     |    |    |   |   |    |     |    |     |    |
|---------------------|----|------|-----|----|----|---|---|----|-----|----|-----|----|
| NOV., 1970<br>25... | .0 | .006 | .04 | -- | 26 | 6 | 1 | 49 | 6.6 | -- | 4.5 | -- |
| APR., 1971<br>06... | .0 | .000 | .00 | -- | 26 | 6 | 2 | 49 | 6.2 | 3  | 7.5 | -- |

## 01105886 - RED BROOK NEAR BUZZARDS BAY MASS (LAT 41 45 48 LONG 070 37 59)

|                     |    |      |     |    |    |    |   |    |     |    |     |    |
|---------------------|----|------|-----|----|----|----|---|----|-----|----|-----|----|
| NOV., 1970<br>25... | .0 | .006 | .1  | -- | 45 | 10 | 4 | 77 | 7.0 | 8  | 4.0 | -- |
| APR., 1971<br>06... | .1 | .000 | .00 | -- | 36 | 9  | 5 | 62 | 6.2 | 10 | 7.5 | -- |

## 01105888 - AGAWAM RIVER NEAR ELLISVILLE MASS (LAT 41 50 44 LONG 070 37 12)

|                     |    |      |     |    |    |   |   |    |     |   |     |    |
|---------------------|----|------|-----|----|----|---|---|----|-----|---|-----|----|
| NOV., 1970<br>25... | .0 | .006 | .3  | -- | 29 | 8 | 2 | 45 | 6.6 | 2 | 6.0 | -- |
| APR., 1971<br>06... | .1 | .000 | .00 | -- | 26 | 8 | 0 | 44 | 6.8 | 2 | 8.5 | -- |

## 01105890 - AGAWAM RIVER AT EAST WAREHAM MASS (LAT 41 45 40 LONG 070 40 40)

|                     |    |      |     |    |    |   |   |    |     |   |     |    |
|---------------------|----|------|-----|----|----|---|---|----|-----|---|-----|----|
| NOV., 1970<br>25... | .1 | .003 | .00 | -- | 28 | 8 | 0 | 45 | 6.6 | 7 | 6.5 | -- |
| APR., 1971<br>06... | .0 | .000 | .00 | -- | 27 | 8 | 2 | 45 | 6.6 | 3 | 9.0 | -- |

## 01105892 - WANKINCO RIVER AT WAREHAM MASS (LAT 41 45 58 LONG 070 43 20)

|                     |    |      |     |    |    |    |   |    |     |    |     |    |
|---------------------|----|------|-----|----|----|----|---|----|-----|----|-----|----|
| NOV., 1970<br>25... | .0 | .003 | .02 | -- | 49 | 14 | 7 | 88 | 6.4 | 17 | 6.5 | -- |
| APR., 1971<br>06... | .1 | .000 | .00 | -- | 35 | 11 | 6 | 64 | 6.3 | 5  | 9.0 | -- |

## 01105895 - WEWEANTIC RIVER AT SOUTH WAREHAM MASS (LAT 41 46 12 LONG 070 45 18)

|                     |    |      |     |    |    |    |   |    |     |    |     |    |
|---------------------|----|------|-----|----|----|----|---|----|-----|----|-----|----|
| NOV., 1970<br>30... | .0 | .006 | .02 | -- | 38 | 11 | 8 | 56 | 5.8 | 90 | 6.0 | -- |
| MAR., 1971<br>08... | .1 | .000 | .00 | -- | 31 | 9  | 7 | 48 | 5.4 | 40 | 2.5 | -- |
| APR., 1971<br>06... | .1 | .000 | .00 | -- | 29 | 9  | 6 | 51 | 5.9 | 33 | 9.0 | -- |

## BLACKSTONE RIVER BASIN

## 01112905 - BLACKSTONE RIVER NEAR MANVILLE R I (LAT 41 57 45 LONG 071 27 49)

|                    |    |     |    |    |    |    |    |     |     |   |    |    |
|--------------------|----|-----|----|----|----|----|----|-----|-----|---|----|----|
| MAY, 1971<br>24... | .2 | .20 | .9 | -- | 86 | 29 | 21 | 159 | 6.4 | 8 | -- | -- |
|--------------------|----|-----|----|----|----|----|----|-----|-----|---|----|----|

## 01113700 - CATAMINT BROOK NEAR DIAMOND HILL R I (LAT 41 59 00 LONG 071 24 44)

|                     |    |      |    |    |    |    |   |    |     |   |      |    |
|---------------------|----|------|----|----|----|----|---|----|-----|---|------|----|
| CCT., 1970<br>01... | .2 | .049 | .4 | -- | 54 | 24 | 8 | 86 | 6.8 | 3 | 12.0 | -- |
|---------------------|----|------|----|----|----|----|---|----|-----|---|------|----|

## 01113750 - ABBOTT RUN NEAR SOUTH ATTLEBORO MASS (LAT 41 55 43 LONG 071 22 23)

|                     |    |      |    |    |    |    |    |    |     |   |      |    |
|---------------------|----|------|----|----|----|----|----|----|-----|---|------|----|
| CCT., 1970<br>01... | .1 | .006 | .2 | -- | 47 | 22 | 10 | 81 | 6.8 | 6 | 12.0 | -- |
|---------------------|----|------|----|----|----|----|----|----|-----|---|------|----|

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES  
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE                                                                                   | DIS-<br>CHARGE<br>(CFS) | SILICA<br>(SiO <sub>2</sub> )<br>(MG/L) | DIS-<br>SOLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SOLVED<br>MANGANESE<br>(MN)<br>(UG/L) | DIS-<br>SOLVED<br>CALCIUM<br>(CA)<br>(MG/L) | DIS-<br>SOLVED<br>MAGNESIUM<br>(MG)<br>(MG/L) | SCDIUM<br>(NA)<br>(MG/L) | PO-<br>TAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO <sub>3</sub> )<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) |
|----------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|------------------------------------------|-----------------------------------------------|---------------------------------------------|-----------------------------------------------|--------------------------|--------------------------------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------|---------------------------------|
| BLACKSTONE RIVER BASIN.--CONTINUED                                                     |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| 01113800 - MILLERS RIVER NEAR VALLEY FALLS R I (LAT 41 55 39 LONG 071 23 07)           |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| CCT., 1970<br>01...                                                                    | .12                     | 7.3                                     | 30                                       | C                                             | 12                                          | 2.8                                           | 5.5                      | .6                                   | .05                                       | 29                                                | 16                                      | 10                              |
| CONNECTICUT RIVER BASIN                                                                |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| C1161320 - DRY BROOK AT GILL, MASS. (LAT 42 38 31 LONG 072 29 53)                      |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>21...                                                                    | 2.1                     | 9.2                                     | 1400                                     | 130                                           | 9.5                                         | 2.4                                           | 5.7                      | 1.5                                  | --                                        | 28                                                | 11                                      | 8.9                             |
| 01161340 - FOURMILE BROOK NEAR NORTHFIELD, MASS. (LAT 42 37 13 LONG 072 28 15)         |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>21...                                                                    | 2.1                     | 11                                      | 120                                      | 0                                             | 4.5                                         | 1.1                                           | 3.2                      | 1.3                                  | --                                        | 17                                                | 8.5                                     | 2.3                             |
| 01167100 - COUCH BROOK NEAR NORTH BERNARDSTON MASS (LAT 42 42 15 LONG 072 33 54)       |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>21...                                                                    | .54                     | 7.0                                     | 120                                      | 20                                            | 10                                          | 2.2                                           | 3.1                      | 1.0                                  | --                                        | 36                                                | 10                                      | 2.2                             |
| 01167200 - FALLS RIVER AT BERNARDSTON MASS (LAT 42 41 15 LONG 072 32 43)               |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>21...                                                                    | 5.7                     | 3.5                                     | 50                                       | 0                                             | 12                                          | 2.4                                           | 9.5                      | 1.4                                  | --                                        | 33                                                | 12                                      | 17                              |
| 01170550 - RED BROOK NEAR NORTH LEVERETT MASS (LAT 42 30 15 LONG 072 26 52)            |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>21...                                                                    | .69                     | 11                                      | 310                                      | 50                                            | 1.9                                         | .4                                            | 2.2                      | .3                                   | --                                        | 2                                                 | 8.7                                     | 1.4                             |
| 01170600 - LONG PLAIN BROOK NEAR LEVERETT, MASS. (LAT 42 27 28 LONG 072 31 23)         |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>21...                                                                    | .48                     | 8.7                                     | 440                                      | 60                                            | 16                                          | 2.0                                           | 6.6                      | .9                                   | --                                        | 43                                                | 13                                      | 12                              |
| 01170700 - ROARING BROOK AT EAST LEVERETT, MASS. (LAT 42 26 18 LONG 072 28 59)         |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>21...                                                                    | 3.6                     | 12                                      | 50                                       | 0                                             | 3.0                                         | .7                                            | 5.2                      | .7                                   | --                                        | 7                                                 | 8.2                                     | 5.1                             |
| C1170905 - ROARING BROOK NEAR CONWAY, MASS. (LAT 42 28 19 LONG 072 40 21)              |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>24...                                                                    | .78                     | 9.0                                     | 60                                       | 10                                            | 17                                          | 1.4                                           | 2.0                      | 1.4                                  | --                                        | 54                                                | 6.9                                     | 1.8                             |
| 01171270 - HOP BROOK TRIBUTARY AT DWIGHT MASS (LAT 42 19 44 LONG 072 27 47)            |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>24...                                                                    | .18                     | 9.5                                     | 480                                      | 0                                             | 8.8                                         | 2.2                                           | 7.8                      | 1.3                                  | --                                        | 22                                                | 12                                      | 14                              |
| 01171290 - HOP BROOK AT SOUTH AMHERST MASS (LAT 42 20 31 LONG 072 29 38)               |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>24...                                                                    | 4.9                     | 12                                      | 130                                      | 0                                             | 7.5                                         | 2.1                                           | 4.9                      | 1.2                                  | --                                        | 25                                                | 10                                      | 6.3                             |
| 01171300 - FORT RIVER NEAR AMHERST, MASS. (LAT 42 21 28 LONG 072 30 17)                |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>23...                                                                    | 19                      | 11                                      | 1100                                     | 80                                            | 8.8                                         | 2.4                                           | 6.4                      | 1.5                                  | --                                        | 23                                                | 14                                      | 8.7                             |
| 01171400 - EAST BRANCH MILL RIVER AT WILLIAMSBURG, MASS. (LAT 42 23 58 LONG 072 43 55) |                         |                                         |                                          |                                               |                                             |                                               |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>23...                                                                    | 2.5                     | 9.6                                     | 220                                      | 30                                            | 7.0                                         | 1.3                                           | 2.7                      | .9                                   | --                                        | 26                                                | 6.4                                     | 2.2                             |

