Surface Water Supply of the United States 1957

Part 1-A. North Atlantic Slope Basins, Maine to Connecticut

Prepared under the direction of J. V. B. WELLS, *Chief, Surface Water Branch*

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1501

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

UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON : 1959

UNITED STATES DEPARTMENT OF THE INTERIOR

FRED A. SEATON, *Secretary*

GEOLOGICAL SURVEY

Thomas B. Nolan, *Director*

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington 25, D.C. - Price $1 (paper cover)

PREFACE

This report was prepared by the Geological Survey in cooperation with the States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont, and with other agencies, by personnel of the Water Resources Division, L. B. Leopold, chief, under the general direction of J. V. B. Wells, chief, Surface Water Branch, and F. J. Flynn, chief, Basic Records Section.

The data were collected and computed under supervision of district engineers, Surface Water Branch, as follows:

B. L. Bigwood	Hartford, Conn.
G. S. Hayes	Augusta, Maine
C. E. Knox	Boston, Mass.

CALENDAR FOR WATER YEAR 1957

OCTOBER 1956

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SEPTEMBER 1957

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SCOPE OF WORK

This volume is one of a series of 18 reports presenting measurements of stage, discharge, and content of streams, lakes, and reservoirs in the United States during the water year ending September 30, 1957. Since 1888, when the United States Geological Survey first studied streamflow in relation to problems of irrigation, similar measurements have been made at more than 13,750 gaging stations in the 48 States and at many others in the Territories of Alaska and Hawaii. On September 30, 1957, the Geological Survey and cooperating organizations were maintaining 7,030 gaging stations, including those in Alaska and Hawaii. Discharge measurements only were made at many other points in the 1957 water year. The name of each stream measured at points other than gaging stations is not listed in the index of this report. Only the major river basins in which measurements were made are listed under the item "Discharge measurements" in the index.

COOPERATION

Many State, municipal, and private organizations have cooperated with the Geological Survey in this work by either furnishing or helping to collect data. Organizations that supplied data are acknowledged in station descriptions, and organizations that assisted in the collection of data through cooperative agreements with the Survey are:

Connecticut: State Water Resources Commission, S. H. Wadhams, chairman (formerly State Water Commission, H. P. Koppleman, chairman), and W. S. Wise, director; city of Hartford, Department of Public Works, L. C. Lovell, director; city of New Britain, Board of Water Commissioners, Franklin Atwater, chairman, succeeded by J. C. Wilks, and G. W. Wood, chief engineer; city of Torrington, W. T. Carroll, mayor, and W. F. Neirintz, city engineer.

Maine: Maine Public Utilities Commission, T. E. Delehanty, chairman.

Massachusetts: State Department of Public Health, S. B. Kirkwood, commissioner, and C. I. Sterling, Jr., chief sanitary engineer; State Department of Public Works, J. A. Volpe, commissioner, succeeded by C. A. Sheridan; Metropolitan District Commission, C. W. Greenough, commissioner, and H. J. Toole, director and chief engineer of Water Division.

New Hampshire: Water Resources Board, W. G. White, chairman.

Rhode Island: State Department of Public Works, Henry Isel, chief of Division of Harbors and Rivers.

Vermont: Water Conservation Board, R. W. Thieme, commissioner.

Assistance in the form of funds or services was given by the Corps of Engineers, Department of the Army, in collecting records published herein for 39 gaging stations, of which 2 were in Connecticut, 11 in Massachusetts, 15 in New Hampshire, and 11 in Vermont.

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 herein as "international gaging stations."

The following organizations aided in collecting records:

Connecticut: Metropolitan Water Bureau of Hartford; borough of Groton; city of Waterbury; Bridgeport Hydraulic Co.; Collins Co.; Connecticut Light & Power Co.; Connecticut Power Co.; Farmington River Power Co.; Guilford-Chester Water Co.; and Rockville Water & Aqueduct Co.

Maine: Bangor Hydro-Electric Co.; St. Croix Paper Co.; and Union Water Power Co.

Massachusetts: New England Power Association; Western Massachusetts Electric Co.; and Worcester Electric Light Co.

New Hampshire: New England Power Association.

Vermont: New England Power Association.

DIVISION OF WORK

The stream-gaging work was done by the Water Resources Division of the Geological Survey under the direction of personnel shown in the preface. The data for stations in the several States were collected and prepared for publication in the district offices listed below.

State	District office	Address
Connecticut a/.....	Hartford.....	203 Federal Building.
Maine b/.....	Augusta.....	420 Statehouse.
Massachusetts c/.....	Boston.....	141 Milk Street.
New Hampshire d/.....	Boston, Mass.....	Do.
Rhode Island.....	....do.....	Do.
Vermont.....	....do.....	Do.

a/ Except for Connecticut River at Thompsonville.
b/ Including Androscoggin River near Errol and near Gorham, N. H., Diamond River near Wentworth Location, N. H., and Saco River near Conway, N. H.
c/ Including Connecticut River at Thompsonville, Conn.
d/ Except for Androscoggin River near Errol and near Gorham, Diamond River near Wentworth Location, and Saco River near Conway.

Information of a more detailed nature than that published for most of the gaging stations given in this report is on file in the district offices listed above. Provisional records of discharge prior to publication, and other unpublished data concerning the gaging-station records may usually be obtained from the district office.

DEFINITION OF TERMS AND ABBREVIATIONS

The terms of streamflow and other hydrologic data, as used in this report, are defined as follows:

Cubic foot per second (cfs) is the rate of discharge of a stream whose channel is 1 square foot in cross-sectional area and whose average velocity is 1 foot per second.

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.

Runoff in inches is the depth to which an area would be covered if all the water draining from it in a given period were uniformly distributed on its surface. The term is used for comparing runoff with rainfall, which is also usually expressed in inches.

Acre-foot is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet. The term is commonly used in relation to storage for irrigation.

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, 1.983471 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

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, a long reach of the channel, or an artificial structure.

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

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

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

DOWNSTREAM ORDER OF LISTING GAGING STATIONS

Beginning with the series of reports for the water year ending September 30, 1951, the order of listing gaging-station records was changed. In this report, in a downstream direction along the main stem all stations on a tributary entering above a main-stem station are listed before that station. If a tributary enters between two main-stem stations, it is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. To indicate the rank of any tributary on which a gaging station is situated and the stream to which it is immediately tributary, each indention in the listing of gaging stations in the table of contents of this report represents one rank. This downstream order and system of indention show which gaging stations are on tributaries between any two stations on a main stem and the rank of the tributary on which each gaging station is situated.

The order of listing used before the publication of the 1951 report listed first all stations on the main stem from headwaters toward mouth, then all stations on the uppermost tributary to the main stem from the tributary's source to mouth, and then all stations from source to mouth of the uppermost tributary to the tributary.

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage and measurements of discharge. 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. The records of stage are obtained either from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of fluctuations. Measurements of discharge are made with a current meter by the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in Water-Supply Paper 888 and are also outlined in standard textbooks on the measurement of stream discharge. Typical structures in use at gaging stations are shown in figure 1.

Rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are

A, OTTER BROOK NEAR KEENE, N.H.

B, PEQUABUCK RIVER AT FORESTVILLE, CONN.

C, MILL RIVER AT NORTHAMPTON, MASS.

FIGURE 1.—GAGING-STATION STRUCTURES.

necessary to define the extremes of discharge, they are made on the basis of indirect determinations of peak discharge (such as slope-area or contracted-opening determinations, computation of flow over dams or weirs, and by other methods), velocity-area studies, and logarithmic plotting. The application of the daily mean gage height to those rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is essentially the shifting-control method.

At some 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 determining discharge. Information requisite for determining the slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage. If so, the rate of change in stage is used as a factor in the determination of discharge.

At most gaging stations in the northern part of the United States and at some in the mountainous regions of other parts 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 gage observers and engineers, and comparable records of discharge for other stations in the same or nearby basins. If the stage-discharge relation is affected by ice, this information is given in a note to the table. No mention is made of occasional days of ice effect if the degree of accuracy of daily records is not changed.

The data herein presented generally comprise a description of the station, a skeleton rating table, and a table showing the daily discharge and monthly and yearly discharge and runoff of the stream. Records are published for the water year which begins on October 1 and ends on September 30. A calendar for the water year 1957 is shown on page IV for the purpose of finding the day of the week for any date.

The description of the station gives the location, drainage area, records available, type and history of gages, average discharge, extremes of discharge, general remarks, and notations of revisions of the previously published record. 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 unless otherwise noted. Under "Records available" are given the periods for which there are published records generally equivalent to those at present site. Under "Gage" are given the type of gage currently in use and 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 records available. Under "Average discharge" is given the average discharge for the number of years indicated. It is not given for stations having fewer than five complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under

"Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extersive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). In the first paragraph, the data given are for the complete current water year unless otherwise specified. In the second paragraph, the data given are for the periods of record within the calendar year dates in the heading (not necessarily those for the complete years indicated by the heading dates). Reliable information concerning major floods that have occurred outside the period of record are 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, a crest-stage indicator, 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 records and conditions which affect the natural flow at the gaging station is given under "Remarks."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual 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, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are concerned in the revision, 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.

Skeleton rating tables are published for all stations except those at which the daily discharge for the greater part of the open-water period was determined by the shifting-control method, the slope method, or other special methods involving an equivalent adjustment to the gage height of more than one-tenth foot. Skeleton rating tables are generally not published for stations on canals.

For stations equipped with water-stage recorders, except those on streams subject to sudden or rapid fluctuation, the daily table gives the discharge corresponding to the daily mean gage height. For stations subject to such fluctuation the daily mean gage height may not indicate the true daily mean discharge, which must be obtained by averaging the discharge for parts of the day or by using the discharge integrator, an instrument for obtaining the daily mean discharge from a continuous gage-height graph and containing, as an essential element, a curve representing the stage-discharge relation at the station. For stations equipped with nonrecording gages, the table of daily discharge gives the

discharge corresponding to once-daily readings of the gage, or to the mean of twice-daily readings, or to the mean gage height determined from gage-height graphs based on gage readings. For periods of rapidly changing stage, the daily mean discharge is determined from gage-height graphs based on gage readings, the frequency of which is stated in the station description.

In the table of daily discharge, the figures for the maximum day and the minimum day for each month are underlined. If the figure is repeated, it is underlined only on the first day of its occurrence.

In the monthly summary below the daily table, the line headed "Total" gives the sum of the daily figures; it is the total cfs-days for the month. The line headed "Mean" gives the average flow in cubic feet per second during the month. Runoff for the month may be expressed in cubic feet per second per square mile (line headed "Cfsm"), or in inches (line headed "In."), or in acre-feet (line headed "Ac-ft"). Figures for cubic feet per second per square mile and runoff in inches are omitted if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches.

In the yearly summary below the monthly summary, the figures of maximum are the maximum daily discharges, not the momentary discharges when the water was at crest stage. Likewise, the minimums in this summary are the minimum daily discharges.

Peak discharges and the times of their occurrence and corresponding gage heights of most stations are listed below the table of daily and monthly discharge. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year will be preserted. Peak discharges are not published for canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man.

Footnotes to the table of daily discharge indicate periods when discharge was computed or estimated by unusual or special methods during periods of no gage-height record and ice effect, or by other effects that reduce the degree of accuracy of the records. Days on which discharge measurements were made are indicated by asterisk and footnote unless they were made at freqnent regular intervals, in which instance the general frequency of discharge measurements is given under "Remarks" in the station description.

For most 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 contents or stage is given. A skeleton table of capacity at given stages is published each year 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.

Discharge measurements and determinations of peak flows made at sites other than gaging stations are listed at the end of each report.

At many gaging stations water samples are collected from the streams for the purpose of making chemical analyses, computing dissolved solids, suspended sediment loads, and particle-size distribution, or measuring water temperatures. For most of these samples the results are published in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States" which is issued in four volumes. In this report under "Remarks" a reference is made to quality-of-water records collected at gaging stations on a regular basis and published in the quality-of-water reports. At many other gaging stations quality-of-water data are obtained at irregular intervals and published as "miscellaneous analyses" in quality-of-water reports; such records are not referred to

in "Remarks" paragraph in this report. At many gaging stations water temperature is obtained also at the time a discharge measurement is made; such temperature readings are not reported in the quality-of-water annual reports.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

The station description states the degree of accuracy of the records. "Excellent" indicates that, in general, the error in the daily records is believed to be less than 5 percent; "good," less than 10 percent; "fair," less than 15 percent; and "poor," probably more than 15 percent. The records of monthly and yearly mean discharge and runoff are, in general, more nearly accurate than the daily records.

Runoff at some stations, as indicated by the monthly mean, may vary widely from natural runoff, owing to diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and runoff in inches are not published unless storage or diversion records are included to indicate the extent of the regulation or diversion, or unless satisfactory adjustments can be made for changes in contents of reservoirs or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur when relatively large negative adjustments are made or when evaporation is large in comparison with the observed discharge.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and therefore the discharge recorded does not actually show the water supply available at the stations for further development, because water must first be supplied to existing irrigation systems.

PUBLICATIONS

To facilitate publication of the annual series of reports, the area of the United States is divided into 14 parts whose boundaries coincide with certain natural drainage lines. Formerly, the results of streamflow measurements were published in 14 volumes, one for each of the 14 parts. Beginning with the reports for 1951, the records are published in 18 volumes, there being 2 volumes each for Parts 1, 2, 3, and 6. The boundaries of the various parts are indicated by the following list and the map in figure 2.

Part 1. North Atlantic slope basins, in two volumes:
- A, North Atlantic slope basins, Maine to Connecticut.
- B, North Atlantic slope basins, New York to York River.

2. South Atlantic slope and eastern Gulf of Mexico basins, in two volumes:
- A, South Atlantic slope basins, James River to Savannah River.
- B, South Atlantic slope and eastern Gulf of Mexico basins, Ogeechee River to Pearl River.

3. Ohio River basin, in two volumes:
- A, Ohio River basin except Cumberland and Tennessee River basins.
- B, Cumberland and Tennessee River basins.

4. St. Lawrence River basin.
5. Hudson Bay and upper Mississippi River basins.
6. Missouri River basin, in two volumes:
- A, Missouri River basin above Sioux City, Iowa.
- B, Missouri River basin below Sioux City, Iowa.

7. Lower Mississippi River basin.
8. Western Gulf of Mexico basins.
9. Colorado River basin.

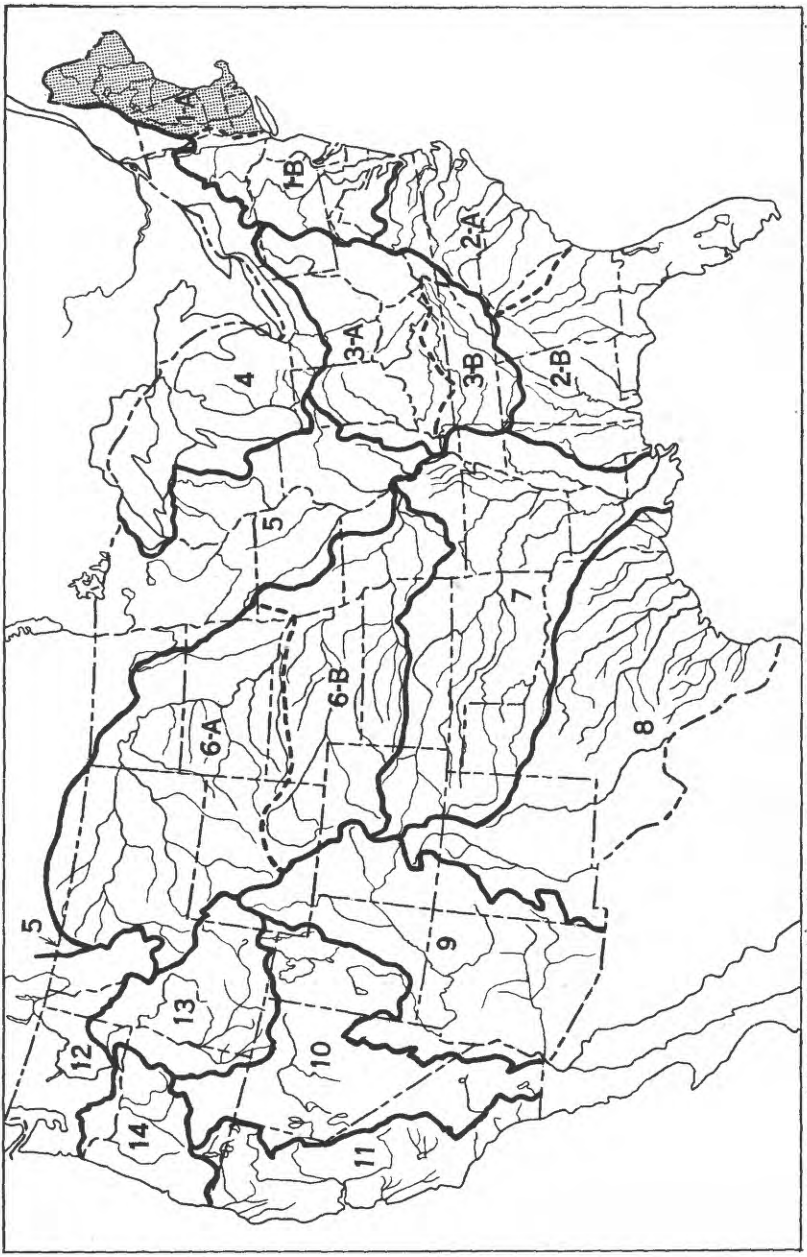

Figure 2.--Map of the United States showing areas covered by the 18 annual volumes on surface-water supply. The area covered by this report is shaded.

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Part 10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River basin.
13. Snake River basin.
14. Pacific slope basins in Oregon and lower Columbia River basin.

Water-supply papers and other publications of the Geological Survey containing data on the water resources of the United States may be purchased or consulted as follows:

1. Copies may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., who will, on application, furnish lists giving prices. A list of Geological Survey publications may also be obtained by applying to the Director, Geological Survey, Washington, D. C.

2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.

3. Sets are available for consultation in the offices of the Water Resources Division of the Geological Survey. Addresses of the offices in the area covered by this report are given on page 2.

Early records of the flow of streams in the United States are published in the reports listed below. In many of these reports records for years earlier than those indicated have been included for some streams.

Streamflow data for the years 1884-1901, in reports of the Geological Survey

(A = Annual Report; B = Bulletin)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information	1884 to September 1890.
12th A, pt. 2	....do	1884 to June 30, 1891.
13th A, pt. 3	....do	1884-92.
14th A, pt. 2	Monthly discharge	1888-93.
B 131	Descriptions, measurements, gage heights, and ratings	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140	Descriptions, measurements, gage heights, ratings, and monthly discharge.	1895.
WSP 11	Gage heights	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge.	1895-96.
WSP 15	Descriptions, measurements, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries above Kansas River.	1897.
WSP 16	Descriptions, measurements, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge.	1897.
WSP 27	Measurements, ratings, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries.	1898.
WSP 28	Measurements, ratings, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge	1898.
WSP 35 to 39.	Descriptions, measurements, gage heights, and ratings	1899.
21st A, pt. 4	Monthly discharge	1899.
WSP 47 to 52.	Descriptions, measurements, gage heights, and ratings	1900.
22d A, pt. 4.	Monthly discharge	1900.
WSP 65, 66	Descriptions, measurements, gage heights, and ratings	1901.
WSP 75	Monthly discharge	1901.

Reports on surface-water supply containing records from 1899 to date for drainage basins in this report are listed below. The data for any particular gaging station will, in general, be found in the reports covering the years during which the station was maintained. Before 1951, records for the North Atlantic slope basins, Maine to Connecticut, were included with those of the other rivers in the North Atlantic slope basins.

Numbers of water-supply papers containing results of stream measurements in North Atlantic slope basins, Maine to Connecticut, 1899-1957

Year	WSP	Year	WSP	Year	WSP	Year	WSP	Year	WSP
1899	35	1912	321	1925	601	1937	821	1949	1141
1900	47	1913	351	1926	621	1938	851	1950	1171
1901	65, 75	1914	381	1927	641	1939	871	1951	1201
1902	82	1915	401	1928	661	1940	891	1952	1231
1903	97	1916	431	1929	681	1941	921	1953	1271
1904	124	1917	451	1930	696	1942	951	1954	1331
1905	165	1918	471	1931	711	1943	971	1955	1381
1906	201	1919-20	501	1932	726	1944	1001	1956	1431
1907-8	241	1921	521	1933	741	1945	1031	1957	1501
1909	261	1922	541	1934	756	1946	1051		
1910	281	1923	561	1935	781	1947	1081		
1911	301	1924	581	1936	801	1948	1111		

The records at most of the stations discussed in these reports extend over many years. Discharge measurements at many points other than regular gaging stations have been made each year and are published at the end of each report. The streams and points of measurement are listed in the same order as the streams and gaging stations in the body of the report. An index of the records obtained before 1904 has been published in Water-Supply Paper 119.

A compilation of records for the area covered by this report through September 1950 has been published as Water-Supply Paper 1301. That report contains a summary of monthly and annual discharges 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 reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of these special reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier notable floods. The following list gives the numbers and titles of these reports:

Title

WSP 162: Destructive floods in the United States in 1905.
WSP 636-C: The New England flood of November 1927.
WSP 771: Floods in the United States, magnitude and frequency.
WSP 798: The floods of March 1936, Part 1, New England rivers.
WSP 836-A: Stages and flood discharges of the Connecticut River at Hartford, Conn.
WSP 847: Maximum discharges at stream measurement stations through September 1938.
WSP 867: Hurricane floods of September 1938.
WSP 966: Minor floods of 1938 in North Atlantic States.
WSP 967-C: Flood of August 21, 1939, in town of Baldwin, Maine.
WSP 1137-I: Summary of floods in the United States during 1950.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The table below contains a list of gaging stations for the area covered by this report, at which records of discharge were collected during the water year October 1956 to September 1957 by agencies other than the Geological Survey. The records of these stations are not contained in publications of the Geological Survey.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
Androscoggin River.....	Lewiston, Maine.....	1929-57	Central Maine Power Co.
Kennebec River.....	Bingham, Maine.....	1931-57	Do.
Do.....	Indian Pond, Maine.....	1954-57	Do.
Penobscot River.....	Old Town, Maine.....	1915-57	Bangor Hydro-Electric Co.
Race Brook.....	Orange, Conn.....	1911-57	New Haven Water Co.
Saco River.....	Hiram, Maine.....	1930-57	Central Maine Power Co.
Do.....	West Buxton, Maine.....	1940-57	Do.
Stillwater Branch Penobscot River.	Stillwater, Maine.....	1915-57	Bangor Hydro-Electric Co.
Wepawaug River.....	Orange, Conn.....	1911-57	New Haven Water Co.
West River.....	Guilford, Conn.....	1930-57	Do.

HYDROLOGIC CONDITIONS

In the area covered by this report, streamflow was near median during most of the first half of the 1957 water year. Beginning in April, streamflow decreased rapidly, and a severe drought developed, which continued throughout the rest of the year. Record-low monthly mean discharges occurred at long-term representative gaging stations in Maine and New Hampshire in April, in Massachusetts May to July, and in Connecticut June to September. The September mean for Quinebaug River at Jewett City, Conn., was the lowest for any month in a period of record of 40 years. Yearly mean discharge was record-low at St. John River below Fish River, at Fort Kent, Maine. For two key gaging stations in the area covered by this report, a comparison of the mean discharge with the median for the 25-year period 1921-45 is shown in figure 3 below.

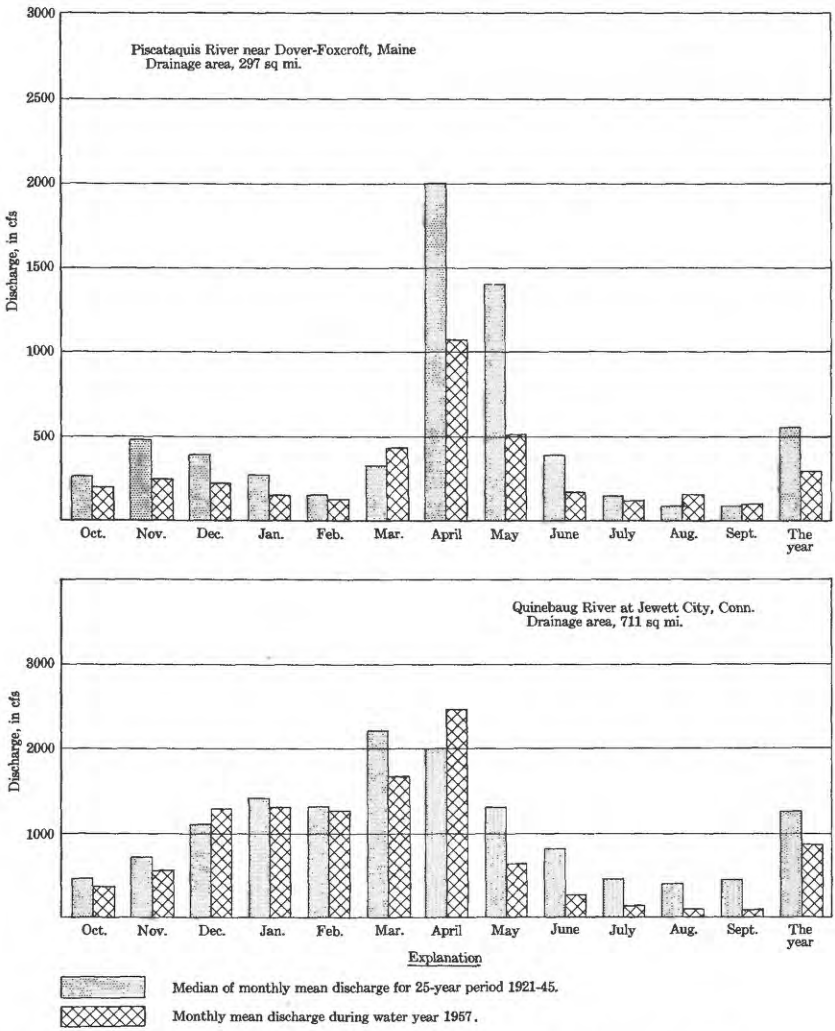

Figure 3. – Comparison of discharge at two key gaging stations during 1957 water year with median discharge for 25-year period.

ST. JOHN RIVER BASIN

St. John River at Ninemile Bridge, Maine

Location.--Lat 46°42'00", long 69°43'00", T. 12, R. 15, Aroostook County, on right bank about 0.1 mile downstream from Ninemile Brook, 0.4 mile downstream from highway bridge at Ninemile, and 11 miles northwest of Clayton Lake Post Office.

Drainage area.--1,290 sq mi, approximately.

Records available.--November 1950 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 931.26 ft above mean sea level, adjustment of 1929.

Average discharge.--6 years (1951-57), 2,128 cfs.

Extremes.--Maximum discharge during year not determined, occurred about Apr. 22; minimum daily, 100 cfs Jan. 21, 22.
1950-57: Maximum discharge, 27,800 cfs Apr. 23, 1954 (gage height, 9.81 ft); minimum, 59 cfs Sept. 5, 1953 (gage height, 0.25 ft).

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	85	2.5	1,430
.7	150	3.0	2,180
1.0	240	4.0	4,230
1.3	368	5.0	7,050
1.6	551	6.0	10,700
2.0	882	7.1	15,000

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	775	401	730	320	380	124	640	7,200	2,000	4,750	1,820	117
2	698	390	705	295	370	130	665	6,300	1,760	3,740	1,430	113
3	682	379	675	265	350	134	700	5,400	3,020	3,830	1,110	136
4	801	358	635	250	325	150	715	4,700	3,140	2,210	3,260	400
5	758	339	640	230	285	160	740	4,100	2,460	1,940	6,540	928
6	732	339	620	205	265	176	725	3,700	1,860	2,390	5,280	766
7	825	330	580	190	240	186	705	3,500	1,760	*2,320	3,490	682
8	4,570	320	550	176	230	182	690	3,600	2,840	1,820	2,250	566
9	4,980	316	540	166	215	180	700	4,100	2,730	1,350	1,510	435
10	3,690	291	545	156	194	182	705	4,300	2,080	1,250	1,100	344
11	2,730	191	525	144	170	194	715	3,750	1,620	1,470	873	291
12	2,130	263	505	134	158	210	740	3,280	1,250	1,090	740	251
13	1,740	316	490	124	146	240	750	2,930	1,090	873	715	226
14	1,470	255	470	118	*142	285	750	2,640	1,030	715	625	213
15	1,280	295	480	112	132	340	730	2,400	1,650	649	531	216
16	1,150	339	465	110	120	420	725	2,800	2,840	950	478	240
17	1,040	429	440	110	118	520	705	3,500	2,480	1,280	435	*290
18	993	550	435	106	116	625	1,180	2,750	1,800	984	396	566
19	928	650	440	104	112	*730	3,310	*2,330	1,390	758	358	603
20	819	749	425	102	110	785	7,000	2,000	1,260	566	339	472
21	732	758	420	100	110	800	10,000	1,700	1,280	447	299	401
22	674	930	410	*100	110	790	15,000	1,470	1,070	423	263	550
23	625	1,160	405	110	112	725	13,400	1,330	937	511	233	1,940
24	581	1,000	400	176	110	705	12,100	1,380	946	618	213	3,600
25	558	880	395	255	110	700	11,000	1,540	1,150	566	194	3,060
26	518	830	390	320	106	700	9,800	1,390	1,180	484	179	2,320
27	478	790	380	385	110	690	8,600	1,250	2,820	406	168	1,800
28	460	790	370	390	124	680	9,300	2,640	3,080	344	152	1,390
29	447	800	360	395	-	675	10,400	4,330	2,480	320	144	1,100
30	435	760	350	390	--------	665	9,200	3,460	4,380	1,200	134	900
31	418	--------	340	385	--------	650	--------	2,580	--------	1,870	122	--------
Total	38,717	16,198	15,115	6,423	5,070	13,733	132,390	98,350	59,383	42,124	35,381	24,916
Mean	1,249	540	488	207	181	443	4,413	3,173	1,979	1,359	1,141	831
Cfsm	0.968	0.419	0.378	0.161	0.140	0.343	3.42	2.46	1.53	1.05	0.884	0.644
In.	1.12	0.47	0.44	0.19	0.15	0.40	3.82	2.84	1.71	1.21	1.02	0.72

Calendar year 1956: Max 14,100 Min 158 Mean 1,794 Cfsm 1.39 In. 18.95
Water year 1956-57: Max 15,000 Min 100 Mean 1,336 Cfsm 1.04 In. 14.09

Peak discharge (base, 10,000 cfs)--About Apr. 22 (time and discharge unknown).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 18, 19, Nov. 22 to Apr. 19. No gage-height record Apr. 20 to May 19; discharge estimated on basis of weather records and records for nearby streams.

St. John River at Dickey, Maine

Location.--Lat 47°06'40", long 69°05'15", on right bank at Dickey, Aroostook County, 0.6 mile downstream from Little Black River and 2.5 miles upstream from Allagash River.

Drainage area.--2,700 sq mi, approximately.

Records available.--July 1910 to November 1911 (published as "near Dickey"), September 1946 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 590 ft (from topographic map). July 5, 1910, to Nov. 21, 1911, staff gage at site 1,000 ft downstream at different datum.

Average discharge.--11 years (1946-57), 4,479 cfs.

Extremes.--Maximum discharge during year, 34,200 cfs Apr. 23 (gage height, 11.73 ft); maximum gage height, 13.57 ft Apr. 20 (backwater from ice); minimum daily discharge, 200 cfs Jan. 22.

1910-11, 1946-57: Maximum discharge, 68,700 cfs May 9, 1947 (gage height, 16.30 ft); maximum gage height, 19.88 ft Mar. 29, 1953 (backwater from ice); minimum discharge, 129 cfs Sept. 17, 1948.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Revisions.--WSP 1141: Drainage area.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	200	5.0	5,810
1.7	350	6.0	8,500
2.0	630	8.0	15,200
2.5	1,190	10.0	24,500
3.0	1,860	11.6	33,400
4.0	3,600		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,610	873	1,310	550	930	360	1,110	19,900	5,400	12,100	4,370	376
2	1,520	851	1,260	530	885	365	1,110	16,100	4,780	10,200	3,880	342
3	1,510	819	1,230	510	840	375	1,120	12,700	6,580	7,680	3,120	376
4	1,620	777	1,190	500	755	390	1,130	10,500	7,820	6,150	2,890	530
5	1,610	756	1,140	490	735	435	1,140	9,670	6,420	5,380	6,740	1,120
6	1,600	735	1,120	480	660	490	1,140	9,010	5,010	6,070	8,030	2,190
7	1,840	714	1,110	475	610	590	1,190	8,380	4,520	6,480	6,100	1,860
8	7,900	714	1,120	465	560	660	1,180	8,380	5,670	5,150	4,390	1,540
9	6,800	693	1,080	*455	500	680	1,140	9,310	6,480	4,260	3,300	1,290
10	4,550	672	1,020	435	465	670	1,140	9,730	5,350	*3,780	3,050	*1,090
11	3,760	492	1,000	410	435	660	1,130	8,800	4,280	4,030	2,600	906
12	3,160	530	1,010	350	390	630	1,140	7,850	3,520	4,070	2,410	788
13	2,800	511	950	310	360	590	1,220	6,970	3,100	3,210	2,170	735
14	2,500	286	895	300	340	600	1,240	6,200	3,080	2,650	1,890	1,020
15	2,290	410	885	285	335	620	1,270	5,930	4,740	2,950	1,680	1,130
16	2,130	473	875	270	325	640	1,290	*6,630	6,910	6,880	1,450	998
17	1,940	580	885	255	320	670	1,350	8,080	6,780	6,970	1,290	1,230
18	1,750	680	860	235	320	695	1,580	7,680	5,220	5,380	1,180	1,460
19	1,640	725	790	220	310	735	2,510	6,420	4,740	3,740	1,060	1,620
20	1,570	840	775	215	*300	830	4,540	5,430	4,780	2,830	962	1,610
21	1,440	1,050	765	205	300	950	8,200	4,740	4,200	2,320	895	1,410
22	1,320	1,320	745	200	285	1,140	24,500	4,280	3,660	2,150	840	1,650
23	1,220	1,650	715	235	280	1,190	33,400	3,880	3,170	2,310	756	3,060
24	1,170	2,680	705	300	280	1,180	31,700	3,860	2,870	2,660	682	6,540
25	1,170	2,220	670	425	270	1,140	27,600	4,120	2,730	2,580	620	7,230
26	1,110	1,780	660	550	300	*1,110	23,600	3,600	2,850	2,170	580	5,570
27	1,060	1,650	630	735	335	1,110	21,200	3,400	3,400	1,830	540	4,260
28	986	1,520	590	840	350	1,110	22,000	5,470	5,280	1,590	502	3,400
29	950	1,450	580	905	-	1,120	24,200	9,620	5,760	1,460	464	2,750
30	928	1,380	570	930	--------	1,110	23,200	8,830	8,980	1,730	426	2,270
31	906	--------	560	940	--------	1,110	--------	6,710	--------	3,390	401	--------
Total	66,360	29,831	27,695	14,005	12,775	23,955	268,270	242,180	148,080	134,150	69,228	60,351
Mean	2,141	994	893	452	456	773	8,942	7,812	4,936	4,327	2,233	2,012
Cfsm	0.793	0.368	0.331	0.167	0.169	0.286	3.31	2.89	1.83	1.60	0.827	0.745
In.	0.91	0.41	0.38	0.19	0.18	0.33	3.69	3.33	2.04	1.84	0.95	0.83

Calendar year 1956: Max 26,800 Min 286 Mean 3,253 Cfsm 1.20 In. 16.42
Water year 1956-57: Max 33,400 Min 200 Mean 3,005 Cfsm 1.11 In. 15.08

Peak discharge (base, 27,000 cfs).--Apr. 23 (5 a.m.) 34,200 cfs (11.73 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 17 to Apr. 22 (no gage-height record Jan. 23 to Feb. 20; discharge estimated on basis of 1 discharge measurement, weather records, and records for nearby streams). No gage-height record Oct. 1-19, July 8-10, 23; discharge estimated on basis of recorded range in stage and records for nearby streams.

Allagash River near Allagash, Maine

Location.--Lat 47°04'15", long 69°04'50", on left bank a quarter of a mile upstream from Allagash Inn and 3 miles upstream from mouth and village of Allagash, Aroostook County.

Drainage area.--1,250 sq mi, approximately (not including about 240 sq mi drained by Chamberlain Lake through Telos Canal).

Records available.--July 1910 to November 1911, September 1931 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 604.6 ft above mean sea level, datum of 1929. July 1910 to November 1911 staff gage at site 3 miles downstream at different datum.

Average discharge.--26 years (1931-57), 1,881 cfs.

Extremes.--Maximum discharge during year, 7,740 cfs Apr. 29 (gage height, 6.69 ft); minimum daily, 144 cfs Jan. 19-21.
1910-11, 1931-57: Maximum discharge, 23,400 cfs May 5, 1933 (gage height, 11.32 ft); maximum gage height, 13.14 ft May 1, 1939 (ice jam); minimum daily discharge, 91 cfs Mar. 9-15, 1948.

Remarks.--Records excellent except those for period of ice effect, which are fair.

Revisions (water years).--WSP 726: Drainage area. WSP 1231: 1911.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.7	137	3.5	1,590
1.9	208	4.0	2,300
2.1	299	5.0	4,000
2.4	480	6.0	6,090
3.0	990	6.7	7,760

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	394	419	485	290	235	300	245	6,910	1,920	1,710	1,010	337
2	388	412	480	275	235	340	260	6,200	1,940	1,540	930	331
3	406	412	475	270	235	335	260	5,520	2,630	1,420	881	353
4	406	394	465	265	235	325	250	5,020	2,360	1,360	960	553
5	400	377	455	260	235	320	235	4,790	2,090	1,370	1,090	783
6	377	359	460	255	230	315	235	4,490	1,890	1,500	1,060	1,030
7	432	348	455	255	225	310	250	4,350	2,040	1,360	1,000	845
8	722	348	455	250	225	305	315	4,510	2,360	1,180	850	714
9	845	348	445	*250	220	310	310	4,790	2,060	1,090	881	615
10	766	348	445	240	220	330	305	4,730	1,800	1,080	854	*546
11	706	310	455	235	220	355	300	4,370	1,670	990	783	480
12	656	342	440	210	215	380	285	4,100	1,550	920	766	466
13	615	342	440	190	215	410	275	3,850	1,470	854	722	453
14	576	284	445	176	215	440	270	3,590	1,560	791	664	584
15	546	304	430	158	210	465	265	*3,560	2,320	809	639	561
16	509	371	420	154	210	475	260	3,980	2,320	1,100	608	480
17	509	377	405	150	215	480	255	3,650	1,930	1,000	569	502
18	524	388	400	148	225	485	280	3,340	1,720	863	538	502
19	495	375	395	144	235	480	335	3,030	1,800	783	516	453
20	480	370	375	144	*230	440	410	2,820	2,030	714	502	412
21	466	425	370	144	225	400	900	2,610	1,820	656	487	426
22	460	570	370	150	220	375	2,900	2,420	1,580	689	466	631
23	453	750	365	170	215	355	4,630	2,300	1,450	766	439	940
24	466	695	360	210	210	330	5,170	2,280	1,360	757	426	1,320
25	502	665	355	240	210	305	5,250	2,180	1,280	722	412	1,080
26	487	640	350	235	215	*285	5,410	1,970	1,330	714	406	900
27	480	715	340	235	235	270	5,960	1,890	1,560	706	400	800
28	473	625	320	235	270	265	6,820	2,450	1,490	664	377	706
29	453	545	315	230	-	260	7,610	2,740	1,490	664	359	631
30	439	510	315	230	-------	255	7,610	2,320	1,750	800	353	569
31	426	-------	310	230	-------	250	-------	2,080	-------	1,030	348	-------
Total	15,857	13,368	12,595	6,628	6,285	10,950	57,860	112,840	54,570	30,602	20,796	19,003
Mean	512	446	406	214	224	353	1,929	3,640	1,819	987	658	633
Cfsm	0.410	0.357	0.325	0.171	0.179	0.282	1.54	2.91	1.46	0.790	0.526	0.506
In.	0.47	0.40	0.37	0.20	0.19	0.33	1.72	3.36	1.63	0.91	0.61	0.56

Calendar year 1956: Max 9,230 Min 154 Mean 1,230 Cfsm 0.984 In. 13.40
Water year 1956-57: Max 7,610 Min 144 Mean 989 Cfsm 0.791 In. 10.75

Peak discharge (base, 5,700 cfs).--Apr. 29 (5 a.m.) 7,740 cfs (6.69 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 19 to Apr. 22.

St. Francis River at outlet of Glazier Lake, near Connors, New Brunswick

(International gaging station)

Location.--Lat 47°12'25", long 68°57'25", on left bank at outlet of Glazier Lake, 4 miles upstream from mouth and 6.5 miles west of Connors, Madawaska County.

Drainage area.--496 sq mi.

Records available.--October 1951 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 550 ft (from International Boundary Map).

Average discharge.--6 years, 860 cfs.

Extremes.--Maximum discharge during year, 5,280 cfs May 1 (gage height, 8.70 ft); minimum, 98 cfs Jan. 21 (gage height, 2.20 ft).
1951-57: Maximum discharge, 8,770 cfs May 6, 1955 (gage height, 11.53 ft); minimum, that of Jan. 21, 1957.

Remarks.--Records excellent. Lake area above station has not yet been developed for storage.

Cooperation.--This station is one of the international gaging stations maintained by Canada under agreement with the United States.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.2	98	4.0	827
2.3	119	5.0	1,530
2.5	170	7.0	3,400
3.0	334	8.0	4,480
3.5	551	8.7	5,280

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	262	185	220	137	135	117	131	5,250	908	1,210	708	159
2	255	179	220	135	137	119	140	4,970	908	1,560	692	153
3	242	176	205	131	142	117	142	4,450	926	1,630	681	150
4	232	176	202	126	142	115	140	3,900	977	1,550	676	153
5	226	173	199	124	142	113	137	*3,420	1,030	1,410	659	173
6	205	170	190	121	142	111	148	3,050	1,020	1,330	633	190
7	211	170	190	119	142	108	156	2,810	1,020	1,260	601	199
8	236	170	185	119	142	106	156	2,650	1,020	1,210	561	214
9	259	170	179	119	140	108	156	2,630	1,010	1,130	526	226
10	301	167	173	119	142	119	162	2,730	996	1,040	517	226
11	342	159	170	119	140	117	162	2,770	951	996	470	223
12	361	159	170	117	135	111	159	2,640	908	977	453	220
13	364	156	170	119	128	113	164	2,450	839	964	418	217
14	*361	145	170	115	126	113	167	2,220	808	939	393	229
15	334	148	167	115	124	108	170	2,060	814	991	376	226
16	327	156	164	113	121	113	173	1,900	808	1,090	357	217
17	304	162	162	115	119	113	185	1,750	784	*1,330	334	220
18	301	156	167	113	119	115	199	1,610	754	1,510	315	217
19	287	153	162	*104	117	113	229	1,460	725	1,470	297	220
20	266	145	159	102	115	115	301	1,320	708	1,340	283	229
21	255	148	156	100	113	*119	467	1,210	665	1,190	262	236
22	246	170	150	100	*108	121	954	1,100	627	1,070	252	249
23	232	179	145	115	108	121	1,980	1,010	591	989	236	301
24	229	199	142	115	108	124	3,130	957	566	977	226	414
25	217	199	142	115	111	124	3,870	908	531	996	217	606
26	202	202	142	113	117	128	4,170	864	522	989	208	777
27	199	223	142	115	121	*131	4,290	839	512	945	199	852
28	199	223	142	117	119	131	4,460	852	517	877	193	827
29	193	223	140	119	-	131	4,730	883	556	808	182	777
30	187	223	142	119	-------	133	5,140	920	764	771	173	719
31	185	-------	140	124	-------	133	-------	926	-------	731	170	-------
Total	8,020	5,264	5,207	3,634	3,555	3,660	36,568	66,509	23,765	35,280	12,268	9,819
Mean	259	175	168	117	127	118	1,219	2,145	792	1,138	396	327
Cfsm	0.522	0.353	0.339	0.236	0.256	0.238	2.46	4.32	1.60	2.29	0.798	0.659
In.	0.60	0.39	0.39	0.27	0.27	0.27	2.74	4.99	1.78	2.65	0.92	0.74

Calendar year 1956 : Max 4,050 Min 100 Mean 553 Cfsm 1.11 In. 15.18
Water year 1956-57 : Max 5,250 Min 100 Mean 585 Cfsm 1.18 In. 16.01

* Discharge measurement made on this day.

Fish River near Fort Kent, Maine

Location.--Lat 47°14'15", long 68°34'55", on right bank 300 ft upstream from highway bridge at Fort Kent Mills, 2 miles upstream from mouth, and 2 miles south of Fort Kent, Aroostook County.

Drainage area.--871 sq mi.

Records available.--July 1903 to December 1908, May to November 1911, September 1929 to September 1957. Published as "at Wallagrass" 1903-8, 1911.

Gage.--Water-stage recorder. Datum of gage is 511.38 ft above mean sea level, datum of 1929. July 1903 to December 1908 and May to November 1911, chain gage at site 10 miles upstream at different datum.

Average discharge.--33 years (1903-8, 1929-57), 1,338 cfs.

Extremes.--Maximum discharge during year, 6,120 cfs Apr. 30 to May 1 (gage height, 7.68 ft); minimum, about 117 cfs Apr. 4 (backwater from ice).
1903-8, 1911, 1929-57: Maximum discharge, 11,000 cfs Apr. 26, 1934, May 8, 1947; maximum gage height, 10.50 ft Apr. 26, 1934; minimum discharge, 46 cfs Oct. 9, 10, 1950.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Large lake area above station has not yet been developed for storage.

Revisions.--WSP 1001: Drainage area.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to May 1				May 1 to Sept. 30			
2.5	145	4.0	980	2.6	193	5.0	2,000
2.7	209	5.0	2,000	3.0	354	6.0	3,420
3.0	332	6.0	3,420	3.5	625	7.7	6,150
3.5	604	7.7	6,150	4.0	990		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	175	199	414	295	230	230	280	6,100	1,640	982	656	193
2	175	195	415	295	225	225	290	5,930	1,610	922	631	193
3	172	192	420	290	220	215	300	5,720	1,620	889	625	196
4	169	189	435	290	220	215	315	*5,520	1,570	849	625	228
5	163	185	*460	290	215	210	330	5,340	1,510	857	589	240
6	157	182	465	290	215	205	356	5,130	1,450	897	571	244
7	189	182	425	285	215	205	379	4,920	1,510	841	554	232
8	232	182	370	285	210	205	399	4,810	1,530	818	525	224
9	217	178	345	280	205	205	404	4,720	1,490	*811	514	*210
10	209	175	335	*280	205	210	419	4,640	1,440	811	559	200
11	206	169	330	275	200	225	424	4,430	1,400	811	542	196
12	202	178	330	270	200	220	445	4,250	1,360	762	525	193
13	206	166	325	270	205	220	483	4,010	1,320	728	492	200
14	206	154	320	260	205	220	512	3,990	1,320	715	475	204
15	202	166	325	250	196	225	512	*3,640	1,410	762	448	193
16	199	175	320	230	192	235	554	3,470	1,410	735	422	204
17	199	185	315	225	190	245	631	3,310	1,340	688	397	204
18	192	175	310	215	182	250	757	3,070	1,320	663	388	193
19	185	172	310	215	178	255	913	2,900	1,300	644	364	193
20	182	172	310	210	178	270	1,130	2,720	1,340	613	345	193
21	182	175	305	205	176	280	1,840	2,530	1,320	583	327	196
22	178	341	305	215	176	285	2,480	2,360	1,300	613	309	244
23	178	306	305	215	172	290	3,180	2,230	1,250	688	305	309
24	199	314	310	225	172	290	3,980	2,090	1,190	755	288	332
25	202	360	305	230	176	310	4,510	1,980	1,130	742	271	309
26	202	315	300	230	*205	315	4,830	1,880	1,130	722	267	296
27	199	340	305	235	230	*325	5,050	1,810	1,120	695	251	271
28	195	355	300	230	230	310	5,390	1,900	1,080	688	228	263
29	192	404	295	230	-	290	5,840	1,820	1,070	663	228	259
30	195	414	295	225	-------	290	6,060	1,760	1,050	663	218	255
31	199	-------	295	230	-------	285	-------	1,700	-------	650	204	-------
Total	5,958	6,895	10,599	7,770	5,623	7,760	52,993	110,680	40,530	23,260	13,143	6,867
Mean	192	230	342	251	201	250	1,766	3,570	1,351	750	424	229
Cfsm	0.220	0.264	0.393	0.288	0.231	0.287	2.03	4.10	1.55	0.861	0.487	0.263
In.	0.25	0.29	0.45	0.33	0.24	0.33	2.26	4.73	1.73	0.99	0.56	0.29

Calendar year 1956:	Max	4,840	Min	84	Mean	840	Cfsm	0.964	In.	13.12
Water year 1956-57:	Max	6,100	Min	154	Mean	800	Cfsm	0.918	In.	12.45

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 26-28, Dec. 2 to Apr. 5.

St. John River below Fish River, at Fort Kent, Maine

(International gaging station)

Location.--Lat 47°15'25", long 68°35'35", on right bank at Fort Kent, Aroostook County, a quarter of a mile downstream from Fish River.

Drainage area.--5,690 sq mi, approximately (not including about 240 sq mi drained by Chamberlain Lake through Telos Canal).

Records available.--October 1926 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 488.9 ft above mean sea level, datum of 1929. Prior to Oct. 10, 1933, staff gage on opposite bank at same datum.

Average discharge.--31 years, 9,438 cfs.

Extremes.--Maximum discharge during year, 50,200 cfs Apr. 24 (gage height, 15.54 ft); maximum gage height, 15.78 ft Apr. 22 (backwater from ice); minimum daily discharge, 805 cfs Jan. 21, 22.
1926-57: Maximum discharge, 121,000 cfs May 5, 1933 (gage height, 25.1 ft); minimum daily, 510 cfs Mar. 13-15, 1948.

Remarks.--Records excellent except those for periods of ice effect, which are fair.

Cooperation.--This station is one of the international gaging stations maintained by the United States under agreement with Canada.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 22

0.8	755	3.0	2,800
1.0	895	4.0	4,300
1.2	1,040	5.0	6,200
1.5	1,270	6.5	10,100
2.0	1,710		

Note.--Same as following table above 6.5 ft.

Apr. 23 to Sept. 30

1.4	1,210	8.0	14,900
2.0	1,800	10.0	22,900
3.0	2,980	12.0	32,000
4.0	4,540	14.0	42,000
5.0	6,560	15.4	49,400
6.5	10,100		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,670	1,910	3,220	1,360	1,590	1,060	1,890	42,800	11,100	17,000	7,390	1,320
2	2,430	1,870	2,900	1,340	1,550	1,100	1,890	37,700	10,100	16,300	7,230	1,280
3	2,310	1,830	2,830	1,290	1,510	1,120	1,900	32,800	11,600	13,100	6,470	1,270
4	2,210	1,760	2,760	1,240	1,480	1,130	1,950	*28,600	13,600	11,200	5,910	1,510
5	2,200	1,720	2,620	1,190	1,400	1,160	2,000	25,900	12,700	9,960	7,010	2,020
6	2,200	1,700	2,520	1,150	1,270	1,180	2,100	24,300	10,900	10,200	11,100	3,440
7	2,330	1,660	2,410	1,090	1,180	1,180	2,200	23,000	9,960	10,800	9,520	3,990
8	3,680	1,630	2,300	1,040	1,160	1,240	2,160	22,600	11,000	9,760	7,710	3,340
9	10,300	1,600	2,200	1,000	1,130	1,280	2,250	23,300	12,000	*8,610	6,250	2,940
10	9,830	1,590	2,110	*960	1,110	1,400	2,240	24,100	11,200	7,820	6,300	*2,570
11	7,340	1,580	2,030	935	1,100	1,390	2,260	22,900	9,690	7,480	5,530	2,280
12	5,980	1,500	1,950	925	1,070	1,390	2,300	21,100	8,610	7,660	5,130	2,070
13	4,950	1,380	1,890	910	1,060	1,400	2,320	19,500	7,890	6,900	4,810	2,000
14	4,280	1,470	1,880	895	1,040	1,430	2,380	17,700	7,620	6,100	4,280	2,110
15	3,860	1,240	1,850	880	1,030	1,480	2,450	16,400	8,880	5,890	3,860	2,530
16	3,540	1,160	1,810	865	1,020	1,550	2,600	16,900	11,700	8,570	3,520	2,400
17	3,260	1,380	1,790	855	1,010	1,600	3,000	17,900	12,200	10,900	3,230	2,340
18	3,120	1,520	1,750	845	1,010	1,660	3,700	16,900	10,500	9,790	2,950	2,640
19	2,900	1,490	1,720	830	*1,000	1,730	4,800	14,500	9,330	7,940	2,750	2,710
20	2,750	1,540	1,700	820	995	1,790	6,200	12,800	9,840	6,580	2,590	2,840
21	2,580	1,540	1,670	805	965	1,860	9,400	11,600	9,480	5,620	2,450	2,680
22	2,440	1,850	1,640	805	935	1,940	22,900	10,600	8,590	5,070	2,280	2,870
23	2,320	2,750	1,620	945	930	2,030	48,000	9,840	7,760	5,430	2,140	4,140
24	2,360	3,120	1,600	1,060	925	2,060	49,000	9,450	7,090	5,890	2,000	7,570
25	2,260	3,280	1,560	1,140	930	2,050	46,200	9,500	6,680	5,910	1,900	9,860
26	2,260	3,420	1,530	1,170	935	1,990	42,600	9,380	6,630	5,450	1,830	8,780
27	2,190	3,530	1,500	1,240	945	*1,960	40,400	9,020	7,200	4,980	1,780	7,300
28	2,110	3,920	1,480	1,330	950	1,960	42,100	10,200	8,400	4,610	1,650	6,040
29	2,020	3,810	1,470	1,410	-	1,950	45,900	15,300	9,450	4,260	1,570	5,150
30	1,980	3,520	1,420	1,520	-------	1,930	46,400	16,000	11,700	4,330	1,480	4,490
31	1,930	-------	1,400	1,580	-------	1,910	-------	13,100	-------	5,110	1,400	-------
Total	106,590	62,270	61,130	33,425	31,230	48,910	445,490	585,690	293,400	249,220	134,020	106,480
Mean	3,438	2,076	1,972	1,078	1,115	1,578	14,850	18,890	9,780	8,039	4,323	3,549
Cfsm	0.604	0.365	0.347	0.189	0.196	0.277	2.61	3.32	1.72	1.41	0.760	0.624
In.	0.70	0.41	0.40	0.22	0.20	0.32	2.91	3.83	1.92	1.63	0.88	0.70

Calendar year 1956: Max 47,800 Min 790 Mean 6,430 Cfsm 1.13 In. 15.38
Water year 1956-57: Max 49,000 Min 805 Mean 5,912 Cfsm 1.04 In. 14.12

Peak discharge (base, 45,000 cfs).--Apr. 24 (2:30 a.m.) 50,200 cfs (15.54 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 25, 26, Dec. 3 to Apr. 22 (no gage-height record Nov. 4, 26, Dec. 30 to Jan. 9).

Machias River near Ashland, Maine

Location.--Lat 46°37'40", long 68°26'05", on right bank just upstream from highway bridge, 0.8 mile upstream from mouth and 1½ miles west of Ashland, Aroostook County.

Drainage area.--330 sq mi (revised).

Records available.--June 1951 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 535 ft (from topographic map).

Average discharge.--6 years, 547 cfs.

Extremes.--Maximum discharge during year, 3,730 cfs Apr. 24 (gage height, 4.78 ft); maximum gage height, 5.20 ft Dec. 3 (backwater from ice); minimum discharge, 11 cfs Sept. 6.

1951-57: Maximum discharge, 16,600 cfs June 29, 1954 (gage height, 11.94 ft), from rating curve extended above 6,100 cfs by logarithmic plotting; minimum, 5.4 cfs Sept. 17, 1952 (gage height, 0.64 ft); minimum gage height, 0.38 ft Sept. 18, 19, 1955.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow partly regulated by Machias and Rowe Lakes (combined capacity, about 280,000,000 cu ft) used for log driving.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 3		Dec. 4 to Sept. 30			
0.8	84	0.4	19	2.0	735
1.0	144	.5	31	2.5	1,180
1.2	222	.7	70	3.0	1,630
		1.0	157	4.0	2,720
		1.3	280	4.7	3,620
		1.6	445		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	169	176	80	118	31	110	3,000	365	820	290	45
2	108	166	170	70	112	31	112	2,600	164	740	276	41
3	114	158	168	68	108	33	138	2,110	530	545	262	57
4	114	148	160	66	100	34	172	1,810	285	80	290	55
5	111	141	158	68	90	38	164	1,580	420	510	290	40
6	103	134	158	66	85	38	180	1,360	585	235	266	31
7	121	128	158	66	82	36	194	945	455	75	253	29
8	180	114	154	66	80	38	205	1,100	665	61	244	26
9	193	100	154	63	70	40	215	1,340	525	*46	249	25
10	184	95	150	*57	72	52	225	1,400	374	50	239	24
11	169	106	150	52	72	66	220	1,420	363	43	161	*24
12	158	95	154	48	70	95	225	1,290	395	50	176	24
13	144	87	144	38	66	124	225	1,120	355	140	168	24
14	137	106	124	40	57	164	240	865	530	124	164	25
15	134	102	124	38	52	205	260	595	255	124	161	23
16	131	100	134	41	50	230	275	*883	270	95	161	24
17	*114	98	138	46	48	225	290	946	160	98	157	27
18	108	95	120	45	50	225	330	755	500	75	157	25
19	106	92	118	40	45	215	415	485	205	59	126	25
20	103	89	116	29	40	205	531	510	390	55	144	24
21	100	92	112	24	29	198	1,010	484	400	40	144	24
22	98	110	104	23	27	194	1,690	485	325	52	137	29
23	100	200	92	52	26	188	2,120	495	440	72	134	92
24	158	198	90	124	26	172	3,550	440	425	130	131	118
25	180	192	88	120	26	158	3,520	510	101	198	124	90
26	176	188	85	120	*26	150	3,160	385	300	50	124	75
27	180	192	82	120	30	144	2,820	270	455	52	118	61
28	184	188	82	118	38	*128	2,720	490	605	59	112	52
29	184	188	82	118	-	124	2,800	470	555	63	104	46
30	180	184	82	118	--------	118	3,080	440	85	134	98	41
31	173	--------	85	118	--------	116	--------	550	--------	305	63	--------
Total	4,351	4,055	3,912	2,142	1,695	3,815	31,196	31,133	11,482	5,180	5,518	1,246
Mean	140	135	126	69.1	60.5	123	1,040	1,004	383	167	178	41.5
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 3,370 Min 18 Mean 364 Cfsm 1.10 In. 15.08
Water year 1956-57: Max 3,550 Min 23 Mean 290 Cfsm 0.879 In. 11.89

Peak discharge (base, 3,200 cfs).--Apr. 24 (12 m.) 3,730 cfs (4.78 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 11, 12, Nov. 14 to Apr. 18.

Aroostook River at Washburn, Maine

Location.--Lat 46°46'35", long 66°09'30", on right bank just upstream from Bangor and Aroostook Railroad bridge, 0.1 mile downstream from Salmon Brook and 1 mile south of railroad station at Washburn, Aroostook County.

Drainage area.--1,652 sq mi (revised).

Records available.--August 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 436.40 ft above mean sea level, datum of 1929. Prior to Oct. 1, 1948, at datum 2.0 ft higher.

Average discharge.--27 years, 2,524 cfs (unadjusted).

Extremes.--Maximum discharge during year, 13,500 cfs Apr. 24 (gage height, 7.72 ft); minimum, 135 cfs Sept. 16.

1930-57: Maximum discharge, 37,800 cfs Mar. 22, 1936 (gage height, 13.80 ft, present datum); maximum gage height, 15.78 ft Apr. 6, 1951 (backwater from ice); minimum daily discharge, 75 cfs Feb. 13-15, 1948.

Remarks.--Records excellent except those for period of ice effect, which are fair. Flow partly regulated by Squapan Lake (capacity, 2,554,000,000 cu ft), and by Millinocket Lake (capacity, 1,007,000,000 cu ft) used for power, and Machias and Rowe Lakes (combined capacity, about 280,000,000 cu ft) used for log-driving.

Revisions (water years).--WSP 951: 1935. WSP 1301. 1933-50 (adjusted monthly runoff).

Rating tables, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 19		Apr. 20 to Sept. 30			
1.7	250	1.4	110	4.0	3,210
2.0	455	1.7	290	5.0	5,300
2.5	930	2.0	520	6.0	7,990
3.0	1,560	2.5	1,010	7.0	11,000
4.0	3,160	3.0	1,640	7.6	13,100
4.1	3,340				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	630	810	800	455	430	365	820	12,500	1,780	1,490	1,610	432
2	657	740	770	455	420	400	780	11,300	1,510	1,670	1,490	384
3	720	720	740	450	410	410	770	9,520	2,100	1,470	1,190	440
4	730	820	700	440	395	380	760	8,480	2,300	1,190	1,120	682
5	684	941	695	430	390	395	760	7,880	1,920	1,040	1,330	384
6	639	930	675	430	380	420	750	7,040	1,910	1,250	1,420	360
7	648	886	665	440	365	450	910	6,130	1,630	1,090	1,200	311
8	930	831	655	*440	360	455	1,040	5,910	2,190	*890	988	227
9	1,100	800	640	425	340	500	1,190	6,500	2,100	840	900	*220
10	1,090	740	630	395	310	530	1,330	6,610	1,510	*840	911	202
11	930	702	620	350	285	550	1,340	6,500	1,500	988	800	196
12	810	684	655	330	280	565	1,380	5,940	1,750	977	840	178
13	720	702	630	310	275	595	1,550	5,150	1,460	966	800	155
14	702	675	620	285	275	620	1,780	*4,320	1,400	1,010	780	150
15	740	685	610	275	275	685	1,880	3,890	1,180	1,140	710	150
16	*720	750	620	280	280	675	2,080	3,990	1,330	1,180	682	150
17	693	790	610	280	285	675	2,380	4,170	1,020	1,080	691	311
18	603	800	605	275	290	665	2,810	3,680	966	880	700	311
19	540	790	595	275	*300	665	3,250	3,060	1,170	619	673	304
20	506	800	585	270	305	665	4,190	2,820	1,340	646	628	304
21	480	830	550	270	305	665	6,690	2,560	2,040	810	619	172
22	455	985	540	260	305	665	9,700	2,380	1,920	1,020	610	304
23	464	1,560	530	325	310	665	11,000	2,190	1,630	1,180	565	538
24	675	1,330	505	390	300	665	12,700	2,080	1,530	1,190	538	870
25	1,190	1,160	500	440	270	655	13,000	2,220	1,270	1,200	655	988
26	1,370	1,050	490	465	275	655	11,800	2,060	1,100	1,020	700	860
27	1,250	1,010	480	470	290	650	10,600	1,460	1,340	890	664	691
28	1,080	1,020	470	480	350	*875	10,100	1,810	1,440	820	504	637
29	985	950	465	490	-	885	10,700	2,250	1,530	730	520	464
30	919	910	470	455	--------	875	11,800	2,160	1,470	740	512	472
31	831	--------	455	440	--------	820	--------	2,070	--------	1,120	392	--------
Total	24,491	26,401	18,575	11,775	9,055	18,740	139,840	148,630	47,336	31,976	25,742	11,847
Mean	790	880	599	380	323	605	4,661	4,795	1,578	1,031	830	395
(†)	-11	-82	-160	-186	-176	-186	+405	+314	+27	-262	-173	-99

Adjusted for change in contents in Millinocket and Squapan Lake

Mean	779	798	439	194	147	419	5,066	5,109	1,605	769	657	296
Cfsm	0.472	0.483	0.266	0.117	0.089	0.254	3.07	3.09	0.972	0.465	0.398	0.179
In.	0.54	0.54	0.31	0.13	0.09	0.29	3.42	3.56	1.08	0.54	0.46	0.20

	Observed			Adjusted	
Calendar year 1956:	Max 12,400	Min 120	Mean 1,747	Mean 1,777	Cfsm 1.08 In. 14.92
Water year 1956-57:	Max 13,000	Min 150	Mean 1,409	Mean 1,360	Cfsm 0.823 In. 11.16

Peak discharge (base, 13,000 cfs).-- Apr. 24 (12 p.m.) 13,500 cfs (7.72 ft).

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Millinocket and Squapan Lakes.
Note.--Stage-discharge relation affected by ice Nov. 14 to Apr. 19.

Meduxnekeag River near Houlton, Maine

Location.--Lat 46°06'15", long 67°52'00", on right bank 0.3 mile downstream from South Branch and 2 miles upstream from Houlton, Aroostook County.

Drainage area.--175 sq mi.

Records available.--October 1940 to September 1957. October, November 1940 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 333.92 ft above mean sea level, datum of 1929.

Average discharge.--17 years, 273 cfs.

Extremes.--Maximum discharge during year, 1,900 cfs Apr. 22 (gage height, 5.58 ft); minimum, 6.8 cfs Sept. 1-3.

1940-57: Maximum discharge, 6,590 cfs Sept. 12, 1954 (gage height, 9.28 ft); maximum gage height, 10.83 ft Mar. 27, 1953 (backwater from ice); minimum discharge, 3.6 cfs Sept. 19, 1946 (gage height, 2.09 ft).

Remarks.--Records excellent except those for period of ice effect, which are fair.

Revisions (water years).--WSP 1031: 1944.

Rating tables, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 22				Apr. 23 to Sept. 30			
2.4	23	3.5	400	2.2	6.8	3.0	175
2.5	37	4.0	650	2.3	14	3.5	400
2.7	77	5.0	1,360	2.4	25	4.0	650
3.0	180	5.6	1,920	2.5	40	5.0	1,360
				2.7	82	5.6	1,920

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	120	160	59	68	73	240	875	124	66	144	7.5
2	77	109	156	62	62	70	270	740	112	57	118	6.8
3	89	100	152	62	53	68	295	635	131	50	98	7.5
4	92	92	148	62	46	66	290	565	128	42	158	12
5	86	86	144	59	42	64	305	510	112	40	195	20
6	73	80	*132	59	39	62	335	460	104	50	140	20
7	70	77	112	57	39	59	390	420	121	51	98	18
8	113	73	106	*57	39	57	425	395	150	*46	70	15
9	126	73	100	55	41	62	415	385	131	38	53	*13
10	109	70	102	55	44	77	405	380	109	*38	46	12
11	92	64	102	53	48	100	400	470	90	50	42	11
12	77	68	77	50	46	102	405	435	80	53	38	11
13	70	140	75	48	39	100	435	370	73	42	34	11
14	64	204	77	46	37	112	450	*332	68	36	31	12
15	62	192	73	42	36	140	470	375	66	30	28	12
16	62	172	66	41	36	164	515	500	59	26	24	12
17	59	176	64	39	34	160	575	435	53	25	21	15
18	55	176	64	37	*50	156	650	360	44	23	17	23
19	51	148	64	36	64	156	840	300	40	21	15	25
20	55	132	64	34	62	160	1,070	260	42	16	13	22
21	51	122	64	33	57	160	1,510	228	40	16	13	20
22	50	196	64	44	55	156	1,860	207	38	17	13	20
23	51	285	64	77	50	160	1,600	187	38	24	13	31
24	245	230	64	112	46	164	1,380	203	36	38	12	53
25	360	200	64	132	41	168	1,160	199	32	48	11	48
26	300	180	64	138	41	180	910	175	34	42	10	38
27	248	176	62	138	55	205	764	158	51	36	11	32
28	212	168	62	120	68	220	722	164	64	31	10	28
29	220	164	59	106	-	*225	704	179	61	26	10	23
30	152	160	59	94	--------	240	812	164	68	36	9.7	21
31	133	--------	62	77	--------	235	--------	144	--------	85	8.2	--------
Total	3,555	4,233	2,726	2,084	1,338	4,121	20,602	11,210	2,299	1,199	1,503.9	599.8
Mean	115	141	87.9	67.2	47.8	133	687	362	76.6	38.7	48.5	20.0
Cfsm	0.657	0.806	0.502	0.384	0.273	0.760	3.93	2.07	0.438	0.221	0.277	0.114
In.	0.76	0.90	0.58	0.44	0.28	0.88	4.38	2.39	0.49	0.25	0.32	0.13

Calendar year 1956: Max 2,630 Min 6.9 Mean 225 Cfsm 1.29 In. 17.52
Water year 1956-57: Max 1,860 Min 6.8 Mean 152 Cfsm 0.869 In. 11.80

Peak discharge (base, 2,100 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 19 to Apr. 18 (no gage-height record Jan. 8-21; discharge estimated on basis of 1 discharge measurement, weather records, and records for nearby stations).

St. Croix River at Vanceboro, Maine

Location.--Lat 45°34'10", long 67°25'45", on right bank at international highway bridge in Vanceboro, Washington County, 400 ft downstream from outlet of Spedrik Lake.

Drainage area.--417 sq mi.

Records available.--October 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 367.75 ft above mean sea level, datum of 1929.

Average discharge.--29 years, 685 cfs.

Extremes.--Maximum discharge during year, 1,350 cfs May 16 (gage height, 6.37 ft); minimum, 43 cfs Aug. 21 (gage height, 2.63 ft).
1928-57: Maximum discharge, 4,470 cfs Apr. 23, 1954 (gage height, 9.24 ft); minimum, 1.9 cfs several times during October and November 1936 (gage height, 1.91 ft), when flow was held back by cofferdam during repairs to dam just upstream.

Remarks.--Records excellent except those for period of no gage-height record, which are good. Flow regulated by Chiputneticook Lakes (combined usable capacity, about 13,200,000,000 cu ft).

Revisions.--WSP 1431: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

3.2	109	5.0	561
3.5	157	5.5	805
4.0	257	6.0	1,090
4.5	385	6.4	1,370

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	429	388	268	407	964	618	499	170	1,120	460	355	287
2	429	382	268	407	845	613	502	173	1,100	456	355	282
3	439	382	268	610	465	604	510	173	1,080	452	355	282
4	426	382	268	670	550	595	510	173	1,070	452	350	282
5	433	379	268	560	735	587	510	173	1,050	640	350	282
6	422	376	268	439	890	574	395	173	1,040	866	345	282
7	422	373	268	436	882	565	120	*175	1,030	849	345	278
8	426	370	268	436	866	557	121	175	1,020	844	340	278
9	426	330	268	432	854	561	126	177	994	827	340	278
10	423	273	268	432	849	574	129	179	988	822	550	273
11	419	268	268	785	832	582	130	179	959	822	700	271
12	416	268	465	785	816	574	132	179	954	810	695	268
13	413	273	502	655	800	578	134	490	942	794	690	268
14	410	*271	475	1,100	783	578	135	*684	920	788	685	268
15	407	271	456	1,070	772	275	137	684	915	794	680	266
16	407	271	456	930	756	140	138	1,090	904	783	675	264
17	407	273	456	585	745	143	140	1,320	888	772	500	271
18	407	273	500	368	735	145	142	1,300	*882	756	324	268
19	404	273	404	575	719	147	143	980	871	750	322	268
20	397	273	404	684	709	148	145	541	871	745	316	266
21	397	273	404	450	694	148	150	541	860	735	*255	264
22	765	278	395	348	679	150	152	541	849	730	309	262
23	1,040	285	385	365	670	152	154	1,070	838	719	306	262
24	615	287	385	710	660	154	157	1,260	832	709	302	262
25	400	287	385	690	641	155	159	1,250	560	565	299	257
26	397	287	385	520	636	*360	162	1,220	432	368	299	259
27	397	292	385	359	636	499	164	1,200	442	365	306	262
28	397	292	530	359	627	499	166	1,200	446	365	299	253
29	394	260	404	520	-	499	166	1,180	449	360	294	246
30	391	268	407	679	--------	499	168	1,230	452	360	292	246
31	388	--------	410	900	--------	499	--------	1,210	--------	160	292	--------
Total	13,943	9,158	11,541	18,266	20,810	12,772	6,396	21,090	25,758	20,118	12,525	8,055
Mean	450	305	372	589	743	412	213	680	859	649	404	269
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 1,680 Min 104 Mean 532 Cfsm - In. -
Water year 1956-57: Max 1,320 Min 120 Mean 494 Cfsm - In. -

* Discharge measurement made on this day.
Note.--No gage-height record July 27 to Aug. 17; discharge estimated on basis of recorded range ~~and~~ stage and record of gate operation at storage dam upstream.

Grand Lake Stream at Grand Lake Stream, Maine

Location.--Lat 45°10'25", long 67°46'05", on left bank at Big Falls, 0.5 mile southeast of village of Grand Lake Stream, Washington County, and 0.8 mile downstream from outlet dam of Grand Lake.

Drainage area.--224 sq mi.

Records available.--October 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 273.96 ft above mean sea level, datum of 1929.

Average discharge.--29 years, 349 cfs.

Extremes.--Maximum discharge during year, 665 cfs July 6 (gage height, 3.25 ft); maximum gage height, 4.20 ft Jan. 24 (backwater from ice); minimum discharge, 37 cfs Nov. 18, Dec. 12 (gage height, 1.18 ft).
1928-57: Maximum discharge, 2,840 cfs June 12, 1952 (gage height, 6.35 ft); minimum daily, 5 cfs Dec. 3-6, 11, 1945.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. Flow regulated by Grand and other lakes (combined usable capacity, about 8,250,000,000 cu ft).

Revisions.--WSP 971: Drainage area.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	70	2.2	225
1.6	83	2.5	326
1.7	99	3.0	541
1.9	141	3.3	690

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	414	298	136	b220	a200	389	93	89	91	385	291	242
2	285	294	134	b220	a200	389	96	88	91	381	291	238
3	445	291	136	b220	a198	385	99	86	91	377	291	238
4	435	288	139	b220	a198	369	97	86	91	377	288	242
5	389	284	136	219	a196	373	97	88	91	440	291	238
6	377	278	134	b210	a196	358	107	88	89	660	291	238
7	377	274	136	210	195	350	107	*89	89	655	288	235
8	381	271	141	213	195	347	107	89	89	640	284	238
9	377	271	141	210	195	365	108	89	89	625	281	235
10	373	268	146	b215	198	377	108	91	116	620	281	232
11	369	255	136	b215	195	373	108	91	141	615	281	228
12	358	251	160	216	280	365	110	91	146	605	281	228
13	354	265	204	219	344	365	112	*91	146	595	281	225
14	350	248	201	b220	380	290	112	89	149	585	274	225
15	347	242	201	b220	437	128	112	89	149	585	271	225
16	344	238	201	b220	460	93	112	83	149	580	271	222
17	340	242	164	b215	503	91	112	78	149	570	271	222
18	340	230	166	b215	488	88	114	79	154	570	265	219
19	333	245	201	213	474	86	114	80	157	566	265	340
20	322	238	201	210	465	88	116	89	159	561	261	605
21	322	235	198	201	455	178	118	94	157	546	261	590
22	319	248	198	195	437	397	116	93	157	541	258	575
23	319	188	198	b210	428	393	116	93	157	536	255	561
24	333	136	198	a210	414	385	116	93	225	531	251	546
25	322	134	b198	a210	410	330	116	91	381	522	251	522
26	319	134	b198	a210	406	149	112	89	377	517	251	517
27	316	136	b196	a205	401	149	101	91	389	512	258	503
28	316	139	195	a205	397	114	96	94	389	498	251	470
29	308	136	195	a205	-	93	91	93	385	488	248	451
30	305	136	b220	a205	-------	93	91	91	385	488	248	432
31	302	-------	b220	a200	-------	93	-------	91	-------	400	245	-------
Total	10,791	6,893	5,428	6,576	9,345	8,045	3,214	2,756	5,428	16,571	8,375	10,282
Mean	348	230	175	212	334	260	107	88.9	181	535	270	343
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 1,340 Min 65 Mean 284 Cfsm - In. -
Water year 1956-57: Max 660 Min 78 Mean 257 Cfsm - In. -

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records of gate operation in storage dam ¾ mile upstream.
b Stage-discharge relation affected by ice.

St. Croix River near Baileyville, Maine

Location.--Lat 45°15'55", long 67°28'35", in township of Baileyville, Washington County, on right bank 700 ft downstream from powerhouse of St. Croix Paper Co. at Grand Falls and 8 miles upstream from village of Woodland.

Drainage area.--1,320 sq mi.

Records available.--November 1919 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 148.8 ft above mean sea level, datum of 1929.

Average discharge.--38 years, 2,189 cfs.

Extremes.--Maximum discharge during year, 3,120 cfs May 20 (gage height, 3.19 ft); minimum daily, 385 cfs Sept. 2, 29.
1919-57: Maximum discharge, about 23,300 cfs May 1, 1923 (gage height, 13.90 ft); minimum daily, 100 cfs (estimated) July 20, 1924, when plant was closed down.

Remarks.--Records excellent except those for periods of shifting control, which are good. Flow regulated by Chiputneticook Lakes, Grand and other lakes (combined usable capacity, about 25,000,000,000 cu ft).

Revisions (water years).--WSP 1231: 1922.

Rating table, water year 1956-57, except periods of shifting control (gage height, in feet, and discharge, in cubic feet per second)

0.5	350	1.5	1,040
.7	470	2.0	1,570
.9	590	3.0	2,850
1.2	800	4.0	4,340

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,350	1,320	880	1,740	2,150	1,630	1,740	2,580	2,790	1,100	1,070	400
2	1,220	1,310	870	1,750	2,060	1,670	2,230	2,490	1,980	1,140	985	385
3	1,250	1,260	880	1,690	1,070	1,020	2,460	2,570	2,520	1,140	855	400
4	1,260	1,240	890	1,880	1,950	1,500	2,530	2,570	2,420	550	795	765
5	1,170	1,320	890	1,920	2,100	1,700	2,590	1,570	2,500	480	1,020	785
6	1,170	1,330	890	1,010	2,120	1,730	2,420	2,390	2,220	490	950	795
7	1,220	1,280	*905	1,680	2,240	1,790	2,290	2,480	2,570	495	920	780
8	1,200	1,300	920	2,000	2,010	1,740	2,490	2,590	2,410	830	935	590
9	*1,190	1,080	640	1,810	2,400	1,800	2,530	2,520	1,300	990	970	550
10	1,210	1,080	840	1,890	2,070	1,980	2,550	2,620	2,220	895	950	910
11	1,190	525	895	2,050	2,480	1,980	2,590	2,540	2,360	960	815	1,320
12	1,210	795	1,030	1,800	*2,090	2,290	2,400	2,500	2,160	960	1,630	880
13	1,170	780	1,350	2,140	2,100	2,200	2,580	2,840	2,260	960	1,910	855
14	695	*810	1,760	1,860	2,200	2,450	1,210	2,610	2,370	565	1,980	855
15	1,230	815	1,750	2,090	2,060	2,230	2,280	2,640	2,350	1,180	1,930	620
16	1,250	815	1,860	*1,690	2,020	2,360	2,410	2,680	2,160	1,760	1,800	665
17	1,230	745	2,000	2,050	1,240	995	2,400	2,710	2,090	1,650	880	1,260
18	1,170	815	1,810	2,090	1,770	2,100	2,380	2,630	*1,960	1,310	450	1,410
19	1,210	810	1,690	1,970	2,100	2,130	2,410	1,790	1,800	1,020	905	1,420
20	1,130	825	1,270	930	2,180	2,290	2,400	2,680	1,850	905	*910	1,440
21	1,130	840	1,070	1,700	1,910	2,320	1,640	2,720	1,890	640	950	1,370
22	1,120	840	1,080	2,060	1,670	2,310	2,200	2,850	1,920	1,410	970	785
23	1,130	840	1,120	1,960	1,690	2,320	2,400	2,720	2,060	910	950	1,140
24	1,120	840	950	2,320	1,710	2,200	2,440	2,890	1,870	920	750	1,420
25	1,150	580	430	2,330	1,670	2,310	2,480	2,810	1,650	935	415	1,350
26	1,230	840	990	2,230	1,710	*2,270	2,530	2,720	1,330	905	810	1,380
27	1,190	865	1,080	2,320	1,690	2,230	2,440	2,790	1,270	870	975	1,410
28	640	865	1,070	2,450	1,680	2,290	2,480	2,740	1,080	1,040	975	905
29	1,430	865	1,130	2,450	-	2,150	2,400	2,710	1,090	1,080	960	385
30	1,260	865	1,040	2,150	--------	2,150	2,460	2,740	880	945	950	760
31	1,330	--------	1,450	2,380	--------	1,280	--------	2,840	--------	895	585	--------
Total	36,455	28,495	35,430	60,390	54,140	61,415	70,360	80,530	59,330	28,930	31,950	27,990
Mean	1,176	950	1,143	1,948	1,934	1,981	2,345	2,598	1,978	965	1,031	933
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 7,470 Min 405 Mean 1,901 Cfsm - In. -
Water year 1956-57: Max 2,890 Min 385 Mean 1,579 Cfsm - In. -

* Discharge measurement made on this day.
Note.--Shifting-control method used Oct. 1 to Jan. 23, June 3 to Sept. 30.