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES  
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

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| DATE                                                                                   | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTI-<br>TUENTS)<br>(MG/L) | HARD-<br>NESS<br>(CA,MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | PH<br>(UNITS) | COLOR<br>(PLAT-<br>INUM<br>COBALT<br>UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) |
|----------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------|--------------------------|-------------------------------------------|---------------------------------------------------------------------|------------------------------------|---------------------------------------------------|------------------------------------------------------------|---------------|---------------------------------------------|----------------------------------|------------------------------------|
| BLACKSTONE RIVER BASIN.--CONTINUED                                                     |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01113800 - MILLERS RIVER NEAR VALLEY FALLS R I (LAT 41 55 39 LONG 071 23 07)           |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| CCT., 1970<br>01....                                                                   | .1                                               | .002                     | .4                       | --                                        | 70                                                                  | 42                                 | 18                                                | 119                                                        | 7.0           | 5                                           | 11.0                             | --                                 |
| CONNECTICUT RIVER BASIN                                                                |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| 01161320 - DRY BROOK AT GILL, MASS. (LAT 42 38 31 LONG 072 29 53)                      |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>21....                                                                   | .1                                               | --                       | .6                       | --                                        | 65                                                                  | 34                                 | 11                                                | 104                                                        | 7.1           | --                                          | 18.5                             | 8.2                                |
| 01161340 - FOURMILE BROCK NEAR NORTHFIELD, MASS. (LAT 42 37 13 LONG 072 28 15)         |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>21....                                                                   | .1                                               | --                       | .1                       | --                                        | 41                                                                  | 16                                 | 2                                                 | 54                                                         | 7.1           | --                                          | 17.0                             | 9.3                                |
| 01167100 - COUCH BROOK NEAR NORTH BERNARDSTON MASS (LAT 42 42 15 LONG 072 33 54)       |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>21....                                                                   | .1                                               | --                       | .2                       | --                                        | 54                                                                  | 34                                 | 5                                                 | 87                                                         | 7.5           | --                                          | 15.0                             | 9.6                                |
| 01167200 - FALLS RIVER AT BERNARDSTON MASS (LAT 42 41 15 LONG 072 32 43)               |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>21....                                                                   | .0                                               | --                       | .7                       | --                                        | 78                                                                  | 40                                 | 13                                                | 145                                                        | 7.3           | --                                          | 14.5                             | 9.6                                |
| 01170550 - RED BROOK NEAR NORTH LEVERETT MASS (LAT 42 30 15 LONG 072 26 52)            |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>21....                                                                   | .1                                               | --                       | .00                      | --                                        | 27                                                                  | 6                                  | 5                                                 | 28                                                         | 5.9           | --                                          | 13.0                             | 9.6                                |
| 01170600 - LONG PLAIN BROOK NEAR LEVERETT, MASS. (LAT 42 27 28 LONG 072 31 23)         |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>21....                                                                   | .0                                               | --                       | .00                      | --                                        | 80                                                                  | 48                                 | 13                                                | 140                                                        | 7.0           | --                                          | 13.0                             | 3.3                                |
| 01170700 - ROARING BROCK AT EAST LEVERETT, MASS. (LAT 42 26 18 LONG 072 28 59)         |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>21....                                                                   | .1                                               | --                       | .00                      | --                                        | 39                                                                  | 10                                 | 4                                                 | 52                                                         | 6.6           | --                                          | 12.0                             | 10.4                               |
| 01170905 - RCARING BROCK NEAR CONWAY, MASS. (LAT 42 28 19 LONG 072 40 21)              |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>24....                                                                   | .0                                               | --                       | .00                      | --                                        | 66                                                                  | 48                                 | 4                                                 | 109                                                        | 7.4           | --                                          | 13.5                             | 8.7                                |
| 01171270 - HOP BROOK TRIBUTARY AT DWIGHT MASS (LAT 42 19 44 LONG 072 27 47)            |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>24....                                                                   | .0                                               | --                       | .3                       | --                                        | 68                                                                  | 31                                 | 13                                                | 112                                                        | 7.2           | --                                          | 14.0                             | 8.9                                |
| 01171290 - HOP BROOK AT SOUTH AMHERST MASS (LAT 42 20 31 LONG 072 29 38)               |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>24....                                                                   | .1                                               | --                       | .2                       | --                                        | 57                                                                  | 27                                 | 7                                                 | 84                                                         | 6.9           | --                                          | 12.0                             | 6.8                                |
| 01171300 - FCRT RIVER NEAR AMHERST, MASS. (LAT 42 21 28 LONG 072 30 17)                |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>23....                                                                   | .1                                               | --                       | .2                       | --                                        | 65                                                                  | 32                                 | 13                                                | 104                                                        | 6.9           | --                                          | 17.0                             | 8.9                                |
| 01171400 - EAST BRANCH MILL RIVER AT WILLIAMSBURG, MASS. (LAT 42 23 58 LONG 072 43 55) |                                                  |                          |                          |                                           |                                                                     |                                    |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>23....                                                                   | .1                                               | --                       | .00                      | --                                        | 43                                                                  | 23                                 | 2                                                 | 65                                                         | 7.2           | --                                          | 12.0                             | 10.0                               |

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES  
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE                                                                                                 | DIS-<br>CHARGE<br>(CFS) | SILICA<br>(SiO <sub>2</sub> )<br>(MG/L) | DIS-<br>SOLVED<br>IRON<br>(FE)<br>(UG/L) | DIS-<br>SOLVED<br>MAN-<br>GANESE<br>(MN)<br>(UG/L) | DIS-<br>SOLVED<br>CAL-<br>CIUM<br>(CA)<br>(MG/L) | DIS-<br>SOLVED<br>MAG-<br>NE-<br>SIUM<br>(MG)<br>(MG/L) | SODIUM<br>(NA)<br>(MG/L) | PO-<br>TAS-<br>SIUM<br>(K)<br>(MG/L) | AMMONIA<br>NITRO-<br>GEN<br>(N)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO <sub>3</sub> )<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) |
|------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|------------------------------------------|----------------------------------------------------|--------------------------------------------------|---------------------------------------------------------|--------------------------|--------------------------------------|-------------------------------------------|---------------------------------------------------|-----------------------------------------|---------------------------------|
| CONNECTICUT RIVER BASIN.--CONTINUED                                                                  |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| 01171450 - ROBERTS MEADOW BROOK NEAR WESTHAMPTON, MASS. (LAT 42 20 13 LONG 072 45 14)                |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>23...                                                                                  | 2.1                     | 11                                      | 90                                       | 0                                                  | 6.0                                              | 1.3                                                     | 2.2                      | .7                                   | --                                        | 24                                                | 6.6                                     | 1.2                             |
| 01171500 - MILL RIVER AT NORTHAMPTON, MASS. (LAT 42 19 05 LONG 072 39 21)                            |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>23...                                                                                  | 26                      | 8.1                                     | 330                                      | 40                                                 | 10                                               | 2.0                                                     | 6.9                      | 1.5                                  | --                                        | 32                                                | 10                                      | 9.7                             |
| 01171750 - NORTH BRANCH MANHAN RIVER TRIBUTARY NEAR SOUTHAMPTON, MASS. (LAT 42 15 49 LONG 072 44 12) |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>22...                                                                                  | .22                     | 13                                      | 80                                       | 0                                                  | 5.5                                              | 1.2                                                     | 3.4                      | .6                                   | .45                                       | 16                                                | 10                                      | 2.7                             |
| 01171780 - MANHAN RIVER AT EASTHAMPTON, MASS. (LAT 42 15 59 LONG 072 41 31)                          |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>23...                                                                                  | 28                      | 10                                      | 420                                      | 90                                                 | 11                                               | 2.1                                                     | 5.7                      | 1.4                                  | --                                        | 33                                                | 11                                      | 8.5                             |
| 01171800 - BASSETT BROOK NEAR NORTHAMPTON, MASS. (LAT 42 18 09 LONG 072 41 16)                       |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>23...                                                                                  | 1.7                     | 10                                      | 410                                      | 70                                                 | 9.5                                              | 2.1                                                     | 5.9                      | 1.3                                  | --                                        | 33                                                | 7.5                                     | 8.8                             |
| 01171907 - BROAD BROOK AT ROCK VALLEY ST., HOLYOKE, MASS. (LAT 42 11 36 LONG 072 40 31)              |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>20...                                                                                  | .63                     | 7.7                                     | 160                                      | 0                                                  | 20                                               | 6.5                                                     | 10                       | .6                                   | --                                        | 67                                                | 12                                      | 22                              |
| 01171950 - BACHELOR BROOK AT SOUTH HADLEY, MASS. (LAT 42 16 12 LONG 072 35 14)                       |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>22...                                                                                  | 66                      | 5.5                                     | 670                                      | 60                                                 | 15                                               | 3.6                                                     | 9.1                      | 1.9                                  | --                                        | 43                                                | 16                                      | 15                              |
| 01171960 - MUDDY BROOK NEAR GRANBY, MASS. (LAT 42 13 51 LONG 072 30 53)                              |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>22...                                                                                  | 1.4                     | 11                                      | 620                                      | 90                                                 | 25                                               | 6.4                                                     | 7.7                      | 1.0                                  | --                                        | 44                                                | 53                                      | 14                              |
| 01177300 - NORTH BRANCH MILL RIVER NEAR WILBRAHAM, MASS. (LAT 42 07 02 LONG 072 28 18)               |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>20...                                                                                  | 3.3                     | 13                                      | 530                                      | 50                                                 | 23                                               | 5.2                                                     | 7.2                      | 1.2                                  | --                                        | 57                                                | 24                                      | 16                              |
| 01183700 - PECCUSIC BROOK NEAR SPRINGFIELD, MASS. (LAT 42 03 56 LONG 072 32 24)                      |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>20...                                                                                  | 2.3                     | 15                                      | 550                                      | 100                                                | 36                                               | 6.9                                                     | 25                       | 3.5                                  | --                                        | 61                                                | 43                                      | 45                              |
| 01184200 - STILL BROOK NEAR WEST AGAWAM, MASS. (LAT 42 02 31 LONG 072 41 00)                         |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>20...                                                                                  | 2.0                     | 12                                      | 180                                      | 40                                                 | 32                                               | 7.7                                                     | 7.6                      | 2.7                                  | --                                        | 63                                                | 51                                      | 14                              |
| ST. LAWRENCE RIVER BASIN                                                                             |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| 04283300 - WINDOSKI RIVER NEAR EAST MONTPELIER, VT. (LAT 44 15 23 LONG 072 35 36)                    |                         |                                         |                                          |                                                    |                                                  |                                                         |                          |                                      |                                           |                                                   |                                         |                                 |
| SEP., 1971<br>10...                                                                                  | --                      | 3.5                                     | --                                       | --                                                 | 35                                               | 3.1                                                     | 4.7                      | 1.4                                  | --                                        | 108                                               | 10                                      | 7.4                             |

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE                                                                                                 | DIS-<br>SOLVED<br>FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRITE<br>(N)<br>(MG/L) | NITRATE<br>(N)<br>(MG/L) | TOTAL<br>PHOS-<br>PHORUS<br>(P)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTI-<br>TUENTS)<br>(MG/L) | HARD-<br>NESS<br>(CA, MG)<br>(MG/L) | NON-<br>CAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | PH<br>(UNITS) | COLOR<br>(PLAT-<br>INUM<br>COBALT<br>UNITS) | TEM-<br>PERA-<br>TURE<br>(DEG C) | DIS-<br>SOLVED<br>OXYGEN<br>(MG/L) |
|------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------|--------------------------|-------------------------------------------|---------------------------------------------------------------------|-------------------------------------|---------------------------------------------------|------------------------------------------------------------|---------------|---------------------------------------------|----------------------------------|------------------------------------|
| CONNECTICUT RIVER BASIN.--CONTINUED                                                                  |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| 01171450 - ROBERTS MEADOW BROOK NEAR WESTHAMPTON, MASS. (LAT 42 20 13 LONG 072 45 14)                |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>23...                                                                                  | .0                                               | --                       | .00                      | --                                        | 41                                                                  | 20                                  | 1                                                 | 57                                                         | 7.1           | --                                          | 12.0                             | 9.9                                |
| 01171500 - MILL RIVER AT NORTHAMPTON, MASS. (LAT 42 19 05 LONG 072 39 21)                            |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>23...                                                                                  | .0                                               | --                       | .4                       | --                                        | 66                                                                  | 34                                  | 8                                                 | 113                                                        | 7.2           | --                                          | 17.0                             | 9.5                                |
| 01171750 - NORTH BRANCH MANHAN RIVER TRIBUTARY NEAR SOUTHAMPTON, MASS. (LAT 42 15 49 LONG 072 44 12) |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>22...                                                                                  | .1                                               | --                       | .00                      | --                                        | 45                                                                  | 19                                  | 6                                                 | 61                                                         | 6.8           | --                                          | 15.0                             | 9.4                                |
| 01171780 - MANHAN RIVER AT EASTHAMPTON, MASS. (LAT 42 15 59 LONG 072 41 31)                          |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>23...                                                                                  | .1                                               | --                       | .5                       | --                                        | 68                                                                  | 36                                  | 9                                                 | 110                                                        | 7.2           | --                                          | 15.0                             | 9.6                                |
| 01171800 - BASSETT BROOK NEAR NORTHAMPTON, MASS. (LAT 42 18 09 LONG 072 41 16)                       |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>23...                                                                                  | .0                                               | --                       | .8                       | --                                        | 65                                                                  | 32                                  | 5                                                 | 102                                                        | 7.2           | --                                          | 14.0                             | 9.3                                |
| 01171907 - BROAD BROOK AT ROCK VALLEY ST., HOLYOKE, MASS. (LAT 42 11 36 LONG 072 40 31)              |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>20...                                                                                  | .0                                               | --                       | .4                       | --                                        | 114                                                                 | 77                                  | 22                                                | 203                                                        | 7.4           | --                                          | 16.0                             | 9.2                                |
| 01171950 - BACHELOR BROOK AT SOUTH HADLEY, MASS. (LAT 42 16 12 LONG 072 35 14)                       |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>22...                                                                                  | .1                                               | --                       | .3                       | --                                        | 89                                                                  | 52                                  | 17                                                | 162                                                        | 7.0           | --                                          | 19.0                             | 8.1                                |
| 01171960 - MUDDY BROOK NEAR GRANBY, MASS. (LAT 42 13 51 LONG 072 30 53)                              |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>22...                                                                                  | .0                                               | --                       | .1                       | --                                        | 140                                                                 | 89                                  | 53                                                | 213                                                        | 7.0           | --                                          | 16.0                             | 4.9                                |
| 01177300 - NORTH BRANCH MILL RIVER NEAR WILBRAHAM, MASS. (LAT 42 07 02 LONG 072 28 18)               |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>20...                                                                                  | .0                                               | --                       | .8                       | --                                        | 121                                                                 | 79                                  | 32                                                | 188                                                        | 7.4           | --                                          | 16.5                             | 8.2                                |
| 01183700 - PECCUSIC BROOK NEAR SPRINGFIELD, MASS. (LAT 42 03 56 LONG 072 32 24)                      |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>20...                                                                                  | .1                                               | --                       | 4.9                      | --                                        | 226                                                                 | 118                                 | 68                                                | 381                                                        | 7.0           | --                                          | 16.0                             | 6.5                                |
| 01184200 - STILL BROOK NEAR WEST AGAWAM, MASS. (LAT 42 02 31 LONG 072 41 00)                         |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>20...                                                                                  | .0                                               | --                       | 2.5                      | --                                        | 169                                                                 | 112                                 | 60                                                | 270                                                        | 7.2           | --                                          | 17.0                             | 8.2                                |
| ST. LAWRENCE RIVER BASIN                                                                             |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| 04283300 - WINDOSKI RIVER NEAR EAST MONTPELIER, VT. (LAT 44 15 23 LONG 072 35 36)                    |                                                  |                          |                          |                                           |                                                                     |                                     |                                                   |                                                            |               |                                             |                                  |                                    |
| SEP., 1971<br>10...                                                                                  | .0                                               | --                       | .00                      | --                                        | --                                                                  | 100                                 | 12                                                | 217                                                        | 7.3           | --                                          | --                               | --                                 |