Dennys River at Dennysville, Maine

Location.--Lat 44°54'05", long 67°14'55", on right bank just above railroad bridge, 0.9 mile upstream from Cathance Stream and 1 mile west of Dennysville, Washington County.

Drainage area.--92.4 sq mi.

Records available.--October 1955 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 54.78 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 806 cfs Apr. 7 (gage height, 3.94 ft); minimum, 8.6 cfs Sept. 30 (gage height, 0.29 ft).
1955-57: Maximum discharge, 1,460 cfs Apr. 16, 1956 (gage height, 5.45 ft); minimum, that of Sept. 30, 1957.

Remarks.--Records excellent except those for periods of ice effect or fragmentary gage-height record, which are fair. Flow partly regulated by power development at Meddybemps Lake.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.3	9.0	2.0	230
.4	13	2.5	345
.7	32	3.0	490
1.0	65	4.0	830
1.5	140		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	80	205	180	126	248	120	308	41	32	27	14
2	112	64	176	160	110	202	355	172	38	26	25	12
3	80	57	130	152	98	194	614	130	36	21	25	13
4	48	42	60	142	92	167	427	120	43	18	81	13
5	53	50	42	136	86	156	298	107	80	18	50	f12
6	30	80	65	130	82	150	545	92	113	19	27	f11
7	79	45	102	128	78	136	736	*86	134	20	20	11
8	196	23	138	102	74	92	550	78	74	18	16	12
9	*168	22	118	45	68	200	409	76	106	20	15	12
10	120	22	86	32	65	544	310	76	63	30	18	f12
11	92	22	98	42	58	368	305	96	136	40	112	12
12	66	22	318	136	*134	310	318	94	128	35	90	12
13	41	*25	391	120	149	278	358	80	55	26	58	13
14	33	32	298	80	138	238	332	68	48	22	37	f13
15	30	37	204	*130	74	190	290	104	58	30	27	12
16	27	32	210	132	58	164	290	212	65	100	24	f11
17	26	30	230	132	52	167	318	156	40	74	21	11
18	23	34	180	132	30	174	330	113	*46	27	18	f11
19	22	32	130	132	51	174	345	83	116	28	16	f9.8
20	20	55	140	132	45	194	379	70	41	23	*16	9.8
21	19	44	156	124	27	212	451	88	25	18	14	f10
22	19	210	154	65	26	150	475	78	22	16	13	f14
23	23	288	150	190	25	137	406	63	22	24	11	f13
24	114	184	144	511	35	155	365	58	20	36	11	11
25	143	156	144	403	26	156	325	52	18	26	11	11
26	108	144	142	290	40	238	282	43	19	22	12	f9.8
27	108	248	140	230	132	*208	248	43	22	22	f14	f9.8
28	94	298	140	194	254	216	268	57	22	26	f12	9.8
29	86	256	150	170	-	210	275	76	22	19	12	9.0
30	43	228	245	156	--------	214	292	60	31	23	22	f8.6
31	74	--------	200	140	--------	167	--------	48	--------	33	19	--------
Total	2,179	2,862	5,086	4,848	2,233	6,409	11,016	2,987	1,684	892	874	342.6
Mean	70.3	95.4	164	156	79.8	207	367	96.4	56.1	28.8	28.2	11.4
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 1,330 Min 9.4 Mean 172 Cfsm 1.86 In. 25.34
Water year 1956-57: Max 736 Min 8.6 Mean 113 Cfsm 1.22 In. 16.66

Peak discharge (base, 600 cfs).--Apr. 3 (1 a.m.) 684 cfs (3.61 ft); Apr. 7 (2 a.m.) 806 cfs (3.94 ft).

* Discharge measurement made on this day.
f Fragmentary gage-height record, discharge computed from partly estimated gage heights.
Note.--Stage-discharge relation affected by ice Dec. 1, 2, 6, Dec. 16 to Jan. 23, Jan. 27 to Feb. 10.

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Machias River at Whitneyville, Maine

Location.--Lat 44°43'25", long 67°31'15", on right bank 800 ft downstream from highway bridge at Whitneyville, Washington County.

Drainage area.--457 sq mi.

Records available.--October 1905 to September 1921, September 1929 to September 1957. Monthly discharge only for some periods, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 37.22 ft above mean sea level, datum of 1929. Oct. 1, 1905, to Sept. 30, 1921, staff and chain gages on highway bridge at different datum.

Average discharge.--44 years (1905-21, 1929-57), 936 cfs.

Extremes.--Maximum discharge during year, 2,680 cfs Apr. 7 (gage height, 6.37 ft); maximum gage height, 6.64 ft Dec. 31 (backwater from ice); minimum discharge, 34 cfs Oct. 22.

1905-21, 1929-57: Maximum discharge, 11,800 cfs Nov. 28, 1950 (gage height, 14.70 ft, from floodmarks), from rating curve extended above 7,000 cfs by logarithmic plotting; maximum gage height, 16.18 ft Mar. 14, 1936 (ice jam); minimum daily discharge, 3.5 cfs Oct. 12, 1939, when flow was held back by cofferdam during reconstruction of highway bridge upstream.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Some storage in lakes above station.

Revisions (water years).--WSP 241: 1903-4. WSP 971: Drainage area. WSP 1231: 1907-15, 1916-21(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.6	39	4.0	520
2.8	63	4.5	950
3.0	97	5.0	1,430
3.3	175	6.0	2,380
3.6	295	6.3	2,620

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	157	372	598	1,080	406	670	477	2,300	470	394	169	97
2	264	489	555	880	384	520	614	2,310	446	356	230	95
3	595	501	483	670	350	452	1,900	2,260	423	310	277	93
4	440	464	452	525	350	390	1,610	2,130	417	282	282	93
5	282	417	412	405	350	345	1,080	2,130	406	286	286	86
6	264	384	356	345	345	315	1,490	*2,160	356	286	282	78
7	345	345	384	295	330	305	2,560	2,110	350	286	277	54
8	687	320	483	260	305	310	2,150	2,290	350	259	268	41
9	813	310	541	250	300	520	1,650	2,310	345	250	238	50
10	614	286	501	240	310	1,240	1,220	2,190	259	286	226	84
11	477	254	435	235	340	1,920	1,080	2,090	264	345	226	106
12	315	238	740	225	330	1,410	1,080	2,080	268	541	226	102
13	277	234	1,530	225	286	1,090	1,140	*2,030	290	389	218	62
14	272	238	1,470	225	250	995	1,130	1,850	406	286	186	43
15	264	238	1,130	*225	242	1,020	986	1,790	508	277	148	49
16	175	242	870	225	230	955	850	2,260	569	254	132	72
17	118	265	959	220	238	986	841	1,820	*501	250	130	80
18	192	250	813	215	238	1,000	920	1,530	590	246	130	80
19	242	250	715	210	225	890	995	495	548	222	130	78
20	226	250	606	210	215	776	1,090	235	389	210	99	78
21	192	250	495	205	210	687	1,280	757	315	210	84	70
22	73	440	446	196	218	662	1,550	950	335	189	82	68
23	80	1,640	372	870	214	740	1,530	804	340	163	89	68
24	384	1,300	345	2,180	215	822	1,370	722	350	163	95	66
25	785	986	295	1,740	214	785	1,260	646	345	178	97	66
26	679	1,130	290	1,250	254	696	1,120	576	372	178	97	76
27	483	1,320	280	880	460	670	995	541	372	178	120	55
28	458	1,320	270	679	755	630	950	598	367	175	132	47
29	567	1,120	285	548	-	583	1,260	687	362	157	128	48
30	458	645	520	489	-------	534	1,920	654	394	142	111	43
31	310	-------	1,730	446	-------	508	-------	548	-------	142	97	-------
Total	11,488	16,498	19,361	16,648	8,564	23,426	38,098	45,833	11,707	7,890	5,292	2,128
Mean	371	550	625	537	306	756	1,270	1,478	390	255	171	70.9
Cfsm	0.812	1.20	1.37	1.18	0.670	1.65	2.78	3.23	0.853	0.558	0.374	0.155
In.	0.94	1.34	1.58	1.36	0.70	1.90	3.10	3.72	0.95	0.64	0.43	0.17

Calendar year 1956: Max 4,940 Min 30 Mean 727 Cfsm 1.59 In. 21.66
Water year 1956-57: Max 2,560 Min 41 Mean 567 Cfsm 1.24 In. 16.83

Peak discharge (base, 3,200 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 25 to Jan. 22, Feb. 19-21, 24, Feb. 27 to Mar. 1, Mar. 4-6, 9-11.

East Machias River near East Machias, Maine

Location.--Lat 44°46'05", long 67°24'30", on left bank just downstream from outlet of Hadley Lake and 3 miles upstream from East Machias, Washington County.

Drainage area.--251 sq mi.

Records available.--October 1926 to September 1957.

Gage.--Staff gage read once daily. Datum of gage is 34.9 ft above mean sea level, datum of 1929. Prior to October 1950, at datum 1.00 ft higher.

Average discharge.--30 years (1927-57), 505 cfs.

Extremes.--Maximum discharge observed during year, 1,100 cfs Apr. 10 (gage height, 5.18 ft); minimum observed, 32 cfs Sept. 29, 30 (gage height, 1.17 ft).
1926-57: Maximum discharge, 3,660 cfs Dec. 15, 1950 (gage height, 9.05 ft); minimum, 8.4 cfs Nov. 8, 1947 (gage height, 0.65 ft, present datum).

Remarks.--Records good.

Revisions (water years).--WSP 971: Drainage area. WSP 1231: 1928-30.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from aquatic growth Oct. 16 to Nov. 23, June 11 to July 4)

1.1	29	2.5	208
1.3	41	3.0	310
1.5	58	4.0	595
1.7	81	5.0	1,010
2.0	124	5.2	1,110

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	130	382	514	407	228	467	773	380	120	86	56
2	80	128	364	473	384	222	382	769	355	118	84	54
3	85	124	347	436	370	255	655	761	335	114	81	53
4	91	120	333	404	355	287	733	749	315	114	86	51
5	97	114	319	382	338	276	818	761	295	114	89	51
6	100	108	310	370	324	265	883	*678	285	110	86	49
7	108	100	298	357	315	255	1,000	636	270	108	82	50
8	*142	96	*287	343	305	245	1,030	595	255	108	79	52
9	152	93	283	324	296	292	1,080	559	245	110	77	54
10	162	89	285	310	285	357	1,100	538	230	114	76	52
11	172	91	287	296	280	433	1,070	521	215	124	88	48
12	176	96	340	283	269	517	1,040	521	205	124	89	46
13	180	*93	392	274	259	559	1,020	504	198	128	90	44
14	172	89	420	265	249	570	986	491	188	128	93	46
15	166	88	455	257	237	581	954	476	182	126	93	45
16	156	86	485	247	226	588	918	498	176	126	91	44
17	152	86	494	237	221	599	896	524	170	126	93	43
18	146	89	504	228	213	610	865	538	*166	120	88	41
19	138	93	511	221	206	625	857	552	160	108	*85	41
20	132	96	482	215	199	610	848	552	156	110	81	43
21	134	100	453	241	194	595	861	559	150	110	76	42
22	138	150	436	261	183	573	878	534	146	108	73	40
23	136	188	412	301	175	559	892	515	138	104	69	40
24	130	240	387	352	185	566	892	470	128	102	65	41
25	132	260	374	417	197	573	887	445	116	98	62	40
26	138	290	362	479	208	563	883	475	116	96	65	38
27	146	320	350	498	226	552	861	435	110	93	67	36
28	142	345	335	482	236	545	835	425	108	93	65	34
29	140	370	322	464	-	531	814	415	114	89	62	32
30	138	375	591	450	-------	517	793	405	120	88	59	32
31	134	-------	566	428	-------	485	-------	395	-------	88	56	-------
Total	4,190	4,647	12,166	10,809	7,342	14,433	26,198	17,069	6,027	3,419	2,436	1,338
Mean	135	155	392	349	262	466	873	551	201	110	75.7	44.6
Cfsm	0.538	0.618	1.56	1.39	1.04	1.86	3.48	2.20	0.801	0.438	0.302	0.178
In.	0.62	0.69	1.80	1.60	1.08	2.14	3.88	2.54	0.89	0.50	0.35	0.20

Calendar year 1956 : Max 2,170 Min 38 Mean 440 Cfsm 1.75 In. 23.85
Water year 1956-57 : Max 1,100 Min 32 Mean 301 Cfsm 1.20 In. 16.29

* Discharge measurement made on this day.

Narraguagus River at Cherryfield, Maine

Location.--Lat 44°36'30", long 67°56'15", on left bank at Cherryfield, Washington County, 800 ft upstream from railroad bridge and 0.7 mile downstream from mouth of West Branch of Narraguagus River.

Drainage area.--232 sq mi.

Records available.--February 1948 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 44.2 ft above mean sea level, datum of 1929. Prior to July 1, 1948, staff gage at same site and datum.

Average discharge.--9 years, 479 cfs.

Extremes.--Maximum discharge during year, 2,030 cfs Mar. 10 (gage height, 11.75 ft); maximum gage height, 12.12 ft Jan. 23 (ice jam); minimum discharge, 28 cfs Sept. 30 (gage height, 7.00 ft).
1948-57: Maximum discharge, 7,250 cfs Nov. 28, 1950 (gage height, 15.81 ft); minimum, that of Sept. 30, 1957.

Remarks.--Records excellent except those for periods of ice effect, which are fair.

Revisions (water years).--WSP 1301: 1948(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23

7.7	96	9.0	425
7.8	111	9.5	620
8.0	149	10.0	850
8.5	270	11.0	1,460

Jan. 24 to Sept. 30

7.0	28	7.4	58
7.2	40	7.7	96

Note.--Same as preceding table above 7.7 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	170	363	510	390	425	302	554	253	92	59	32
2	351	157	329	425	360	338	515	534	234	88	58	30
3	290	149	285	360	320	299	1,130	495	232	83	55	32
4	206	141	250	305	275	255	902	457	219	77	55	34
5	172	131	235	270	265	215	672	422	214	73	54	43
6	151	125	220	235	235	200	1,150	*392	194	81	50	40
7	215	115	267	210	220	210	1,520	363	190	79	48	34
8	566	113	354	188	205	219	1,170	344	190	79	45	36
9	503	111	357	170	205	1,090	929	329	172	77	42	39
10	389	111	332	156	215	1,830	749	329	157	90	42	38
11	299	105	317	140	240	1,240	773	344	145	120	48	36
12	239	111	800	138	215	913	782	360	131	118	54	42
13	202	147	1,040	132	188	763	754	348	133	108	55	40
14	179	190	892	130	172	821	704	329	127	96	46	40
15	162	190	722	*128	164	745	620	402	127	85	43	39
16	147	183	749	126	157	681	546	763	125	81	45	37
17	133	174	778	120	156	801	522	722	110	83	46	37
18	127	172	637	116	160	694	530	595	99	82	42	37
19	118	172	454	112	156	566	538	484	95	73	*40	35
20	108	160	425	112	150	511	574	425	88	67	39	33
21	104	172	380	110	146	461	642	620	83	58	37	32
22	102	755	350	158	142	465	713	591	78	59	35	33
23	136	1,060	325	1,530	147	495	717	484	74	68	34	34
24	540	850	300	1,320	146	488	672	429	72	77	32	35
25	491	620	285	1,070	147	447	620	376	69	70	32	34
26	373	476	270	782	219	425	574	329	81	65	36	33
27	308	578	255	780	629	412	538	311	88	58	46	32
28	259	574	240	635	654	389	511	341	83	56	42	30
29	226	476	270	570	-	363	491	382	85	55	37	29
30	199	415	540	500	--------	338	530	332	98	58	34	28
31	183	--------	665	445	--------	320	--------	287	--------	61	32	--------
Total	7,594	8,903	13,686	11,983	6,678	17,419	21,390	13,473	4,046	2,417	1,363	1,054
Mean	245	297	441	387	238	562	713	435	135	78.0	44.0	35.1
Cfsm	1.06	1.28	1.90	1.67	1.03	2.42	3.07	1.87	0.582	0.336	0.190	0.151
In.	1.22	1.43	2.19	1.92	1.07	2.79	3.42	2.16	0.65	0.39	0.22	0.17

Calendar year 1956:	Max	3,090	Min	45	Mean	391	Cfsm	1.69	In.	22.96		
Water year 1956-57:	Max	1,830	Min	28	Mean	301	Cfsm	1.30	In.	17.63		

Peak discharge (base, 1,500 cfs).--Jan. 23 (time unknown) about 2,000 cfs; Mar. 10 (4 a.m.) 2,030 cfs (11.75 ft); Apr. 7 (2 a.m.) 1,620 cfs (11.23 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 3-6, Dec. 20 to Jan. 24, Jan. 27 to Feb. 13, Feb. 17-23, 24, Mar. 4-7.

West Branch Union River at Amherst, Maine

Location.--Lat 44°50'25", long 68°22'20", on right bank 200 ft upstream from site of old tannery dam, 0.6 mile upstream from Indian Camp Brook, and 0.7 mile northwest of Amherst, Hancock County.

Drainage area.--148 sq mi.

Records available.--July 1909 to September 1919, July 1929 to September 1957. Published as Union River at Amherst October 1910 to September 1913.

Gage.--Water-stage recorder. Altitude of gage is 160 ft (from topographic map). July 1909 to Sept. 30, 1919, staff and chain gages at highway bridge 1 mile downstream at different datum.

Average discharge.--38 years, 258 cfs.

Extremes.--Maximum discharge during year, 718 cfs Apr. 7 (gage height, 5.39 ft); minimum, 7.4 cfs Sept. 30.

1909-19, 1929-57: Maximum discharge, 4,140 cfs Apr. 13, 1940 (gage height, 9.58 ft); maximum gage height, 10.41 ft Mar. 9, 1942 (ice jam); minimum discharge, 3.6 cfs Sept. 29, 1941; minimum gage height, 2.82 ft Sept. 14, 1949.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair.

Revisions (water years).--WSP 801: 1935. WSP 821: Drainage area. WSP 1231: 1912-15. 1916-19(M). WSP 1301: 1910-11.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 13

3.3	26	4.0	155
3.4	37	4.5	305
3.6	66	5.0	515

Mar. 14 to Sept. 30

2.9	5.9	3.2	19
3.0	9.0	3.3	26
3.1	13		

Note.--Same as preceding table above 3.3 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	84	211	100	122	80	223	477	190	64	37	9.0
2	61	80	200	94	112	73	319	477	178	66	37	8.6
3	61	73	194	90	99	66	515	454	174	63	37	9.0
4	63	68	182	84	88	60	505	409	162	55	37	9.4
5	66	66	170	80	80	53	454	372	148	56	37	9.4
6	63	61	168	77	75	50	574	345	136	55	33	9.0
7	97	56	166	71	70	49	712	316	128	49	33	9.0
8	150	53	163	68	64	47	690	295	126	45	23	9.0
9	134	52	163	66	61	106	663	272	120	44	23	9.0
10	132	52	174	64	58	425	609	269	110	56	25	8.6
11	124	49	210	63	*53	415	564	285	103	58	27	9.0
12	107	50	300	61	53	380	525	292	90	50	32	9.4
13	92	92	431	60	52	350	559	295	86	50	23	9.0
14	86	112	436	*58	50	345	530	275	82	55	25	12
15	79	127	393	55	49	376	486	327	82	68	24	11
16	71	134	375	50	47	418	436	440	73	71	22	10
17	68	134	360	47	46	477	422	436	*66	80	20	11
18	63	132	335	46	45	444	431	414	63	73	18	10
19	58	132	320	42	44	405	454	364	60	64	17	9.4
20	52	112	270	38	42	364	472	340	56	55	15	*9.0
21	50	112	235	36	41	327	525	376	52	47	17	9.0
22	47	312	210	37	40	309	569	341	47	47	14	9.0
23	52	397	190	182	40	316	574	312	45	45	13	10
24	110	397	174	255	38	323	574	292	42	41	12	12
25	122	360	160	245	37	316	554	280	40	38	12	11
26	127	323	150	230	41	305	520	232	42	36	13	9.4
27	129	302	142	205	66	302	496	214	46	35	14	9.0
28	122	279	132	182	100	288	458	217	49	32	12	8.6
29	107	250	124	162	-	272	*431	211	58	33	11	8.6
30	99	232	116	146	--------	250	472	220	66	37	9.4	7.7
31	88	--------	106	134	--------	238	--------	210	--------	36	9.0	--------
Total	2,727	4,683	6,960	3,128	1,713	8,229	15,316	10,059	2,720	1,604	695.4	284.1
Mean	88.0	156	225	101	61.2	265	511	324	90.7	51.7	22.4	9.47
Cfsm	0.595	1.05	1.52	0.682	0.414	1.79	3.45	2.19	0.613	0.349	0.151	0.064
In.	0.69	1.17	1.75	0.79	0.43	2.06	3.85	2.52	0.68	0.40	0.17	0.07

Calendar year 1956: Max 1,440 Min 11 Mean 208 Cfsm 1.41 In. 19.16
Water year 1956-57: Max 712 Min 7.7 Mean 159 Cfsm 1.07 In. 14.58

Peak discharge (base, 1,000 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 2-7, 10-12, Dec. 16 to Mar. 13 (no gage-height record Jan. 24-28). No gage-height record May 20, 25, May 30 to June 9; discharge estimated on basis of weather records and flow of nearby streams.

East Branch Penobscot River at Grindstone, Maine.

Location.--Lat 45°43'50", long 68°35'20", on left bank 500 ft downstream from Bangor & Aroostook Railroad bridge, half a mile south of Grindstone, Penobscot County, and 9½ miles upstream from confluence with West Branch Penobscot River.

Drainage area.--1,070 sq mi, approximately (including about 240 sq mi drained by Chamberlain Lake through Telos Canal).

Records available.--October 1902 to September 1957. Monthly discharge only for some periods, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 294.74 ft above mean sea level, datum of 1929. Prior to June 30, 1929, chain gage on railroad bridge at same datum.

Average discharge.--55 years, 1,864 cfs (unadjusted).

Extremes.--Maximum discharge during year, 7,470 cfs Apr. 22 (gage height, 8.58 ft); minimum, 256 cfs Sept. 16 (gage height, 4.25 ft).
1902-57: Maximum discharge, 37,000 cfs Apr. 30, 1923 (gage height, 16.9 ft, site then in use, present datum); minimum daily (1914-57), 77 cfs Nov. 19, 1924.

Remarks.--Records excellent except those for period of ice effect, which are fair. Flow partly regulated by Chamberlain, Telos, Second and Grand Lakes and Round Pond (see p. 41).

Revisions (water years).--WSP 501: Drainage area. WSP 1301: 1907-12, 1914-29(M).

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

4.2	235	6.0	1,970
4.4	325	7.0	3,800
4.9	650	8.0	6,020
5.5	1,260	8.5	7,260

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	890	1,030	1,010	650	910	1,010	1,020	4,400	1,260	960	1,010	722
2	1,130	1,020	930	640	900	1,020	1,120	4,900	1,240	880	803	442
3	1,130	960	850	635	910	980	1,160	5,150	1,450	803	722	330
4	1,060	940	860	625	920	940	1,150	4,920	1,420	618	1,200	365
5	990	920	870	890	930	930	1,160	4,530	1,320	610	1,530	350
6	890	880	890	1,120	940	930	1,260	3,240	1,260	668	1,060	320
7	880	860	910	1,110	960	930	1,390	2,620	1,250	626	830	311
8	1,220	850	900	1,100	980	930	1,450	2,480	1,360	570	713	311
9	1,150	830	880	1,080	1,000	980	1,430	2,620	1,200	556	642	302
10	990	803	850	1,070	990	1,070	1,420	2,680	1,080	610	602	287
11	910	758	840	1,060	980	1,420	1,420	3,240	1,010	*570	586	*287
12	840	776	850	1,050	970	1,670	1,420	3,140	980	507	570	292
13	821	900	860	1,040	960	1,700	1,490	2,430	930	480	542	287
14	812	950	850	1,030	980	1,670	1,560	2,030	870	454	507	278
15	803	920	830	1,030	1,020	1,500	1,450	2,110	900	429	500	274
16	794	900	840	1,030	1,030	1,340	1,490	*2,590	880	442	480	274
17	785	940	850	1,020	1,020	1,220	1,720	2,440	830	442	448	311
18	794	1,020	860	1,010	1,010	1,160	2,180	2,070	776	387	429	316
19	767	920	870	1,000	1,000	1,120	2,680	1,850	776	387	417	287
20	749	880	850	990	980	1,080	3,280	1,850	870	381	405	278
21	722	910	810	980	990	1,030	4,660	1,800	830	365	381	269
22	722	2,380	785	970	1,000	990	7,050	1,660	830	411	375	278
23	776	3,090	740	1,210	1,010	980	5,790	1,560	803	514	365	487
24	1,820	2,310	720	1,140	1,000	1,010	5,490	1,560	767	528	355	686
25	2,030	1,500	730	1,110	990	*1,070	5,150	1,490	767	514	345	528
26	1,570	1,320	740	1,060	980	1,060	4,920	1,470	870	494	345	417
27	1,310	1,310	720	1,020	1,000	1,050	4,590	1,400	920	461	365	370
28	1,200	1,340	695	990	1,010	1,040	4,420	1,420	900	435	355	330
29	1,120	1,260	685	950	-	1,030	4,350	1,470	850	442	330	306
30	1,060	1,080	675	930	-------	1,020	4,290	1,600	1,000	740	325	283
31	1,020	-------	670	910	-------	1,010	-------	1,300	-------	1,270	586	-------
Total	31,755	34,557	25,420	30,450	27,370	34,890	81,960	78,020	30,199	17,554	18,123	10,578
Mean	1,024	1,152	820	982	978	1,125	2,732	2,517	1,007	566	585	353
(†)	-284	-209	-120	-567	-635	-265	+1,095	+717	-89	-83	-94	-185

Adjusted for change in reservoir contents

Mean	740	943	700	415	343	860	3,827	3,234	918	483	491	168
Cfsm	0.692	0.881	0.654	0.388	0.321	0.804	3.58	3.02	0.858	0.451	0.459	0.157
In.	0.80	0.98	0.75	0.45	0.33	0.93	3.99	3.48	0.96	0.52	0.53	0.18

	Observed			Adjusted		
Calendar year 1956:	Max 7,570	Min 278	Mean 1,404	Mean 1,478	Cfsm 1.38	In. 18.82
Water year 1956-57:	Max 7,050	Min 269	Mean 1,153	Mean 1,095	Cfsm 1.02	In. 13.90

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Chamberlain, Telos, Second and Grand Lakes, and Round Pond.
Note.--Stage-discharge relation affected by ice Nov. 25 to Apr. 10.

Penobscot River near Mattawamkeag, Maine

Location.--Lat 45°34'00", long 68°24'10", on left bank 1,800 ft downstream from Mattaseunk Dam and powerhouse, 1¾ miles upstream from Mattaseunk Brook, and 4¾ miles upstream from Mattawamkeag, Penobscot County.

Drainage area.--3,310 sq mi, approximately (including about 240 sq mi drained by Chamberlain Lake through Telos Canal).

Records available.--June 1940 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 191.72 ft above mean sea level, datum of 1929.

Average discharge.--17 years, 5,446 cfs (unadjusted).

Extremes.--Maximum discharge during year, 11,600 cfs Apr. 22 (gage height, 6.43 ft); minimum daily, 1,800 cfs Sept. 1.
1940-57: Maximum discharge, 40,200 cfs May 21, 1945 (gage height, 11.09 ft), from rating curve extended above 17,000 cfs; minimum daily, 1,430 cfs Aug. 17, 1941.

Remarks.--Records good. Flow regulated by several reservoirs above station (see p. 41).

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,300	3,600	4,250	3,600	3,750	3,450	4,480	7,750	3,910	3,140	3,680	1,800
2	4,040	3,600	4,300	3,750	3,790	3,790	4,520	7,600	3,490	2,920	3,420	1,890
3	4,170	3,420	3,960	3,380	3,790	3,830	4,840	7,850	3,790	2,860	2,210	2,070
4	4,080	3,600	*4,300	3,790	4,080	3,680	4,340	7,950	3,600	2,160	3,420	2,260
5	3,830	3,250	3,790	4,300	4,080	3,020	4,380	7,500	3,420	2,550	4,210	2,390
6	3,910	3,600	3,600	3,830	3,640	3,210	4,170	6,500	3,720	2,740	3,280	2,600
7	4,040	3,490	3,830	3,750	3,960	3,310	4,340	5,790	3,080	2,690	2,860	2,740
8	4,000	3,250	3,790	3,560	3,680	3,790	4,800	5,440	3,790	2,800	2,890	2,520
9	4,340	3,450	3,870	3,910	4,170	4,300	4,990	5,280	3,310	2,800	3,110	2,240
10	4,080	3,140	3,680	3,640	3,910	4,120	4,480	5,590	3,380	2,920	2,960	1,980
11	4,000	3,110	3,790	3,830	3,490	3,870	4,480	6,200	2,960	2,800	3,180	*2,580
12	3,830	3,310	4,380	3,870	3,420	4,040	4,940	5,890	3,020	2,580	2,990	2,550
13	3,790	3,250	3,910	3,750	3,310	4,340	4,660	4,940	3,050	2,720	3,020	2,260
14	3,910	3,380	3,490	3,870	3,180	4,840	4,750	4,890	3,210	2,720	2,800	2,600
15	3,870	3,250	3,530	3,530	3,180	*4,940	4,520	4,800	3,110	2,740	2,960	2,520
16	3,830	3,380	4,210	3,870	3,280	4,610	4,840	5,080	3,250	2,660	2,770	2,390
17	3,790	3,450	3,960	3,720	3,210	4,480	4,940	5,280	3,050	2,860	2,740	2,470
18	3,750	3,560	3,910	3,750	3,210	4,430	5,380	4,800	3,110	2,920	2,550	2,290
19	3,750	3,790	3,680	3,530	3,020	4,380	5,940	4,840	2,990	2,860	2,630	2,660
20	3,910	3,680	3,420	3,790	3,250	4,750	6,650	4,480	*3,110	2,720	2,490	2,440
21	4,000	3,600	3,870	4,000	3,250	4,040	7,400	4,520	3,110	2,630	2,830	2,440
22	3,790	5,230	3,450	3,600	3,560	4,480	10,700	4,430	3,140	2,580	2,770	2,390
23	3,910	6,950	3,420	4,990	3,600	4,380	9,900	4,250	3,110	2,740	2,830	2,550
24	5,130	5,940	2,890	4,890	3,750	4,890	9,200	4,380	2,990	2,890	2,830	2,860
25	5,040	4,380	2,720	3,910	3,490	4,560	8,550	4,000	2,890	2,920	2,890	2,600
26	4,480	4,610	3,490	4,000	3,680	4,480	8,700	4,000	2,520	2,770	2,520	2,690
27	4,080	4,660	3,310	3,350	3,560	3,960	8,200	3,830	3,350	2,960	2,600	2,520
28	4,080	4,520	3,600	4,080	3,110	4,380	7,700	3,560	3,080	2,800	2,520	2,360
29	3,750	4,940	3,600	3,910	-	4,610	7,650	3,960	2,960	2,720	2,440	2,440
30	3,790	4,340	3,420	3,680	--------	4,610	*7,700	3,830	3,420	3,020	2,520	2,550
31	3,640	--------	3,640	3,960	--------	4,480	--------	4,700	--------	3,530	2,490	--------
Total	124,910	117,730	115,060	119,390	99,400	130,050	182,140	163,910	96,920	86,720	89,410	72,650
Mean	4,029	3,924	3,712	3,851	3,550	4,195	6,071	5,287	3,231	2,797	2,884	2,422
(†)	-1,400	-1,258	-1,590	-2,747	-3,048	-1,816	+5,272	+3,468	-1,078	-1,666	-897	-1,929

Adjusted for change in reservoir contents

Mean	2,629	2,666	2,122	1,104	502	2,379	11,340	8,755	2,153	1,131	1,987	493
Cfsm	0.794	0.805	0.641	0.334	0.152	0.719	3.43	2.65	0.650	0.342	0.600	0.149
In.	0.92	0.90	0.74	0.39	0.16	0.83	3.83	3.06	0.73	0.39	0.69	0.17

	Observed			Adjusted		
Calendar year 1956:	Max 12,000	Min 2,510	Mean 4,306	Mean 4,578	Cfsm 1.38	In. 18.83
Water year 1956-57:	Max 10,700	Min 1,800	Mean 3,831	Mean 3,115	Cfsm 0.941	In. 12.81

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in reservoirs on East and West Branches of Penobscot River.

Note.--Stage-discharge relation affected by aquatic vegetation and/or ice Oct. 1 to Mar. 12, May 29 May 29 to Sept. 30 (no gage-height record Dec. 13 to Jan. 11; Feb. 21, 26; discharge estimated on basis of records from powerplant just upstream).

Mattawamkeag River near Mattawamkeag, Maine

Location.--Lat 45°30'20", long 68°18'05", on right bank at Gordon Lower Falls, 1 mile upstream from Mattakeunk Stream, 4 miles upstream from Mattawamkeag, Penobscot County, and 4½ miles upstream from mouth.

Drainage area.--1,418 sq mi (revised).

Records available.--October 1934 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 230 ft (from topographic map).

Average discharge.--23 years, 2,330 cfs.

Extremes.--Maximum discharge during year, 10,200 cfs Apr. 25 (gage height, 7.90 ft); minimum, 120 cfs Sept. 2, 3 (gage height, 0.42 ft).
1934-57: Maximum discharge, 29,200 cfs Mar. 23, 1936 (gage height, 15.34 ft); minimum, 38 cfs Sept. 19, 1952 (gage height, 0.14 ft).

Remarks.--Records excellent except those for period of ice effect, which are fair.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	113	2.3	1,270
.5	150	3.0	1,820
.7	235	4.0	2,860
1.0	375	6.0	6,080
1.6	755	8.0	10,500

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	419	1,030	2,390	805	685	365	2,010	7,080	1,220	818	909	139
2	436	958	2,080	750	655	370	2,130	6,970	1,130	734	1,100	128
3	520	881	1,740	705	615	355	2,420	6,700	1,120	657	1,030	135
4	622	825	1,600	650	570	340	2,540	6,260	1,140	576	1,050	158
5	664	762	1,520	615	530	325	2,590	5,590	1,160	508	1,260	166
6	636	713	1,480	570	485	315	2,680	4,970	1,100	490	1,440	175
7	602	657	1,450	540	460	310	3,140	4,450	1,020	502	1,390	179
8	664	622	1,440	500	440	305	3,670	4,000	1,050	502	1,180	175
9	804	589	1,360	470	430	310	3,940	3,720	1,020	466	980	162
10	860	556	1,280	435	425	400	3,820	3,540	888	442	832	*154
11	825	538	1,230	415	420	550	3,840	3,640	797	466	755	150
12	741	508	1,340	390	415	760	3,790	3,780	699	496	692	150
13	671	664	1,700	365	410	1,040	3,720	3,670	622	466	629	150
14	608	1,050	1,920	350	*395	1,340	3,670	3,370	563	414	538	150
15	563	1,270	1,980	320	385	*1,680	3,610	3,210	526	375	466	150
16	532	1,250	1,910	305	375	1,820	3,510	3,490	490	335	414	158
17	508	1,240	1,780	*295	360	1,910	3,600	3,670	478	312	365	280
18	496	1,260	1,690	275	355	1,960	3,910	3,510	424	284	330	402
19	490	1,200	1,600	260	345	1,970	4,400	3,110	386	271	302	408
20	472	1,110	1,520	250	335	1,960	5,150	2,750	375	253	271	355
21	436	1,120	1,500	245	325	1,960	6,260	2,400	370	235	262	307
22	414	2,020	1,390	240	310	1,960	7,740	2,060	355	235	240	276
23	414	3,840	1,300	460	305	2,030	9,100	1,860	345	258	226	262
24	692	4,540	1,260	1,040	300	2,070	9,980	1,740	325	276	204	276
25	1,290	4,320	1,250	1,210	295	2,120	10,100	1,700	320	294	187	307
26	1,660	3,790	1,130	1,130	290	2,190	9,860	1,610	330	312	183	370
27	1,640	3,410	1,060	1,040	315	2,280	9,130	1,520	502	316	183	365
28	1,520	3,320	1,020	930	350	2,290	8,180	1,490	846	302	183	335
29	1,370	2,980	965	865	-	2,220	7,350	1,500	958	280	166	360
30	1,240	2,670	910	790	--------	2,150	*7,080	1,440	895	320	150	284
31	1,130	--------	860	740	--------	2,050	--------	1,340	--------	490	143	--------
Total	23,939	49,693	45,655	17,955	11,580	41,705	152,920	106,140	21,454	12,685	18,060	7,066
Mean	772	1,656	1,473	579	414	1,345	5,097	3,424	715	409	583	236
Cfsm	0.544	1.17	1.04	0.408	0.292	0.949	3.59	2.41	0.504	0.288	0.411	0.166
In.	0.63	1.30	1.20	0.47	0.30	1.09	4.00	2.78	0.56	0.33	0.47	0.19

Calendar year 1956 : Max 13,500 Min 50 Mean 1,949 Cfsm 1.37 In. 18.92
Water year 1956-57 : Max 10,100 Min 128 Mean 1,394 Cfsm 0.983 In. 13.32

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 2 to Mar. 31.

Piscataquis River near Dover-Foxcroft, Maine

Location.--Lat 45°10'35", long 69°18'55", on left bank at Lows Bridge, 1 mile upstream from Black Stream and 4½ miles upstream from Dover-Foxcroft, Piscataquis County.

Drainage area.--297 sq mi.

Records available.--August 1902 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 358.1 ft above mean sea level, datum of 1929. Prior to July 20, 1930, staff gage at same site and datum.

Average discharge.--55 years, 579 cfs.

Extremes.--Maximum discharge during year, 2,990 cfs Apr. 22 (gage height, 5.91 ft); minimum, 40 cfs Sept. 1, 2, 12, 13 (gage height, 1.80 ft).
1902-57: Maximum discharge, 21,500 cfs Apr. 29, 1923 (gage height, 17.67 ft, from graph based on gage readings), from rating curve extended above 13,000 cfs by logarithmic plotting; minimum, 5 cfs Aug. 6, 1905, Nov. 22, 1908.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Low flow regulated by operation of powerplants above station.

Revisions (water years).--WSP 279: 1902. WSP 1171: Drainage area. WSP 1201: 1903-17, 1918-30(M), 1934-35. WSP 1301: 1909(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	40	3.5	700
2.0	72	4.0	1,060
2.2	119	5.0	1,990
2.5	209	5.7	2,760
3.0	415		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	149	171	225	*162	158	162	482	1,080	234	196	542	41
2	220	168	210	152	146	152	648	935	209	171	366	47
3	199	155	190	132	140	140	814	828	241	158	269	67
4	187	143	182	132	138	130	629	726	234	132	273	74
5	168	138	180	120	132	116	593	617	206	119	330	87
6	149	127	180	116	130	104	587	553	180	130	253	76
7	155	122	199	112	128	102	821	470	203	119	209	72
8	273	124	213	110	124	99	786	420	277	96	174	72
9	241	122	216	104	124	120	726	374	220	94	146	68
10	199	112	209	102	130	345	593	348	180	102	141	61
11	174	83	190	99	130	740	617	460	152	96	203	53
12	158	109	241	94	*130	720	599	450	138	79	216	41
13	146	141	*352	90	122	599	654	*379	124	70	203	40
14	141	183	325	90	116	536	706	361	116	67	162	43
15	132	177	281	*90	114	531	617	487	109	79	143	46
16	122	165	253	87	114	526	605	1,000	99	102	122	48
17	119	171	305	83	114	575	807	772	85	96	106	53
18	109	174	310	81	116	575	965	605	74	79	92	58
19	99	146	260	81	112	504	1,130	487	74	72	83	58
20	92	141	245	79	110	476	1,420	450	297	59	72	53
21	90	168	238	79	106	435	2,010	635	245	54	68	53
22	87	830	215	90	104	450	2,690	548	155	58	59	51
23	99	912	215	132	102	558	2,100	445	122	68	56	99
24	665	611	209	225	96	635	1,980	370	106	67	51	361
25	553	385	199	410	102	581	1,740	309	90	65	47	281
26	366	295	188	390	104	587	1,630	269	109	87	48	220
27	285	370	180	325	120	642	1,430	285	190	70	51	168
28	238	350	177	265	*132	629	1,290	348	174	58	61	130
29	213	280	174	230	-	575	1,180	348	149	56	51	112
30	193	281	168	205	-------	542	1,180	297	241	320	48	96
31	177	-------	166	*170	-------	*482	-------	261	-------	514	*46	-------
Total	6,198	7,354	6,895	4,637	3,394	13,368	32,029	15,917	5,033	3,533	4,691	2,729
Mean	200	245	222	150	121	431	1,068	513	168	114	151	91.0
Cfsm	0.673	0.825	0.747	0.505	0.407	1.45	3.60	1.73	0.566	0.384	0.508	0.306
In.	0.78	0.92	0.86	0.58	0.42	1.67	4.02	1.99	0.63	0.44	0.59	0.34

Calendar year 1956 : Max 4,790 Min 53 Mean 483 Cfsm 1.63 In. 22.11
Water year 1956-57 : Max 2,690 Min 40 Mean 290 Cfsm 0.976 In. 13.24

Peak discharge (base, 4,000 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 25, 26, 28, 29, Dec. 1-5, 11, 18-20, 22, 23, 26, 27, Dec. 30 to Mar. 11.

Sebec River at Sebec, Maine

Location.--Lat 45°16'10", long 69°06'45", on right bank at Sebec, Piscataquis County, 1,000 ft downstream from highway bridge and dam at outlet of Sebec Lake.

Drainage area.--327 sq mi.

Records available.--October 1924 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 296.3 ft above mean sea level, datum of 1929. Prior to June 22, 1942, water-stage recorder on opposite bank 60 ft downstream at same datum.

Average discharge.--33 years, 603 cfs (unadjusted).

Extremes.--Maximum discharge during year, 1,350 cfs Apr. 26 (gage height, 4.31 ft); minimum, 94 cfs Mar. 26, 27 (gage height, 2.04 ft).
1924-57: Maximum discharge, 11,400 cfs Mar. 20, 1936 (gage height, 14.46 ft), from rating curve extended above 6,000 cfs on basis of velocity-area studies; minimum, about 2 cfs Oct. 14-17, 1930 (gage height, 0.87 ft), when gates in dam were closed.

Remarks.--Records excellent. Flow partly regulated by Sebec Lake and other reservoirs above station.

Revisions (water years).--WSP 1171: Drainage area, 1936(M). WSP 1301: 1925.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.0	84	3.5	810
2.2	139	4.0	1,140
2.5	251	4.5	1,460
3.0	495		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	440	366	405	347	430	214	102	1,120	405	180	206	495
2	435	366	405	347	405	214	102	1,090	395	188	210	495
3	*440	366	390	347	385	214	102	1,040	400	184	210	490
4	435	366	400	342	371	210	99	1,000	395	184	218	484
5	430	361	380	342	380	203	102	978	390	184	226	484
6	425	356	376	337	395	192	106	635	390	184	230	478
7	425	356	376	337	380	184	106	490	390	184	230	473
8	420	356	376	333	361	177	106	484	390	184	230	468
9	410	352	376	333	342	210	112	478	380	184	230	462
10	400	352	371	328	337	251	112	325	371	184	239	451
11	395	347	371	333	319	274	109	177	371	184	243	446
12	395	342	380	328	301	296	112	180	371	188	247	440
13	395	342	390	328	282	319	115	195	371	188	251	435
14	390	337	390	328	269	328	118	*206	264	188	256	430
15	390	337	390	328	260	347	118	256	170	188	256	425
16	390	337	395	328	256	361	118	361	170	192	256	420
17	385	333	395	324	251	376	121	490	166	192	256	410
18	380	333	400	319	247	376	124	586	166	192	256	305
19	376	337	385	319	239	380	127	562	166	192	256	215
20	371	337	380	314	235	380	136	534	170	192	256	310
21	371	337	371	310	230	380	166	534	170	192	325	410
22	366	347	371	405	218	380	352	522	170	195	430	405
23	371	361	361	430	214	385	790	517	173	195	425	400
24	376	380	356	425	210	385	1,160	534	173	195	425	400
25	376	380	352	470	206	390	1,210	500	177	199	420	385
26	380	385	347	539	203	280	1,260	462	180	199	420	380
27	376	405	347	522	214	94	1,290	400	184	199	420	371
28	376	410	347	517	210	96	1,240	462	184	199	415	361
29	376	405	347	506	-	99	1,200	451	184	199	410	356
30	376	405	352	500	-------	99	1,180	430	184	206	*400	352
31	371	-------	347	468	-------	99	-------	415	-------	203	450	-------
Total	12,242	10,794	11,629	11,734	8,150	8,193	12,095	16,414	8,070	5,917	9,302	12,436
Mean	395	360	375	379	291	264	403	529	269	191	300	415
(†)	-163	-31	-91	-91	-383	+360	+573	-1	-82	-38	-50	-285

Adjusted for change in contents in Sebec Lake and Wilson Pond

Mean	232	329	284	181	-92	624	976	528	187	153	250	130
Cfsm	0.709	1.01	0.869	0.554	-0.281	1.91	2.98	1.61	0.572	0.468	0.765	0.398
In.	0.82	1.13	1.00	0.64	0.29	2.20	3.32	1.86	0.64	0.54	0.88	0.44

	Observed			Adjusted		
Calendar year 1956:	Max 2,880	Min 130	Mean 486	Mean 515	Cfsm 1.57	In. 21.44
Water year 1956-57:	Max 1,290	Min 94	Mean 348	Mean 318	Cfsm 0.972	In. 13.18

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Sebec Lake and Wilson Pond.
Note.--Negative figures of adjusted discharge and runoff indicate that evaporation and seepage from reservoirs exceeded inflow.

Pleasant River near Milo, Maine

Location.--Lat 45°17'05", long 69°00'25", on left bank 2 miles northeast of Milo, Piscataquis County, and 8¼ miles upstream from mouth.

Drainage area.--322 sq mi.

Records available.--June 1920 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 302 ft (from river-profile map). Prior to June 17, 1929, chain gage at Snows Bridge, 2 miles downstream at datum 32 ft lower.

Average discharge.--37 years, 684 cfs.

Extremes.--Maximum discharge during year, 3,120 cfs Apr. 22 (gage height, 4.76 ft); minimum, 93 cfs Sept. 3 (gage height, 1.68 ft).
1920-57: Maximum discharge, 24,400 cfs Apr. 30, 1923 (gage height, 14.33 ft, from floodmarks, site and datum then in use), from rating curve extended above 5,500 cfs; minimum, 15 cfs Aug. 17, 1944 (gage height, 1.21 ft).

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow partly regulated by power development at Brownville and by small storage dams above station.

Revisions (water years).--WSP 1301: 1921-22(M), 1924-27(M), 1929(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.7	98	3.0	875
1.8	128	3.5	1,370
2.0	202	4.0	1,990
2.5	480	4.8	3,180

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	310	293	415	250	290	305	355	1,390	288	376	676	98
2	474	277	395	250	280	360	450	1,170	266	332	507	98
3	*436	255	370	240	275	325	655	1,000	288	288	405	110
4	400	250	325	230	255	305	635	893	293	245	577	272
5	342	245	310	215	295	290	614	803	282	240	734	245
6	288	231	305	210	270	280	606	717	250	266	548	186
7	282	216	340	200	250	275	708	653	299	255	461	158
8	442	212	365	198	240	270	726	599	359	326	430	144
9	436	207	360	194	225	315	684	555	304	310	365	131
10	371	202	335	194	230	395	599	541	255	337	423	119
11	320	194	315	186	230	620	570	621	226	304	548	122
12	293	198	415	178	*205	865	555	614	202	250	507	128
13	261	310	*645	172	186	830	584	563	198	216	417	128
14	250	382	570	170	172	770	614	*528	190	194	348	125
15	245	359	480	170	160	700	563	614	169	198	304	116
16	236	348	485	*170	160	670	563	920	161	194	261	116
17	212	354	495	160	160	685	708	776	151	182	216	186
18	207	330	475	154	160	585	884	637	138	161	202	216
19	202	325	430	148	160	505	1,030	548	135	144	190	182
20	190	300	405	144	160	*475	1,250	500	288	128	173	154
21	194	299	370	140	160	440	1,830	507	261	122	161	141
22	194	1,100	355	148	148	460	2,990	474	194	128	151	131
23	221	1,210	335	194	144	455	2,600	417	161	148	135	220
24	734	900	315	250	140	435	2,430	405	154	148	128	541
25	734	785	300	305	158	460	2,200	394	144	158	128	430
26	563	685	295	370	190	440	2,110	359	177	154	125	332
27	467	590	270	400	220	415	1,860	388	348	144	128	272
28	411	540	260	370	250	380	1,730	400	310	138	119	221
29	365	505	255	340	-	370	1,650	382	277	158	107	198
30	*326	485	250	315	--------	360	1,600	342	359	541	*104	177
31	310	--------	250	295	--------	360	--------	304	--------	717	101	--------
Total	10,716	12,587	11,490	6,960	5,773	14,400	34,353	19,014	7,127	7,502	9,679	5,697
Mean	346	420	371	225	206	465	1,145	613	238	242	312	190
Cfsm	1.07	1.30	1.15	0.699	0.640	1.44	3.56	1.90	0.739	0.752	0.969	0.590
In.	1.23	1.45	1.33	0.81	0.67	1.66	3.97	2.19	0.82	0.87	1.12	0.66

Calendar year 1956: Max 4,670 Min 90 Mean 583 Cfsm 1.81 In. 24.65
Water year 1956-57: Max 2,990 Min 98 Mean 398 Cfsm 1.24 In. 16.78

Peak discharge (base, 3,700 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 18-20, Nov. 24 to Apr. 4.

Piscataquis River at Medford, Maine

Location.--Lat 45°15'40", long 68°52'05", on left bank 1¾ miles southwest of Medford, Piscataquis County, and 3½ miles downstream from Pleasant River.

Drainage area.--1,161 sq mi.

Records available.--June 1924 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 248.68 ft above mean sea level, datum of 1929. Prior to Aug. 14, 1929, staff gage at site 1¾ miles downstream at different datum.

Average discharge.--33 years, 2,249 cfs.

Extremes.--Maximum discharge during year, 6,810 cfs Apr. 22 (gage height, 5.84 ft); minimum, 374 cfs July 21, 22 (gage height, 1.89 ft).

1924-57: Maximum discharge, 50,200 cfs Mar. 20, 1936 (gage height, 15.07 ft), from rating curve extended above 20,000 cfs by logarithmic plotting; minimum, 99 cfs Oct. 28, 1947 (gage height, 1.28 ft).

Maximum stage known, 20.8 ft May 1, 1923, at former site 1¾ miles downstream.

Remarks.--Records excellent except those for period of ice effect, which are fair. Some regulation for power and log-driving by lakes above station.

Revisions (water years).--WSP 1171: Drainage area. WSP 1231: 1936. WSP 1301: 1925-29(M).

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.9	380	3.5	1,980
2.0	440	4.0	2,750
2.5	840	5.0	4,780
3.0	1,340	5.7	6,460

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	980	940	1,380	865	1,110	725	1,530	4,160	894	*903	1,670	777
2	1,530	960	1,190	850	1,070	685	1,900	3,720	876	831	1,510	687
3	1,450	1,060	1,230	830	1,010	680	2,520	3,320	1,070	768	1,160	652
4	1,300	741	1,300	820	970	660	2,180	3,040	1,200	678	1,170	723
5	1,120	858	1,180	815	910	645	1,950	2,770	1,110	596	1,440	768
6	1,150	970	1,130	775	875	605	1,880	2,400	930	644	1,260	741
7	1,100	750	1,090	760	830	595	2,300	1,980	930	644	1,060	687
8	1,210	759	1,140	750	785	580	2,480	1,810	903	636	1,000	660
9	1,220	840	1,130	740	750	590	2,300	1,720	970	696	876	696
10	1,170	950	1,140	715	715	750	2,020	1,560	1,040	660	840	687
11	1,130	835	1,140	695	705	1,980	1,950	1,400	1,050	687	1,040	696
12	980	552	*1,120	680	*695	2,980	1,900	1,560	795	636	1,080	687
13	1,060	945	1,230	670	680	2,930	1,920	1,440	786	580	1,010	678
14	858	1,320	1,340	670	670	2,610	2,020	*1,390	750	524	921	604
15	813	1,130	1,450	670	645	2,420	1,910	1,510	612	524	768	580
16	876	1,110	1,350	*670	610	2,200	1,810	2,600	566	517	723	660
17	921	1,180	1,340	670	595	2,200	2,200	2,630	517	604	628	741
18	678	921	1,310	660	595	2,270	2,600	2,200	428	545	596	768
19	759	1,060	1,240	660	590	2,150	2,820	1,910	404	454	559	644
20	894	1,080	1,230	650	580	*2,060	3,360	1,760	552	410	545	461
21	714	960	1,180	650	565	1,810	4,340	1,840	795	386	531	447
22	660	2,600	1,140	650	550	1,830	6,380	1,920	705	392	678	454
23	820	3,700	1,130	860	530	1,790	5,940	1,740	588	428	768	670
24	1,960	2,750	1,100	1,130	525	2,140	5,770	1,590	538	454	489	1,130
25	2,380	1,910	1,060	1,410	515	2,300	5,740	1,500	447	468	510	1,220
26	1,810	1,610	1,030	1,680	515	2,220	5,530	1,360	503	475	750	1,020
27	1,610	1,710	1,000	1,580	565	2,120	5,100	1,270	714	454	777	903
28	1,250	1,680	970	1,420	685	1,950	4,780	1,390	840	468	538	786
29	1,150	1,540	940	1,320	-	1,840	4,520	1,420	786	489	573	759
30	1,170	1,400	920	1,230	-------	1,720	4,450	1,320	813	822	*580	660
31	970	-------	895	1,170	-------	1,580	-------	1,190	-------	1,480	714	-------
Total	35,693	38,821	36,025	27,715	19,840	51,615	96,100	61,420	23,112	18,853	26,764	21,646
Mean	1,151	1,294	1,162	894	709	1,665	3,203	1,981	770	608	863	722
Cfsm	0.991	1.11	1.00	0.770	0.611	1.43	2.76	1.71	0.663	0.524	0.743	0.622
In.	1.14	1.24	1.15	0.89	0.64	1.65	3.08	1.97	0.74	0.60	0.86	0.69

Calendar year 1956: Max 12,900 Min 392 Mean 1,835 Cfsm 1.58 In. 21.50
Water year 1956-57: Max 6,380 Min 386 Mean 1,254 Cfsm 1.08 In. 14.65

Peak discharge (base, 13,000 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 6 to Mar. 19.

Penobscot River at West Enfield, Maine

Location.--Lat 45°14'15", long 68°39'10", on left bank at highway bridge, 1,000 ft downstream from Piscataquis River and 1 mile southwest of West Enfield, Penobscot County.

Drainage area.--6,600 sq mi, approximately (including about 240 sq mi drained by Chamberlain Lake through Telos Canal).

Records available.--November 1901 to September 1957. Records prior to 1910 republished with some revisions in WSP 279.

Gage.--Water-stage recorder. Datum of gage is 125.94 ft above mean sea level, datum of 1929. Prior to Dec. 11, 1912, chain gage at same site and datum.

Average discharge.--55 years (1902-57), 11,480 cfs (unadjusted).

Extremes.--Maximum discharge during year, 29,000 cfs Apr. 23 (gage height, 9.19 ft); minimum daily, 3,400 cfs Sept. 3; minimum gage height, 2.03 ft Sept. 3.
1901-57: Maximum discharge, 153,000 cfs May 1, 1923 (gage height, 25.15 ft), from rating curve extended above 88,000 cfs by logarithmic plotting; minimum, 1,630 cfs Oct. 29, 1905 (gage height, 1.0 ft).

Remarks.--Records excellent except those for periods of ice effect or backwater from aquatic growth, which are good. Flow regulated by several reservoirs above station (see p. 41).

Cooperation.--Water-stage-recorder graph furnished by Bangor Hydro-Electric Co.

Revisions (water years).--WSP 1171: 1940. WSP 1231: 1902-13.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,750	6,340	8,690	5,000	7,370	4,960	9,090	21,200	7,570	5,960	7,730	4,290
2	7,040	6,170	8,080	5,090	7,210	5,000	9,380	19,800	6,580	5,610	7,550	3,590
3	7,160	6,100	7,340	5,400	6,910	5,030	10,700	19,400	6,270	5,070	7,180	3,400
4	7,010	5,800	6,910	5,360	6,610	5,070	11,200	18,800	6,860	4,870	6,360	3,900
5	6,680	5,540	6,810	5,400	6,340	4,890	10,500	17,800	6,740	4,130	7,890	4,040
6	6,540	5,570	7,010	5,540	6,200	4,810	10,400	16,100	6,320	4,290	8,220	4,080
7	6,510	5,590	7,210	*5,800	5,960	4,570	11,300	13,800	6,390	4,590	7,180	4,460
8	6,840	5,430	7,440	5,800	5,820	4,590	12,800	12,300	5,930	4,440	6,100	4,570
9	7,080	5,200	7,420	5,750	5,520	4,850	13,600	11,900	6,320	4,780	5,930	4,320
10	*7,110	5,380	7,470	5,640	5,610	5,290	12,800	11,500	6,120	4,760	5,820	*4,130
11	6,910	5,250	8,270	5,640	5,750	6,030	12,200	11,600	6,100	4,760	5.680	4,170
12	6,510	4,890	*8,860	5,610	5,700	6,760	12,200	12,400	5,400	4,760	6,050	4,420
13	6,290	5,380	10,700	5,610	*5,660	7,600	11,900	12,000	5,200	4,440	5.820	4,340
14	6,220	6,410	10,700	5,590	5,610	*8,580	12,000	10,800	5,200	4,460	5,700	4,170
15	5,890	*6,910	11,100	5,540	5,310	10,000	11,900	10,400	5,340	4,590	5.070	4,210
16	5,960	6,660	11,200	5,520	5,110	10,800	11,100	11,600	5,140	4,460	4,920	4,130
17	6,050	6,660	11,100	5,380	4,920	10,500	11,600	13,200	5,110	3,940	4,780	4,550
18	5,730	6,610	10,500	5,310	4,810	10,000	12,900	12,300	4,890	4,360	4,320	4,610
19	5,540	6,610	9,560	5,290	4,810	9,640	14,100	11,300	4,780	4,630	4,190	4,920
20	5,640	6,760	8,690	5,250	4,700	9,640	16,000	10,500	4,760	4,250	4,250	4,550
21	5,750	6,680	7,810	5,290	4,610	9,470	18,600	9,970	*5,000	3,770	4,020	4,230
22	5,640	8,770	7,780	5,570	4,500	9,440	24,000	9,580	5,070	4,130	4,320	4,080
23	5,520	15,400	7,520	6,640	4,460	9,410	28,600	9,150	5,000	3,830	4,630	3,960
24	6,910	16,000	7,040	8,000	4,500	9,350	27,400	8,220	4,610	4,270	4,400	4,700
25	9,700	13,400	6,610	8,830	4,610	9,240	27,500	8,160	4,380	4,250	4,420	5,220
26	9,410	11,300	6,270	8,720	4,740	9,350	27,000	7,760	4,250	4,550	4,420	4,810
27	8,720	10,900	5,930	8,520	4,810	9,700	25,400	7,520	4,460	4,360	4,480	4,700
28	7,950	10,600	5,800	8,380	4,850	10,000	23,300	7,080	5,730	4,340	4,290	4,340
29	7,260	10,200	5,700	8,270	-	10,200	*21,700	7,180	5,820	4,020	4,130	4,000
30	6,980	9,700	5,470	8,050	--------	9,760	21,200	7,500	5,610	4,650	4,100	3,920
31	6,660	--------	5,160	7,810	--------	9,290	--------	7,310	--------	5,660	4,230	--------
Total	208,960	232,210	246,150	193,600	153,010	243,820	482,370	368,130	166,950	140,980	168.180	128,810
Mean	6,741	7,740	7,940	6,245	5,465	7,865	16,080	11,880	5,565	4,548	5 425	4,294
(†)	-1,563	-1,289	-1,681	-2,945	-3,431	-1,457	+5,845	+3,466	-1,160	-1,704	-947	-2,214

Adjusted for change in reservoir contents

Mean	5,178	6,451	6,259	3,300	2,034	6,408	21,920	15,350	4,405	2,844	4,478	2,080
Cfsm	0.785	0.977	0.948	0.500	0.308	0.971	3.32	2.33	0.667	0.431	0.678	0.315
In.	0.90	1.09	1.09	0.58	0.32	1.12	3.70	2.69	0.74	0.50	0.78	0.35

	Observed			Adjusted		
Calendar year 1956:	Max 46,200	Min 3,440	Mean 9,396	Mean 9,696	Cfsm 1.47	In. 19.97
Water year 1956-57:	Max 28,600	Min 3,400	Mean 7,488	Mean 6,742	Cfsm 1.02	In. 13.86

* *Discharge measurement made on this day.*
† Change in contents, equivalent in cubic feet per second, in reservoirs on West and East Branches of Penobscot River, and Sebec Lake and Wilson Pond in Piscataquis River basin.
Note.--Stage-discharge relation affected by ice Dec. 4-13, Dec. 19 to Mar. 27. Backwater from aquatic growth Oct. 1 to Dec. 3, June 22 to Sept. 30.

Passadumkeag River at Lowell, Maine

Location.--Lat 45°11'00", long 68°28'25", on right bank at Lowell, Penobscot County, half a mile downstream from dam and highway bridge and 10 miles upstream from mouth.

Drainage area.--299 sq mi.

Records available.--October 1915 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 151.3 ft above mean sea level, datum of 1929. Oct. 1, 1915, to Sept. 30, 1917, chain and staff gages at same site and datum. Oct. 1, 1917, to Nov. 30, 1921, chain gage at site on left bank 400 ft downstream from highway bridge at different datum.

Average discharge.--42 years, 487 cfs.

Extremes.--Maximum discharge during year, 948 cfs Apr. 9 (gage height, 3.33 ft); maximum gage height, 3.72 ft Jan. 2 (backwater from ice); minimum discharge, 75 cfs Sept. 30 (gage height, 0.88 ft).

1915-57: Maximum discharge, 5,680 cfs May 2, 1923 (gage height, 9.40 ft); minimum, about 5 cfs several times in July and August 1921 (gates in dam closed).

Remarks.--Records excellent except those for periods of ice effect, which are fair.

Revisions (water years).--WSP 821: Drainage area.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	62	2.0	365
.9	78	2.5	560
1.1	114	3.0	780
1.5	205	3.4	990

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	147	160	324	170	245	142	335	815	616	411	210	88
2	165	149	287	162	225	144	369	820	640	460	208	86
3	184	140	250	158	210	132	496	805	654	468	195	86
4	195	130	220	152	192	126	568	770	644	453	187	88
5	195	122	200	150	182	126	576	712	640	430	182	88
6	187	118	200	150	170	124	600	654	628	403	177	85
7	187	114	202	150	156	124	694	604	604	380	172	85
8	213	112	226	150	142	122	855	572	576	358	162	88
9	238	110	252	148	158	170	930	560	556	335	174	*88
10	244	104	261	148	180	275	910	576	532	324	144	88
11	226	103	260	144	150	420	850	616	504	310	142	90
12	208	103	295	144	132	440	800	654	476	300	149	92
13	187	149	524	142	*128	450	760	667	453	290	162	95
14	172	205	588	142	122	460	716	667	430	274	169	101
15	160	258	580	140	116	490	672	698	418	277	172	103
16	149	277	556	*140	114	520	620	770	407	290	167	104
17	138	274	536	138	126	552	584	815	384	296	155	106
18	130	261	480	134	128	556	584	820	346	287	142	104
19	122	246	435	126	122	536	612	790	328	274	130	104
20	116	224	375	118	120	504	658	755	280	252	124	101
21	112	213	345	110	118	464	735	721	238	235	118	101
22	108	343	324	112	118	441	830	676	213	226	114	99
23	114	556	285	174	118	433	890	636	197	218	108	99
24	149	649	260	415	116	437	930	654	187	218	104	97
25	195	658	244	410	116	441	942	568	179	216	103	93
26	226	612	225	395	114	437	925	548	184	216	104	90
27	235	552	210	380	114	430	890	512	205	213	106	85
28	224	488	200	355	134	418	835	536	246	210	104	81
29	205	422	196	330	-	*399	785	544	287	189	103	78
30	187	373	184	295	--------	376	790	536	324	192	95	76
31	172	--------	178	265	--------	350	--------	552	--------	200	92	--------
Total	5,490	8,225	9,702	6,147	4,066	11,039	21,741	20,623	12,376	9,205	4,474	2,769
Mean	177	274	313	198	145	356	725	665	413	297	144	92.3
Cfsm	0.592	0.916	1.05	0.662	0.485	1.19	2.42	2.22	1.38	0.993	0.482	0.309
In.	0.68	1.02	1.21	0.76	0.50	1.37	2.70	2.56	1.54	1.14	0.56	0.34

Calendar year 1956: Max 1,680 Min 54 Mean 400 Cfsm 1.34 In. 18.13
Water year 1956-57: Max 942 Min 76 Mean 317 Cfsm 1.06 In. 14.38

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 3-5, 11, 12, 18-21, 23, 24, Dec. 26 to Mar. 16.

Penobscot River at Passadumkeag, Maine

Location.--Lat 45°10'55", long 68°37'20", on left bank at Passadumkeag, Penobscot County, at head of Passadumkeag Rips, 1,200 ft downstream from Passadumkeag River.

Drainage area.--7,000 sq mi, approximately (including about 240 sq mi drained by Chamberlain Lake through Telos Canal).

Records available.--October 1938 to September 1957. October, November 1938 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 123.6 ft above mean sea level, unadjusted.

Average discharge.--19 years, 12,020 cfs (unadjusted).

Extremes.--Maximum discharge during year, 31,400 cfs Apr. 23 (gage height, 7.31 ft); minimum, 3,440 cfs Sept. 3 (gage height, 2.73 ft).
1938-57: Maximum discharge, 126,000 cfs Apr. 14, 1940 (gage height, 13.62 ft); minimum, 2,600 cfs Sept. 1, 1941 (gage height, 2.44 ft).

Remarks.--Records excellent except those for period of ice effect, which are good. Flow regulated by several reservoirs above station (see p. 41).

Revisions (water years).--WSP 1171: 1940.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.7	3,370	5.0	12,800
3.0	4,060	6.0	19,700
3.5	5,650	7.0	28,200
4.0	7,500	7.3	31,300

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,260	6,700	9,040	5,230	7,700	5,150	9,790	22,800	8,260	6,480	8,090	4,300
2	7,580	6,520	8,450	5,300	7,510	5,190	10,400	21,600	7,310	6,150	7,700	3,700
3	7,620	6,520	7,500	5,610	7,190	5,210	12,500	21,000	7,040	5,580	7,310	3,520
4	7,390	6,230	7,420	5,560	6,860	5,240	12,500	20,200	7,500	5,330	6,670	4,060
5	7,040	5,970	7,420	5,600	6,580	5,060	11,600	18,900	7,420	4,530	8,350	4,140
6	6,780	5,940	8,000	5,740	6,430	4,980	11,500	17,300	6,970	4,680	8,350	4,280
7	6,700	5,970	7,660	6,000	6,170	4,740	13,300	15,000	7,010	5,010	7,350	4,560
8	7,160	5,760	8,170	6,000	6,010	4,750	14,700	13,800	6,670	4,840	6,230	4,560
9	7,390	5,510	7,700	5,950	5,730	5,080	15,300	13,000	6,890	5,150	5,970	4,330
10	*7,420	5,830	7,420	5,840	5,850	5,660	14,400	12,600	6,630	5,120	5,940	*4,090
11	7,200	5,510	8,170	5,830	5,950	6,590	13,900	12,700	6,590	5,120	5,790	4,040
12	6,700	5,180	8,880	5,800	5,880	7,340	13,800	13,800	5,870	5,080	6,150	4,330
13	6,560	5,900	10,600	5,800	5,830	8,200	13,500	13,000	5,690	4,750	5,940	4,360
14	6,330	7,200	11,300	5,780	5,770	9,190	13,700	11,800	5,580	4,750	5,790	4,140
15	6,080	7,420	13,100	5,730	5,460	10,500	13,400	11,500	5,720	4,880	5,180	4,220
16	6,260	7,200	11,200	5,710	5,260	11,500	12,700	13,800	5,430	4,750	5,010	4,250
17	6,260	7,200	10,200	5,560	5,090	11,200	13,400	14,800	5,430	4,250	4,840	4,810
18	5,940	7,160	10,100	5,490	4,980	10,700	14,600	13,800	5,080	4,560	4,420	4,810
19	5,720	7,200	10,100	5,460	4,970	10,400	16,000	12,600	4,910	4,720	4,220	5,040
20	5,790	7,160	9,190	5,410	4,860	10,300	18,400	11,700	4,940	4,500	4,450	4,680
21	5,940	7,010	8,270	5,440	4,770	10,100	21,600	11,200	*5,150	4,040	4,300	4,390
22	5,830	10,600	8,210	5,720	4,660	10,000	27,600	10,600	5,220	4,300	4,500	4,300
23	5,760	17,700	7,900	6,870	4,620	9,990	30,900	10,200	5,260	4,110	4,810	4,200
24	7,660	17,700	7,390	8,550	4,650	9,930	29,300	9,300	4,940	4,480	4,530	4,940
25	10,800	14,600	6,940	9,380	4,760	9,830	29,200	9,140	4,810	4,590	4,590	5,360
26	10,100	12,300	6,570	9,240	4,890	9,930	28,600	8,540	4,680	4,680	4,750	5,040
27	9,090	12,000	6,210	9,020	4,960	10,300	27,200	8,220	4,680	4,480	4,620	4,940
28	8,490	11,600	6,070	8,850	5,030	11,000	25,300	7,790	6,150	4,450	4,420	4,560
29	7,700	11,100	5,960	8,710	-	11,300	*23,600	8,000	6,150	4,140	4,250	4,200
30	7,350	10,300	5,720	8,440	--------	10,600	23,000	8,130	6,050	4,840	4,140	4,200
31	7,040	--------	5,400	8,160	--------	10,200	--------	7,950	--------	6,010	4,280	--------
Total	219,940	252,990	256,260	201,780	158,420	260,160	535,690	404,770	180,030	150,350	172,940	132,350
Mean	7,095	8,433	8,266	6,509	5,658	8,392	17,860	13,060	6,001	4,850	5,579	4,412
(†)	-1,563	-1,289	-1,681	-2,945	-3,431	-1,457	+5,845	+3,466	-1,160	-1,704	-947	-2,214

Adjusted for change in reservoir contents

Mean	5,532	7,144	6,585	3,564	2,227	6,935	23,700	16,530	4,841	3,146	4,632	2,198
Cfsm	0.790	1.02	0.941	0.509	0.318	0.991	3.39	2.36	0.692	0.449	0.662	0.314
In.	0.91	1.14	1.08	0.59	0.33	1.14	3.78	2.72	0.77	0.52	0.76	0.35

	Observed			Adjusted				
Calendar year 1956:	Max 48,300	Min 3,520	Mean 10,040	Mean 10,340	Cfsm 1.48	In. 20.09
Water year 1956-57:	Max 30,900	Min 3,520	Mean 8,016	Mean 7,270	Cfsm 1.04	In. 14.09

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, of reservoirs in West and East Branches of Penobscot River, and Sebec Lake and Wilson Pond in Piscataquis River basin.
Note.--Stage-discharge relation affected by ice Dec. 19 to Mar. 27.

Kenduskeag Stream near Kenduskeag, Maine

Location.--Lat 44°53'50", long 68°53'00", on right bank 300 ft upstream from highway bridge, 1.8 miles downstream from Black Stream, and 2.9 miles south of Kenduskeag, Penobscot County.

Drainage area.--178 sq mi.

Records available.--October 1941 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 97 ft (from topographic map).

Average discharge.--16 years, 302 cfs.

Extremes.--Maximum discharge during year, 1,310 cfs Nov. 23 (gage height, 5.83 ft); minimum, 2.3 cfs Sept. 7.
1941-57: Maximum discharge, 6,440 cfs Sept. 12, 1954 (gage height, 14.83 ft); minimum, 1.0 cfs Sept. 30, Oct. 1, 1948 (gage height, 1.09 ft).

Remarks.--Records good except those for periods of ice effect or backwater from aquatic growth, which are fair. An artificial cut has been made through a low divide between Souadabscook Stream and Black Stream which enters Kenduskeag Stream 1.8 miles above station. During high stages of Souadabscook Stream, part of its flow passes through the cut into Kenduskeag Stream; at low stages of Souadabscook Stream all flow continues down its own channel.

Rating table, water year 1956-57, except periods of ice effect or backwater from aquatic growth (gage height, in feet, and discharge, in cubic feet per second)

1.0	1.0	1.7	42	4.0	560
1.2	6.0	2.0	76	5.0	955
1.3	11	2.5	153	5.8	1,300
1.5	25	3.0	263		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	82	230	68	240	112	335	422	68	24	75	2.8
2	104	76	210	66	205	120	520	349	63	21	76	2.4
3	93	72	192	61	176	116	911	288	108	20	48	2.8
4	66	67	170	58	142	110	706	253	108	20	36	3.4
5	54	67	160	55	128	104	574	214	89	22	30	3.1
6	49	62	156	52	112	100	605	181	71	25	30	2.6
7	51	60	156	50	100	98	1,110	163	66	24	24	2.4
8	*94	56	192	48	90	100	1,140	*146	73	22	19	2.4
9	98	55	152	46	84	172	927	130	58	23	17	2.6
10	76	54	146	44	77	1,040	718	121	45	28	17	2.4
11	63	51	*153	42	*75	1,110	782	181	40	25	18	2.6
12	52	53	358	40	70	955	714	194	34	*23	19	2.8
13	46	205	710	38	68	790	718	*167	33	19	19	4.1
14	42	404	564	37	64	780	670	151	31	17	17	5.7
15	39	304	413	36	63	720	557	214	31	19	15	5.7
16	38	*246	310	35	61	680	489	625	29	24	15	5.7
17	37	198	255	33	63	705	492	*506	*25	24	14	6.0
18	34	175	220	32	70	630	529	355	21	20	12	11
19	31	140	198	31	75	590	526	246	22	17	10	15
20	31	124	176	29	72	550	557	198	22	14	8.5	*13
21	31	137	158	*27	68	*515	623	413	19	10	*8.0	12
22	31	815	140	28	66	510	638	395	17	12	8.0	11
23	37	1,260	132	200	63	545	557	306	17	14	7.0	10
24	280	1,040	122	955	61	595	485	234	16	14	6.0	9.0
25	369	595	114	835	61	525	416	169	18	13	5.0	6.5
26	241	300	106	700	62	460	386	132	36	12	5.4	6.5
27	175	392	98	560	76	420	361	114	53	10	6.0	6.0
28	135	370	91	465	90	395	336	118	52	12	5.0	5.0
29	114	310	84	400	-	370	314	120	40	14	4.7	4.4
30	98	260	82	335	-------	350	401	100	33	25	4.4	4.1
31	89	-------	76	280	-------	340	-------	86	-------	77	3.4	-------
Total	2,729	8,030	6,324	5,686	2,582	14,607	18,097	7,291	1,338	644	582.4	173.0
Mean	88.0	268	204	183	92.2	471	603	235	44.6	20.8	18.8	5.77
Cfsm	0.494	1.51	1.15	1.03	0.518	2.65	3.39	1.32	0.251	0.117	0.106	0.032
In.	0.57	1.68	1.33	1.19	0.54	3.06	3.78	1.52	0.28	0.13	0.12	0.04

Calendar year 1956: Max 3,400 Min 7.5 Mean 285 Cfsm 1.60 In. 21.82
Water year 1956-57: Max 1,260 Min 2.4 Mean 187 Cfsm 1.05 In. 14.24

Peak discharge (base, 1,600 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 16 to Apr. 1. Backwater from aquatic growth Oct. 1-23, May 27 to Sept. 30. No gage-height record Nov. 23 to Dec. 11, June 27 to July 12; discharge estimated on basis of recorded range in stage, weather records, and records for nearby stations.

Reservoirs in Penobscot River basin, Maine

Chesuncook, Ripogenus, and Caribou Lakes and Moose Pond in West Branch Penobscot River basin are controlled by Ripogenus Dam, in T. 3, R. 11, Piscataquis County, 36 miles upstream from Millinocket and 42 miles northeast of Greenville; present dam completed in 1917 for power and log driving; usable capacity of reservoir, 30,000,000,000 cu ft. Records furnished by Great Northern Paper Co.

Ambajejus, Pemadumcook, North Twin, South Twin, and Elbow Lakes in West Branch Penobscot River basin are controlled by North Twin Dam, 3 miles upstream from Millinocket, Penobscot County, for power and log driving; usable capacity of reservoir 15,000,000,000 cu ft. Records furnished by Great Northern Paper Co.

Chamberlain and Telos Lakes and Round Pond in East Branch Penobscot River basin are controlled by dams at outlet of Chamberlain and Telos Lakes; although regulation is at Telos Dam, in T. 6, R. 11, Piscataquis County. Telos Dam rebuilt during 1941; usable capacity, 5,040,000,000 cu ft between gage heights 2.0 and 11.0 ft. Records furnished by Bangor Hydro-Electric Co.

Second and Grand Lakes in East Branch Penobscot River basin are controlled by dam rebuilt in 1942 at outlet of Grand Lake, in T. 6, R. 8, Penobscot County; usable capacity, 1,785,000,000 cu ft between elevations 643.0 and 655.0 ft. Records furnished by Bangor Hydro-Electric Co.

Sebec Lake on Sebec River at Sebec, Piscataquis County, used for power and log driving; usable capacity, 2,511,000,000 cu ft between elevations 316.1 and 325.1 ft. Records furnished by Bangor Hydro-Electric Co.

Wilson Pond on Wilson Stream, 2¾ miles east of Greenville, Piscataquis County, used for power; usable capacity, 390,000,000 cu ft between gage heights 27.5 and 33.5 ft. Gage-height record furnished by Central Maine Power Co.

Month-end contents, in millions of cubic feet, water year October 1956 to September 1957

Month	Chesuncook, Ripogenus Caribou, Ambajejus, Pemadumcook, North Twin, South Twin, and Elbow Lakes and Moose Pond†	Chamberlain, Telos, Second, and Grand Lakes and Round Pond	Wilson Pond and Sebec Lake
Sept. 30, 1956	29,487	5,751	2,491
Oct. 31	26,498	4,991	2,055
Nov. 30	23,781	4,448	1,974
Dec. 31	19,845	4,126	1,730
Jan. 31, 1957	14,006	2,608	1,201
Feb. 28	8,170	1,071	275
Mar. 31	4,015	362	1,238
Apr. 30	14,842	3,201	2,722
May 31	22,210	5,120	2,718
June 30	19,647	4,889	2,506
July 31	15,407	4,668	2,403
Aug. 31	13,256	4,416	2,270
Sept. 30	8,737	3,936	1,531

† Includes month-end contents of following additional reservoirs in West Branch Penobscot River basin; used primarily for log driving (total capacity approximately 12,000,000,000 cu ft); Penobscot, Seboomook, Caucomgomoc, Loon, Shallow, Umbazooksus, Harrington, Sourdnahunk, Raintow, Ragged and Millinocket Lakes, Canada Falls Reservoir, Dole and Poland Ponds.

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Sheepscot River at North Whitefield, Maine

Location.--Lat 44°13'20", long 69°35'40", on left bank at North Whitefield, Lincoln County, just upstream from highway bridge, half a mile downstream from Pleasant Pond Brook.

Drainage area.--148 sq mi.

Records available.--October 1938 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 101.1 ft above mean sea level, datum of 1929.

Average discharge.--19 years, 230 cfs.

Extremes.--Maximum discharge during year, 1,010 cfs Jan. 23 (gage height, 5.08 ft); minimum, 5.6 cfs Sept. 29, 30 (gage height, 1.69 ft).
1938-57: Maximum discharge, 5,260 cfs Apr. 13, 1940 (gage height, 11.81 ft, backwater from fish weir), from rating curve extended above 1,900 cfs by logarithmic plotting; minimum, 5.0 cfs Oct. 24, 1941 (gage height, 1.70 ft).

Remarks.--Records excellent except those for periods of ice effect, which are fair. Some regulation at low flow by sawmill at North Whitefield.