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, MINOR ELEMENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE                                                                               | DIS-<br>CHARGE<br>(CFS) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | DIS-<br>SOLVED<br>ALUM-<br>INUM<br>(AL)<br>(UG/L) | DIS-<br>SOLVED<br>ARSENIC<br>(AS)<br>(UG/L) | DIS-<br>SOLVED<br>BORON<br>(B)<br>(UG/L) | DIS-<br>SOLVED<br>CAD-<br>MIUM<br>(CD)<br>(UG/L) | DIS-<br>SOLVED<br>CHRO-<br>MIUM<br>(CR)<br>(UG/L) | HEXA-<br>VALENT<br>CHRO-<br>MIUM<br>(CR6)<br>(UG/L) |
|------------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------|---------------------------------------------------|---------------------------------------------|------------------------------------------|--------------------------------------------------|---------------------------------------------------|-----------------------------------------------------|
| MERRIMACK RIVER BASIN                                                              |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| 01092000 - MERRIMACK RIVER NEAR GOFFS FALLS N H (LAT 42 56 55 LONG 071 27 45)      |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>13...                                                                | 2580                    | --                                                         | --                                                | 0                                           | --                                       | 1                                                | --                                                | 0                                                   |
| 01093500 - MASSABESIC LAKE NEAR MANCHESTER N H (LAT 42 57 45 LONG 071 23 40)       |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>13...                                                                | --                      | 62                                                         | --                                                | 0                                           | --                                       | 2                                                | --                                                | 0                                                   |
| 01095450 - WACHUSETT RESERVOIR NEAR CLINTON MASS (LAT 42 24 15 LONG 071 41 25)     |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>08...                                                                | --                      | --                                                         | --                                                | 0                                           | --                                       | 0                                                | --                                                | 0                                                   |
| 01097490 - SUDBURY RESERVOIR NEAR FRAMINGHAM MASS (LAT 42 18 00 LONG 071 27 00)    |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>08...                                                                | --                      | --                                                         | --                                                | 0                                           | --                                       | 1                                                | --                                                | 0                                                   |
| SAUGUS RIVER BASIN                                                                 |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| 01102200 - BREEDS POND AT LYNN MASS (LAT 42 28 25 LONG 070 58 42)                  |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>05...                                                                | --                      | --                                                         | --                                                | 0                                           | --                                       | 0                                                | --                                                | 1                                                   |
| MYSTIC RIVER BASIN                                                                 |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| 01103020 - FRESH POND AT CAMBRIDGE MASS (LAT 42 23 00 LONG 071 08 39)              |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>07...                                                                | --                      | --                                                         | --                                                | 0                                           | --                                       | 0                                                | --                                                | 1                                                   |
| CHARLES RIVER BASIN                                                                |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| 01103370 - JAR BROOK NEAR HOLLISTON, MASS. (LAT 42 13 46 LONG 071 26 35)           |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| APR., 1971<br>22...                                                                | 1.0                     | 235                                                        | 200                                               | 0                                           | 100                                      | --                                               | 2                                                 | 0                                                   |
| 01103390 - BCGASTON BROOK NEAR MILLIS MASS (LAT 42 11 01 LONG 071 23 27)           |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| APR., 1971<br>23...                                                                | 22                      | 177                                                        | 178                                               | 0                                           | 40                                       | --                                               | 2                                                 | 2                                                   |
| TAUNTON RIVER BASIN                                                                |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| 01107240 - LITTLE CLITTACAS POND NEAR ROCHESTER MASS (LAT 41 47 14 LONG 070 54 53) |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>12...                                                                | --                      | 67                                                         | --                                                | 0                                           | --                                       | 3                                                | --                                                | 0                                                   |
| 01109110 - NORTH WATUPPA POND NEAR FALL RIVER MASS (LAT 41 41 44 LONG 071 07 16)   |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>12...                                                                | --                      | 74                                                         | --                                                | 0                                           | --                                       | 2                                                | --                                                | 0                                                   |



CHEMICAL ANALYSES, MINOR ELEMENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

| DATE                                                                               | CIS-<br>SOLVED<br>COBALT<br>(CO)<br>(UG/L) | DIS-<br>SOLVED<br>COPPER<br>(CU)<br>(UG/L) | DIS-<br>SOLVED<br>LEAD<br>(PB)<br>(UG/L) | DIS-<br>SOLVED<br>LITHIUM<br>(LI)<br>(UG/L) | DIS-<br>SOLVED<br>MERCURY<br>(HG)<br>(UG/L) | DIS-<br>SOLVED<br>NICKEL<br>(NI)<br>(UG/L) | DIS-<br>SOLVED<br>ZINC<br>(ZN)<br>(UG/L) |
|------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------|------------------------------------------|
| MERRIMACK RIVER BASIN                                                              |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| 01092000 - MERRIMACK RIVER NEAR GOFFS FALLS N H (LAT 42 56 55 LONG 071 27 45)      |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>13...                                                                | 3                                          | --                                         | 7                                        | --                                          | <.5                                         | --                                         | 30                                       |
| 01093500 - MASSABESIC LAKE NEAR MANCHESTER N H (LAT 42 57 45 LONG 071 23 40)       |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>13...                                                                | 2                                          | --                                         | 7                                        | --                                          | <.5                                         | --                                         | 60                                       |
| 01095450 - WACHUSETT RESERVOIR NEAR CLINTON MASS (LAT 42 24 15 LONG 071 41 25)     |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>08...                                                                | 0                                          | --                                         | 4                                        | --                                          | <.5                                         | --                                         | 10                                       |
| 01097490 - SUDBURY RESERVOIR NEAR FRAMINGHAM MASS (LAT 42 18 00 LONG 071 27 00)    |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>08...                                                                | 1                                          | --                                         | 4                                        | --                                          | <.5                                         | --                                         | 20                                       |
| SAUGUS RIVER BASIN                                                                 |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| 01102200 - BREEDS POND AT LYNN MASS (LAT 42 28 25 LONG 070 58 42)                  |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>09...                                                                | 0                                          | --                                         | 3                                        | --                                          | <.5                                         | --                                         | 20                                       |
| MYSTIC RIVER BASIN                                                                 |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| 01103020 - FRESH POND AT CAMBRIDGE MASS (LAT 42 23 00 LONG 071 08 39)              |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>07...                                                                | 1                                          | --                                         | 4                                        | --                                          | <.5                                         | --                                         | 20                                       |
| CHARLES RIVER BASIN                                                                |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| 01103370 - JAR BROOK NEAR HOLLISTON, MASS. (LAT 42 13 46 LONG 071 26 35)           |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| APR., 1971<br>22...                                                                | 0                                          | 0                                          | 2                                        | 0                                           | --                                          | 4                                          | 0                                        |
| 01103390 - BOGASTOW BROOK NEAR MILLIS MASS (LAT 42 11 01 LONG 071 23 27)           |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| APR., 1971<br>23...                                                                | 0                                          | 30                                         | 7                                        | 10                                          | --                                          | 2                                          | 20                                       |
| TAUNTON RIVER BASIN                                                                |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| 01107240 - LITTLE QUITTACAS POND NEAR ROCHESTER MASS (LAT 41 47 14 LONG 070 54 53) |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>12...                                                                | 2                                          | --                                         | 6                                        | --                                          | <.5                                         | --                                         | 0                                        |
| 01109110 - NORTH WATUPPA POND NEAR FALL RIVER MASS (LAT 41 41 44 LONG 071 07 16)   |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>12...                                                                | 2                                          | --                                         | 7                                        | --                                          | <.5                                         | --                                         | 0                                        |

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, MINOR ELEMENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE                                                                             | DIS-<br>CHARGE<br>(CFS) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | DIS-<br>SOLVED<br>ALUM-<br>INUM<br>(UG/L) | DIS-<br>SOLVED<br>ARSENIC<br>(AS)<br>(UG/L) | DIS-<br>SOLVED<br>BORON<br>(B)<br>(UG/L) | DIS-<br>SOLVED<br>CAD-<br>MIUM<br>(CD)<br>(UG/L) | DIS-<br>SOLVED<br>CHRO-<br>MIUM<br>(CR)<br>(UG/L) | HEXA-<br>VALENT<br>CHRO-<br>MIUM<br>(CR6)<br>(UG/L) |
|----------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------|-------------------------------------------|---------------------------------------------|------------------------------------------|--------------------------------------------------|---------------------------------------------------|-----------------------------------------------------|
| TENMILE RIVER BASIN                                                              |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| 01109400 - TENMILE RIVER NEAR EAST PROVIDENCE R I (LAT 41 49 40 LONG 071 20 45)  |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>13...                                                              | --                      | 450                                                        | --                                        | 0                                           | --                                       | 1                                                | --                                                | 0                                                   |
| BLACKSTONE RIVER BASIN                                                           |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| 01109550 - HOLDEN RESERVOIR NEAR HOLDEN MASS (LAT 42 17 46 LONG 071 52 02)       |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>09...                                                              | --                      | 62                                                         | --                                        | 0                                           | --                                       | 1                                                | --                                                | 0                                                   |
| 01110500 - BLACKSTONE RIVER AT NORTHBRIDGE MASS (LAT 42 09 13 LONG 071 39 09)    |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>09... 352                                                          |                         | 495                                                        | --                                        | 10                                          | --                                       | 1                                                | 1                                                 | --                                                  |
| MOSHASSUCK RIVER BASIN                                                           |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| 01114000 - MOSHASSUCK RIVER AT PROVIDENCE R I (LAT 41 50 02 LONG 071 24 42)      |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>13... 5.7                                                          |                         | 350                                                        | --                                        | 0                                           | --                                       | 3                                                | --                                                | 0                                                   |
| PAWTUCKET RIVER BASIN                                                            |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| 01115450 - SCITLATE RESERVOIR NEAR HOPE R I (LAT 41 45 00 LONG 071 35 00)        |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>13...                                                              | --                      | 78                                                         | --                                        | 0                                           | --                                       | 2                                                | --                                                | 1                                                   |
| 01116610 - PAWTUCKET RIVER NEAR WARWICK R I (LAT 41 45 41 LONG 071 25 31)        |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>13...                                                              | --                      | 340                                                        | --                                        | 20                                          | --                                       | 3                                                | --                                                | 1                                                   |
| CONNECTICUT RIVER BASIN                                                          |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| 01131500 - CONNECTICUT RIVER NEAR DALTON N H (LAT 44 24 35 LONG 071 43 00)       |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>13... 1580                                                         |                         | --                                                         | --                                        | 0                                           | --                                       | 0                                                | --                                                | 0                                                   |
| 01154500 - CONNECTICUT RIVER AT NORTH WALPOLE N H (LAT 43 07 35 LONG 072 26 15)  |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>13... 5840                                                         |                         | --                                                         | --                                        | 10                                          | --                                       | 2                                                | --                                                | 0                                                   |
| 01175000 - QUABBIN RESERVOIR NEAR WEST WARE MASS (LAT 42 16 57 LONG 072 20 42)   |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>08...                                                              | --                      | --                                                         | --                                        | 0                                           | --                                       | 1                                                | --                                                | 0                                                   |
| 01182500 - COBBLE MT RESERVOIR NEAR WESTFIELD MASS (LAT 42 07 00 LONG 072 53 00) |                         |                                                            |                                           |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>09...                                                              | --                      | 69                                                         | --                                        | 0                                           | --                                       | 1                                                | --                                                | 0                                                   |

CHEMICAL ANALYSES, MINOR ELEMENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE                                                                             | DIS-<br>SOLVED<br>COBALT<br>(CO)<br>(UG/L) | DIS-<br>SOLVED<br>COPPER<br>(CU)<br>(UG/L) | DIS-<br>SOLVED<br>LEAD<br>(PB)<br>(UG/L) | DIS-<br>SOLVED<br>LITHIUM<br>(LI)<br>(UG/L) | DIS-<br>SOLVED<br>MERCURY<br>(HG)<br>(UG/L) | DIS-<br>SOLVED<br>NICKEL<br>(NI)<br>(UG/L) | DIS-<br>SOLVED<br>ZINC<br>(ZN)<br>(UG/L) |
|----------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------|------------------------------------------|
| TENMILE RIVER BASIN                                                              |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| 01109400 - TENMILE RIVER NEAR EAST PROVIDENCE R I (LAT 41 49 40 LONG 071 20 45)  |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>13...                                                              | 3                                          | --                                         | 8                                        | --                                          | <.5                                         | --                                         | 40                                       |
| BLACKSTONE RIVER BASIN                                                           |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| 01109550 - HOLDEN RESERVOIR NEAR HOLDEN MASS (LAT 42 17 46 LONG 071 52 02)       |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>09...                                                              | 0                                          | --                                         | 9                                        | --                                          | <.5                                         | --                                         | 20                                       |
| 01110500 - BLACKSTONE RIVER AT NORTHBRIDGE MASS (LAT 42 09 13 LONG 071 39 09)    |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>09...                                                              | 17                                         | --                                         | 17                                       | --                                          | <.5                                         | --                                         | 220                                      |
| MOSHASSUCK RIVER BASIN                                                           |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| 01114000 - MOSHASSUCK RIVER AT PROVIDENCE R I (LAT 41 50 02 LONG 071 24 42)      |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>13...                                                              | 4                                          | --                                         | 8                                        | --                                          | <.5                                         | --                                         | 40                                       |
| PAWTUXET RIVER BASIN                                                             |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| 01115450 - SCITUATE RESERVOIR NEAR HOPE R I (LAT 41 45 00 LONG 071 35 00)        |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>13...                                                              | 4                                          | --                                         | 5                                        | --                                          | <.5                                         | --                                         | 10                                       |
| 01116610 - PAWTUXET RIVER NEAR WARWICK R I (LAT 41 45 41 LONG 071 25 31)         |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>13...                                                              | 3                                          | --                                         | 6                                        | --                                          | <.5                                         | --                                         | 100                                      |
| CONNECTICUT RIVER BASIN                                                          |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| 01131500 - CONNECTICUT RIVER NEAR DALTON N H (LAT 44 24 35 LONG 071 43 00)       |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>13...                                                              | 0                                          | --                                         | 4                                        | --                                          | <.5                                         | --                                         | 50                                       |
| 01154500 - CONNECTICUT RIVER AT NORTH WALPOLE N H (LAT 43 07 35 LONG 072 26 15)  |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>13...                                                              | 5                                          | --                                         | 4                                        | --                                          | <.5                                         | --                                         | 30                                       |
| 01175000 - QUABBIN RESERVOIR NEAR WEST WARE MASS (LAT 42 16 57 LONG 072 20 42)   |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>08...                                                              | 1                                          | --                                         | 2                                        | --                                          | <.5                                         | --                                         | 0                                        |
| 01182500 - COBBLE MT RESERVOIR NEAR WESTFIELD MASS (LAT 42 07 00 LONG 072 53 00) |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>09...                                                              | 0                                          | --                                         | 7                                        | --                                          | <.5                                         | --                                         | 0                                        |