Revisions (water years).--WSP 1231: 1940.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.6	3.3	2.6	93
1.9	14	3.0	180
2.0	20	3.5	325
2.2	38	4.0	520
2.4	62	4.6	770

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*91	235	304	166	220	180	220	241	129	58	28	10
2	87	286	283	156	205	168	313	220	127	53	28	9.6
3	83	217	253	144	188	163	404	205	142	49	26	10
4	79	188	235	132	176	154	336	192	129	48	24	11
5	76	170	214	126	168	144	336	180	120	49	22	11
6	72	156	208	120	158	133	500	168	112	52	21	10
7	101	147	226	112	150	127	584	158	110	46	19	10
8	140	142	274	102	142	125	560	151	110	42	18	10
9	108	144	256	97	138	415	528	142	101	45	18	10
10	95	135	238	91	138	520	500	140	93	59	18	10
11	88	122	*235	87	*166	380	552	140	90	54	19	9.6
12	82	166	535	77	144	350	544	135	90	45	19	9.6
13	79	307	488	74	130	*336	600	129	90	42	16	9.6
14	77	295	420	*72	120	364	528	135	87	40	15	9.2
15	74	244	384	68	104	372	468	163	87	37	15	8.5
16	71	232	400	64	102	408	440	253	83	33	15	8.5
17	70	226	404	61	102	468	416	182	76	33	14	8.1
18	68	223	372	58	101	440	400	158	70	31	13	7.8
19	68	217	322	56	99	396	376	144	77	28	13	7.8
20	64	202	307	54	95	364	364	188	85	26	13	7.4
21	62	232	283	52	93	336	356	353	82	25	13	7.4
22	59	620	265	112	90	339	342	262	72	55	12	7.4
23	140	528	241	745	87	342	316	226	64	64	12	8.5
24	555	428	235	485	87	328	304	208	57	42	11	8.1
25	295	384	244	356	87	307	289	192	56	54	10	8.1
26	*211	392	235	322	100	304	283	180	66	50	11	7.4
27	190	440	214	307	182	304	277	170	*99	41	13	7.0
28	180	440	205	289	200	292	265	175	99	34	14	6.3
29	163	380	200	274	-	274	253	173	90	31	*11	5.6
30	149	350	192	260	--------	259	253	151	71	34	10	5.6
31	140	--------	182	240	--------	232	--------	140	--------	29	10	--------
Total	3,817	8,248	8,854	5,359	3,772	9,324	11,907	5,654	2,764	1,329	501	259.1
Mean	123	275	286	173	135	301	397	182	92.1	42.9	16.2	8.64
Cfsm	0.831	1.86	1.93	1.17	0.912	2.03	2.68	1.23	0.622	0.290	0.109	0.058
In.	0.96	2.08	2.22	1.35	0.95	2.34	2.99	1.42	0.69	0.33	0.13	0.06

Calendar year 1956:	Max	1,880	Min	16	Mean	253	Cfsm	1.71	In.	23.24
Water year 1956-57:	Max	745	Min	5.6	Mean	169	Cfsm	1.14	In.	15.52

Peak discharge (base, 1,100 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 30 to Jan. 22, Jan. 30, 31, Feb. 3-7, 9, 12-14, 18, 20-22, Feb. 26 to Mar. 1.

Moosehead Lake at East Outlet, Maine

Location.--Lat 45°35'10", long 69°42'45", at wharf at east outlet of lake, at Moosehead, Piscataquis County.

Drainage area.--1,240 sq mi, approximately.

Records available.--April 1895 to September 1957.

Gage.--Staff gage read daily at 7 a.m. Datum of gage is 1,011.48 ft above mean sea level, datum of 1929.

Extremes.--Maximum gage height observed during year, 16.58 ft Aug. 8; minimum observed, 11.46 ft Mar. 8.
1895-1957: Maximum gage height, 18.0 ft May 30, 1902; minimum, 10.0 ft or lower, present datum, Mar. 20-29, 1911.

Remarks.--Lake is controlled by dams at East and West Outlets originally built prior to 1840. East Outlet dam partly rebuilt of concrete in 1947-48 with gate sills at gage height 7.0 ft. Remaining wooden section rebuilt of concrete in 1955-56. Lake outlet dredged in 1948 to permit drawing level down to gage height 10.0 ft at a faster rate than formerly. Capacity, 23,735,000,000 cu ft between gage heights 10.0 and 17.5 ft. Water is used primarily for power, although some logs are driven each year. During October, July, and September some water was diverted through gates in dam at West Outlet.

Cooperation.--Gage-height record furnished by Kennebec Water Power Co.

Revisions (water years).--WSP 1111: 1946-47 (change in contents).

Capacity table, water year 1955-56 (gage height, in feet, and capacity, in millions of cubic feet)

10.0	0	15.0	15,713
11.0	3,110	16.0	18,908
12.0	6,237	17.0	22,121
13.0	9,379	18.0	25,355
14.0	12,537		

Gage-height, in feet, at 7 a.m., water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14.56	13.81	13.82	14.46	13.10	11.57	11.77	13.15	14.46	15.50	16.12	15.24
2	14.56	13.81	13.87	14.46	13.06	11.56	11.78	13.23	14.48	15.57	16.13	15.20
3	14.55	13.81	13.92	14.45	13.00	11.55	11.79	13.28	14.58	15.62	16.13	15.12
4	14.48	13.79	13.95	14.43	12.95	11.55	11.80	13.21	14.62	15.70	16.40	15.19
5	14.45	13.78	13.97	14.43	12.88	11.53	11.90	13.29	14.65	15.74	16.48	15.16
6	14.42	13.75	14.04	14.41	12.80	11.50	11.93	13.31	14.67	15.82	16.52	15.13
7	14.38	13.73	14.08	14.38	12.76	11.48	11.93	13.33	14.69	15.83	16.55	15.06
8	14.37	13.72	14.08	14.35	12.72	11.46	11.94	13.36	14.70	15.88	16.58	15.02
9	14.37	13.70	14.10	14.30	12.63	11.50	11.94	13.40	14.70	15.91	16.56	14.96
10	14.29	13.70	14.15	14.28	12.59	11.55	11.94	13.44	14.68	15.96	16.55	14.92
11	14.26	13.66	14.10	14.27	12.53	11.58	11.95	13.56	14.67	15.99	16.53	14.84
12	14.23	13.62	14.13	14.19	12.47	11.54	11.98	13.58	14.66	16.02	16.53	14.80
13	14.18	13.62	14.13	14.12	12.35	11.52	12.00	13.62	14.66	16.03	16.48	14.77
14	14.16	13.58	14.10	14.09	12.33	11.59	12.00	13.72	14.60	16.04	16.43	14.70
15	14.16	13.55	14.09	14.05	12.25	11.59	12.00	13.78	14.60	16.07	16.37	14.63
16	14.16	13.55	14.07	14.00	12.15	11.63	12.01	13.88	14.58	16.07	16.31	14.60
17	14.12	13.55	14.04	13.96	12.08	11.65	12.03	13.93	14.58	16.10	16.24	14.62
18	14.12	13.55	14.08	13.90	12.05	11.66	12.05	13.97	14.57	16.07	16.20	14.59
19	14.10	13.53	14.15	13.80	11.95	11.69	12.06	14.00	14.60	16.04	16.13	14.53
20	14.07	13.51	14.17	13.74	11.90	11.70	12.10	14.00	14.62	16.03	16.08	14.48
21	13.99	13.51	14.21	13.62	11.85	11.70	12.13	14.05	14.67	16.00	16.00	14.43
22	13.98	13.54	14.23	13.53	11.76	11.72	12.28	14.10	14.74	16.00	15.92	14.40
23	13.95	13.57	14.25	13.47	11.70	11.73	12.38	14.14	14.92	15.97	15.85	14.46
24	13.96	13.57	14.27	13.45	11.64	11.73	12.48	14.17	15.03	15.97	15.78	14.41
25	13.95	13.62	14.33	13.37	11.63	11.73	12.54	14.20	15.10	15.97	15.70	14.37
26	13.90	13.63	14.34	13.36	11.59	11.75	12.69	14.22	15.17	15.93	15.64	14.28
27	13.89	13.66	14.39	13.32	11.63	11.75	12.81	14.27	15.23	15.92	15.63	14.21
28	13.87	13.66	14.41	13.29	11.57	11.75	12.88	14.37	15.30	15.91	15.54	14.12
29	13.85	13.68	14.41	13.22	-	11.75	12.97	14.40	15.31	15.85	15.47	14.05
30	13.83	13.81	14.45	13.21	-------	11.75	13.06	14.40	15.42	15.91	15.38	14.00
31	13.82	-------	14.46	13.14	-------	11.75	-------	14.43	-------	15.97	15.30	-------
(†)	11,968	11,937	13,996	9,820	4,891	5,454	9,568	13,900	17,053	18,812	16,670	12,537
(‡)	-2,473	-31	+2,059	-4,176	-4,929	+563	+4,114	+4,332	+3,153	+1,759	-2,142	-4,133

Calendar year 1956..... ‡ +3,545
Water year 1956-57..... ‡ -1,904

† Contents, in millions of cubic feet, at end of month.
‡ Change in contents in millions of cubic feet.
Note.--Diversion through West Outlet: October, 45 cfs; July, 54 cfs; September, 157 cfs.

Kennebec River at Moosehead, Maine

Location.--Lat 45°35'10", long 69°43'10", on right bank an eighth of a mile downstream from dam at east outlet of Moosehead Lake and half a mile northwest of Moosehead, Piscataquis County.

Drainage area.--1,240 sq mi, approximately.

Records available.--October 1919 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 1,015.53 ft above mean sea level, datum of 1929. Prior to Oct. 9, 1924, chain gage on railroad bridge 300 ft downstream at same datum.

Average discharge.--38 years, 1,852 cfs (unadjusted).

Extremes.--Maximum discharge during year, 5,200 cfs Jan. 3 (gage height, 5.76 ft); minimum, 63 cfs Mar. 10 (gage height, 1.97 ft).
1919-57: Maximum discharge, 15,600 cfs May 8, 1947 (gage height, 9.94 ft); minimum, about 62 cfs Apr. 7-15, 1923.

Remarks.--Records good except those for period of backwater from debris, which are fair. Some water diverted down west channel by leakage and occasional opening of gates in dam at West Outlet. Flow regulated by Moosehead Lake (see preceding page) and by Brassua Lake and Second and First Roach Ponds (see p. 54).

Revisions (water years).--WSP 1301: 1928-50 (adjusted monthly runoff).

Rating table, water year 1956-57, except period of backwater from debris (gage height, in feet, and discharge, in cubic feet per second)

2.0	70	3.5	1,110
2.2	130	4.0	1,750
2.4	220	4.5	2,540
2.7	420	5.0	3,500
3.0	650	5.2	3,910

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,310	1,210	1,290	3,910	2,520	1,230	540	100	270	1,240	335	1,860
2	2,290	1,200	1,110	*3,890	2,610	1,230	562	103	1,750	1,330	121	1,920
3	2,290	1,200	1,430	*3,910	2,760	1,220	380	106	1,120	1,390	124	1,930
4	2,240	1,190	1,580	3,600	2,910	1,200	256	106	1,840	780	127	1,920
5	2,210	1,130	1,580	3,560	3,000	1,200	250	255	2,130	1,690	124	1,900
6	2,190	1,150	1,600	3,540	3,020	1,380	250	610	2,550	2,290	124	1,900
7	2,180	1,180	1,610	3,500	3,060	1,470	244	560	2,700	575	124	1,880
8	2,490	1,160	1,670	3,500	3,020	1,510	475	1,350	2,700	400	775	1,870
9	2,740	1,160	1,670	3,480	3,020	1,350	658	1,480	2,680	1,420	1,700	1,840
10	2,490	1,160	2,000	3,500	3,000	640	658	1,680	2,370	1,020	2,190	1,820
11	2,270	1,130	2,980	3,420	3,120	640	658	1,030	1,820	1,020	2,180	1,810
12	2,230	1,110	3,080	3,400	3,260	910	658	595	1,600	1,370	2,290	1,800
13	2,210	1,120	3,080	3,340	3,240	705	666	670	2,390	1,640	2,520	1,780
14	2,190	1,120	3,080	3,560	3,240	554	658	124	2,260	1,620	2,520	1,760
15	2,060	1,120	3,040	3,680	3,280	554	658	590	2,080	1,810	2,520	1,300
16	2,190	1,160	3,020	3,600	3,140	325	658	150	2,070	2,130	2,520	1,720
17	2,180	c1,100	3,000	3,680	2,780	70	658	345	2,100	2,110	2,510	1,740
18	2,190	c1,100	3,080	3,760	2,800	480	570	685	2,130	2,110	2,490	1,720
19	2,150	c1,100	3,120	3,700	2,820	385	230	720	2,180	2,130	2,590	1,710
20	2,110	c1,080	3,180	3,680	2,800	280	172	585	2,230	2,130	2,720	1,690
21	2,080	c1,080	3,220	3,620	2,820	280	184	530	1,370	2,100	2,780	1,680
22	2,310	c1,100	3,260	3,540	2,650	287	109	665	1,180	1,940	2,710	1,680
23	2,740	c725	3,260	*3,220	2,540	294	100	175	1,450	1,380	2,370	1,680
24	2,170	c500	2,430	2,830	2,540	294	*100	180	2,460	1,280	2,350	1,670
25	2,080	c510	1,840	2,570	2,520	480	100	670	2,470	910	2,320	1,650
26	1,760	c865	2,840	2,390	2,350	562	100	1,570	2,490	910	2,310	1,620
27	1,570	c1,160	3,420	2,340	1,690	554	100	162	1,930	910	2,460	1,610
28	1,580	1,100	3,520	2,310	1,230	554	100	170	1,470	1,000	2,990	1,580
29	1,370	1,140	3,560	2,310	-	554	100	605	1,180	1,390	2,930	1,570
30	1,260	1,220	3,600	2,290	--------	562	100	1,250	1,200	835	2,890	1,550
31	1,220	--------	3,760	2,440	--------	554	--------	1,140	--------	965	2,160	--------
Total	65,350	32,280	80,910	102,070	77,740	22,308	10,952	18,961	58,170	43,825	58,874	52,160
Mean	2,108	1,076	2,610	3,293	2,776	720	365	612	1,939	1,414	1,899	1,739
(†)	-1,026	-201	-1,457	-2,272	-2,148	+227	+3,169	+2,960	-307	-550	-797	-1,452
Adjusted for change in reservoir contents												
Mean	1,082	875	1,153	1,021	628	947	3,534	3,572	1,632	.864	1,102	267
Cfsm	0.873	0.706	0.930	0.823	0.506	0.764	2.85	2.88	1.32	0.697	0.889	0.215
In.	1.01	0.79	1.07	0.95	0.53	0.88	3.18	3.32	1.47	C.80	1.02	0.24

	Observed			Adjusted		
Calendar year 1956:	Max 3,760	Min 196	Mean 1,643	Mean 1,966	Cfsm 1.59	In. 21.58
Water year 1956-57:	Max 3,910	Min 70	Mean 1,708	Mean 1,393	Cfsm 1.12	In. 15.26

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Brassua, and Moosehead Lakes, and Second and First Roach Ponds; also diversion through West Outlet.
c Backwater from debris.

Kennebec River at The Forks, Maine

Location.--Lat 45°20'35", long 69°57'45", on right bank at The Forks, Somerset County, half a mile upstream from highway bridge and 1 mile upstream from Dead River.

Drainage area.--1,570 sq mi, approximately.

Records available.--September 1901 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 569.03 ft above mean sea level, datum of 1929. Prior to June 21, 1912, chain gage and June 21, 1912, to Oct. 17, 1919, water-stage recorder and chain gage, at highway bridge half a mile downstream at different datum.

Average discharge.--56 years, 2,529 cfs (unadjusted).

Extremes.--Maximum discharge during year, 8,310 cfs Jan. 20 (gage height, 6.14 ft); minimum daily, 325 cfs Mar. 17.
1901-57: Maximum discharge, about 23,700 cfs June 18, 1917 (gage height, 10.1 ft, site then in use); minimum, 85 cfs Sept. 3, 1953 (gage height, 1.02 ft).

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow regulated by Moosehead Lake (see p. 43), Brassua Lake, and Moxie, Indian, Second and First Roach Ponds (see p. 54).

Revisions (water years).--WSP 198: Drainage area. WSP 1231: 1902-4, 1906-8, 1912, 1914, 1919-20(M), 1923(M), 1926(M), 1928-29(M), 1936(M), 1938(M). WSP 1301: 1928-35 (adjusted monthly runoff).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.7	290	3.5	2,270
2.0	510	4.0	3,170
2.5	965	4.4	3,970
3.0	1,550		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,020	1,380	1,460	3,620	2,480	1,860	760	1,210	1,210	1,420	920	2,080
2	2,970	1,520	1,240	3,600	2,520	915	840	890	1,090	1,240	750	1,370
3	2,620	1,680	2,140	3,500	2,430	1,160	640	960	1,590	1,330	660	2,980
4	*3,050	680	1,240	3,370	3,100	1,270	520	740	1,460	515	1,390	2,940
5	2,310	1,530	1,080	3,540	2,760	1,270	620	575	1,750	1,040	1,180	1,750
6	3,460	940	1,720	3,700	2,970	1,360	570	1,090	2,230	2,690	965	1,600
7	1,890	1,500	1,680	3,530	3,150	1,670	550	1,070	2,150	725	430	1,520
8	2,720	1,190	1,910	3,360	3,000	1,370	760	1,290	2,040	540	2,070	1,830
9	3,180	1,380	1,620	3,300	2,730	1,580	940	1,080	1,020	1,220	2,020	1,760
10	3,060	1,140	1,910	3,410	2,820	700	830	1,440	2,110	1,020	2,450	1,920
11	2,580	830	3,010	3,470	3,210	595	800	710	1,810	965	2,110	2,180
12	2,440	1,390	2,840	3,300	3,100	1,270	1,120	555	1,880	1,510	2,800	2,060
13	2,150	1,260	2,890	3,450	3,130	780	990	1,370	2,140	1,890	2,880	2,270
14	2,220	1,070	2,900	3,750	2,950	680	975	1,420	2,180	1,560	2,750	1,150
15	2,690	*1,030	2,850	3,600	2,880	695	865	*675	1,970	2,680	2,760	1,710
16	1,930	1,120	2,730	3,500	3,380	540	995	825	1,290	2,340	2,180	2,220
17	2,060	990	2,730	3,400	2,800	325	1,010	1,020	2,200	2,650	2,240	2,310
18	2,650	1,550	2,960	3,700	3,580	610	1,020	1,000	2,040	2,310	2,400	2,020
19	2,520	1,390	2,900	3,900	3,060	650	785	1,150	2,670	3,040	2,840	2,200
20	2,180	1,160	2,900	3,500	2,220	470	870	1,020	2,620	2,630	2,460	1,840
21	2,320	1,530	2,840	3,160	2,870	470	1,980	1,010	1,620	990	2,650	1,620
22	2,530	650	3,720	3,550	2,450	430	2,480	850	1,390	1,130	2,690	1,220
23	3,050	1,060	2,780	3,440	1,350	480	1,970	770	670	1,420	2,300	2,630
24	2,030	1,130	1,740	2,940	2,550	500	1,920	785	1,860	1,440	2,290	2,450
25	2,300	660	1,600	2,630	3,640	600	1,860	680	3,360	1,080	2,280	1,860
26	2,110	1,540	2,810	3,120	2,000	790	1,860	845	1,680	1,040	2,990	1,680
27	1,810	1,430	2,980	2,620	1,230	710	1,260	1,420	1,890	975	2,320	2,100
28	1,750	1,300	3,030	2,220	1,320	730	930	835	1,650	1,010	2,470	775
29	1,310	1,250	3,390	2,600	-	810	1,180	615	1,290	1,510	3,060	1,150
30	1,460	1,160	3,360	2,240	--------	615	1,320	505	1,450	1,840	2,680	2,090
31	1,390	--------	3,640	2,600	--------	720	--------	1,180	--------	1,780	1,840	--------
Total	73,760	36,440	76,600	101,620	75,680	26,625	33,220	29,585	54,310	47,530	65,825	57,285
Mean	2,379	1,215	2,471	3,278	2,703	859	1,107	954	1,810	1,533	2,123	1,909
(†)	-1,131	-194	-1,482	-2,270	-2,141	+223	+3,395	+3,011	-324	-597	-837	-1,556
Adjusted for change in reservoir contents												
Mean	1,248	1,021	989	1,008	562	1,082	4,502	3,965	1,486	936	1,286	353
Cfsm	0.795	0.650	0.630	0.642	0.358	0.689	2.87	2.53	0.946	0.596	0.819	0.225
In.	0.92	0.73	0.73	0.74	0.37	0.79	3.20	2.92	1.06	0.69	0.94	0.25

	Observed			Adjusted		
Calendar year 1956:	Max 4,710	Min 415	Mean 2,175	Mean 2,365	Cfsm 1.51	In. 20.52
Water year 1956-57:	Max 3,900	Min 325	Mean 1,859	Mean 1,541	Cfsm 0.982	In. 13.34

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Brassua and Moosehead Lakes and Second and First Roach, Indian, and Moxie Ponds.
Note.--Stage-discharge relation affected by ice Jan. 1, 2, 12-20.

Dead River near Dead River, Maine

Location.--Lat 45°13'48", long 70°11'58", T. 3, R. 4, Somerset County, on right bank at foot of Long Falls, 0.3 mile upstream from Black Brook and 0.5 mile downstream from Flagstaff Lake Dam.

Drainage area.--520 sq mi.

Records available.--October 1939 to September 1957. October to December 1939 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 1,037.32 ft above mean sea level, datum of 1929.

Average discharge.--18 years, 793 cfs (unadjusted).

Extremes.--Maximum discharge during year, 5,320 cfs June 19 (gage height, 8.59 ft); minimum daily, 0.8 cfs June 17, 29, 30, July 2.
1939-57: Maximum discharge, 18,000 cfs Sept. 12, 1954 (gage height, 11.50 ft); no flow part of July 31, 1949, when flow was completely shut off by cofferdam during construction of Flagstaff Lake dam.

Remarks.--Records good except those for periods of ice or backwater from pulpwood on control or no gage-height record, which are fair. Flow regulated by Flagstaff Lake (see p. 54).

Rating tables, water year 1956-57, except periods of ice effect and backwater from pulpwood (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to June 19				June 20 to Sept. 30			
3.37	0.8	4.5	101	3.33	0.8	4.3	78
3.4	1.2	5.0	240	3.4	1.9	4.5	120
3.5	3.1	5.5	475	3.5	4.3	5.0	285
3.6	5.8	6.0	835	3.6	7.7	5.5	550
3.7	9.4	7.0	1,960	3.7	12	6.0	942
3.8	14	7.4	2,580	3.9	26	7.0	2,230
4.0	28			4.1	48	7.1	2,400

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	1,290	1,860	136	126	1,990	905	2.1	1.4	205	1,630	152
2	121	1,510	1,850	136	126	1,960	880	1.7	1.6	*.8	1,840	152
3	128	1,550	1,820	136	126	810	870	1.7	1.7	785	1,970	600
4	130	1,450	1,780	136	126	1,110	860	1.7	200	2.3	1,590	1,220
5	*128	1,360	1,780	136	122	1,440	850	1.7	1.2	810	1,660	1,220
6	123	1,250	1,740	132	110	1,660	825	1.7	1.1	1.4	1,970	1,210
7	123	1,630	1,700	132	99	1,640	795	1.6	1.6	300	1,620	1,210
8	123	1,730	1,680	132	99	1,590	520	1.7	38	160	1,130	1,210
9	123	1,950	1,660	132	99	1,160	400	1.7	120	148	180	1,210
10	123	2,040	1,020	132	100	415	410	2.1	86	.9	555	1,190
11	123	1,820	70	132	120	720	415	2.1	1.2	.9	106	1,180
12	123	2,300	70	132	148	1,320	415	1.6	182	200	106	1,170
13	123	2,580	70	132	148	1,480	430	1.6	1.2	1.5	335	1,170
14	123	2,350	68	132	148	1,480	440	1.6	.9	1.5	452	350
15	465	1,840	92	132	148	1,480	445	2.1	270	1.5	446	450
16	646	2,090	140	132	445	1,480	460	*2.3	.9	1.5	205	1,170
17	639	1,990	138	*132	655	1,460	470	1.9	.8	220	245	1,170
18	632	1,950	*138	132	*645	930	136	1.7	210	2.1	544	1,160
19	625	1,920	138	130	645	1,010	9.4	1.7	1,850	200	700	1,160
20	625	1,900	138	130	640	1,370	3.1	1.7	.9	2.3	560	1,150
21	617	1,450	138	130	640	1,320	5.5	1.7	300	215	770	1,140
22	610	1,110	138	130	565	*1,260	3.1	1.7	128	625	1,200	1,100
23	603	315	138	130	530	1,230	2.9	1.7	.9	765	1,200	1,080
24	610	93	138	130	525	1,190	2.7	1.4	178	765	520	1,080
25	610	340	138	128	525	1,170	2.5	1.6	162	1,460	152	1,070
26	610	1,540	138	128	148	1,130	2.3	1.6	.9	1,240	152	1,070
27	603	1,600	136	128	27	1,080	2.3	1.7	160	2,330	152	1,060
28	596	947	136	128	675	1,060	2.3	1.7	178	2,200	152	1,060
29	1,150	1,220	136	128	-	1,020	2.3	1.6	.8	1,330	*152	1,050
30	1,420	1,880	136	126	--------	975	2.3	1.4	.8	1,550	152	1,040
31	1,340	--------	136	126	--------	945	--------	1.4	--------	1,620	152	--------
Total	14,134	46,995	19,460	4,068	8,510	38,885	10,566.7	53.5	4,079.9	17,144.7	22,598	30,254
Mean	456	1,567	628	131	304	1,254	352	1.73	136	553	729	1,008
(†)	-151	-1,228	-282	+167	-171	-931	+1,461	+1,170	+289	-257	-604	-769

Adjusted for change in contents in Flagstaff Lake

Mean	305	339	346	298	133	323	1,813	1,172	425	296	125	239
Cfsm	0.587	0.652	0.665	0.573	0.256	0.621	3.49	2.25	0.817	0.569	0.240	0.460
In.	0.68	0.73	0.77	0.66	0.27	0.72	3.89	2.59	0.91	0.66	0.28	0.51

	Observed			Adjusted		
Calendar year 1956:	Max 3,870	Min 0.8	Mean 704	Mean 770	Cfsm 1.48	In. 20.17
Water year 1956-57:	Max 2,580	Min 0.8	Mean 594	Mean 485	Cfsm 0.933	In. 12.67

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Flagstaff Lake.
Note.--No gage-height record Aug. 19 to Sept. 30; discharge estimated on basis of records at storage dam upstream. Stage-discharge relation affected by ice and/or backwater from pulpwood on control Dec. 12 to June 18, June 21, 22, 24, 25, 27, 28, July 1, 3, 5, 7-9, 12, 17, 19, 21-24.

Dead River at The Forks, Maine

Location.--Lat 45°21'00", long 69°59'30", on left bank 1½ miles northwest of The Forks, Somerset County, and 1½ miles upstream from mouth.

Drainage area.--872 sq mi.

Records available.--September 1901 to August 1907, March 1910 to September 1957. Monthly discharge only for some periods, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 600.5 ft above mean sea level, adjustment of 1912. Prior to Sept. 29, 1923, staff gage at site 100 ft downstream at same datum.

Average discharge.--52 years (1902-7, 1910-57), 1,409 cfs (unadjusted).

Extremes.--Maximum discharge during year, 4,790 cfs Apr. 22 (gage height, 4.60 ft); maximum gage height, 6.90 ft Mar. 1 (ice jam); minimum daily discharge, 124 cfs Feb. 9. 1901-7, 1910-57: Maximum discharge, 28,700 cfs Mar. 20, 1936 (gage height, 10.54 ft), from rating curve extended above 15,000 cfs; minimum since September 1923, 54 cfs Sept. 27, 1941 (gage height, 1.50 ft).

Remarks.--Records excellent except those for periods of ice effect or backwater from pulpwood on control, which are fair. Flow partly regulated by Flagstaff and Spencer Lakes (see p. 54).

Revisions (water years).--WSP 801: Drainage area. WSP 1231: 1913-15, 1916-17(M), 1919-20(M), 1922(M). WSP 1301: 1904(M), 1907, 1911-12.

Rating table, water year 1956-57, except periods of ice effect or backwater from pulpwood on control (gage height, in feet, and discharge, in cubic feet per second)

1.6	87	3.0	1,550
1.8	190	4.0	3,440
2.0	326	4.4	4,320
2.4	713		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	376	1,890	2,270	240	250	2,270	1,240	1,890	400	260	2,210	236
2	409	1,980	2,200	240	220	2,230	1,260	1,390	370	375	2,310	236
3	418	2,120	2,230	235	210	1,320	1,320	1,110	495	915	2,290	325
4	*418	1,960	2,180	235	184	1,240	1,280	965	595	585	2,050	1,280
5	401	1,840	2,340	235	174	1,720	1,260	848	495	965	1,970	1,280
6	359	1,720	2,180	235	156	1,910	1,210	762	465	835	2,190	1,270
7	418	1,870	2,030	235	134	1,860	1,200	702	485	725	1,960	1,260
8	798	2,200	2,050	230	130	1,790	1,010	627	495	670	1,370	1,260
9	737	2,290	2,070	230	124	1,800	762	637	555	*535	262	1,210
10	605	2,550	1,930	230	162	900	762	659	485	505	780	1,200
11	513	2,270	513	230	196	900	774	860	410	205	269	1,200
12	456	2,570	343	230	250	1,640	823	810	300	146	255	1,180
13	409	3,150	285	220	215	1,790	887	690	335	174	290	1,180
14	401	2,890	*250	220	210	1,750	900	835	285	140	574	939
15	534	2,300	220	220	*205	1,750	874	*900	270	335	574	375
16	965	2,500	240	220	255	1,750	900	1,500	290	385	484	*1,160
17	952	2,440	270	220	785	1,750	1,030	1,240	300	285	242	1,180
18	939	2,380	270	215	775	*1,570	1,030	885	390	305	544	1,180
19	926	2,310	260	215	775	1,210	913	700	1,330	230	659	1,160
20	887	2,290	260	215	785	1,700	1,300	660	585	215	900	1,140
21	874	1,870	255	*210	785	1,650	2,990	775	635	174	535	1,140
22	848	2,090	255	205	735	1,600	4,320	775	305	630	1,230	1,140
23	874	1,320	255	240	690	1,570	3,050	660	240	850	1,230	1,240
24	1,100	659	250	310	700	1,570	2,910	595	168	895	887	1,260
25	1,130	484	250	360	715	1,520	2,550	545	435	1,500	269	1,230
26	1,030	1,680	250	430	715	1,450	2,270	475	260	1,530	255	1,170
27	952	2,290	250	455	605	1,420	2,020	465	305	2,320	255	1,160
28	939	1,390	250	400	835	1,390	2,050	585	290	2,430	255	1,110
29	1,180	1,430	240	360	-	1,360	1,930	750	285	2,030	248	1,100
30	1,770	2,290	240	320	--------	1,330	2,030	575	190	2,030	248	1,100
31	1,740	--------	240	285	--------	1,260	--------	485	--------	2,220	242	--------
Total	24,358	61,023	27,126	8,125	11,975	48,970	46,855	25,355	12,448	25,399	27,837	31,901
Mean	786	2,034	875	262	428	1,580	1,562	818	415	819	898	1,063
(†)	-176	-1,216	-289	+167	-173	-934	+1,586	+1,249	+263	-319	-623	-746

Adjusted for change in reservoir contents

Mean	610	818	586	429	255	646	3,148	2,067	678	500	275	317
Cfsm	0.700	0.938	0.672	0.492	0.292	0.741	3.61	2.37	0.778	0.573	0.315	0.364
In.	0.81	1.05	0.77	0.57	0.30	0.85	4.03	2.73	0.87	0.66	0.36	0.41

	Observed			Adjusted		
Calendar year 1956:	Max 7,640	Min 66	Mean 1,297	Mean 1,365	Cfsm 1.57	In. 21.30
Water year 1956-57:	Max 4,320	Min 124	Mean 963	Mean 862	Cfsm 0.989	In. 13.41

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Flagstaff and Spencer Lakes.
Note.--Stage-discharge relation affected by ice Dec. 13 to Mar. 1, Mar. 4, 11. Backwater from pulpwood on control May 11 to July 21.

Austin Stream at Bingham, Maine

Location.--Lat 45°03'55", long 69°52'55", on right bank at Bingham, Somerset County, three-quarters of a mile upstream from mouth.

Drainage area.--91.1 sq mi.

Records available.--October 1931 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 350.14 ft above mean sea level, datum of 1929.

Average discharge.--26 years, 169 cfs.

Extremes.--Maximum discharge during year, 1,100 cfs Apr. 22 (gage height, 7.80 ft); minimum, 4.7 cfs Aug. 24, 25.
1931-57: Maximum discharge, 5,820 cfs Sept. 17, 1932, Nov. 27, 1950; maximum gage height, 17.63 ft Mar. 13, 1936 (backwater from ice jam); minimum discharge, 1.6 cfs Sept. 30, Oct. 1, 1948.

Remarks.--Records good except those for periods of ice effect or backwater from rocks on control, which are fair.

Revisions.--WSP 1171: Drainage area.

Rating table, water year 1956-57, except periods of ice effect or backwater from rocks on control (gage height, in feet, and discharge, in cubic feet per second)

5.1	4.7	6.2	142
5.2	7.8	6.4	204
5.3	12	6.7	324
5.4	18	7.0	480
5.6	34	7.5	850
5.8	59	8.0	1,280
6.0	94		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	38	67	24	102	94	109	342	59	88	198	8.2
2	49	34	65	24	90	70	142	284	61	100	120	6.6
3	53	33	65	22	81	59	168	240	77	94	77	.14
4	46	33	64	19	72	52	142	211	69	75	81	22
5	*40	32	62	18	67	45	132	184	58	*72	79	20
6	34	30	61	16	55	41	126	162	46	83	53	16
7	56	28	59	13	45	36	162	142	61	70	36	14
8	116	26	59	12	36	34	154	124	86	96	30	12
9	94	25	56	12	30	59	142	114	69	*73	23	9.9
10	69	24	55	11	24	132	124	114	55	72	22	9.1
11	53	21	53	11	20	211	126	162	44	55	31	9.5
12	43	24	56	9.9	18	244	134	154	38	43	37	9.5
13	35	29	61	9.5	*16	215	174	134	35	32	35	9.9
14	34	31	*67	9.1	16	184	178	119	33	29	30	10
15	34	*32	62	8.6	*16	137	156	*181	31	51	20	9.9
16	33	33	59	8.2	16	114	154	320	28	69	17	*12
17	30	36	70	8.2	14	107	211	248	24	55	12	9.5
18	29	42	69	8.2	14	*101	272	184	24	46	11	6.9
19	26	38	59	8.2	14	116	324	142	36	34	11	7.2
20	24	36	52	8.2	14	92	451	142	156	27	8.6	6.2
21	24	36	45	8.2	13	79	698	218	120	18	7.5	6.6
22	22	248	43	*9.9	13	86	1,010	191	70	27	6.6	6.9
23	27	333	42	45	13	107	818	148	51	33	6.2	52
24	159	211	40	170	13	114	730	151	48	27	5.3	77
25	168	132	36	420	13	119	615	98	36	*28	5.0	53
26	116	114	35	290	12	107	519	84	53	22	8.6	40
27	86	101	34	230	22	119	451	90	88	19	13	30
28	69	90	33	188	130	124	428	98	83	17	12	24
29	58	77	30	160	-	116	412	96	81	21	9.9	19
30	49	69	28	132	--------	114	401	83	110	13	8.2	12
31	43	--------	26	116	--------	101	--------	70	--------	245	*7.8	--------
Total	1,752	2,036	1,613	2,029.2	989	3,329	9,663	5,030	1,830	1,734	1,021.7	542.9
Mean	56.5	67.9	52.0	65.5	35.3	107	322	162	61.0	55.9	33.0	18.1
Cfsm	0.620	0.745	0.571	0.719	0.387	1.17	3.53	1.78	0.670	0.614	0.362	0.199
In.	0.71	0.83	0.66	0.83	0.40	1.35	3.94	2.05	0.75	0.71	0.42	0.22

Calendar year 1956: Max 1,730 Min 10 Mean 152 Cfsm 1.67 Ir. 22.77
Water year 1956-57: Max 1,010 Min 5.0 Mean 86.5 Cfsm 0.950 Ir. 12.87

Peak discharge (base, 1,200 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 1-5, Dec. 10 to Mar. 7, and backwater from rocks on control June 18 to Sept. 30.

Kennebec River at Bingham, Maine

Location.--Lat 45°03'05", long 69°53'15", on right bank at Bingham, Somerset County, 200 ft downstream from highway bridge, half a mile downstream from Austin Stream, and 1¾ miles downstream from Wyman Dam.

Drainage area.--2,710 sq mi, approximately.

Records available.--June 1907 to June 1910, October 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 330.2 ft above mean sea level, datum of 1929. June 1907 to June 1910 chain gage on highway bridge at different datum.

Average discharge.--29 years (1907-9, 1930-57), 4,229 cfs (unadjusted).

Extremes.--Maximum discharge during year, 11,000 cfs Apr. 22 (gage height, 8.73 ft); minimum daily, 1,330 cfs May 4.
1907-10, 1930-57: Maximum discharge, 58,800 cfs Mar. 20, 1936 (gage height, 14.44 ft), from rating curve extended above 27,000 cfs on basis of computations of flow at Wyman Dam plus inflow; minimum daily, 110 cfs Dec. 25, 1947.

Remarks.--Records excellent. Flow regulated by Moosehead Lake (see p. 43), Brassua, Flagstaff, and Spencer Lakes, Second Roach, First Roach, Indian, Moxie and Wyman Ponds (see p. 54). Considerable diurnal fluctuation caused by powerplant above station.

Revisions (water years).--WSP 1271: 1951(M). WSP 1301: 1936(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

5.6	1,200	7.5	5,930
6.0	1,910	8.0	7,790
6.5	2,980	8.3	9,100
7.0	4,310		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,320	3,220	3,710	3,320	3,330	3,120	2,370	4,100	2,270	2,120	3,020	1,600
2	3,330	3,350	3,320	3,750	3,410	3,050	2,210	3,100	2,200	2,120	3,230	2,320
3	3,370	3,350	3,480	3,640	3,110	2,900	1,940	2,960	2,600	1,720	2,340	3,320
4	*3,390	3,000	3,590	3,600	3,340	3,000	1,990	1,330	2,270	1,540	2,220	3,360
5	3,470	3,500	3,550	3,740	3,300	3,030	2,280	1,720	2,590	1,950	3,250	3,270
6	3,280	3,420	3,720	3,380	3,240	3,040	2,010	2,740	2,400	2,220	3,370	3,430
7	3,410	3,300	3,520	3,520	3,220	3,240	1,440	2,130	2,390	2,310	3,360	2,800
8	3,140	3,310	3,710	3,800	3,320	2,930	2,010	1,960	2,140	2,450	2,980	2,280
9	3,180	3,350	3,100	3,620	3,150	2,930	1,920	2,200	2,370	2,470	3,160	3,260
10	3,220	3,480	3,540	3,700	3,200	2,630	2,280	2,060	2,540	2,440	2,400	3,210
11	3,310	3,380	3,660	3,650	3,450	2,800	2,180	2,160	2,520	2,480	2,420	3,380
12	3,330	3,250	3,420	3,510	3,230	2,560	2,200	1,950	2,490	2,520	3,330	2,990
13	3,320	3,580	3,660	3,440	3,470	2,350	2,100	1,870	2,420	2,470	3,040	2,770
14	3,100	3,350	3,530	3,820	2,970	2,480	1,780	2,130	2,490	2,290	3,300	2,800
15	3,320	3,490	3,400	3,770	3,180	2,760	2,260	2,060	2,520	2,820	3,320	2,100
16	3,410	3,420	3,290	3,340	3,140	2,360	1,910	*3,200	2,470	2,670	3,480	3,470
17	3,220	3,230	3,630	3,390	3,410	2,290	2,000	2,950	2,550	2,710	3,150	3,070
18	3,460	3,520	3,560	3,310	3,200	2,440	1,980	2,690	2,500	2,780	2,260	3,130
19	3,510	3,560	3,300	3,480	3,220	2,350	2,500	2,000	2,420	2,830	3,480	3,010
20	3,400	3,440	3,620	3,400	3,300	2,500	2,780	2,300	2,450	2,540	3,620	3,200
21	3,340	3,490	3,330	3,290	3,320	2,350	5,180	2,270	2,400	2,020	3,500	2,940
22	3,620	3,160	3,590	3,380	3,170	2,410	8,870	2,100	2,360	2,740	3,420	2,100
23	3,320	2,840	3,280	3,200	3,040	2,200	8,400	2,270	2,350	2,780	3,620	3,370
24	3,110	2,740	2,480	3,270	3,300	2,040	5,250	1,910	2,470	2,760	3,200	3,300
25	2,900	3,100	2,070	3,250	3,130	2,220	6,520	1,960	2,560	2,780	2,000	3,360
26	3,160	3,220	3,540	3,050	2,940	2,400	6,020	2,060	2,430	2,740	3,570	3,280
27	3,100	3,530	3,700	3,020	3,010	2,130	5,060	2,390	2,360	2,610	3,250	3,370
28	3,190	3,460	3,750	3,120	3,270	2,140	2,010	2,260	2,430	2,210	3,140	2,850
29	3,260	3,400	3,660	3,060	-	2,120	3,000	2,180	2,160	3,260	3,130	2,060
30	3,320	3,400	3,270	3,260	--------	1,870	4,420	2,170	1,770	3,250	3,180	3,450
31	3,360	--------	3,790	3,140	--------	2,280	--------	2,260	--------	3,200	2,820	--------
Total	102,170	99,840	106,770	106,220	90,370	78,920	96,870	71,440	71,890	77,780	95,560	88,850
Mean	3,296	3,328	3,444	3,426	3,228	2,546	3,229	2,305	2,396	2,509	3,083	2,962
(†)	-1,276	-1,437	-1,764	-2,069	-2,360	-700	+5,057	+4,144	-7	-938	-1,453	-2,336
Adjusted for change in reservoir contents												
Mean	2,020	1,891	1,680	1,357	868	1,846	8,286	6,449	2,389	1,571	1,630	626
Cfsm	0.745	0.698	0.620	0.501	0.320	0.681	3.06	2.38	0.882	0.580	0.601	0.231
In.	0.86	0.78	0.71	0.58	0.33	0.79	3.41	2.74	0.98	0.67	0.69	0.26

	Observed			Adjusted		
Calendar year 1956:	Max 13,900	Min 1,970	Mean 3,754	Mean 4,013	Cfsm 1.48	In. 20.15
Water year 1956-57:	Max 8,870	Min 1,330	Mean 2,977	Mean 2,557	Cfsm 0.944	In. 12.80

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Brassua, Moosehead, Flagstaff and Spencer Lakes, and Second and First Roach, Indian, Moxie, and Wyman Ponds.

Carrabassett River near North Anson, Maine

Location.--Lat 44°52'00", long 69°57'10", on left bank 3 miles upstream from Mill Stream and North Anson, Somerset County.

Drainage area.--354 sq mi.

Records available.--November 1901 to May 1907, August 1925 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 303.3 ft above mean sea level, datum of 1929. Nov. 1, 1901, to May 5, 1907, chain and rod gages 1 mile upstream at different datum.

Average discharge.--36 years (1902-6, 1925-57), 683 cfs.

Extremes.--Maximum discharge during year, 5,460 cfs Apr. 21 (gage height, 8.62 ft); minimum, 32 cfs Sept. 18 (gage height, 2.32 ft).
1925-57: Maximum discharge, 30,800 cfs Mar. 19, 1956 (gage height, 21.17 ft); minimum, 18 cfs Oct. 29, 1929 (gage height, 2.02 ft).

Remarks.--Records excellent except those for period of ice effect, which are fair. Some regulation at low flow by mills above station.

Revisions (water years).--WSP 851: Drainage area. WSP 1231: 1904-7, 1928(M), 1932(M), 1936(M), 1938(M), 1944(M), 1950(M).

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.4	40	4.0	460
2.6	61	5.0	1,070
2.8	90	6.0	2,020
3.1	150	7.4	3,750
3.5	265		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	150	238	285	164	198	340	521	993	301	324	316	49
2	155	231	275	162	182	280	685	823	290	*287	204	48
3	155	210	265	158	172	260	847	703	358	272	152	57
4	155	204	260	158	160	230	655	637	320	231	132	74
5	*143	196	255	156	156	205	679	574	276	231	128	85
6	120	182	240	152	146	198	867	526	241	347	110	65
7	285	177	235	152	140	182	793	487	276	265	99	58
8	950	174	270	150	136	180	643	456	355	207	94	57
9	541	164	295	150	130	265	607	452	279	190	88	57
10	398	155	260	146	128	615	510	447	231	190	87	50
11	331	139	260	142	128	780	563	739	204	174	128	49
12	279	150	270	140	126	705	568	625	185	155	150	48
13	245	167	310	140	126	645	799	515	179	126	132	50
14	231	174	285	132	124	600	781	510	169	128	108	48
15	222	169	265	130	122	615	655	770	155	201	94	52
16	204	164	280	128	122	655	631	*1,440	148	174	92	56
17	193	167	*355	*126	120	720	835	930	135	146	73	53
18	179	179	310	124	*122	630	944	727	124	126	69	51
19	167	164	270	120	120	545	1,080	602	157	110	74	51
20	152	157	265	122	118	505	1,500	631	355	88	73	49
21	146	177	250	138	116	470	3,410	1,440	245	80	71	44
22	143	890	215	152	118	*425	3,630	1,020	172	108	69	51
23	162	888	210	200	116	545	2,430	775	143	150	69	74
24	815	568	200	460	114	630	2,260	643	179	132	54	188
25	625	414	190	370	116	615	1,780	526	193	132	47	112
26	447	366	180	325	118	591	1,740	456	265	122	61	82
27	374	378	174	300	140	655	1,140	426	386	94	69	66
28	331	386	174	270	230	667	1,240	469	290	88	74	57
29	301	362	170	255	--	613	1,090	439	248	110	*66	58
30	269	324	170	235	-------	574	1,200	378	435	355	57	58
31	248	-------	168	215	-------	510	-------	339	-------	320	49	-------
Total	9,116	8,314	7,611	5,772	3,844	15,450	35,083	20,498	7,294	5,663	3,089	1,897
Mean	294	277	246	186	137	498	1,169	661	243	183	99.6	63.2
Cfsm	0.831	0.782	0.695	0.525	0.387	1.41	3.30	1.87	0.686	0.517	0.281	0.179
In.	0.96	0.87	0.80	0.61	0.40	1.63	3.68	2.16	0.77	0.60	0.32	0.20

Calendar year 1956:	Max	5,740	Min	65	Mean	579	Cfsm	1.64	In.	22.28	
Water year 1956-57:	Max	3,630	Min	44	Mean	339	Cfsm	0.958	In.	13.00	

Peak discharge (base, 6,000 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 1 to Mar. 25.

Sandy River near Mercer, Maine

Location.--Lat 44°42'30", long 69°56'25", on right bank 0.9 mile upstream from Bog Stream, 3 miles north of Mercer, Somerset County, and 9½ miles upstream from mouth.

Drainage area.--514 sq mi.

Records available.--October 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 197.1 ft above mean sea level, datum of 1929.

Average discharge.--29 years, 914 cfs.

Extremes.--Maximum discharge during year, 5,180 cfs Apr. 22 (gage height, 7.12 ft); minimum, 55 cfs Sept. 30 (gage height, 2.45 ft).

1928-57: Maximum discharge, 38,600 cfs Mar. 19, 1936 (gage height, 16.75 ft), from rating curve extended above 12,000 cfs on basis of records for stations on Kennebec River at Bingham and Waterville, Carrabassett River near North Anson, and Sebasticook River near Pittsfield; minimum, 32 cfs Sept. 22-26, 1939 (gage height, 2.15 ft).

Remarks.--Records excellent except those for periods of ice effect, which are fair.

Revisions (water years).--WSP 756: 1933. WSP 801: Drainage area. WSP 1231: 1936(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.4	49	4.0	650
2.5	61	4.5	1,040
2.8	111	5.0	1,540
3.0	160	6.0	2,960
3.5	352	6.8	4,490

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	210	309	410	300	435	630	947	1,280	439	526	338	67
2	203	333	390	295	405	610	1,160	1,010	405	378	295	62
3	203	338	380	290	400	460	1,520	875	473	*363	230	66
4	193	300	370	280	375	365	1,200	788	502	333	193	64
5	190	269	363	270	350	335	1,060	699	411	314	166	67
6	169	253	400	270	340	305	1,030	637	368	373	150	86
7	169	245	427	265	325	290	1,540	590	352	400	134	86
8	875	245	461	260	305	295	1,560	539	439	295	122	87
9	728	238	520	260	300	405	1,390	496	394	256	113	74
10	479	223	490	260	290	760	1,170	473	323	264	120	64
11	357	213	444	260	280	970	1,210	616	273	264	160	61
12	300	200	533	265	270	795	1,150	795	249	245	264	61
13	264	260	699	260	265	650	1,450	616	223	203	206	64
14	242	318	657	255	265	610	1,500	720	223	175	223	62
15	223	318	564	245	260	680	1,220	964	213	152	175	61
16	220	304	533	245	260	770	1,120	2,100	187	150	152	57
17	216	304	664	245	255	925	1,220	*1,320	166	166	132	61
18	200	300	*750	250	255	890	1,400	972	157	152	113	73
19	190	295	533	245	*255	865	1,540	795	190	139	100	90
20	184	260	496	225	245	820	2,030	803	450	127	92	79
21	172	264	552	220	240	*790	2,770	2,260	411	111	90	67
22	160	1,380	520	220	235	865	4,390	1,620	295	120	90	62
23	166	1,780	422	330	235	980	2,690	1,140	223	144	84	60
24	840	980	400	*680	235	1,170	2,300	923	203	230	78	66
25	1,070	637	355	795	235	1,120	1,960	758	230	193	76	155
26	664	564	340	690	235	1,070	1,690	637	394	172	76	129
27	514	535	325	595	250	1,060	1,450	570	637	160	74	94
28	427	500	315	560	350	1,030	1,420	637	539	144	66	76
29	373	460	310	515	-	990	1,330	657	444	127	72	64
30	342	440	305	480	--------	955	1,250	552	577	200	74	59
31	318	--------	305	460	--------	940	--------	467	--------	444	*70	--------
Total	10,861	13,065	14,233	10,790	8,150	23,400	47,667	27,309	10,390	7,320	4,408	2,224
Mean	350	436	459	348	291	755	1,589	881	346	236	142	74.1
Cfsm	0.681	0.848	0.893	0.677	0.566	1.47	3.09	1.71	0.673	0.459	0.276	0.144
In.	0.79	0.95	1.03	0.78	0.59	1.70	3.45	1.97	0.75	0.53	0.32	0.16

Calendar year 1956: Max 6,580 Min 74 Mean 817 Cfsm 1.59 In. 21.65
Water year 1956-57: Max 4,390 Min 57 Mean 493 Cfsm 0.959 In. 13.02

Peak discharge (base, 6,000 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 27 to Dec. 4, Dec. 25 to Mar. 31.

Sebasticook River near Pittsfield, Maine

Location.--Lat 44°42'55", long 69°24'55", on right bank 1¾ miles upstream from Twentyfive-mile Stream and 4 miles south of Pittsfield, Somerset County.

Drainage area.--579 sq mi.

Records available.--October 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 133.9 ft above mean sea level, datum of 1929.

Average discharge.--28 years (1929-57), 920 cfs.

Extremes.--Maximum discharge during year, 1,980 cfs Apr. 13 (gage height, 4.73 ft); minimum daily, 4.5 cfs Nov. 10.
1928-57: Maximum discharge, 14,400 cfs Mar. 22, 1936 (gage height, 13.18 ft); minimum, 2.9 cfs Dec. 30, 1941 (gage height, 0.40 ft); minimum daily, that of Nov. 10, 1956.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Considerable diurnal fluctuation caused by powerplant above station. Flow partly regulated by powerplants above station and by Great Moose and Sebasticook Lakes and Plymouth Pond (combined capacity, about 2,345,000,000 cu ft).

Revisions.--WSP 1271: Drainage area.

Rating tables, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 12

1.0	3.0	2.0	100
1.2	10	2.2	155
1.4	21	2.4	225
1.6	35	2.6	305
1.8	60	3.0	500

Note.--Same as following table above 3.0 ft.

Apr. 13 to Sept. 30

0.7	4.6	2.0	134
.9	10	2.5	279
1.2	25	3.0	500
1.4	42	3.5	850
1.6	65	4.0	1,300
1.8	95	4.8	2,050

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	154	390	575	320	740	310	1,180	1,190	128	182	205	6.9
2	146	285	540	425	655	380	1,200	1,150	120	170	184	114
3	*66	5.4	505	480	545	8.4	1,310	1,070	435	160	196	255
4	130	108	465	470	530	435	1,450	940	405	126	120	87
5	192	275	445	215	460	395	1,450	787	380	140	158	168
6	5.7	275	445	15	435	390	1,460	769	380	108	184	220
7	6.4	265	425	475	350	122	1,600	680	240	148	24	6.9
8	320	255	425	325	430	400	1,780	579	16	200	8.1	6.9
9	188	325	265	305	435	405	1,890	475	150	162	184	270
10	156	4.5	425	295	128	745	1,860	385	390	144	9.1	126
11	200	5.7	400	465	*425	990	1,900	395	270	*158	10	134
12	205	380	430	310	470	1,080	1,950	415	265	122	240	39
13	4.8	365	565	10	460	1,090	1,960	*395	265	75	87	230
14	6.8	255	685	260	460	1,140	1,940	420	305	117	162	6.9
15	230	400	680	182	420	1,180	1,900	425	16	192	112	6.9
16	230	400	655	220	220	1,220	1,840	525	18	132	190	215
17	200	275	640	196	7.2	1,280	1,740	688	410	230	112	144
18	192	9.2	645	215	460	1,330	1,650	667	260	170	7.2	114
19	305	420	530	425	430	1,340	1,530	634	102	152	245	90
20	5.1	375	580	10	420	1,320	1,440	634	215	31	142	240
21	5.7	425	540	470	240	1,290	1,390	674	206	170	138	6.9
22	265	425	495	425	335	1,380	1,430	814	143	290	106	6.9
23	240	725	470	400	380	1,330	1,450	841	128	150	140	280
24	355	865	440	785	13	1,390	1,470	778	132	148	6.9	31
25	365	890	430	1,020	420	1,390	1,420	712	87	143	6.9	57
26	375	915	430	975	400	1,390	1,380	660	93	139	265	110
27	6.4	955	440	990	390	1,390	1,340	634	172	134	138	250
28	11	865	410	890	305	1,380	1,300	622	170	132	138	5.5
29	440	725	400	800	-	1,340	1,260	609	148	15	198	6.0
30	285	650	260	880	--------	1,290	1,220	533	156	148	235	80
31	158	--------	450	820	--------	1,220	--------	402	--------	178	6.9	--------
Total	5,448.9	12,512.8	15,090	14,073	10,963.2	30,350.4	46,690	20,502	6,205	4,566	3,958.1	3,313.8
Mean	176	417	487	454	392	979	1,556	661	207	147	128	110
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 6,190 Min 4.5 Mean 781 Cfsm 1.35 In. 18.41
Water year 1956-57: Max 1,960 Min 4.5 Mean 476 Cfsm 0.822 In. 11.13

* Discharge measurement made on this day.
Note.--No gage-height record Nov. 19 to Dec. 11; discharge estimated on basis of records of hydroelectric plant just upstream. Stage-discharge relation affected by ice Jan. 5-24.

Cobbosseecontee Stream at Gardiner, Maine

Location.--Lat 44°13'15", long 69°47'25", at dam of Gardiner Water Power Co., in Gardiner, Kennebec County, 1.2 miles upstream from mouth.

Drainage area.--217 sq mi.

Records available.--June 1890 to September 1957.

Gage.--Staff gage in pond above dam and in tailrace of powerplant. Datum of gage is about at mean sea level.

Average discharge.--67 years, 328 cfs.

Extremes.--Maximum daily discharge during year, 305 cfs Apr. 17; minimum daily, 10 cfs Nov. 23, Dec. 26, May 30, July 1-7, Sept. 2, 3.
1890-1957: Maximum discharge, 5,020 cfs Mar. 21, 1936 (elevation, 139.4 ft above mean sea level); maximum daily, 4,320 cfs Mar. 20, 21, 1936; minimum, leakage only, when all gates in dam are closed.

Remarks.--Discharge is sum of flow over dam, through gates and water wheels (computed on basis of coefficients and experiments), and leakage. Flow regulated by Cobbosseecontee Lake (surface area, 8.5 sq mi) and several other lakes above station.

Cooperation.--Records of daily discharge furnished by S. D. Warren Co.

Revisions (water years).--WSP 541: 1916-20. WSP 1201: Drainage area. WSP 1231: 1910-15.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	255	225	205	255	270	255	250	265	250	10	185	185
2	260	225	210	260	265	260	250	265	245	10	190	10
3	260	220	205	255	260	260	245	255	245	10	180	10
4	265	220	205	250	265	265	255	250	245	10	175	200
5	275	215	210	260	265	265	260	225	245	10	175	200
6	275	215	205	265	270	260	255	255	245	10	175	195
7	260	200	205	270	255	255	260	255	245	10	170	195
8	250	205	205	270	265	245	260	255	245	210	175	195
9	250	215	205	275	265	245	265	255	245	205	175	195
10	245	215	215	275	265	260	270	255	235	210	175	195
11	245	220	215	270	265	260	265	250	235	205	180	195
12	245	220	205	265	265	265	270	255	240	205	180	195
13	235	215	210	260	265	250	260	255	240	205	190	195
14	230	220	215	265	270	255	295	250	240	205	190	195
15	240	220	210	260	265	255	290	250	240	205	185	195
16	235	220	210	260	260	260	300	245	240	210	180	200
17	225	215	220	255	260	255	305	250	240	215	185	195
18	220	215	215	255	265	255	285	250	240	225	190	195
19	220	215	220	255	270	260	285	250	240	205	185	190
20	230	215	215	255	270	235	280	250	240	205	180	195
21	220	215	225	240	270	240	275	245	230	200	180	195
22	235	210	225	235	270	240	265	245	230	200	185	195
23	235	10	225	235	270	235	270	250	235	205	185	200
24	240	215	225	255	250	255	270	250	230	195	185	195
25	255	210	230	275	245	260	265	250	225	195	190	200
26	255	205	10	265	240	260	260	255	225	195	185	195
27	260	210	225	270	245	255	265	250	225	195	190	195
28	255	210	230	255	245	255	265	250	220	195	185	200
29	255	205	250	280	-	255	265	255	220	195	185	195
30	240	210	260	275	-------	250	260	240	205	190	180	200
31	230	-------	260	270	-------	255	-------	10	-------	185	185	-------
Total	7,600	6,230	6,570	8,090	7,335	7,880	8,065	7,540	7,085	4,930	5,655	5,500
Mean	245	208	212	261	262	254	269	243	236	159	182	183
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 305 Min 10 Mean 245 Cfsm - In. -
Water year 1956-57: Max 305 Min 10 Mean 226 Cfsm - In. -

Smaller reservoirs in Kennebec River basin, Maine

Brassua Lake on Moose River, 4 miles southwest of Rockwood, completed in 1928, for power, has usable capacity of 8,560,000,000 cu ft between elevations 1,043.0 and 1,073.0 ft. Elevation record furnished by Kennebec Water Power Co.

Second Roach Pond on Roach River, 6 miles east of Kokadjo, used for power, has usable capacity of 216,000,000 cu ft between gage heights 0.5 and 10.0 ft. Gage-height record furnished by Kennebec Water Power Co.

First Roach Pond on Roach River, at Kokadjo, used for power, has usable capacity of 938,000,000 cu ft between gage heights 1.5 and 8.0 ft. Gage-height record furnished by Kennebec Water Power Co.

Moosehead Lake on Kennebec River (see p. 43).

Indian Pond on Kennebec River, 13 miles downstream from East Outlet of Moosehead Lake, completed in 1954 for power, has capacity of 830,000,000 cu ft in normal operating range between elevations 950.0 and 955.0 ft (total capacity of pond 3,150,000,000 cu ft below elevation 955.0 ft). Elevation record furnished by Central Maine Power Co.

Moxie Pond on Moxie Stream, 4½ miles east of The Forks, used for power, has usable capacity of 640,000,000 cu ft between gage heights 6.0 and 14.0 ft. Gage-height record furnished by Kennebec Water Power Co.

Flagstaff Lake on Dead River, three-quarters of a mile upstream from Black Brook, in T. 3, R. 4, completed in 1950 for power, has usable capacity of 12,050,000,000 cu ft between elevations 1,110 and 1,146 ft. Elevation record furnished by Kennebec Water Power Co.

Spencer Lake on Little Spencer Stream, 4 miles upstream from mouth, in T. 3, R. 5, used for power, has usable capacity of 639,000,000 cu ft between gage heights 3.5 and 12.0 ft. Gage-height record furnished by Kennebec Water Power Co.

Wyman Pond on Kennebec River, 1½ miles upstream from Bingham, completed in 1930 for power, has capacity of 2,630,000,000 cu ft in normal operating range between elevations 465.0 and 485.0 ft (total capacity of pond, 9,080,000,000 ft below elevation 485.0 ft). Elevation record furnished by Central Maine Power Co.

Month-end contents, in millions of cubic feet, water year October 1956 to September 1957

Date	Brassua Lake	Second Roach Pond	First Roach Pond	Indian Pond	Moxie Pond	Flagstaff Lake	Spencer Lake	Wyman Pond
Sept. 30, 1956	8,560	6.7	801	3,258	130	7,434	103	8,750
Oct. 31	8,298	11	664	3,168	60	7,023	38.4	8,830
Nov. 30	7,749	43	691	3,186	60	3,845	70.4	8,760
Dec. 31	1,812	45.2	664	3,150	30	3,090	51.2	8,780
Jan. 31, 1957	38	45.2	530	3,168	18	3,533	51.2	8,870
Feb. 28	15	33.5	302	3,186	12	3,123	44.8	8,760
Mar. 31	330	0	66	3,186	0	632	38.4	8,790
Apr. 30	4,021	11	463	3,168	604	4,420	360	8,990
May 31	7,290	0	801	3,222	685	7,554	570	8,680
June 30	3,411	0	732	3,222	640	8,302	503	8,820
July 31	76	0	691	3,240	640	7,615	337	8,760
Aug. 31	15	0	760	3,150	622	5,993	285	8,780
Sept. 30	0	22.2	664	3,258	703	4,005	345	8,690

Note.--Wyman Pond contents at 12 p.m. on day shown. All others at 7 a.m. of first day of following month.

Diamond River near Wentworth Location, N. H.

Location.--Lat 44°52'40", long 71°03'25", on left bank 0.7 mile upstream from mouth and 1½ miles north of Wentworth Location, Coos County.

Drainage area.--153 sq mi.

Records available.--July 1941 to September 1957.

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

Average discharge.--16 years, 341 cfs.

Extremes.--Maximum discharge during year, 4,180 cfs Apr. 21 (gage height, 8.00 ft); minimum, 24 cfs Sept. 2, 3 (gage height, 1.35 ft).
1941-57: Maximum discharge, 8,630 cfs June 16, 1943 (gage height, 10.66 ft), from rating curve extended above 3,000 cfs; minimum, 6.8 cfs Aug. 27, 28, 1949, Sept. 1, 1952 (gage height, 0.81 ft).

Remarks.--Records excellent except those for period of ice effect, which are fair.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.3	21	4.0	705
1.5	35	5.0	1,270
1.7	53	6.0	2,010
2.0	89	7.0	3,000
2.5	185	7.3	3,330
3.0	320		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	400	86	95	94	220	520	146	815	199	410	185	27
2	342	102	92	90	198	420	190	584	216	660	137	25
3	274	84	90	88	178	350	350	480	295	345	124	41
4	224	75	89	85	160	290	265	402	207	570	128	82
5	159	68	89	84	152	255	230	388	166	*740	100	48
6	126	65	88	82	150	220	230	355	141	674	86	37
7	270	64	90	81	140	188	265	311	229	362	76	35
8	457	63	295	79	130	168	230	*289	247	272	68	34
9	*274	61	255	77	120	162	200	280	171	209	63	30
10	197	60	215	76	118	220	182	320	131	195	75	27
11	171	50	200	75	112	215	186	620	112	180	148	*26
12	143	62	200	72	100	166	205	388	102	157	204	27
13	131	82	172	71	89	146	235	326	102	128	130	30
14	122	89	160	69	84	142	200	311	89	107	90	33
15	118	88	150	66	80	150	176	990	80	215	75	37
16	106	122	158	62	76	186	180	1,090	70	192	64	33
17	106	247	172	61	74	215	220	568	60	175	60	122
18	100	180	152	58	72	186	320	413	54	118	53	75
19	90	*96	136	56	71	158	575	339	390	89	49	47
20	86	98	*148	54	*70	132	1,240	585	375	75	43	37
21	81	128	136	53	69	126	3,320	1,020	178	65	40	42
22	79	1,280	120	57	68	122	3,220	564	110	690	36	47
23	77	622	114	455	66	124	2,140	420	82	865	35	310
24	88	283	108	*860	65	126	2,180	365	77	326	33	235
25	86	178	108	570	64	120	1,690	301	92	226	30	118
26	86	146	106	440	71	118	1,270	257	252	168	32	82
27	86	130	104	380	108	122	1,360	314	214	137	36	66
28	80	116	102	350	575	130	1,410	342	242	115	35	58
29	76	104	100	315	~	140	1,010	323	244	162	32	52
30	74	98	98	270	--------	140	1,330	250	232	550	29	54
31	70	--------	95	240	--------	140	--------	234	--------	260	28	--------
Total	4,779	4,927	4,237	5,470	3,480	5,897	24,755	14,244	5,159	9,437	2,324	1,917
Mean	154	164	137	176	124	190	825	459	172	304	75.0	63.9
Cfsm	1.01	1.07	0.895	1.15	0.810	1.24	5.39	3.00	1.12	1.99	0.490	0.418
In.	1.16	1.19	1.03	1.33	0.84	1.43	6.01	3.46	1.25	2.29	0.56	0.47

Calendar year 1956: Max 4,020 Min 22 Mean 281 Cfsm 1.84 In. 24.96
Water year 1956-57: Max 3,320 Min 25 Mean 237 Cfsm 1.55 In. 21.02

Peak discharge (base, 3,600 cfs).--Apr. 21 (9 to 10 p.m.) 4,180 cfs (8.00 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 25 to Apr. 20.

Androscoggin River at Errol, N. H.

Location.--Lat 44°46'55", long 71°07'45", on right bank 0.4 mile downstream from Errol Dam, 0.4 mile northeast of Errol, Coos County, and 0.6 mile upstream from Clear Stream.

Drainage area.--1,045 sq mi.

Records available.--January 1905 to September 1957 (monthly discharge only, October 1922 to November 1943 in WSP 1301). Published as "at Errol Dam" prior to 1922.

Gage.--Water-stage recorder. Datum of gage is 1,227.30 ft above mean sea level, datum of 1929. Prior to Dec. 8, 1943, movable rod gage at Errol Dam at datum 5.0 ft higher.

Average discharge.--52 years, 1,873 cfs (adjusted).

Extremes.--Maximum discharge during year, 2,010 cfs Aug. 20 (gage height, 2.79 ft); minimum daily, 250 cfs Apr. 21-24.

1905-57: Maximum daily discharge, 15,700 cfs June 18, 1943; minimum daily, leakage only at various times when gates in dam were closed.

Instantaneous maximum not available prior to Dec. 9, 1943.

Remarks.--Records excellent except those for period of backwater from pulpwood, which are good. Flow regulated by Kennebago, Rangeley, Mooselookmeguntic, Richardson, Umbagog, and Aziscohos Lakes (see p. 64).

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

Revisions.--WSP 1001: Drainage area.

Rating table, water year 1956-57, except period of backwater from pulpwood (gage height, in feet, and discharge, in cubic feet per second)

0.4	228	2.0	1,200
.8	389	2.5	1,760
1.4	716	2.7	2,020

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,550	1,680	1,510	1,670	1,430	1,320	1,260	1,300	1,280	1,340	1,680	1,840
2	1,520	1,630	1,520	1,640	1,440	1,330	970	1,300	1,200	1,500	1,720	1,900
3	1,560	1,570	1,500	1,670	1,470	1,370	823	1,200	1,170	1,470	1,760	1,770
4	1,570	1,560	1,500	1,640	1,480	1,430	910	996	1,200	*1,280	1,730	1,820
5	1,620	1,610	1,620	1,580	1,480	1,480	1,030	1,130	1,300	1,010	1,760	1,860
6	1,670	1,630	1,590	1,590	1,520	1,490	1,030	1,330	1,410	1,010	1,800	1,890
7	1,480	1,660	1,470	1,610	1,530	1,520	900	1,280	1,340	1,280	1,860	1,890
8	1,410	1,670	1,330	1,560	1,550	1,560	1,050	*1,120	1,230	1,580	1,880	1,890
9	1,470	1,670	1,200	1,570	1,550	1,470	1,040	1,210	1,310	1,630	1,880	1,900
10	1,520	1,670	1,340	1,560	1,550	1,350	1,070	1,150	1,370	1,550	1,860	1,900
11	1,610	1,710	1,430	1,580	1,550	1,410	1,080	948	1,430	1,520	1,750	1,930
12	1,640	1,710	1,330	1,580	1,580	1,420	1,020	980	1,460	1,580	1,700	1,930
13	1,700	1,660	1,310	1,570	1,590	1,430	892	1,020	1,440	1,560	1,820	1,930
14	1,700	1,620	1,310	1,610	1,590	1,360	932	1,150	1,430	1,630	1,850	1,880
15	1,700	1,620	1,410	1,630	1,580	1,310	1,000	710	1,490	1,670	1,880	1,860
16	1,720	1,610	1,350	1,640	1,570	1,180	1,000	705	1,510	1,620	1,840	1,860
17	1,750	1,580	1,290	1,630	1,580	1,080	956	956	1,520	1,620	1,840	1,820
18	1,720	1,550	1,420	1,610	1,610	1,170	845	964	1,520	1,730	1,860	1,880
19	1,730	1,570	1,510	1,610	1,610	1,280	705	964	1,470	1,790	1,890	1,880
20	1,750	1,610	1,440	1,620	1,580	1,310	470	1,620	1,350	1,760	1,880	1,880
21	1,750	1,530	1,430	1,590	1,570	1,310	250	1,850	1,470	1,700	1,850	1,890
22	1,750	1,170	1,430	1,390	1,590	1,330	250	1,810	1,590	1,240	1,880	1,880
23	1,720	1,120	1,480	1,120	1,590	1,260	250	1,330	1,610	1,070	1,920	1,620
24	1,580	1,490	1,480	1,390	1,610	1,230	250	1,140	1,360	1,390	1,900	1,620
25	1,700	1,490	1,490	1,380	1,810	1,250	610	1,060	1,190	1,410	1,890	1,750
26	1,710	1,480	1,530	1,360	1,770	1,320	925	1,070	1,220	1,470	1,850	1,760
27	1,700	1,460	1,580	1,340	1,500	1,290	1,060	1,300	1,200	1,520	1,810	1,890
28	1,680	1,440	1,580	1,340	1,410	1,220	600	1,200	1,280	1,480	1,840	1,920
29	1,710	1,520	1,480	1,350	-	1,190	1,070	1,060	1,360	1,330	1,850	1,900
30	1,750	1,520	1,570	1,370	--------	1,260	1,440	1,200	1,310	1,040	1,820	1,850
31	1,750	--------	1,710	1,420	--------	1,270	--------	1,190	--------	1,490	1,820	--------
Total	51,190	46,810	45,140	47,220	43,690	41,200	25,688	36,243	41,000	45,270	56,670	55,590
Mean	1,651	1,560	1,456	1,523	1,560	1,329	856	1,169	1,367	1,460	1,828	1,853
(†)	-965	-677	-637	-857	-946	-446	+3,640	+2,287	-302	+250	-1,184	-1,390

Adjusted for change in reservoir contents

Mean	686	883	819	666	614	883	4,496	3,456	1,065	1,710	644	463
Csm	0.656	0.845	0.784	0.637	0.588	0.845	4.30	3.31	1.02	1.64	0.616	0.443
In.	0.76	0.94	0.90	0.73	0.61	0.97	4.80	3.82	1.14	1.89	0.71	0.49

	Observed			Adjusted		
Calendar year 1956:	Max 5,410	Min 410	Mean 1,686	Mean 1,788	Csm 1.71	In. 23.27
Water year 1956-57:	Max 1,930	Min 250	Mean 1,468	Mean 1,368	Csm 1.31	In. 17.76

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Kennebago, Rangeley, Mooselookmeguntic, Richardson, Umbagog, and Aziscohos Lakes.

Note.--Stage-discharge relation affected by backwater from pulpwood June 28 to Sept. 30.

Androscoggin River near Gorham, N. H.

Location.--Lat 44°26'30", long 71°11'15", on right bank at Pulsifer Rips, 2 miles downstream from Dead River and 4 miles upstream from Gorham, Coos County.

Drainage area.--1,363 sq mi.

Records available.--October 1913 to September 1957. October 1922 to February 1929 monthly discharge only, published in WSP 1301. Published as "at Berlin" prior to October 1928.

Gage.--Water-stage recorder since Mar. 16, 1929. Datum of gage is 832.88 ft above mean sea level, datum of 1929. Prior to Sept. 30, 1922, staff gage showing head and tailwater elevations at site 3 miles upstream at different datum.

Average discharge.--44 years, 2,428 cfs (adjusted).

Extremes.--Maximum discharge during year, 4,340 cfs Apr. 22 (gage height, 5.16 ft); minimum daily, 1,490 cfs July 7.
1913-57: Maximum daily discharge, 20,000 cfs June 18, 1917, Apr. 30, 1923; minimum (since 1929), 456 cfs Aug. 10, 1947 (gage height, 1.74 ft), from rating curve extended below 1,400 cfs; minimum daily, 795 cfs Mar. 15, 1948.

Remarks.--Records excellent. Flow regulated by powerplants above station and by Kennebago, Rangeley, Mooselookmeguntic, Richardson, Umbagog, and Aziscohos Lakes (see p. 64).

Revisions.--WSP 1001: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

3.1	1,400
3.5	1,820
4.0	2,460
4.5	3,230
4.9	3,880

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,990	2,050	1,750	1,900	1,790	2,040	1,710	2,540	1,580	1,560	1,810	1,820
2	2,050	2,090	1,800	1,790	1,760	1,780	1,950	2,190	1,670	1,580	1,840	1,840
3	1,930	2,010	1,710	1,790	1,760	1,790	2,020	1,920	1,810	1,680	1,830	1,920
4	1,900	1,830	1,780	1,860	1,800	1,740	1,690	1,800	1,680	*1,680	1,840	1,810
5	1,900	1,860	1,740	1,880	1,780	1,790	1,670	1,550	1,610	1,810	1,830	1,840
6	1,920	1,840	1,920	1,710	1,750	1,790	1,730	1,700	1,630	1,740	1,800	1,840
7	2,100	1,860	1,860	1,790	1,790	1,760	1,840	1,690	1,830	1,490	1,760	1,860
8	1,940	1,900	2,050	1,810	1,800	1,790	1,610	*1,600	1,820	1,560	1,840	1,840
9	*1,990	1,890	1,920	1,740	1,790	1,840	1,660	1,580	1,660	1,730	1,870	1,870
10	1,840	1,920	1,680	1,800	1,790	1,760	1,540	1,670	1,580	1,740	1,860	*1,840
11	1,890	1,870	1,780	1,700	1,780	1,730	1,620	1,880	1,580	1,670	1,960	1,870
12	1,890	1,950	1,860	1,740	1,740	1,730	1,680	1,810	1,610	1,690	1,890	1,870
13	1,920	2,050	1,830	1,780	1,780	1,730	1,860	1,840	1,610	1,700	1,800	1,880
14	1,950	1,950	*1,750	1,700	1,790	1,730	1,680	2,290	1,610	1,680	1,820	1,900
15	1,920	1,940	1,750	1,730	1,760	1,750	1,580	2,670	1,530	1,780	1,860	1,740
16	1,930	1,950	1,870	1,760	1,760	1,900	1,600	2,910	1,610	1,730	1,840	1,840
17	1,950	2,020	1,820	1,800	1,750	1,810	1,720	2,180	1,590	1,670	1,820	1,860
18	1,940	1,950	1,790	1,780	1,760	1,670	1,800	1,960	1,560	1,610	1,800	1,820
19	1,930	1,880	1,810	1,740	1,790	1,660	1,920	1,730	1,680	1,700	1,810	1,830
20	1,940	1,860	1,840	1,750	*1,790	1,710	2,330	2,040	1,700	1,720	1,840	1,830
21	1,920	1,930	1,780	1,880	1,740	1,700	3,390	3,860	1,550	1,690	1,800	1,840
22	1,940	2,840	1,750	1,840	1,740	1,750	3,800	3,370	1,570	2,150	1,790	1,860
23	1,950	2,520	1,740	2,090	1,780	1,840	2,490	2,700	1,590	2,540	1,820	2,290
24	2,070	2,060	1,750	2,480	1,790	1,820	2,090	2,100	1,920	1,810	1,870	2,060
25	1,980	1,980	1,790	2,290	1,840	1,710	1,880	1,840	1,620	1,930	1,860	1,870
26	1,950	1,930	1,740	2,150	2,100	1,730	2,180	1,690	1,660	1,750	1,880	1,820
27	1,960	1,920	1,750	1,960	2,200	1,810	2,260	1,720	1,670	1,750	1,840	1,800
28	1,940	1,820	1,820	1,880	2,040	1,790	2,260	1,840	1,550	1,740	1,830	1,870
29	1,930	1,820	1,780	1,830	-	1,740	1,940	1,690	1,610	1,880	1,860	1,840
30	1,940	1,900	1,630	1,750	--------	1,730	2,310	1,600	1,630	2,010	1,860	1,830
31	1,950	--------	1,750	1,730	--------	1,660	--------	1,600	--------	1,760	1,820	--------
Total	60,350	59,390	55,600	57,430	50,740	54,780	59,810	63,560	49,320	54,530	56,950	56,000
Mean	1,947	1,980	1,794	1,853	1,812	1,767	1,994	2,050	1,644	1,759	1,837	1,867
(†)	-965	-677	-637	-857	-946	-446	+3,640	+2,287	-302	+250	-1,184	-1,390

Adjusted for change in reservoir contents

Mean	982	1,303	1,157	996	866	1,321	5,634	4,337	1,342	2,009	653	477
Cfsm	0.720	0.956	0.849	0.731	0.635	0.969	4.13	3.18	0.985	1.47	0.479	0.350
In.	0.83	1.07	0.98	0.84	0.66	1.12	4.61	3.67	1.10	1.70	0.55	0.39

	Observed						Adjusted					
Calendar year 1956:	Max	7,800	Min	1,520	Mean	2,232	Mean	2,334	Cfsm	1.71	In.	23.32
Water year 1956-57:	Max	3,860	Min	1,490	Mean	1,859	Mean	1,759	Cfsm	1.29	In.	17.52

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Kennebago, Rangeley, Mooselookmeguntic, Richardson, Umbagog, and Aziscohos Lakes.

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Androscoggin River at Rumford, Maine

Location.--Lat 44°32'45", long 70°32'35", on left bank at upper powerplant of Rumford Falls Power Co., 0.8 mile upstream from Swift River at Rumford, Oxford County.

Drainage area.--2,067 sq mi.

Records available.--May 1892 to September 1957 (October 1903 to September 1904 monthly discharge only, published in WSP 1301).

Gages.--Gages in pond above dam and in tailrace at upper plant. Prior to Aug. 1, 1937, gages in pond and tailrace of middle plant.

Average discharge.--65 years, 3,654 cfs (adjusted).

Extremes.--Maximum daily discharge during year, 13,100 cfs Apr. 21; minimum daily, 1,370 cfs Dec. 31.
1892-1957: Maximum discharge, 74,000 cfs Mar. 20, 1936; minimum daily, 625 cfs Mar. 27, 1911.

Remarks.--Discharge computed from flow over upper dam and through wheels. Flow regulated by Kennebago, Rangeley, Mooselookmeguntic, Richardson, Umbagog, and Aziscohos Lakes (see p. 64).

Cooperation.--Records furnished by Rumford Falls Power Co.