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, MINOR ELEMENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE                                                                                 | DIS-<br>CHARGE<br>(CFS) | SPECI-<br>FIC<br>CON-<br>DUCT-<br>ANCE<br>(MICRO-<br>MHOS) | DIS-<br>SOLVED<br>ALUM-<br>INUM<br>(AL)<br>(UG/L) | DIS-<br>SOLVED<br>ARSENIC<br>(AS)<br>(UG/L) | DIS-<br>SOLVED<br>BORON<br>(B)<br>(UG/L) | DIS-<br>SOLVED<br>CAD-<br>MIUM<br>(CD)<br>(UG/L) | DIS-<br>SOLVED<br>CHRO-<br>MIUM<br>(CR)<br>(UG/L) | HEXA-<br>VALENT<br>CHRO-<br>MIUM<br>(CR6)<br>(UG/L) |
|--------------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------|---------------------------------------------------|---------------------------------------------|------------------------------------------|--------------------------------------------------|---------------------------------------------------|-----------------------------------------------------|
| HOUSATONIC RIVER BASIN                                                               |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| 01197500 - HOUSATONIC RIVER NEAR GREAT BARRINGTON MASS (LAT 42 13 55 LONG 073 21 19) |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>09...                                                                  | 123                     | 375                                                        | --                                                | 0                                           | --                                       | 0                                                | --                                                | 0                                                   |
| ST. LAWRENCE RIVER BASIN                                                             |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| 04282000 - OTTER CREEK AT CENTER RUTLAND VT (LAT 43 36 13 LONG 073 00 49)            |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>13...                                                                  | 283                     | --                                                         | --                                                | 0                                           | --                                       | 3                                                | --                                                | 1                                                   |
| APR., 1971<br>27...                                                                  | 1320                    | --                                                         | --                                                | --                                          | --                                       | 6                                                | --                                                | --                                                  |
| 04294500 - LAKE CHAMPLAIN AT BURLINGTON VT (LAT 44 28 52 LONG 073 13 27)             |                         |                                                            |                                                   |                                             |                                          |                                                  |                                                   |                                                     |
| OCT., 1970<br>15...                                                                  | --                      | --                                                         | --                                                | 0                                           | --                                       | 0                                                | --                                                | 0                                                   |

CHEMICAL ANALYSES, MINOR ELEMENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971.--Continued

| DATE                                                                                 | DIS-<br>SOLVED<br>COBALT<br>(CO)<br>(UG/L) | DIS-<br>SOLVED<br>COPPER<br>(CU)<br>(UG/L) | DIS-<br>SOLVED<br>LEAD<br>(PB)<br>(UG/L) | DIS-<br>SOLVED<br>LITHIUM<br>(LI)<br>(UG/L) | DIS-<br>SOLVED<br>MERCURY<br>(HG)<br>(UG/L) | DIS-<br>SOLVED<br>NICKEL<br>(NI)<br>(UG/L) | DIS-<br>SOLVED<br>ZINC<br>(ZN)<br>(UG/L) |
|--------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------|------------------------------------------|
| HOUSATONIC RIVER BASIN                                                               |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| 01197500 - HOUSATONIC RIVER NEAR GREAT BARRINGTON MASS (LAT 42 13 55 LONG 073 21 19) |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>09...                                                                  | 1                                          | --                                         | 4                                        | --                                          | <.5                                         | --                                         | 30                                       |
| ST. LAWRENCE RIVER BASIN                                                             |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| 04282000 - OTTER CREEK AT CENTER RUTLAND VT (LAT 43 36 13 LONG 073 00 49)            |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>13...                                                                  | 4                                          | --                                         | 50                                       | --                                          | <.5                                         | --                                         | 70                                       |
| APR., 1971<br>27...                                                                  | --                                         | --                                         | 9                                        | --                                          | --                                          | --                                         | --                                       |
| 04294500 - LAKE CHAMPLAIN AT BURLINGTON VT (LAT 44 28 52 LONG 073 13 27)             |                                            |                                            |                                          |                                             |                                             |                                            |                                          |
| OCT., 1970<br>15...                                                                  | 3                                          | --                                         | 13                                       | --                                          | <.5                                         | --                                         | 30                                       |

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES OF GROUND WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

MAJOR AQUIFER: C3, UPPER CAMBRIAN; QG, QUATERNARY PLEISTOCENE; Y, PALEOZOIC; OO, OUTWASH DEPOSITS; 1G, SAND AND GRAVEL; 1L, LIMESTONE AND DOLOMITE; 2I, IGNEOUS INTRUSIVES.

| LOCAL<br>NUMBER |     | WELL<br>NUMBER   | MAJOR<br>AQUIFER | DEPTH<br>OF<br>WELL<br>(FT.) | DATE<br>OF<br>SAMPLE | TEMP-<br>PERA-<br>TURE<br>(DEG C) | SILICA<br>(SiO2)<br>(MG/L) | TOTAL<br>IRON<br>(FE)<br>(UG/L) | TOTAL<br>MAN-<br>GANESE<br>(MN)<br>(UG/L) | CAL-<br>CIUM<br>(CA)<br>(MG/L) | MAGNE-<br>SIUM<br>(MG)<br>(MG/L) | SODIUM<br>(NA)<br>(MG/L) |
|-----------------|-----|------------------|------------------|------------------------------|----------------------|-----------------------------------|----------------------------|---------------------------------|-------------------------------------------|--------------------------------|----------------------------------|--------------------------|
| MASSACHUSETTS   |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| ADAMS           |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| AES             | 2   | 423651N0730715.1 | 1L               | --                           | 10-07-70             | --                                | 4.8                        | 10                              | 0                                         | 50                             | 16                               | 2.6                      |
| AEW             | 115 | 423907N0730632.1 | QG1G             | 158                          | 10-07-70             | --                                | 6.5                        | 10                              | 0                                         | 28                             | 8.1                              | 1.5                      |
| AEW             | 128 | 423708N0730726.1 | QG               | 85                           | 10-07-70             | --                                | 5.1                        | 10                              | 0                                         | 56                             | 18                               | 15                       |
| CHESHIRE        |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| CJW             | 35  | 423134N0731127.1 | C31L             | 110                          | 10-13-70             | --                                | 4.8                        | 0                               | 0                                         | 1.0                            | .0                               | 88                       |
| CJW             | 38  | 423206N0731099.1 | C31L             | 182                          | 10-16-70             | --                                | 5.7                        | 10                              | 0                                         | 18                             | 6.1                              | .6                       |
| FRANKLIN        |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| F2W             | 1   | 420441N0712503.1 | QG               | 40                           | 05-03-71             | 9.0                               | 11                         | 10                              | 80                                        | 12                             | 2.4                              | 10                       |
| F2W             | 30  | 420515N0712256.1 | QG               | 27                           | 05-03-71             | 8.0                               | 8.3                        | 0                               | 0                                         | 4.5                            | 1.0                              | 3.6                      |
| HINGHAM         |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| HDS             | 1   | 421157N0705038.1 | --               | --                           | 10-19-70             | 10.0                              | 15                         | 10                              | 0                                         | 6.0                            | 1.6                              | 7.9                      |
| MARSHFIELD      |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| MHS             | 1   | 420845N0704527.1 | --               | --                           | 10-05-70             | --                                | 14                         | --                              | 0                                         | 4.0                            | 1.1                              | 7.3                      |
| MHW             | 163 | 420845N0704527.2 | --               | 25                           | 10-19-70             | 9.0                               | 14                         | 240                             | 0                                         | 3.8                            | .9                               | 7.0                      |
| MILFORD         |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| MWW             | 44  | 420807N0712859.1 | Y 2I             | 200                          | 05-03-71             | 11.0                              | 14                         | 0                               | 0                                         | 10                             | 1.6                              | 7.7                      |
| MWW             | 45  | 420806N0712858.1 | QG               | 23                           | 05-03-71             | 7.5                               | 16                         | 0                               | 60                                        | 27                             | 2.6                              | 6.4                      |
| MWW             | 46  | 421045N0713211.1 | QG               | 16                           | 05-04-71             | 9.0                               | 6.6                        | 10                              | 0                                         | 15                             | 2.0                              | 46                       |
| MWW             | 47  | 421046N0713148.1 | Y 2I             | 100                          | 05-04-71             | 12.0                              | 12                         | 10                              | 160                                       | 18                             | 3.0                              | 8.9                      |
| MILLIS          |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| MYW             | 42  | 420938N0712015.1 | QG               | 4                            | 05-02-71             | 9.0                               | 12                         | 0                               | 0                                         | 17                             | 4.0                              | 11                       |
| NEEDHAM         |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| NEW             | 1   | 421618N0711314.1 | QG               | 24                           | 05-02-71             | 9.0                               | 12                         | 0                               | 0                                         | 22                             | 5.6                              | 21                       |
| NORTH ADAMS     |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| NOW             | 56  | 424036N0730605.1 | QG1G             | 110                          | 11-05-70             | --                                | 6.1                        | 0                               | 0                                         | 43                             | 13                               | 15                       |
| PLYMOUTH        |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| PWS             | 2   | 415720N0703947.1 | --               | --                           | 10-19-70             | 10.5                              | 12                         | 0                               | 0                                         | 7.7                            | 3.3                              | 13                       |
| WESTON          |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| XAW             | 47  | 422038N0711640.1 | QG               | 29                           | 05-02-71             | 8.0                               | 6.1                        | 100                             | 0                                         | 11                             | 1.4                              | 3.6                      |
| WILLIAMSTOWN    |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| XLW             | 97  | 424304N0731123.1 | QG1G             | 150                          | 10-14-70             | --                                | 5.6                        | 0                               | 0                                         | 29                             | 8.3                              | .6                       |
| XLW             | 98  | 424417N0731252.1 | QG1G             | 80                           | 10-16-70             | --                                | 4.4                        | 20                              | 0                                         | 23                             | 5.6                              | 1.5                      |
| RHODE ISLAND    |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| CUMBERLAND      |     |                  |                  |                              |                      |                                   |                            |                                 |                                           |                                |                                  |                          |
| CW              | 409 | 415757N0712751.1 | QG00             | 75                           | 05-24-71             | 9.0                               | 7.6                        | 30                              | 1800                                      | 16                             | 3.5                              | 22                       |



## CHEMICAL ANALYSES OF GROUND WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971--CONTINUED

| LOCAL<br>NUMBER |     | POTAS-<br>SIUM<br>(K)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO <sub>3</sub> )<br>(MG/L) | CAR-<br>BONATE<br>(CO <sub>3</sub> )<br>(MG/L) | SULFATE<br>(SO <sub>4</sub> )<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) | FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRATE<br>(NO <sub>3</sub> )<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTIT-<br>UENTS) | HARD-<br>NESS<br>(CA, MG)<br>(MG/L) | NONCAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | SPECIFIC<br>CONDUCT-<br>ANCE<br>(MICRO-<br>MHOS) | PH  |
|-----------------|-----|---------------------------------|---------------------------------------------------|------------------------------------------------|-----------------------------------------|---------------------------------|--------------------------------|-----------------------------------------|-----------------------------------------------------------|-------------------------------------|----------------------------------------------|--------------------------------------------------|-----|
| MASSACHUSETTS   |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| ACAMS           |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| AES             | 2   | .6                              | 240                                               | 0                                              | 10                                      | 9.6                             | .0                             | 4.6                                     | 216                                                       | 191                                 | 0                                            | 425                                              | 8.0 |
| AEW             | 115 | 1.2                             | 126                                               | 0                                              | 9.5                                     | 2.1                             | .0                             | 3.0                                     | 122                                                       | 104                                 | 0                                            | 228                                              | 8.1 |
| AEW             | 128 | 1.0                             | 244                                               | 0                                              | 15                                      | 33                              | .2                             | 6.2                                     | 270                                                       | 214                                 | 14                                           | 565                                              | 8.0 |
| CHESHIRE        |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| CJW             | 35  | .0                              | 198                                               | 0                                              | 16                                      | 9.6                             | .0                             | 11                                      | 227                                                       | 2                                   | 0                                            | 386                                              | 8.2 |
| CJW             | 38  | .5                              | 82                                                | 0                                              | 8.5                                     | .1                              | .0                             | 3.7                                     | 83                                                        | 70                                  | 3                                            | 153                                              | 8.2 |
| FRANKLIN        |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| F2W             | 1   | 1.1                             | 29                                                | 0                                              | 8.2                                     | 22                              | .3                             | 2.3                                     | 84                                                        | 40                                  | 16                                           | 144                                              | 6.8 |
| F2W             | 30  | 1.2                             | 9                                                 | 0                                              | 9.6                                     | 5.0                             | .0                             | 2.4                                     | 40                                                        | 15                                  | 8                                            | 63                                               | 6.3 |
| HINGHAM         |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| HOS             | 1   | .4                              | 20                                                | 0                                              | 7.5                                     | 9.3                             | .2                             | 1.2                                     | 59                                                        | 22                                  | 5                                            | 86                                               | 6.9 |
| MARSHFIELD      |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| MHS             | 1   | .6                              | 14                                                | 0                                              | 4.5                                     | 11                              | .0                             | 1.3                                     | 51                                                        | 14                                  | 3                                            | 67                                               | 6.7 |
| MHW             | 163 | .6                              | 15                                                | 0                                              | 4.0                                     | 10                              | .1                             | 1.3                                     | 49                                                        | 13                                  | 1                                            | 66                                               | 6.6 |
| MILFORD         |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| MWW             | 44  | 2.0                             | 43                                                | 0                                              | 4.3                                     | 4.0                             | .6                             | .7                                      | 66                                                        | 32                                  | 0                                            | 100                                              | 8.0 |
| MWW             | 45  | 1.8                             | 54                                                | 0                                              | 20                                      | 23                              | .2                             | 1.2                                     | 125                                                       | 78                                  | 34                                           | 214                                              | 6.8 |
| MWW             | 46  | 5.8                             | 10                                                | 0                                              | 17                                      | 83                              | .1                             | 4.3                                     | 185                                                       | 46                                  | 37                                           | 368                                              | 6.0 |
| MWW             | 47  | 1.6                             | 33                                                | 0                                              | 9.2                                     | 8.1                             | 1.0                            | 34                                      | 112                                                       | 57                                  | 30                                           | 173                                              | 6.4 |
| MILLIS          |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| MYW             | 42  | 2.5                             | 20                                                | 0                                              | 19                                      | 24                              | .1                             | 19                                      | 118                                                       | 59                                  | 42                                           | 200                                              | 6.6 |
| NEEDHAM         |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| NEW             | 1   | 1.7                             | 19                                                | 0                                              | 25                                      | 54                              | .0                             | 13                                      | 164                                                       | 78                                  | 62                                           | 300                                              | 6.6 |
| NORTH ADAMS     |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| NOW             | 56  | 1.6                             | 172                                               | 0                                              | 12                                      | 29                              | .0                             | 3.4                                     | 207                                                       | 160                                 | 20                                           | 385                                              | 8.1 |
| PLYMOUTH        |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| PWS             | 2   | 1.6                             | 18                                                | 0                                              | 9.5                                     | 24                              | .1                             | 8.3                                     | 88                                                        | 32                                  | 18                                           | 155                                              | 6.2 |
| WESTON          |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| XAW             | 47  | 1.0                             | 18                                                | 0                                              | 12                                      | 7.7                             | .0                             | 6.2                                     | 58                                                        | 33                                  | 18                                           | 100                                              | 6.5 |
| WILLIAMSTOWN    |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| XLW             | 97  | .5                              | 138                                               | 0                                              | 2.0                                     | .0                              | .0                             | .6                                      | 109                                                       | 106                                 | 0                                            | 213                                              | 8.2 |
| XLW             | 98  | .4                              | 100                                               | 0                                              | 8.5                                     | .2                              | .0                             | .5                                      | 93                                                        | 80                                  | 0                                            | 182                                              | 8.1 |
| RHODE ISLAND    |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| CUMBERLAND      |     |                                 |                                                   |                                                |                                         |                                 |                                |                                         |                                                           |                                     |                                              |                                                  |     |
| CUM             | 409 | 3.0                             | 40                                                | 0                                              | 23                                      | 31                              | .1                             | 6.2                                     | 133                                                       | 54                                  | 22                                           | 241                                              | 6.9 |

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES OF GROUND WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971--CONTINUED

| LOCAL<br>NUMBER |    | WELL NUMBER      | MAJOR<br>AQUIFER | DEPTH<br>OF<br>WELL<br>(FT.) | DATE<br>OF<br>SAMPLE | TEM-<br>PERA-<br>TURE<br>(DEG C) | SILICA<br>(SI02)<br>(MG/L) | TOTAL<br>IRON<br>(FE)<br>(UG/L) | TOTAL<br>MAN-<br>GANESE<br>(MN)<br>(UG/L) | CAL-<br>CIUM<br>(CA)<br>(MG/L) | MAGNE-<br>SIUM<br>(MG)<br>(MG/L) | SODIUM<br>(NA)<br>(MG/L) |
|-----------------|----|------------------|------------------|------------------------------|----------------------|----------------------------------|----------------------------|---------------------------------|-------------------------------------------|--------------------------------|----------------------------------|--------------------------|
| VERMONT         |    |                  |                  |                              |                      |                                  |                            |                                 |                                           |                                |                                  |                          |
| EAST MONTPELIER |    |                  |                  |                              |                      |                                  |                            |                                 |                                           |                                |                                  |                          |
| EBW             | 46 | 441620N0722724.1 | QG00             | 86                           | 01-06-71             | --                               | 12                         | --                              | --                                        | 65                             | 6.4                              | 10                       |
| EBW             | 46 | 441620N0722724.1 | QG00             | 86                           | 01-07-71             | --                               | 12                         | --                              | --                                        | 65                             | 6.4                              | 9.3                      |
| EBW             | 46 | 441620N0722724.1 | QG00             | 86                           | 01-08-71             | --                               | .1                         | --                              | --                                        | 64                             | 6.4                              | 9.2                      |
| EBW             | 47 | 441620N0722725.1 | QG00             | 60                           | 04-28-71             | --                               | --                         | 160                             | 430                                       | --                             | --                               | --                       |
| NORTHFIELD      |    |                  |                  |                              |                      |                                  |                            |                                 |                                           |                                |                                  |                          |
| NLW             | 13 | 440951N0723917.5 | QG1G             | 98                           | 03-16-71             | 7.5                              | 6.4                        | 10                              | 0                                         | 22                             | 3.8                              | 7.6                      |
| NLW             | 13 | 440951N0723917.5 | QG1G             | 98                           | 03-17-71             | 7.5                              | 6.4                        | 10                              | 0                                         | 22                             | 3.8                              | 7.8                      |
| NLW             | 13 | 440951N0723917.5 | QG1G             | 98                           | 03-18-71             | 7.5                              | 6.4                        | 10                              | 0                                         | 22                             | 3.9                              | 7.8                      |
| PCWNAL          |    |                  |                  |                              |                      |                                  |                            |                                 |                                           |                                |                                  |                          |
| PQW             | 2  | 424628N0731434.1 | QG1G             | 58                           | 12-01-70             | --                               | 8.5                        | 0                               | 40                                        | 56                             | 15                               | 9.1                      |