Revisions.--WSP 1001: Drainage area.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,470	2,440	2,170	1,870	2,210	3,040	2,520	4,410	2,030	2,380	2,070	1,750
2	2,350	2,630	2,010	2,110	2,270	2,810	3,460	3,640	2,310	1,970	2,160	2,010
3	2,310	2,440	2,060	2,010	2,120	2,300	4,350	3,070	2,570	1,960	2,010	2,210
4	2,070	2,360	2,070	2,180	2,190	2,270	3,090	2,760	2,300	2,330	1,950	1,860
5	2,020	2,210	2,040	2,270	2,170	2,120	2,790	2,540	2,250	2,920	2,150	1,860
6	2,020	2,120	2,180	2,160	2,130	2,170	2,780	2,310	2,040	2,530	1,910	1,830
7	3,020	2,220	2,620	2,030	2,170	2,180	3,580	2,460	2,110	2,130	1,860	1,830
8	3,740	2,140	3,690	2,130	2,140	2,170	2,990	2,400	2,530	1,780	1,880	1,890
9	2,970	2,200	3,380	2,160	2,160	2,460	2,660	2,290	2,100	2,050	1,900	1,840
10	2,560	2,120	2,540	2,060	2,110	2,470	2,470	2,330	2,000	2,250	2,220	1,830
11	2,310	2,180	2,450	2,100	2,090	2,280	2,510	2,610	1,870	2,120	2,300	1,840
12	2,290	2,100	2,680	1,940	2,090	2,290	2,710	2,810	1,920	1,910	2,250	1,790
13	2,280	2,370	3,010	2,030	2,080	2,220	3,960	2,570	1,970	1,840	2,040	1,830
14	2,250	2,370	2,520	2,000	2,040	2,370	3,520	3,830	1,780	1,850	1,860	1,970
15	2,310	2,210	2,290	1,860	1,960	2,450	2,740	4,540	1,700	1,870	1,920	1,750
16	2,230	2,270	2,540	1,890	1,920	2,770	2,640	6,150	1,760	1,890	1,890	1,840
17	2,210	2,360	3,450	1,980	2,000	2,890	3,000	4,180	1,700	1,970	2,060	1,910
18	2,290	2,390	2,980	2,000	1,990	2,620	3,570	3,180	1,670	1,700	1,790	1,810
19	2,160	2,310	2,110	1,960	2,030	2,280	4,630	2,750	1,790	1,700	1,850	1,820
20	2,090	2,040	2,410	2,000	2,100	2,490	6,850	3,410	2,240	1,770	1,850	1,780
21	2,150	2,410	2,570	2,030	1,860	2,420	13,100	6,490	1,930	1,750	1,870	1,840
22	2,160	6,390	2,500	2,260	2,060	2,530	11,200	5,970	1,620	2,620	1,820	1,840
23	2,400	5,950	2,240	3,670	2,040	3,130	7,990	4,790	1,680	3,720	1,810	2,410
24	3,960	3,380	2,300	5,160	1,980	2,880	6,520	3,820	1,970	2,680	1,930	2,450
25	3,080	2,580	3,010	3,960	2,010	2,860	5,390	3,120	2,220	2,260	1,910	2,060
26	2,620	2,250	2,510	3,390	2,170	2,880	4,880	2,870	2,050	2,560	1,880	1,800
27	2,470	2,650	1,720	2,840	3,470	2,850	5,490	2,680	2,260	1,950	1,960	1,840
28	2,410	2,690	2,000	2,710	3,780	2,800	5,510	2,820	1,980	2,040	1,840	1,750
29	2,330	2,430	2,290	2,460	-	2,780	4,470	2,610	2,060	2,340	1,830	1,910
30	2,300	2,330	1,600	2,330	--------	2,750	4,600	2,330	2,540	2,840	1,850	1,750
31	2,240	--------	1,370	2,210	--------	2,560	--------	2,230	--------	2,540	1,970	--------
Total	76,070	78,540	75,310	73,760	61,340	79,090	135,970	103,970	60,950	68,220	60,590	56,900
Mean	2,454	2,618	2,429	2,379	2,191	2,551	4,532	3,354	2,032	2,201	1,955	1,897
(†)	-965	-677	-637	-857	-946	-446	+3,640	+2,287	-302	+250	-1,184	-1,390

Adjusted for change in reservoir contents

Mean	1,489	1,941	1,792	1,522	1,245	2,105	8,172	5,641	1,730	2,451	771	507
Cfsm	0.720	0.939	0.867	0.736	0.602	1.02	3.95	2.73	0.837	1.19	0.373	0.245
In.	0.83	1.05	1.00	0.85	0.63	1.18	4.41	3.15	0.93	1.37	0.43	0.27

	Observed			Adjusted		
Calendar year 1956:	Max 15,400	Min 1,370	Mean 3,297	Mean 3,399	Cfsm 1.64	In. 22.37
Water year 1956-57:	Max 13,100	Min 1,370	Mean 2,550	Mean 2,450	Cfsm 1.19	In. 16.10

† Change in contents, equivalent in cubic feet per second, in Kennebago, Rangeley, Mooselookmeguntic, Richardson, Umbagog, and Aziscohos Lakes.

Swift River near Roxbury, Maine

Location.--Lat 44°38'30", long 70°35'15", on left bank 2½ miles downstream from Roxbury, Oxford County, and 6 miles upstream from mouth.

Drainage area.--95.8 sq mi.

Records available.--June 1929 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 615.67 ft above mean sea level, datum of 1929.

Average discharge.--28 years, 194 cfs.

Extremes.--Maximum discharge during year, 3,030 cfs Apr. 21 (gage height, 6.12 ft); maximum gage height, 6.60 ft Jan. 23 (backwater from ice); minimum discharge, 10 cfs Sept. 20 (gage height, 1.01 ft).

1929-57: Maximum discharge, 14,500 cfs June 15, 1942 (gage height, 12.42 ft), from rating curve extended above 7,000 cfs; maximum gage height, 12.58 ft Sept. 17, 1932; minimum discharge, 3.8 cfs Sept. 16, 17, 1948 (gage height, 0.93 ft).

Remarks.--Records excellent except those for period of ice effect, which are fair.

Revisions (water years).--WSP 801: 1934(m). WSP 1031: Drainage area. WSP 1301: 1937-38(M), 1942(M).

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.0	9.8	3.0	437
1.2	19	3.5	680
1.4	33	4.0	1,010
1.7	69	5.0	1,810
2.0	124	5.2	2,010
2.5	255		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	95	86	61	176	255	126	338	100	55	91	12
2	*42	110	90	59	156	168	210	258	145	69	55	11
3	48	88	93	58	142	124	250	208	188	*65	43	16
4	43	81	97	56	132	104	168	183	126	100	43	24
5	41	71	93	54	124	93	150	170	102	166	32	20
6	36	68	90	53	104	86	160	156	88	161	24	18
7	350	66	91	50	93	78	182	147	166	76	21	14
8	323	63	130	49	90	72	146	150	143	54	19	14
9	163	59	120	48	84	91	138	150	100	44	18	13
10	110	58	102	45	81	124	132	*168	81	97	30	12
11	90	53	93	44	78	104	134	387	69	68	114	11
12	83	58	104	43	74	84	166	223	68	45	252	12
13	74	74	100	41	71	78	210	202	65	35	86	12
14	69	69	81	40	69	91	168	272	55	29	53	12
15	68	66	76	39	68	104	150	700	53	25	39	11
16	62	74	90	38	66	114	168	541	43	24	31	11
17	58	95	104	36	63	116	242	323	36	23	26	14
18	55	86	93	*35	58	*97	281	242	33	20	23	14
19	53	66	*97	35	*55	99	500	193	51	18	20	11
20	50	69	91	35	53	100	740	440	72	16	18	11
21	50	86	86	35	49	104	2,010	664	47	14	16	11
22	49	845	79	36	45	116	1,190	390	34	108	14	13
23	108	316	76	255	43	120	933	285	30	108	13	138
24	312	170	72	565	42	120	898	245	42	56	13	69
25	154	124	69	435	41	122	686	186	42	49	13	32
26	108	112	69	360	45	124	531	163	114	37	14	23
27	97	100	68	300	104	130	546	159	99	29	18	18
28	86	93	68	260	355	132	575	170	76	29	*16	16
29	79	90	66	225	-	130	458	145	81	82	14	14
30	72	88	65	205	-------	128	498	120	88	262	13	14
31	69	-------	63	192	-------	124	-------	110	-------	110	13	-------
Total	3,047	3,493	2,702	3,787	2,561	3,532	12,746	8,088	2,437	2,074	1,195	621
Mean	98.3	116	87.2	122	91.5	114	425	261	81.2	66.9	38.5	20.7
Cfsm	1.03	1.21	0.910	1.27	0.955	1.19	4.44	2.72	0.848	0.698	0.402	0.216
In.	1.19	1.35	1.05	1.46	0.99	1.37	4.95	3.14	0.95	0.80	0.46	0.24

Calendar year 1956: Max 1,930 Min 11 Mean 180 Cfsm 1.88 In. 25.51
Water year 1956-57: Max 2,010 Min 11 Mean 127 Cfsm 1.33 In. 17.95

Peak discharge (base, 2,400 cfs).--Apr. 21 (5 p.m.) 3,030 cfs (6.12 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 25 to Apr. 14 (no gage-height record Jan. 14-18, Jan. 25 to Feb. 1).

Nezinscot River at Turner Center, Maine

Location.--Lat 44°16'10", long 70°13'50", on left bank 500 ft upstream from upper highway bridge at Turner Center, Androscoggin County, and 3 miles upstream from mouth.

Drainage area.--171 sq mi.

Records available.--August 1941 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 270 ft (from topographic map).

Average discharge.--16 years, 296 cfs.

Extremes.--Maximum discharge during year, 668 cfs Nov. 23 (gage height, 3.08 ft); minimum, 16 cfs Sept. 29, 30 (gage height, 0.96 ft).
1941-57: Maximum discharge, 13,900 cfs Mar. 27, 1953 (gage height, 11.18 ft); minimum, 5.6 cfs Aug. 29, 1956 (gage height, 0.72 ft).

Remarks.--Records excellent except those for periods of ice effect, which are fair.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	13	2.0	195
1.1	26	2.5	375
1.3	47	3.0	620
1.6	98		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	136	183	196	174	215	335	367	222	138	108	168	18
2	*125	278	177	170	205	290	447	201	129	91	118	18
3	122	250	162	168	200	270	592	174	148	*75	91	20
4	112	210	150	168	186	255	495	162	142	70	75	21
5	108	186	152	166	170	240	411	150	122	71	65	20
6	98	160	158	166	162	230	420	142	110	84	53	20
7	131	150	183	166	156	220	525	136	120	78	46	20
8	281	140	232	162	152	220	545	125	125	80	41	25
9	281	140	240	162	150	315	500	*118	110	82	37	28
10	210	131	230	162	142	585	442	116	98	112	42	26
11	162	120	225	160	140	530	447	127	89	112	53	25
12	140	122	288	160	130	420	438	129	84	87	63	25
13	127	174	367	160	114	367	545	133	84	70	52	24
14	122	189	345	158	108	367	535	180	78	58	42	24
15	116	171	290	140	106	411	442	246	73	49	39	22
16	110	155	274	144	104	434	384	402	80	42	37	23
17	106	148	305	160	102	480	384	359	87	39	33	25
18	100	148	290	170	104	480	398	260	82	33	30	23
19	94	142	*260	152	*104	438	406	201	78	31	29	22
20	89	136	225	150	106	402	420	250	89	30	36	22
21	87	148	216	152	104	371	442	590	142	27	40	22
22	84	470	198	166	102	442	442	545	98	55	40	21
23	118	638	200	260	102	555	375	388	73	122	39	24
24	390	460	198	540	102	598	315	292	58	108	36	25
25	393	295	196	*455	100	530	274	232	61	93	35	22
26	284	264	192	380	114	490	264	186	96	78	36	21
27	225	250	190	335	196	490	260	165	125	66	30	19
28	195	253	186	305	365	475	242	239	136	57	*24	18
29	171	222	182	280	-	452	225	256	129	55	21	16
30	155	210	180	255	-------	420	225	204	122	140	20	16
31	142	-------	178	230	-------	384	-------	162	-------	207	20	-------
Total	5,014	6,543	6,865	6,576	4,041	12,496	12,207	7,092	3,106	2,410	1,491	655
Mean	162	218	221	212	144	403	407	229	104	77.7	48.1	21.8
Cfsm	0.947	1.27	1.29	1.24	0.842	2.36	2.38	1.34	0.608	0.454	0.281	0.127
In.	1.09	1.42	1.49	1.43	0.88	2.72	2.66	1.54	0.68	0.52	0.32	0.14

Calendar year 1956: Max 2,390 Min 5.8 Mean 294 Cfsm 1.72 In. 23.41
Water year 1956-57: Max 598 Min 16 Mean 188 Cfsm 1.10 In. 14.89

Peak discharge (base, 1,700 cfs).--No peak above base..

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 20, Dec. 1, 4, 5, 9-11, 14, 15, 17-20, Dec. 23 to Mar. 12.

Little Androscoggin River near South Paris, Maine

Location.--Lat 44°17'05", long 70°32'10", on right bank just upstream from Biscoe Falls, 4½ miles upstream from South Paris, Oxford County.

Drainage area.--76.2 sq mi.

Records available.--September 1913 to April 1924, October 1931 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 394.48 ft above mean sea level, datum of 1929. Prior to Apr. 30, 1924, chain gage at same site and datum.

Average discharge.--36 years (1913-23, 1931-57), 137 cfs.

Extremes.--Maximum discharge during year, 436 cfs Nov. 22 (gage height, 4.55 ft); minimum, 4.2 cfs Sept. 30 (gage height, 1.52 ft).

1913-24, 1931-57: Maximum discharge, 8,000 cfs Mar. 27, 1953 (gage height, 12.41 ft), from rating curve extended above 2,800 cfs, verified by computation of flow over dam at South Paris; minimum, 1 cfs Aug. 16, 1914, Feb. 22 to Mar. 5, 1920.

Remarks.--Records excellent except those for period of no gage-height record, which are good. Occasional slight diurnal fluctuation at low and medium flow by saw and grist mills above station.

Revisions (water years).--WSP 726: Drainage area. WSP 1301: 1915-23(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.5	3.8	3.0	98
1.6	5.8	3.5	180
1.8	11	4.0	285
2.0	18	4.3	362
2.5	49		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	85	83	63	80	174	163	111	62	45	63	6.0
2	*86	109	78	60	74	143	216	93	59	37	43	5.6
3	82	86	73	59	69	115	259	83	71	30	32	6.0
4	70	75	69	58	70	92	196	78	63	30	27	6.9
5	64	68	64	56	67	76	172	72	52	40	24	7.1
6	48	64	61	51	64	71	176	70	47	50	20	6.5
7	205	60	58	53	63	66	235	63	46	36	18	5.8
8	302	57	74	57	62	65	220	59	55	29	16	6.2
9	180	57	116	55	58	114	204	55	45	30	15	7.1
10	121	52	105	53	63	196	172	*51	37	64	16	6.5
11	93	47	89	51	61	161	188	67	33	47	44	6.2
12	75	50	121	51	55	137	198	64	29	33	35	6.5
13	70	70	161	51	51	116	338	67	29	25	25	6.7
14	66	69	145	44	51	135	272	126	27	20	19	6.7
15	64	83	115	40	51	176	212	178	24	18	17	6.2
16	60	58	126	39	49	180	194	259	20	17	16	6.5
17	57	61	159	46	51	196	224	169	18	15	14	8.6
18	56	59	132	46	50	182	256	122	16	14	14	7.3
19	50	57	108	47	49	157	281	95	17	13	12	6.7
20	47	53	101	47	47	157	299	160	65	12	11	6.2
21	45	58	94	46	45	150	325	163	40	11	10	6.0
22	47	335	84	49	44	198	287	256	27	27	10	5.8
23	67	281	76	210	43	252	220	170	18	60	9.4	6.5
24	237	176	77	307	43	259	184	129	16	35	8.3	7.3
25	163	124	80	245	43	220	156	95	23	25	7.8	7.6
26	118	104	78	192	49	210	154	76	58	22	7.8	7.1
27	93	109	68	157	130	220	148	74	55	19	8.0	5.8
28	82	102	71	132	194	210	132	147	51	18	*7.3	5.2
29	73	88	70	109	-	202	121	114	56	25	7.1	5.0
30	66	84	61	94	--------	188	126	84	63	235	6.9	4.4
31	63	--------	65	84	--------	163	--------	71	--------	112	6.5	--------
Total	2,930	2,781	2,862	2,652	1,776	4,981	6,328	3,421	1,222	1,194	575.1	192.0
Mean	94.5	92.7	92.3	85.5	63.4	161	211	110	40.7	38.5	18.6	6.44
Cfsm	1.24	1.22	1.21	1.12	0.832	2.11	2.77	1.44	0.534	0.505	0.244	0.084
In.	1.43	1.36	1.40	1.29	0.90	2.43	3.09	1.66	0.60	0.58	0.28	0.09

Calendar year 1956: Max 1,100 Min 7.1 Mean 134 Cfsm 1.76 In. 23.90
Water year 1956-57: Max 338 Min 4.4 Mean 84.7 Cfsm 1.11 In. 15.11

Peak discharge (base, 1,000 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--No gage-height record Dec. 1-9; discharge estimated on basis of recorded range in stage and weather records.

Little Androscoggin River near Auburn, Maine

Location.--Lat 44°03'50", long 70°16'25", on right bank just upstream from highway bridge, at Littlefields, 3 miles southwest of Auburn, Androscoggin County, and 3.6 miles upstream from mouth.

Drainage area.--328 sq mi.

Records available.--October 1940 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 215 ft (from topographic map).

Average discharge.--17 years, 549 cfs (adjusted).

Extremes.--Maximum discharge during year, 1,000 cfs Mar. 24 (gage height, 3.80 ft); minimum, 44 cfs Sept. 30 (gage height, 1.33 ft).
1940-57: Maximum discharge, 16,500 cfs Mar. 28, 1953 (gage height, 14.76 ft); minimum, 14 cfs Oct. 14, 22, 1949; minimum gage height, 1.07 ft Sept. 8, 1941.
Maximum discharge known, 16,800 cfs Mar. 20, 1936, at mouth of river.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow regulated by Pennesseewassee and Thompson Lakes (see p. 64) and several powerplants above station.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.3	39	2.5	356
1.5	71	3.0	565
2.0	190	3.8	1,000

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*338	330	352	225	455	530	635	529	375	210	232	59
2	360	345	340	270	442	525	695	485	356	114	213	64
3	349	356	325	265	422	515	782	451	349	97	202	77
4	326	352	335	265	406	465	732	422	352	101	187	79
5	308	341	355	265	394	450	685	402	338	114	179	79
6	288	326	383	260	386	435	792	394	326	114	162	77
7	323	312	406	260	383	425	832	386	326	101	144	77
8	360	302	463	260	367	415	832	379	308	99	131	79
9	406	316	468	260	364	590	832	*383	291	126	136	79
10	390	323	447	255	352	700	809	360	271	*179	139	79
11	375	316	430	250	325	625	838	360	254	196	159	82
12	356	323	552	245	305	685	844	356	245	199	152	90
13	338	383	635	245	310	665	922	364	232	179	149	79
14	319	375	630	240	310	680	922	386	222	159	141	79
15	305	367	583	240	305	743	809	426	225	182	131	77
16	288	349	552	245	300	826	726	463	213	216	126	77
17	274	330	524	245	285	862	685	498	199	210	122	77
18	261	316	530	240	*280	862	685	485	190	225	114	77
19	245	305	535	245	275	798	680	422	187	210	134	75
20	238	294	451	240	270	760	695	490	207	199	108	75
21	229	274	447	240	270	754	721	832	213	182	103	77
22	216	379	426	240	280	820	710	910	216	184	97	77
23	275	556	402	500	275	916	675	787	207	182	80	73
24	438	552	375	580	270	988	640	645	196	199	71	69
25	438	498	268	*685	270	946	588	552	213	204	64	64
26	422	447	*341	650	275	916	578	434	284	193	61	59
27	398	447	395	600	455	850	574	402	274	176	*57	54
28	375	434	380	565	450	776	538	426	330	170	52	51
29	352	410	360	530	-	726	502	463	298	184	56	48
30	330	375	325	511	--------	710	556	447	274	213	59	45
31	312	--------	290	480	--------	685	--------	394	--------	248	61	--------
Total	10,232	11,033	13,305	10,601	9,481	21,643	21,514	14,733	7,971	5,365	3,822	2,154
Mean	330	368	429	342	339	698	717	475	266	173	123	71.8
(†)	-60.5	-18.5	-15.7	-16.4	+6.2	+137	+66.7	-3.4	-30.9	-44.4	-72.1	-59.4
Adjusted for change in reservoir contents												
Mean	270	350	413	326	345	835	784	472	235	129	50.9	12.4
Cfsm	0.823	1.07	1.26	0.994	1.05	2.55	2.39	1.44	0.716	0.393	0.155	0.038
In.	0.95	1.19	1.45	1.15	1.09	2.94	2.67	1.66	0.80	0.45	0.18	0.04

	Observed			Adjusted		
Calendar year 1956:	Max 3,410	Min 52	Mean 574	Mean 570	Cfsm 1.74	In. 23.59
Water year 1956-57:	Max 988	Min 45	Mean 361	Mean 352	Cfsm 1.07	In. 14.57

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Pennesseewassee and Thompson Lakes.
Note.--Stage-discharge relation affected by ice Dec. 2-5, 18, 19, 27-31, Jan. 2-24, 27-29, Feb. 11 to Mar. 6, Mar. 9-14.

Androscoggin River near Auburn, Maine

Location.--Lat 44°04'15", long 70°12'35", on right bank 1½ miles downstream from Little Androscoggin River and 2 miles downstream from north bridge between Auburn and Lewiston, Androscoggin County.

Drainage area.--3,257 sq mi.

Records available.--October 1928 to September 1957. October 1928 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 109.18 ft above mean sea level, datum of 1929.

Average discharge.--29 years, 5,927 cfs (adjusted).

Extremes.--Maximum discharge during year, 19,400 cfs Apr. 22 (gage height, 8.09 ft); minimum daily, 420 cfs Sept. 1.

1928-57: Maximum discharge, 135,000 cfs Mar. 20, 1936 (gage height, 27.57 ft); from rating curve extended above 76,000 cfs on basis of slope-area determination of peak flow and computation of flow over dams; minimum, 309 cfs Sept. 28, 1941 (gage height, 0.34 ft); minimum daily, 340 cfs Sept. 28, 1941.

Remarks.--Records good. Considerable fluctuation caused by powerplants above station. Flow regulated by powerplants above station and by Kennebago, Rangeley, Mooselookmeguntic, Richardson, Umbagog, Aziscohos, Auburn, Pennesseewassee, and Thompson Lakes and Gulf Island Pond (see p. 64).

Revisions (water years).--WSP 781: 1930, 1933-34. WSP 1301: 1932-36.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.5	392	3.0	3,240
.7	500	4.0	5,350
1.0	695	6.0	11,100
1.5	1,100	7.7	17,700
2.0	1,650		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,040	4,120	3,810	2,340	4,940	5,260	5,390	7,080	3,620	4,020	3,940	420
2	4,140	4,200	2,890	3,660	2,930	5,220	5,440	6,630	3,650	4,250	3,880	535
3	3,600	2,540	3,930	3,750	1,400	3,160	6,780	6,090	4,210	3,310	2,760	3,180
4	3,840	2,650	4,260	3,840	4,590	4,840	7,560	5,520	4,300	695	1,040	3,030
5	4,060	3,930	3,610	2,570	4,300	4,590	6,980	3,990	4,260	3,620	3,860	3,320
6	2,120	4,220	3,640	1,990	4,460	4,500	6,460	4,960	4,280	2,780	3,740	3,100
7	*755	4,190	4,260	4,310	4,430	4,360	5,660	4,660	4,280	2,770	3,470	1,400
8	4,560	4,200	2,860	4,430	4,410	4,250	6,390	4,500	3,050	3,740	3,340	490
9	5,950	4,170	3,670	4,100	2,320	2,490	6,900	*4,800	1,680	3,570	2,880	2,910
10	4,710	2,300	4,880	3,750	885	3,980	5,810	4,400	4,230	2,750	1,320	2,750
11	4,450	730	4,460	3,700	4,360	5,440	5,780	3,480	4,040	3,330	655	3,000
12	4,290	2,540	4,760	2,250	4,320	5,300	5,760	2,860	3,720	2,780	3,250	2,710
13	3,080	4,120	5,060	740	4,130	5,260	6,120	4,860	3,330	1,900	3,570	3,020
14	1,990	4,250	5,310	3,560	4,160	5,210	7,130	4,610	3,280	1,320	3,680	1,320
15	3,860	4,190	4,160	3,680	3,660	5,440	6,730	6,040	1,780	3,350	3,490	605
16	3,710	4,200	4,210	3,580	1,590	5,750	6,000	8,410	650	2,980	3,300	3,020
17	3,760	2,540	4,660	3,640	830	5,200	5,730	9,000	3,300	2,970	1,280	3,120
18	3,970	2,050	5,420	3,750	3,920	5,670	6,030	6,780	3,200	3,440	610	3,070
19	4,040	4,170	4,620	1,410	4,110	5,960	6,850	5,380	3,100	3,270	3,060	2,650
20	2,190	4,160	4,340	820	4,050	5,380	7,940	6,160	3,200	1,180	3,190	2,650
21	610	4,220	4,340	4,140	3,620	5,330	10,800	7,700	3,190	585	2,740	970
22	3,210	3,670	3,840	3,580	3,680	5,500	17,400	10,600	2,120	3,040	2,760	495
23	3,820	9,060	3,910	4,480	1,510	6,080	14,600	9,060	675	3,410	2,630	3,020
24	4,970	7,630	3,310	5,640	810	6,880	10,900	7,540	3,260	3,860	1,040	3,330
25	5,520	5,550	3,070	7,300	4,060	6,500	9,560	6,330	3,220	3,900	535	3,480
26	4,880	4,840	4,030	6,250	4,160	6,420	8,360	5,050	3,360	3,880	3,050	3,230
27	4,150	4,460	4,310	5,700	4,630	6,150	7,750	5,060	4,000	2,980	3,200	2,890
28	3,360	4,470	4,250	5,140	4,930	5,760	7,990	4,630	3,760	720	3,220	1,260
29	4,070	4,450	2,670	5,060	-	5,900	7,770	*4,750	1,970	3,840	3,310	470
30	4,140	4,500	2,220	5,040	--------	5,820	7,250	4,470	1,230	3,640	3,100	2,860
31	4,090	--------	2,580	4,980	--------	5,640	--------	4,100	--------	3,890	1,060	--------
Total	115,935	122,320	123,340	119,180	97,195	163,240	229,820	179,500	93,945	91,770	82,960	68,305
Mean	3,740	4,077	3,979	3,845	3,741	5,266	7,661	5,790	3,131	2,960	2,676	2,277
(†)	-1,062	-658	-625	-928	-941	-211	+3,704	+2,279	-346	+175	-1,378	-1,404
Adjusted for change in reservoir contents												
Mean	2,658	3,419	3,354	2,917	2,530	5,055	11,360	8,069	2,785	3,135	1,298	873
Cfsm	0.816	1.05	1.03	0.896	0.777	1.55	3.49	2.48	0.855	0.963	0.399	0.268
In.	0.94	1.17	1.19	1.03	0.81	1.79	3.89	2.86	0.95	1.11	0.46	0.30

	Observed			Adjusted		
Calendar year 1956:	Max 25,600	Min 525	Mean 5,701	Mean 5,806	Cfsm 1.78	In. 24.26
Water year 1956-57:	Max 17,400	Min 420	Mean 4,075	Mean 3,959	Cfsm 1.22	In. 16.50

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Kennebago, Rangeley, Mooselookmeguntic, Richardson, Umbagog, Aziscohos, Auburn, Pennesseewassee, and Thompson Lakes, and Gulf Island Pond.

Reservoirs in Androscoggin River basin

Kennebago Lake on Kennebago River, at Kennebago, used for power, has usable capacity of 721,000,000 cu ft between elevations 1,773.0 and 1,780.5 ft above mean sea level, unadjusted. Gage-height record furnished by Union Water Power Co.

Rangeley Lake on Rangeley Stream, at Oquossoc, used for power and log driving, has usable capacity of 1,339,200,000 cu ft in top 4 ft of lake (top of flashboards). Gage-height furnished by Union Water Power Co.

Mooselookmeguntic Lake at Upper Dam, in Richardson Township, used for power and log driving, has usable capacity of 8,370,000 cu ft between gage heights 8.3 and 20.5 ft. Gage-height record furnished by Union Water Power Co.

Upper and Lower Richardson Lakes on Rapid River, at Middle Dam, used for power and log driving, has usable capacity of 5,691,500,000 cu ft between gage heights 3.0 and 20.5 ft. Gage-height record furnished by Union Water Power Co.

Umbagog Lake on Androscoggin River, at Errol Dam, three-quarters of a mile northeast of Errol, N. H., used for power and log driving, has usable capacity of 3,080,160,000 cu ft between gage heights 5.5 and 15.0 ft. Gage-height record furnished by Union Water Power Co.

Aziscohos Lake on Magalloway River, in Lincoln Township, 3 miles east of village of Wilsons Mills, completed in 1911 for power, has usable capacity of 9,593,000,000 cu ft between elevations 1,490.0 and 1,535.0 ft. Elevation record furnished by Union Water Power Co.

Gulf Island Pond on Androscoggin River, 3 miles upstream from Lewiston, completed in 1928 for power, has capacity of 1,100,000,000 cu ft in top 10 ft of pond below elevation 262 ft. Elevation record furnished by Central Maine Power Co.

Lake Auburn on outlet stream to Androscoggin River, at East Auburn, used for storing water supply of Auburn and Lewiston, has usable capacity of 580,000,000 cu ft between elevations 254.7 and 260.7 ft. Elevation record furnished by Auburn Water District.

Pennesseewassee Lake on short outlet stream to Little Androscoggin River, at Norway, used for power, has usable capacity of 192,000,000 cu ft between gage heights 95.0 and 100.0 ft. Gage-height record furnished by Central Maine Power Co.

Thompson Lake on short outlet stream to Little Androscoggin River, at Oxford, used for power, has usable capacity of 950,000,000 cu ft between gage heights 95.0 and 100.0 ft. Gage-height record furnished by Robinson Manufacturing Co.

Month-end contents, in millions of cubic feet, water year October 1956 to September 1957

Date	Kennebago Lake*†	Rangeley Lake†	Mooselookmeguntic Lake†	Upper and Lower Richardson Lakes†	Umbagog Lake†
Sept.30, 1956	480	991	4,402	3,806	1,958
Oct. 31	-	392	3,314	3,566	1,650
Nov. 30	-	167	2,566	2,905	1,794
Dec. 31	-	110	1,499	2,613	1,686
Jan. 31, 1957	-	97	186	1,932	1,830
Feb. 28	-	84	62	882	1,252
Mar. 31	-	57	0	882	850
Apr. 30	-	670	3,110	1,646	3,022
May 31	-	1,018	5,302	3,381	2,924
June 30	-	1,198	5,906	2,357	2,262
July 31	-	1,339	6,580	1,520	2,417
Aug. 31	-	1,031	5,373	2,978	1,977
Sept.30	-	559	3,110	3,751	1,722

Date	Aziscohos Lake†	Gulf Island Pond‡	Lake Auburn†	Pennesseewassee Lake††	Thompson Lake‡‡
Sept.30, 1956	6,590	2,487	364	93	1,647
Oct. 31	6,240	2,348	353	121	1,457
Nov. 30	5,974	2,424	375	102	1,428
Dec. 31	5,793	2,486	386	98	1,390
Jan. 31, 1957	5,361	2,273	452	63	1,381
Feb. 28	4,838	2,269	452	49	1,410
Mar. 31	4,135	2,486	496	85	1,742
Apr. 30	6,912	2,479	496	116	1,884
May 31	8,860	2,489	474	107	1,884
June 30	8,980	2,486	441	93	1,818
July 31	9,516	2,438	408	78	1,714
Aug. 31	6,842	2,190	331	66	1,533
Sept.30	5,456	2,369	270	55	1,390

* No gage-height record available from Sept. 30, 1956, to Sept. 30, 1957; flow records adjusted on basis of no change in contents during the year.
† Contents at 7 a.m. on first day of following month.
‡ Contents at 12 p.m.
†† Contents as of last day of month determined by interpolation.
‡‡ Contents at 8 a.m. on last day of month.

Royal River at Yarmouth, Maine

Location.--Lat 43°47'55", long 70°10'45", on right bank 150 ft upstream from lower highway bridge, in Yarmouth, Cumberland County.

Drainage area.--142 sq mi.

Records available.--October 1949 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 10 ft (from topographic map).

Average discharge.--8 years, 292 cfs.

Extremes.--Maximum discharge during year, 1,120 cfs Mar. 10 (gage height, 2.98 ft); maximum gage height, 3.17 ft Mar. 10 (ice jam); minimum discharge, 27 cfs Aug. 24 (gage height, 0.96 ft).

1949-57: Maximum discharge, 7,960 cfs Sept. 12, 1954 (gage height, 7.12 ft); minimum, 4.4 cfs Oct. 17, 18, 1952 (gage height, 0.71 ft); minimum gage height, 0.64 ft Aug. 23, 24, 1950.

Remarks.--Records excellent except those for periods of ice effect, backwater from debris, and no gage-height record, which are fair. Some diurnal fluctuation at low flow caused by mill above station.

Rating table, water year 1956-57, except periods of ice effect or backwater from debris (gage height, in feet, and discharge, in cubic feet per second)

0.9	21	1.6	196
1.0	31	2.0	385
1.1	47	2.5	705
1.3	92	2.8	950

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	98	170	144	152	440	209	144	78	58	58	30
2	45	134	152	138	148	350	272	124	80	55	49	29
3	47	124	120	130	140	275	448	114	92	53	44	31
4	47	109	112	124	138	220	338	106	95	58	42	36
5	47	100	110	120	134	188	299	100	82	70	39	36
6	45	92	124	118	134	156	705	*95	78	94	34	36
7	78	87	188	114	130	143	812	92	73	74	33	34
8	170	85	349	112	128	141	544	87	75	62	33	36
9	114	85	369	110	120	609	402	82	73	57	31	39
10	85	87	285	102	120	880	369	78	66	*62	36	39
11	70	78	236	92	114	670	486	82	60	66	37	39
12	60	85	765	87	112	465	442	90	58	60	39	39
13	55	163	923	82	110	369	512	87	55	53	36	39
14	53	209	616	78	106	385	448	92	55	49	33	39
15	53	167	385	70	102	461	333	141	55	45	31	36
16	51	138	338	66	92	565	272	167	55	42	33	34
17	*47	120	338	62	87	670	240	130	49	41	37	34
18	53	114	315	58	80	622	231	106	45	39	36	33
19	47	112	285	55	73	467	218	95	55	37	33	31
20	47	100	210	51	70	385	209	124	87	37	31	31
21	47	120	180	49	68	328	205	432	66	36	31	31
22	47	650	159	64	*66	385	188	380	51	37	30	33
23	90	622	138	155	64	461	171	236	47	44	29	37
24	531	338	138	878	64	442	159	159	44	47	29	42
25	364	188	209	684	64	364	148	120	58	47	29	39
26	214	196	*255	512	85	323	152	100	112	45	30	36
27	148	333	250	330	385	299	171	95	240	42	*33	31
28	124	391	200	*255	590	280	163	112	190	39	33	30
29	106	304	184	205	-	262	148	109	85	41	31	30
30	98	230	168	180	-------	244	152	90	66	90	31	33
31	90	-------	156	160	-------	222	-------	82	-------	73	30	-------
Total	3,122	5,659	8,427	5,385	3,876	12,076	9,446	4,111	2,325	1,653	1,081	1,043
Mean	101	189	272	174	131	390	315	133	77.5	53.3	34.9	34.8
Cfsm	0.711	1.33	1.92	1.23	0.923	2.75	2.22	0.937	0.546	0.375	0.246	0.245
In.	0.82	1.48	2.21	1.42	0.96	3.17	2.48	1.08	0.61	0.43	0.28	0.27

Calendar year 1956: Max 2,650 Min 31 Mean 260 Cfsm 1.83 In. 24.90
Water year 1956-57: Max 880 Min 29 Mean 159 Cfsm 1.12 In. 15.21

Peak discharge (base, 1,500 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 30 to Dec. 5, Dec. 18, 19, 26, 27, Dec. 30 to Jan. 23, Jan. 27 to Mar. 6, Mar. 10-12, 16, 17. Backwater from debris Oct. 1-23. No gage-height record June 26 to July 10; discharge estimated on basis of weather data and flow of nearby streams.

Presumpscot River at outlet of Sebago Lake, Maine

Location.--Lat 43°49'05", long 70°27'00", at dam of hydroelectric plant at Eel Weir Falls, 1 mile downstream from lake outlet, Cumberland County.

Drainage area.--436 sq mi.

Records available.--January 1887 to September 1957.

Gage.--Float gages in forebay and tailrace of hydroelectric plant at Eel Weir Falls and staff gages at dam on outlet of Sebago Lake.

Average discharge.--70 years, 663 cfs (unadjusted).

Remarks.--Discharge computed from Allen meter records for each of 3 pairs of water wheels and from records of openings of 2 regulating gates at Eel Weir hydroelectric plant. Water wasted at rare intervals through gates in dam on outlet of Sebago Lake; flow computed from records of gate openings. Water diverted by Portland Water District and leakage through dam, totaling about 35 cfs, not included in figures of daily discharge. Flow completely regulated by Crystal, Highland, Long, and Pleasant Lakes, Brandy, Thomas, and Panther Ponds, Sebago Lake (surface area, 45.6 sq mi), and by several smaller ponds, which have a combined usable capacity of 13,535,000,000 cu ft.

Cooperation.--Records furnished by S. D. Warren Co.

Revisions (water years).--WSP 261: Drainage area. WSP 1301: 1920-50 (adjusted monthly runoff in inches).

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	776	770	757	786	654	662	506	502	222	0	324	0
2	767	768	760	741	669	644	505	502	165	0	341	0
3	769	768	759	718	645	639	480	500	340	0	220	420
4	767	766	762	727	670	672	492	329	340	0	110	331
5	769	767	758	732	665	648	474	250	340	0	307	307
6	767	768	754	746	652	659	187	499	341	0	337	334
7	766	768	759	757	673	659	220	482	338	587	336	335
8	769	759	757	757	664	656	477	486	221	398	336	304
9	767	770	752	756	676	520	469	500	166	475	336	320
10	769	769	727	755	663	525	495	501	341	448	220	334
11	768	757	754	756	674	652	479	327	341	443	224	323
12	767	764	648	754	674	645	496	158	341	402	320	329
13	768	765	658	756	675	650	466	334	339	267	309	327
14	766	765	658	677	674	646	490	339	335	202	336	329
15	767	765	757	677	674	645	492	340	189	389	318	333
16	766	763	760	675	672	626	504	342	170	392	314	303
17	767	763	757	676	674	624	503	340	337	402	322	338
18	755	766	758	677	671	649	503	225	376	402	321	341
19	774	760	758	676	673	646	497	169	398	411	303	342
20	774	764	757	675	674	624	408	326	387	277	334	341
21	781	758	757	675	671	668	335	296	386	201	324	341
22	766	717	757	665	670	636	501	338	259	370	325	302
23	772	761	758	543	668	638	484	337	200	337	330	338
24	776	763	496	412	666	622	493	337	382	339	320	339
25	772	761	0	347	671	537	490	222	335	351	319	337
26	775	760	776	598	664	529	511	169	253	350	313	337
27	770	761	737	660	528	483	328	345	342	231	335	338
28	806	762	735	656	637	490	230	340	397	165	320	336
29	772	762	737	657	-	504	471	339	308	334	337	305
30	769	764	552	668	--------	502	498	340	0	324	338	327
31	769	--------	521	680	--------	502	--------	340	--------	328	317	--------
Total	23,886	22,874	21,636	21,035	18,541	18,802	13,484	10,854	8,889	8,825	9,546	9,291
Mean	771	762	698	679	662	607	449	350	296	285	308	310
(†)	-447	-334	-102	-199	-179	+398	+670	+156	+64	-230	-413	-260

Adjusted for change in reservoir contents and diversion

Mean	324	428	596	480	483	1,005	1,119	506	360	55	-105	50
Cfsm	0.743	0.982	1.37	1.10	1.11	2.31	2.57	1.16	0.826	0.126	-0.241	0.115
In.	0.86	1.10	1.58	1.27	1.16	2.66	2.87	1.34	0.92	0.15	-0.28	0.13

	Observed			Adjusted		
Calendar year 1956:	Max 930	Min 0	Mean 649	Mean 729	Cfsm 1.67	In. 22.77
Water year 1956-57:	Max 806	Min 0	Mean 514	Mean 441	Cfsm 1.01	In. 13.76

† Change in contents, equivalent in cubic feet per second, in Sebago and other lakes upstream; diversion by Portland Water District and leakage through dam.

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

Saco River near Conway, N. H.

Location.--Lat 43°59'25", long 71°05'30", on left bank at Odell Falls, 1¾ miles downstream from Swift River and Conway, Carroll County.

Drainage area.--386 sq mi.

Records available.--August 1903 to December 1909, January 1910 to June 1912 (gage heights only), February 1929 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 418.19 ft above mean sea level, datum of 1929. Aug. 26, 1903, to June 30, 1912, chain gage at site three-quarters of a mile downstream at different datum.

Average discharge.--34 years (1903-9, 1929-57), 923 cfs.

Extremes.--Maximum discharge during year, 6,430 cfs Apr. 21 (gage height, 7.20 ft); maximum gage height, 8.96 ft Feb. 27 (ice jam); minimum discharge, 91 cfs Sept. 16 (gage height, 1.99 ft).

1903-9, 1929-57: Maximum discharge, 43,900 cfs Mar. 27, 1953 (gage height, 17.20 ft), from rating curve extended above 11,000 cfs on basis of slope-area determination of peak flow; minimum, 40 cfs Mar. 16, 1932 (gage height, 1.61 ft).

Remarks.--Records excellent except those for periods of ice effect, which are fair.

Revisions (water years).--WSP 756: Drainage area. WSP 1301: 1908-9.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.0	93	3.5	685
2.1	115	4.0	1,050
2.3	165	5.0	2,200
2.5	228	6.0	3,840
3.0	420	6.4	4,620

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	527	532	460	365	555	1,140	603	1,190	521	438	328	97
2	496	841	450	360	535	820	862	986	506	389	262	138
3	481	685	445	350	505	650	1,260	890	558	340	228	195
4	482	597	450	335	490	565	876	820	486	555	205	165
5	429	553	450	330	475	550	827	750	461	800	202	138
6	407	532	445	315	455	555	862	711	425	1,000	189	113
7	1,370	516	460	310	440	525	1,130	*685	466	569	174	111
8	1,580	491	1,050	300	430	515	946	673	506	434	165	111
9	938	476	914	295	415	550	883	661	420	389	162	100
10	750	461	720	290	400	610	778	631	376	558	165	97
11	661	434	625	285	385	555	778	757	352	*443	192	95
12	614	452	750	280	370	525	778	661	332	385	198	95
13	575	476	860	275	360	515	1,040	631	321	344	174	95
14	558	452	820	275	355	550	883	1,100	302	306	152	93
15	527	434	757	270	350	635	778	1,040	309	284	148	93
16	501	448	827	260	340	718	785	1,300	291	259	152	95
17	471	452	1,040	265	330	750	883	883	262	252	142	138
18	461	434	869	265	325	685	978	737	255	235	140	140
19	434	411	730	265	315	*614	1,200	661	248	225	132	115
20	425	380	685	265	310	619	1,850	810	255	208	128	102
21	416	411	665	270	*315	586	4,540	1,790	242	195	125	100
22	407	1,870	635	280	305	631	3,770	1,420	228	208	115	102
23	448	1,240	620	1,340	315	718	2,490	1,070	221	435	115	132
24	1,370	780	615	2,400	305	724	2,600	930	225	302	108	189
25	813	660	610	1,340	310	673	2,210	785	248	291	106	142
26	649	650	555	970	330	673	1,630	704	394	266	115	120
27	586	625	540	750	970	655	1,930	724	407	238	128	108
28	548	570	525	*685	1,780	631	1,920	744	394	221	132	100
29	516	535	490	625	-	667	1,580	685	475	255	113	93
30	496	495	425	590	-------	643	1,540	608	735	608	111	93
31	466	-------	400	570	-------	603	-------	564	-------	411	102	-------
Total	19,372	17,893	19,887	15,775	12,770	19,850	43,190	26,601	11,221	11,843	4,908	3,505
Mean	625	596	642	509	456	640	1,440	858	374	382	158	117
Cfsm	1.62	1.54	1.66	1.32	1.18	1.66	3.73	2.22	0.969	0.990	0.409	0.303
In.	1.87	1.72	1.91	1.52	1.23	1.91	4.16	2.56	1.08	1.14	0.47	0.34

Calendar year 1956: Max 7,620 Min 95 Mean 918 Cfsm 2.38 In. 32.40
Water year 1956-57: Max 4,540 Min 93 Mean 567 Cfsm 1.47 In. 19.91

Peak discharge (base, 8,700 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 24 to Dec. 7, Dec. 10-14, Dec. 20 to Mar. 15.

Ossipee River at Effingham Falls, N. H.

Location.--Lat 43°47'40", long 71°03'40", on left bank 0.3 mile upstream from highway bridge at Effingham Falls, Carroll County, 0.35 mile downstream from outlet of Ossipee Lake, and 4 miles northwest of Effingham.

Drainage area.--330 sq mi.

Records available.--September 1942 to September 1957.

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

Average discharge.--15 years, 726 cfs.

Extremes.--Maximum discharge during year, 1,160 cfs Apr. 10 (gage height, 4.63 ft); minimum, 91 cfs Sept. 17-23; minimum daily, 91 cfs Sept. 19-22.
1942-57: Maximum discharge, 11,700 cfs Mar. 28, 1953 (gage height, 11.64 ft); minimum, 10 cfs Oct. 9, 10, 1944; minimum daily, 11 cfs Oct. 10, 1944.

Remarks.--Records excellent. Flow regulated by Ossipee and Silver Lakes and Pine River Pond (combined capacity, 1,430,000,000 cu ft).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.5	82	3.0	420
2.0	160	4.0	840
2.5	266	5.0	1,380

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	507	479	471	531	535	736	624	424	338	455	151	318
2	503	479	467	527	535	786	646	471	515	434	151	312
3	495	479	463	715	718	790	750	523	515	*359	151	309
4	487	475	459	831	1,020	777	634	519	*482	313	151	306
5	479	475	455	813	985	759	507	413	284	151	151	304
6	475	471	455	795	945	732	555	359	284	295	151	301
7	475	*467	*455	782	920	705	646	359	284	318	151	295
8	483	463	459	764	885	682	882	359	284	402	151	292
9	487	459	475	746	845	674	1,040	352	284	406	151	287
10	487	455	483	732	860	687	1,060	318	284	571	151	282
11	487	448	491	714	*826	696	875	244	284	723	151	279
12	487	444	499	696	777	705	620	244	284	754	151	274
13	483	441	511	674	723	696	531	247	284	459	151	269
14	479	438	519	646	669	692	543	247	284	312	151	261
15	475	438	527	615	624	692	547	424	282	254	151	249
16	475	434	535	599	579	723	555	531	207	252	151	229
17	467	427	543	583	547	768	611	531	158	252	151	188
18	463	424	551	555	507	786	818	523	158	252	189	92
19	459	420	555	527	467	795	855	370	160	231	233	91
20	455	420	559	503	438	790	860	417	160	151	233	91
21	455	416	551	487	410	786	840	563	160	153	233	91
22	455	427	722	471	388	*782	930	821	160	153	298	91
23	455	444	890	503	378	786	1,100	1,030	162	153	355	*92
24	463	455	880	503	362	800	1,080	860	162	151	349	92
25	471	463	875	444	352	804	1,060	620	191	151	346	92
26	475	467	865	271	349	813	774	519	362	151	343	92
27	479	471	732	282	427	808	595	519	362	151	340	92
28	479	471	591	284	583	804	523	591	365	153	333	92
29	479	471	583	421	-	804	424	710	378	153	330	92
30	479	475	535	535	--------	800	424	465	459	151	324	92
31	479	--------	535	535	--------	710	--------	282	--------	151	321	--------
Total	14,777	13,596	17,691	18,084	17,654	23,368	21,909	14,855	8,576	9,015	6,794	5,947
Mean	477	453	571	583	630	754	730	479	286	291	219	198
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956 : Max 3,520 Min 235 Mean 735 Cfsm 2.23 In. 30.34
Water year 1956-57 : Max 1,100 Min 91 Mean 472 Cfsm 1.43 In. 19.41

* Discharge measurement made on this day.

Ossipee River at Cornish, Maine

Location.--Lat 43°48'25", long 70°47'55", on left bank just downstream from highway bridge in Cornish, York County, 1¼ miles upstream from mouth.

Drainage area.--453 sq mi.

Records available.--July 1916 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 276.1 ft above mean sea level, datum of 1929. Prior to Aug. 21, 1929, chain gage and Aug. 21, 1929, to Sept. 30, 1942, water-stage recorder, at same site at datum 1 ft higher.

Average discharge.--41 years, 874 cfs.

Extremes.--Maximum discharge during year, 1,370 cfs Apr. 11 (gage height, 3.92 ft); maximum gage height, 4.21 ft Feb. 5 (backwater from ice); minimum discharge, 48 cfs July 21, Aug. 17 (gage height, 0.77 ft); minimum daily, 110 cfs Sept. 20.

1916-57: Maximum discharge, 17,200 cfs Mar. 21, 1936 (gage height, 16.32 ft, present datum), from rating curve extended above 7,500 cfs; minimum, 25 cfs Oct. 23, 1947 (gage height, 0.60 ft).

Remarks.--Records excellent except those for period of ice effect, which are fair. Flow partly regulated by powerplants at Kezar Falls and by Ossipee and Silver Lakes, Pine River, Bickford and Colcord Ponds (combined capacity, 1,600,000,000 cu ft).

Revisions (water years).--WSP 756: Drainage area. WSP 1301: 1917-29(M).

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	97	2.0	338
1.3	135	3.0	810
1.5	182	3.9	1,360

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	550	532	527	650	690	980	788	532	374	491	190	323
2	536	532	522	645	675	925	909	522	378	504	172	338
3	536	550	532	735	665	885	1,030	588	584	487	168	366
4	515	504	513	955	1,040	855	932	584	579	427	172	334
5	505	513	522	950	1,100	840	738	560	560	440	200	338
6	500	504	522	940	1,060	810	854	*432	407	319	180	346
7	635	500	555	920	1,020	790	968	440	366	304	174	350
8	603	495	603	890	980	780	1,020	432	362	370	178	323
9	550	495	623	880	950	855	1,220	419	362	432	168	*350
10	536	478	603	865	940	986	1,220	415	350	465	162	315
11	522	474	598	845	960	920	1,320	386	354	*603	190	330
12	513	491	711	820	905	882	1,040	315	350	750	198	323
13	504	495	766	805	865	865	848	358	342	608	162	323
14	504	491	728	780	810	892	804	394	338	432	164	304
15	509	465	690	755	750	909	788	427	330	338	164	290
16	500	474	716	730	700	944	766	618	346	275	166	283
17	500	457	733	700	665	1,010	766	608	308	273	152	254
18	491	470	711	680	635	1,000	904	584	225	265	144	210
19	487	470	690	650	600	974	968	584	196	270	235	120
20	474	460	675	625	575	962	962	457	220	230	240	110
21	474	470	665	590	555	950	968	766	230	170	255	124
22	487	684	670	560	535	986	986	821	221	198	240	117
23	522	828	920	810	505	1,010	1,110	962	198	182	362	129
24	613	555	920	1,090	490	1,010	1,110	1,030	194	180	350	135
25	550	541	920	865	485	986	1,090	887	210	188	346	131
26	545	579	920	700	*495	974	1,010	664	225	182	362	129
27	536	569	*920	610	730	974	706	608	450	170	366	129
28	532	564	730	525	1,030	968	684	608	522	188	338	129
29	536	560	700	490	-	962	555	658	491	225	350	127
30	522	550	605	*630	--------	944	532	750	453	220	350	119
31	513	--------	615	710	--------	904	--------	550	--------	196	334	--------
Total	16,300	15,550	21,125	23,400	21,410	28,732	27,596	17,959	10,525	10,382	7,232	7,199
Mean	526	518	681	755	765	927	920	579	351	335	233	240
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 4,420 Min 260 Mean 884 Cfsm 1.95 In. 26.55
Water year 1956-57: Max 1,320 Min 110 Mean 568 Cfsm 1.25 In. 17.01

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 19 to Mar. 9.

Saco River at Cornish, Maine

Location.--Lat 43°48'30", long 70°46'55", on left bank just upstream from highway bridge at Cornish, York County, half a mile downstream from Ossipee River.

Drainage area.--1,298 sq mi.

Records available.--June 1916 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 263.48 ft above mean sea level, datum of 1929. Prior to Oct. 30, 1919, chain gage on bridge just downstream at different datum.

Average discharge.--41 years, 2,691 cfs.

Extremes.--Maximum discharge during year, 4,550 cfs Apr. 24 (gage height, 5.79 ft); maximum gage height, 6.52 ft Jan. 25 (ice jam); minimum discharge, 149 cfs Aug. 10 (gage height, 1.13 ft).

1916-57: Maximum discharge, 45,000 cfs Mar. 21, 22, 1936 (gage height, 21.90 ft, from floodmarks); minimum, 90 cfs Oct. 1, 1921 (gage height, 0.03 ft).

Remarks.--Records excellent except those for period of ice effect, which are fair. Flow partly regulated by powerplants above station and by Ossipee, Silver, Conway, and Kezar Lakes, and Moose, Hancock, Pine River, Bickford and Colcord Ponds (combined capacity, 3,400,000,000 cu ft).

Revisions (water years).--WSP 1301: 1917-18(M), 1936(M).

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.7	303	4.0	1,930
2.1	455	5.0	3,240
2.5	656	5.7	4,390
3.0	973		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,150	1,710	1,850	1,400	2,170	3,690	2,670	3,330	1,860	1,260	813	482
2	1,980	1,690	1,780	1,430	2,100	3,680	2,810	3,150	1,860	1,240	800	535
3	1,890	1,730	1,670	1,660	2,040	3,500	3,050	2,890	1,920	1,180	735	566
4	1,750	1,750	1,510	1,840	2,280	3,300	3,030	2,770	1,830	1,100	673	535
5	1,690	1,750	1,580	1,820	2,290	3,090	2,880	2,620	1,730	1,070	758	545
6	1,570	1,710	1,660	1,800	2,230	2,870	3,030	*2,340	1,500	1,060	712	540
7	1,610	1,720	1,790	1,810	2,170	2,740	3,050	2,070	1,440	1,320	695	550
8	1,840	1,750	1,910	1,790	2,090	2,720	3,270	1,990	1,380	1,430	651	515
9	2,170	1,750	2,050	1,750	2,010	2,780	3,500	1,890	1,340	1,410	592	550
10	2,180	1,710	2,100	1,690	1,980	2,920	3,470	1,850	1,360	1,400	415	530
11	2,170	1,660	2,070	1,670	1,930	2,850	3,550	1,760	1,240	*1,540	571	545
12	2,110	1,710	2,370	1,610	1,890	2,820	3,210	1,620	1,170	1,640	571	540
13	2,010	1,720	2,430	1,550	1,820	2,760	2,960	1,670	1,130	1,470	443	540
14	1,930	1,700	2,420	1,500	1,780	2,800	2,890	1,700	1,060	1,150	478	520
15	1,880	1,640	2,380	1,420	1,750	*2,840	2,870	1,850	913	988	455	510
16	1,800	1,580	2,370	1,390	1,710	2,940	2,810	2,160	913	885	500	496
17	1,720	1,490	2,420	1,380	1,660	3,060	2,760	2,210	878	838	356	468
18	1,680	1,460	2,450	1,350	1,600	3,090	2,680	2,240	747	831	375	414
19	1,590	1,440	2,340	1,290	1,550	3,060	2,890	2,170	753	794	430	345
20	1,520	1,390	2,420	1,250	1,510	2,960	2,960	2,070	800	602	540	334
21	1,470	1,410	2,240	1,240	1,460	2,880	3,100	2,670	788	540	468	342
22	1,460	1,840	2,180	1,250	1,440	2,880	3,420	2,740	747	618	451	310
23	1,500	2,170	2,300	1,930	1,420	2,920	3,940	3,100	655	586	550	349
24	1,690	2,270	2,240	2,600	1,410	2,940	4,300	3,030	685	550	555	342
25	1,840	2,170	2,290	2,980	1,400	2,950	4,340	2,870	590	613	510	338
26	1,970	2,180	2,190	2,950	*1,440	2,950	4,320	2,520	940	607	571	334
27	1,980	2,160	*1,990	2,740	1,590	2,950	4,020	2,410	1,110	602	571	338
28	1,910	2,130	1,550	2,420	2,110	2,940	3,870	2,420	1,110	581	540	334
29	1,850	2,070	1,470	2,280	-	2,890	3,610	2,510	1,090	724	545	303
30	1,800	2,000	1,440	*2,300	--------	2,850	3,500	2,360	1,050	782	540	328
31	1,720	--------	1,410	2,270	--------	2,800	--------	2,090	--------	747	525	--------
Total	56,430	53,460	62,870	56,360	50,830	92,420	98,760	73,070	34,589	30,158	17,389	13,378
Mean	1,820	1,782	2,028	1,818	1,815	2,981	3,292	2,357	1,153	973	561	446
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 11,500 Min 491 Mean 2,757 Cfsm 2.12 In. 28.89
Water year 1956-57: Max 4,340 Min 303 Mean 1,753 Cfsm 1.35 In. 18.32

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 25 to Mar. 7.

Little Ossipee River near South Limington, Maine

Location.--Lat 43°41'15", long 70°40'05", on right bank just upstream from highway bridge, 2 miles southeast of South Limington, York County, and 4 miles upstream from mouth.

Drainage area.--161 sq mi.

Records available.--August 1940 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 260 ft (from topographic map).

Average discharge.--17 years, 292 cfs.

Extremes.--Maximum discharge during year, 628 cfs Mar. 1 (gage height, 3.20 ft); minimum daily, 52 cfs Aug. 31 to Sept. 6.

1940-57: Maximum discharge, 5,300 cfs May 10, 1954 (gage height, 6.78 ft); minimum, 4.7 cfs Nov. 7, 1953 (gage height, 1.23 ft).

Maximum discharge known, 8,530 cfs Mar. 19, 1936, at "Ledgemere" dam 4 miles upstream.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow regulated by Little Ossipee Lake, Ledgmere and Balch Ponds (combined capacity, 581,000,000 cu ft).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.7	42	2.5	269
1.8	58	3.0	509
2.0	104	3.2	628

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	199	195	310	220	337	604	290	110	118	126	58	52
2	199	192	298	225	328	482	310	110	121	118	56	52
3	195	192	290	230	325	400	384	110	118	118	56	52
4	195	192	220	225	319	335	379	110	89	118	56	52
5	195	188	170	224	319	305	355	110	68	121	58	52
6	195	188	162	224	320	295	455	110	68	118	56	52
7	195	188	162	224	320	290	555	112	68	118	56	53
8	*195	188	169	224	314	285	498	115	66	115	56	55
9	195	188	175	220	315	302	450	115	66	79	56	53
10	195	188	175	213	314	460	419	112	66	62	56	53
11	195	185	175	215	315	471	424	112	66	62	56	53
12	192	182	185	213	315	429	424	112	66	*62	56	53
13	192	182	192	209	315	384	413	126	68	64	56	53
14	192	182	199	215	310	393	369	126	71	66	56	53
15	192	178	200	224	310	450	265	285	86	66	56	53
16	192	178	202	227	305	493	129	319	86	64	56	53
17	188	175	202	239	302	544	129	215	79	62	56	55
18	188	175	202	239	298	544	126	159	71	62	55	55
19	185	172	200	239	294	504	126	156	99	62	55	55
20	185	169	202	239	295	429	124	215	92	62	55	55
21	185	169	202	239	295	384	121	365	89	62	55	55
22	185	185	202	246	290	389	115	389	84	60	55	56
23	192	185	205	290	285	419	115	365	77	60	55	58
24	199	185	206	290	275	419	115	270	73	60	55	58
25	199	185	206	300	273	389	115	206	138	60	55	56
26	199	185	209	325	269	369	112	202	220	60	55	58
27	195	188	209	395	302	384	112	202	199	58	55	58
28	195	220	209	385	520	324	112	156	175	58	53	58
29	195	319	209	*375	-	314	112	121	144	60	53	58
30	195	314	215	380	--------	306	112	118	138	60	53	58
31	195	--------	215	355	--------	298	--------	118	--------	60	52	--------
Total	5,993	5,812	6,377	8,068	8,779	12,394	7,765	5,451	2,969	2,383	1,717	1,637
Mean	193	194	206	260	314	400	259	176	99.0	76.9	55.4	54.6
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 2,240 Min 28 Mean 313 Cfsm - In. -
Water year 1956-57: Max 604 Min 52 Mean 190 Cfsm - In. -

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 5, 15, 19, 23, Dec. 30 to Jan. 4, Jan. 11, 14, 24-31, Feb. 3, 6, 7, 9, 11-13, 16, 20-22, 24, 28, Mar. 3-7.

Mousam River near West Kennebunk, Maine

Location.--Lat 43°25'05", long 70°39'35", on right bank 100 ft upstream from highway bridge, 1½ miles downstream from Middle Branch, and 4 miles west of West Kennebunk, York County.

Drainage area.--105 sq mi.

Records available.--October 1939 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 170 ft (from topographic map).

Average discharge.--18 years, 180 cfs (unadjusted).

Extremes.--Maximum discharge during year, 1,000 cfs Dec. 1 (gage height, 3.19 ft); minimum, 9.5 cfs Sept. 29, 30 (gage height, 0.47 ft).
1939-57: Maximum discharge, 2,830 cfs Sept. 12, 1954 (gage height, 5.69 ft); minimum, 1.1 cfs Aug. 22, 1941; minimum gage height, 0.29 ft Nov. 15, 16, 1947.

Remarks.--Records good. Flow regulated by Square Pond and Mousam and Estes Lakes (combined capacity, about 700,000,000 cu ft) and powerplants above station.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.4	6.1	0.8	40
.5	11	1.0	73
.6	18	1.5	216
.7	28	2.1	454

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	200	210	174	202	362	212	116	79	66	34	12
2	59	192	365	171	171	294	267	106	90	49	30	34
3	60	83	178	138	188	263	286	96	86	48	30	90
4	49	41	151	171	195	238	241	88	81	60	30	79
5	54	115	139	148	181	209	279	92	75	66	49	14
6	42	53	136	131	174	192	412	114	79	62	33	14
7	41	59	139	168	171	192	362	*108	94	50	58	14
8	*98	60	161	151	168	192	306	92	77	49	68	18
9	28	68	227	155	158	321	317	84	69	50	13	77
10	28	50	209	136	198	399	294	84	68	66	14	104
11	27	27	181	134	202	337	302	69	66	44	22	56
12	27	46	298	112	174	294	294	81	66	*46	65	14
13	39	57	370	122	164	263	263	114	60	44	50	14
14	48	56	345	158	158	*296	241	76	62	46	42	14
15	110	59	267	148	142	321	227	162	66	49	53	14
16	36	62	290	145	128	354	212	136	62	46	16	37
17	*38	44	263	139	145	387	202	119	57	43	14	99
18	52	39	267	125	151	354	192	106	55	40	26	56
19	48	64	230	69	142	317	188	96	88	42	77	14
20	33	*59	223	49	139	306	181	139	96	40	94	14
21	48	60	*209	119	131	290	174	230	66	35	37	14
22	198	134	188	142	131	302	148	202	60	39	29	15
23	205	212	184	345	114	298	139	171	59	44	54	15
24	198	142	206	441	122	298	119	139	55	36	15	40
25	200	102	245	374	142	279	116	109	73	36	15	68
26	196	202	267	317	151	267	128	99	84	39	64	68
27	82	245	227	279	404	252	122	104	79	29	39	79
28	48	241	209	260	441	245	122	114	75	29	65	36
29	132	206	202	241	-	230	119	90	75	35	53	9.5
30	90	230	171	209	--------	227	119	84	66	60	13	9.5
31	205	--------	171	202	--------	223	--------	81	--------	34	12	--------
Total	2,578	3,208	6,928	5,673	4,987	8,804	6,584	3,501	2,168	1,422	1,214	1,142.0
Mean	83.2	107	223	183	178	284	219	113	72.3	45.9	39.2	38.1
(†)	+8.2	+12.0	+24.1	+16.2	-5.4	+18.7	+9.3	-2.8	-26.6	-28.9	-32.1	-21.7
Adjusted for change in reservoir contents												
Mean	91.4	119	247	199	173	303	228	110	45.7	17.0	7.1	16.4
Cfsm	0.870	1.13	2.35	1.90	1.65	2.89	2.17	1.05	0.435	0.162	0.068	0.156
In.	1.00	1.26	2.71	2.19	1.72	3.33	2.42	1.21	0.49	0.19	0.08	0.17

	Observed			Adjusted		
Calendar year 1956:	**Max** 1,300	**Min** 16	**Mean** 206	**Mean** 207	**Cfsm** 1.97	**In.** 26.92
Water year 1956-57:	**Max** 441	**Min** 9.5	**Mean** 132	**Mean** 130	**Cfsm** 1.24	**In.** 16.77

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Square Pond and Mousam and Estes Lakes.

Salmon Falls River near South Lebanon, Maine

Location.--Lat 43°19'40", long 70°55'40", on left bank at Stair Falls, 1½ miles south of South Lebanon, York County, and 2½ miles upstream from Little River.

Drainage area.--147 sq mi.

Records available.--November 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 179.60 ft above mean sea level, datum of 1929.

Average discharge.--28 years (1929-57), 239 cfs (unadjusted).

Extremes.--Maximum discharge during year, 971 cfs Jan. 23 (gage height, 3.56 ft); minimum, 20 cfs Aug 18 (gage height, 1.28 ft).
1928-57: Maximum discharge, 5,490 cfs Mar. 19, 1936 (gage height, 12.31 ft); minimum, 4.7 cfs Aug. 28, 1950.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow partly regulated by powerplants above station and by Great East and Lovell Lakes and Horn, Wilsons, and Milton Ponds (also controlled Northeast and Town House Ponds), combined capacity, 1,280,000,000 cu ft.

Revisions (water years).--WSP 1231: 1930-31(M), 1933(M). WSP 1301: 1936-37.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.2	16	2.0	187
1.4	37	2.5	400
1.6	70	3.0	655
1.8	119	3.2	765

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	122	100	183	427	432	284	158	36	50	70	48
2	156	124	38	350	414	391	314	151	32	100	43	22
3	102	77	140	301	418	382	324	125	77	73	22	85
4	100	30	148	350	400	368	267	111	85	76	48	150
5	100	120	124	280	396	373	284	32	79	45	79	150
6	40	110	122	206	427	346	409	83	77	34	70	70
7	40	120	176	404	404	328	195	*108	83	22	68	88
8	*132	100	132	418	391	314	251	70	46	170	38	40
9	176	106	102	404	373	400	259	74	33	108	38	*114
10	120	68	154	404	378	436	263	70	70	72	29	106
11	106	27	191	391	386	373	284	46	74	75	36	97
12	106	110	276	297	409	350	271	36	74	*35	110	66
13	48	132	364	173	400	342	222	97	65	31	72	37
14	48	122	574	378	346	382	158	151	63	57	88	90
15	122	114	500	364	332	404	246	125	42	72	42	30
16	110	106	450	382	337	436	203	173	22	56	50	95
17	108	66	432	386	310	436	195	114	63	70	38	83
18	92	44	427	382	319	409	203	49	72	72	23	83
19	110	116	409	364	310	382	203	37	58	31	97	68
20	59	*110	396	490	346	373	155	108	97	32	81	30
21	50	114	*368	480	337	364	85	195	68	40	68	68
22	95	162	310	485	297	378	129	145	32	170	56	30
23	126	114	141	732	284	373	158	100	21	164	22	85
24	245	44	191	726	271	378	203	95	49	134	40	90
25	148	90	222	606	271	360	218	44	108	132	37	79
26	132	134	342	547	288	337	214	68	74	59	97	63
27	92	215	324	537	638	293	187	81	77	24	72	22
28	35	200	314	432	552	297	79	90	74	35	66	43
29	116	162	267	*436	-	288	158	85	36	170	36	25
30	102	140	173	427	--------	293	183	50	22	140	33	66
31	106	--------	206	436	--------	284	--------	66	--------	95	120	--------
Total	3,188	3,299	8,113	12,751	10,461	11,302	6,604	2,935	1,807	2,444	1,789	2,123
Mean	103	110	262	411	374	365	220	94.7	60.2	78.8	57.7	70.8
(†)	+1.7	+51.3	+37.2	-106	-127	+45.5	+102	+43.0	-25.6	-62.5	-69.3	-79.2
Adjusted for change in reservoir contents††												
Mean	105	161	299	305	247	410	322	138	34.6	16.3	-11.6	-8.4
Cfsm	0.714	1.10	2.03	2.07	1.68	2.79	2.19	0.939	0.235	0.111	-0.079	-0.006
In.	0.82	1.23	2.34	2.39	1.75	3.22	2.44	1.07	0.26	0.13	-0.09	-0.01

	Observed						Adjusted					
Calendar year 1956:	Max	2,050	Min	22	Mean	271	Mean	288	Cfsm	1.96	In.	26.66
Water year 1956-57:	Max	732	Min	21	Mean	183	Mean	188	Cfsm	1.14	In.	15.55

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Great East and Lovell Lakes, and Horn, Wilson, and Milton Ponds (controls also Northeast and Town House Ponds).
†† Negative figures of adjusted discharge and runoff indicate that evaporation and seepage exceeded inflow.
Note.--No gage-height record Oct. 4-8, July 1-12; discharge estimated on basis of recorded range in stage, 2 discharge measurements, weather records, and flow of nearby streams.

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Oyster River near Durham, N. H.

Location.--Lat 43°08'55", long 70°58'00", on left bank 200 ft upstream from bridge on U. S. Highway 4, 2½ miles west of Durham, Strafford County, and 7 miles upstream from mouth.

Drainage area.--12.1 sq mi.

Records available.--October 1934 to September 1957. 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).

Average discharge.--23 years, 19.4 cfs.

Extremes.--Maximum discharge during year, 91 cfs Feb. 27 (gage height, 1.63 ft); minimum, 0.50 cfs Aug. 4, 7, 9, 10, Sept. 6, 7.
1934-57: Maximum discharge, 862 cfs Sept. 11, 1954 (gage height, 5.47 ft); maximum gage height, 7.45 ft Mar. 19, 1936; minimum discharge, 0.39 cfs Aug. 9-11, 1949.

Remarks.--Records good except those for periods of ice effect, which are fair.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.03	0.50	0.5	9.5
.1	1.1	.7	18
.2	2.35	1.0	36
.3	4.1	1.4	66

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	3.7	13	15	18	46	20	9.0	4.3	1.85	0.92	0.58
2	*1.8	3.7	12	14	17	36	30	8.3	5.0	1.25	.70	.62
3	1.6	3.4	9.8	13	14	32	32	7.8	6.0	1.05	.58	.83
4	1.8	3.2	10	14	16	26	25	7.7	4.8	1.55	.62	.66
5	2.1	3.0	9.5	14	16	22	30	7.2	4.2	1.6	.75	.58
6	2.0	3.0	9.6	13	16	20	54	6.8	3.7	1.8	.58	.50
7	8.4	2.8	11	13	15	19	42	6.4	4.7	1.45	.54	.50
8	6.0	2.8	14	12	14	19	33	5.8	4.2	2.2	.58	.58
9	3.9	3.6	12	12	13	45	33	5.4	3.3	1.65	.50	*.58
10	3.0	3.2	12	12	20	51	36	5.3	2.8	1.45	.66	.58
11	2.5	2.7	13	11	21	39	35	7.8	2.6	1.1	1.05	.70
12	2.35	3.2	33	11	16	36	30	9.0	2.5	1.0	1.1	.75
13	2.25	4.3	41	11	14	33	28	8.8	2.2	.92	.75	.70
14	2.2	3.9	34	10	13	38	24	7.8	2.05	.92	.66	.66
15	2.2	3.6	20	10	12	41	21	12	2.0	.83	.70	.62
16	2.1	3.4	29	9.8	12	52	19	12	1.75	.79	.75	.75
17	2.05	3.3	33	9.6	12	50	18	8.8	1.5	.83	.66	.87
18	2.0	3.6	28	9.4	12	42	17	7.7	1.3	.83	.54	.75
19	1.9	3.7	22	9.2	12	*36	16	7.0	2.0	.87	.54	.66
20	1.8	3.4	19	8.8	12	33	15	13	2.8	.87	.62	.62
21	1.75	5.1	18	9.0	11	30	14	25	*2.0	.87	.70	.62
22	1.75	26	18	10	10	31	12	17	1.65	.92	.62	.66
23	14	14	17	50	11	30	12	12	1.45	1.0	.58	.79
24	15	8.8	18	54	12	27	*11	10	1.2	.92	.54	.75
25	*7.2	7.2	27	46	13	24	11	8.2	1.35	1.0	.66	.62
26	5.0	38	25	36	19	22	11	7.1	1.6	1.0	.83	.62
27	4.6	*40	22	30	60	21	11	7.2	1.8	1.0	.75	.58
28	4.1	26	20	27	60	21	10	7.8	1.8	1.1	.62	.58
29	3.8	19	18	24	-	19	9.8	6.3	1.65	1.05	.62	.58
30	3.6	15	15	22	------	20	9.8	5.4	1.8	1.35	.70	.54
31	3.5	------	16	19	------	21	------	4.6	------	*1.8	.66	------
Total	118.05	266.6	598.9	558.8	491	982	669.6	274.4	80.00	36.82	21.08	19.43
Mean	3.81	8.89	19.3	18.0	17.5	31.7	22.3	8.85	2.67	1.19	0.680	0.648
Cfsm	0.315	0.735	1.60	1.49	1.45	2.62	1.84	0.731	0.221	0.098	0.056	0.054
In.	0.36	0.82	1.84	1.72	1.51	3.02	2.06	0.84	0.25	0.11	0.06	0.06

Calendar year 1956: Max 290 Min 0.97 Mean 23.0 Cfsm 1.90 In. 25.86
Water year 1956-57: Max 60 Min 0.50 Mean 11.3 Cfsm 0.934 In. 12.65

Peak discharge (base, 170 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 19 to Jan. 23, Feb. 2-15, 26, 27.

Lamprey River near Newmarket, N. H.

Location.--Lat 43°06'05", long 70°57'20", on right bank 200 ft upstream from Packers Falls, 2 miles northwest of Newmarket, Rockingham County, and 4.6 miles upstream from mouth.

Drainage area.--183 sq mi.

Records available.--July 1934 to September 1957.

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

Average discharge.--23 years, 280 cfs.

Extremes.--Maximum discharge during year, 676 cfs Mar. 1 (gage height, 4.07 ft); minimum daily, 2.4 cfs Aug. 29.

1934-57: 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 below 150 cfs, which are good, and those for periods of ice effect, which are fair. Flow regulated by Pawtuckaway and Mendums Ponds (*combined capacity, about 600,000,000 cu ft*).

Revisions (water years).--WSP 1231: 1936-37.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second) (Backwater from beaver dam Aug. 10 to Sept. 13; shifting-control method used Sept. 13-30)

0.02	2.4	1.2	53
.05	2.6	1.5	92
.1	3.1	2.0	176
.3	5.6	3.0	382
.5	9.2	4.0	655
.7	15	4.1	685
.9	26		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	38	144	200	317	670	300	126	81	28	15	2.8
2	19	38	133	190	296	646	324	117	75	*25	15	2.8
3	18	37	115	190	278	558	372	107	77	15	14	3.0
4	15	34	102	200	276	454	363	101	73	15	14	3.2
5	16	33	106	200	278	380	377	95	70	16	12	3.4
6	16	32	109	185	266	335	530	89	65	17	11	3.5
7	32	30	106	180	252	311	546	85	65	17	11	3.6
8	51	31	120	180	238	298	549	81	63	16	10	3.6
9	38	33	128	180	228	442	510	75	57	16	10	3.5
10	33	32	123	180	260	546	507	70	51	16	9.4	3.4
11	32	28	140	175	288	535	510	84	47	15	9.2	3.6
12	30	29	244	170	272	510	478	100	42	15	9.2	3.4
13	28	35	328	165	252	449	457	120	38	15	9.2	*3.3
14	26	38	382	155	228	452	418	118	37	14	10	3.2
15	25	38	260	150	209	488	377	128	34	15	9.7	3.1
16	24	37	372	150	196	589	342	154	30	13	9.2	3.2
17	22	36	390	145	189	640	317	137	28	13	8.8	3.3
18	22	46	370	142	183	628	300	128	26	12	8.4	3.5
19	20	54	295	140	*181	*572	286	115	28	12	8.0	3.4
20	19	52	285	135	180	513	270	124	44	12	7.2	3.5
21	19	55	282	135	167	473	256	236	34	14	7.4	3.6
22	19	162	272	145	163	454	236	217	28	11	6.7	3.9
23	45	167	248	400	160	439	221	198	25	11	6.1	4.1
24	115	156	254	500	165	424	*198	167	22	10	5.2	3.8
25	*75	130	305	566	172	401	169	132	21	10	4.8	3.6
26	68	238	305	625	200	377	158	109	24	10	5.0	3.6
27	61	*300	305	589	400	340	153	98	26	10	5.9	3.5
28	53	240	311	513	540	298	149	*100	26	10	7.0	3.6
29	46	205	292	439	-	280	144	95	24	11	2.4	3.6
30	42	181	217	382	--------	276	137	98	25	12	3.0	3.5
31	38	--------	190	342	--------	292	--------	95	--------	*13	3.4	--------
Total	1,088	2,565	7,233	8,048	6,834	14,070	9,954	3,699	1,286	439	267.2	103.1
Mean	35.1	85.5	233	260	244	454	332	119	42.9	14.2	8.62	3.44
Cfsm	0.192	0.467	1.27	1.42	1.33	2.48	1.81	0.650	0.234	0.078	0.047	0.019
In.	0.22	0.52	1.47	1.64	1.39	2.86	2.02	0.75	0.26	0.09	0.05	0.02

Calendar year 1956: Max 2,870 Min 9.7 Mean 306 Cfsm 1.67 In. 22.75
Water year 1956-57: Max 670 Min 2.4 Mean 152 Cfsm 0.831 In. 11.29

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 17, 19, 20, 26, Dec. 13 to Jan. 24, Feb. 26-28. Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

Pemigewasset River at Woodstock, N. H.

Location.--Lat 43°58'35", long 71°40'50", on right bank 0.2 mile east of Woodstock, Grafton County, and 0.7 mile upstream from Eastman Brook.

Drainage area.--193 sq mi.

Records available.--October 1939 to September 1957.

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

Average discharge.--18 years, 515 cfs.