| LOCAL<br>NUMBER |    | POTAS-<br>SIUM<br>(K)<br>(MG/L) | BICAR-<br>BONATE<br>(HCO3)<br>(MG/L) | CAR-<br>BONATE<br>(CO3)<br>(MG/L) | SULFATE<br>(SO4)<br>(MG/L) | CHLO-<br>RIDE<br>(CL)<br>(MG/L) | FLUO-<br>RIDE<br>(F)<br>(MG/L) | NITRATE<br>(NO3)<br>(MG/L) | DIS-<br>SOLVED<br>SOLIDS<br>(SUM OF<br>CONSTIT-<br>UENTS | HARD-<br>NESS<br>(CA,MG)<br>(MG/L) | NONCAR-<br>BONATE<br>HARD-<br>NESS<br>(MG/L) | SPECIFIC<br>CONDUCT-<br>ANCE<br>(MICRO-<br>MHOS) | PH  |
|-----------------|----|---------------------------------|--------------------------------------|-----------------------------------|----------------------------|---------------------------------|--------------------------------|----------------------------|----------------------------------------------------------|------------------------------------|----------------------------------------------|--------------------------------------------------|-----|
| VERMONT         |    |                                 |                                      |                                   |                            |                                 |                                |                            |                                                          |                                    |                                              |                                                  |     |
| EAST MONTPELIER |    |                                 |                                      |                                   |                            |                                 |                                |                            |                                                          |                                    |                                              |                                                  |     |
| EBW             | 46 | 3.2                             | 220                                  | 0                                 | 19                         | 18                              | .0                             | .0                         | 242                                                      | 189                                | 8                                            | 419                                              | 7.9 |
| EBW             | 46 | 3.1                             | 215                                  | 0                                 | 19                         | 18                              | .1                             | .2                         | 239                                                      | 189                                | 12                                           | 415                                              | 8.0 |
| EBW             | 46 | 2.9                             | 218                                  | 0                                 | 19                         | 20                              | .0                             | .0                         | 229                                                      | 186                                | 7                                            | 413                                              | 7.9 |
| EBW             | 47 | --                              | --                                   | --                                | --                         | --                              | --                             | --                         | --                                                       | --                                 | --                                           | --                                               | --  |
| NORTHFIELD      |    |                                 |                                      |                                   |                            |                                 |                                |                            |                                                          |                                    |                                              |                                                  |     |
| NLW             | 13 | .9                              | 53                                   | 0                                 | 14                         | 18                              | .1                             | 4.3                        | 103                                                      | 70                                 | 27                                           | 188                                              | 6.9 |
| NLW             | 13 | .9                              | 54                                   | 0                                 | 14                         | 18                              | .0                             | 4.6                        | 104                                                      | 70                                 | 26                                           | 190                                              | 7.2 |
| NLW             | 13 | .9                              | 53                                   | 0                                 | 14                         | 18                              | .0                             | 4.6                        | 104                                                      | 71                                 | 27                                           | 191                                              | 6.8 |
| PCWNAL          |    |                                 |                                      |                                   |                            |                                 |                                |                            |                                                          |                                    |                                              |                                                  |     |
| PQW             | 2  | .5                              | 180                                  | 0                                 | 46                         | 30                              | .0                             | .1                         | 253                                                      | 201                                | 54                                           | 488                                              | 8.0 |

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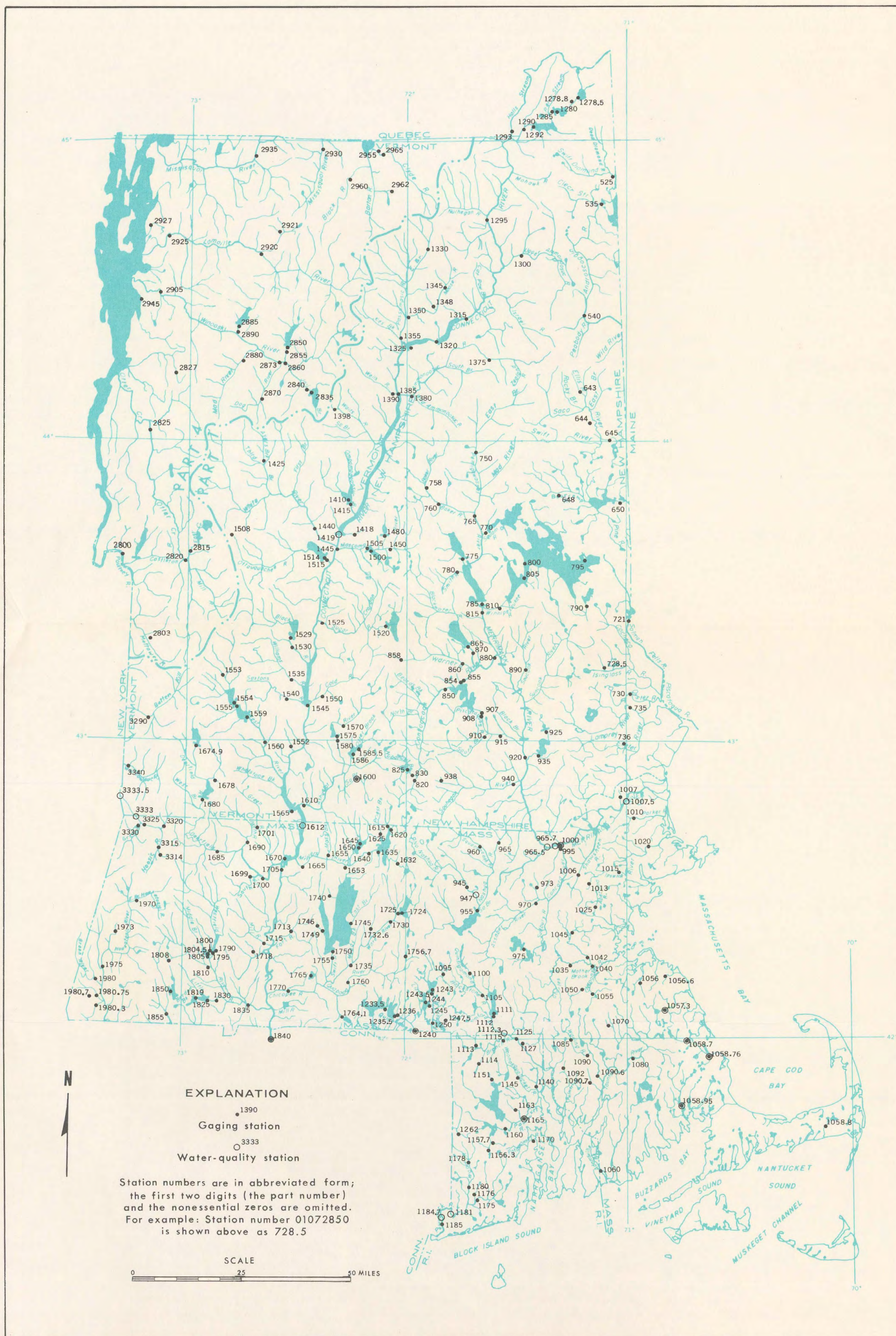


Plate 1. Location of gaging stations and water-quality stations







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