Extremes.--Maximum discharge during year, 5,240 cfs Apr. 21 (gage height, 7.33 ft); minimum daily, 62 cfs Sept. 1, 15.
1939-57: Maximum discharge, 22,800 cfs Nov. 26, 1950 (gage height, 12.05 ft), from rating curve extended above 9,300 cfs by logarithmic plotting; minimum daily, 42 cfs Feb. 11, 1948.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Some diurnal fluctuation caused by powerplant above station.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 30 to Feb. 26, Mar. 3-15, 18-22, Mar. 25 to Apr. 1, 10-12, 15, 16)

Oct. 1 to Apr. 21				Apr. 22 to Sept. 30			
2.6	134	5.0	1,710	2.2	61	4.0	755
3.0	259	6.0	2,850	2.6	134	5.0	1,540
3.5	495	7.0	4,550	3.0	259	6.0	2,790
4.0	825			3.5	474		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	325	464	252	210	280	626	381	841	323	400	166	62
2	303	574	263	205	270	490	944	677	392	*323	139	64
3	317	371	234	200	260	390	949	574	460	245	127	86
4	279	303	*263	230	270	325	562	505	356	821	116	97
5	275	267	230	200	250	303	468	455	348	1,450	119	78
6	245	245	252	185	235	303	550	418	302	999	*110	68
7	1,310	230	332	180	225	291	685	386	404	530	106	67
8	996	223	699	*180	215	279	513	386	396	391	104	67
9	581	216	507	170	200	a300	451	391	314	449	99	66
10	446	203	390	175	215	a330	395	378	271	945	101	64
11	385	182	330	165	190	a290	390	427	245	569	121	*66
12	348	203	425	170	180	283	410	373	234	436	200	68
13	321	271	440	165	175	267	588	401	230	352	119	66
14	303	230	366	160	*170	291	446	525	206	302	102	66
15	279	216	343	155	170	334	381	830	206	306	97	62
16	263	259	395	a155	165	462	381	869	178	263	97	72
17	248	287	484	a160	165	451	462	564	166	237	90	112
18	237	255	385	a160	165	371	562	460	155	203	86	79
19	220	216	252	a155	160	*321	818	400	155	178	83	67
20	210	197	348	a150	160	321	1,340	693	184	166	83	67
21	203	263	317	155	155	330	3,770	1,030	150	150	76	70
22	200	2,220	291	185	155	395	2,330	737	127	194	76	73
23	206	860	275	2,500	160	456	*1,700	580	125	275	74	466
24	325	507	279	1,320	155	456	*1,860	520	155	181	73	204
25	241	400	317	790	155	400	1,500	455	166	157	67	110
26	210	420	259	633	240	385	1,150	414	290	142	72	97
27	200	395	200	484	1,900	381	1,470	536	263	132	76	86
28	190	352	275	446	968	371	1,400	*469	438	137	73	79
29	184	325	260	415	-	395	1,120	427	587	231	68	76
30	*175	299	190	357	--------	405	1,210	373	473	392	68	73
31	172	--------	180	312	--------	385	--------	352	--------	210	68	--------
Total	10,197	11,453	10,033	11,127	8,008	11,387	29,186	16,446	8,299	11,766	3,056	2,778
Mean	329	382	324	359	286	367	973	531	277	380	98.6	92.6
Cfsm	1.70	1.98	1.68	1.86	1.48	1.90	5.04	2.75	1.44	1.97	0.511	0.480
In.	1.96	2.21	1.93	2.14	1.54	2.19	5.62	3.17	1.60	2.27	0.59	0.54

Calendar year 1956:	Max	4,440	Min	86	Mean	541	Cfsm	2.80	In.	38.12
Water year 1956-57:	Max	3,770	Min	62	Mean	366	Cfsm	1.90	In.	25.76

Peak discharge (base, 7,100 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Pemigewasset River at Plymouth and Baker River near Rumney.
Note.--Stage-discharge relation affected by ice Dec. 27 to Jan. 23, Feb. 1-27.

Baker River near Rumney, N. H.

Location.--Lat 43°47'45", long 71°50'45", on right bank 0.3 mile upstream from Falls Brook and 1¾ miles southwest of Rumney, Grafton County.

Drainage area.--143 sq mi.

Records available.--October 1928 to September 1957. 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.--29 years, 257 cfs.

Extremes.--Maximum discharge during year, 1,820 cfs Nov. 22 (gage height, 5.20 ft); minimum, 14 cfs Sept. 1, 2.

1928-57: 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 determinations 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 known, 25,900 cfs Nov. 3, 1927 (gage height, 17.4 ft, from flood-marks), from rating curve extended above 3,800 cfs as described above.

Remarks.--Records excellent except those for periods of ice effect, which are fair.

Revisions (water years).--WSP 726: Drainage area. WSP 781: 1934(M). WSP 1231: 1929-33(M), 1934.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.26	14	3.0	175
2.3	18	3.5	395
2.4	30	4.0	720
2.7	87	5.0	1,620

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	137	110	115	135	498	265	252	139	130	56	15
2	103	205	133	110	125	375	532	212	153	*103	44	14
3	113	142	113	105	120	287	617	190	220	83	36	20
4	105	119	*113	125	125	220	380	179	155	203	32	29
5	105	105	104	110	115	182	320	165	128	678	*30	25
6	100	97	130	100	105	168	349	149	110	438	29	20
7	415	92	185	97	100	158	450	139	156	208	27	18
8	415	87	406	*95	94	152	370	133	149	145	25	18
9	256	83	339	90	90	168	325	128	110	130	24	17
10	194	78	255	92	100	201	287	122	90	179	24	16
11	162	72	248	88	88	155	292	128	78	130	52	16
12	142	78	256	90	76	155	292	119	72	100	46	*16
13	130	133	278	88	78	149	434	130	69	80	40	16
14	122	133	250	83	*80	186	334	172	65	69	30	15
15	116	116	224	81	76	256	274	254	72	67	27	15
16	108	113	244	84	76	450	265	274	57	59	27	17
17	100	116	315	86	76	434	315	197	48	56	26	32
18	95	113	255	84	74	320	390	165	43	50	24	29
19	90	103	180	82	74	*265	504	142	41	43	22	22
20	85	95	210	80	72	252	629	360	57	38	20	20
21	83	122	205	82	71	236	854	685	48	36	19	19
22	80	1,150	179	88	70	301	596	395	40	43	18	24
23	80	524	162	600	72	354	*434	287	35	82	18	199
24	90	320	179	613	72	344	406	228	46	52	17	108
25	85	236	220	380	74	292	349	179	56	41	16	61
26	78	232	190	334	80	283	301	152	122	36	16	43
27	76	216	130	240	750	283	306	306	145	33	18	33
28	78	197	180	208	762	287	283	*244	327	35	18	30
29	76	168	170	201	-	296	252	194	224	67	17	27
30	*69	149	105	172	--------	301	306	155	179	95	16	26
31	69	--------	100	149	--------	278	--------	145	--------	69	15	--------
Total	3,930	5,531	6,168	4,952	3,830	8,286	11,711	6,580	3,234	3,578	829	960
Mean	127	184	199	160	137	267	390	212	108	115	26.7	32.0
Cfsm	0.888	1.29	1.39	1.12	0.958	1.87	2.73	1.48	0.755	0.804	0.187	0.224
In.	1.02	1.44	1.60	1.29	1.00	2.15	3.05	1.71	0.84	0.93	0.22	0.25

Calendar year 1956: Max 3,280 Min 28 Mean 274 Cfsm 1.92 In. 26.04
Water year 1956-57: Max 1,150 Min 14 Mean 163 Cfsm 1.14 In. 15.50

Peak discharge (base, 3,600 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 10, 14, 18-20, Dec. 25 to Jan. 23, Feb. 1-27 (no gage-height record Jan. 17-21).

Pemigewasset River at Plymouth, N. H.

Location.--Lat 43°45'35", long 71°41'10", on right bank 150 ft downstream from bridge at Plymouth, Grafton County, and a third of a mile downstream from Baker River.

Drainage area.--622 sq mi.

Records available.--October 1903 to September 1957. Records for April 1886 to September 1903, published in WSP 124, have been found to be unreliable and should not be used.

Gage.--Water-stage recorder. Datum of gage is 457.07 ft above mean sea level, datum of 1929. Prior to Jan. 1, 1910, staff or chain gages at sites 150 and 200 ft upstream at present datum or datum 1.11 ft lower. Jan. 1, 1910, to Sept. 30, 1926, staff gage at site 200 ft upstream at present datum.

Average discharge.--54 years, 1,358 cfs.

Extremes.--Maximum discharge during year, 7,450 cfs Apr. 21; maximum gage height, 11.29 ft Jan. 23 (ice jam); minimum discharge, 108 cfs Aug. 31; minimum daily, 114 cfs Aug. 30, 31.

1903-57: Maximum discharge, 65,400 cfs Mar. 19, 1936 (gage height, 29.0 ft, from floodmarks), from rating curve extended above 33,000 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 excellent except those for periods of ice effect, which are fair. Some diurnal fluctuation caused by powerplants above station.

Revisions (water years).--WSP 471: 1912-13 calendar years. WSP 726: Drainage area. WSP 1231: 1904-11, 1913-14, 1915-16(M), 1917-18, 1919(M), 1920-25, 1926-27(M), 1929-31(M). See also Records available.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 21				Apr. 22 to Sept. 30			
0.5	330	3.0	3,110	-0.1	99	2.0	1,820
.7	469	4.0	4,420	.2	207	3.0	3,120
1.0	700	5.0	5,730	.5	370	4.0	4,420
2.0	1,740			1.0	790	5.0	5,730

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	717	644	575	520	660	2,000	*1,010	1,680	790	898	412	123
2	660	1,300	650	500	600	1,600	1,910	1,400	772	763	346	117
3	676	894	560	480	560	1,200	2,930	1,250	1,100	592	299	147
4	636	734	700	560	580	1,000	1,610	1,150	862	1,210	277	194
5	636	644	620	500	540	840	1,370	1,050	781	2,800	266	173
6	589	582	717	450	500	760	1,480	979	691	2,890	250	147
7	2,100	551	812	430	460	740	2,030	916	790	1,400	236	136
8	2,740	528	1,700	430	430	720	1,580	880	916	1,020	221	129
9	1,490	513	1,500	400	410	780	1,390	853	718	889	212	126
10	1,130	491	1,250	420	450	860	1,180	826	610	1,430	245	*120
11	951	440	1,100	390	400	690	1,190	880	538	1,140	288	123
12	839	476	1,200	400	360	660	1,150	835	504	889	340	126
13	768	620	1,250	390	350	640	1,640	817	504	727	299	126
14	717	668	1,100	370	350	720	1,360	1,080	496	619	236	123
15	676	582	980	350	340	960	1,120	1,480	496	583	217	120
16	628	597	1,150	360	340	1,700	1,070	1,760	426	529	221	129
17	605	620	1,350	370	330	1,900	1,240	1,290	377	480	212	186
18	558	612	1,100	360	330	1,400	1,460	1,070	370	426	190	208
19	536	558	750	350	330	1,150	1,840	934	352	377	178	154
20	506	485	950	340	320	1,050	2,610	1,320	433	346	169	136
21	491	551	900	360	320	980	5,340	3,060	384	334	161	133
22	476	4,510	800	400	310	1,150	4,960	1,910	316	346	154	147
23	491	2,480	700	1,700	320	1,360	*3,110	1,460	294	512	151	601
24	700	1,400	750	3,700	320	1,360	3,120	1,250	316	412	147	630
25	605	1,050	920	2,000	330	1,170	2,760	1,070	391	370	140	322
26	521	1,100	800	1,600	350	1,110	2,040	961	*619	328	140	241
27	491	1,020	*580	1,300	2,200	1,100	2,310	1,270	808	299	*147	203
28	476	913	820	1,000	3,000	1,080	2,310	*1,250	1,090	299	154	182
29	455	795	750	930	-	1,120	1,960	1,060	1,260	*456	173	165
30	*440	725	500	840	--------	1,130	2,040	916	1,310	752	114	*158
31	426	--------	470	750	--------	1,060	--------	844	--------	556	114	--------
Total	23,730	27,083	28,004	22,950	15,790	33,990	61,120	37,501	19,314	24,672	6,709	5,625
Mean	765	903	903	740	564	1,096	2,037	1,210	644	796	216	188
Cfsm	1.23	1.45	1.45	1.19	0.907	1.76	3.27	1.95	1.04	1.28	0.347	0.302
In.	1.42	1.62	1.67	1.37	0.94	2.03	3.65	2.24	1.15	1.48	0.40	0.34

Calendar year 1956: Max 13,700 Min 181 Mean 1,397 Cfsm 2.25 In. 30.56
Water year 1956-57: Max 5,340 Min 114 Mean 840 Cfsm 1.35 In. 18.31

Peak discharge (base, 12,600 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 20, 24, 25, Nov. 29 to Dec. 5, Dec. 8 to Mar. 21 (no gage-height record Dec. 11-27, Jan. 14-21, Feb. 13, 14; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage when available, powerplant records, and records for Pemigewasset River at Woodstock and Baker River near Rumney).

Squam River at Ashland, N. H.

Location.--Lat 43°42'15", long 71°37'50", on right bank 200 ft upstream from bridge on U. S. Highway 3 and a third of a mile north of Ashland, Grafton County.

Drainage area.--57.6 sq mi.

Records available.--August 1939 to September 1957.

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

Average discharge.--18 years, 91.8 cfs.

Extremes.--Maximum discharge during year, 166 cfs June 1 (gage height, 10.87 ft); minimum daily, 56 cfs June 6-14, Sept. 4-8.
1939-57: Maximum discharge, 498 cfs Apr. 11, 1951 (gage height, 11.93 ft); minimum daily, 14 cfs Feb. 4, 1940.

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

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

10.2	43
10.4	73
10.6	107

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	67	70	70	70	91	73	62	74	57	60	57
2	78	65	70	70	70	91	73	62	62	*57	60	57
3	78	65	70	70	70	91	73	62	62	57	60	57
4	78	67	70	70	70	91	71	62	*62	57	60	56
5	78	71	*70	70	70	84	71	62	57	59	60	56
6	78	71	70	70	70	71	71	62	56	60	*60	56
7	78	71	70	70	70	71	71	62	56	60	60	56
8	76	71	70	70	70	71	71	62	56	60	60	56
9	75	70	70	70	70	71	71	62	56	60	60	59
10	75	68	70	70	70	71	71	62	56	60	60	62
11	75	68	70	70	70	71	71	62	56	60	60	62
12	73	68	70	70	70	71	71	62	56	60	60	62
13	73	67	70	70	70	71	71	62	56	60	60	62
14	73	65	70	70	*70	71	71	62	56	60	60	62
15	73	65	70	70	70	71	71	62	57	60	60	62
16	75	68	70	70	70	71	71	62	57	60	60	62
17	75	70	70	70	70	71	71	62	57	60	60	*62
18	75	70	70	70	81	71	67	62	57	60	59	62
19	75	70	70	70	89	71	62	62	57	60	59	62
20	75	70	70	70	89	71	62	62	57	60	59	62
21	75	70	70	70	89	71	62	62	57	60	59	62
22	75	71	70	70	89	73	62	62	57	60	59	62
23	75	70	70	75	89	73	62	62	57	60	59	62
24	75	70	70	70	89	73	*62	62	57	60	57	62
25	73	70	70	70	89	73	62	62	57	60	57	62
26	73	70	70	70	*89	73	62	62	57	60	57	60
27	73	68	70	70	93	73	62	62	57	60	57	60
28	71	68	70	70	91	73	62	62	57	60	57	59
29	71	68	70	70	-	73	62	62	57	60	57	59
30	71	68	70	70	-------	73	62	62	57	60	57	59
31	68	-------	70	70	-------	73	-------	62	-------	60	57	-------
Total	2,314	2,060	2,170	2,175	2,167	2,314	2,024	1,922	1,733	1,847	1,830	1,799
Mean	74.6	68.7	70.0	70.2	77.4	74.6	67.5	62.0	57.8	59.6	59.0	60.0
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 129 Min 65 Mean 86.1 Cfsm - In. -
Water year 1956-57: Max 93 Min 56 Mean 66.7 Cfsm - In. -

* Discharge measurement made on this day.

Smith River near Bristol, N. H.

Location.--Lat 43°34'00", long 71°44'50", on right bank in Hill, Merrimack County, 1.5 miles upstream from mouth and 1¾ miles southwest of Bristol, Grafton County.

Drainage area.--85.8 sq mi.

Records available.--May 1918 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 449.80 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Prior to Nov. 25, 1933, staff gage at site 1½ miles upstream at different datum.

Average discharge.--39 years, 142 cfs.

Extremes.--Maximum discharge during year, 610 cfs Jan. 24 (gage height, 4.50 ft); minimum daily, 6.9 cfs Sept. 2.

1918-57: 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 determination of peak flow; minimum daily, 2.7 cfs Aug. 2, 1933.

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

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. 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.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.85	6.9	3.1	118
1.9	8.6	3.5	207
2.0	12	4.0	380
2.3	29	4.5	610
2.7	64		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	35	49	69	89	319	157	98	56	a45	45	7.2
2	37	42	58	67	85	224	234	85	52	*38	31	6.9
3	33	44	51	66	80	162	346	79	54	30	24	9.4
4	30	36	*51	68	78	120	244	75	53	33	21	9.0
5	32	34	47	70	75	98	197	73	45	68	*20	9.4
6	35	33	54	64	72	90	254	68	40	120	20	8.6
7	90	31	72	63	68	85	319	64	44	78	17	7.8
8	152	30	172	*63	66	82	263	60	48	60	16	8.6
9	96	31	199	62	62	96	221	58	42	60	14	8.2
10	68	34	142	61	62	135	199	53	34	60	15	7.8
11	55	30	112	60	64	105	210	51	30	51	19	9.0
12	48	30	162	58	58	100	202	51	28	38	27	8.2
13	46	39	227	57	54	90	241	50	26	30	26	*8.2
14	43	58	215	54	*53	115	210	52	26	26	21	7.5
15	39	52	164	52	51	160	174	62	64	22	18	7.2
16	37	47	197	51	49	260	151	79	79	24	17	8.6
17	35	44	229	50	49	300	159	70	54	21	15	13
18	34	45	197	48	49	235	169	62	34	19	13	19
19	31	43	140	47	50	*180	174	56	30	17	12	19
20	35	41	138	46	49	165	174	89	33	15	11	30
21	31	47	129	48	48	155	176	247	36	15	11	23
22	28	289	105	50	45	199	144	175	26	17	10	15
23	31	270	92	280	45	229	*140	116	22	16	9.4	20
24	40	140	105	506	46	227	125	91	23	16	9.0	25
25	37	95	125	474	47	197	115	73	37	19	8.6	20
26	33	91	110	260	56	181	110	64	63	20	11	15
27	32	91	95	186	200	179	105	109	118	17	11	12
28	34	82	105	140	380	181	98	132	89	27	9.4	11
29	28	70	101	118	--	181	92	*95	a73	51	8.6	10
30	*30	61	76	105	--------	179	96	76	a56	79	8.2	9.7
31	30	--------	64	96	--------	167	--------	66	--------	74	7.8	--------
Total	1,374	2,015	3,783	3,439	2,130	5,196	5,499	2,579	1,415	1,206	506.0	373.3
Mean	44.3	67.2	122	111	76.1	168	183	83.2	47.2	39.9	16.3	12.4
Cfsm	0.516	0.783	1.42	1.29	0.887	1.96	2.13	0.970	0.550	0.453	0.190	0.145
In.	0.60	0.87	1.64	1.49	0.92	2.25	2.38	1.12	0.61	0.52	0.22	0.16

Calendar year 1956: Max 1,610 Min 10 Mean 150 Cfsm 1.75 In. 23.76
Water year 1956-57: Max 506 Min 6.9 Mean 80.9 Cfsm 0.943 In. 12.78

Peak discharge (base, 1,150 cfs).--No peak above base.

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, and recorded range in stage.

Note.--Stage-discharge relation affected by ice Nov. 24, 25, Dec. 19, 22-28, Jan. 3-23, Feb. 27, 28, Mar. 4-6, 10-21.

Lake Winnipesaukee at The Weirs, N. H.

Location.--Lat 43°36'20", long 71°27'25", 800 ft north of highway bridge at The Weirs, Belknap County.

Drainage area.--363 sq mi at outlet at Lakeport.

Records available.--September 1933 to September 1957. Prior to November 1937, month-end contents only determined from gage at Lakeport, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 500.02 ft above mean sea level, datum of 1929.

Extremes.--Maximum daily gage height during year, 3.49 ft Oct. 1, 2; minimum daily, 1.56 ft Feb. 24, 25.

1937-57: 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. Total usable capacity, 18,240,000,000 cu ft between elevations 494.55 ft (bottom of flume at Lakeport) and 504.22 ft (top of flashboards at outlet in Lakeport). Draft limited by law to an average of 250 cfs during the seven days in any week between June 1 and Oct. 15 of any year when gage reading is at or below 502.4 ft above mean sea level. Stage regulated at outlet and by Wentworth, Merrymeeting (see p. 109), and other lakes. Contents given herein are computed from gage heights at 12 p.m. on last day of month, eliminating the effect of seiche and wind action.

Capacity table, water year 1956-57 (gage height, in feet, and contents, in millions of cubic feet)

1.0	11,930
2.0	13,880
3.0	15,840
4.0	17,840

Mean gage height, in feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.49	3.21	2.86	2.90	1.97	1.72	2.28	2.83	3.22	3.27	3.23	2.74
2	3.49	3.22	2.85	2.84	1.94	1.74	2.34	2.81	3.24	3.24	3.21	2.74
3	3.46	3.18	2.87	2.80	1.90	1.75	2.36	2.80	3.26	3.25	3.20	2.74
4	3.47	3.16	2.81	2.76	1.87	1.76	2.39	2.82	3.25	3.29	3.19	2.74
5	3.44	3.14	2.82	2.71	1.84	1.76	2.46	2.83	3.25	3.33	3.16	2.71
6	3.44	3.13	2.82	2.69	1.82	1.77	2.50	2.82	3.25	3.31	3.14	2.69
7	3.48	3.11	2.82	2.66	1.80	1.78	2.51	2.81	3.24	3.34	3.13	2.69
8	3.48	3.09	2.83	2.63	1.76	1.79	2.56	2.81	3.23	3.34	3.10	2.69
9	3.46	3.06	2.87	2.60	1.75	1.84	2.58	2.79	3.23	3.36	3.09	2.68
10	3.45	3.00	2.87	2.56	1.75	1.85	2.58	2.81	3.21	3.34	3.10	2.67
11	3.44	2.99	2.87	2.53	1.75	1.87	2.62	2.83	3.21	3.33	3.11	2.67
12	3.43	2.98	2.89	2.50	1.72	1.89	2.65	2.84	3.20	3.32	3.09	2.66
13	3.42	2.97	2.92	2.44	1.69	1.91	2.67	2.85	3.21	3.32	3.07	2.65
14	3.40	2.96	2.95	2.40	1.67	1.92	2.68	2.89	3.21	3.32	3.05	2.65
15	3.39	2.94	2.99	2.35	1.64	1.94	2.69	2.92	3.24	3.28	3.04	2.65
16	3.37	2.91	3.00	2.31	1.63	1.99	2.71	2.91	3.23	3.27	3.04	2.65
17	3.36	2.87	3.01	2.29	1.61	2.02	2.72	2.92	3.23	3.26	3.01	2.69
18	3.34	2.87	2.99	2.25	1.60	2.05	2.74	2.93	3.23	3.27	3.00	2.68
19	3.33	2.85	3.01	2.20	1.59	2.08	2.75	2.93	3.25	3.26	2.99	2.66
20	3.30	2.84	3.00	2.15	1.58	2.09	2.76	3.02	3.25	3.25	2.98	2.65
21	3.28	2.84	3.00	2.11	1.57	2.10	2.76	3.07	3.25	3.24	2.96	2.65
22	3.27	2.90	3.00	2.10	1.58	2.12	2.78	3.08	3.24	3.24	2.94	2.64
23	3.29	2.90	3.02	2.13	1.57	2.13	2.79	3.10	3.23	3.23	2.92	2.66
24	3.30	2.90	3.01	2.15	1.56	2.16	2.80	3.08	3.23	3.24	2.89	2.64
25	3.32	2.91	2.98	2.14	1.56	2.18	2.81	3.09	3.31	3.25	2.89	2.62
26	3.29	2.93	2.98	2.12	1.57	2.20	2.82	3.13	3.33	3.24	2.89	2.56
27	3.28	2.91	2.98	2.09	1.65	2.22	2.83	3.16	3.34	3.23	2.84	2.50
28	3.26	2.90	2.97	2.06	1.69	2.24	2.84	3.18	3.35	3.25	2.82	2.48
29	3.24	2.90	2.95	2.06	-	2.25	2.84	3.20	3.34	3.26	2.79	2.46
30	3.22	2.88	2.88	2.05	-------	2.26	2.83	3.21	3.30	3.25	2.78	2.45
31	3.20	-------	2.94	2.00	-------	2.27	-------	3.22	-------	3.25	2.75	-------
(†)	16,240	15,590	15,710	13,840	13,290	14,410	15,530	16,280	16,420	16,320	15,350	14,760
(‡)	-239	-251	+44.8	-698	-227	+418	+432	+280	+54.0	-37.3	-362	-228

Calendar year 1956..... ‡ +39.2
Water year 1956-57..... ‡ -67.2

† Contents, in millions of cubic feet, at 12 p.m. on last day of month.
‡ Change in contents, equivalent in cubic feet per second.

Lake Winnipesaukee Outlet at Lakeport, N. H.

Location.--Lat 43°32'55", long 71°27'55", 100 ft upstream from highway bridge across Paugus Bay at Lakeport, Belknap County.

Drainage area.--363 sq mi.

Records available.--January 1860 to December 1911 (monthly gage heights only), June 1933 to September 1957.

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, staff gage at site 150 ft downstream at same datum. June 1, 1933, to Sept. 30, 1936, staff gage and continuous-recording current meter at same 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.--24 years, 535 cfs (adjusted for storage).

Extremes.--Maximum daily discharge during year, 1,550 cfs Feb. 1; minimum daily, 5 cfs several days during April, May, and June.
1933-57: Maximum daily discharge, 2,890 cfs Mar. 31, 1936; minimum daily, 5 cfs several days during April, May, and June 1957.

Remarks.--Records fair. Flow completely regulated by Winnipesaukee (see preceding page), Wentworth, Merrymeeting (see p. 109), 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	435	*460	320	1,240	1,550	330	290	95	5	175	185	185
2	450	455	440	1,300	1,540	380	300	*90	5	75	185	185
3	425	445	570	1,320	1,540	315	290	95	100	95	185	295
4	435	465	635	1,320	1,460	360	285	50	*130	95	185	215
5	425	455	600	1,320	1,110	355	305	5	140	*95	185	235
6	450	430	555	1,210	1,150	365	205	100	140	95	185	270
7	470	465	340	1,370	1,090	*350	145	100	220	95	185	185
8	340	460	360	1,350	980	*285	210	120	130	120	185	185
9	240	470	530	1,340	1,000	235	315	*120	130	125	185	280
10	240	610	365	*1,290	875	290	240	120	155	150	185	230
11	230	525	375	1,420	905	295	340	5	155	175	185	225
12	275	380	395	1,510	855	290	300	5	155	185	185	230
13	445	465	445	1,510	*840	290	265	100	160	185	185	165
14	490	585	480	1,490	*825	305	195	100	185	185	185	185
15	465	660	480	1,470	800	245	315	100	130	185	185	185
16	470	760	460	1,470	625	90	*295	100	130	185	90	250
17	460	980	440	1,460	520	125	275	100	200	185	70	220
18	460	605	455	1,480	540	280	260	5	180	185	210	*215
19	460	520	435	1,430	*450	*295	240	5	165	185	225	*180
20	455	500	540	1,410	415	*250	175	100	180	185	210	205
21	475	455	985	935	390	265	150	100	235	185	210	130
22	445	295	870	1,080	250	275	190	100	130	185	190	130
23	465	225	890	1,400	285	280	285	100	130	185	185	210
24	470	240	875	1,290	380	225	*200	100	205	185	185	170
25	470	470	870	1,250	400	295	200	5	180	185	185	175
26	450	300	990	1,400	325	305	155	5	80	185	185	170
27	470	225	990	1,390	410	300	5	100	*185	185	220	170
28	475	225	1,020	1,430	370	310	5	100	225	185	235	145
29	460	305	1,140	1,500	-	290	*160	100	130	185	215	215
30	470	355	990	1,540	--------	270	120	5	130	*185	210	225
31	*420	--------	1,140	1,480	--------	185	--------	100	--------	185	150	--------
Total	13,190	13,790	19,980	42,405	21,880	8,730	6,715	2,330	4,425	4,995	5,750	6,065
Mean	425	460	645	1,368	781	282	224	75.2	148	161	185	202
(†)	-239	-251	+44.8	-698	-227	+418	+432	+280	+54.0	-37.3	-362	-228

Adjusted for change in reservoir contents‡

Mean	187	209	689	670	554	700	656	355	202	124	-177	-25.5
Cfsm	0.515	0.576	1.90	1.85	1.53	1.93	1.81	0.978	0.556	0.342	-0.488	-0.070
In.	0.59	0.64	2.19	2.13	1.59	2.22	2.02	1.13	0.62	0.39	-0.56	-0.08

	Observed			Adjusted		
Calendar year 1956:	Max 1,690	Min 165	Mean 597	Mean 636	C"sm 1.75	In. 23.86
Water year 1956-57:	Max 1,550	Min 5	Mean 412	Mean 344	C"sm 0.948	In. 12.88

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Lake Winnipesaukee.
‡ Negative figures indicate that evaporation and seepage from reservoirs exceeded inflow.
Note.--Discharge for period Oct. 1-8 computed on basis of estimated leakage, estimated discharge through canal and gates, and computed flow over spillway. No deflection record Nov. 7, 8, June 9, 15, 16, 22, 23, July 3-5, 7; discharge computed from reconstructed graph based on typical regulation pattern, observer's record of gate operation, and engineer's notes. Discharge for periods Apr. 27, 28, May 4 to June 4, July 8 to Aug. 26, Aug. 31 to Sept. 2, Sept. 7, 8, 14, 15, 21, 22, 28-30 estimated on basis of 9 discharge measurements, observer's record of gate operation, and engineer's estimate of leakage.

Winnipesaukee River at Tilton, N. H.

Location.--Lat 43°26'30", long 71°35'15", on right bank at Tilton, Belknap County, 0.3 mile upstream from Packer Brook.

Drainage area.--471 sq mi.

Records available.--January 1937 to September 1957.

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

Average discharge.--20 years, 698 cfs.

Extremes.--Maximum discharge during year, 1,690 cfs Jan. 15 (gage height, 5.61 ft); maximum gage height, 5.68 ft Jan. 15 (backwater from ice); minimum daily discharge, 117 cfs July 3.

1937-57: Maximum discharge, 3,810 cfs Sept. 21, 1938 (gage height, 7.90 ft), from rating curve extended above 2,100 cfs on basis of computation of peak flow over dam; maximum gage height, 7.93 ft Mar. 27, 1953; minimum daily discharge, 48 cfs Aug. 31, 1941.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by powerplants and by Winnipesaukee (see p. 81), Winnisquam, Merrymeeting (see p. 109), and other lakes above station.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 25, 26; backwater from debris July 29-31, Aug. 10, 11, 15-21, Sept. 17, 24-30)

Oct. 1 to June 26				June 27 to Sept. 30	
2.7	163	4.0	660	2.5	115
3.1	287	5.0	1,250	2.8	169
3.5	437	6.0	2,000	3.1	245

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	375	*541	356	b1,370	1,410	485	477	203	202	*139	184	173
2	473	541	379	b1,360	1,400	449	640	*200	260	122	182	173
3	473	541	*528	b1,360	1,400	425	844	203	231	a117	182	173
4	441	541	537	1,380	1,400	494	850	215	218	124	182	175
5	433	537	537	1,380	1,360	591	640	209	212	*134	182	175
6	429	537	541	1,380	1,220	425	680	197	209	164	182	177
7	445	537	541	*1,380	1,190	457	670	197	209	239	182	180
8	461	532	394	1,380	1,140	582	645	200	206	212	180	182
9	449	523	429	1,380	1,040	a577	465	*212	203	200	182	180
10	441	345	b572	1,390	1,040	453	465	218	200	190	183	184
11	437	368	b572	1,380	1,040	410	519	224	200	188	183	182
12	437	528	b610	1,380	1,020	a450	615	224	194	186	184	175
13	437	541	665	b1,370	940	a570	620	224	197	184	*167	173
14	433	550	670	b1,460	802	a430	445	218	197	184	177	175
15	433	545	660	b1,660	784	a440	375	221	200	182	183	173
16	429	545	680	1,680	784	a450	437	215	191	182	190	180
17	429	541	660	1,650	695	a455	572	206	188	186	186	190
18	429	554	b635	1,460	b568	a465	537	206	191	188	183	180
19	445	545	b615	1,380	568	a470	375	206	194	190	183	173
20	541	541	755	1,380	559	*469	345	234	197	186	183	173
21	563	550	1,040	1,380	506	465	338	280	188	184	183	173
22	563	625	1,050	1,360	b349	494	338	218	183	182	184	171
23	550	610	1,060	b1,490	327	601	327	218	180	184	177	186
24	537	577	1,060	b1,530	323	685	*323	206	188	182	173	197
25	537	559	b1,070	1,500	327	545	319	212	200	180	173	200
26	532	559	1,070	1,460	338	502	312	215	240	182	*177	197
27	532	554	1,060	1,430	*469	615	298	215	*223	182	177	200
28	532	559	1,060	1,420	511	465	280	*280	173	194	177	202
29	537	554	1,170	1,420	-	433	231	250	192	195	173	202
30	537	537	b1,370	*1,420	--------	437	206	200	156	*192	173	*200
31	541	--------	b1,380	1,410	--------	421	--------	194	--------	186	173	--------
Total	14,831	16,117	23,726	44,380	23,510	15,210	14,188	6,720	6,022	5,540	5,615	5,474
Mean	478	537	765	1,432	840	491	473	217	201	179	181	182
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 1,940 Min 250 Mean 719 Cfsm - In. -
Water year 1956-57: Max 1,680 Min 117 Mean 497 Cfsm - In. -

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and powerplant records.
b Stage-discharge relation affected by ice.

Merrimack River at Franklin Junction, N. H.

Location.--Lat 43°25'25", long 71°39'10", on right bank at Franklin Junction, Merrimack County, 1 mile downstream from confluence of Pemigewasset and Winnipesaukee Rivers.

Drainage area.--1,507 sq mi.

Records available.--July 1903 to September 1957.

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

Average discharge.--52 years (1905-57), 2,786 cfs.

Extremes.--Maximum discharge during year, 8,120 cfs Apr. 22 (gage height, 9.03 ft); minimum daily, 209 cfs Sept. 14.
1903-57: 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 determination and computation of flow over dam at gage height 29.5 ft, and velocity-area study; minimum daily, that of Sept. 14, 1957.

Remarks.--Records excellent except those for periods of ice effect or backwater from aquatic vegetation, which are good, and those for period of no gage-height record, which are fair. Flow regulated by powerplants, by Franklin Falls Reservoir since 1942, and by Squam, Little Squam, Newfound, Winnipesaukee, Winnisquam, Wentworth, Merrymeeting, and other lakes. See pages 81, 109, for description and month-end contents of many of these reservoirs.

Revisions (water years).--WSP 401: 1913 calendar year. WSP 641: 1923(M). WSP 756: Drainage area. WSP 781: 1928(M). WSP 1231: 1911-13, 1916-17(M), 1919(M), 1922(M).

Rating table, water year 1956-57, except periods of ice effect and backwater from aquatic vegetation (gage height, in feet, and discharge, in cubic feet per second)

3.0	190	5.0	1,630
3.5	420	7.0	4,270
4.0	735	9.0	8,060

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,580	*1,470	1,610	b2,250	2,890	4,290	2,370	2,760	1,150	1,740	941	255
2	1,610	1,550	1,110	b2,500	2,480	3,430	2,300	2,190	1,240	1,260	858	333
3	1,600	1,800	1,630	b2,400	2,630	2,800	4,060	2,060	1,390	844	384	575
4	1,640	1,840	1,720	b2,500	2,620	2,500	4,030	1,850	1,710	1,090	649	494
5	1,520	1,510	*1,580	b2,000	2,740	2,260	3,020	1,610	1,410	2,060	721	503
6	774	1,500	1,580	b2,250	2,560	1,950	3,220	1,560	1,290	4,140	685	578
7	1,760	1,490	1,720	2,340	2,490	1,760	3,760	1,470	1,260	2,620	725	274
8	4,030	1,490	1,960	2,410	2,310	1,880	3,530	1,410	1,120	1,940	755	475
9	2,940	1,390	2,650	2,410	1,750	2,170	2,980	1,430	1,020	1,530	481	538
10	2,300	806	2,420	2,390	2,100	2,220	2,780	1,490	1,220	1,590	395	551
11	1,960	1,030	2,260	b2,350	2,210	2,250	2,730	1,030	1,200	1,960	630	581
12	1,910	1,540	2,280	b1,900	2,040	2,030	2,680	1,540	1,100	1,730	870	562
13	1,510	1,460	2,780	b2,200	1,940	2,100	2,840	1,230	a1,000	1,090	726	478
14	1,440	1,510	2,930	b2,450	1,800	1,910	2,810	1,320	a850	922	661	209
15	1,510	1,530	2,480	b2,600	1,740	1,980	2,500	1,730	a800	1,060	575	357
16	1,570	1,450	2,400	b2,600	1,270	2,840	2,410	2,340	a1,050	1,070	558	581
17	1,510	1,400	2,910	b2,600	1,540	3,040	2,630	2,130	a1,000	976	301	703
18	1,440	1,490	2,940	b2,650	1,620	2,990	2,450	1,770	a800	1,010	556	559
19	1,540	1,660	2,450	b1,800	1,440	2,800	2,500	1,710	a750	966	568	469
20	620	1,480	2,300	b2,300	1,390	*2,710	3,040	1,500	a800	292	537	499
21	1,350	1,470	2,640	2,480	1,450	2,640	4,380	3,370	a850	777	555	311
22	1,580	3,610	2,680	2,560	1,210	2,280	6,810	3,330	a500	830	543	405
23	1,520	5,080	2,650	3,440	1,020	2,800	4,770	2,470	a650	910	481	774
24	1,520	3,180	2,280	5,350	1,010	3,050	4,140	2,050	a800	916	268	1,160
25	1,540	2,230	2,730	5,110	1,330	2,800	*3,950	1,820	a900	919	429	887
26	1,550	2,110	2,680	4,170	1,320	2,630	3,230	1,710	a1,150	886	*550	705
27	923	2,170	2,550	3,800	*2,220	2,760	2,840	1,540	*1,490	382	*554	494
28	1,260	2,170	2,280	3,350	4,560	2,590	3,150	2,060	1,520	796	538	270
29	1,430	2,080	2,240	3,090	-	2,450	3,050	*1,870	1,680	*976	545	562
30	1,410	1,870	b2,350	3,140	-------	2,520	2,680	1,720	1,760	1,310	553	610
31	1,380	-------	b2,300	2,950	-------	2,140	-------	1,470	-------	1,340	275	-------
Total	50,227	55,366	71,090	86,340	55,680	78,570	97,640	57,540	33,460	39,932	17,867	15,752
Mean	1,620	1,846	2,293	2,785	1,989	2,535	3,255	1,856	1,115	1,288	576	525
Cfsm	1.07	1.22	1.52	1.85	1.32	1.68	2.16	1.23	0.740	0.855	0.382	0.348
In.	1.24	1.37	1.75	2.13	1.37	1.94	2.41	1.42	0.83	0.99	0.44	0.39

Calendar year 1956: Max 15,900 Min 452 Mean 2,838 Cfsm 1.88 In. 25.65
Water year 1956-57: Max 6,810 Min 209 Mean 1,807 Cfsm 1.20 In. 16.28

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for other stations in Merrimack River basin.
b Stage-discharge relation affected by ice.
Note.--Backwater from aquatic vegetation June 2-12, June 27 to Sept. 30. Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

Contoocook River at Peterboro, N. H.

Location.--Lat 42°51'45", long 71°57'35", on left bank 1,100 ft downstream from milldam, 1 mile south of Peterboro, Hillsboro County, and 1½ miles upstream from Nubanusit Brook.

Drainage area.--68.1 sq mi.

Records available.--July 1945 to September 1957.

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

Average discharge.--12 years, 122 cfs.

Extremes.--Maximum discharge during year, about 600 cfs Jan. 24; maximum gage height, 5.25 ft Jan. 23 (backwater from ice); minimum daily discharge, 5.0 cfs Oct. 31.

1945-57: Maximum discharge, 2,640 cfs Nov. 26, 1950 (gage height, 6.35 ft), from rating curve extended above 1,700 cfs by logarithmic plotting; 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 periods of ice effect, which are fair. Flow regulated by mill and reservoirs above station.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 21				Nov. 22 to Sept. 30			
0.8	3.6	1.4	36	0.9	6.2	2.0	133
.9	6.0	1.7	71	1.0	9.8	2.5	262
1.0	9.2	2.0	124	1.2	22	3.0	440
1.2	20			1.5	51	3.2	515

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	6.2	34	72	95	138	144	99	38	46	9.0	6.2
2	32	20	27	69	80	99	188	102	35	63	9.0	6.2
3	42	14	29	67	98	107	250	90	38	75	9.8	*6.2
4	44	18	72	65	92	109	193	43	36	25	9.4	6.2
5	47	24	*72	56	88	99	188	61	*19	26	9.4	8.6
6	33	12	30	47	85	86	336	80	29	21	8.2	7.1
7	43	28	29	70	83	91	324	53	99	18	7.8	8.3
8	52	31	56	69	81	87	259	29	64	23	*7.4	7.8
9	59	42	57	67	74	91	256	27	70	13	6.8	7.4
10	43	16	73	58	77	101	259	60	49	22	7.2	7.1
11	40	15	45	54	87	113	259	68	31	14	7.4	24
12	37	40	230	40	84	86	272	125	9.3	14	7.1	16
13	19	31	248	50	75	102	243	143	45	9.0	6.8	28
14	19	14	186	65	67	157	190	86	82	8.6	7.1	9.3
15	29	18	102	64	62	204	187	79	70	36	8.2	6.5
16	23	31	143	60	55	281	154	88	82	70	7.8	45
17	32	26	149	54	50	243	156	68	78	*70	8.6	28
18	44	20	123	45	54	217	160	58	76	88	7.4	28
19	30	31	120	40	50	171	163	47	88	59	6.8	11
20	16	48	113	40	56	141	98	67	92	40	6.2	34
21	16	40	104	45	58	163	91	117	81	30	6.2	14
22	34	177	81	50	50	171	113	90	79	16	6.2	7.4
23	47	134	89	120	45	170	106	66	68	26	6.5	9.0
24	35	81	109	500	63	166	137	54	71	29	7.8	24
25	41	48	109	420	93	172	118	42	100	7.4	6.8	9.0
26	*32	94	105	350	116	156	97	40	117	9.0	9.0	15
27	10	65	70	250	284	149	103	49	129	10	9.0	7.1
28	16	89	90	180	213	176	107	80	116	13	7.8	9.0
29	31	71	68	150	-	*172	122	64	53	13	7.1	6.8
30	19	89	70	120	--------	113	*97	49	29	13	6.8	6.2
31	5.0	--------	75	105	--------	116	--------	42	--------	9.8	9.1	--------
Total	1,056.0	1,373.2	2,908	3,442	2,415	4,447	5,370	2,166	1,973.3	916.8	239.7	408.4
Mean	34.1	45.8	93.8	111	86.2	143	179	69.9	65.8	29.6	7.73	13.6
Cfsm	0.501	0.673	1.38	1.63	1.27	2.10	2.63	1.03	0.966	0.435	0.114	0.200
In.	0.58	0.75	1.59	1.88	1.32	2.43	2.93	1.18	1.08	0.50	0.13	0.22

Calendar year 1956: Max 1,410 Min 3.6 Mean 135 Cfsm 1.98 In. 27.00
Water year 1956-57: Max 500 Min 5.0 Mean 73.2 Cfsm 1.07 In. 14.59

Peak discharge (base, 700 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 19, Dec. 26 to Feb. 24.

Nubanusit Brook near Peterboro, N. H.

Location.--Lat 42°53'10", long 71°58'25", on left bank 1¼ miles downstream from Edward MacDowell Reservoir, 1.3 miles northwest of Peterboro, Hillsboro County, and 1½ miles upstream from mouth.

Drainage area.--46.9 sq mi.

Records available.--October 1920 to September 1931, July 1945 to September 1957. October 1920 monthly discharge only, 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.--23 years, 84.3 cfs.

Extremes.--Maximum discharge during year, 303 cfs Jan. 28 (gage height, 3.08 ft); minimum daily, 5.2 cfs Sept. 29.
1920-31, 1945-57: 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.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by mills, Nubanusit Lake, Edward MacDowell Reservoir since March 1950 (see p. 109), and other reservoirs above station.

Revisions (water years).--WSP 561: 1921(M). WSP 1051: Drainage area.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 25				Jan. 26 to Sept. 30			
0.9	12	1.5	49	0.6	4.5	1.5	54
1.0	16	2.0	105	.7	6.6	2.0	113
1.2	26	2.5	182	.9	13	3.0	286
				1.2	29	3.1	307

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	18	65	60	130	191	88	49	40	40	25	9.9
2	18	20	64	60	83	177	107	40	36	33	21	7.4
3	18	19	66	40	74	109	147	36	40	24	17	19
4	18	20	66	58	72	96	145	32	*39	23	15	19
5	22	20	*27	77	71	85	136	32	32	31	17	*14
6	22	19	81	70	68	70	168	31	28	32	8.8	15
7	31	18	128	60	66	67	213	28	27	29	*14	6.8
8	36	21	125	57	56	65	217	25	26	25	13	6.0
9	32	15	120	51	49	67	200	23	23	21	6.3	6.1
10	28	a17	113	48	50	70	179	23	19	18	6.0	11
11	23	a17	73	51	*53	71	163	40	17	*15	6.9	13
12	21	a18	87	50	53	70	153	77	15	15	15	24
13	22	a21	153	44	*53	68	150	96	15	12	7.1	17
14	33	23	174	*40	51	73	142	83	16	12	6.9	6.0
15	43	22	163	43	50	77	127	81	16	12	9.8	5.8
16	47	22	139	40	49	150	109	94	16	11	6.6	14
17	48	21	87	31	47	203	97	90	15	10	5.6	15
18	44	25	87	33	44	213	90	71	14	10	5.4	15
19	31	26	78	36	30	208	83	57	13	10	7.9	17
20	25	29	58	44	32	195	81	59	16	8.8	12	16
21	21	24	51	41	32	198	76	109	17	8.5	11	14
22	19	58	53	37	32	161	71	124	14	8.6	16	6.0
23	20	71	60	47	32	130	66	101	12	8.5	26	16
24	23	74	44	42	32	124	58	80	11	8.5	27	17
25	24	74	116	150	33	117	53	59	15	9.9	30	25
26	*18	73	147	267	47	109	47	48	26	10	35	26
27	19	71	122	160	102	103	51	55	57	11	31	34
28	18	69	98	238	167	*99	53	77	79	15	29	10
29	17	56	86	288	-	96	58	80	64	14	28	5.2
30	17	37	75	200	--------	94	*54	64	50	26	28	21
31	16	--------	64	135	--------	92	--------	50	--------	30	23	--------
Total	796	1,018	2,870	2,598	1,658	3,648	3,382	1,914	808	541.8	510.3	431.2
Mean	25.7	33.9	92.6	83.8	59.2	118	113	61.7	26.9	17.5	16.5	14.4
Cfsm	0.548	0.723	1.97	1.79	1.26	2.52	2.41	1.32	0.574	0.373	0.352	0.307
In.	0.63	0.81	2.28	2.06	1.31	2.89	2.68	1.52	0.64	0.43	0.40	0.34

Calendar year 1956: Max 619 Min 8.5 Mean 93.6 Cfsm 2.00 In. 27.16
Water year 1956-57: Max 288 Min 5.2 Mean 55.3 Cfsm 1.18 In. 15.99

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for Warner River at Davisville.
Note.--Stage-discharge relation affected by ice Dec. 18, 19, Dec. 30 to Jan. 25, Jan. 30 to Feb. 3, Feb. 5-9, 11-13, 15, 16, 20-22, Mar. 3-6, 10, 11, 13. Discharge in cubic feet per square mile and runoff in inches may not represent natural flow because of regulation.

North Branch Contoocook River near Antrim, N. H.

Location.--Lat 43°04'55", long 71°58'40", on right bank at North Branch, 4 miles northwest of Antrim, Hillsboro County, and 6 miles upstream from mouth.

Drainage area.--54.8 sq mi.

Records available.--August 1924 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 882.38 ft above mean sea level (levels by Corps of Engineers). Prior to Nov. 14, 1932, staff gage and Nov. 14, 1932, to Jan. 7, 1941, float gage, at same site and datum.

Average discharge.--33 years, 100 cfs.

Extremes.--Maximum discharge during year, 527 cfs Jan. 24 (gage height, 3.84 ft); minimum, 1.3 cfs Sept. 2.

1924-57: Maximum discharge, 5,000 cfs Mar. 19, 1936 (gage height, 9.30 ft, from floodmarks), from rating curve extended above 1,600 cfs on basis of slope-area determinations at gage heights 8.4 and 9.3 ft; minimum, 0.3 cfs Sept. 18, 1948, Aug. 5, 6, 1955.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by Highland Lake and several ponds above station.

Revisions (water years).--WSP 756: Drainage area. WSP 1231: 1925(M), 1926, 1927(M), 1928, 1929-30(M), 1933-36, 1938-40, 1944.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

-0.1	0.6	1.5	67
.1	2.4	2.0	123
.3	5.4	2.5	203
.6	12	3.0	304
1.0	30	4.0	580

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	19	72	78	115	146	148	37	50	41	8.1	1.6
2	18	16	65	80	105	124	138	37	46	37	7.0	1.4
3	17	15	62	76	92	110	203	37	45	31	8.8	2.8
4	*16	15	62	76	96	95	211	38	42	34	8.4	4.7
5	16	*15	59	78	86	88	196	38	37	35	5.1	3.2
6	16	14	56	70	76	82	235	37	*32	34	4.4	2.2
7	20	13	56	68	70	78	280	34	31	31	9.7	2.2
8	24	12	70	68	66	73	272	32	30	27	6.0	3.7
9	25	33	85	66	62	80	253	30	26	*24	*4.6	2.8
10	24	60	88	66	66	83	233	27	23	22	5.4	1.9
11	22	68	87	64	60	81	216	34	20	19	6.0	2.1
12	20	73	*126	62	56	68	205	44	18	18	5.1	1.8
13	19	76	176	60	53	67	218	52	16	15	4.6	1.7
14	18	75	185	58	51	80	212	52	14	13	4.6	1.7
15	18	70	168	*58	48	102	192	54	12	12	4.6	1.7
16	17	67	165	54	46	160	173	61	11	10	4.3	1.9
17	16	63	150	54	45	175	163	65	10	9.4	4.1	2.6
18	15	63	144	52	44	158	160	67	8.7	8.1	3.5	2.1
19	14	65	145	51	43	134	162	65	8.3	7.6	4.0	1.8
20	14	61	135	50	*42	120	162	72	8.1	7.0	3.2	1.7
21	14	61	118	50	40	*116	158	124	7.0	6.6	2.8	1.6
22	13	134	115	60	39	120	152	142	6.2	6.4	2.8	1.6
23	14	166	120	320	38	129	130	134	5.8	6.0	2.6	3.9
24	15	129	127	462	37	134	90	119	5.6	5.6	2.3	3.5
25	16	98	136	361	38	131	64	102	7.2	6.4	2.2	2.2
26	16	86	140	272	45	126	50	82	11	5.4	2.6	*2.0
27	35	89	145	218	140	120	35	72	15	7.3	2.6	1.9
28	56	82	126	183	175	120	31	75	20	8.9	2.1	1.9
29	39	77	111	160	-	127	33	73	34	7.0	1.9	1.9
30	28	72	92	145	--------	144	*35	65	42	6.8	1.8	1.9
31	22	--------	80	130	--------	149	--------	57	--------	8.1	1.7	--------
Total	639	1,887	3,466	3,650	1,874	3,520	4,810	1,958	641.9	509.6	136.9	68.0
Mean	20.6	62.9	112	118	66.9	114	160	63.2	21.4	16.4	4.42	2.27
Cfsm	0.376	1.15	2.04	2.15	1.22	2.08	2.92	1.15	0.391	0.299	0.081	0.041
In.	0.43	1.28	2.35	2.48	1.27	2.39	3.26	1.33	0.44	0.35	0.09	0.05

Calendar year 1956: Max 1,330 Min 0.6 Mean 101 Cfsm 1.84 In. 25.18
Water year 1956-57: Max 462 Min 1.4 Mean 63.5 Cfsm 1.16 In. 15.72

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 25, 26, Nov. 30 to Dec. 2, Dec. 5, 11, 19, 20, 26, 27, Dec. 30 to Jan. 23, Jan. 29 to Feb. 28, Mar. 4-6, 10, 11. Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

Beards Brook near Hillsboro, N. H.

Location.--Lat 43°06'50", long 71°55'35", on right bank 300 ft upstream from bridge on State Highway 9, 500 ft upstream from mouth, and 1½ miles west of Hillsboro, Hillsboro County.

Drainage area.--55.4 sq mi.

Records available.--October 1945 to September 1957. October 1945 monthly discharge only, published in WSP 1301.

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

Average discharge.--12 years, 95.3 cfs.

Extremes.--Maximum discharge during year, 600 cfs Jan. 23 (gage height, 3.75 ft); maximum gage height, 5.58 ft Jan. 23 (ice jam); minimum discharge, 1.7 cfs Aug. 19.
1945-57: Maximum discharge, 2,070 cfs Nov. 26, 1950 (gage height, 6.59 ft), from rating curve extended above 1,200 cfs by logarithmic plotting; minimum, 1.1 cfs Oct. 3, 1948.

Remarks.--Records good except those for periods of ice effect and those below 5 cfs, which are fair.

Revisions (water years).--WSP 1231: 1948.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23

1.7	19	2.6	167
2.0	44	3.0	308
2.3	89	3.5	500

Note.--Same as following table below 1.7 ft.

Jan. 24 to Sept. 30

1.08	2.0	1.5	9.9	2.6	170
1.1	2.3	1.7	19	3.0	308
1.2	3.7	1.8	26	3.5	500
1.3	5.3	2.0	46		
1.4	7.2	2.2	76		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	8.9	21	50	73	218	106	56	34	24	13	2.1
2	9.6	15	20	50	68	148	162	48	31	19	8.9	2.0
3	8.6	12	31	49	63	110	257	42	41	16	6.4	3.2
4	*8.3	9.9	29	49	62	84	192	41	37	30	5.0	3.2
5	9.9	*9.6	24	48	59	74	162	39	32	37	4.8	2.9
6	9.9	8.9	26	45	52	66	257	36	*26	38	4.3	2.4
7	17	8.9	28	44	49	60	323	33	44	26	4.6	3.3
8	30	8.9	68	44	48	56	246	30	37	19	3.8	8.0
9	25	8.9	69	43	48	68	218	27	31	*16	*3.5	5.6
10	18	8.9	60	43	48	84	192	25	24	14	5.0	4.7
11	14	9.5	*44	41	48	74	189	26	17	12	6.8	6.2
12	12	17	119	40	42	65	182	32	14	11	9.6	5.3
13	12	19	193	39	37	64	192	38	12	9.9	8.7	4.5
14	12	18	190	38	38	92	170	33	11	9.2	6.2	3.8
15	10	18	127	*37	37	140	137	42	12	8.3	5.3	3.4
16	9.9	20	140	37	35	250	117	80	8.9	7.4	4.8	3.7
17	9.2	15	146	36	34	250	108	65	7.4	6.6	4.5	4.8
18	8.6	23	110	35	32	200	106	49	7.2	5.8	3.8	4.5
19	8.3	15	94	34	32	155	106	41	6.8	5.3	3.3	3.7
20	8.0	13	86	34	*31	134	99	65	13	4.3	3.2	3.2
21	7.8	15	78	33	29	*124	93	196	12	3.8	2.9	4.9
22	8.3	118	72	37	28	145	89	143	8.6	3.5	2.7	4.3
23	9.6	124	62	370	27	164	80	95	6.8	3.4	2.4	6.6
24	12	69	80	460	28	170	73	70	6.2	3.1	2.3	6.6
25	11	48	94	319	29	148	65	52	8.3	6.7	2.1	*9.1
26	10	44	86	211	47	134	60	41	40	6.6	2.8	5.8
27	10	49	80	156	230	127	57	49	95	5.3	2.9	4.5
28	9.9	46	72	122	280	122	60	91	63	8.0	2.5	4.2
29	11	27	60	99	-	122	62	68	42	7.8	2.3	3.7
30	26	24	55	87	-------	120	*60	49	34	7.4	2.1	3.7
31	9.9	-------	50	76	-------	113	-------	40	-------	13	2.3	-------
Total	376.8	831.4	2,414	2,806	1,634	3,881	4,220	1,742	762.2	387.4	142.8	133.9
Mean	12.2	27.7	77.9	90.5	58.4	125	141	56.2	25.4	12.5	4.61	4.46
Cfsm	0.220	0.500	1.41	1.63	1.05	2.26	2.55	1.01	0.458	0.226	0.083	0.081
In.	0.25	0.56	1.62	1.88	1.10	2.61	2.83	1.17	0.51	0.26	0.10	0.09

Calendar year 1956: Max 1,380 Min 2.1 Mean 98.6 Cfsm 1.78 In. 24.23
Water year 1956-57: Max 460 Min 2.0 Mean 53.0 Cfsm 0.957 In. 12.98

Peak discharge (base, 910 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 24, 25, Nov. 29 to Dec. 2, Dec. 4, 5, 8, 10, 11, Dec. 18 to Jan. 23, Jan. 31, Feb. 6, 7, 9, 12, 13, 26-28, Mar. 4-6, 11, 13-19.

Contoocook River near Henniker, N. H.

Location.--Lat 43°09'10", long 71°51'25", on right bank 1.6 miles downstream from Sand Brook and 2.2 miles southwest of Henniker, Merrimack County.

Drainage area.--368 sq mi.

Records available.--October 1939 to September 1957.

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

Average discharge.--18 years, 630 cfs.

Extremes.--Maximum discharge during year, 3,030 cfs Jan. 24 (gage height, 9.56 ft); minimum daily, 37 cfs Sept. 2.

1939-57: Maximum discharge, 8,710 cfs June 26, 1944 (gage height, 13.13 ft); minimum daily, 19 cfs Oct. 29, 1940.

Maximum discharge known, 22,200 cfs Sept. 21, 1938 (gage height, 21.3 ft, from floodmarks), 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 periods of ice effect, which are fair. Flow regulated by powerplants and by Nubanusit Lake, Edward MacDowell Reservoir (see p. 109) since March 1950, Highland Lake, Jackman Reservoir, and other reservoirs above station.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

4.1	36	7.0	700
4.5	67	8.0	1,320
5.0	129	9.0	2,270
5.5	220	9.2	2,530
6.0	340		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	183	190	245	470	680	1,100	655	*346	249	143	113	39
2	269	162	193	450	530	740	812	328	205	129	108	37
3	267	144	224	435	451	560	1,120	305	286	137	101	40
4	*271	104	252	415	547	600	1,120	290	342	162	99	64
5	216	*131	225	360	540	560	998	216	340	171	102	82
6	184	178	226	300	525	520	1,120	186	*315	154	98	58
7	188	172	239	340	520	500	1,500	199	299	134	101	44
8	186	176	310	380	480	470	1,530	222	210	114	*111	51
9	197	170	388	370	390	410	1,330	193	180	*110	90	64
10	199	138	403	360	325	450	1,200	199	207	96	77	79
11	180	88	*379	350	440	560	1,200	188	226	85	80	87
12	180	138	476	300	500	580	1,160	154	201	80	77	81
13	176	188	920	250	510	540	1,050	174	184	75	72	60
14	162	154	1,100	280	450	660	932	367	159	81	68	45
15	179	120	742	320	400	926	920	379	145	87	67	42
16	230	132	715	320	300	1,240	866	403	129	122	65	65
17	227	118	884	310	240	1,400	715	400	123	128	58	93
18	228	106	830	300	340	1,380	690	335	170	132	56	90
19	160	154	660	275	360	1,180	680	282	178	131	56	93
20	143	237	630	225	350	*1,060	598	348	159	128	56	63
21	137	220	646	250	330	956	495	777	157	129	52	49
22	168	312	488	290	300	1,030	454	778	150	135	49	48
23	212	520	315	700	248	992	488	602	145	139	48	78
24	171	492	436	2,200	210	830	457	494	126	111	41	70
25	188	346	574	2,440	340	926	433	318	171	117	40	56
26	148	341	740	1,480	400	896	412	242	188	117	44	*51
27	131	357	780	1,110	800	836	370	364	292	96	42	49
28	126	384	710	980	1,200	830	340	551	263	86	42	46
29	126	356	578	900	-	830	406	558	249	84	42	46
30	196	349	400	860	--------	818	400	344	238	80	40	64
31	196	--------	450	800	--------	638	--------	356	--------	98	40	--------
Total	5,824	6,677	16,158	18,820	12,706	25,018	24,451	10,898	6,286	3,591	2,135	1,834
Mean	188	223	521	607	454	807	815	352	210	116	68.9	61.1
Cfsm	0.511	0.606	1.42	1.65	1.23	2.19	2.21	0.957	0.571	0.315	0.187	0.166
In.	0.59	0.67	1.63	1.90	1.28	2.53	2.47	1.10	0.64	0.36	0.22	0.19

Calendar year 1956: Max 6,690 Min 42 Mean 704 Cfsm 1.91 In. 26.03
Water year 1956-57: Max 2,440 Min 37 Mean 368 Cfsm 1.00 In. 13.58

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 1, 5, 19, 26, 27, Dec. 30 to Jan. 24, Jan. 29 to Feb. 1, Feb. 5-9, Feb. 11-22, Feb. 26 to Mar. 14. Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

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Warner River at Davisville, N. H.

Location.--Lat 43°15'05", long 71°43'50", on left bank 60 ft downstream from highway bridge at Davisville, Merrimack County, 2¼ miles northwest of Contoocook, and 2.4 miles upstream from mouth.

Drainage area.--146 sq mi.

Records available.--October 1939 to September 1957.

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.--18 years, 233 cfs.

Extremes.--Maximum discharge during year, 604 cfs Apr. 7 (gage height, 5.63 ft); minimum, 8.0 cfs Sept. 10, 11.

1939-57: Maximum discharge, 4,510 cfs Mar. 27, 1953 (gage height, 9.88 ft), from rating curve extended above 2,800 cfs by logarithmic plotting; minimum, 4.4 cfs Aug. 27-29, 1949.

Flood in September 1938 reached a stage of 12.8 ft, from information by local residents.

Remarks.--Records excellent except those for periods of ice effect, which are good. Prior to 1948, slight diurnal fluctuation at low flow caused by mill above station.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 6				Apr. 7 to Sept. 30			
3.4	20	4.5	190	3.16	8.0	4.2	115
3.6	35	5.0	348	3.2	9.6	4.6	203
4.0	84	6.0	780	3.3	14	5.0	333
				3.5	27	6.0	780
				3.8	56		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*47	28	78	140	233	463	293	160	70	59	39	13
2	43	28	78	145	215	376	313	147	68	44	31	13
3	42	28	74	138	196	320	416	132	*79	35	23	11
4	39	27	70	138	190	275	402	123	75	38	20	9.6
5	42	26	65	140	185	235	376	115	64	45	18	10
6	39	26	*70	125	172	210	476	108	56	53	16	9.6
7	50	26	70	123	163	200	590	103	56	44	*15	9.1
8	86	26	113	123	156	188	540	96	55	*36	14	10
9	80	26	140	121	147	224	478	88	48	31	12	8.7
10	65	26	155	121	142	313	444	82	43	29	15	8.0
11	55	23	155	117	144	280	440	80	36	26	69	8.7
12	47	23	198	115	136	251	423	82	36	23	64	11
13	43	27	293	110	*127	218	415	89	34	22	54	10
14	42	34	334	105	123	245	390	86	34	21	47	9.1
15	40	35	254	103	115	330	349	95	34	23	47	8.7
16	38	41	280	99	111	440	314	124	34	23	43	9.6
17	37	43	315	*98	109	514	289	112	33	21	37	16
18	34	39	295	96	107	*476	276	96	33	19	31	18
19	33	40	260	92	105	413	262	84	32	19	28	15
20	31	37	260	91	101	383	253	126	44	19	26	13
21	29	39	227	91	98	355	243	318	34	19	23	13
22	28	151	210	96	94	376	*225	314	29	19	21	15
23	28	207	185	270	91	409	209	237	30	19	19	15
24	36	165	212	527	91	416	196	186	27	19	18	14
25	36	115	239	554	92	394	183	149	30	21	16	13
26	34	100	220	463	111	366	176	126	84	19	15	12
27	34	115	200	405	280	348	166	119	162	16	13	12
28	33	109	215	352	470	341	160	136	121	18	14	11
29	32	105	195	313	-	334	153	128	92	19	14	10
30	30	94	165	277	--------	324	155	100	77	32	13	9.6
31	*30	--------	140	245	--------	310	--------	82	--------	37	13	--------
Total	1,283	1,809	5,765	5,933	4,304	10,327	9,605	4,023	1,650	868	828	345.7
Mean	41.4	60.3	186	191	154	333	320	130	55.0	28.0	26.7	11.5
Cfsm	0.284	0.413	1.27	1.31	1.05	2.28	2.19	0.890	0.377	0.192	0.183	0.079
In.	0.33	0.46	1.47	1.51	1.10	2.63	2.45	1.02	0.42	0.22	0.21	0.09

Calendar year 1956: Max 2,260 Min 11 Mean 241 Cfsm 1.65 In. 22.50
Water year 1956-57: Max 590 Min 8.0 Mean 128 Cfsm .877 In. 11.91

Peak discharge (base, 1,200 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 25, 26, 29, 30, Dec. 1, 9-11, 16-20, Dec. 26 to Jan. 2, Jan. 12-14, Feb. 27, 28, Mar. 4-7, 11.

Blackwater River near Webster, N. H.

Location.--Lat 43°17'50", long 71°41'40", on left bank 0.2 mile west of Dingit Corner, 2½ miles southeast of Webster, Merrimack County, and 6½ miles upstream from mouth.

Drainage area.--129 sq mi.

Records available.--May 1918 to September 1920, February 1927 to September 1957. Published as "near Contoocook" 1918-20, 1927-35. Records published for both sites October 1934 to September 1935.

Gage.--Water-stage recorder at present site since Oct. 1, 1934. 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.--32 years (1918-20, 1927-57), 213 cfs (adjusted to present site).

Extremes.--Maximum discharge during year, 480 cfs Jan. 25 (gage height, 4.30 ft); minimum, 17 cfs Sept. 2; minimum daily, 18 cfs Sept. 1, 2.

1918-20, 1927-57: 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 determinations of peak flow; minimum, 3 cfs Sept. 17, 1941 (gage height, 1.20 ft); minimum daily, 10 cfs Aug. 14, 1950.

Remarks.--Records excellent except those below 50 cfs and those for period of ice effect, which are good. High flow regulated by Blackwater Reservoir since 1941 (see p. 109). 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.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.9	18	3.0	135
2.0	22	3.5	241
2.2	36	4.0	381
2.5	63	4.5	550

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	41	67	99	154	391	223	121	73	73	132	18
2	66	40	79	104	144	378	230	116	67	61	97	18
3	61	40	70	100	135	305	311	109	*67	48	67	20
4	59	41	67	96	128	234	381	102	66	44	48	23
5	61	40	56	96	126	189	334	99	61	46	41	26
6	61	40	71	93	121	162	346	95	56	64	36	27
7	67	40	66	90	116	148	400	89	53	86	*32	28
8	99	39	80	90	112	137	426	85	52	*76	28	28
9	125	38	130	88	108	150	394	80	50	54	26	28
10	115	37	174	87	106	214	343	76	46	46	32	27
11	96	35	154	84	104	227	311	72	43	42	47	28
12	82	34	170	83	103	218	302	72	40	39	85	28
13	73	36	200	82	97	187	297	73	38	36	103	28
14	67	40	251	80	95	185	302	72	35	33	85	27
15	62	43	211	79	90	234	281	77	43	35	59	26
16	60	48	241	76	88	322	246	90	48	38	48	28
17	61	48	243	76	86	416	223	97	50	39	41	34
18	60	48	258	75	86	*432	214	89	48	36	35	37
19	55	48	176	74	85	368	216	76	42	32	31	35
20	52	48	172	73	82	308	220	86	46	28	27	33
21	48	47	189	73	81	273	220	163	46	26	25	32
22	47	87	170	74	79	275	216	251	42	24	22	32
23	48	186	139	115	77	305	200	223	38	23	22	32
24	48	232	156	290	76	322	181	162	34	22	21	*35
25	48	162	172	440	76	305	164	123	35	23	19	37
26	48	121	162	432	79	281	150	97	64	24	19	35
27	45	108	152	346	158	260	143	86	109	24	20	31
28	43	102	160	268	313	253	139	102	114	25	22	27
29	42	93	160	223	-	246	133	120	103	30	21	24
30	42	88	128	192	-------	243	126	103	88	62	21	23
31	*42	-------	106	170	-------	234	-------	84	-------	132	20	-------
Total	1,955	2,050	4,630	4,348	3,105	8,202	7,672	3,290	1,697	1,371	1,332	855
Mean	63.1	68.3	149	140	111	265	256	106	56.6	44.2	43.0	28.5
Cfsm	0.489	0.529	1.16	1.09	0.860	2.05	1.98	0.822	0.439	0.343	0.333	0.221
In.	0.56	0.59	1.33	1.25	0.90	2.36	2.21	0.95	0.49	0.40	0.38	0.25

Calendar year 1956: Max 2,050 Min 22 Mean 212 Cfsm 1.64 In. 22.41
Water year 1956-57: Max 440 Min 18 Mean 111 Cfsm 0.860 In. 11.67

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Jan. 3-25.

Contoocook River at Penacook, N. H.

Location.--Lat 43°17'10", long 71°36'00", on right bank at Penacook, Merrimack County, half a mile upstream from mouth.

Drainage area.--766 sq mi.

Records available.--October 1928 to September 1957. October 1928 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 273.09 ft above mean sea level, datum of 1929.

Average discharge.--29 years, 1,259 cfs.

Extremes.--Maximum discharge during year, about 4,000 cfs Jan. 25; maximum gage height, 5.29 ft Jan. 25 (affected by ice); minimum discharge, 72 cfs Sept. 4, 30; minimum daily, 83 cfs Aug. 28, 29.
1928-57: Maximum discharge, 46,800 cfs Mar. 20, 1936 (gage height, 14.26 ft, from floodmarks); minimum, 44 cfs Oct. 20, 1950; minimum daily, 81 cfs Aug. 19, 1950.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow regulated by mills and by Nubanusit Lake, Edward MacDowell Reservoir since March 1950, Highland Lake, Jackman Reservoir, Blackwater Reservoir since 1941 (see p. 109), and other reservoirs above station.

Revisions (water years).--WSP 756: 1933(M), drainage area. WSP 1231: 1929, 1931.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.3	75	2.5	840
1.4	95	3.0	1,540
1.6	159	4.0	3,400
1.8	252	5.0	5,820
2.1	450		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	406	324	560	800	1,340	2,340	1,320	780	602	*458	331	103
2	384	324	482	820	1,170	2,070	1,540	720	458	351	305	85
3	428	293	458	800	924	1,600	2,000	670	*474	287	282	85
4	435	247	460	760	864	1,340	2,210	602	548	258	207	85
5	443	242	*465	720	988	1,200	2,070	575	557	318	189	93
6	384	276	458	640	988	1,100	2,370	530	530	337	202	108
7	384	287	450	620	936	1,050	2,820	514	522	337	*189	133
8	458	299	514	680	888	1,000	2,820	458	490	337	176	144
9	490	299	720	*690	780	920	2,670	482	384	287	168	129
10	474	282	840	670	660	1,000	2,410	450	364	247	180	137
11	428	232	830	660	680	1,100	2,320	414	377	222	202	148
12	392	222	936	600	*860	1,350	2,250	421	377	198	270	148
13	351	270	1,330	540	840	1,280	2,180	443	344	176	311	152
14	331	311	1,880	550	768	1,300	1,980	490	311	159	282	148
15	357	299	1,590	580	720	1,680	1,800	660	311	163	242	129
16	351	264	1,480	580	640	2,300	1,730	720	247	176	222	108
17	399	258	1,560	570	530	2,800	1,560	732	282	180	193	126
18	392	247	1,600	560	505	*2,700	1,410	670	299	222	180	168
19	384	270	1,400	540	620	2,460	1,370	575	287	207	137	176
20	324	331	1,280	480	660	2,190	1,340	593	311	202	108	168
21	242	377	1,210	470	660	1,960	1,210	1,160	305	180	111	159
22	287	615	1,120	540	610	1,960	*1,100	1,620	287	207	133	155
23	318	948	864	750	560	2,120	1,060	1,370	247	207	148	137
24	364	1,090	912	2,700	460	2,030	1,030	1,100	270	202	152	122
25	331	852	1,150	3,900	440	1,900	936	864	293	202	108	176
26	318	700	1,270	3,300	600	1,900	900	630	370	193	89	159
27	318	720	1,330	2,480	1,090	1,800	840	620	611	185	85	140
28	222	720	1,300	1,900	1,900	1,710	768	816	670	159	83	140
29	*264	670	1,200	1,740		1,690	804	960	575	185	83	103
30	282	650	920	1,640	--------	1,680	852	840	530	207	87	87
31	311	--------	800	1,540	--------	1,570	--------	584	--------	264	111	--------
Total	11,252	12,919	31,369	33,820	22,681	53,100	49,670	22,063	12,233	7,313	5,566	3,951
Mean	363	431	1,012	1,091	810	1,713	1,656	712	408	236	180	132
Cfsm	0.474	0.563	1.32	1.42	1.06	2.24	2.16	0.930	0.533	0.308	0.235	0.172
In.	0.55	0.63	1.52	1.64	1.10	2.58	2.41	1.07	0.59	0.36	0.27	0.19

Calendar year 1956: Max 9,960 Min 103 Mean 1,327 Cfsm 1.73 In. 23.57
Water year 1956-57: Max 3,900 Min 83 Mean 729 Cfsm 0.952 In. 12.91

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 1, 4, 5, 10, 11, 18-22, Dec. 25 to Jan. 26, Feb. 9, 11-13, 15-28, Mar. 3-16.

Soucook River near Concord, N. H.

Location.--Lat 43°14'22", long 71°27'44", 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 Capitol at Concord, Merrimack County.

Drainage area.--76.8 sq mi.

Records available.--October 1951 to September 1957.

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

Average discharge.--6 years, 121 cfs.

Extremes.--Maximum discharge during year, 398 cfs Mar. 16 (gage height, 7.42 ft); minimum, 3.8 cfs Aug. 22-25, 29, Sept. 2.
1951-57: Maximum discharge, 2,380 cfs Apr. 6, 1952 (gage height, 12.35 ft); minimum, 3.3 cfs Sept. 22-24, 1955.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Revisions (water years).--WSP 1331: 1952(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 28 to Sept. 30)

Oct. 1 to Nov. 22		Nov. 23 to Sept. 30			
4.4	17	4.1	3.8	5.5	99
4.5	23	4.2	6.5	6.0	158
5.0	58	4.3	10	7.0	317
5.5	106	4.6	24	7.5	415
6.0	166	5.0	52		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	28	54	80	119	321	134	57	27	*20	26	4.0
2	28	*29	51	82	111	232	177	52	27	17	16	3.8
3	27	29	48	84	103	180	263	47	49	14	12	4.0
4	27	26	46	84	103	144	198	46	37	17	9.7	4.3
5	33	25	43	80	100	123	183	45	29	20	9.7	*4.5
6	33	31	*46	76	91	111	313	42	25	26	7.9	4.5
7	60	27	52	74	85	106	301	40	28	19	6.9	4.8
8	99	23	71	74	80	101	232	38	29	15	*a6.2	5.3
9	69	25	89	74	74	122	210	37	23	13	a5.4	5.0
10	54	25	85	72	78	185	200	33	21	13	a7.0	5.0
11	46	22	77	70	78	148	214	39	18	12	11	5.0
12	40	23	135	70	72	138	194	42	17	11	16	5.0
13	37	32	198	68	68	125	185	43	16	10	13	5.0
14	35	42	210	66	66	152	164	40	15	10	9.7	5.0
15	33	37	140	64	*64	212	145	50	26	9.0	7.6	5.0
16	31	33	155	*62	62	332	132	84	27	8.3	6.9	6.2
17	29	31	178	60	62	348	122	62	18	7.6	6.5	8.3
18	28	32	145	60	61	284	118	48	14	6.9	6.2	7.9
19	40	33	127	58	60	237	111	42	13	6.5	5.6	7.2
20	30	31	126	58	58	216	114	53	14	a5.5	4.8	6.9
21	28	36	117	58	56	195	104	165	13	a4.8	4.3	6.2
22	23	166	100	66	53	221	92	117	11	a4.3	3.8	6.2
23	31	159	92	200	51	238	86	85	8.3	a4.0	3.8	8.9
24	57	102	104	373	52	227	80	69	7.6	a4.0	3.8	15
25	61	81	158	360	53	*202	*74	53	9.7	11	3.8	9.7
26	46	75	158	310	65	186	73	44	24	12	4.3	7.9
27	39	85	128	238	220	175	71	*44	46	7.9	4.8	7.2
28	34	89	135	195	360	169	68	46	40	17	4.0	6.5
29	31	82	120	158	-	159	65	40	29	20	4.0	6.2
30	28	73	91	128	-------	152	62	35	25	31	4.3	5.3
31	28	-------	81	125	-------	144	-------	30	-------	33	4.3	-------
Total	1,218	1,532	3,360	3,627	2,505	5,885	4,485	1,668	686.6	409.8	239.3	185.8
Mean	39.3	51.1	108	117	89.5	190	150	53.8	22.9	13.2	7.72	6.19
Cfsm	0.512	0.665	1.41	1.52	1.17	2.47	1.95	0.701	0.298	0.172	0.101	0.081
In.	0.59	0.74	1.63	1.76	1.21	2.85	2.17	0.81	0.33	0.20	0.12	0.09

Calendar year 1956: Max 1,330 Min 6.3 Mean 113 Cfsm 1.47 In. 19.98
Water year 1956-57: Max 373 Min 3.8 Mean 70.7 Cfsm 0.921 In. 12.50

Peak discharge (base, 700 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, and records for stations on nearby streams.
Note.--Stage-discharge relation affected by ice Nov. 30, Dec. 1, 18, Jan. 1-23, Feb. 7-15, 27, 28.

Suncook River at North Chichester, N. H.

Location.--Lat 43°15'25", long 71°22'10", on left bank at North Chichester, Merrimack County, 3.1 miles upstream from Little Suncook River.

Drainage area.--157 sq mi.

Records available.--May 1918 to September 1920, June 1921 to November 1927, November 1928 to September 1957.

Gage.--Water-stage recorder. Concrete control since Sept. 14, 1937. Datum of gage is 329.35 ft above mean sea level, adjustment of 1912.

Average discharge.--36 years (1918-20, 1921-27, 1929-57), 241 cfs.

Extremes.--Maximum discharge during year, about 950 cfs Jan. 24; minimum, 1.9 cfs Sept. 29, 30; minimum daily, 1.9 cfs Sept. 30.
1918-57: Maximum discharge, 12,900 cfs Mar. 19, 1936 (gage height, 15.27 ft, from floodmarks), from rating curve extended above 4,800 cfs on basis of slope-area and contracted-opening determinations of peak flow; minimum, 0.4 cfs Sept. 4, 1926; minimum daily, 1.4 cfs Sept. 4, 1926.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by mills and reservoirs above station; regulation greater prior to 1949.

Revisions (water years).--WSP 781: 1923(M). WSP 1231: 1919(M), 1920, 1922, 1924(M), 1933-34(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.27	1.9	3.4	113
2.3	2.4	3.7	195
2.4	4.4	4.0	290
2.5	7.2	4.5	515
2.6	11	5.0	700
2.8	23	6.0	950
3.1	56		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*67	98	150	200	350	750	306	98	53	*49	48	8.3
2	59	*98	138	205	330	600	440	91	61	44	39	8.7
3	58	89	135	210	310	490	568	83	89	43	28	9.4
4	55	87	130	210	305	390	402	74	78	47	28	9.8
5	64	89	125	200	285	350	370	83	66	50	31	*11
6	76	80	*120	190	260	310	546	74	64	48	26	9.0
7	174	78	133	185	240	290	546	64	69	42	23	11
8	234	76	174	185	225	276	485	58	64	43	*22	17
9	195	82	216	185	210	350	455	56	62	41	21	10
10	157	76	225	180	220	465	440	55	61	41	20	9.4
11	126	76	200	175	220	375	445	56	51	36	16	9.4
12	104	80	394	175	200	330	415	67	50	34	20	9.0
13	87	100	564	170	195	306	397	74	50	29	23	8.3
14	83	106	538	165	180	350	362	70	47	30	22	7.6
15	83	102	390	160	175	425	330	91	43	35	21	7.2
16	76	100	380	*155	170	606	286	157	43	29	14	7.6
17	70	87	397	150	168	638	266	126	48	28	13	9.8
18	67	93	350	150	165	533	255	100	42	28	12	8.0
19	64	100	305	145	160	440	222	87	59	26	11	*6.3
20	58	89	290	145	155	406	207	109	80	22	11	5.7
21	62	98	262	145	150	374	204	230	61	24	11	5.7
22	69	357	252	160	145	415	195	201	47	28	11	3.2
23	102	374	245	400	140	440	174	152	46	26	11	3.1
24	210	272	260	900	140	440	160	120	46	27	10	3.5
25	186	210	350	850	145	*402	*130	93	53	28	10	3.1
26	154	204	400	720	160	366	123	83	66	28	11	2.7
27	130	216	360	640	650	354	116	*87	78	28	11	2.5
28	118	219	310	560	900	342	116	83	69	47	10	2.2
29	109	201	283	490	-	334	113	78	58	62	9.4	2.1
30	100	175	250	430	-------	330	104	62	53	64	9.4	1.9
31	91	-------	210	380	-------	326	-------	67	-------	61	9.0	-------
Total	3,288	4,112	8,536	9,215	6,953	12,803	9,178	2,929	1,757	1,168	561.8	212.5
Mean	106	137	275	297	248	413	306	94.5	58.6	37.7	18.1	7.08
Cfsm	0.675	0.873	1.75	1.89	1.58	2.63	1.95	0.602	0.373	0.240	0.115	0.045
In.	0.78	0.97	2.02	2.18	1.65	3.03	2.17	0.69	0.42	0.28	0.13	0.05

Calendar year 1956 :	Max	2,440	Min	20	Mean	275	Cfsm	1.75	In.	23.85
Water year 1956-57 :	Max	900	Min	1.9	Mean	166	Cfsm	1.06	In.	14.37

Peak discharge (base, 1,500 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 30, Dec. 1, 3-5, 11, 15, 16, 18-20, 23, 24, 26, 27, Dec. 30 to Mar. 7, Mar. 10, 11 (no gage-height record Jan. 23-27).

South Branch Piscataquog River near Goffstown, N. H.

Location.--Lat 43°00'50", long 71°38'30", on right bank 20 ft upstream from highway bridge, 1.4 miles upstream from mouth, and 2.2 miles west of Goffstown, Hillsboro County.

Drainage area.--104 sq mi.

Records available.--July 1940 to September 1957.

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

Average discharge.--17 years, 166 cfs.

Extremes.--Maximum discharge during year, 986 cfs Jan. 24 (gage height, 6.06 ft); maximum gage height, 7.78 ft Jan. 23 (ice jam); minimum discharge, 3.5 cfs Sept. 1, 2, 10, 11. 1940-57: Maximum discharge, 4,100 cfs June 25, 1944 (gage height, 9.47 ft); maximum gage height, 11.18 ft Mar. 20, 1948 (ice jam); minimum discharge, 3.0 cfs Sept. 22, 1941.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Some regulation at low flow caused by mill above station.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 26

3.0	11	4.0	120
3.2	22	4.5	247
3.4	38	5.0	425
3.7	72	6.0	950

Feb. 27 to Sept. 30

2.8	3.5	3.5	45
2.9	6.3	4.0	120
3.2	20		

Note.--Same as preceding table above 4.0 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	22	62	105	150	375	161	*78	76	23	18	4.0
2	17	24	62	110	140	240	184	70	83	25	15	4.2
3	*16	24	58	100	135	195	232	63	86	20	13	5.4
4	15	24	56	100	130	170	186	61	72	17	12	5.7
5	17	22	52	105	160	150	205	58	*57	18	11	5.4
6	17	*22	48	94	140	130	488	55	45	23	9.0	4.2
7	36	21	49	92	130	125	441	53	43	18	7.8	4.2
8	50	20	76	94	130	118	313	53	39	17	7.2	4.5
9	41	22	107	92	120	222	276	49	34	16	*7.2	4.2
10	32	22	*105	92	130	340	269	47	30	*15	7.2	4.0
11	26	22	100	90	140	270	296	74	27	14	6.9	4.2
12	22	25	188	85	120	203	279	126	25	13	6.9	4.0
13	20	29	266	86	105	175	263	124	23	12	6.3	4.2
14	20	28	252	80	100	241	229	96	23	12	5.7	4.2
15	19	25	156	75	94	320	197	91	22	12	5.4	4.2
16	18	24	189	75	90	523	176	100	20	12	5.1	4.8
17	19	22	195	78	86	488	158	84	18	11	4.8	5.2
18	19	26	175	*77	*83	366	145	70	19	11	4.5	5.0
19	17	27	160	76	90	296	136	60	22	10	4.2	4.8
20	17	28	160	76	90	266	126	83	35	9.0	4.2	4.5
21	19	30	150	76	87	241	118	214	37	8.6	4.2	4.5
22	20	182	140	130	83	273	109	147	25	7.8	4.0	4.8
23	25	150	145	530	80	279	104	106	20	7.2	4.0	5.4
24	34	86	150	938	87	266	97	86	15	6.9	5.1	5.0
25	34	66	155	836	94	238	91	67	14	6.6	5.1	4.5
26	28	73	160	550	220	214	86	58	35	6.0	5.4	4.2
27	24	92	170	350	500	200	84	74	60	6.0	4.8	4.2
28	24	89	145	275	560	*192	84	165	70	15	4.2	4.2
29	21	88	130	220	-	181	88	140	40	52	4.2	4.0
30	21	68	120	185	--------	179	84	104	29	31	4.5	4.0
31	20	--------	105	160	--------	171	--------	83	--------	21	4.2	--------
Total	725	1,403	4,086	6,032	4,074	7,647	5,705	2,739	1,144	476.1	211.1	135.7
Mean	23.4	46.8	132	195	146	247	190	88.4	38.1	15.4	6.81	4.52
Cfsm	0.225	0.450	1.27	1.88	1.40	2.38	1.83	0.850	0.366	0.148	0.065	0.043
In.	0.26	0.50	1.46	2.16	1.46	2.73	2.04	0.98	0.41	0.17	0.08	0.05

Calendar year 1956: Max 2,400 Min 7.9 Mean 184 Cfsm 1.77 In. 24.07
Water year 1956-57: Max 938 Min 4.0 Mean 94.2 Cfsm 0.906 In. 12.30

Peak discharge (base, 1,000 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--No gage-height record June 10 to July 9, Sept. 17-26; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage when available, and records for Souhegan River at Merrimack. Stage-discharge relation affected by ice Nov. 24-26, Nov. 29 to Dec. 6, Dec. 10, 11, Dec. 17 to Jan. 19, Jan. 22, 23, Jan. 26 to Mar. 7, Mar. 10, 11, 13.

Piscataquog River near Goffstown, N. H.

Location.--Lat 43°01'00", long 71°33'00", on left bank 300 ft upstream from highway bridge, 0.2 mile upstream from Harry Brook, 0.4 mile southwest of Grasmere, and 2.5 miles east of Goffstown, Hillsboro County.

Drainage area.--202 sq mi.

Records available.--October 1939 to September 1957.

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.--18 years, 307 cfs.

Extremes.--Maximum discharge during year, 1,210 cfs Jan. 24 (gage height, 6.15 ft); minimum daily, 4.6 cfs July 19, 23.

1939-57: Maximum discharge, 6,760 cfs June 15, 1942 (gage height, 10.79 ft), from rating curve extended above 4,400 cfs on basis of computations of flow over dam at gage heights 16.03 and 17.52 ft; minimum daily, that of July 19, 23, 1957.

Maximum discharge known, 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 below 100 cfs and those for periods of ice effect or no gage-height record, which are good. Flow regulated by powerplant above station.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.7	4.1	4.0	153
2.8	6.8	4.5	296
2.9	11	5.0	496
3.1	21	5.5	745
3.3	38	6.0	1,090
3.6	76		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	a55	53	200	210	734	411	183	58	56	14	8.2
2	39	a62	111	185	149	609	425	142	105	49	16	7.9
3	57	a48	105	225	180	297	404	*70	161	41	11	8.6
4	24	a125	64	269	228	445	396	76	154	21	18	9.0
5	38	a70	58	210	235	305	436	36	9.4	128	12	11
6	26	a90	99	136	290	275	645	131	98	5.1	12	11
7	74	a60	95	181	268	290	506	84	*117	5.6	25	7.9
8	206	a90	96	158	300	293	652	100	103	18	8.3	8.6
9	54	58	195	199	11	483	453	59	8.2	18	*9.0	8.2
10	112	53	135	192	105	594	492	115	45	49	27	7.9
11	41	52	130	155	220	495	501	60	34	9.8	9.8	8.2
12	105	92	*358	115	225	451	670	208	77	32	10	7.9
13	7.9	103	567	140	240	439	372	161	44	19	19	8.6
14	7.9	74	392	200	205	458	318	154	20	13	9.8	6.6
15	69	66	254	230	90	537	446	190	9.8	16	30	6.2
16	61	63	306	54	81	690	437	181	25	18	121	9.0
17	70	34	356	89	140	728	297	185	40	20	7.9	9.4
18	57	56	306	145	115	751	188	184	26	36	6.8	7.9
19	27	136	202	165	160	712	242	9.8	51	4.6	6.8	7.9
20	36	80	277	130	160	696	134	285	36	58	7.9	8.2
21	9.4	35	222	130	165	685	77	277	27	5.1	8.2	8.2
22	67	338	247	188	125	558	214	216	5.4	29	8.2	8.6
23	46	291	163	619	100	489	240	163	22	4.6	7.9	11
24	62	124	334	1,020	115	519	51	183	25	4.8	6.2	25
25	43	67	309	844	138	500	115	81	29	5.1	6.6	a9.8
26	a85	206	355	701	349	580	87	89	56	5.4	7.6	a9.4
27	a9.5	138	321	480	725	383	160	154	78	5.6	9.4	*78
28	a40	118	301	380	870	*397	105	196	108	5.6	8.2	7.6
29	a46	155	378	362	-	389	137	252	77	29	8.6	7.9
30	a65	122	176	353	--------	291	119	119	41	64	7.9	8.9
31	a25	--------	88	351	--------	234	--------	186	--------	10	7.9	--------
Total	1,639.7	3,061	7,053	8,806	6,199	15,307	9,730	4,529.8	1,689.8	785.3	468.0	342.6
Mean	52.9	102	228	284	221	494	324	146	56.3	25.3	15.1	11.4
Cfsm	0.262	0.505	1.13	1.41	1.09	2.45	1.60	0.723	0.279	0.125	0.075	0.056
In.	0.30	0.56	1.30	1.62	1.14	2.82	1.79	0.83	0.31	0.14	0.09	0.06

Calendar year 1956:	Max	3,560	Min	7.2	Mean	319	Cfsm	1.58	In.	21.49
Water year 1956-57:	Max	1,020	Min	4.6	Mean	163	Cfsm	0.807	In.	10.96

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage and powerplant records.

Note.--Stage-discharge relation affected by ice Dec. 26, Dec. 31 to Jan. 3, Jan. 5, 11-15, 18-21, 27, 28, Feb. 3, 5-16, 18, 21-24, 27, 28, Mar. 5, 6, 11.

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

Location.--Lat 42°56'55", long 71°27'45", on right bank 0.8 mile downstream from Bowman Brook, 1.3 miles north of Goffs Falls, Hillsboro County, and 2.3 miles downstream from Piscataquog River.

Drainage area.--3,092 sq mi.

Records available.--October 1936 to September 1957. October 1936 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Altitude of gage is 105 ft (from topographic map).

Average discharge.--21 years, 5,312 cfs.

Extremes.--Maximum discharge during year, 13,100 cfs Jan. 25 (gage height, 7.12 ft); minimum daily, 147 cfs Sept. 2.

1936-57: 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, that of Sept. 2, 1957.

Maximum discharge known, 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 except those for periods of ice effect, which are good. Flow regulated by powerplants, by Franklin Falls Reservoir since 1942, and by Squam, Newfound, Winnipesaukee, Winnisquam, and other lakes and reservoirs above station. See pages 109, 81, for description and month-end contents of many of these reservoirs.

Revisions (water years).--WSP 1231: 1937. WSP 1271: 1937(M,m).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	139	3.5	1,630
1.5	255	4.0	2,360
2.0	454	5.0	4,780
2.5	725	6.0	8,200
3.0	1,110	7.0	12,500

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,280	2,160	2,830	b3,750	5,530	10,200	4,870	4,160	2,510	2,290	1,510	234
2	2,220	2,290	2,280	b3,500	5,020	8,800	5,280	3,710	1,680	2,370	1,310	147
3	*2,230	2,160	2,180	b3,700	4,720	7,010	6,380	*3,740	2,570	1,500	922	736
4	2,140	2,240	2,430	3,950	4,460	6,210	8,320	2,950	2,240	952	568	889
5	2,260	2,200	2,290	4,180	4,640	5,430	7,710	2,200	2,130	2,530	1,250	816
6	2,050	*1,860	2,520	3,880	4,810	5,020	7,820	2,610	2,070	2,490	1,080	762
7	1,660	1,980	2,550	b3,600	4,530	4,460	8,400	2,350	1,980	3,830	1,000	576
8	3,480	2,190	3,320	3,760	4,510	3,860	8,880	2,230	2,040	3,240	967	390
9	4,200	2,060	3,170	4,100	3,890	4,570	8,400	2,030	1,370	2,360	968	956
10	4,150	1,620	3,880	4,270	3,210	5,750	7,300	2,470	1,900	*1,980	736	818
11	3,130	1,040	3,810	3,900	4,030	5,430	7,550	1,910	1,700	2,040	573	914
12	2,630	1,990	4,750	3,730	3,850	5,140	7,010	1,900	1,590	1,920	1,430	845
13	2,220	1,990	5,020	3,290	3,720	4,940	6,690	2,310	1,660	1,800	1,300	845
14	1,640	1,970	6,110	3,660	3,420	4,920	6,580	2,310	1,610	986	1,290	422
15	2,250	1,990	5,250	3,700	3,170	5,200	6,380	2,610	1,100	1,240	1,100	257
16	2,100	2,000	5,690	3,910	3,070	7,150	5,780	2,960	784	1,160	1,030	970
17	2,200	2,190	5,660	3,970	2,690	9,040	5,140	3,650	1,350	1,140	515	1,090
18	2,060	1,920	6,070	3,900	2,860	8,600	4,960	3,060	1,500	1,180	372	1,070
19	2,020	2,370	4,790	3,860	2,710	8,050	4,770	2,530	1,300	1,210	1,190	904
20	1,790	2,040	4,510	2,920	2,470	7,550	4,540	3,400	1,310	1,070	930	784
21	1,070	2,030	4,660	3,600	*3,010	7,150	5,240	3,580	1,140	454	850	350
22	2,010	2,950	4,890	4,010	2,480	6,830	7,300	5,270	1,100	1,150	787	222
23	1,980	6,290	4,570	b5,000	2,390	6,450	8,320	5,490	565	1,280	786	875
24	2,300	6,180	4,750	b9,300	1,960	6,900	6,110	4,730	1,250	1,160	448	1,670
25	2,260	4,990	4,630	12,100	2,230	7,010	5,880	3,010	1,580	1,090	326	1,290
26	2,180	3,920	5,660	10,800	2,810	6,480	5,500	2,920	1,540	1,080	1,010	1,120
27	2,380	3,640	4,990	8,760	4,440	6,140	4,780	3,020	2,120	937	836	850
28	1,050	3,550	5,150	7,520	8,320	6,040	4,410	2,970	2,750	408	866	362
29	1,750	3,220	4,780	6,450	-	5,940	4,960	3,270	2,540	1,290	886	298
30	1,780	3,330	b3,400	6,110	--------	5,590	4,260	2,470	1,920	1,690	861	896
31	1,810	--------	b3,500	5,980	--------	5,460	--------	3,020	--------	1,660	688	--------
Total	69,280	80,360	130,090	155,160	104,950	197,320	189,520	94,840	50,899	49,487	28,385	22,358
Mean	2,235	2,679	4,196	5,005	3,748	6,365	6,317	3,059	1,697	1,596	916	745
Cfsm	0.723	0.866	1.36	1.62	1.21	2.06	2.04	0.989	0.549	0.516	0.296	0.241
In.	0.83	0.97	1.56	1.87	1.26	2.37	2.28	1.14	0.61	0.60	0.34	0.27

Calendar year 1956: Max 33,500 Min 492 Mean 5,361 Cfsm 1.73 In. 23.61
Water year 1956-57: Max 12,100 Min 147 Mean 3,213 Cfsm 1.04 In. 14.10

Peak discharge (base, 22,000 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

Clark Brook at Auburn, N. H.

Location.--Lat 43°00'20", long 71°20'55", on left bank at Auburn, Rockingham County, 0.4 mile upstream from Massabesic Lake.

Drainage area.--27.8 sq mi.

Records available.--January 1938 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 252.60 ft above mean sea level (city of Manchester bench mark).

Average discharge.--19 years, 40.4 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 102 cfs Oct. 24 (gage height, 1.33 ft); minimum, 0.2 cfs Aug. 29 to Sept. 2, Sept. 6-16, 18-22, 24.

1938-57: Maximum discharge, 602 cfs Sept. 12, 1954 (gage height, 2.55 ft); no flow for all or part of each day, Oct. 5-8, 1939, Dec. 4, 1941, Aug. 12, 1955, caused by unusual regulation.

Remarks.--Records good except those for period of no gage-height record, which is fair. Flow regulated by Tower Hill Pond (see p. 109). Some diurnal fluctuation prior to 1951 by mill above station.

Revisions (water years).--WSP 891: 1939. WSP 921: Drainage area. WSP 1301: 1939(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.07	0.2	0.5	8.7
.1	.3	.7	21
.2	1.0	.9	40
.3	2.4	1.2	79
.4	4.9	1.5	139

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	39	22	31	50	60	51	*11	10	1.1	1.4	0.2
2	2.2	*33	19	31	46	48	42	9.7	11	1.1	1.1	.2
3	3.2	28	17	30	44	40	44	8.7	13	*.8	.9	.3
4	15	24	16	29	42	34	41	7.9	12	1.0	.8	.6
5	20	24	15	28	42	28	38	7.5	*12	1.2	.7	.3
6	29	36	15	28	40	25	54	7.1	11	1.8	.6	.2
7	38	39	15	29	38	23	61	6.7	11	1.7	.6	.2
8	41	39	15	28	36	23	54	6.7	18	1.7	.6	.2
9	41	38	18	28	34	32	48	5.9	19	1.5	.6	.2
10	39	37	*19	28	35	46	45	5.5	16	1.5	.6	.2
11	41	35	19	28	36	49	46	7.1	8.4	1.4	.6	.2
12	38	33	25	27	36	46	45	12	5.5	1.5	*.6	.2
13	36	31	35	26	*34	44	42	16	3.7	1.5	.5	.2
14	35	30	41	*24	31	49	39	15	3.2	1.4	.4	.2
15	35	27	25	a23	29	56	62	15	2.8	1.3	.4	.2
16	35	25	31	a23	28	67	39	19	2.2	1.0	.6	.2
17	34	22	30	a22	27	74	28	19	1.8	.9	1.1	.3
18	41	22	28	a22	23	73	25	16	1.7	.8	.4	.2
19	68	21	24	21	16	70	25	13	1.8	.7	.3	.2
20	79	18	22	21	15	66	22	14	2.2	.6	.3	*.2
21	84	16	20	21	14	64	21	25	2.0	.6	.3	.2
22	91	24	19	23	13	63	19	27	1.8	.6	.3	.2
23	94	28	19	48	12	64	17	23	1.7	.6	.4	.3
24	96	25	19	79	13	63	15	17	1.4	.6	.4	.2
25	93	20	24	88	14	*59	14	13	1.4	.6	.4	12
26	86	22	28	82	19	56	23	10	1.4	.6	.4	19
27	79	33	29	74	45	55	16	9.7	1.5	.6	.4	19
28	68	36	28	67	64	54	14	15	1.4	.7	.3	19
29	60	31	29	61	-	52	13	17	1.3	.8	.2	19
30	52	26	30	58	--------	52	12	15	1.3	.8	.2	18
31	45	--------	30	54	--------	55	--------	12	--------	1.3	.2	--------
Total	1,521.0	862	736	1,182	876	1,590	1,015	406.5	181.5	32.3	16.6	111.6
Mean	49.1	28.7	23.7	38.1	31.3	51.3	33.8	13.1	6.05	1.04	0.54	3.72
(†)	-47.1	-17.2	+11.9	+3.89	+7.13	+15.4	+20.9	+7.94	-0.31	-1.35	-1.00	-5.78

Adjusted for change in contents in Tower Hill Pond‡

Mean	1.94	11.6	35.6	42.0	38.4	66.7	54.7	21.0	5.75	-0.31	-0.46	-2.05
Cfsm	0.070	0.417	1.28	1.51	1.38	2.40	1.97	0.755	0.207	-0.011	-0.017	-0.074
In.	0.08	0.46	1.48	1.74	1.44	2.77	2.20	0.87	0.23	-0.01	-0.02	-0.08

	Observed			Adjusted		
Calendar year 1956 :	Max 375	Min 0.3	Mean 47.1	Mean 45.6	Cfsm 1.64	22.31
Water year 1956-57 :	Max 96	Min 0.2	Mean 23.4	Mean 22.8	Cfsm 0.820	11.16

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Tower Hill Pond.
‡ Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.
a No gage-height record; discharge estimated on basis of weather records and recorded range in stage.

Souhegan River at Merrimack, N. H.

Location.--Lat 42°51'25", long 71°30'30", on left bank at head of Atherton Falls, at Merrimack, Hillsboro County, 1½ miles upstream from mouth.

Drainage area.--171 sq mi.

Records available.--July 1909 to September 1957.

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

Average discharge.--48 years, 286 cfs.

Extremes.--Maximum discharge during year, 1,830 cfs Jan. 24 (gage height, 6.00 ft); minimum, 14 cfs Sept. 11, 13, 15, 16.
1909-57: 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, 13 cfs Sept. 9, 1926.

Remarks.--Records excellent except those below 40 cfs, which are good, and those for periods of ice effect or no gage-height record, which are fair. Some diurnal fluctuation caused by mill above station.

Revisions (water years).--WSP 431: 1909-13 calendar years, 1914. 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).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 24				Jan. 25 to Sept. 30			
2.1	26	3.5	350	1.95	15	3.0	179
2.2	32	4.0	570	2.0	18	3.5	350
2.5	73	5.0	1,120	2.3	42	4.0	570
3.0	179	6.0	1,830	2.6	86	5.0	1,120

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	35	94	170	240	700	234	160	115	50	40	17
2	35	39	94	180	230	470	289	145	86	64	34	17
3	31	45	90	165	220	390	404	140	*110	47	30	17
4	30	44	85	165	210	340	346	135	147	35	28	17
5	*35	43	80	170	250	300	326	102	138	36	28	17
6	35	41	*73	155	220	270	667	106	108	41	27	18
7	53	40	75	150	210	250	795	124	96	36	*25	17
8	70	40	100	155	210	230	585	108	104	33	27	16
9	67	42	160	150	205	390	520	106	71	31	23	16
10	88	45	160	150	210	600	480	102	62	31	25	*15
11	62	46	150	145	230	480	516	140	71	*29	25	15
12	42	46	250	140	200	386	494	307	68	28	23	15
13	53	50	400	140	175	338	471	466	62	27	22	15
14	50	52	430	130	165	408	382	362	60	27	21	15
15	41	51	250	120	155	538	362	286	60	25	21	15
16	41	50	310	115	150	685	350	300	56	23	20	16
17	39	48	320	115	145	760	322	282	41	22	19	18
18	38	54	290	110	140	585	296	208	42	21	18	17
19	37	58	260	110	165	498	250	133	46	20	19	17
20	40	60	260	110	*160	435	237	147	58	20	19	16
21	39	64	240	110	150	399	214	436	60	20	19	16
22	36	230	225	200	145	*426	185	399	50	20	18	17
23	38	250	230	640	140	422	221	296	46	20	18	19
24	39	130	240	1,640	150	350	202	240	38	20	17	18
25	42	100	260	928	170	326	191	179	37	20	18	16
26	45	110	280	630	400	358	176	110	48	20	21	15
27	71	140	240	400	800	326	182	126	72	24	22	15
28	53	135	230	350	1,000	303	135	260	76	66	20	15
29	40	130	210	300	-	296	*155	275	74	52	18	15
30	*38	100	190	260	------	264	171	208	58	40	18	15
31	35	------	170	230	------	237	------	130	------	44	18	------
Total	1,398	2,318	6,446	8,533	6,845	12,760	10,158	6,518	2,160	992	701	487
Mean	45.1	77.3	208	275	244	412	339	210	72.0	32.0	22.6	16.2
Cfsm	0.264	0.452	1.22	1.61	1.43	2.41	1.98	1.23	0.421	0.187	0.132	0.095
In.	0.30	0.50	1.40	1.86	1.49	2.78	2.21	1.42	0.47	0.22	0.15	0.11

Calendar year 1956: Max 5,380 Min 23 Mean 316 Cfsm 1.85 In. 25.16
Water year 1956-57: Max 1,640 Min 15 Mean 163 Cfsm 0.953 In. 12.91

Peak discharge (base, 2,250 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 1-4, Nov. 3 to Jan. 18, Jan. 22, 23, Feb. 9-13, Feb. 21 to Mar. 11; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage when available, and records for Warner River at Davisville and South Branch Piscataquot River near Goffstown. Stage-discharge relation affected by ice Jan. 19-21, Jan. 27 to Feb. 8, Feb. 14-20, and at times during periods of no gage-height record.

North Nashua River near Leominster, Mass.

Location.--Lat 42°30'06", long 71°43'23", on right bank 1 1/3 miles upstream from Wekepeke Brook, 2½ miles southeast of Leominster, Worcester County, and 6.1 miles upstream from confluence with South Branch Nashua River.

Drainage area.--107 sq mi.

Records available.--September 1935 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 270.04 ft above mean sea level, datum of 1929.

Average discharge.--22 years, 195 cfs.

Extremes.--Maximum discharge during year, 1,730 cfs Jan. 23 (gage height, 5.77 ft); minimum, 18 cfs June 24; minimum daily, 22 cfs Sept. 2.

1935-57: 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. 2?, 1948; minimum daily, 22 cfs Sept. 27, 1936, Sept. 2, 1957.

Remarks.--Records good. Flow regulated 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.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from debris Oct. 1-29, Nov. 7 to Jan. 21)

Oct. 1 to Jan. 23				Jan. 24 to Sept. 30			
1.4	44	3.0	350	1.2	22	2.5	215
1.7	77	4.0	740	1.5	46	3.0	350
2.0	119	5.0	1,260	2.0	115	4.0	740
2.5	215						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*58	77	89	130	195	197	*164	112	74	62	49	32
2	58	118	93	120	187	182	216	*102	74	94	46	22
3	62	103	70	118	176	187	225	104	84	66	43	31
4	69	72	75	114	232	193	191	90	84	30	47	46
5	67	70	90	110	208	168	326	92	76	49	*41	*53
6	58	64	108	98	187	156	659	80	65	46	44	46
7	110	60	134	112	185	164	522	90	76	29	44	42
8	89	65	121	114	182	193	402	90	69	44	44	32
9	71	70	110	112	170	337	410	78	57	37	47	28
10	65	60	118	112	215	302	371	84	66	*40	44	42
11	63	48	89	112	215	252	388	233	58	41	32	44
12	57	53	228	103	174	228	364	290	60	39	36	43
13	53	65	258	101	152	215	335	252	58	44	44	49
14	50	72	260	94	156	250	278	191	57	43	43	46
15	46	56	200	98	156	262	260	187	56	40	43	27
16	56	60	270	104	126	372	222	193	44	48	44	38
17	60	52	302	103	113	308	213	162	45	48	40	64
18	64	62	238	100	126	278	202	131	50	46	29	46
19	52	56	177	93	115	245	182	101	101	48	33	44
20	52	66	173	86	110	238	154	160	140	46	44	44
21	45	73	171	101	*105	252	135	272	81	33	45	41
22	47	254	164	185	107	265	164	204	64	31	44	30
23	83	158	169	1,240	101	235	146	154	53	48	45	31
24	76	112	183	632	94	215	128	139	40	49	40	41
25	67	66	222	420	110	230	129	105	60	48	42	40
26	61	153	208	305	160	206	146	104	78	48	46	40
27	55	160	169	252	367	200	124	129	113	44	49	39
28	47	131	173	240	240	185	102	129	129	33	47	37
29	*50	112	171	220	-	176	117	*110	112	41	47	26
30	54	*86	152	202	-------	162	124	92	48	53	47	24
31	55	-------	150	197	-------	144	-------	81	-------	53	43	-------
Total	1,900	2,654	5,135	6,128	4,664	6,997	7,399	4,341	2,172	1,421	1,332	1,168
Mean	61.3	88.5	166	198	167	226	247	140	72.4	45.8	43.0	38.9
Cfsm	0.573	0.827	1.55	1.85	1.56	2.11	2.31	1.31	0.677	0.428	0.402	0.364
In.	0.66	0.92	1.78	2.13	1.62	2.43	2.57	1.51	0.75	0.49	0.46	0.41

Calendar year 1956: Max 2,620 Min 42 Mean 232 Cfsm 2.17 In. 29.55
Water year 1956-57: Max 1,240 Min 22 Mean 124 Cfsm 1.16 In. 15.73

Peak discharge (base, 1,000 cfs).--Jan. 23 (12:30 to 1:15 p.m.) 1,730 cfs (5.77 ft).

* Discharge measurement made on this day.

Rocky Brook near Sterling, Mass.

Location.--Lat 42°26'57", long 71°48'10", on right bank 150 ft downstream from bridge on Beaman Road, 0.7 miles upstream from mouth, and 2¼ miles west of Sterling, Worcester County.

Drainage area.--2.28 sq mi.

Records available.--October 1946 to September 1957.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 505 ft (from topographic map).

Average discharge.--11 years, 3.71 cfs.

Extremes.--Maximum discharge during year, 34 cfs Jan. 23 (gage height, 3.18 ft); minimum, 0.003 cfs Aug. 24, 27.
1946-57: Maximum discharge, 395 cfs Sept. 11, 1954 (gage height, 4.58 ft), from rating curve extended above 56 cfs; minimum, that of Aug. 24, 27, 1957.

Remarks.--Records good except those for periods of shifting control, ice effect, or no gage-height record, which are fair. Flow regulated by reservoir from 1949 to 1955.

Rating tables, water year 1956-57, except periods of ice effect or shifting control (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 26				Feb. 27 to Sept. 30			
1.8	0.05	2.3	2.45	1.7	0.01	2.0	1.15
1.85	.11	2.4	3.7	1.75	.04	2.1	2.05
1.9	.20	2.6	7.4	1.8	.12	2.2	3.2
2.0	.48	2.8	13.1	1.85	.27	2.4	6.9
2.1	.94	3.0	22	1.9	.50	2.6	13.1
2.2	1.55						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.14	0.60	0.74	2.15	2.25	3.1	2.05	1.5	0.50	0.27	0.01	0.02
2	.18	.99	.64	2.0	2.15	2.8	3.9	1.3	.50	.16	.01	.02
3	.22	1.04	.64	1.85	2.05	2.5	3.3	1.23	.45	.06	.01	.02
4	.32	.64	.69	1.8	2.35	2.15	2.6	1.23	.40	.04	.01	.02
5	.48	.48	.74	1.8	2.35	1.85	9.8	1.23	.31	.04	.02	*.01
6	.69	.45	.69	1.7	2.15	1.75	12.0	1.15	.20	.02	.02	.01
7	1.3	.42	.78	1.7	2.0	1.85	5.3	1.07	.12	.02	.01	.01
8	.84	.38	.83	1.7	2.0	2.4	4.1	.93	.12	.02	.01	.01
9	.48	.45	1.04	1.65	2.05	7.8	4.6	.73	.12	.01	.01	.01
10	.42	.45	.99	1.7	2.8	6.0	5.6	.64	.09	.02	.01	.01
11	.42	.38	1.17	1.65	2.45	3.8	5.8	4.9	.05	.02	.02	.04
12	.38	.42	5.9	1.65	1.9	3.3	4.8	4.4	.05	.02	.01	.02
13	.38	.52	5.6	1.6	1.8	3.3	4.1	3.0	.05	.02	.01	.02
14	.35	.48	4.4	1.5	1.8	3.8	3.3	2.05	.05	.02	.01	.01
15	.32	.45	4.2	1.4	1.7	3.6	3.1	2.2	.05	.01	.01	.01
16	.26	.38	5.2	1.4	1.7	6.1	3.0	3.1	.05	.01	.01	.01
17	.14	.35	4.3	1.35	1.7	4.2	2.8	1.85	.05	.01	.01	.02
18	.07	.61	3.6	1.35	1.65	*3.5	2.7	1.55	.05	.01	.01	.02
19	.08	.69	3.0	1.35	1.65	3.2	2.6	1.4	.59	.01	.01	.01
20	.11	.60	2.8	1.35	1.65	3.0	2.5	2.05	2.5	.01	.01	.01
21	.14	1.11	2.8	1.5	1.55	3.9	2.35	3.1	.55	.01	.01	.01
22	.22	4.2	2.9	3.0	1.55	4.6	a2.3	1.85	.27	.01	.01	.01
23	1.20	1.6	3.2	19.1	1.7	3.8	a2.2	1.4	.20	.01	.01	.01
24	1.06	.88	3.3	4.8	1.8	3.2	a2.1	1.00	.06	.01	.01	.01
25	.52	.64	3.4	3.4	2.05	2.7	2.05	.80	.14	.01	.01	.01
26	.42	2.9	2.8	3.0	3.3	2.7	2.15	1.7	.12	.01	.01	.02
27	.42	2.2	2.6	2.9	9.8	2.5	2.15	2.15	.66	.01	.01	.02
28	.38	1.35	2.7	2.7	4.3	2.35	2.05	1.5	.55	.01	.01	.02
29	.35	1.04	2.8	2.6	-	2.25	1.75	*.93	.35	.02	.01	.02
30	.35	.88	2.6	2.45	--------	2.35	1.55	.67	.27	.02	.01	.02
31	.35	--------	2.35	2.25	--------	2.25	--------	.55	--------	.02	.02	--------
Total	12.99	27.58	79.40	80.35	66.20	102.60	108.60	53.16	9.57	0.94	0.35	0.46
Mean	0.419	0.919	2.56	2.59	2.36	3.31	3.62	1.71	0.319	0.030	0.011	0.015
Cfsm	0.184	0.403	1.12	1.14	1.04	1.45	1.59	0.750	0.140	0.013	0.0048	0.0066
In.	0.21	0.45	1.30	1.31	1.08	1.67	1.77	0.87	0.16	0.02	0.006	0.008

Calendar year 1956: Max 38 Min 0.04 Mean 3.94 Cfsm 1.73 In. 23.54
Water year 1956-57: Max 19.1 Min 0.01 Mean 1.49 Cfsm 0.654 In. 8.85

Peak discharge (base, 45 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and recorded range in stage.
Note.--Stage-discharge relation affected by ice Dec. 30 to Jan. 21, Jan. 24-28, 31, Feb. 12, 13. Shifting-control method used Oct. 1 to Dec. 12, Feb. 27.

South Branch Nashua River at Clinton, Mass.

Location.--Lat 42°24'15", long 71°41'25", at Wachusett Dam, 1 mile south of Clinton, Worcester County.

Drainage area.--107.69 sq mi since July 1937.

Records available.--July 1896 to September 1957.

Average discharge.--61 years, 188 cfs (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 1956 to September 1957

Month	Runoff (millions of gallons)	Discharge per square mile		Runoff (inches)	Rainfall (inches)
		Millions of gallons per day	Cubic feet per second		
October	1,058.1	0.317	0.490	0.56	3.04
November	1,820.4	.563	.872	.97	3.83
December	3,612.9	1.082	1.67	1.93	4.40
Calendar year 1956	57,574.3	1.461	2.26	30.76	49.19
January	4,028.4	1.207	1.87	2.15	2.79
February	3,135.0	1.040	1.61	1.68	1.67
March	5,159.2	1.545	2.39	2.76	2.74
April	5,797.4	1.794	2.78	3.10	3.29
May	2,738.6	.820	1.27	1.46	4.01
June	1,509.1	.467	.723	.81	3.34
July	546.8	.164	.253	.29	.83
August	160.1	.048	.074	.09	1.98
September	151.5	.047	.073	.08	1.43
Water year 1956-57	29,717.5	.756	1.17	15.88	33.35

Squannacook River near West Groton, Mass.

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

Drainage area.--62.8 sq mi, excludes 2.10 sq mi above outlet of Fitchburg Reservoir.

Records available.--October 1949 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 244.27 ft above mean sea level, datum of 1929.

Average discharge.--8 years, 119 cfs.

Extremes.--Maximum discharge during year, 692 cfs Jan. 24 (gage height, 4.86 ft); minimum daily, 5.1 cfs Aug. 17-19, 24.

1949-57: Maximum discharge, 4,010 cfs Oct. 16, 1955 (gage height, 8.04 ft), from rating curve extended above 2,200 cfs by logarithmic plotting; minimum daily, 4.3 cfs Aug. 14, 1950.

Remarks.--Records excellent except those for periods of ice effect, which are good. Flow regulated by mill above station. Entire flow from 2.10 sq mi above outlet of Fitchburg Reservoir diverted for municipal supply of Fitchburg during most years.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.48	5.1	2.8	112
1.5	5.6	3.2	182
1.7	12	4.0	366
2.0	27	5.0	760
2.4	61		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	20	42	b65	94	210	*94	61	51	22	12	6.4
2	18	41	39	61	90	156	97	58	46	19	12	6.1
3	16	62	39	56	b84	133	138	52	51	17	11	8.4
4	15	41	37	57	88	109	117	52	47	17	11	7.8
5	18	32	36	59	93	93	122	52	42	16	11	7.2
6	17	27	35	52	85	89	337	50	*38	16	10	6.1
7	27	25	36	53	79	89	361	49	36	15	10	6.6
8	37	25	49	56	78	89	234	46	36	14	9.8	7.5
9	31	27	58	55	73	156	196	42	32	14	10	8.4
10	24	27	55	56	84	289	194	40	29	14	9.5	*9.1
11	21	23	47	b54	103	190	223	87	24	12	11	9.5
12	18	22	84	53	b80	163	221	190	25	12	8.4	8.8
13	18	23	149	54	70	138	202	200	23	12	5.8	10
14	17	23	167	b50	69	163	172	133	23	12	5.4	12
15	16	23	98	47	65	184	149	115	23	12	5.6	8.1
16	16	21	128	47	b61	230	133	136	23	11	5.4	8.1
17	16	20	169	49	63	266	123	114	21	11	5.1	12
18	17	24	136	47	61	210	115	88	20	10	5.1	11
19	15	25	98	b44	61	163	109	77	*20	11	5.1	8.8
20	15	24	92	47	*59	145	104	82	36	11	6.4	8.1
21	15	27	85	47	54	140	102	214	39	11	5.6	7.8
22	*15	82	82	b57	53	165	*92	184	28	10	6.4	7.8
23	19	106	85	b270	55	156	84	125	23	10	6.1	7.5
24	21	64	85	616	61	138	82	97	20	9.8	5.1	7.2
25	21	45	109	328	65	125	77	76	18	10	6.6	6.6
26	19	57	112	204	113	104	76	68	20	10	9.5	6.6
27	20	85	88	156	310	106	76	82	28	12	8.8	6.4
28	19	*74	85	133	344	104	72	97	37	13	8.1	6.1
29	18	58	82	120	-	100	70	97	31	12	6.4	6.1
30	16	50	b76	b105	--------	100	65	73	27	*12	6.6	6.1
31	16	--------	b66	b90	--------	103	--------	60	--------	12	7.2	--------
Total	589	1,203	2,549	3,188	2,595	4,606	4,237	2,897	917	399.8	246.0	238.2
Mean	19.0	40.1	82.2	103	92.7	149	141	93.5	30.6	12.9	7.94	7.94
Cfsm	0.303	0.639	1.31	1.64	1.48	2.37	2.25	1.49	0.487	0.205	0.126	0.126
In.	0.35	0.71	1.51	1.89	1.54	2.73	2.51	1.72	0.54	0.24	0.15	0.14

Calendar year 1956: Max 2,410 Min 11 Mean 130 Cfsm 2.07 In. 28.13
Water year 1956-57: Max 616 Min 5.1 Mean 64.8 Cfsm 1.03 In. 14.03

Peak discharge (base, 700 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Nashua River at East Pepperell, Mass.

Location.--Lat 42°40'03", long 71°34'32", on right bank 200 ft downstream from powerplant of St. Regis Paper Co. at East Pepperell, Middlesex County, 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).

Records available.--October 1935 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 169.04 ft above mean sea level, datum of 1929.

Average discharge.--22 years, 535 cfs (adjusted for wastage into Nashua River).

Extremes.--Maximum discharge during year, 2,080 cfs Jan. 24 (gage height, 5.41 ft); minimum daily, 9.0 cfs Oct. 1, Nov. 10.

1935-57: 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 except those for periods of backwater from aquatic vegetation, which are fair. 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 St. Regis Paper Co. Flow regulated by powerplant above station.

Revisions.--WSP 801: Drainage area.

Rating table, water year 1956-57, except periods of backwater from aquatic vegetation (gage height, in feet, and discharge, in cubic feet per second)

0.4	7.3	2.0	292
.6	15	2.5	520
.8	27	3.0	815
1.0	44	4.0	1,370
1.2	69	6.0	2,410
1.5	129		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	193	263	194	581	1,020	785	339	16	189	88	14
2	294	87	84	666	255	426	707	339	24	290	84	15
3	363	24	305	689	139	520	695	415	607	246	40	69
4	312	185	374	472	892	946	695	131	476	28	14	129
5	235	369	350	350	803	773	683	14	355	30	71	120
6	80	335	*254	138	611	695	408	284	*193	33	116	204
7	10	290	183	258	599	605	1,220	339	190	34	74	61
8	273	290	293	366	587	553	1,400	339	61	223	*97	18
9	279	146	204	362	182	215	1,130	629	15	214	113	66
10	275	9.0	622	362	*71	778	1,080	223	127	184	60	130
11	271	40	378	358	875	1,200	1,080	15	175	169	69	122
12	87	316	342	304	803	1,010	1,070	216	175	78	179	118
13	10	335	621	13	593	996	693	1,010	197	54	102	115
14	14	267	958	272	465	767	767	919	256	14	91	62
15	221	187	1,050	378	504	958	1,030	599	67	54	98	14
16	275	186	345	371	186	326	996	779	19	92	111	90
17	282	9.8	742	367	13	626	968	193	271	94	62	138
18	275	13	1,050	363	527	1,110	761	14	214	101	14	122
19	231	326	833	256	407	1,010	553	160	204	53	71	116
20	74	379	542	78	359	990	187	832	207	15	104	204
21	14	384	542	278	355	958	21	707	335	*20	110	66
22	152	210	611	375	595	833	*662	629	67	153	109	14
23	279	678	229	892	249	306	719	919	14	94	110	87
24	275	362	83	1,860	12	224	647	197	220	101	64	119
25	267	17	430	1,880	254	*909	445	41	271	178	15	108
26	188	622	971	1,380	498	952	393	39	246	103	146	119
27	52	773	897	694	941	725	215	844	228	15	190	116
28	16	553	611	1,060	1,060	617	12	727	176	19	134	60
29	189	536	749	1,020	-	498	262	399	23	210	106	14
30	*178	323	230	791	--------	247	339	149	34	200	190	56
31	190	--------	34	713	--------	24	--------	15	--------	109	65	--------
Total	5,670.0	8,444.8	15,180	17,560	13,416	21,817	20,623	12,465	5,463	3,397	2,897	2,686
Mean	183	281	490	566	479	704	687	402	182	110	93.5	89.5
(†)	8.05	7.03	7.50	7.04	7.48	7.11	6.95	6.50	6.94	7.06	6.85	6.51

Adjusted for wastage (figures represent net discharge from net drainage area)

Mean	175	274	482	559	472	697	680	396	175	103	86.6	83.0
Cfsm	0.554	0.867	1.53	1.77	1.49	2.21	2.15	1.25	0.554	0.326	0.274	0.263
In.	0.64	0.97	1.76	2.04	1.55	2.54	2.40	1.44	0.62	0.37	0.32	0.29

	Observed			Adjusted		
Calendar year 1956:	Max 5,000	Min 7.3	Mean 745	Mean 643	Cfsm 2.03	In. 27.72
Water year 1956-57:	Max 1,880	Min 9.0	Mean 355	Mean 348	Cfsm 1.10	In. 14.94

* Discharge measurement made on this day.

† Water wasted in diverting drainage from basin of South Branch Nashua River for use of Boston metropolitan district, equivalent in cubic feet per second. Records furnished by Water Division of of Metropolitan District Commission.

Note.--Backwater from aquatic vegetation Oct. 1 to Nov. 19, Nov. 22-26, Nov. 30 to Dec, 3, Dec. 6, 9, 16, 17, 23, 24, Dec. 30 to Jan. 1, Jan. 6, 7, 12-14, 20, 21, Feb. 2, 3, 9, 10, 16-18, 23-25, Mar. 2, 9, 16, 23, 24, 30, 31, Apr. 6, 20, 21, 27-29, May 4-6, 10-12, 17-19, 24-26, May 30 to June 2, June 6, 8-10, June 15 to Sept. 30.

Assabet River at Maynard, Mass.

Location.--Lat 42°25'55", long 71°27'01", on right bank at Maynard, Middlesex County, 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.

Records available.--July 1941 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 145 ft (from topographic map).

Average discharge.--16 years, 176 cfs.

Extremes.--Maximum discharge during year, 696 cfs Apr. 7 (gage height, 4.18 ft); minimum daily, 2.2 cfs Aug. 17-19, 29, 31, Sept. 1.
1941-57: 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, 0.8 cfs Oct. 4, 1953.

Remarks.--Records good. Low flow regulated by mills above station; greater regulation prior to 1953.

Revisions (water years).--WSP 1231: 1945-46.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 2-10, 13-26, Mar. 6-8, Apr. 17-28)

Oct. 1 to May 28

1.4	2.2	2.5	122
1.5	4.7	3.0	250
1.6	8.6	3.5	410
1.8	21	4.0	615
2.1	53	4.1	660

May 29 to Sept. 30

1.4	2.2	1.8	21
1.5	4.7	2.0	42
1.6	8.6	2.4	108

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	*69	75	118	202	354	161	122	69	69	2.8	2.2
2	38	64	67	106	193	286	163	112	66	66	30	2.4
3	50	28	67	96	180	250	188	100	67	40	2.4	20
4	37	3.0	66	92	188	226	196	96	67	15	3.1	3.3
5	48	52	64	89	193	202	214	98	62	24	25	3.0
6	25	67	64	87	193	180	405	102	59	5.0	30	18
7	6.6	65	66	89	182	172	656	98	59	6.5	2.4	2.6
8	*63	56	48	91	172	178	615	94	58	57	*2.6	2.4
9	73	57	69	87	168	286	510	91	59	50	30	2.6
10	66	33	91	*94	196	426	482	85	64	29	3.0	2.8
11	66	2.6	83	91	232	486	490	122	62	29	2.8	3.3
12	42	44	118	87	214	375	470	199	35	56	3.2	*3.3
13	29	58	178	91	185	286	422	244	2.8	35	30	11
14	3.6	57	208	83	165	247	386	214	3.6	3.8	2.6	2.8
15	51	54	193	81	*150	229	344	211	7.8	30	2.6	3.0
16	40	55	170	81	143	256	313	145	25	26	31	3.5
17	50	23	190	81	143	304	295	172	53	3.6	2.2	3.8
18	39	4.5	190	75	132	*292	274	156	37	28	2.2	3.8
19	37	51	163	72	145	253	262	132	22	29	2.2	3.8
20	20	56	141	73	143	232	259	126	54	3.3	2.6	7.7
21	2.4	60	130	78	128	229	247	143	75	*3.3	2.6	3.3
22	26	76	124	102	128	262	226	150	34	3.8	3.0	3.3
23	53	108	132	285	126	283	211	132	30	4.4	23	3.3
24	64	96	139	542	139	265	188	132	68	32	2.6	3.6
25	64	80	161	588	147	229	*175	139	42	3.8	2.8	3.6
26	55	*116	170	438	172	199	170	132	53	31	22	3.3
27	30	154	154	334	268	180	161	128	45	3.3	2.4	16
28	7.1	*150	139	274	358	172	161	114	66	3.0	25	2.6
29	58	92	135	253	-	165	152	*98	93	24	2.2	2.8
30	47	77	135	232	--------	165	141	87	77	31	24	3.0
31	46	--------	126	211	--------	168	--------	75	--------	30	2.2	--------
Total	1,300.7	1,908.1	3,856	5,101	4,985	7,837	8,937	4,049	1,515.2	774.8	324.5	150.1
Mean	42.0	63.6	124	165	178	253	298	131	50.5	25.0	10.5	5.00
Cfsm	0.362	0.548	1.07	1.42	1.53	2.18	2.57	1.13	0.435	0.216	0.091	0.043
In.	0.42	0.61	1.24	1.64	1.60	2.51	2.87	1.30	0.49	0.25	0.10	0.05

Calendar year 1956: Max 1,330 Min 1.0 Mean 214 Cfsm 1.84 In. 25.15
Water year 1956-57: Max 656 Min 2.2 Mean 112 Cfsm 0.966 In. 13.08

* Discharge measurement made on this day.

Sudbury River at Framingham Center, Mass.

Location.--Lat 42°17'30", long 71°26'40", at dam of Framingham Reservoir No. 1, half a mile upstream from outlet of Farm Pond and three-quarters of a mile southwest of Framingham Center, Middlesex County.
Drainage area.--75.2 sq mi since January 1881.
Records available.--January 1875 to September 1957.
Average discharge.--82 years, 112 cfs (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 1956 to September 1957

Month	Runoff (millions of gallons)	Discharge per square mile		Runoff (inches)	Rainfall (inches)
		Millions of gallons per day	Cubic feet per second		
October	355.7	0.153	0.236	0.27	3.02
November	1,055.9	.468	.724	.81	3.18
December	2,514.2	1.079	1.67	1.92	5.28
Calendar year 1956	30,225.1	1.098	1.70	23.11	47.36
January	3,207.5	1.376	2.13	2.45	2.42
February	2,712.5	1.288	1.99	2.08	1.58
March	4,036.2	1.731	2.68	3.09	2.87
April	3,807.6	1.688	2.61	2.91	3.42
May	1,458.7	.626	.968	1.12	3.66
June	-261.8	-.116	-.180	-.20	1.79
July	-673.0	-.289	-.447	-.52	1.34
August	-623.8	-.268	-.414	-.48	1.46
September	-560.7	-.249	-.385	-.43	.38
Water year 1956-57	17,029.0	.620	.959	13.02	30.40

Note.--Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

Lake Cochituate Outlet at Cochituate, Mass.

Location.--Lat 42°18'45", long 71°23'15", at outlet three-eighths of a mile north of Cochituate railroad station, Middlesex County, and 1¼ miles upstream from Sudbury River.
Drainage area.--17.40 sq mi since January 1937.
Records available.--January 1863 to September 1957.
Average discharge.--94 years, 26.2 cfs (adjusted to present drainage area).
Remarks.--Records adjusted for change in reservoir contents, diversions, and wastage. Entire flow available, if needed, for use of Boston metropolitan district; no diversion for water supply since 1931.
Cooperation.--Records furnished by Water Division of Metropolitan District Commission.

Monthly discharge and rainfall, water year October 1956 to September 1957

Month	Runoff (millions of gallons)	Discharge per square mile		Runoff (inches)	Rainfall (inches)
		Millions of gallons per day	Cubic feet per second		
October	375.9	0.697	1.08	1.24	3.47
November	550.1	1.054	1.63	1.82	3.13
December	1,026.1	1.902	2.94	3.39	4.65
Calendar year 1956	10,934.5	1.717	2.66	36.17	43.32
January	1,057.7	1.961	3.03	3.50	2.01
February	728.3	1.495	2.31	2.41	1.47
March	1,004.5	1.862	2.88	3.32	2.84
April	1,180.7	2.262	3.50	3.90	3.20
May	608.1	1.127	1.74	2.01	3.93
June	39.7	.076	.118	.13	1.46
July	-130.1	-.241	-.373	-.43	.57
August	-51.1	-.095	-.147	-.17	1.31
September	-95.3	-.183	-.283	-.32	.36
Water year 1956-57	6,294.6	.991	1.53	20.80	28.40

Note.--Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.

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

Location.--Lat 42°38'12", long 71°18'09", on right bank 300 ft downstream from Rogers Street Bridge at Lowell, Middlesex County, 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).

Records available.--October 1936 to September 1957. 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.--21 years, 461 cfs (adjusted to net drainage area).

Extremes.--Maximum discharge during year, 1,620 cfs Apr. 15 (gage height, 6.49 ft); minimum daily, 4.0 cfs Sept. 29.
1936-57: Maximum discharge, 4,540 cfs Aug. 23, 1955 (gage height, 8.97 ft); minimum daily, that of Sept. 29, 1957.

Remarks.--Records excellent except those for periods of ice effect or backwater from aquatic vegetation, which are good, and those for periods 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. Water diverted above station for use of city of Lowell. Flow regulated by mills above station.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	288	279	509	b490	954	808	815	551	375	165	58	10
2	267	293	503	b530	890	900	800	509	355	153	57	11
3	267	284	497	b490	868	920	778	468	370	167	58	40
4	263	297	468	463	860	930	785	436	355	153	33	34
5	271	302	436	424	838	920	815	419	335	165	77	34
6	239	263	397	b420	808	900	930	419	316	117	58	29
7	311	259	360	441	800	850	1,100	408	325	118	55	30
8	350	271	275	446	785	800	1,270	355	267	132	54	7.0
9	311	271	288	452	780	820	1,380	330	271	88	52	34
10	316	242	350	458	820	880	1,470	316	307	80	50	36
11	320	271	*360	b440	830	920	1,510	330	228	73	20	36
12	311	293	419	424	b820	960	1,520	402	225	*65	60	34
13	267	255	497	b450	792	1,000	1,510	503	225	71	54	32
14	263	271	569	b445	755	980	1,480	539	211	19	52	34
15	284	279	618	b445	719	920	1,440	569	175	103	52	9.0
16	263	284	684	b435	680	920	1,370	569	172	74	50	*40
17	232	248	740	b430	660	940	1,300	557	208	77	51	42
18	204	284	719	b385	*650	960	1,210	521	162	79	10	44
19	185	335	726	b330	618	950	1,130	527	140	74	52	28
20	145	340	705	b340	599	940	1,040	551	170	60	48	18
21	156	370	664	375	587	960	970	551	162	36	46	23
22	185	414	631	397	551	*986	922	563	167	75	44	7.2
23	182	452	618	644	533	970	852	539	169	65	40	20
24	251	441	631	b840	540	978	800	527	198	63	42	32
25	288	430	624	994	560	994	748	480	143	51	9.0	30
26	320	503	650	1,090	587	962	*712	491	148	55	42	13
27	307	533	631	1,140	657	930	691	*521	145	54	40	14
28	311	569	612	1,150	733	898	657	491	140	35	38	20
29	320	581	575	1,110	-	852	644	458	122	63	36	4.0
50	279	569	b560	1,050	--------	830	581	408	136	59	34	18
31	279	--------	b510	1,000	--------	800	--------	441	--------	62	38	--------
Total	8,235	10,483	16,826	18,528	20,274	28,378	31,230	14,749	6,722	2,651	1,410.0	763.2
Mean	266	349	543	598	724	915	1,041	476	224	85.5	45.5	25.4
(†)	135	190	164	265	237	255	301	144	56.4	15.0	2.83	2.65

Adjusted for wastage and diversion (figures represent net discharge from net drainage area)

Mean	131	159	379	333	487	660	740	331	168	70.5	42.6	22.8
Cfsm	0.420	0.510	1.21	1.07	1.56	2.12	2.37	1.06	0.538	0.226	0.137	0.073
In.	0.48	0.57	1.40	1.23	1.63	2.44	2.65	1.22	0.60	0.26	0.16	0.08

	Observed					Adjusted			
Calendar year 1956:	Max 2,960	Min 79	Mean 793	Mean 564	Cfsm 1.81	In. 24.60
Water year 1956-57:	Max 1,520	Min 4.0	Mean 439	Mean 292	Cfsm 0.936	In. 12.72

* Discharge measurement made on this day.
† Water wasted from 92.6 sq mi in basins of Sudbury River and Lake Cochituate and diversion for use of city of Lowell, equivalent in cubic feet per second. Records furnished by Water Division of Metropolitan District Commission and by city of Lowell.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Feb. 9, 10, 16, 17, 24, 25, Mar. 2-21, July 20-24, Aug. 10 to Sept. 16; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage, typical regulation pattern, and records for Assabet River at Maynard and Ipswich River near Ipswich. Backwater from aquatic vegetation Oct. 1 to Mar. 19, May 17 to Sept. 30

Merrimack River below Concord River, at Lowell, Mass.

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

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).

Records available.--June 1923 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 5.18 ft above mean sea level, datum of 1929. Prior to Mar. 7, 1934, at Boott Mills 1,800 ft upstream and 700 ft above mouth of Concord River, in same gage pool and at same datum; gage-height record (furnished by proprietors of locks and canals) was indicative of flow including that of Concord River.

Average discharge.--34 years, 7,210 cfs (adjusted for wastage into Merrimack River).

Extremes.--Maximum discharge during year, 17,200 cfs Jan. 25 (gage height, 46.16 ft); minimum daily, 324 cfs Sept. 29.
1923-57: Maximum discharge, 173,000 cfs Mar. 20, 1936 (gage height, 68.4 ft, from floodmarks); minimum daily, 199 cfs Sept. 23, 1923.

Remarks.--Records excellent except those for periods of ice effect and those below 1,000 cfs, which are good. 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, Winnipesaukee, Winnisquam, and other lakes and reservoirs above station. See pages 109, 81, for description and month-end usable contents of many of these reservoirs.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

41.1	303	42.5	2,740
41.3	475	43.0	4,270
41.5	698	44.0	7,820
42.0	1,520	47.0	21,400

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,770	2,770	5,160	b4,300	8,500	13,500	7,540	6,080	3,240	2,970	1,450	559
2	3,260	2,480	2,520	b5,800	7,740	12,400	7,740	5,670	2,770	2,670	1,880	506
3	3,180	1,780	3,740	b5,200	b6,700	10,300	8,660	5,290	4,080	2,160	1,640	909
4	3,170	1,880	3,720	5,360	b6,700	9,800	10,700	4,140	4,010	2,080	640	848
5	3,050	3,550	3,840	5,460	7,230	7,820	10,900	3,420	3,920	1,380	1,430	896
6	1,800	3,520	3,820	b5,000	7,310	7,420	11,400	4,210	3,760	2,260	1,450	921
7	3,020	3,160	*3,650	5,190	7,080	7,230	12,800	3,510	3,760	3,950	1,410	520
8	3,710	3,120	2,850	5,020	6,850	6,480	13,700	3,530	2,290	3,890	1,410	506
9	4,510	3,110	3,740	5,460	6,120	6,660	13,200	3,480	1,190	3,430	1,380	929
10	5,700	2,860	5,530	5,700	5,430	9,040	12,200	3,450	2,930	3,120	1,030	930
11	5,020	878	5,630	b5,200	6,120	9,920	12,000	2,940	2,780	2,540	639	918
12	3,760	1,860	6,520	5,020	6,300	8,660	12,000	2,660	2,830	2,740	1,430	936
13	2,840	3,460	7,420	5,190	6,120	8,300	10,800	4,820	2,810	1,980	1,440	882
14	1,200	3,310	8,460	b5,300	5,840	8,300	10,200	4,990	2,400	859	1,440	682
15	3,490	3,250	8,460	b5,000	5,430	8,700	10,600	4,890	1,770	2,240	1,430	580
16	3,440	3,100	7,940	4,790	4,370	10,200	9,840	5,120	904	2,050	1,410	*866
17	3,200	1,850	8,340	4,820	4,240	11,900	8,830	5,530	2,020	1,860	1,010	922
18	3,260	1,110	8,960	b4,750	*5,190	12,700	8,300	4,950	1,900	1,850	627	1,210
19	3,140	3,560	8,220	4,270	4,690	11,800	7,700	3,670	1,900	1,580	1,450	1,250
20	2,180	3,660	7,420	4,530	4,330	11,300	6,810	5,120	1,950	895	1,400	1,200
21	1,390	3,440	7,150	4,950	4,270	10,800	7,120	5,840	1,890	592	1,370	788
22	2,790	2,040	6,590	5,160	3,950	10,300	8,700	7,310	1,550	1,580	1,310	580
23	3,090	7,520	6,410	6,930	3,450	9,420	10,800	8,300	845	*1,530	1,170	970
24	3,240	8,420	6,520	b12,700	2,770	9,420	8,980	7,080	1,760	1,450	711	881
25	3,370	6,370	6,440	16,600	4,430	9,710	8,060	4,920	1,780	1,410	339	1,310
26	3,280	5,880	7,940	15,400	4,330	9,840	7,540	3,730	1,790	1,340	1,140	1,460
27	2,360	5,810	7,940	13,000	6,660	9,120	6,850	5,120	1,800	973	1,060	1,520
28	990	6,360	7,460	11,400	10,900	8,830	5,400	5,090	2,600	559	1,110	1,030
29	3,370	4,970	6,960	10,500	-	8,580	6,660	4,850	2,010	1,360	1,140	324
30	3,530	4,460	5,120	9,630	--------	8,420	6,190	3,890	2,580	1,370	1,040	1,020
31	3,270	--------	5,800	9,000	--------	7,700	--------	4,920	--------	1,440	722	--------
Total	97,380	109,538	190,270	216,630	163,050	294,570	282,200	148,520	71,819	60,108	37,108	26,853
Mean	3,141	3,651	6,138	6,988	5,823	9,502	9,407	4,791	2,394	1,939	1,197	895
(†)	144	198	173	274	246	264	310	153	65.0	23.9	11.7	10.9

Adjusted for wastage (figures represent net discharge from net drainage area)

Mean	2,997	3,453	5,965	6,714	5,577	9,238	9,097	4,638	2,329	1,915	1,185	884
Cfsm	0.677	0.780	1.35	1.52	1.26	2.09	2.06	1.05	0.526	0.433	0.268	0.200
In.	0.78	0.87	1.55	1.75	1.31	2.41	2.29	1.21	0.59	0.50	0.31	0.22

	Observed			Adjusted		
Calendar year 1956:	Max 46,300	Min 548	Mean 8,283	Mean 7,952	Cfsm 1.80	In. 24.45
Water year 1956-57:	Max 16,600	Min 324	Mean 4,652	Mean 4,497	Cfsm 1.02	In. 13.79

* Discharge measurement made on this day.
† Water wasted from 210 sq mi in basins of Sudbury and South Branch Nashua Rivers and Lake Cochituate, equivalent in cubic feet per second. Records furnished by Water Division of Metropolitan District Commission.
b Stage-discharge relation affected by ice.
Note.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

Reservoirs in Merrimack River basin

Newfound Lake on Newfound River, 1 2/3 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.

Franklin Falls Reservoir on Pemigewasset River, 2 miles north of Franklin, N. H., completed in 1942, used for flood control, has usable capacity of 6,640,000,000 cu ft. Records furnished by Corps of Engineers.

Merrymeeting Lake on Merrymeeting River, 2½ 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 Public Service Co. of New Hampshire.

Lake Wentworth above Lake Winnipesaukee, 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.

Lake Winnipesaukee on Winnipesaukee River (see p. 81).

Edward MacDowell Reservoir on Nubanusit Brook, at West Peterboro, 2 miles northwest of Peterboro, N. H., completed in 1950, used for flood control, has usable capacity of 558,000,000 cu ft. Records furnished by Corps of Engineers.

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.

Tower Hill Pond on Maple Falls Brook, 2¼ 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.

Massabesic Lake on Cohas Brook, 2½ 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.

Month-end usable contents, in millions of cubic feet, water year October 1956 to September 1957

Date	Newfound Lake	Franklin Falls Reservoir	Merrymeeting Lake	Lake Wentworth	Edward MacDowell Reservoir	Blackwater Reservoir	Tower Hill Pond	Massabesic Lake
Sept. 30, 1956.	1,146	138	196	510	0.6	0.6	173.5	444
Oct. 31.....	1,068	126	178	465	.3	.4	47.3	380
Nov. 30.....	1,068	145	170	452	16.7	.9	2.8	408
Dec. 31.....	1,251	128	196	521	17.5	.7	34.6	362
Jan. 31, 1957.	980	152	146	558	29.3	1.1	45.1	335
Feb. 28.....	745	218	102	542	32.4	2.8	62.3	374
Mar. 31.....	867	152	128	634	3.7	1.6	103.5	588
Apr. 30.....	1,274	168	163	719	1.6	.9	157.6	658
May 31.....	1,361	128	168	716	1.3	.7	178.9	683
June 30.....	1,350	153	152	651	1.0	.5	178.1	594
July 31.....	1,316	129	125	553	.3	.1	174.5	501
Aug. 31.....	1,072	135	84	426	.3	.2	171.8	397
Sept. 30.....	883	131	48	†200	0	.2	156.8	332

† Estimated; lake drawn during month for dam construction.

Parker River at Byfield, Mass.

Location.--Lat 42°45'10", long 70°56'46", on left bank 1,400 ft downstream from dam, half a mile south of Byfield, Essex County, 0.7 mile upstream from Wheeler Brook, and 5½ miles southwest of Newburyport.

Drainage area.--21.6 sq mi.

Records available.--October 1945 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 23.46 ft above mean sea level, datum of 1929 (levels by Massachusetts Department of Public Works).

Average discharge.--12 years, 34.6 cfs.

Extremes.--Maximum discharge during year, 99 cfs Jan. 25 (gage height, 2.87 ft); minimum daily, 0.09 cfs Sept. 25-30.
1945-57: Maximum discharge, 352 cfs Mar. 23, 1948 (gage height, 4.81 ft); minimum daily, that of Sept. 25-30, 1957.

Remarks.--Records excellent except those below 1 cfs and those for periods of no gage-height record, which are good. Diurnal fluctuation caused by mill above station. Some regulation at low flow by ponds above station.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 24

1.3	1.17	1.9	19
1.35	1.7	2.2	39
1.4	2.4	2.5	61
1.5	4.1	3.0	109
1.7	10		

Jan. 25 to Sept. 30

1.1	0.09	1.5	4.5
1.15	.24	1.6	7.2
1.2	.50	1.8	15
1.25	.85	2.1	33
1.3	1.35	2.5	64
1.4	2.7	2.9	102

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.45	10	38	38	a58	66	42	28	14	2.7	0.38	0.11
2	1.35	10	35	36	a54	62	43	26	13	2.35	.38	.11
3	1.45	10	32	33	a52	59	43	24	12	2.1	.33	.11
4	*1.65	10	31	35	a50	55	41	23	11	1.95	.50	.11
5	1.95	9.3	28	32	49	51	43	22	11	1.95	.56	.11
6	1.7	9.0	27	29	46	48	58	20	10	1.8	.50	.11
7	3.8	8.4	26	30	45	46	76	20	9.7	1.7	.50	.11
8	3.3	8.0	25	29	42	45	75	19	8.6	1.25	.50	.11
9	3.3	7.7	26	*28	41	55	75	18	7.6	1.35	.50	.11
10	3.0	7.0	24	26	44	66	75	18	6.6	1.12	.50	.11
11	2.8	6.1	25	26	44	66	76	21	6.0	1.22	.56	.14
12	2.7	6.1	32	26	43	60	78	24	5.4	1.22	.50	.17
13	2.5	6.1	39	26	40	57	77	26	5.0	1.22	.50	.17
14	2.4	5.8	46	26	38	53	73	27	4.7	1.22	.44	.14
15	2.4	5.6	41	25	36	51	66	30	4.5	1.35	.44	.14
16	2.4	5.4	44	25	34	56	59	30	3.9	1.35	.50	.14
17	2.4	5.4	46	a24	33	58	57	30	3.5	1.35	.50	.17
18	2.4	8.2	51	a23	32	59	54	29	3.2	*1.35	.44	.17
19	2.25	8.4	50	a23	31	56	52	28	4.4	1.35	.33	.17
20	2.1	9.0	50	a22	31	54	49	28	*5.0	1.35	.20	.14
21	2.4	10	47	22	29	*55	47	29	4.5	1.55	.24	.11
22	2.25	18	46	27	28	55	43	28	4.3	1.55	.28	.14
23	*10	21	42	54	28	54	39	28	3.7	1.55	.28	.14
24	11	25	46	85	29	52	*39	26	3.0	.77	.24	.14
25	13	25	47	98	*32	46	37	23	2.7	.62	.24	.09
26	14	36	46	94	37	41	36	22	2.8	.56	.28	.09
27	14	41	45	87	53	43	35	21	*3.2	.56	.24	.09
28	12	48	45	a78	68	44	34	*20	2.8	.44	.17	.09
29	11	*47	42	a74	-	44	32	19	2.8	.33	.14	.09
30	10	43	37	a68	--------	43	31	17	2.8	.28	.14	.09
31	10	--------	39	a62	--------	43	--------	16	--------	.33	.14	--------
Total	156.95	469.5	1,198	1,311	1,147	1,643	1,585	740	181.7	39.79	11.45	3.72
Mean	5.06	15.6	38.6	42.3	41.0	53.0	52.8	23.9	6.06	1.28	0.369	0.124
Cfsm	0.234	0.722	1.79	1.96	1.90	2.45	2.44	1.11	0.281	0.059	0.017	0.006
In.	0.27	0.81	2.06	2.26	1.97	2.83	2.73	1.27	0.31	0.07	0.02	0.01

Calendar year 1956: Max 231 Min 0.30 Mean 42.2 Cfsm 1.95 In. 26.57
Water year 1956-57: Max 98 Min 0.09 Mean 23.3 Cfsm 1.08 In. 14.61

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, appearance of recorder chart, and records for Ipswich River at South Middleton.

Ipswich River at South Middleton, Mass.

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

Drainage area.--43.4 sq mi.

Records available.--June 1938 to September 1957.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 45 ft (from topographic map).

Average discharge.--19 years, 68.4 cfs (adjusted for diversions).

Extremes.--Maximum discharge during year, 232 cfs Apr. 10 (gage height, 3.615 ft); minimum, 0.1 cfs Sept. 24.
1938-57: Maximum discharge, 646 cfs Mar. 21, 1948 (gage height, 5.895 ft); minimum, that of Sept. 24, 1957.

Remarks.--Records good. Water diverted above station for municipal supplies of Reading, Lynn, and Peabody. Occasional regulation by mill above station.

Revisions (water years).--WSP 1301: 1942(M).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 16-18)

Oct. 1 to Dec. 18				Dec. 19 to Sept. 30			
0.1	0.5	0.5	13	0.08	0.1	0.7	27
.2	1.8	.7	28	.1	.2	1.0	46
.3	4.2	1.0	54	.2	1.4	1.5	67
.4	8.0	1.5	75	.3	3.8	2.0	97
				.4	7.4	3.0	172
				.5	12	4.0	270

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.95	*12	31	60	110	114	55	45	23	*2.4	*1.6	0.25
2	2.25	3.1	28	57	100	108	56	42	21	2.1	.95	.45
3	2.6	13	*23	*53	92	112	*62	*41	19	1.8	.7	.35
4	2.7	11	19	51	87	*103	59	39	17	1.5	.8	.4
5	2.3	8.5	16	48	86	89	65	37	16	1.4	2.2	.4
6	1.1	7.5	14	46	*81	77	131	33	14	1.4	2.0	.3
7	3.0	6.4	14	46	75	64	160	33	15	1.1	1.25	.25
8	5.3	5.5	15	42	69	62	145	33	13	.95	.95	.3
9	4.0	2.05	17	40	67	96	166	32	12	.8	.65	.35
10	2.05	4.0	18	39	77	108	196	31	11	.8	.6	.3
11	3.8	6.2	18	39	75	103	184	41	9.8	.7	.6	.35
12	8.2	8.9	35	38	58	115	182	48	8.8	.6	.65	.35
13	9.8	1.85	44	38	51	97	167	52	8.2	.6	.6	.3
14	11	5.1	48	38	48	91	153	55	7.4	.6	.55	.4
15	12	10	61	38	46	84	138	57	6.8	.6	.5	.3
16	12	9.9	64	37	44	95	126	60	6.0	.65	.45	.25
17	12	1.5	70	36	42	102	116	53	5.4	.65	.45	.25
18	11	6.5	75	35	41	95	103	40	4.7	.6	.4	.2
19	10	4.6	71	35	41	86	97	37	5.0	.6	.35	.2
20	9.8	3.8	71	33	41	84	90	35	6.0	.6	.3	.2
21	9.2	3.8	66	33	40	89	83	37	5.0	.55	.3	.15
22	8.8	17	62	42	39	97	75	36	4.4	.5	.35	.15
23	9.3	21	60	129	40	96	68	33	3.9	.4	.35	.15
24	10	18	58	149	41	90	63	30	3.4	.4	.25	.1
25	7.5	13	61	165	44	84	58	26	3.2	.35	.25	.15
26	4.5	29	58	147	51	77	56	22	3.0	.35	.3	.2
27	3.1	41	58	144	95	72	52	20	3.0	1.25	.25	.15
28	2.35	37	56	153	125	66	51	17	2.8	.85	.3	.25
29	1.75	36	57	150	-	61	49	14	2.8	1.5	.3	.25
30	8.2	35	54	135	--------	59	47	27	2.6	2.6	.3	.2
31	13	--------	58	122	--------	58	--------	*26	--------	2.0	.25	--------
Total	204.55	382.20	1,400	2,218	1,806	2,734	3,053	1,132	263.2	31.20	19.75	7.90
Mean	6.60	12.7	45.2	71.5	64.5	88.2	102	36.5	8.77	1.01	0.637	0.263
(†)	7.45	14.3	12.7	1.85	14.6	22.5	10.8	10.2	2.29	2.38	2.05	1.95

Adjusted for diversions

Mean	14.0	27.0	57.9	73.4	79.1	111	113	46.7	11.1	3.38	2.68	2.22
Cfsm	0.323	0.622	1.33	1.69	1.82	2.56	2.60	1.08	0.256	0.078	0.062	0.051
In.	0.37	0.70	1.54	1.95	1.90	2.94	2.89	1.24	0.28	0.09	0.07	0.06

	Observed											
Calendar year 1956:	Max	490	Min	0.85	Mean	80.9	Mean	86.5	Cfsm	1.99	In	27.13
Water year 1956-57:	Max	196	Min	0.1	Mean	36.3	Mean	44.9	Cfsm	1.03	In.	14.03

* Discharge measurement made on this day.
† Diversions for municipal supplies of Reading, Lynn, and Peabody, equivalent in cubic feet per second; records furnished by municipalities.

Ipswich River near Ipswich, Mass.

Location.--Lat 42°39'35", long 70°53'39", on left bank 200 ft downstream from Willowdale Dam, 1½ miles downstream from Howlett Brook, and 4 miles upstream from Ipswich, Essex County.

Drainage area.--124 sq mi.

Records available.--June 1930 to September 1957. 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, datum of 1929.

Average discharge.--27 years, 198 cfs (adjusted for diversions).

Extremes.--Maximum discharge during year, 496 cfs Jan. 26, 27, Apr. 9, 10 (gage height, 4.51 ft); minimum, 1.2 cfs Sept. 28-30.
1930-57: Maximum discharge, 2,610 cfs Mar. 15, 1936 (gage height, 7.70 ft); minimum, that of Sept. 28-30, 1957.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. Diversions above station for municipal supplies of Reading, Lynn, Peabody, Danvers, Salem, and Beverly.

Revisions.--WSP 781: Drainage area.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.2	1.0	3.0	34
2.3	2.3	3.3	68
2.4	4.0	3.6	122
2.5	6.4	4.0	240
2.6	9.6	4.5	490
2.7	14		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	a70	168	205	307	294	226	174	76	10	*5.1	3.1
2	12	60	157	b205	284	355	230	166	74	9.2	4.7	2.8
3	11	55	146	b195	268	355	*233	*160	70	8.9	4.0	2.6
4	*11	47	136	190	260	325	236	152	64	8.2	5.6	2.6
5	13	47	127	180	244	b295	244	146	60	9.2	10	2.5
6	15	43	116	168	222	276	307	136	55	8.6	12	2.2
7	27	38	109	163	205	260	380	132	54	7.9	9.2	2.0
8	36	37	105	157	196	248	430	124	49	7.3	7.6	2.2
9	35	36	107	*152	190	294	484	116	48	6.4	6.4	*2.1
10	31	34	107	149	196	320	490	109	42	6.4	5.8	2.2
11	26	30	107	144	208	330	490	116	38	6.4	5.6	2.2
12	23	29	127	144	205	335	478	127	34	6.1	5.6	2.0
13	21	32	144	144	193	320	454	136	32	5.4	5.1	2.0
14	22	32	163	b140	183	307	430	146	31	4.9	4.9	2.0
15	23	30	186	b140	168	294	402	160	29	4.4	4.4	3.0
16	23	31	216	b135	157	298	365	168	26	4.6	3.7	2.3
17	23	32	240	b130	144	307	340	171	24	7.6	3.5	2.2
18	23	49	260	b130	136	307	320	171	22	5.4	3.1	2.0
19	23	63	b260	b125	136	307	302	166	21	4.4	3.1	2.0
20	22	70	260	b125	134	302	284	163	*23	4.0	3.0	1.9
21	21	70	256	b120	124	307	268	160	23	3.9	2.8	1.9
22	21	85	248	134	124	302	256	152	22	3.1	2.8	1.7
23	*55	96	b215	208	134	298	240	141	19	3.1	2.8	1.6
24	a90	99	226	269	144	298	226	134	17	3.1	2.8	1.6
25	a100	101	236	402	*152	289	219	127	16	3.3	2.6	1.6
26	a110	118	b225	466	171	280	212	122	16	3.3	2.6	1.5
27	a120	129	b230	490	230	260	208	114	15	3.3	2.8	1.4
28	a120	144	233	442	284	248	202	105	15	3.7	3.3	1.4
29	a105	*166	230	386	-	236	196	96	13	4.0	3.7	1.2
30	a90	171	b150	355	--------	233	186	85	12	6.4	3.9	1.2
31	a80	--------	196	330	--------	230	--------	*77	--------	5.8	3.3	--------
Total	1,346	2,044	5,686	6,723	5,399	9,110	9,338	4,252	1,040	178.3	145.8	61.0
Mean	43.4	68.1	183	217	193	294	311	137	34.7	5.75	4.70	2.03
(†)	10.0	16.8	15.0	4.28	40.1	24.7	13.1	13.0	6.21	6.63	5.30	5.03
Adjusted for diversions												
Mean	53.4	85.0	198	221	233	319	324	150	40.9	12.4	10.0	7.06
Cfsm	0.431	0.685	1.60	1.78	1.88	2.57	2.61	1.21	0.330	0.100	0.081	0.057
In.	0.50	0.76	1.84	2.06	1.96	2.96	2.92	1.40	0.37	0.12	0.09	0.06

	Observed			Adjusted		
Calendar year 1956:	Max 1,520	Min 5.7	Mean 245	Mean 254	Cfsm 2.05	In. 27.83
Water year 1956-57:	Max 490	Min 1.2	Mean 124	Mean 137	Cfsm 1.10	In. 15.04

* Discharge measurement made on this day.
† Diversions for municipal supplies of Reading, Lynn, Peabody, Danvers, Salem, and Beverly, equivalent in cubic feet per second. Records furnished by various municipalities.
a No gage-height record; discharge estimated on basis of weather records and records for Parker River at Byfield.
b Stage-discharge relation affected by ice.

Aberjona River at Winchester, Mass.

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

Drainage area.--23.3 sq mi (excludes 1.4 sq mi drained by Winchester Reservoirs).

Records available.--April 1939 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is at mean sea level, datum of 1929.

Average discharge.--18 years, 27.0 cfs.

Extremes.--Maximum discharge during year, 172 cfs Jan. 24 (gage height, 11.95 ft); maximum gage height, 12.08 ft Jan. 23 (backwater from ice); minimum discharge, 0.3 cfs Sept. 9; minimum daily, 0.35 cfs Sept. 5, 9, 10.

1939-57: Maximum discharge, 835 cfs Aug. 19, 1955 (gage height, 13.64 ft), from rating curve extended above 330 cfs by logarithmic plotting; maximum gage height, 13.72 ft Aug. 20, 1955 (backwater from 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.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Flow affected by diversions for industrial use and for municipal supply of Woburn and Winchester, and by wastage and leakage from Winchester Reservoirs. Occasional regulation caused by mills above station.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-23				Oct. 24 to Sept. 30			
10.25	0.65	10.6	6.2	10.2	0.3	10.7	9.3
10.3	1.05	10.7	9.1	10.3	.95	11.0	26
10.4	2.2	10.9	18	10.4	2.1	11.3	56
10.5	3.9			10.5	3.7	11.7	118
				10.6	6.0	12.0	183

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	2.1	11	b21	b38	b39	30	17	5.6	0.75	2.5	0.4
2	.95	2.0	7.8	b20	36	35	36	15	5.1	.75	.7	.45
3	1.15	1.9	7.6	18	36	34	38	15	14	.75	.6	.45
4	2.0	1.7	7.6	18	44	35	35	10	4.6	.7	.75	.45
5	2.1	1.6	6.6	17	45	31	51	12	3.8	.9	.65	.35
6	2.2	1.5	5.9	16	42	27	87	13	3.6	.7	.6	.4
7	15	1.3	5.0	b17	36	24	87	10	3.8	.7	.6	.4
8	3.8	1.2	5.2	b16	*35	32	74	9.5	4.7	.8	.6	.4
9	2.1	1.2	11	b15	35	60	82	8.6	3.2	.9	.6	.35
10	*1.4	1.1	10	b16	46	65	84	7.9	1.9	.85	.6	.35
11	1.05	1.0	10	b16	47	53	78	19	1.6	.85	.6	.4
12	2.1	1.0	25	16	38	44	70	21	1.35	.8	.65	*.4
13	2.2	.85	26	15	32	38	62	21	.95	.85	*.55	.85
14	1.15	.75	24	b14	27	35	53	18	.9	.9	.5	.45
15	.95	.6	22	b14	26	32	47	21	.9	1.15	.5	.4
16	.8	.55	28	13	24	44	46	30	.65	1.1	.5	.4
17	.9	.55	30	13	25	45	43	29	*.85	.9	.45	.5
18	1.05	16	29	13	27	42	42	22	.85	.9	.55	.85
19	.85	10	23	12	28	35	35	16	7.0	.9	.5	.85
20	.8	7.0	19	10	26	35	32	20	5.8	.85	.65	.85
21	.95	6.0	17	b12	24	*43	30	29	1.8	.9	.5	.85
22	.85	20	17	b26	23	48	26	21	6.5	.85	.45	.65
23	15	17	18	b120	22	48	24	6.9	1.8	.85	.5	.4
24	*5.0	13	20	151	23	43	23	12	1.25	.8	.45	.4
25	2.2	11	25	111	22	36	21	9.3	1.0	.8	.65	.45
26	3.1	30	25	79	25	32	21	10	1.15	.75	.75	.4
27	2.5	20	23	67	47	30	20	8.3	2.5	2.2	.45	.45
28	2.0	16	22	57	45	28	18	17	1.45	1.15	.45	.45
29	2.4	*14	25	50	-	26	22	6.3	.9	.65	.45	.4
30	2.1	13	23	b45	-------	32	17	4.4	.8	.75	.45	.4
31	1.9	-------	b22	b41	-------	32	-------	3.0	-------	4.6	.45	-------
Total	81.45	213.90	550.7	1,069	924	1,183	1,334	464.2	90.50	31.30	19.20	14.80
Mean	2.63	7.13	17.8	34.5	33.0	38.2	44.5	15.0	3.02	1.01	0.619	0.493
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 294 Min 0.55 Mean 34.4 Cfsm - In. -
Water year 1956-57: Max 151 Min 0.35 Mean 16.4 Cfsm - In. -

Peak discharge (base, 170 cfs).--Jan. 24 (2:30 to 4 p.m.) 172 cfs (11.95 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Oct. 30 to Nov. 13, Nov. 20-29; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage when available, and records for stations on nearby streams.

Charles River at Charles River Village, Mass.

Location.--Lat 42°15'23", long 71°15'42", on right bank 0.25 mile downstream from highway bridge at Charles River Village, Norfolk County, 0.8 mile downstream from Noanet Brook, and 1.3 miles northeast of Dover.

Drainage area.--184 sq mi.

Records available.--October 1937 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 89.76 ft above mean sea level, datum of 1929.

Average discharge.--20 years, 298 cfs (adjusted for diversions).

Extremes.--Maximum discharge during year, 924 cfs Apr. 11 (gage height, 3.68 ft); minimum, 4.6 cfs Sept. 30.

1937-57: Maximum discharge, 3,220 cfs Aug. 23, 1955 (gage height, 9.24 ft); minimum, 0.5 cfs Oct. 24, 1952.

Flood in March 1936 reached a discharge of 3,170 cfs, by computation of flow over dam at site a quarter of a mile above station.

Remarks.--Records excellent. Diversion above station for municipal supply of Wellesley and Needham. Occasional diversion since 1951 from Sudbury River basin to Charles River.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 11				Apr. 12 to Sept 30			
0.8	65	2.0	420	0.3	4.9	0.6	29
1.0	126	3.0	720	.4	9.7	.7	44
1.5	282	4.0	1,020	.5	17	.8	65

Note.--Same as preceding table above 0.8 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	107	297	b400	540	477	*369	243	136	35	14	6.6
2	136	104	249	b375	492	492	387	222	123	32	13	6.6
3	110	107	204	b355	b445	492	403	207	123	29	12	7.0
4	94	110	189	332	432	474	417	198	120	25	10	8.6
5	88	107	179	300	423	444	477	192	113	27	12	8.0
6	82	100	176	273	409	412	618	189	100	25	12	8.0
7	133	94	173	255	400	382	675	176	97	21	12	8.0
8	153	91	173	252	389	374	750	163	83	24	11	7.5
9	166	88	198	249	382	462	870	146	85	25	10	7.0
10	166	85	228	b245	409	498	909	143	82	25	9.1	7.5
11	146	85	249	b240	438	525	921	192	77	22	7.5	8.6
12	126	85	332	243	b425	561	912	210	77	21	7.5	9.1
13	110	88	376	243	423	567	870	225	63	20	8.0	9.7
14	94	91	412	b235	398	543	816	225	61	18	8.6	10
15	82	85	450	b230	369	513	756	231	54	18	8.6	8.6
16	80	85	504	b220	343	507	696	249	54	19	8.0	8.0
17	77	85	543	b210	320	477	636	237	54	21	7.0	9.1
18	74	150	567	b205	297	450	582	192	46	21	6.2	9.7
19	65	213	570	b200	279	429	540	182	52	16	5.7	9.7
20	65	252	555	b195	276	432	495	189	54	14	6.6	9.1
21	65	255	531	198	273	432	450	198	44	13	6.2	8.0
22	65	282	501	235	270	450	406	207	35	14	6.6	7.0
23	120	270	492	568	267	468	379	210	37	16	6.2	6.6
24	146	258	477	678	273	480	348	213	35	16	6.2	7.5
25	160	234	492	756	282	480	323	179	34	16	7.0	7.5
26	160	282	489	834	312	471	306	157	34	14	8.6	7.0
27	150	326	489	852	*412	450	288	153	34	12	11	6.6
28	129	343	*477	810	441	420	282	146	*34	9.7	*12	6.2
29	113	348	b460	747	-	398	270	*153	31	9.7	10	5.3
30	104	*334	b415	669	--------	387	*258	160	30	12	9.1	*5.2
31	*98	--------	b405	*597	--------	376	--------	153	--------	13	7.5	--------
Total	3,523	5,144	11,852	12,201	10,419	14,323	16,409	5,940	2,015	603.4	279.2	233.3
Mean	114	171	382	394	372	462	547	192	67.2	19.5	9.01	7.78
(†)	+5.24	+5.12	+5.38	+5.35	+5.13	+5.46	+5.62	+5.90	+5.38	+4.34	+4.69	+4.63

Adjusted for diversions

Mean	119	177	388	399	377	467	553	198	72.6	23.8	13.7	12.4
Cfsm	0.647	0.962	2.11	2.17	2.05	2.54	3.01	1.08	0.395	0.129	0.074	0.067
In.	0.74	1.07	2.43	2.50	2.13	2.93	3.35	1.24	0.44	0.15	0.09	0.08

	Observed			Adjusted		
Calendar year 1956:	Max 1,470	Min 24	Mean 374	Mean 378	Cfsm 2.05	In. 27.98
Water year 1956-57:	Max 921	Min 5.2	Mean 227	Mean 232	Cfsm 1.26	In. 17.15

* Discharge measurement made on this day.

† Diversions for municipal supply of Wellesley and Needham, equivalent in cubic feet per second; records furnished by municipalities and Water Division of Metropolitan District Commission.

b Stage-discharge relation affected by ice.

Mother Brook at Dedham, Mass.

Location.--Lat 42°15'19", long 71°09'58", on right bank at upstream side of East Street Bridge, at Dedham, Norfolk County, 0.4 mile downstream from point of diversion from Charles River.

Records available.--October 1931 to September 1957.

Gage.--Float gage read twice daily. Datum of gage is 0.03 ft below sea level, datum of 1929. Prior to Dec. 9, 1931, water-stage recorder at same site and datum.

Average discharge.--26 years, 85.9 cfs.

Extremes.--Maximum discharge during year, 285 cfs Apr. 13 (gage height, 88.62 ft, from graph based on gage readings); no flow July 7 to Aug. 8.
1931-57: Maximum discharge, 970 cfs Aug. 24, 1955 (gage height, 92.90 ft, from graph based on gage readings); no flow at times.

Remarks.--Records good. Mother Brook is a diversion from Charles River to Neponset River through Dedham and Hyde Park.

Revisions (water years).--WSP 1301: 1932(M).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from debris and/or shifting-control method used Aug. 9 to Sept. 30)

Oct. 1 to Apr. 10				Apr. 11 to Sept. 30			
85.4	4.0	87.0	94	84.95	0	86.0	27
85.6	9.1	88.0	198	85.0	.1	86.5	56
86.0	24	88.5	266	85.1	.5	87.0	94
86.5	55			85.2	1.2	88.0	198
				85.3	2.6	88.7	298
				85.5	7.0		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*26	17	84	130	144	111	106	71	31	0.6	0	0.7
2	25	16	78	124	141	120	106	66	29	.5	0	.6
3	23	15	72	114	140	126	113	60	*28	.4	0	.5
4	17	15	*61	106	139	128	113	53	25	.2	0	.3
5	15	15	53	97	138	126	120	48	23	.1	0	.5
6	11	14	47	91	134	120	140	45	21	.1	0	.5
7	20	12	43	84	127	112	180	42	20	0	0	.3
8	26	11	40	76	120	109	200	38	19	0	0	.4
9	28	11	45	75	115	119	220	34	18	0	.7	.3
10	30	10	51	72	117	131	259	30	*16	0	1.4	.2
11	28	8.0	56	75	121	140	276	38	14	0	1.2	.2
12	24	*9.0	71	74	125	145	*280	45	12	0	1.2	.2
13	20	11	85	73	125	150	284	51	10	0	1.1	.3
14	16	10	100	70	*119	150	276	53	8.8	0	.8	.4
15	12	9.4	120	65	114	150	259	56	6.5	0	.7	.4
16	9.8	8.8	138	62	107	145	240	61	5.8	0	*.8	.3
17	8.3	8.8	143	58	100	145	220	60	*5.6	0	.8	.3
18	7.5	22	146	56	92	145	198	58	4.8	0	.5	.3
19	6.4	34	148	54	87	*135	185	50	4.6	0	.4	.3
20	5.2	44	147	49	83	135	170	48	6.3	0	.4	.2
21	4.7	50	145	49	78	131	155	48	5.1	0	.3	.2
22	5.0	62	144	59	74	131	*140	47	3.4	0	.3	.2
23	15	68	144	*111	72	132	126	48	2.5	0	.3	.2
24	28	68	143	161	73	136	114	53	1.8	0	.2	*.6
25	28	65	143	175	73	135	104	49	1.2	0	.3	.8
26	29	70	143	181	77	131	97	43	.9	0	.7	.7
27	31	76	142	185	93	129	91	39	.8	0	1.0	.8
28	29	82	142	187	103	125	85	36	.9	0	1.0	.7
29	24	86	142	182	-	120	80	34	.6	0	.8	.6
30	20	88	144	160	-------	116	78	35	.5	0	.9	.5
31	18	-------	144	147	-------	113	-------	32	-------	0	.9	-------
Total	589.9	1,016.0	3,304	3,202	3,031	4,041	5,015	1,471	326.1	1.9	16.7	12.5
Mean	19.0	33.9	107	103	108	130	167	47.5	10.9	0.061	0.539	0.417
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 444 Min 0 Mean 99.2 Cfsm - In. -
Water year 1956-57: Max 284 Min 0 Mean 60.3 Cfsm - In. -

* Discharge measurement made on this day.

Charles River at Waltham, Mass.

Location.--Lat 42°22'20", long 71°14'03", on right bank 800 ft downstream from Moody Street Bridge in Waltham, Middlesex County, and a third of a 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.

Records available.--October 1903 to October 1909 (figures of average weekly discharge, equivalent to records of unadjusted discharge at present site), August 1931 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 20.02 ft above mean sea level, datum of 1929. Prior to July 10, 1904, at dam 700 ft upstream and July 10, 1904, to Oct. 2, 1909, at dam 0.7 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.--26 years (1931-57), 373 cfs (adjusted for diversions, wastage, and leakage).

Extremes.--Maximum discharge during year, 957 cfs Apr. 11 (gage height, 3.01 ft); minimum, 1.1 cfs Aug. 21, 22; minimum daily, 1.4 cfs Aug. 22.

1931-57: Maximum discharge, 2,540 cfs Mar. 19, 1936 (gage height, 4.79 ft); maximum gage height, 5.35 ft Aug. 19, 1955; minimum discharge, 0.1 cfs Oct. 1, 12, 1943; minimum daily, 0.2 cfs Oct. 4, 1943.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow affected by wastage from Stony Brook Reservoir, wastage and leakage from Norumbega Reservoir, diversion at times from Lake Cochituate and also at times since 1951 from Sudbury River basin, diversion to Mother Brook, and diversions for municipal supply of Wellesley, Needham, and Dedham, all above station. No diversion during year from Sudbury River basin or wastage from Stony Brook Reservoir. Low flow completely regulated by Boston Edison Co. powerplant above station.

Revisions (water years).--WSP 781: 1933(M). WSP 851: Drainage area. WSP 971: 1942.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	133	255	337	540	342	*342	255	135	31	14	2.1
2	128	121	245	315	510	361	361	*235	85	29	14	2.6
3	128	118	238	311	474	370	351	173	*130	29	13	3.0
4	123	116	219	303	462	375	351	200	125	27	14	3.4
5	111	121	200	290	440	375	408	203	118	30	17	3.4
6	100	118	194	276	413	370	490	197	111	27	14	3.0
7	168	116	185	276	391	356	501	185	109	25	11	3.4
8	*146	116	174	262	375	351	540	179	96	24	15	5.7
9	140	113	191	258	370	391	616	168	83	24	22	14
10	143	100	197	255	380	380	660	95	77	25	23	21
11	143	102	*203	238	370	391	770	140	73	24	23	27
12	138	107	242	242	360	413	746	182	67	23	30	*28
13	125	102	258	238	375	418	716	210	96	22	46	30
14	113	102	280	225	366	435	699	213	69	21	62	29
15	104	100	324	220	351	440	677	229	55	21	55	27
16	98	98	351	210	337	457	650	235	48	19	52	33
17	93	93	375	205	324	430	611	232	43	19	30	31
18	87	158	396	200	303	522	578	232	*40	57	12	37
19	81	168	418	195	290	435	528	222	43	107	19	26
20	77	179	430	190	276	408	496	210	43	96	14	23
21	73	200	435	185	*266	402	446	213	42	89	3.4	23
22	71	242	430	210	262	402	418	200	40	79	1.4	24
23	160	232	446	330	258	391	396	197	37	62	2.1	22
24	*144	229	440	*500	252	386	366	232	36	49	3.0	24
25	146	222	435	550	258	391	335	206	32	20	4.5	24
26	154	266	435	600	269	396	320	200	32	10	6.3	24
27	151	248	561	620	311	391	305	336	31	10	5.1	23
28	146	252	384	640	319	380	300	197	32	10	4.5	23
29	143	255	380	630	-	370	285	168	36	14	4.5	24
30	128	258	385	610	--------	366	270	155	32	*15	3.9	23
31	123	--------	366	580	--------	351	--------	145	--------	15	3.4	--------
Total	3,803	4,785	10,072	10,501	9,902	12,246	14,532	6,244	1,996	1,053	542.1	586.6
Mean	123	160	325	339	354	395	484	201	66.5	34.0	17.5	19.6
(†)	+28.0	+41.9	+115	+112	+117	+139	+177	+59.3	+26.0	+18.2	+14.9	-.77

Adjusted for diversions, wastage, and leakage

Mean	151	201	440	451	471	534	661	261	92.5	52.2	32.4	18.8
Cfsm	0.665	0.885	1.94	1.99	2.07	2.35	2.91	1.15	0.407	0.230	0.143	0.083
In.	0.77	0.99	2.24	2.29	2.16	2.71	3.25	1.32	0.45	0.27	0.16	0.09

	Observed						Adjusted					
Calendar year 1956:	Max	1,600	Min	26	Mean	392	Mean	471	Cfsm	2.07	In.	28.26
Water year 1956-57:	Max	770	Min	1.4	Mean	209	Mean	279	Cfsm	1.23	In.	16.70

* Discharge measurement made on this day.

† Diversion to Mother Brook, diversions for municipal supply of Wellesley, Needham, and Dedham, diversion from Lake Cochituate, and wastage and leakage from Norumbega Reservoir, equivalent in cubic feet per second. Records furnished by Water Division of Metropolitan District Commission and by municipalities.

Note.--No gage-height record Jan. 15 to Feb. 2, Apr. 25 to May 2, May 30 to June 2; discharge estimated on basis of 2 discharge measurements, weather records, recorded range in stage, and records for station at Charles River Village.

Neponset River at Norwood, Mass.

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

Drainage area.--35.2 sq mi.

Records available.--October 1939 to September 1957. October 1939 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 44.04 ft above mean sea level, unadjusted.

Average discharge.--18 years, 49.9 cfs.

Extremes.--Maximum discharge during year, 247 cfs Jan. 23 (gage height, 9.65 ft); minimum daily, 1.8 cfs Sept. 1.

1939-57: Maximum discharge, 1,490 cfs Aug. 19, 1955 (gage height, 14.65 ft, from floodmarks); minimum daily, that of Sept. 1, 1957.

Flood of July 24, 1938, reached a stage of 11.05 ft, from floodmarks.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by mills and reservoirs above station. Several diversions above station for municipal and industrial use.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 10

7.1	7.6	8.0	70
7.4	24	9.0	172
7.7	43	10.0	289

Mar. 11 to Sept. 30

6.76	1.8	7.5	33
6.8	2.4	8.0	74
6.9	4.2	9.0	172
7.1	10		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*24	16	30	74	78	100	66	34	19	18	16	1.8
2	22	17	29	66	75	89	76	28	16	16	16	2.0
3	20	19	28	57	72	69	89	36	*25	15	16	6.1
4	18	21	28	53	81	68	79	38	16	8.6	14	9.7
5	22	30	23	49	84	61	105	35	15	9.7	9.7	11
6	17	34	22	50	79	65	170	30	12	10	8.9	12
7	17	32	22	53	75	54	145	28	13	8.9	8.5	8.9
8	37	32	21	46	67	63	135	21	12	13	8.4	8.2
9	33	34	45	50	66	108	165	16	8.5	15	8.5	8.4
10	29	35	67	45	91	125	150	19	16	16	8.7	*9.3
11	26	18	62	54	94	113	125	36	12	14	7.5	8.9
12	21	*10	70	45	80	101	115	37	12	14	7.8	8.9
13	14	15	70	46	72	94	110	51	11	15	7.5	9.7
14	14	16	66	45	68	88	105	44	11	10	8.1	7.8
15	20	17	107	44	64	81	82	34	12	*11	8.1	5.1
16	14	16	122	43	59	87	78	42	7.8	14	8.1	6.9
17	13	25	134	*41	55	89	77	34	7.0	12	9.3	8.5
18	16	40	116	40	52	85	73	18	12	13	8.5	8.5
19	13	64	100	39	50	78	68	26	12	14	12	9.3
20	11	48	88	38	47	81	74	37	13	14	15	9.3
21	11	35	82	40	*46	*83	67	38	14	9.8	17	8.2
22	15	56	79	52	45	91	64	33	12	11	18	5.1
23	40	59	94	*174	46	100	61	36	9.0	16	19	7.8
24	68	51	97	218	46	88	*58	27	13	17	18	*9.3
25	40	36	106	158	41	77	56	19	18	15	9.0	8.9
26	30	40	103	124	53	70	52	21	18	13	10	9.3
27	24	47	88	109	94	63	52	20	19	13	14	9.7
28	21	41	85	99	107	59	47	33	18	9.2	15	7.9
29	19	36	87	96	-	56	47	37	19	11	12	4.4
30	18	*32	90	89	--------	58	48	20	16	16	8.9	7.2
31	17	--------	83	81	--------	68	--------	16	--------	15	5.6	--------
Total	704	972	2,244	2,218	1,887	2,512	2,639	944	418.3	407.2	353.1	238.1
Mean	22.7	32.4	72.4	71.5	67.4	81.0	88.0	30.5	13.9	13.1	11.4	7.94
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 346 Min 6.4 Mean 67.8 Cfsm - In. -
Water year 1956-57: Max 218 Min 1.8 Mean 42.6 Cfsm - In. -

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 1-8, 18-30, Nov. 2-12, Nov. 14 to Dec. 4, Dec. 6-14, Jan. 14-21, Feb. 9-20, Mar. 23 to Apr. 2, Apr. 5-23, May 4-6, June 18-20, Aug. 24-29; discharge estimated on basis of 4 discharge measurements, weather records, recorded range in stage when available, appearance of stage graph for adjacent days, engineer's notes, and records for East Branch Neponset River at Canton and Wading River near Norton.

East Branch Neponset River at Canton, Mass.

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

Drainage area.--26.7 sq mi.

Records available.--October 1952 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 85 ft (from topographic map).

Average discharge.--5 years, 60.7 cfs.

Extremes.--Maximum discharge during year, 292 cfs Jan. 23 (gage height, 3.40 ft); minimum daily, 0.6 cfs July 7, Sept. 1.

1952-57: Maximum discharge, 1,790 cfs Aug. 19, 1955 (gage height, 8.18 ft), from rating curve extended above 690 cfs by logarithmic plotting; minimum daily, that of July 7, Sept. 1, 1957.

Remarks.--Records good. Flow regulated by ponds above station.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.4	0.4	1.0	11
.5	.7	1.2	20
.6	1.3	1.5	41
.7	2.4	2.0	90
.8	4.6	3.0	226
.9	7.4		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	*23	44	85	75	74	*56	36	15	6.5	4.6	0.6
2	10	24	40	78	73	65	63	33	14	6.5	2.8	5.5
3	9.1	23	*39	73	71	65	90	29	*15	6.2	2.1	5.0
4	8.8	26	39	71	68	60	74	26	14	6.2	1.0	6.2
5	11	42	38	70	79	55	86	26	13	6.2	3.8	6.2
6	10	43	34	66	74	54	190	27	12	3.1	4.2	5.4
7	58	39	32	65	69	53	158	26	12	.6	5.4	3.6
8	64	41	31	65	66	55	131	20	11	5.6	4.3	1.4
9	37	45	57	63	66	106	184	18	10	7.6	3.9	4.5
10	24	45	69	63	96	104	166	17	10	6.8	1.6	5.6
11	20	38	60	62	96	81	139	23	10	5.9	1.0	5.6
12	18	34	78	59	76	73	126	26	10	6.2	3.7	5.8
13	18	33	73	57	66	69	121	24	9.8	3.9	4.6	5.5
14	18	32	70	54	62	65	112	20	*9.1	2.4	4.8	3.8
15	17	33	115	53	60	62	83	20	9.1	*5.6	5.2	1.7
16	17	31	140	47	57	67	78	19	8.8	7.4	*5.0	4.9
17	20	29	134	*46	57	71	76	16	7.7	7.1	1.6	5.8
18	17	61	107	44	55	64	72	16	6.8	6.2	1.1	5.1
19	17	71	92	42	56	60	63	16	6.5	5.9	4.2	5.7
20	16	52	89	41	54	64	71	17	6.8	2.7	4.5	5.0
21	15	44	88	42	*53	76	68	24	7.1	1.0	5.1	3.5
22	11	68	86	57	50	92	63	25	6.5	4.7	5.2	1.4
23	43	69	107	190	48	90	57	21	6.5	5.1	5.0	*4.2
24	77	54	115	170	47	80	*54	19	6.2	5.1	2.0	6.3
25	38	46	121	116	47	63	52	16	6.5	4.8	.8	4.7
26	31	83	114	98	48	57	53	15	7.4	4.1	4.2	5.3
27	26	52	98	90	80	54	54	16	8.8	1.5	5.4	4.1
28	24	56	92	87	88	50	51	34	7.1	1.2	5.5	3.9
29	22	52	98	84	-	48	43	26	6.2	3.8	4.9	1.3
30	20	47	104	83	--------	52	38	19	6.5	4.3	4.3	5.1
31	20	--------	97	78	--------	59	--------	17	--------	4.7	1.1	--------
Total	747.9	1,336	2,501	2,299	1,837	2,088	2,672	687	279.4	148.9	112.9	132.7
Mean	24.1	44.5	80.7	74.2	65.6	67.4	89.1	22.2	9.31	4.80	3.64	4.42
Cfsm	0.903	1.67	3.02	2.78	2.46	2.52	3.34	0.831	0.349	0.180	0.136	0.166
In.	1.04	1.86	3.48	3.20	2.56	2.91	3.72	0.96	0.39	0.21	0.16	0.18

Calendar year 1956: Max 301 Min 1.3 Mean 61.7 Cfsm 2.31 In. 31.45
Water year 1956-57: Max 190 Min 0.6 Mean 40.7 Cfsm 1.52 In. 20.67

* Discharge measurement made on this day.

Adamsville Brook at Adamsville, R. I.

Location.--Lat 41°33'30", long 71°07'47", on right bank 0.2 mile upstream from milldam at Adamsville, Newport County, and 0.7 mile upstream from mouth.

Drainage area.--8.6 sq mi, approximately.

Records available.--October 1940 to September 1957.

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

Average discharge.--17 years, 13.4 cfs.

Extremes.--Maximum discharge during year, 246 cfs Apr. 6 (gage height, 5.76 ft); minimum, 0.06 cfs July 17-20, Aug. 23-25.
1940-57: Maximum discharge, 269 cfs Sept. 12, 1954 (gage height, 5.80 ft), from rating curve extended above 210 cfs; minimum, 0.03 cfs Sept. 23, 24, Oct. 3, 4, 1950.

Remarks.--Records good.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.995	0.06	3.4	7.7
3.00	.07	3.5	12
3.03	.14	3.7	25
3.06	.26	4.0	50
3.10	.50	4.5	101
3.15	1.00	5.0	161
3.2	1.75	5.5	219
3.3	4.1		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.67	3.1	7.5	17	14	15	12	10	2.8	0.12	0.08	0.08
2	.50	*3.0	6.5	14	13	15	18	9.1	2.6	.13	.08	.07
3	.42	2.9	6.3	11	14	18	36	8.5	2.35	.10	.08	.07
4	.39	2.6	6.1	10	20	17	35	7.9	2.15	.10	.21	.07
5	*.39	2.6	5.6	9.6	25	15	35	7.5	1.95	.12	.13	.07
6	.39	2.45	*6.3	9.3	24	13	189	7.1	1.85	.09	.10	.09
7	6.4	2.6	7.3	9.3	20	12	159	6.9	1.75	.10	.10	.09
8	4.6	2.45	7.7	9.3	17	16	60	6.3	1.75	*.10	.10	.12
9	3.4	4.7	11	9.6	17	39	67	5.9	1.6	.12	.08	.08
10	2.9	4.0	20	10	27	48	48	5.6	1.45	.10	.10	.07
11	2.6	3.6	20	12	33	35	45	5.2	1.25	.08	.03	.14
12	2.45	3.8	18	11	24	23	31	5.6	1.18	.08	.10	.10
13	2.35	3.6	16	10	17	18	26	5.6	1.13	.10	.08	.09
14	2.05	3.4	18	9.3	14	15	23	5.6	1.06	.09	.03	.13
15	1.95	3.2	46	8.5	13	13	20	12	.94	.08	.12	.16
16	1.85	3.1	63	*7.7	12	17	18	15	.88	.08	.03	.19
17	1.75	3.5	53	6.7	12	21	16	12	.72	.07	.03	.32
18	1.85	13	36	6.5	*11	18	16	9.1	.62	.06	.03	.07
19	1.95	18	23	6.3	11	16	15	7.7	.54	.06	.10	.09
20	1.95	15	17	5.8	11	21	14	7.9	.42	.07	.03	.07
21	1.95	12	15	6.5	9.6	34	14	8.9	.36	.08	*.03	.12
22	1.85	16	14	13	8.9	*49	13	8.7	.33	.09	.07	.09
23	7.2	17	20	69	8.7	46	12	7.9	.28	.09	.03	.12
24	7.1	14	25	119	8.5	36	12	7.1	.26	*.08	.03	.12
25	8.3	11	28	50	8.7	27	11	5.9	.24	.09	.16	.12
26	7.7	12	24	28	9.1	21	*12	5.2	.20	.10	.19	.14
27	6.1	14	19	19	13	17	12	4.7	.18	.09	.15	.15
28	4.9	13	17	16	14	15	13	4.2	.16	.08	.16	.08
29	4.1	11	18	15	-	14	12	3.6	.14	.12	.13	.08
30	3.8	8.9	24	14	--------	14	11	3.4	.13	.10	.12	.07
31	3.2	--------	23	13	--------	13	--------	*3.0	--------	.09	.03	--------
Total	97.01	229.5	621.3	555.4	429.5	691	1,005	223.1	31.27	2.86	3.21	3.26
Mean	3.13	7.65	20.0	17.9	15.3	22.3	33.5	7.20	1.04	0.092	0.103	0.109
Cfsm	0.364	0.890	2.33	2.08	1.78	2.59	3.90	0.837	0.121	0.011	0.012	0.013
In.	0.42	0.99	2.69	2.40	1.86	2.99	4.35	0.96	0.14	0.01	0.01	0.01

Calendar year 1956 : Max 82 Min 0.16 Mean 14.7 Cfsm 1.71 In. 23.25
Water year 1956-57 : Max 189 Min 0.06 Mean 10.7 Cfsm 1.24 In. 16.83

Peak discharge (base, 120 cfs).--Jan. 24 (9:30 a.m.) 187 cfs (5.20 ft); Apr. 6 (2 to 4 p.m.) 246 cfs (5.76 ft).

* Discharge measurement made on this day.

Taunton River at State Farm, Mass.

Location.--Lat 41°56'05", long 70°57'18", on right bank at State Farm, Plymouth County, 1 mile upstream from Saw Mill Brook and 3½ miles northwest of Middleboro.

Drainage area.--260 sq mi.

Records available.--October 1929 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 9.61 ft above mean sea level, datum of 1929. Prior to Oct. 1, 1931, inverted staff gage at site 40 ft downstream with zero of gage at 10.02 ft on present gage. Oct. 1, 1931, to June 8, 1934, staff gage and June 9, 1934, to Oct. 12, 1939, water-stage recorder, at site 40 ft downstream at present datum.

Average discharge.--28 years, 469 cfs (adjusted for diversions).

Extremes.--Maximum discharge during year, 1,950 cfs Apr. 7 (gage height, 7.70 ft); minimum, 11 cfs July 18; minimum daily, 12 cfs July 16-19.
1929-57: Maximum discharge, 4,010 cfs Aug. 21, 1955 (gage height, 13.02 ft); minimum, 8 cfs Sept. 10, 1944; minimum daily, 9 cfs Sept. 9-12, 1944.

Remarks.--Records excellent. Water diverted above station from Nemasket River for municipal supply of Taunton and New Bedford; water diverted from Silver Lake by pumpage into Taunton River basin above station for municipal supply of Brockton and several towns. Flow regulated by reservoirs and small powerplants above station.

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

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from aquatic vegetation July 8-26)

2.6	11	3.7	148
2.8	20	4.0	265
3.1	42	6.0	1,220
3.4	81	8.0	2,070

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*140	171	396	695	620	655	590	460	185	57	65	49
2	129	*178	346	620	580	630	640	396	171	107	56	42
3	114	168	328	570	560	645	910	332	171	77	43	42
4	108	171	310	485	600	655	910	310	168	54	39	48
5	106	178	288	400	675	605	905	288	134	93	44	42
6	99	151	*265	422	700	550	1,540	208	117	*53	49	38
7	195	140	252	414	665	510	1,920	185	143	28	46	35
8	409	137	252	414	630	530	1,800	247	134	23	41	32
9	346	155	296	404	595	770	1,760	265	121	23	36	32
10	306	161	530	418	745	925	1,800	238	119	23	33	34
11	256	155	585	432	920	890	1,620	229	112	21	34	32
12	197	148	620	460	870	800	1,370	238	108	18	39	30
13	171	158	655	460	775	730	1,200	256	101	16	48	31
14	161	148	670	436	680	670	1,080	252	95	14	44	35
15	155	140	1,030	400	*615	655	995	252	92	13	40	32
16	148	134	1,310	378	565	625	900	252	83	12	38	30
17	143	129	1,390	368	550	600	825	224	66	12	34	30
18	137	232	1,270	346	530	580	795	204	88	12	32	32
19	129	418	1,090	324	495	520	755	229	83	12	32	36
20	121	391	945	319	465	515	705	224	90	14	35	32
21	114	350	820	324	436	595	645	296	97	16	*30	28
22	112	490	735	460	445	820	620	283	94	18	27	27
23	164	605	785	1,190	432	930	615	314	92	26	26	31
24	386	515	955	1,730	422	930	555	283	94	29	24	32
25	373	450	1,010	1,620	409	885	515	260	88	26	26	34
26	328	475	980	1,340	400	840	*550	252	88	37	61	30
27	278	590	875	1,080	490	775	540	234	85	62	74	26
28	252	545	795	915	645	650	530	288	78	60	60	20
29	224	510	770	790	-	*635	490	256	68	51	53	21
30	200	460	810	710	--------	600	460	224	57	51	52	24
31	178	--------	720	650	--------	570	--------	204	--------	*69	52	--------
Total	6,179	8,653	22,083	19,574	16,514	21,290	28,540	8,183	3,242	1,127	1,313	987
Mean	199	288	712	631	590	687	951	264	108	36.4	42.4	32.9
(†)	31.5	29.0	25.0	27.7	26.9	26.5	26.4	28.4	31.1	28.4	28.7	27.6

Adjusted for diversion

Mean	231	317	737	659	617	713	978	292	139	64.7	71.0	60.5
Cfsm	0.888	1.22	2.83	2.53	2.37	2.74	3.76	1.12	0.535	0.249	0.273	0.233
In.	1.02	1.36	3.27	2.92	2.47	3.16	4.20	1.30	0.60	0.29	0.31	0.26

	Observed			Adjusted		
Calendar year 1956:	Max 2,440	Min 51	Mean 581	Mean 610	Cfsm 2.35	In. 31.95
Water year 1956-57:	Max 1,920	Min 12	Mean 377	Mean 405	Cfsm 1.56	In. 21.16

* Discharge measurement made on this day.
† Diversions from Nemasket River for municipal supply of Taunton and New Bedford, and from Silver Lake into Taunton River basin for municipal supply of Brockton and several towns, equivalent in cubic feet per second. Records furnished by various municipalities.
Note.--Discharge computed from twice-daily tape-gage readings Dec. 7 to Jan. 18.

Wading River at West Mansfield, Mass.

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

Drainage area.--19.2 sq mi.

Records available.--October 1953 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 120.85 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 120 cfs Apr. 9 (gage height, 4.52 ft); minimum daily, 0.2 cfs Aug. 26, Sept. 9-17.
1953-57: Maximum discharge, 519 cfs Aug. 20, 1955 (gage height, 6.22 ft); minimum daily, that of Aug. 26, Sept. 9-17, 1957.

Remarks.--Records good. Flow regulated by Lake Mirimichi. Diversion above station for municipal supply of Attleboro.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 9

2.6	3.0	3.0	13
2.7	4.5	3.2	22
2.8	6.7		

Note.--Same as following table above 3.2 ft.

Apr. 10 to Sept. 30

2.2	0.2	3.2	22
2.3	.6	3.5	38
2.4	1.3	4.0	68
2.5	2.2	4.5	117
2.7	5.2	5.0	191
2.9	10		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	*5.7	19	72	48	52	48	30	15	1.3	5.2	0.3
2	3.8	6.0	17	66	46	55	49	28	14	1.1	4.8	.4
3	3.8	7.3	16	61	b48	52	57	26	14	1.1	4.5	.4
4	4.0	7.5	*16	58	45	47	58	24	12	*1.5	5.8	.7
5	4.5	6.7	14	55	45	42	63	24	11	1.5	4.8	.3
6	4.2	5.7	13	50	44	38	105	24	9.0	1.6	3.5	.3
7	13	5.3	13	48	42	33	118	23	7.3	1.7	2.8	.3
8	12	5.1	13	49	39	33	112	21	7.3	1.7	2.6	.3
9	8.7	5.5	16	48	38	48	116	20	6.4	1.8	2.4	.2
10	7.0	5.5	22	b44	48	58	105	18	5.8	2.0	1.0	*.2
11	5.5	10	22	b48	50	59	94	18	5.2	1.9	2.5	.2
12	5.3	20	28	49	48	56	90	18	4.6	1.7	2.6	.2
13	5.1	16	32	43	*47	55	82	18	4.6	1.7	2.8	.2
14	5.1	10	36	b40	44	51	75	18	4.5	1.4	2.7	.2
15	4.7	7.5	53	b40	41	46	68	18	4.3	1.2	2.7	.2
16	5.3	6.4	63	b39	37	45	63	18	4.3	1.3	3.0	.2
17	5.3	5.7	71	b38	36	46	60	18	3.8	1.3	2.6	.2
18	5.1	12	69	b36	35	38	57	17	3.2	1.3	2.0	.3
19	4.9	16	61	b34	34	39	51	17	3.1	1.2	3.4	1.4
20	4.7	18	60	34	32	48	47	18	3.5	2.7	3.5	2.1
21	4.5	16	59	35	30	59	43	20	3.0	5.2	2.2	2.0
22	4.5	30	54	41	30	60	41	20	2.8	*5.8	1.7	1.3
23	8.8	41	55	b66	29	59	40	19	2.4	6.0	.6	*1.3
24	11	28	59	b70	28	57	*40	20	3.3	5.0	.5	.8
25	8.7	24	63	78	28	51	37	18	4.3	5.0	.6	.5
26	7.3	30	63	78	28	48	35	16	3.4	5.4	.2	.9
27	7.0	32	60	72	42	*48	35	15	3.2	5.2	1.6	1.7
28	6.2	27	56	63	50	46	34	17	3.1	5.2	1.0	1.8
29	6.2	22	60	b57	-	43	32	16	2.3	5.0	.3	1.8
30	5.5	21	70	b55	--------	45	31	15	2.0	5.4	.3	2.8
31	5.3	--------	76	50	--------	47	--------	15	--------	5.4	.3	--------
Total	191.2	452.9	1,329	1,617	1,112	1,504	1,886	607	172.7	89.6	74.5	23.5
Mean	6.17	15.1	42.9	52.2	39.7	48.5	62.9	19.6	5.76	2.89	2.40	0.783
(†)	1.37	1.36	1.35	1.34	1.30	1.34	1.35	1.37	2.35	2.38	2.06	2.65

Adjusted for diversion

Mean	7.54	16.5	44.2	53.5	41.0	49.9	64.2	20.9	8.11	5.26	4.46	3.43
Cfsm	0.393	0.859	2.30	2.79	2.14	2.60	3.34	1.09	0.422	0.274	0.232	0.179
In.	0.45	0.96	2.66	3.21	2.22	2.99	3.73	1.26	0.47	0.32	0.27	0.20

	Observed			Adjusted		
Calendar year 1956:	Max 169	Min 1.3	Mean 37.6	Mean 38.9	Cfsm 2.03	In. 27.58
Water year 1956-57:	Max 118	Min 0.2	Mean 24.8	Mean 26.5	Cfsm 1.38	In. 18.74

* Discharge measurement made on this day.
† Diversion for municipal supply of Attleboro, equivalent in cubic feet per second. Records furnished by city of Attleboro.
b Stage-discharge relation affected by ice.

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Wading River near Norton, Mass.

Location.--Lat 41°56'51", long 71°10'38", on left bank 200 ft downstream from bridge on State Highway 140, 0.9 mile upstream from confluence with Rumford River, and 1½ miles southeast of Norton, Bristol County.

Drainage area.--42.4 sq mi.

Records available.--June 1925 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 49.63 ft above mean sea level, datum of 1929. Prior to Oct. 1, 1930, staff gage at same site at datum 0.62 ft higher. Oct. 1, 1930, to May 4, 1933, staff gage at present site and datum.

Average discharge.--32 years, 71.5 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 313 cfs Apr. 7 (gage height, 7.81 ft); minimum, 0.8 cfs Sept. 29; minimum daily, 0.9 cfs Sept. 29.
1925-57: Maximum discharge, 1,170 cfs Aug. 20, 1955 (gage height, 10.98 ft); minimum, 0.3 cfs Sept. 10, 1926.

Remarks.--Records excellent except those for periods of ice effect or shifting-control, which are good, and those for period of no gage-height record, which are fair. Flow regulated by powerplants and ponds above station. Diversion above station for municipal supply of Attleboro.

Revisions (water years).--WSP 871: 1938. WSP 1301: 1929-33(M).

Rating table, water year 1956-57, except periods of ice effect or shifting control (gage height, in feet, and discharge, in cubic feet per second)

4.4	0.9	5.2	20
4.5	1.7	5.5	39
4.6	3.0	6.0	82
4.7	4.7	7.0	197
5.0	12	8.0	344

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	21	45	b120	96	118	*92	53	23	4.2	3.8	2.6
2	12	22	40	b125	91	107	108	54	22	3.3	3.0	2.6
3	17	19	33	b115	b85	108	136	40	22	3.2	2.6	3.0
4	16	17	38	101	94	102	130	24	20	3.0	2.6	3.5
5	6.2	19	38	92	100	92	138	41	18	3.3	3.3	3.5
6	5.8	19	36	88	98	84	265	45	16	3.5	3.8	3.0
7	38	20	36	85	91	80	294	44	14	3.5	3.7	2.9
8	56	18	31	86	87	81	236	38	12	3.7	3.7	3.0
9	26	19	45	85	82	121	274	36	11	3.0	3.0	2.9
10	19	18	58	83	111	141	280	40	10	2.7	4.0	3.3
11	19	16	60	b75	136	136	247	32	9.3	2.7	6.9	3.3
12	18	21	74	b75	118	123	214	32	8.8	3.2	7.1	3.3
13	16	35	82	75	105	113	194	33	8.3	3.7	6.2	3.2
14	14	28	95	a70	95	106	178	31	7.6	3.2	4.4	2.6
15	15	23	161	a65	90	98	156	34	7.6	4.2	4.0	1.8
16	17	20	209	a65	82	93	142	31	6.9	4.7	3.5	2.4
17	15	15	205	a65	80	93	126	29	6.9	4.7	3.3	3.7
18	15	32	180	a63	80	92	121	28	5.6	4.2	3.0	3.5
19	14	49	149	a60	75	83	114	28	5.4	4.2	3.2	3.3
20	13	46	132	a57	76	88	103	30	5.4	3.7	3.3	3.2
21	12	42	124	a60	69	101	94	35	4.9	3.3	3.5	2.7
22	13	64	114	a65	64	129	87	35	4.5	3.7	3.5	2.9
23	42	85	127	174	64	134	78	33	4.4	3.7	3.0	3.2
24	41	66	134	a250	64	124	68	31	6.0	3.7	2.7	3.3
25	36	52	148	a225	66	112	68	29	6.9	3.8	2.9	3.2
26	33	64	149	a175	69	100	65	26	6.5	3.7	4.0	3.2
27	20	78	134	a150	*101	93	65	27	6.2	3.2	3.8	2.9
28	14	72	*127	136	120	89	72	31	*5.4	2.7	*3.5	2.1
29	19	57	126	125	-	85	71	*28	4.7	3.2	3.5	.9
30	21	*51	143	115	--------	86	*58	24	4.4	*4.0	3.2	*1.5
31	*20	--------	b135	*103	--------	90	--------	23	--------	3.7	2.9	--------
Total	635.0	1,108	3,208	3,228	2,489	3,202	4,274	1,045	293.7	110.6	114.9	86.5
Mean	20.5	36.9	103	104	88.9	103	142	33.7	9.79	3.57	3.71	2.88
(†)	1.37	1.36	1.35	1.34	1.30	1.34	1.35	1.37	2.35	2.38	2.06	2.65

Adjusted for diversion

Mean	21.9	38.3	105	105	90.2	105	144	35.1	12.1	5.94	5.76	5.53
Cfsm	0.517	0.903	2.48	2.48	2.13	2.48	3.40	0.828	0.285	0.140	0.136	0.130
In.	0.59	1.01	2.85	2.87	2.22	2.84	3.78	0.95	0.32	0.16	0.16	0.15

	Observed			Adjusted			
Calendar year 1956:	Max 324	Min 3.7	Mean 77.7	Mean 79.0	Cfsm 1.86	In. 25.37	
Water year 1956-57:	Max 294	Min 0.9	Mean 54.2	Mean 55.9	Cfsm 1.32	In. 17.90	

Peak discharge (base, 280 cfs).--Apr. 7 (1:30 p.m.) 313 cfs (7.81 ft).

* Discharge measurement made on this day.
† Diversion, equivalent in cubic feet per second, for municipal supply of Attleboro. Records furnished by city of Attleboro.
a No gage-height record; discharge estimated on basis of weather records and records for Wading River at West Mansfield.
b Stage-discharge relation affected by ice.
Note.--Shifting-control method used May 3, 4, May 8 to Sept. 30.

Kettle Brook at Worcester, Mass.

Location.--Lat 42°13'55", long 71°50'07", on right bank 75 ft downstream from Webster Street Bridge at Worcester, Worcester County, 1 mile upstream from Beaver Brook.

Drainage area.--31.3 sq mi.

Records available.--August 1923 to September 1957. Prior to October 1950, published as Blackstone River at Worcester.

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.--34 years, 53.2 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 246 cfs Jan. 23 (gage height, 3.82 ft); minimum, 4.1 cfs Nov. 3.
1923-57: 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; minimum, 0.2 cfs May 17, 1940.

Remarks.--Records excellent. City of Worcester diverts flow from about 7.0 sq mi of drainage area above station. Flow regulated by reservoirs above station.

Revisions (water years).--WSP 1301: 1927(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.1	4.8	3.0	58
2.3	9.4	3.3	110
2.5	16	3.6	180
2.7	27		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	33	16	27	42	57	26	*23	11	14	8.9	9.7
2	12	36	15	23	41	48	39	20	12	10	9.7	10
3	12	16	14	23	39	43	55	23	12	8.9	10	10
4	12	4.8	14	21	46	38	45	22	11	8.1	12	8.9
5	14	13	13	20	49	34	68	21	11	8.4	12	8.9
6	13	13	13	19	45	33	168	21	10	8.1	29	11
7	29	5.0	14	20	42	32	158	18	11	7.8	23	13
8	23	20	14	*20	40	38	100	15	9.7	7.6	13	13
9	17	20	20	19	42	85	117	15	8.9	7.6	12	12
10	15	13	20	22	60	100	110	16	8.9	7.3	11	12
11	14	12	19	22	55	75	100	39	10	7.3	11	11
12	14	13	42	20	43	62	90	39	11	7.3	11	10
13	13	12	*53	19	36	58	82	33	11	7.1	9.1	10
14	13	9.1	46	19	33	55	73	29	11	7.1	8.6	10
15	12	6.6	42	19	30	54	68	30	11	7.1	8.4	10
16	12	10	42	19	29	75	66	29	11	7.1	11	9.7
17	12	14	46	18	29	80	62	24	9.7	6.8	12	9.1
18	12	23	41	17	26	67	61	24	8.4	6.6	12	9.1
19	11	37	33	16	26	58	58	22	9.1	6.4	*12	14
20	11	16	29	15	*26	57	55	24	12	6.0	11	18
21	11	16	27	16	24	61	52	29	11	5.8	18	14
22	11	23	29	33	23	67	48	27	9.4	17	17	9.1
23	18	26	40	169	24	67	45	26	8.1	16	11	8.9
24	19	21	40	170	25	61	43	28	7.6	10	11	10
25	15	17	48	87	26	54	38	22	8.1	10	11	12
26	14	32	45	64	32	*54	33	20	*17	*9.7	12	12
27	13	36	37	55	87	52	32	20	24	9.4	12	*12
28	13	26	33	50	78	43	29	*18	18	9.1	12	12
29	12	21	34	53	-	35	27	16	16	9.1	11	12
30	*12	17	37	48	--------	31	25	14	15	9.1	9.7	12
31	12	--------	31	44	--------	29	--------	12	--------	9.4	9.7	--------
Total	435	561.5	947	1,187	1,098	1,703	1,973	719	343.9	271.2	380.1	333.4
Mean	14.0	18.7	30.5	38.3	39.2	54.9	65.8	23.2	11.5	8.75	12.3	11.1
(†)	4.89	6.44	5.97	6.92	7.07	7.78	8.39	8.45	9.02	9.05	7.91	5.34

Adjusted for diversion

Mean	18.9	25.2	36.5	45.2	46.3	62.7	74.2	31.6	20.5	17.8	20.2	16.5
Cfsm	0.604	0.805	1.17	1.44	1.48	2.00	2.37	1.01	0.655	0.569	0.645	0.527
In.	0.70	0.90	1.35	1.67	1.54	2.31	2.64	1.17	0.73	0.66	0.74	0.59

	Observed			Adjusted		
Calendar year 1956:	Max 575	Min 4.8	Mean 55.0	Mean 62.5	Cfsm 2.00	In. 27.19
Water year 1956-57:	Max 170	Min 4.8	Mean 27.3	Mean 34.5	Cfsm 1.10	In. 15.00

Peak discharge (base, 250 cfs).--No peak above base.

* Discharge measurement made on this day.
† Diversion, equivalent in cubic feet per second, for municipal supply of Worcester. Records furnished by city of Worcester.
Note.--Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

Quinsigamond River at North Grafton, Mass.

Location.--Lat 42°13'49", long 71°42'41", on right bank 800 ft downstream from dam at outlet of Flint Pond at North Grafton, Worcester County, and 0.3 mile upstream from Bummett Brook.

Drainage area.--25.5 sq mi.

Records available.--October 1939 to September 1957.

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.--18 years, 41.3 cfs.

Extremes.--Maximum discharge during year, 209 cfs Apr. 13 (gage height, 2.83 ft); minimum daily, 0.5 cfs Aug. 3.
1939-57: Maximum discharge, 820 cfs Aug. 20, 1955 (gage height, 5.15 ft); minimum daily, 0.3 cfs Oct. 14-17, 1942.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Some regulation by Lake Quinsigamond and ponds above station.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 1 to Sept. 19)

Oct. 1 to Sept. 19				Sept. 20-30	
0.5	0.4	1.3	18	0.5	0.5
.7	.8	1.6	38	.6	.8
.8	1.6	2.0	78	.7	1.3
.9	3.0	2.5	150	.8	2.8
1.0	5.4	3.0	240		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	6.5	25	48	59	30	44	*28	27	21	0.9	1.1
2	28	6.8	25	43	58	30	48	21	26	19	.6	1.0
3	55	7.0	24	39	57	30	45	16	26	16	.5	2.0
4	31	6.0	20	37	55	27	37	22	24	16	1.2	2.5
5	11	5.0	8.0	35	54	26	48	33	22	16	8.2	2.9
6	8.4	4.8	6.6	33	51	27	81	34	21	14	6.7	2.7
7	16	*4.8	7.2	35	50	32	84	31	21	13	2.9	2.5
8	11	4.8	8.0	*38	50	36	70	24	21	11	2.1	2.5
9	8.8	5.4	11	36	49	44	96	23	19	9.2	1.2	1.6
10	8.4	5.4	10	37	53	42	101	22	17	8.8	1.0	2.0
11	7.8	6.6	9.2	34	50	30	94	35	16	7.2	3.2	2.7
12	7.4	16	16	34	47	28	95	40	16	5.7	1.9	2.7
13	7.0	23	*21	34	45	26	188	39	16	5.7	1.6	2.5
14	6.5	19	24	33	44	25	154	38	14	6.6	1.6	1.9
15	6.0	16	26	32	43	24	108	38	14	5.4	1.9	1.3
16	5.8	14	27	32	42	28	41	40	14	4.6	1.9	.9
17	5.6	13	26	31	43	30	53	34	13	3.8	1.2	1.6
18	5.4	17	29	31	33	33	55	31	12	3.0	.8	2.9
19	5.2	18	25	30	37	36	58	28	11	2.4	.8	3.0
20	5.1	25	21	29	*35	39	59	37	17	2.4	.9	2.6
21	5.0	54	24	28	30	40	57	44	18	4.4	.9	2.8
22	5.0	58	28	34	27	39	46	39	18	2.9	.9	2.0
23	9.0	47	39	65	26	48	40	36	17	1.9	.8	1.3
24	10	40	56	62	25	52	28	40	14	1.3	.7	1.7
25	9.0	36	96	65	23	44	37	37	13	.9	.8	2.4
26	8.0	38	76	66	24	38	41	36	22	*.8	1.2	2.4
27	7.2	36	65	66	28	*41	41	34	*32	1.8	*2.7	*1.9
28	6.8	34	58	65	26	48	40	*35	26	2.2	1.9	1.5
29	6.6	28	58	65	-	47	40	34	24	3.6	1.9	.9
30	6.4	26	52	63	--------	47	34	31	24	1.8	2.5	.7
31	6.4	--------	54	60	--------	45	--------	28	--------	.8	2.7	--------
Total	332.8	621.1	975.0	1,340	1,164	1,112	1,963	1,008	575	213.2	58.1	60.5
Mean	10.7	20.7	31.5	43.2	41.6	35.9	65.4	32.5	19.2	6.88	1.87	2.02
Cfsm	0.420	0.812	1.24	1.69	1.63	1.41	2.56	1.27	0.753	0.270	0.073	0.079
In.	0.49	0.91	1.42	1.95	1.70	1.62	2.86	1.47	0.84	0.31	0.08	0.09

Calendar year 1956: Max 226 Min 3.0 Mean 49.4 Cfsm 1.94 In. 26.35
Water year 1956-57: Max 188 Min 0.5 Mean 25.8 Cfsm 1.01 In. 13.74

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 11 to Nov. 7, Dec. 30 to Jan. 8, Jan. 14-21; discharge estimated on basis of 2 discharge measurements, weather records, recorded range in stage, and records for Kettle Brook at Worcester and Ware River near Barre. Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

Blackstone River at Northbridge, Mass.

Location.--Lat 42°09'13", long 71°39'09", on left bank 800 ft downstream from Paul Whitin Co. dam at Northbridge, Worcester County, and 3 miles downstream from Quinsigamond River.

Drainage area.--139 sq mi.

Records available.--October 1939 to September 1957. 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.--18 years, 235 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, about 1,500 cfs Apr. 6; minimum daily, 2.0 cfs Aug. 28.

1939-57: 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 determination 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.

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 periods of doubtful or no gage-height record, which are fair. Flow regulated by mills and reservoirs above station. Daily discharge includes flow diverted from Nashua River basin to Blackstone River basin for municipal supply of Worcester.

Revisions (water years).--WSP 1301: 1940(M).

Discharge, in cubic feet per second, water year October 1956 to September 1957.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	122	133	150	220	260	320	250	*158	61	169	90	2.2
2	80	171	118	200	250	290	270	200	78	166	68	3.2
3	72	171	126	188	250	265	420	174	126	61	4.0	127
4	73	126	108	183	280	240	350	86	128	16	13	47
5	131	128	100	180	300	215	400	105	98	20	138	61
6	105	128	95	169	265	200	1,200	188	110	62	28	22
7	268	*126	98	158	232	210	1,050	194	95	49	52	26
8	206	128	88	166	217	230	800	177	98	52	97	4.0
9	171	147	110	*163	214	450	1,050	75	88	110	86	64
10	150	126	150	158	320	520	900	122	85	58	17	71
11	126	102	*136	158	370	420	700	271	88	19	52	73
12	113	115	293	163	300	350	600	268	98	47	104	90
13	128	90	330	144	250	310	540	241	80	62	80	55
14	88	80	330	145	230	300	520	203	95	56	3.3	2.6
15	110	76	350	150	210	280	460	211	71	35	13	15
16	128	87	400	140	200	325	430	268	69	58	113	69
17	122	65	470	150	190	360	380	194	78	47	111	124
18	141	115	410	135	195	320	355	180	67	56	2.3	153
19	113	166	380	125	*190	300	355	177	88	117	2.3	a60
20	95	147	360	130	185	310	350	177	183	59	58	a70
21	108	123	330	140	180	320	335	220	95	8.0	a58	a3.0
22	110	238	355	220	170	370	310	220	80	10	a115	a15
23	238	217	365	900	175	350	280	188	69	126	44	a80
24	183	185	385	1,000	160	350	270	250	80	50	2.6	a86
25	158	150	400	560	185	310	250	226	80	55	12	a90
26	136	238	410	430	220	280	250	188	108	*90	173	a110
27	141	265	360	360	325	*253	240	171	206	4.7	*139	*a70
28	118	220	300	340	380	244	230	*163	136	4.7	2.0	100
29	128	180	270	315	-	235	210	150	115	81	4.4	28
30	95	160	250	290	--------	232	162	123	98	40	129	91
31	93	--------	230	270	--------	280	--------	128	--------	23	87	--------
Total	4,050	4,403	8,257	8,050	6,703	9,439	13,917	5,696	2,951	1,811.4	1,897.9	1,812.0
Mean	131	147	266	260	239	304	464	184	98.4	58.4	61.2	60.4
(†)	32.1	24.1	17.5	14.9	25.8	25.1	10.1	25.8	28.2	36.2	37.6	37.6
Adjusted for diversion												
Mean	98.6	123	249	245	214	279	454	158	70.2	22.3	23.6	22.8
Cfsm	0.709	0.885	1.79	1.76	1.54	2.01	3.27	1.14	0.505	0.160	0.170	0.164
In.	0.82	0.98	2.06	2.03	1.60	2.32	3.64	1.31	0.56	0.18	0.20	0.18

	Observed			Adjusted		
Calendar year 1956:	Max 1,800	Min 9.0	Mean 304	Mean 282	Cfsm 2.03	In. 27.65
Water year 1956-57:	Max 1,200	Min 2.0	Mean 189	Mean 163	Cfsm 1.17	In. 15.88

* Discharge measurement made on this day.

† Diversion from Nashua River basin to Blackstone River basin for municipal supply of Worcester, equivalent in cubic feet per second. Records furnished by city of Worcester.

a No gage-height record; discharge estimated on basis of 1 discharge measurement, recorded range in stage when available, weather records, typical regulation pattern, and records for Blackstone River at Woonsocket, R. I., and Branch River at Forestdale, R. I.

Note.--Doubtful gage-height record Oct. 1 to Dec. 8, May 1 to Aug. 13; discharge computed from reconstructed gage-height graph based on recorded graph, outside-gage readings, and typical regulation pattern. Doubtful or no gage-height record Dec. 9 to Apr. 30; discharge estimated on basis of 4 discharge measurements, recorder graph, weather records, recorded range in stage, and records for stations mentioned above. Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

Branch River at Forestdale, R. I.

Location.--Lat 41°59'47", long 71°33'47", on left bank 20 ft upstream from abandoned bridge, 400 ft downstream from millcam at Forestdale, Providence County, 1 mile east of Slatersville, and 1.6 miles upstream from mouth.

Drainage area.--93.3 sq mi.

Records available.--September to December 1909 and January 1912 to July 1913 (gage heights only), January 1940 to September 1957. Published as "at Branch Village" 1909, 1912-13.

Gage.--Water-stage recorder. Altitude of gage is 180 ft (from topographic map). Prior to July 28, 1913, staff gage at site 1 mile downstream at different datum.

Average discharge.--17 years, 161 cfs.

Extremes.--Maximum discharge during year, 1,060 cfs Jan. 23 (gage height, 5.46 ft); minimum daily, 8.3 cfs Oct. 2.

1940-57: Maximum discharge, 4,240 cfs Aug. 19, 1955 (gage height, 10.52 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 known since at least 1886, about 5,800 cfs Mar. 19, 1936, by computation of flow over dam 1 mile above station.

Remarks.--Records excellent. Flow regulated by mills and reservoirs above station.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.5	5.7	2.3	75
1.6	9.5	2.6	120
1.7	15	3.0	198
1.8	21	3.5	329
1.9	30	4.0	490
2.0	39	5.0	870

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	27	30	187	196	235	205	110	66	25	22	20
2	8.3	48	19	162	189	214	245	104	65	21	21	20
3	127	52	125	160	183	216	391	101	62	24	21	21
4	*145	50	144	158	212	200	285	100	61	24	22	20
5	87	106	91	150	228	183	320	100	56	28	22	19
6	19	76	94	143	191	174	869	100	47	23	22	19
7	27	80	91	141	174	174	730	92	52	23	22	18
8	25	*80	*21	141	164	172	542	94	48	21	21	20
9	98	81	64	139	158	308	726	90	48	24	21	20
10	138	16	224	139	250	385	642	86	44	20	21	19
11	133	13	200	123	*291	279	490	76	33	23	21	20
12	16	18	202	115	216	235	410	89	28	27	23	20
13	16	19	272	114	183	228	363	98	*26	25	22	20
14	16	20	270	108	166	219	320	92	30	24	21	20
15	86	84	286	100	158	210	293	96	32	25	22	20
16	86	86	360	100	148	233	258	86	30	24	21	22
17	83	17	473	100	152	261	240	78	29	24	21	19
18	26	28	376	90	148	235	231	76	27	23	21	18
19	23	37	329	82	143	214	223	74	30	23	21	18
20	25	140	302	88	143	226	205	76	28	23	20	19
21	25	105	271	110	132	235	191	96	26	23	20	20
22	26	45	203	143	125	288	177	101	25	24	20	20
23	32	137	311	652	127	288	*166	85	25	*24	20	20
24	31	109	320	738	128	258	164	78	31	23	20	19
25	25	85	341	401	132	235	144	78	34	23	22	19
26	20	201	372	311	139	216	145	67	37	23	*24	*18
27	19	235	285	268	266	207	143	72	43	23	23	18
28	20	196	231	250	282	198	141	118	55	23	22	18
29	20	187	160	233	-	*198	135	114	50	23	21	18
30	20	144	221	210	--------	200	112	89	18	22	21	19
31	21	--------	194	198	--------	214	--------	74	--------	22	22	--------
Total	1,457.3	2,522	6,884	6,054	5,024	7,138	9,506	2,790	1,186	727	663	581
Mean	47.0	84.1	222	195	179	230	317	90.0	39.5	23.5	21.4	19.4
Cfsm	0.504	0.901	2.38	2.09	1.92	2.47	3.40	0.965	0.423	0.252	0.229	0.208
In.	0.58	1.01	2.74	2.41	2.00	2.85	3.79	1.11	0.47	0.29	0.26	0.23

Calendar year 1956:	Max	1,040	Min	7.8	Mean	188	Cfsm	2.02	In.	27.47
Water year 1956-57:	Max	869	Min	8.3	Mean	122	Cfsm	1.31	In.	17.74

Peak discharge (base, 880 cfs).--Jan. 23 (11 p.m.) 1,060 cfs (5.46 ft); Apr. 6 (3:30 to 4 p.m.) 1,010 cfs (5.36 ft).

* Discharge measurement made on this day.

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

Blackstone River at Woonsocket, R. I.

Location.--Lat 42°00'22", long 71°30'13", on right bank at Woonsocket, Providence County, 50 ft downstream from Peters River.

Drainage area.--416 sq mi.

Records available.--February 1929 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 107.42 ft above mean sea level, datum of 1929.

Average discharge.--28 years, 714 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 3,850 cfs Jan. 24 (gage height, 6.29 ft); minimum daily, 71 cfs July 29.

1929-57: 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 determination 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 not included.

Maximum stage known since at least 1645, that of Aug. 19, 1955.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by powerplants and reservoirs above station. Extremes and figures of daily discharge include flow diverted from Nashua River basin to Blackstone River basin for supply of city of Worcester, Mass., and flow diverted around station in Hamlet Trench.

Revisions (water years).--WSP 756: Drainage area. WSP 781: 1931(M). WSP 1051: 1931.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23				Jan. 24 to Sept. 30			
1.6	153	3.0	735	1.16	70	2.5	520
2.0	268	4.0	1,480	1.2	78	3.0	800
2.5	465	5.0	2,440	1.6	169	4.0	1,530
				2.0	296	6.0	3,530

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	254	213	316	760	841	1,080	842	410	313	185	90	134
2	216	270	267	660	808	920	901	528	220	226	145	85
3	254	305	340	640	822	907	1,400	483	249	192	120	77
4	*350	260	431	620	900	791	1,180	463	291	114	80	157
5	312	288	358	600	967	725	1,190	396	276	97	91	108
6	216	257	362	580	912	661	2,720	453	259	90	163	118
7	276	260	358	560	834	683	2,970	478	269	121	86	89
8	482	*267	*291	540	742	719	2,310	468	252	117	117	110
9	398	290	319	520	712	1,110	2,490	428	226	119	164	75
10	335	222	611	520	1,020	1,660	2,530	306	205	130	127	113
11	358	183	572	502	1,180	1,350	2,070	661	196	130	87	128
12	225	183	801	472	953	1,140	1,780	645	191	180	120	126
13	225	211	1,000	431	*816	1,010	1,550	639	193	110	164	139
14	199	184	1,000	418	755	933	1,550	584	179	86	135	123
15	241	244	1,050	444	725	894	1,360	538	205	105	85	87
16	291	257	1,200	418	650	933	1,280	573	155	170	77	77
17	260	188	1,400	431	606	1,210	1,120	528	155	140	168	128
18	210	312	1,250	398	661	1,100	1,060	448	158	110	152	165
19	199	382	1,150	366	645	933	1,050	448	153	108	83	120
20	183	422	1,100	374	623	954	933	463	*228	170	73	135
21	170	358	1,000	406	606	1,070	1,000	563	205	105	105	130
22	170	431	960	647	563	1,190	842	573	174	84	115	90
23	250	552	1,100	2,200	553	1,120	*816	517	153	*82	162	78
24	305	422	1,150	3,180	508	1,160	791	492	191	182	108	110
25	259	342	1,200	2,030	595	1,030	737	487	185	102	87	115
26	244	616	1,250	1,390	633	933	731	395	163	126	*93	*118
27	231	849	1,100	1,200	1,020	861	677	452	269	126	*215	131
28	207	701	900	1,080	1,240	823	755	547	259	80	165	100
29	199	590	850	1,010	-	*809	645	502	226	71	96	136
30	204	492	820	953	--------	785	617	386	179	119	91	102
31	230	--------	800	880	--------	940	--------	325	--------	103	181	--------
Total	7,953	10,551	25,306	25,230	21,890	30,434	39,897	15,179	6,377	3,880	3,745	3,404
Mean	257	352	816	814	782	982	1,330	490	213	125	121	113
(†)	32.1	24.1	17.5	14.9	25.8	25.1	10.1	25.8	28.2	36.2	37.6	37.6

Adjusted for diversion

Mean	224	328	799	799	756	957	1,320	464	184	89.0	83.2	75.9
Cfsm	0.538	0.788	1.92	1.92	1.82	2.30	3.17	1.12	0.442	0.214	0.200	0.182
In.	0.62	0.88	2.21	2.21	1.89	2.65	3.54	1.29	0.49	0.25	0.23	0.20

	Observed			Adjusted		
Calendar year 1956:	Max 4,600	Min 111	Mean 867	Mean 846	Cfsm 2.03	In. 27.66
Water year 1956-57:	Max 3,180	Min 71	Mean 531	Mean 505	Cfsm 1.21	In. 16.46

Peak discharge (base, 3,400 cfs).--Jan. 24 (12:30 a.m.) 3,850 cfs (6.29 ft).

* Discharge measurement made on this day.

† Diversion, equivalent in cubic feet per second, from Nashua River basin for municipal supply of Worcester, Mass. Records furnished by city of Worcester.

Note.--No gage-height record Dec. 13 to Jan. 10, July 10-18, Sept. 18-25; discharge estimated on basis of weather records, recorded range in stage, and records for Woonasquatucket River at Centerdale and Branch River at Forestdale.

Woonasquatucket River at Centerdale, R. I.

Location.--Lat 41°51'32", long 71°29'16", on right bank 75 ft downstream from bridge on U. S. Highway 44, at Centerdale, Providence County, and 6½ miles upstream from mouth.

Drainage area.--38.3 sq mi.

Records available.--July 1941 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 95 ft (from topographic map).

Average discharge.--16 years, 68.6 cfs.

Extremes.--Maximum discharge during year, 470 cfs Apr. 6 (gage height, 4.64 ft); minimum daily, 7.2 cfs Sept. 17.

1941-57: Maximum discharge, 1,100 cfs Sept. 11, 1954 (gage height, 7.03 ft), from rating curve extended above 450 cfs; minimum daily, 3.4 cfs Oct. 13, 19, 1941.

Flood in March 1936 reached a discharge of 1,000 cfs, by computation of flow over dam three-quarters of a mile below station.

Remarks.--Records good except those for period of no gage-height record, which are fair. Flow regulated by mills and reservoirs above station. Discharge includes leakage through bypass canal.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	22	33	55	83	91	89	58	34	25	21	14
2	22	22	30	58	84	92	115	63	32	26	21	13
3	23	21	32	53	80	93	139	*55	32	27	18	13
4	24	19	33	54	87	85	129	51	35	22	16	13
5	*24	18	33	52	84	75	174	49	34	18	14	12
6	22	19	33	44	82	68	411	53	34	19	15	12
7	28	20	*34	53	77	74	344	51	32	21	18	12
8	22	*21	31	50	75	78	290	47	32	24	20	13
9	24	22	32	49	73	120	340	46	34	24	21	12
10	23	21	38	51	107	141	292	46	34	23	22	12
11	23	19	38	49	111	127	249	45	37	22	17	13
12	22	19	46	44	100	113	212	44	34	22	15	13
13	19	19	46	44	91	103	181	46	31	20	16	*12
14	19	20	56	46	83	92	161	43	31	17	18	12
15	20	21	91	a45	77	87	146	42	27	21	15	12
16	21	22	94	a44	70	95	129	40	28	22	17	18
17	22	21	91	a45	72	100	120	39	31	22	17	7.2
18	22	27	70	a43	*72	93	114	37	28	23	15	9.3
19	22	25	64	39	66	84	111	37	28	22	13	11
20	21	26	59	40	64	93	103	41	28	19	13	12
21	19	26	58	*44	61	104	102	42	26	16	14	11
22	19	34	53	56	59	*115	97	40	23	17	16	13
23	24	27	71	150	56	121	89	40	24	*20	19	12
24	24	26	70	106	58	114	74	39	30	21	19	11
25	24	24	72	77	63	103	73	36	31	21	16	10
26	23	70	73	92	62	94	75	32	27	22	15	*12
27	22	57	61	105	92	91	71	43	27	20	16	8.9
28	19	44	61	100	83	85	72	40	26	17	21	10
29	19	36	63	99	-	81	74	42	23	17	30	11
30	19	36	70	93	-------	80	65	38	22	20	17	10
31	20	-------	61	87	-------	91	-------	*35	-------	21	14	-------
Total	675	804	1,697	1,967	2,172	2,981	4,641	1,380	895	651	539	354.4
Mean	21.8	26.8	54.7	63.5	77.6	96.2	155	43.9	29.8	21.0	17.4	11.8
Cfsm	0.569	0.700	1.43	1.66	2.03	2.51	4.05	1.15	0.778	0.548	0.454	0.308
In.	0.66	0.78	1.65	1.91	2.11	2.89	4.51	1.32	0.87	0.63	0.52	0.34

Calendar year 1956: Max 321 Min 18 Mean 73.7 Cfsm 1.92 In. 26.21
Water year 1956-57: Max 411 Min 7.2 Mean 51.3 Cfsm 1.34 In. 18.19

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for Branch River at Forestdale and Blackstone River at Woonsocket.

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

South Branch Pawtuxet River at Washington, R. I.

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

Drainage area.--63.8 sq mi.

Records available.--October 1940 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 230 ft (from topographic map).

Average discharge.--17 years, 127 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 421 cfs Apr. 10 (gage height, 2.34 ft); minimum daily, 5.7 cfs Sept. 29.

1940-57: Maximum discharge, 1,320 cfs Sept. 12, 1954 (gage height, 4.11 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. Flow regulated by Flat River Reservoir (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.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.19	5.7	1.6	49
1.2	6.2	1.8	96
1.3	12	2.0	175
1.4	20	2.5	540

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	72	20	229	252	166	83	114	17	24	55	7.2
2	72	71	25	235	252	26	134	83	23	23	57	9.5
3	*72	17	120	235	223	68	223	81	82	23	8.3	58
4	76	18	109	235	223	205	175	20	76	8.3	10	56
5	73	64	116	145	223	205	235	41	81	*36	59	50
6	12	63	118	36	217	205	320	117	60	10	55	45
7	39	63	105	171	211	211	360	96	64	7.2	60	9.5
8	124	67	18	140	138	177	344	89	16	33	60	10
9	134	72	26	140	26	52	392	81	15	43	53	38
10	132	14	123	140	87	149	414	81	59	35	11	41
11	119	12	123	116	229	211	294	20	52	33	15	45
12	49	16	127	30	235	223	328	43	56	32	59	37
13	15	*62	124	34	235	175	278	106	55	8.3	53	*33
14	18	55	*125	135	235	205	278	82	46	9.5	9.5	8.3
15	106	61	38	140	171	172	228	92	12	36	54	7.9
16	99	55	42	140	20	30	211	94	11	34	48	35
17	120	13	183	144	23	69	260	114	40	45	8.3	37
18	157	27	192	96	120	175	269	28	44	30	10	35
19	110	96	184	20	128	229	181	43	46	48	56	33
20	15	83	190	22	128	244	187	154	46	8.3	55	35
21	21	97	184	131	124	244	211	105	36	6.7	50	8.3
22	114	30	67	149	75	244	121	91	9.5	44	48	7.7
23	80	108	80	193	18	235	129	86	8.9	74	44	32
24	76	19	128	244	39	41	149	78	38	*63	8.3	30
25	76	18	128	171	217	193	*235	26	42	58	11	*33
26	70	112	149	28	*211	235	191	35	38	58	57	39
27	15	117	229	110	223	244	20	92	38	11	55	36
28	19	124	229	235	223	*223	27	80	44	15	47	7.2
29	81	125	187	235	-	159	103	72	10	70	47	5.7
30	74	121	128	235	--------	26	211	17	9.5	62	47	43
31	73	--------	149	235	--------	24	--------	72	--------	68	9.5	--------
Total	2,341	1,872	3,766	4,549	4,506	5,065	6,591	2,333	1,174.9	1,056.3	1,219.9	872.3
Mean	75.5	62.4	121	147	161	163	220	75.3	39.2	34.1	39.4	29.1
(†)	-9.97	+17.5	+31.1	-4.33	-16.8	+5.75	+25.7	+3.81	-10.9	-18.4	-20.6	-12.9
Adjusted for diversion and change in reservoir contents												
Mean	65.5	79.9	153	142	144	169	245	79.1	28.3	15.7	18.7	16.1
Cfsm	1.03	1.25	2.40	2.23	2.26	2.65	3.84	1.24	0.444	0.246	0.293	0.252
In.	1.18	1.40	2.76	2.57	2.35	3.06	4.29	1.43	0.49	0.28	0.34	0.28

	Observed			Adjusted		
Calendar year 1956:	Max 484	Min 11	Mean 147	Mean 149	Cfsm 2.34	In. 31.86
Water year 1956-57:	Max 414	Min 5.7	Mean 96.8	Mean 96.1	Cfsm 1.51	In. 20.43

* Discharge measurement made on this day.

† Diversion above station from Carr Pond for municipal supply of Coventry, Warwick, and West Warwick, and change in contents in Flat River Reservoir, equivalent in cubic feet per second. Records furnished by Kent County Water Authority and Quidnick Reservoir Co.

Pawtuxet River at Cranston, R. I.

Location.--Lat 41°45'03", long 71°26'44", on left bank at Cranston, Providence County, 0.7 mile upstream from Pocasset River.

Drainage area.--200 sq mi.

Records available.--December 1939 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 10 ft (from topographic map).

Average discharge.--17 years (1940-57), 391 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 1,080 cfs Apr. 9 (gage height, 6.34 ft), from rating curve extended above 330 cfs; minimum daily, 48 cfs Sept. 30.
1939-57: Maximum discharge, 2,090 cfs Nov. 6, 1955 (gage height, 9.10 ft), minimum daily, 22 cfs Sept. 4, 1944.

Remarks.--Records excellent except those for periods of ice effect or backwater from aquatic vegetation, which are good, and those for periods of no gage-height record, which are fair. Flow regulated by powerplants and by Scituate, Flat River, and other reservoirs (combined usable capacity, about 5 1/3 billion cubic feet). Diversion above station from Scituate Reservoir for municipal supply of Providence, North Providence, Cranston, Johnston, Smithfield, and Warwick.

Revisions (water years).--WSP 971: 1940-42. WSP 1381: 1940-41(M).

Rating tables, water year 1956-57, except period of ice effect or backwater from aquatic vegetation (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23		Jan. 24 to Sept. 30			
3.5	50	3.4	34	4.5	350
3.7	95	3.5	50	5.0	540
4.0	198	3.7	95	6.0	940
4.5	430	4.0	185	6.2	1,020
5.0	702				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a120	167	146	363	371	364	215	318	113	54	110	56
2	a150	189	82	b480	336	203	300	236	90	52	98	50
3	*162	115	211	b440	315	173	436	227	110	62	85	60
4	170	62	265	433	413	287	371	149	161	64	68	92
5	180	106	249	313	384	336	417	134	149	54	68	104
6	112	160	258	168	374	336	932	221	131	58	95	95
7	168	162	*257	347	326	326	936	245	146	54	98	72
8	272	154	144	343	340	357	852	215	107	60	110	58
9	258	*186	104	320	182	364	996	212	80	74	101	*72
10	256	109	281	284	239	298	960	218	82	80	85	110
11	225	62	284	313	360	350	808	140	*119	80	78	113
12	117	56	322	168	371	368	708	122	125	78	72	110
13	92	105	317	136	357	346	680	197	122	70	92	110
14	78	158	330	*285	354	308	644	209	113	64	80	82
15	147	160	384	a330	357	340	660	218	90	60	70	64
16	205	162	288	a310	194	239	552	200	68	65	85	68
17	200	102	460	a290	149	185	584	194	64	82	78	101
18	227	101	445	a270	200	262	596	134	80	80	64	110
19	259	183	418	119	252	329	568	104	88	78	60	107
20	112	208	414	119	252	378	322	182	82	72	70	107
21	66	205	409	259	a250	385	315	236	78	66	88	85
22	136	174	228	356	252	413	371	185	68	64	90	68
23	252	228	274	619	a175	388	402	173	54	85	85	78
24	212	141	334	496	125	287	340	167	50	*110	78	98
25	188	80	339	399	a200	252	*329	110	61	95	64	*92
26	186	404	357	215	*332	350	371	90	78	113	75	85
27	106	405	409	179	396	360	218	143	80	101	128	101
28	64	295	448	361	364	*354	164	170	75	64	128	68
29	105	306	378	368	-	343	224	155	70	62	119	50
30	157	270	324	357	--------	215	284	113	56	104	119	48
31	133	--------	b270	322	--------	176	--------	116	--------	116	80	--------
Total	5,115	5,215	9,429	9,762	8,220	9,672	15,555	5,533	2,790	2,321	2,721	2,514
Mean	165	174	304	315	294	312	518	178	93.0	74.9	87.8	83.8
(†)	-47.3	+47.7	+207	+141	+132	+192	+214	+22.9	-39.5	-59.9	-64.1	-56.3

Adjusted for diversion and change in reservoir contents

Mean	118	222	511	456	425	504	733	201	53.5	15.0	23.7	27.5
Cfsm	0.590	1.11	2.56	2.28	2.12	2.52	3.66	1.00	0.268	0.075	0.118	0.138
In.	0.68	1.24	2.95	2.63	2.21	2.91	4.09	1.16	0.30	0.09	0.14	0.15

	Observed			Adjusted		
Calendar year 1956:	Max 1,190	Min 56	Mean 393	Mean 442	Cfsm 2.21	In. 30.09
Water year 1956-57:	Max 996	Min 48	Mean 216	Mean 273	Cfsm 1.36	In. 18.55

* Discharge measurement made on this day.
† Diversion above station from Scituate Reservoir for municipal supply of Providence, North Providence, Cranston, Johnston, Smithfield, and Warwick, and change in contents in Scituate and Flat River Reservoirs, equivalent in cubic feet per second. Records furnished by Providence Water Supply Board and Quidnick Reservoir Co.
a No gage-height record; discharge estimated on basis of normal regulation pattern, weather records, recorded range in stage when available, and records for South Branch Pawtuxet River at Washington.
b Stage-discharge relation affected by ice.
Note.--Backwater from aquatic vegetation Oct. 1 to Jan. 23, Apr. 30 to Sept. 30.

Potowomut River near East Greenwich, R. I.

Location.--Lat 41°38'28", long 71°26'45", on right bank 45 upstream from Old Forge Dam in North Kingstown, Washington County, 1½ miles south of village of East Greenwich, Kent County, and 2½ miles upstream from mouth.

Drainage area.--23.0 sq mi.

Records available.--August 1940 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 10 ft (from topographic map).

Average discharge.--17 years, 42.2 cfs (unadjusted).

Extremes.--Maximum discharge during year, 305 cfs May 10 (gage height, 2.22 ft), caused by failure of dam upstream; minimum, 0.1 cfs July 24-26.

1940-57: Maximum discharge, 450 cfs Sept. 12, 1954 (gage height, 2.63 ft); maximum gage height, 6.78 ft Aug. 31, 1954 (backwater from hurricane tidal wave); no flow Oct. 24-26, 1947 (due to closing of gate at Old Forge Dam).

Maximum stage known, about 8.5 ft Sept. 21, 1938, from information by local resident (backwater from hurricane tidal wave).

Remarks.--Records good. Diversions above station for supply of East Greenwich, North Kingstown, Warwick, and U. S. Naval establishments.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.05	0.7	1.4	49
1.1	3.4	1.7	128
1.2	14	2.1	262

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.1	12	22	42	45	55	47	46	17	3.1	6.1	3.8
2	5.6	22	20	37	46	50	73	42	18	2.7	5.2	3.4
3	*5.6	20	19	36	43	51	122	41	22	3.0	4.5	2.5
4	6.1	17	20	36	56	47	89	40	19	3.8	5.6	2.0
5	5.6	14	18	34	62	42	105	40	18	3.1	4.8	2.0
6	5.6	12	22	34	53	40	232	39	*16	3.1	4.5	1.7
7	30	11	23	36	47	40	181	38	17	2.8	4.1	2.2
8	39	9.9	22	35	46	51	131	36	18	2.8	3.8	3.8
9	22	*11	29	34	49	105	168	33	15	4.1	3.4	*3.1
10	14	10	45	37	78	96	146	70	13	3.2	4.5	1.9
11	11	9.9	37	35	72	71	116	32	12	2.3	5.6	1.9
12	9.9	9.9	42	32	54	60	99	35	12	2.3	5.2	2.4
13	9.3	9.3	43	32	46	54	96	34	12	3.3	4.1	1.8
14	8.7	8.7	*48	*30	43	50	91	32	11	4.1	4.1	2.3
15	8.1	8.1	108	26	42	47	83	44	10	2.6	3.8	2.8
16	7.1	7.6	105	26	41	57	78	40	9.3	2.2	4.7	2.2
17	7.1	8.7	89	27	42	59	73	34	7.6	2.8	5.2	1.7
18	6.6	29	66	28	40	51	72	31	6.6	2.5	4.8	1.5
19	6.1	35	51	29	38	47	73	31	*6.6	2.2	3.4	1.5
20	6.1	24	46	32	38	59	71	33	6.1	1.9	2.6	1.4
21	6.1	19	46	34	35	72	67	40	5.6	1.9	2.7	1.8
22	6.1	37	46	53	34	86	63	34	4.8	1.9	2.4	2.8
23	10	35	66	140	35	81	61	29	4.8	1.5	2.2	2.8
24	13	26	68	146	36	71	59	26	4.8	.8	2.6	2.2
25	12	20	67	89	33	61	*55	24	4.8	1.2	4.8	2.8
26	11	40	59	67	37	55	61	23	4.8	15	6.1	2.5
27	9.9	55	49	56	68	51	61	22	4.5	42	5.2	2.5
28	9.3	39	47	50	*65	*48	57	21	4.5	18	4.2	2.5
29	11	30	53	48	-	47	55	20	3.8	*10	3.4	2.5
30	10	26	55	46	--	49	50	18	3.4	8.7	3.1	2.2
31	9.3	------	45	44	------	51	------	18	------	7.6	4.1	------
Total	327.3	616.1	1,476	1,431	1,324	1,804	2,735	1,046	312.0	166.5	131.0	70.5
Mean	10.6	20.5	47.6	46.2	47.3	58.2	91.2	33.7	10.4	5.37	4.23	2.35
(†)	4.94	5.48	5.22	5.18	5.13	4.70	5.16	6.41	7.40	6.84	6.00	5.52

Calendar year 1956: Max 176 Min 5.6 Mean 46.7 Cfsm - In. -
Water year 1956-57: Max 232 Min 0.8 Mean 31.3 Cfsm - In. -

Peak discharge (base, 190 cfs).--Apr. 6 (9:30 a.m. to 12 m.) 248 cfs (2.065 ft); May 10 (7 a.m.) 305 cfs (2.22 ft).

* Discharge measurement made on this day.

† Diversions, equivalent in cubic feet per second, for supply of East Greenwich, North Kingstown, Warwick, and U. S. Naval establishments. Diversion for calendar year 1956 was 5.40 cfs and for water year 1957 was 5.67 cfs. Records furnished by U. S. Navy and Kent County Water Authority.

Pawcatuck River at Wood River Junction, R. I.

Location.--Lat 41°26'42", long 71°40'53", on right bank at downstream side of bridge on Alton-Carolina road, 0.8 mile northeast of Wood River Junction, 1½ miles southwest of Carolina, Washington County, and 2.9 miles upstream from Wood River.

Drainage area.--100 sq mi.

Records available.--October 1940 to September 1957. October and Novenber 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. Altitude of gage is 40 ft (from topographic map).

Average discharge.--17 years, 182 cfs.

Extremes.--Maximum discharge during year, 554 cfs Apr. 9 (gage height, 4.50 ft); minimum, 17 cfs Oct. 4; minimum daily, 20 cfs Sept. 29.
1940-57: Maximum discharge, 1,040 cfs Mar. 17, 1953 (gage height, 5.83 ft); maximum gage height, 6.23 ft Sept. 13, 14, 1954; minimum discharge, 7.4 cfs Oct. 10, 1947; minimum daily, 15 cfs Oct. 11, 1947.

Remarks.--Records excellent. Flow regulated by powerplant and mills above station.

Revisions (water years).--WSP 1051: Drainage area. WSP 1201: 1948.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.6	14	3.0	265
1.8	30	4.0	461
2.1	66	5.0	664
2.5	139		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	65	103	176	178	213	218	206	112	63	35	33
2	*57	69	101	158	176	210	239	198	116	48	23	33
3	48	70	114	149	173	203	298	190	116	*45	25	46
4	47	74	99	141	183	196	324	183	105	25	34	34
5	37	85	101	139	196	183	364	180	105	39	55	33
6	48	69	99	141	200	178	452	178	102	41	40	33
7	108	68	105	151	196	173	508	170	101	39	32	23
8	144	65	97	139	188	176	532	166	89	40	26	34
9	131	68	112	141	188	213	550	161	96	41	30	46
10	103	65	146	144	213	244	530	158	105	44	29	33
11	103	69	139	137	234	252	506	146	92	50	28	37
12	66	69	*149	133	223	249	472	156	89	45	43	35
13	72	80	158	139	213	234	439	158	88	28	30	33
14	69	67	166	141	198	218	407	156	87	38	31	31
15	73	66	210	126	186	208	379	203	81	41	68	24
16	67	62	244	120	176	218	357	216	69	38	70	41
17	62	54	262	118	176	226	337	206	90	37	44	32
18	63	100	260	116	173	226	319	183	73	36	35	32
19	59	131	242	107	170	218	313	170	72	34	45	31
20	52	120	218	112	166	231	303	170	73	33	*37	30
21	56	108	200	122	161	260	296	178	69	32	38	28
22	63	107	190	133	153	283	283	173	57	33	33	22
23	78	120	200	229	151	291	270	163	62	37	33	39
24	82	107	208	268	151	288	260	158	74	36	24	32
25	85	101	218	273	*151	*275	247	144	60	34	35	31
26	77	126	221	262	153	260	242	141	61	33	60	29
27	58	141	210	242	186	244	239	139	62	33	50	30
28	59	151	200	213	206	231	234	135	59	33	45	21
29	72	141	193	198	-	221	229	131	50	44	40	20
30	65	128	182	188	--------	218	216	114	55	34	37	38
31	60	--------	186	180	--------	218	--------	122	--------	29	26	--------
Total	2,230	2,746	5,333	5,036	5,118	7,058	10,363	5,152	2,470	1,183	1,181	964
Mean	71.9	91.5	172	162	183	228	345	166	82.3	38.2	38.1	32.1
Cfsm	0.719	0.915	1.72	1.62	1.83	2.28	3.45	1.66	0.823	0.382	0.381	0.321
In.	0.83	1.02	1.98	1.87	1.90	2.62	3.85	1.92	0.92	0.44	0.44	0.36

Calendar year 1956: Max 560 Min 37 Mean 205 Cfsm 2.05 In. 27.82
Water year 1956-57: Max 550 Min 20 Mean 134 Cfsm 1.34 In. 18.15

* Discharge measurement made on this day.

Wood River at Hope Valley, R. I.

Location.--Lat 41°29'58", long 71°42'57", on right bank 0.2 mile downstream from highway bridge at Hope Valley, Washington County, and 6.6 miles upstream from mouth.

Drainage area.--72.4 sq mi.

Records available.--August to December 1909 (gage heights only), March 1941 to September 1957. 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, staff gage at site 1,000 ft upstream at different datum.

Average discharge.--16 years, 147 cfs.

Extremes.--Maximum discharge during year, 713 cfs Apr. 6 (gage height, 5.06 ft); minimum, 15 cfs Sept. 28-30; minimum daily, 15 cfs Sept. 29, 30.
1941-57: Maximum discharge, 1,470 cfs Sept. 12, 1954 (gage height, 7.45 ft); minimum, 4.4 cfs Oct. 18, 1941; minimum daily, 10 cfs Oct. 13, 1941.
Maximum stage known since 1711, at least 12.4 ft in February 1886.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. Some regulation at low flow caused by mills and ponds above station; regulation greater prior to 1948.

Revisions (water years).--WSP 1301: 1948(P). See also Records available.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.6	11	2.5	128
1.7	16	3.0	260
1.9	32	4.0	488
2.2	70	5.0	698

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	40	131	159	154	213	159	146	66	31	21	23
2	*33	55	119	136	149	197	211	*138	66	31	20	22
3	31	59	112	131	141	189	317	128	67	*29	19	21
4	30	52	107	121	157	176	265	123	69	28	19	20
5	30	47	101	121	168	159	290	123	64	28	19	20
6	31	44	105	116	162	149	588	121	62	28	21	19
7	90	42	105	121	151	144	600	119	59	27	20	19
8	121	42	101	119	146	154	482	114	57	27	18	18
9	84	44	110	116	149	224	496	107	55	26	18	18
10	64	44	151	119	213	252	480	105	52	26	18	18
11	53	42	149	119	231	216	395	101	51	26	18	18
12	47	40	159	112	194	197	343	103	50	25	18	18
13	46	*42	173	112	178	181	315	105	50	24	19	18
14	43	47	184	103	165	170	290	105	44	24	19	17
15	41	47	292	94	154	162	268	151	44	25	20	16
16	41	43	334	b90	146	186	252	154	46	26	22	16
17	40	43	315	b88	146	205	242	123	43	24	22	16
18	38	71	265	b84	138	186	237	110	44	33	22	16
19	39	110	221	a82	133	173	234	103	50	44	22	16
20	40	90	205	a80	128	205	226	103	43	41	20	16
21	38	76	189	a86	121	234	221	116	42	35	19	16
22	36	96	181	103	116	257	208	114	40	37	18	16
23	43	119	200	301	116	252	197	105	38	29	18	16
24	48	99	213	395	116	231	192	99	36	28	17	16
25	46	83	218	308	*116	211	184	94	36	27	18	16
26	42	168	203	252	119	194	184	86	36	27	20	16
27	40	260	184	211	211	184	184	84	35	25	28	16
28	39	192	173	192	231	176	176	81	36	20	32	16
29	36	162	b165	181	-	168	168	75	35	*19	25	15
30	36	149	b160	168	-------	165	157	72	33	19	24	15
31	35	-------	159	157	-------	168	-------	69	-------	20	23	-------
Total	1,417	2,448	5,484	4,577	4,349	5,978	8,561	3,377	1,449	859	637	523
Mean	45.7	81.6	177	148	155	193	285	109	48.3	27.7	20.5	17.4
Cfsm	0.631	1.13	2.44	2.04	2.14	2.67	3.94	1.51	0.667	0.383	0.283	0.240
In.	0.73	1.26	2.62	2.35	2.23	3.07	4.40	1.73	0.74	0.44	0.33	0.27

Calendar year 1956: Max 523 Min 29 Mean 160 Cfsm 2.21 In. 30.01
Water year 1956-57: Max 600 Min 15 Mean 109 Cfsm 1.51 In. 20.37

Peak discharge (base, 550 cfs).--Apr. 6 (6 to 6:30 p.m.) 713 cfs (5.06 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Pawcatuck River at Wood River Junction.
b Stage-discharge relation affected by ice.

Pawcatuck River at Westerly, R. I.

Location.--Lat 41°23'01", long 71°50'01", on left bank at Westerly, Washington County, 2.1 miles downstream from Shunock River.

Drainage area.--295 sq mi.

Records available.--November 1940 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is at mean sea level (from topographic map).

Average discharge.--17 years, 546 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 1,870 cfs Apr. 6, 7; maximum gage height, 6.73 ft Apr. 9 (affected by tide); minimum daily discharge, 26 cfs July 14.

1940-57: Maximum discharge, 3,510 cfs Mar. 16, 1953 (gage height, 8.83 ft); maximum gage height, 12.16 ft Aug. 31, 1954 (backwater from tide); minimum daily discharge, 25 cfs Aug. 17, 1941.

Flood in March 1936 reached a discharge of 3,150 cfs, by computation of flow over dam 1½ miles upstream from station. Maximum discharge known since 1886 occurred in November 1927 and was possibly more than twice that of March 1936. Maximum stage known since at least 1635, 15.0 ft Sept. 21, 1938 (due to hurricane tidal wave).

Remarks.--Records good. Regulation at low flow caused by mills above station. Diversion above station for municipal supply of Westerly.

Revisions.--WSP 1051: Drainage area.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	153	164	481	598	584	759	626	542	311	156	80	79
2	*139	207	431	515	570	738	752	505	288	*153	90	94
3	136	227	420	485	549	710	1,100	475	335	146	50	110
4	128	227	410	475	598	675	1,110	458	306	102	54	93
5	132	207	365	464	654	619	1,180	448	288	139	110	87
6	108	199	390	453	647	570	1,730	453	284	102	89	85
7	300	203	395	464	619	542	1,840	426	280	102	90	63
8	426	167	385	458	591	556	1,770	420	267	132	88	84
9	395	195	410	453	591	745	1,820	405	255	142	85	105
10	340	211	556	464	731	871	1,800	390	271	139	60	94
11	267	188	577	460	829	857	1,670	375	255	128	71	91
12	219	184	*584	430	773	794	1,510	380	247	128	105	91
13	207	*192	626	436	703	738	1,370	405	219	48	90	86
14	184	167	675	415	640	675	1,250	400	239	26	60	68
15	192	184	969	385	598	626	1,160	619	223	56	195	82
16	174	188	1,150	380	570	668	1,070	689	195	85	275	96
17	160	174	1,190	370	556	745	983	612	211	84	167	91
18	170	330	1,080	340	535	731	871	511	199	91	105	91
19	184	385	962	340	517	675	857	475	195	83	119	87
20	150	375	850	320	505	766	864	475	192	54	*112	83
21	160	355	759	345	475	937	822	511	203	52	97	59
22	167	365	717	395	464	1,020	801	487	164	94	97	57
23	181	400	752	780	442	1,010	752	458	167	99	91	96
24	199	395	801	1,210	436	955	717	458	199	99	66	94
25	219	340	815	1,130	*442	*878	682	420	181	89	94	84
26	211	674	801	969	442	815	668	395	167	84	139	74
27	170	850	752	850	605	745	647	395	160	57	146	81
28	174	773	696	752	731	696	647	375	160	82	136	55
29	188	633	675	675	-	668	626	360	125	110	142	46
30	164	542	703	640	--------	640	577	325	113	102	102	80
31	150	--------	633	605	--------	640	--------	355	--------	91	72	--------
Total	6,147	9,701	21,010	17,056	16,397	23,064	32,272	14,002	6,699	3,055	3,277	2,486
Mean	198	323	678	550	586	744	1,076	452	223	98.5	106	82.9
(†)	2.45	2.37	2.32	2.49	2.51	2.45	2.50	2.77	3.87	3.89	3.24	2.58
					Adjusted for diversion							
Mean	201	326	680	553	588	746	1,078	454	227	102	109	85.4
Cfsm	0.681	1.11	2.31	1.87	1.99	2.53	3.65	1.54	0.769	0.346	0.369	0.289
In.	0.78	1.23	2.66	2.16	2.08	2.92	4.08	1.78	0.86	0.40	0.43	0.32

	Observed			Adjusted		
Calendar year 1956:	Max 1,760	Min 103	Mean 610	Mean 613	Cfsm 2.08	In. 28.27
Water year 1956-57:	Max 1,840	Min 26	Mean 425	Mean 428	Cfsm 1.45	In. 19.70

* Discharge measurement made on this day.

† Diversion, equivalent in cubic feet per second, for municipal supply of Westerly. Records furnished by Westerly Board of Water Commissioners.

Great Brook at Poquonock Bridge, Conn.

Location.--Lat 41°20'57", long 72°02'17", in midchannel on upstream side of weir-gate structure, 800 ft downstream from Groton Reservoir dam, a quarter of a mile upstream from bridge on U. S. Highway 1 at head of Poquonock River, a quarter of a mile northwest of Poquonock Bridge, New London County, and 2.3 miles east of Groton.

Drainage area.--14.3 sq mi.

Records available.--January 1946 to September 1957.

Gage.--Point gage above three sharp-crested weirs; gage read three times daily. Venturi meters at filter plant to measure diversion and wash water. Staff gages on Groton, Pohegnut and Ledyard Reservoirs and Smith Lake, to determine changes in contents. Datum of point gage is 2.78 ft above mean sea level, datum of 1929.

Average discharge.--11 years, 26.0 cfs.

Extremes.--1946-57: Maximum discharge, 464 cfs (300 mgd) 1 a.m. Sept. 12, 1954 (gage height, 5.1 ft, from floodmarks), uncorrected for storage and diversion.

Remarks.--Records adjusted for change in contents in Groton, Pohegnut and Ledyard Reservoirs and Smith Lake, and for diversion for water supply of the borough of Groton.

Cooperation.--Venturi-meter records and gage readings furnished by the borough of Groton, Department of Utilities.

Monthly discharge, water year October 1956 to September 1957

Month	Runoff (millions of gallons)	Mean		Discharge per square mile		Runoff in inches
		Millions of gallons per day	Cubic feet per second	Millions of gallons per day	Cubic feet per second	
October	178.1	5.75	8.90	0.402	0.622	0.72
November	360.0	12.0	18.6	.839	1.30	1.45
December	771.2	24.9	38.5	1.74	2.69	3.10
Calendar year 1956	6,701.0	18.3	28.3	1.28	1.98	26.94
January	572.9	18.5	28.6	1.29	2.00	2.31
February	587.4	21.0	32.5	1.47	2.27	2.36
March	734.9	23.7	36.7	1.66	2.57	2.96
April	1,013.1	33.8	52.3	2.36	3.65	4.07
May	383.0	12.4	19.2	.867	1.34	1.54
June	115.1	3.84	5.94	.269	.416	.46
July	42.2	1.36	2.10	.095	.147	.17
August	68.3	2.20	3.40	.154	.238	.27
September	43.9	1.46	2.26	.102	.158	.18
Water year 1956-57	4,870.1	13.3	20.6	.930	1.44	19.59

Willimantic River near South Coventry, Conn.

Location.--Lat 41°45'02", long 72°15'58", on left bank 700 ft upstream from highway bridge, 1 mile downstream from Mill Brook, 2.4 miles southeast of South Coventry, Tolland County, 2.8 miles upstream from Hop River, and 6.3 miles upstream from mouth.

Drainage area.--121 sq mi.

Records available.--September 1931 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 239.05 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--26 years, 212 cfs.

Extremes.--Maximum discharge during year, 1,420 cfs Jan. 23 (gage height, 7.56 ft); minimum, 13 cfs Sept. 1-3, 9, 27-29; minimum gage height, 3.35 ft Sept. 1, 2; minimum daily, 13 cfs Sept. 1-3, 9, 27-29.

1931-57; Maximum discharge, 24,200 cfs Aug. 19, 1955 (gage height, 18.66 ft, from floodmark), from rating curve extended above 3,600 cfs on basis of computation of flow over dam at 7,880 cfs and contracted-opening determination of peak flow; minimum, 2.0 cfs Aug. 21, 22, 1949 (gage height, 1.60 ft); minimum daily, 2.5 cfs Sept. 18, 1949.

Remarks.--Records excellent except those for periods of ice effect and doubtful or no gage-height record, which are good. Flow regulated by mills and reservoirs upstream. Records of chemical analyses and water temperatures for the water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 781: 1934(m), drainage area. WSP 851: 1935-36. WSP 1201: 1932(M,m), 1933-34, 1937, 1939-42.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.3	9.5	4.5	210
3.5	24	5.0	355
3.7	46	6.0	690
4.0	95	7.0	1,110

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	76	80	b190	b192	310	165	a150	a55	24	40	13
2	57	133	73	b175	188	250	292	a140	a55	29	23	13
3	57	115	74	b160	b165	235	490	a130	a70	28	18	13
4	60	93	87	b155	218	218	349	a120	a55	24	17	14
5	73	74	87	b150	b220	195	438	a115	57	22	18	15
6	70	68	84	142	205	180	*1,080	a115	60	20	*16	*15
7	152	68	87	148	b180	185	920	a115	57	18	16	14
8	172	70	82	148	172	218	638	a105	53	18	16	14
9	115	71	130	142	172	376	780	a105	46	24	16	13
10	86	65	218	b140	409	379	655	a95	40	28	16	15
11	68	54	158	b135	406	295	532	a90	42	29	16	15
12	60	56	304	b135	271	268	448	a105	40	25	15	14
13	50	76	322	b125	212	253	394	a120	41	27	15	14
14	45	76	295	b120	190	256	361	a105	45	29	15	14
15	49	71	388	b110	172	271	a334	a150	44	22	15	14
16	57	68	433	b105	152	391	a289	a120	29	24	15	14
17	50	59	445	b105	155	385	a265	*a105	27	26	14	15
18	53	151	361	b95	158	292	a253	a95	*36	22	14	15
19	47	205	259	b95	155	253	a265	a90	36	21	14	15
20	44	135	220	b90	152	280	a238	a100	38	18	14	15
21	35	107	208	b85	131	304	a228	a185	33	18	16	15
22	44	250	202	b130	129	367	a218	a140	32	18	18	17
23	73	265	349	b910	127	304	a205	a120	22	18	15	18
24	84	165	334	*900	133	250	a192	a110	22	18	15	16
25	78	113	361	494	145	222	a180	a85	31	19	16	15
26	68	142	325	331	172	210	a185	a75	32	18	18	15
27	60	152	307	253	568	205	a185	a70	40	18	18	13
28	47	129	235	b232	*452	198	a172	a90	42	18	17	13
29	46	111	232	b222	-	*190	*a168	a75	40	18	17	13
30	56	99	b210	b220	--------	202	a165	a70	27	20	16	15
31	49	--------	205	b195	--------	172	--------	a60	--------	27	15	--------
Total	2,071	3,317	7,155	6,637	6,001	8,114	11,084	3,350	1,247	688	524	434
Mean	66.8	111	231	214	214	262	369	108	41.6	22.2	16.9	14.5
Cfsm	0.552	0.917	1.91	1.77	1.77	2.17	3.05	0.893	0.344	0.183	0.140	0.120
In.	0.64	1.02	2.20	2.04	1.84	2.50	3.40	1.03	0.38	0.21	0.16	0.13

Calendar year 1956: Max 1,270 Min 18 Mean 208 Cfsm 1.72 In. 23.39
Water year 1956-57: Max 1,080 Min 13 Mean 139 Cfsm 1.15 In. 15.55

Peak discharge (base, 1,100 cfs).--Jan. 23 (9 p.m.) 1,420 cfs (7.56 ft); Apr. 6 (9 p.m.) 1,180 cfs (7.14 ft).

* Discharge measurement made on this day.
a Doubtful or no gage-height record; discharge estimated on basis of recorder graph, weather records, and records for other stations in Shetucket River basin
b Stage-discharge relation affected by ice.

Hop River near Columbia, Conn.

Location.--Lat 41°43'39", long 72°18'10", on right bank 1,500 ft downstream from abandoned dam at village of Hop River, 2 miles north of Columbia, Tolland County, and 4.2 miles upstream from mouth.

Drainage area.--76.2 sq mi.

Records available.--September 1932 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 249.25 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--25 years, 129 cfs.

Extremes.--Maximum discharge during year, 1,270 cfs Jan. 23 (gage height, 8.40 ft); minimum, 1.8 cfs Aug. 9, 10 (gage height, 2.98 ft); minimum daily, 2.0 cfs July 26, Aug. 13, 19.

1932-57: Maximum discharge, 6,450 cfs Sept. 21, 1938 (gage height, 16.25 ft, from floodmarks), by computation of peak flow over dam a quarter of a mile upstream; minimum, that of Aug. 9, 10, 1957; minimum daily, that of July 26, Aug. 13, 19, 1957; minimum gage height, 2.49 ft Aug. 3, 1936.

Remarks.--Records excellent except those for periods of ice effect, which are good. Infrequent regulation at low water.

Revisions (water years).--WSP 781: 1933(M), drainage area. WSP 1111: 1947(m). WSP 1301: 1935-36(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 22		Jan. 23 to July 6				July 6 to Sept. 30	
3.4	13	3.2	7	5.0	285	3.0	2.0
3.7	30	3.5	17	6.0	535	3.1	3.2
4.0	66	3.8	39	7.6	980	3.2	5.0
5.0	285	4.0	73			3.4	10
5.8	485						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	39	36	125	120	210	75	63	31	8.6	5.7	2.7
2	22	58	34	110	116	183	213	59	28	7.8	5.4	2.4
3	17	66	34	100	103	169	322	55	28	6.9	3.1	2.2
4	16	56	38	95	139	137	188	53	26	7.3	3.0	2.1
5	22	47	37	95	151	115	320	52	22	7.6	3.4	3.1
6	21	41	34	95	136	107	980	51	20	6.0	*4.3	*2.5
7	89	39	34	95	118	109	635	47	18	4.5	2.6	2.2
8	76	37	34	95	118	132	435	45	16	5.4	2.6	3.0
9	58	38	77	90	124	310	660	42	15	*4.8	2.5	3.9
10	49	37	145	90	422	322	485	38	13	5.7	2.1	3.4
11	41	35	95	85	360	212	335	36	13	4.6	3.2	3.1
12	38	27	220	85	215	183	272	37	12	4.3	2.6	3.2
13	36	24	179	80	167	165	235	40	12	3.6	2.0	3.1
14	35	25	194	75	141	145	198	38	11	3.2	2.2	2.8
15	34	22	448	70	122	133	169	55	11	7.0	2.8	5.7
16	34	21	472	65	109	278	151	40	9.7	5.4	3.7	3.9
17	32	19	422	65	105	222	139	*40	9.5	3.1	3.6	5.9
18	32	94	265	60	96	169	130	37	9.2	2.1	2.4	4.3
19	30	*101	177	60	94	143	153	36	9.2	2.2	2.0	3.9
20	30	66	141	55	94	151	141	42	11	2.2	2.1	3.2
21	29	45	131	50	88	190	130	75	9.7	2.1	3.2	3.2
22	29	203	139	70	75	255	*113	58	9.2	2.1	5.6	5.0
23	30	131	298	*810	72	192	102	51	8.6	2.2	4.3	6.1
24	31	77	280	534	75	159	98	48	8.4	2.2	3.2	5.9
25	31	54	310	335	78	133	89	40	8.4	2.1	4.3	3.9
26	30	85	230	205	94	120	89	35	7.6	2.0	7.8	3.1
27	30	91	169	175	454	111	91	33	9.7	2.3	7.4	2.5
28	29	64	151	145	*298	103	86	43	*9.5	2.8	3.0	2.5
29	29	51	155	139	-	*98	79	39	8.9	3.4	2.2	2.7
30	29	45	159	130	--------	91	70	41	8.6	4.1	3.0	3.2
31	28	--------	137	115	--------	84	--------	36	--------	5.0	3.1	--------
Total	1,064	1,738	5,275	4,398	4,284	5,131	7,183	1,405	413.2	132.6	108.4	104.7
Mean	34.3	57.9	170	142	153	166	239	45.3	13.8	4.28	3.50	3.49
Cfsm	0.450	0.760	2.23	1.86	2.01	2.18	3.14	0.594	0.181	0.056	0.046	0.046
In.	0.52	0.85	2.57	2.14	2.09	2.51	3.50	0.68	0.20	0.06	0.05	0.05

Calendar year 1956: Max 785 Min 7.0 Mean 126 Cfsm 1.65 In. 22.59
Water year 1956-57: Max 980 Min 2.0 Mean 85.6 Cfsm 1.12 In. 15.22

Peak discharge (base, 900 cfs).--Jan. 23 (4 a.m.) 1,270 cfs (8.40 ft); Apr. 6 (12 m.) 1,160 cfs (8.10 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 1, 2, Jan. 1-23, 27, 28, 30, 31, Feb. 3, 12, 21.

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Safford Brook near Woodstock Valley, Conn.

Location.--Lat 41°55'35", long 72°03'37", on right bank on downstream side of town road bridge, 0.3 mile downstream from Bradford Brook, 0.3 mile upstream from mouth, 1.2 mile southeast of Woodstock Valley, Windham County, and 2 miles southwest of West Woodstock.

Drainage area.--4.08 sq mi.

Records available.--June 1950 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 552.92 ft above mean sea level, datum of 1929.

Average discharge.--7 years, 9.15 cfs.

Extremes.--Maximum discharge during year, 235 cfs Jan. 23 (gage height, 4.50 ft); minimum, practically no flow Aug. 17; minimum gage height, 1.41 ft Oct. 4, Nov. 15-17.
1950-57: Maximum discharge, 1,000 cfs Aug. 19, 1955 (gage height, 6.68 ft); minimum, that of Aug. 17, 1957; minimum gage height, 1.17 ft Sept. 4-12, 1953.

Remarks.--Records good except those below 0.1 cfs, which are poor. Slight regulation from unknown source at extreme low flows.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23				Jan. 23 to Sept. 30			
1.4	0.51	2.0	10	1.65	0.001	2.4	11
1.5	1.2	2.3	20	1.7	.009	2.6	20
1.6	2.2	2.7	38	1.8	.095	3.0	47
1.8	5.1			1.9	.42	3.4	85
				2.0	1.3	3.8	133
				2.2	4.8		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	2.2	2.8	b4.6	b6.5	9.6	5.4	3.2	0.47	0.42	0.009	0.009
2	1.0	2.5	2.5	b4.3	b5.9	b8.6	25	2.8	.67	.29	.009	.009
3	.69	2.1	2.6	b4.1	b5.9	b7.6	18	2.8	.95	*.19	.004	.009
4	.88	1.7	3.2	4.0	b7.0	b6.8	10	2.6	.67	.14	.006	.015
5	1.9	1.4	3.1	3.8	b7.9	b5.9	33	2.5	.47	*.095	.009	.015
6	1.3	1.2	3.0	3.4	b7.3	b5.6	85	2.5	.42	.08	.006	.015
7	13	1.1	3.1	3.0	b6.5	5.6	31	2.2	.42	.055	.004	.015
8	4.6	1.1	3.2	2.7	6.2	7.6	21	1.6	.37	.045	.003	.012
9	2.5	1.3	6.1	b2.3	b7.3	27	*41	1.4	.33	*.055	.002	*.006
10	1.8	1.2	6.2	2.3	b25	18	24	1.3	.25	.065	.004	.004
11	1.5	.95	6.2	b2.3	b16	11	14	1.6	.22	.045	.004	.006
12	1.3	1.0	25	2.2	b9.3	9.0	11	2.0	.22	.035	.003	.006
13	1.2	1.0	14	2.1	b7.0	8.3	10	2.0	.19	.035	.002	.004
14	1.1	.95	12	b2.0	6.2	7.6	8.6	1.6	.16	.035	.001	.006
15	1.0	.69	14	2.0	b5.4	7.0	7.3	2.4	.14	.015	.001	.006
16	.88	.56	36	2.0	b5.4	18	6.8	*1.8	.12	.015	.001	.006
17	.82	.56	26	1.9	b5.1	11	6.2	1.2	.08	.012	.001	.012
18	.82	9.2	14	1.8	b4.8	8.3	5.6	1.1	*.055	.009	.001	.012
19	.75	6.2	b9.5	1.7	4.8	7.0	5.4	1.1	.065	.006	.001	.012
20	.69	3.5	7.3	1.6	*b4.8	7.3	5.1	2.2	.14	.004	.001	.009
21	.62	2.8	6.9	1.5	b4.4	10	4.8	3.6	.10	.004	.001	.015
22	.62	16	8.8	9.7	b4.2	15	4.4	2.4	.065	.009	.002	.025
23	1.4	6.6	22	127	b4.2	13	4.2	1.8	.055	.015	.002	.035
24	1.6	3.7	16	b52	4.6	9.6	4.0	1.3	.25	.012	.001	.035
25	1.2	2.8	19	b29	5.4	7.6	3.8	.95	.53	.012	.006	.035
26	.95	*12	13	b14	8.6	*6.8	*4.4	.74	.74	.009	.02	.02
27	.88	8.1	b7.3	b9.0	44	6.5	4.4	1.1	3.4	.009	.015	.02
28	.88	4.8	6.0	b7.0	b14	6.2	4.0	1.8	1.4	.009	.009	.02
29	.82	4.0	b7.1	*b7.0	-	5.9	3.8	1.1	.74	.009	.009	.02
30	.75	3.4	b6.6	b6.8	-------	6.2	3.4	.74	.53	.009	.012	.02
31	.75	-------	b4.9	b6.5	-------	6.2	-------	.53	-------	*.009	.012	-------
Total	49.60	104.61	317.4	323.6	243.7	289.8	414.6	55.96	14.220	1,752	0.161	0.433
Mean	1.60	3.49	10.2	10.4	8.70	9.35	13.8	1.80	0.474	0.0565	0.0052	0.0144
Cfsm	0.392	0.855	2.50	2.55	2.13	2.29	3.38	0.441	0.116	0.014	0.0013	.0035
In.	0.45	0.95	2.88	2.94	2.22	2.64	3.77	0.51	0.13	0.02	0.001	0.004

Calendar year 1956: Max 86 Min 0.02 Mean 7.72 Cfsm 1.89 In. 25.71
Water year 1956-57: Max 127 Min 0.001 Mean 4.97 Cfsm 1.22 In. 16.52

Peak discharge (base, 120 cfs).--Jan. 23 (7 a.m.) 235 cfs (4.50 ft); Apr. 5 (4 a.m.) 120 cfs (3.70 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Mount Hope River near Warrenville, Conn.

Location.--Lat 41°50'37", long 72°10'10", on left bank 250 ft downstream from Knowlton Brook, 700 ft upstream from bridge on State Highway 89, 1¾ miles south of Warrenville, Windham County, and 3¼ miles southwest of Ashford.

Drainage area.--29.1 sq mi.

Records available.--July 1940 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 335.57 ft above mean sea level, datum of 1929.

Average discharge.--17 years, 49.5 cfs.

Extremes.--Maximum discharge during year, about 550 cfs Jan. 23; maximum gage height, 6.25 ft Jan. 23 (ice jam); minimum discharge, 0.15 cfs Aug. 25 (gage height, 1.15 ft).
1940-57: Maximum discharge, 5,590 cfs Aug. 19, 1955 (gage height, 10.41 ft), from rating curve extended above 890 cfs on basis of contracted-opening determinstion of peak flow; minimum, that of Aug. 25, 1957; minimum gage height, 0.99 ft Aug. 26-29, 1949.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Occasional regulation from ponds upstream.

Revisions (water years).--WSP 1331: 1941(M), 1951-53(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to July 31				Aug. 1 to Sept. 30	
1.19	0.5	2.5	81	1.16	0.2
1.2	.6	3.0	150	1.2	.4
1.3	1.8	3.5	225	1.3	1.5
1.5	6.1	4.0	275	1.4	3.3
1.7	14.5	4.6	355		
2.0	34				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	22	b16	b45	b39	70	37	26	8.6	4.8	1.7	0.75
2	9.3	24	b14	b42	b38	65	118	25	8.6	2.9	*1.0	.7
3	8.3	21	16	b40	b38	61	116	24	14	2.2	.8	.7
4	9.8	16	19	38	b47	b54	73	25	9.7	1.8	1.0	.8
5	19	19	18	38	b50	b49	147	28	7.9	*1.6	1.2	1.0
6	12	21	18	34	b43	b46	348	24	7.2	1.5	.8	3.1
7	81	19	19	36	b40	46	206	20	6.5	1.3	.65	3.1
8	44	20	18	36	b38	53	158	18	6.1	1.3	.4	1.7
9	24	21	42	35	b36	109	*250	17	6.1	*1.5	.35	*.55
10	16	19	49	b35	b105	103	160	16	5.6	1.6	.3	.75
11	13	18	b36	b34	b80	73	112	16	4.6	1.5	.4	.75
12	12	19	92	b32	b57	65	88	19	4.4	1.2	.4	.65
13	11	17	72	b30	b48	60	79	20	4.1	1.0	.4	.4
14	11	13	73	b28	b42	57	70	17	3.6	1.5	.5	.55
15	11	11	102	b26	b40	53	65	27	3.4	1.6	.4	.55
16	9.3	11	177	b25	b40	109	61	20	3.1	1.3	.35	.65
17	9.0	12	142	b25	b40	78	55	*15	2.9	1.1	.3	1.2
18	8.6	55	87	b24	b36	58	53	14	2.7	.9	2.0	1.5
19	8.3	42	b65	b24	38	52	54	15	2.7	.7	1.5	1.5
20	7.9	26	53	b25	*b36	55	49	21	3.1	.6	.4	1.2
21	7.9	20	53	b30	b34	70	46	31	2.7	.5	.2	1.0
22	8.3	84	57	b50	b32	85	41	21	2.2	.5	.35	2.0
23	11	48	135	b300	b31	66	39	18	2.0	.8	.3	2.8
24	13	b28	102	b120	34	56	38	16	1.8	.8	.2	2.9
25	11	b21	106	*b80	36	48	36	13	3.2	.8	.5	2.6
26	9.3	*40	74	b65	46	*46	*40	11	3.1	.7	1.5	2.4
27	9.0	38	b60	b50	230	45	39	15	7.2	.7	2.4	2.4
28	9.0	28	56	b46	103	41	36	23	4.6	.8	1.7	2.2
29	8.6	23	b55	b44	-	40	33	14	4.1	1.0	.9	2.2
30	8.3	b19	b52	b42	--------	42	29	11	3.8	1.5	.8	2.2
31	8.3	--------	b50	b40	--------	43	--------	9.3	--------	2.0	.8	--------
Total	440.2	775	1,928	1,519	1,477	1,898	2,676	589.3	149.6	42.0	24.50	44.80
Mean	14.2	25.8	62.2	49.0	52.8	61.2	89.2	19.0	4.99	1.35	0.790	1.49
Cfsm	0.487	0.887	2.14	1.68	1.81	2.10	3.07	0.653	0.171	0.046	0.027	0.051
In.	0.56	0.99	2.47	1.94	1.88	2.42	3.42	0.75	0.19	0.05	0.03	0.06

Calendar year 1956: Max 352 Min 2.0 Mean 49.8 Cfsm 1.71 In. 23.30
Water year 1956-57: Max 348 Min 0.2 Mean 31.7 Cfsm 1.09 In. 14.76

Peak discharge (base, 400 cfs).--Jan. 23 (11 a.m.) about 550 cfs; Apr. 6 (5:30 a.m.) 410 cfs (4.89 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Mansfield Hollow Reservoir at Mansfield Hollow, Conn.

Location.--Lat 41°45'22", long 72°10'57", on Natchaug River at Mansfield Hollow, Tolland County, 0.2 mile downstream from Mount Hope River and 3½ miles northeast of Willimantic, Windham County.

Drainage area.--159 sq mi.

Records available.--March 1952 to September 1957.

Gage.--Water-stage recorder. Datum of gage is at mean sea level, datum of 1929 (levels by Corps of Engineers).

Remarks.--Reservoir completed in March 1952 for flood control, has usable capacity of 2,260,000,000 cu ft.

Cooperation.--Records furnished by Corps of Engineers.

Month-end elevation and contents, water year October 1956 to September 1957

Date	Elevation (feet)†	Contents (millions of cubic feet)	Change in contents (millions of cubic feet)
Sept.30	199.6	0.5	-
Oct. 31	195.5	.4	-0.1
Nov. 30	199.8	.7	+.3
Dec. 31	200.4	1.5	+.8
Calendar year 1956	-	-	+.9
Jan. 31	200.7	1.9	+.4
Feb. 28	203.1	11.5	+9.6
Mar. 31	200.5	1.6	-9.9
Apr. 30	200.1	1.0	-.6
May 31	199.5	.4	-.6
June 30	199.3	.3	-.1
July 31	199.1	.1	-.2
Aug. 31	198.3	0	-.1
Sept.30	198.1	0	0
Water year 1956-57	-	-	-.5

† Elevation at 12 p.m.

Natchaug River at Willimantic, Conn.

Location.--Lat 41°43'14", long 72°11'52", on right bank 200 ft downstream from New York, New Haven and Hartford Railroad bridge, 500 ft upstream from bridge on U. S. Highway 6, 1 mile northeast of Willimantic, Windham County, 1.7 miles upstream from mouth, and 4 miles downstream from Mount Hope River.

Drainage area.--169 sq mi.

Records available.--October 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 150.31 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--27 years, 302 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 1,440 cfs Apr. 7 (gage height, 5.77 ft); minimum, 3.5 cfs July 24, 25, 26, 27, Aug. 3, 4 (gage height, 2.00 ft); minimum daily, 4.0 cfs July 22, 26-28, Aug. 4, 20.

1930-57: Maximum discharge, 32,000 cfs Sept. 21, 1938 (gage height, 16.39 ft, from floodmarks), by computation of peak flow over dam 2 miles upstream; minimum, about 0.3 cfs Aug. 6, 1937; minimum daily, 2.3 cfs Sept. 11, 12, 1943.

Remarks.--Records excellent except those for periods of ice effect, which are good. City of Willimantic diverts an average of about 1,000,000 gal of water a day for municipal supply from reservoir 2 miles upstream. Operation of water wheels at this location cause diurnal fluctuation at low flow. Since March 1952, flow regulated by Mansfield Hollow Reservoir (see preceding page).

Revisions (water years).--WSP 1301: 1934-35(M), 1937(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.0	3.5	2.6	84
2.1	9.5	3.0	197
2.2	18.5	5.0	1,070
2.4	45	5.7	1,420

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	*78	110	b282	b274	583	236	165	66	25	5.0	21
2	74	130	101	b232	b266	430	334	152	67	19	26	5.0
3	66	141	110	b208	b211	402	722	145	62	28	4.5	*4.5
4	70	121	113	208	298	342	556	141	64	15	4.0	4.5
5	73	104	114	222	b302	290	534	142	63	24	29	7.6
6	70	101	108	197	290	270	*1,220	144	66	13	9.5	5.5
7	254	106	106	191	b243	282	1,420	132	36	9.1	8.0	18
8	351	106	108	191	251	290	1,170	124	66	4.5	5.5	17
9	185	109	153	b187	240	475	1,170	112	26	*11	5.5	13
10	123	109	290	187	542	678	1,140	106	33	9.3	6.0	18
11	102	100	215	b175	722	529	902	102	54	13	6.0	14
12	88	92	380	b171	448	426	700	101	24	12	6.0	16
13	79	77	466	181	342	382	578	122	35	11	17	37
14	65	91	470	b156	302	362	506	116	30	14	5.0	5.0
15	77	74	655	b135	259	342	448	140	31	15	5.0	16
16	72	71	678	141	232	475	402	141	6.0	13	5.0	19
17	72	68	858	b135	236	565	366	112	27	8.2	5.0	21
18	69	124	678	b135	222	434	342	97	27	16	5.0	26
19	68	275	444	b135	225	362	338	94	7.3	5.5	4.5	18
20	70	184	362	b145	214	362	322	109	38	18	4.0	17
21	38	148	322	156	184	390	298	170	18	11	5.0	5.0
22	67	317	326	198	181	524	*270	154	20	4.0	36	48
23	71	365	514	*583	194	484	247	125	26	14	5.5	7.3
24	63	216	592	150	194	406	236	*116	18	6.0	20	5.5
25	71	150	588	55	204	346	225	102	23	12	7.3	21
26	69	202	520	477	240	310	225	87	17	4.0	18	9.5
27	50	268	394	925	684	290	236	78	18	4.0	10	9.5
28	68	200	350	1,220	*632	270	214	110	29	4.0	27	10
29	44	158	346	1,170	-	*255	197	106	36	4.5	5.5	10
30	36	137	b302	b534	--------	243	181	84	26	13	5.0	11
31	72	--------	262	b259	--------	255	--------	75	--------	5.0	13	--------
Total	2,768	4,424	11,035	9,341	8,632	12,054	15,735	3,704	1,059.3	365.1	317.8	439.9
Mean	89.3	147	356	301	308	389	524	119	35.3	11.8	10.3	14.7
(†)	0	-0.1	+0.3	+0.2	+4.0	-3.7	-0.2	-0.2	0	-0.1	0	0
Adjusted for change in reservoir contents												
Mean	89.3	147	356	301	312	385	524	119	35.2	11.7	10.3	14.7
Cfsm	0.528	0.870	2.11	1.78	1.85	2.28	3.10	0.704	0.209	0.069	0.061	0.087
In.	0.61	0.97	2.43	2.05	1.93	2.63	3.46	0.81	0.23	0.08	0.07	0.10

	Observed					Adjusted				
Calendar year 1956:	Max 1,470	Min 6.0	Mean 294	Mean 294	Cfsm 1.74	In. 23.67
Water year 1956-57:	Max 1,420	Min 4.0	Mean 191	Mean 191	Cfsm 1.13	In. 15.37

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Mansfield Hollow Reservoir; furnished by Corps of Engineers.
b Stage-discharge relation affected by ice.

Shetucket River near Willimantic, Conn.

Location.--Lat 41°42'01", long 72°10'57", on right bank at downstream side of Bingham Bridge, 500 ft upstream from New York, New Haven & Hartford Railroad bridge, 500 ft downstream from Potash Brook, 1.3 miles downstream from confluence of Willimantic and Natchaug Rivers, 1½ miles southeast of Willimantic, Windham County, and 16.5 miles above mouth.

Drainage area.--401 sq mi.

Records available.--April 1904 to December 1905 (monthly discharge only in WSP 1301). October 1919 to September 1921 and September 1928 to September 1933 (published as "at South Windham"), October 1933 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 131.40 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Apr. 4, 1904, to Dec. 31, 1905, chain gage at same site and about the same datum. October 1919 to Sept. 30, 1921, and Sept. 1, 1928, to Sept. 30, 1933, water-stage recorder at site 1½ miles downstream at different datum.

Average discharge.--32 years (1905, 1919-21, 1928-57), 704 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 4,030 cfs Apr. 6 (gage height, 7.58 ft); minimum, 27 cfs Aug. 21 (gage height, 1.37 ft); minimum daily, 31 cfs Aug. 18.

1904-5, 1919-21, 1928-57: Maximum discharge, 52,200 cfs Sept. 21, 1938 (gage height, 27.6 ft, from floodmarks), from rating curve extended above 11,000 cfs on basis of computation of peak flow over Scotland and Baltic Dams, 5 and 9 miles downstream, respectively, adjusted for flow from intervening area; minimum, 15 cfs Aug. 29, 1949 (gage height, 1.34 ft); minimum daily, 19 cfs Aug. 22, Oct. 24, 1949; minimum gage height, 1.32 ft Oct. 20, 1935.

Remarks.--Records excellent. Flow regulated by mills on Willimantic River and on Natchaug River by pumping for municipal supply of city of Willimantic and by Mansfield Hollow Reservoir (see p. 140). Records of chemical analyses and water temperatures for the water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 781: 1934(m). WSP 801: 1935. WSP 1201: 1905(M), 1920-21, 1931-32, 1934-35(M), 1937(M).

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.4	30	4.0	990
1.7	73	6.0	2,410
2.0	135	7.2	3,590
2.5	275		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	196	199	265	680	705	1,210	570	445	175	76	66	55
2	177	326	240	600	665	965	748	410	172	60	72	34
3	159	338	256	550	580	915	1,680	382	176	75	43	34
4	156	286	272	500	740	815	1,240	366	183	60	38	34
5	177	249	272	535	790	715	1,220	362	170	68	64	36
6	169	231	265	510	740	675	3,390	363	170	53	*41	34
7	535	225	256	480	650	685	3,590	347	142	45	42	46
8	685	225	259	470	650	735	2,500	317	154	35	36	46
9	405	231	363	455	615	1,160	2,770	300	113	42	36	*43
10	286	228	740	470	1,400	1,540	2,590	281	107	48	37	48
11	231	202	545	420	1,580	1,150	1,950	269	129	57	37	45
12	205	193	897	410	1,040	990	1,540	286	99	50	37	47
13	185	180	1,040	430	840	915	1,300	330	105	51	47	68
14	162	207	965	400	740	*865	1,150	301	106	62	32	34
15	177	180	1,610	342	660	840	1,040	373	105	54	34	43
16	175	177	1,610	338	590	1,150	965	387	64	49	35	50
17	167	167	1,870	330	595	1,270	890	305	76	49	32	56
18	167	349	1,360	320	565	1,020	840	266	*83	50	31	58
19	157	665	990	315	565	865	865	256	68	38	32	49
20	154	440	815	315	545	890	815	294	108	49	32	48
21	115	330	765	326	465	965	765	480	74	42	39	34
22	142	758	765	463	460	1,210	*720	440	78	35	82	91
23	172	865	1,170	*2,180	465	1,090	660	350	73	44	40	45
24	185	540	1,240	2,020	470	915	630	*325	62	35	51	40
25	182	358	1,270	1,040	505	815	595	263	73	43	46	51
26	177	485	1,150	1,090	585	740	605	227	69	35	59	37
27	157	615	915	1,400	1,630	710	615	214	79	37	50	37
28	147	470	815	1,640	*1,750	675	565	278	96	35	66	36
29	133	374	815	1,580	-	640	540	245	102	38	40	35
30	133	326	790	965	--------	630	490	221	79	47	38	36
31	145	--------	700	700	--------	615	--------	192	--------	46	44	--------
Total	6,413	10,419	25,285	22,274	21,585	28,375	37,838	9,875	3,290	1,508	1,379	1,350
Mean	207	347	816	719	771	915	1,261	319	110	48.6	44.5	45.0
(†)	0	-0.1	+0.3	-0.1	+4.0	-3.7	-0.2	-0.2	0	-0.1	0	0

Adjusted for change in contents in Mansfield Hollow Reservoir

Mean	207	347	816	719	775	911	1,261	319	110	48.5	44.5	45.0
Cfsm	0.516	0.865	2.03	1.79	1.93	2.27	3.14	0.796	0.274	0.121	0.111	0.112
In.	0.59	0.96	2.34	2.06	2.01	2.62	3.50	0.92	0.31	0.14	0.13	0.12

	Observed			Adjusted		
Calendar year 1956:	Max 3,530	Min 57	Mean 698	Mean 698	C'sm 1.74	In. 23.62
Water year 1956-57:	Max 3,590	Min 31	Mean 465	Mean 465	C'sm 1.16	In. 15.70

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Mansfield Hollow Reservoir; furnished by Corps of Engineers.

Note.--Stage-discharge relation affected by ice Jan. 17-20.

Little River near Hanover, Conn.

Location.--Lat 41°40'18", long 72°03'10", in Windham County, on left bank 800 ft upstream from bridge on town road, 0.7 mile downstream from Peck Brook, 2.3 miles northeast of Hanover, New London County, and 6.5 miles upstream from mouth.

Drainage area.--29.8 sq mi.

Records available.--July 1951 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 221.19 ft above mean sea level, datum of 1929.

Average discharge.--6 years, 64.4 cfs.

Extremes.--Maximum discharge during year, 545 cfs Apr. 6 (gage height, 4.10 ft); minimum, 3.9 cfs Aug. 9 (gage height, 1.03 ft).
1951-57: Maximum discharge, 1,400 cfs Aug. 19, 1955 (gage height, 6.48 ft), from rating curve extended above 820 cfs by logarithmic plotting; minimum, that of Aug. 9, 1957; minimum gage height, 1.03 ft Sept. 10, 11, 1953, Aug. 9, Sept. 10, 1957.

Remarks.--Records good.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from unknown cause Apr. 26 to Aug. 15)

Oct. 1 to Jan. 23				Jan. 24 to Sept. 30			
1.2	8.5	2.5	156	1.0	4.1	2.5	156
1.4	17	3.0	255	1.2	10	3.0	255
1.7	38	3.4	355	1.5	27	3.9	485
2.0	72			2.0	77		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	16	b21	b44	b44	80	*43	35	20	*7.7	5.7	9.7
2	13	22	b19	b40	45	75	92	33	21	7.0	5.1	9.3
3	12	18	20	b36	b46	71	135	32	21	6.7	4.9	9.0
4	12	16	21	32	56	62	86	32	18	6.4	4.6	8.7
5	17	15	21	32	63	53	142	30	21	6.4	*5.1	7.7
6	16	13	21	b30	54	50	476	30	21	6.4	4.9	6.2
7	52	12	20	29	49	52	246	29	18	6.2	4.4	5.4
8	43	12	20	b30	46	58	164	27	17	6.2	4.4	5.4
9	26	12	28	b30	53	134	268	26	16	5.9	4.1	5.4
10	21	12	49	b29	142	142	187	24	15	6.2	4.4	*5.1
11	17	12	37	b29	122	91	133	23	14	6.2	5.1	5.1
12	16	11	88	b29	b77	75	106	24	13	5.7	5.1	5.4
13	15	12	76	b29	b62	66	94	26	12	5.7	4.6	5.7
14	14	12	88	b26	52	61	84	24	12	6.7	4.4	5.4
15	13	12	180	b25	49	56	76	33	11	7.0	5.7	5.1
16	13	11	162	b24	46	87	70	29	10	6.2	14	5.1
17	12	11	150	b23	45	87	65	24	10	5.9	10	5.9
18	12	49	97	b22	43	70	63	23	9.3	5.7	7.7	5.9
19	12	45	b73	b22	42	62	65	23	9.0	5.4	6.7	5.7
20	12	29	62	b22	41	66	63	25	9.3	5.1	6.2	5.4
21	12	23	56	b22	38	84	60	38	9.0	5.1	5.7	5.4
22	12	70	57	b42	b34	112	*56	29	8.4	4.9	6.2	7.4
23	12	51	96	336	36	90	51	26	8.0	5.1	5.9	9.3
24	15	32	88	b220	37	75	51	*29	8.0	5.1	5.9	7.7
25	14	b24	91	b117	38	63	48	25	7.7	4.9	5.9	6.4
26	13	54	69	b77	44	57	50	22	7.7	4.9	14	6.2
27	12	57	54	b67	161	54	48	21	8.0	4.9	14	5.7
28	12	37	50	b54	*109	51	43	26	8.7	5.1	11	5.7
29	12	29	52	*52	-	48	41	24	8.0	5.1	10	5.4
30	11	26	b54	b50	--------	47	38	21	7.7	5.7	10	5.7
31	11	--------	b54	b51	--------	47	--------	19	--------	5.7	10	--------
Total	498	755	1,974	1,671	1,674	2,226	3,144	832	378.8	181.2	218.7	191.5
Mean	16.1	25.2	63.7	53.9	59.8	71.8	105	26.8	12.6	5.85	7.05	6.38
Cfsm	0.540	0.846	2.14	1.81	2.14	2.41	3.52	0.899	0.423	0.196	0.237	0.214
In.	0.62	0.94	2.47	2.09	2.23	2.78	3.93	1.04	0.47	0.23	0.27	0.24

Calendar year 1956: Max 280 Min 6.7 Mean 55.3 Cfsm 1.86 In. 25.16
Water year 1956-57: Max 476 Min 4.1 Mean 37.7 Cfsm 1.27 In. 17.31

Peak discharge (base, 400 cfs).--Jan. 23 (5 p.m.) 500 cfs (3.95 ft); Apr. 6 (11:30 a.m.) 545 cfs (4.10 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Quinebaug River at Westville, Mass.

Location.--Lat 42°04'23", long 72°04'28", on right bank 350 ft upstream from highway bridge, 0.45 mile downstream from Breakneck Brook, 0.6 mile west of Westville, Worcester County, and 1¾ miles west of Southbridge.

Drainage area.--93.8 sq mi.

Records available.--July 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 537.66 ft above mean sea level, unadjusted (levels by Corps of Engineers).

Average discharge.--18 years, 163 cfs.

Extremes.--Maximum discharge during year, 668 cfs Apr. 7 (gage height, 5.08 ft); minimum daily, 4.2 cfs Sept. 14, 15.

1939-57: Maximum discharge, 17,500 cfs Aug. 19, 1955 (gage height, 16.11 ft, from floodmarks), from rating curve extended above 1,300 cfs on basis of slope-area determination of peak flow; minimum daily, 2.2 cfs June 26, 1949.

Flood in September 1938 reached a discharge of 8,400 cfs, by slope-area determination.

Remarks.--Records excellent except those for periods of ice effect or no gage height record, which are fair. Medium and low flows regulated by mills and reservoirs above station.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.75	4.2	3.0	123
1.8	5.4	3.5	220
2.0	12	4.0	340
2.2	22	5.0	640
2.5	51	5.1	675

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	34	74	125	187	322	203	137	51	19	9.2	9.2
2	35	58	68	115	179	282	263	132	54	18	8.1	9.2
3	30	58	67	108	160	242	351	123	57	17	7.8	9.5
4	27	51	67	105	173	210	351	117	52	18	8.4	9.5
5	31	43	68	105	183	181	364	115	48	18	8.4	9.2
6	35	38	65	100	179	166	563	112	43	17	7.8	8.8
7	64	36	70	102	168	160	661	106	45	19	7.8	8.8
8	82	36	84	102	154	162	608	100	40	21	7.8	8.8
9	69	38	107	101	154	227	596	88	35	20	8.8	8.1
10	51	38	*125	102	200	279	578	80	31	20	8.4	7.5
11	42	33	118	100	242	265	539	102	29	19	9.2	8.1
12	37	35	189	100	233	254	479	121	28	15	11	*6.9
13	33	43	218	100	203	254	416	125	27	13	11	4.6
14	35	44	220	85	177	254	373	117	26	15	9.5	4.2
15	44	40	207	92	156	254	335	125	26	15	8.8	4.2
16	46	38	214	90	137	306	312	123	25	14	8.1	4.4
17	44	37	256	86	187	330	277	106	28	12	7.5	5.4
18	35	64	258	82	128	*309	254	95	32	8.4	7.2	14
19	32	92	222	79	109	282	240	90	27	6.9	6.0	10
20	27	88	191	76	*104	265	229	95	25	5.7	6.6	7.5
21	27	76	175	82	98	270	224	140	23	5.1	6.6	7.2
22	26	131	175	115	100	299	224	118	22	9.1	10	7.8
23	29	156	173	470	100	296	218	112	22	29	7.8	9.2
24	35	137	166	620	106	284	201	101	25	23	7.2	7.2
25	34	104	185	575	112	282	181	60	*30	*18	10	6.3
26	30	102	185	458	149	235	179	77	30	12	12	7.2
27	28	112	173	359	327	222	155	*73	30	13	13	6.0
28	27	102	160	285	348	210	175	70	25	16	11	*5.1
29	*26	90	150	251	-	195	*188	65	19	14	10	4.9
30	26	86	130	230	--------	197	134	60	21	13	11	5.4
31	23	--------	140	214	--------	207	--------	55	--------	12	9.9	--------
Total	1,151	2,040	4,700	5,614	4,753	7,701	9,871	3,140	976	475.2	275.9	224.2
Mean	37.1	68.0	152	181	170	248	329	101	32.5	15.3	8.90	7.47
Cfsm	0.396	0.725	1.62	1.93	1.81	2.64	3.51	1.08	0.346	0.163	0.095	0.080
In.	0.46	0.81	1.86	2.23	1.88	3.05	3.91	1.24	0.39	0.19	0.11	0.09

Calendar year 1956: Max 1,200 Min 11 Mean 164 Cfsm 1.75 In. 23.80
Water year 1956-57: Max 661 Min 4.2 Mean 112 Cfsm 1.19 In. 16.22

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 14-20, May 28 to June 24; discharge estimated on basis of weather records, recorded range in stage, and records for Quinebaug River at Quinebaug, Conn., and Quaboag River at West Brimfield, Mass. Stage-discharge relation affected by ice Dec. 29 to Jan. 6, Jan. 11, 12, 14-25, 28, 30, Feb. 3, 10. Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

Quinebaug River at Quinebaug, Conn.

Location.--Lat 42°01'20", long 71°57'22", on right bank at Quinebaug, Windham County, 500 ft upstream from bridge on State Highway 197, 0.25 mile downstream from Massachusetts-Connecticut State line, 7.8 miles upstream from French River, and at mile 46.

Drainage area.--157 sq mi.

Records available.--September 1931 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 341.52 ft above mean sea level, datum of 1929.

Average discharge.--26 years, 277 cfs.

Extremes.--Maximum discharge during year, 1,410 cfs Jan. 23 (gage height, 4.85 ft); minimum, about 1 cfs Oct. 29; minimum daily, 5 cfs July 21.
1931-57: 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 determination 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 except those for periods of backwater from ice or aquatic vegetation, which are fair. Flow regulated by mills upstream.

Revisions (water years).--WSP 851: 1936(M). WSP 1201: 1939-43, 1947, 1949. WSP 1381: 1938(M).

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	41	106	b221	288	516	306	168	67	32	14	12
2	54	60	92	b201	274	450	450	171	67	24	12	15
3	*26	60	92	b197	b249	390	582	160	*70	23	10	23
4	36	58	92	178	270	325	540	150	72	20	8	14
5	40	67	87	171	278	283	648	135	67	*22	12	12
6	40	47	87	b150	265	257	1,210	144	67	20	12	12
7	109	*43	90	160	253	249	1,160	129	80	13	10	11
8	114	32	109	157	233	257	1,000	123	54	23	10	10
9	92	29	147	154	237	456	*1,070	109	63	24	10	*11
10	72	40	182	b154	378	504	985	100	40	26	11	11
11	56	36	168	b135	390	444	860	138	45	22	17	12
12	47	40	325	b147	350	414	755	160	43	32	19	11
13	40	45	355	150	296	402	660	171	43	19	17	12
14	38	54	350	b130	261	396	588	150	38	13	15	12
15	45	47	330	b135	233	396	522	174	38	17	14	10
16	49	45	355	b125	197	540	468	*157	36	17	14	12
17	49	43	414	b120	245	528	420	135	38	13	12	15
18	43	103	408	b120	197	480	378	117	*47	12	10	12
19	40	123	335	b120	174	420	355	112	40	9	11	11
20	34	117	296	b115	160	408	335	129	36	8	11	11
21	31	100	270	b140	147	420	325	168	36	5	11	13
22	38	201	265	b200	147	480	310	164	27	10	12	12
23	27	213	320	1,120	150	468	*301	144	24	20	10	17
24	41	182	301	b1,000	157	432	283	129	24	27	10	14
25	*43	141	350	b825	*171	408	257	84	27	10	11	12
26	40	171	330	672	225	*355	253	92	43	18	20	12
27	36	*178	296	b540	678	310	237	87	47	14	18	11
28	24	157	270	b438	606	306	233	100	38	13	15	8
29	23	135	b261	384	-	288	229	106	32	15	14	8
30	27	123	b217	b340	--------	301	217	74	29	15	15	10
31	27	--------	b185	*b315	--------	315	--------	70	--------	*15	14	--------
Total	1,437	2,731	7,485	9,014	7,509	12,198	15,937	4,050	1,378	551	399	366
Mean	46.4	91.0	241	291	268	393	531	131	45.9	17.8	12.9	12.2
Cfsm	0.296	0.580	1.54	1.85	1.71	2.50	3.38	0.834	0.292	0.113	0.082	0.078
In.	0.34	0.65	1.78	2.13	1.78	2.88	3.77	0.96	0.33	0.13	0.09	0.09

Calendar year 1956: Max 2,220 Min 1 Mean 254 Cfsm 1.62 In. 22.05
Water year 1956-57: Max 1,210 Min 5 Mean 173 Cfsm 1.10 In. 14.93

Peak discharge (base, 1,000 cfs).--Jan. 23 (2:30 p.m.) 1,410 cfs (4.85 ft); Apr. 6 (6 p.m.) 1,330 cfs (4.77 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Backwater from aquatic vegetation Oct. 1 to Dec. 11, June 6 to Sept. 30.

Little River at Buffumville, Mass.

Location.--Lat 42°06'57", long 71°53'26", on left bank 0.6 mile upstream from Boston & Albany Railroad bridge, 0.6 mile upstream from mouth, 0.8 mile east of Buffumville, Worcester County, and 1.5 miles west of Oxford.

Drainage area.--27.7 sq mi.

Records available.--July 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 457.00 ft above mean sea level, unadjusted (levels by Corps of Engineers).

Average discharge.--18 years, 47.3 cfs.

Extremes.--Maximum discharge during year, 280 cfs Jan. 24 (gage height, 4.39 ft); minimum, 0.1 cfs Sept. 25, 26; minimum daily, 0.1 cfs Sept. 25.
1939-57: 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, that of Sept. 25, 26, 1957; minimum daily, that of Sept. 25, 1957.

Remarks.--Records good except those for period of no gage-height record, which are fair. Flow regulated by reservoirs and mill above station.

Revisions (water years).--WSP 1201: 1940, 1948.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.85	0.1	2.6	11
1.9	.2	2.8	21
1.95	.4	3.0	37
2.0	.8	3.2	61
2.1	1.7	3.5	108
2.2	3.0	4.0	197
2.4	6.2	4.5	304

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	9.1	36	13	23	122	48	*30	11	21	3.0	1.2
2	18	9.1	3.8	34	35	83	44	18	11	17	3.2	1.2
3	37	10	5.7	13	34	69	84	4.6	18	13	3.2	1.1
4	18	6.8	31	11	37	66	83	12	6.2	11	3.1	1.0
5	17	16	8.6	17	51	41	91	13	9.1	9.7	3.2	.8
6	34	4.2	7.7	17	46	42	183	12	9.4	8.6	3.4	.3
7	15	6.4	7.0	17	28	40	234	13	9.1	8.2	2.8	.2
8	39	6.7	9.4	16	45	49	205	12	10	7.2	2.6	.2
9	27	8.4	18	*16	26	82	171	12	5.6	6.8	2.2	.2
10	23	6.4	19	17	51	100	160	11	8.3	6.6	2.4	.2
11	39	5.3	*36	17	64	98	140	15	5.4	6.0	2.2	.2
12	15	20	17	17	57	77	123	16	5.8	5.6	6.7	.2
13	30	7.1	54	16	46	67	111	29	6.0	4.8	9.1	.2
14	14	3.2	51	29	38	63	96	6.4	5.8	5.0	2.0	.4
15	28	3.6	47	13	34	63	85	26	6.2	6.2	1.9	.4
16	12	3.2	26	2.6	31	75	69	44	7.4	3.6	2.0	.5
17	4.6	3.2	51	14	30	88	51	17	7.2	4.8	1.9	.4
18	a9.0	4.4	42	16	27	88	53	22	*6.6	7.3	1.9	.6
19	a28	4.3	42	17	*28	67	52	22	7.0	4.4	2.2	.6
20	a12	10	8.8	17	27	61	43	24	8.2	3.6	1.9	.5
21	a5.0	15	39	21	37	63	47	28	7.2	3.0	2.1	.6
22	a10	26	17	12	22	71	48	29	6.6	4.1	1.7	.5
23	a26	45	22	129	15	75	42	27	6.0	3.7	2.2	.4
24	a11	27	32	262	24	64	33	26	14	3.6	2.7	.3
25	a5.0	21	38	179	29	66	44	26	39	*3.2	2.2	.1
26	a8.0	23	51	100	31	*54	32	19	21	3.1	1.8	.2
27	a9.0	37	31	60	116	51	34	*22	82	3.0	1.7	.2
28	a10	32	26	60	156	38	35	17	48	2.2	1.6	*.2
29	a10	12	29	51	-	50	44	18	24	4.2	2.6	.2
30	*9.5	19	41	48	-------	46	24	15	19	3.0	1.6	1.5
31	7.2	-------	28	47	-------	33	-------	14	-------	3.0	1.4	-------
Total	569.3	404.4	873.0	1,298.6	1,188	2,032	2,509	600.0	430.1	196.5	82.5	14.6
Mean	18.4	13.5	28.2	41.9	42.4	65.5	83.6	19.4	14.3	6.34	2.66	0.49
Cfsm	0.664	0.487	1.02	1.51	1.53	2.36	3.02	0.700	0.516	0.229	0.096	0.018
In.	0.76	0.54	1.17	1.74	1.60	2.73	3.37	0.81	0.58	0.26	0.11	0.02

Calendar year 1956: Max 496 Min 3.1 Mean 49.6 Cfsm 1.79 In. 24.34
Water year 1956-57: Max 262 Min 0.1 Mean 27.9 Cfsm 1.01 In. 13.69

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, typical regulation pattern, and records for Ware River near Barre.

French River at Webster, Mass.

Location.--Lat 42°03'03", long 71°53'08", on right bank 50 ft upstream from Pleasant Street Bridge at Webster, Worcester County, and 1.1 miles upstream from Potash Brook.

Drainage area.--85.3 sq mi.

Records available.--December 1948 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 406.74 ft above mean sea level, datum of 1929.

Average discharge.--8 years (1949-57), 169 cfs.

Extremes.--Maximum discharge during year, 666 cfs Jan. 24; minimum daily, 6.6 cfs Sept. 15.

1948-57: 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, 2.9 cfs Sept. 30, 1951.

Flood of Mar. 19, 1936, reached a discharge of 4,700 cfs, by computation of flow over dam about half a mile upstream.

Remarks.--Records good. Flow regulated by mills and by Lake Chaubunagungamaug (estimated usable capacity, 207,000,000 cu ft) and smaller reservoirs above station.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to July 24				July 25 to Sept. 30			
4.57	6.8	5.2	92	4.48	6.6	4.7	20
4.6	8.1	5.5	175	4.5	7.3	4.9	43
4.7	15	6.0	330	4.6	12	5.1	76
4.8	24	7.0	621				
5.0	51						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	46	67	79	132	328	148	103	10	59	33	8.1
2	96	67	72	107	90	256	172	98	17	53	46	7.7
3	78	11	94	98	112	218	223	85	32	44	8.1	24
4	87	10	81	80	143	191	245	23	42	36	7.3	29
5	78	71	74	46	138	129	276	44	44	34	29	31
6	13	71	69	46	151	127	408	87	45	31	34	27
7	83	71	67	91	132	123	543	75	44	29	33	9.1
8	106	67	7.6	71	116	124	531	71	42	26	23	8.1
9	99	63	17	*78	102	143	481	66	36	*29	11	27
10	84	8.6	*90	74	131	271	435	57	32	30	12	34
11	82	7.2	85	80	189	281	408	11	34	29	11	35
12	75	70	122	28	181	250	370	42	32	25	27	*25
13	13	69	154	53	148	213	339	96	34	22	70	49
14	41	57	187	91	133	196	318	90	32	21	28	8.1
15	84	46	200	83	104	187	302	84	34	52	33	6.6
16	75	38	169	71	85	240	277	96	30	10	29	28
17	70	7.6	131	66	94	244	249	107	26	17	8.6	37
18	67	12	123	53	117	*262	175	61	25	44	6.9	29
19	45	78	152	18	*88	247	104	72	29	68	33	41
20	7.6	73	119	36	87	259	128	107	34	9.2	31	48
21	6.8	74	70	83	96	231	134	98	35	7.6	31	7.7
22	68	21	83	71	103	235	142	100	35	66	28	6.9
23	58	124	92	223	64	138	125	98	29	29	34	50
24	60	102	120	571	94	218	117	100	60	45	10	55
25	68	68	142	543	126	208	112	90	97	*23	11	52
26	57	123	164	361	114	186	115	85	95	26	31	45
27	8.6	117	144	252	241	171	70	*81	172	8.6	36	47
28	6.8	134	110	227	359	157	88	79	114	8.1	36	*8.1
29	*64	107	79	188	-	147	*130	77	88	24	20	7.3
30	66	90	110	160	--------	142	131	74	62	27	23	55
31	40	--------	114	150	--------	145	--------	43	--------	31	9.1	--------
Total	1,898.8	1,903.4	3,308.6	4,178	3,670	6,267	7,296	2,400	1,441	963.5	783.0	845.7
Mean	61.0	63.4	107	135	131	202	243	77.4	48.0	31.1	25.3	28.2
Cfsm	0.715	0.743	1.25	1.58	1.54	2.37	2.85	0.907	0.563	0.365	0.297	0.331
In.	0.82	0.83	1.44	1.82	1.60	2.73	3.18	1.05	0.63	0.42	0.34	0.37

Calendar year 1956: Max 1,060 Min 6.8 Mean 169 Cfsm 1.98 In. 26.92
Water year 1956-57: Max 571 Min 6.6 Mean 95.7 Cfsm 1.12 In. 15.23

* Discharge measurement made on this day.

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

Quinebaug River at Putnam, Conn.

Location.--Lat 41°54'34", long 71°54'48", on left bank at Putnam, Windham County, 0.15 mile downstream from Little River, 0.3 mile upstream from New York, New Haven and Hartford Railroad bridge, 2.8 miles downstream from French River, and at mile 35.7.

Drainage area.--331 sq mi.

Records available.--December 1929 to September 1957. October and November 1929 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 216.76 ft above mean sea level, datum of 1929.

Average discharge.--28 years, 570 cfs.

Extremes.--Maximum discharge during year, 3,040 cfs Jan. 23 (gage height, 7.59 ft); minimum, 20 cfs Aug. 31 (gage height, 1.71 ft); minimum daily, 31 cfs Sept. 9.
1929-57: Maximum discharge, 48,000 cfs Aug. 19, 1955 (gage height, 26.5 ft, from floodmarks); minimum, 8.0 cfs Aug. 9, 1953 (gage height, 1.54 ft); minimum daily, 11 cfs Oct. 5, 12, 1930.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. City of Putnam diverts an average of less than 1 mgd from Little River for municipal supply. Large diurnal fluctuations, particularly during low flow, caused by many dams and reservoirs upstream, largest of which is Lake Chaubunagungamaug with an estimated usable capacity of 207,000,000 cu ft.

Revisions (water years).--WSP 781: Drainage area, 1934(M). WSP 1301: 1931-33(M), 1935(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23				Jan. 24 to Sept. 30			
2.2	79	4.0	595	1.8	26	4.0	595
2.5	130	5.0	1,120	2.0	46	5.0	1,120
3.0	244	5.8	1,700	2.2	74	6.0	1,840
				2.5	128	6.9	2,500
				3.0	250		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	162	123	241	b400	580	1,090	580	368	150	106	43	38
2	170	146	234	b390	508	880	570	347	146	95	40	36
3	155	173	226	b400	488	780	1,030	328	150	*84	38	*38
4	138	130	226	b400	548	708	*970	292	148	82	40	40
5	153	144	221	342	568	564	1,140	268	139	77	*36	39
6	134	136	213	307	560	524	2,280	271	132	77	35	36
7	241	144	218	326	540	512	2,500	271	146	70	35	35
8	316	140	216	323	488	512	2,200	256	124	66	36	36
9	275	125	239	320	470	728	2,280	242	122	71	35	31
10	221	126	342	323	708	1,000	2,060	222	108	72	41	32
11	189	102	342	b320	805	940	1,770	248	99	70	45	36
12	167	104	547	b300	708	830	1,550	277	99	64	38	34
13	150	121	640	284	620	780	1,330	298	95	77	38	34
14	126	146	685	a300	540	730	1,160	301	90	59	39	36
15	117	136	708	a270	488	708	1,030	325	87	50	42	34
16	144	123	755	a260	424	880	940	313	84	52	42	32
17	144	112	830	a260	445	1,000	830	298	82	49	40	36
18	140	177	755	a250	445	910	755	259	85	45	36	35
19	126	244	685	a250	400	805	620	232	87	44	34	34
20	112	264	591	a240	361	805	600	274	82	44	35	35
21	100	239	511	286	350	805	588	344	77	42	35	38
22	98	345	487	370	358	880	568	358	76	38	40	42
23	110	390	618	1,640	328	830	*540	313	66	56	38	37
24	117	376	595	2,200	350	780	516	*304	70	55	37	39
25	128	292	685	*1,910	*400	755	473	250	76	52	43	39
26	130	358	708	1,370	448	708	473	225	87	46	45	42
27	131	410	618	1,000	1,040	640	452	230	202	49	46	42
28	109	390	555	830	1,220	600	417	232	208	45	44	43
29	89	332	507	730	-	560	438	238	160	44	43	42
30	92	289	507	S40	--------	548	452	192	128	44	45	39
31	117	--------	b450	600	--------	600	--------	178	--------	43	40	--------
Total	4,601	6,337	15,155	17,841	15,188	23,392	31,112	8,554	3,405	1,868	1,224	1,110
Mean	148	211	489	576	542	755	1,037	276	114	60.3	39.5	37.0
Cfsm	0.447	0.637	1.48	1.74	1.64	2.28	3.13	0.834	0.334	0.182	0.119	0.112
In.	0.52	0.71	1.71	2.01	1.71	2.63	3.49	0.96	0.37	0.21	0.14	0.12

Calendar year 1956: Max 4,240 Min 44 Mean 572 Cfsm 1.73 In. 23.53
Water year 1956-57: Max 2,500 Min 31 Mean 356 Cfsm 1.08 In. 14.58

Peak discharge (base, 2,000 cfs).--Jan. 23 (3 p.m.) 3,040 cfs (7.59 ft); Apr. 7 (1 a.m.) 2,570 cfs (6.98 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Quinebaug River at Quinebaug, Conn. and French River at Webster, Mass.
b Stage-discharge relation affected by ice.

Five Mile River at Killingly, Conn.

Location.--Lat 41°50'14", long 71°53'09", at upstream left abutment of New York, New Haven and Hartford Railroad bridge, 0.5 mile upstream from Whetstone Brook, 0.6 mile south of Killingly, Windham County, and 3.2 miles upstream from mouth.

Drainage area.--58.2 sq mi.

Records available.--October 1937 to September 1957. Monthly discharge only for October 1937, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 222.22 ft above mean sea level, datum of 1929.

Average discharge.--20 years, 105 cfs.

Extremes.--Maximum discharge during year, 460 cfs Jan. 24; maximum gage height, 3.45 ft Jan. 24, affected by ice; minimum discharge, 5.5 cfs Sept. 20, 21, 24; minimum gage height, 0.79 ft Aug. 7; minimum daily discharge, 5.5 cfs Sept. 21.

1937-57: Maximum discharge, 2,480 cfs July 24, 1938 (gage height, 8.52 ft); minimum, 3.8 cfs Aug. 24, 1941 (gage height, 0.44 ft); minimum daily, that of Sept. 21, 1957.

Flood of Mar. 12, 1936, reached a discharge of 1,600 cfs, by computation of flow over dam at Danielson.

Remarks.--Records excellent except those for periods of ice effect or backwater from debris on control, which are good. Flow regulated by dams and reservoirs upstream.

Revisions (water years).--WSP 921: 1938-40. WSP 951: 1938-41.

Rating tables, water year 1956-57, except periods of ice effect and backwater from debris (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 27				Feb. 27 to Sept. 30			
0.9	12	1.7	94	0.7	5.2	1.5	58
1.0	17	2.3	230	.8	8.0	2.0	143
1.3	40	2.8	350	1.0	17	2.5	260
				1.2	28	3.1	380

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	42	31	b126	133	128	104	83	42	31	8.4	8.8
2	35	51	36	b104	128	118	133	77	39	30	44	9.2
3	38	30	55	b108	119	118	184	76	61	41	8.8	38
4	38	36	32	110	130	105	*160	66	43	34	9.6	8.8
5	38	55	39	102	130	101	181	68	37	*21	*33	20
6	29	40	39	94	124	97	360	70	36	11	8.0	36
7	66	39	38	97	118	93	370	64	36	11	7.7	8.0
8	67	30	21	95	116	98	310	60	14	25	8.0	8.0
9	55	40	43	91	109	145	370	57	30	8.0	8.0	8.0
10	43	22	65	89	149	172	350	60	50	33	8.4	26
11	43	35	59	b81	166	157	300	38	27	25	10	8.0
12	39	48	85	b77	144	141	260	57	28	27	25	28
13	26	20	104	82	124	132	232	72	33	15	8.0	24
14	36	37	96	b70	118	125	210	59	35	14	8.8	8.0
15	48	18	134	b67	108	119	185	56	10	33	23	8.0
16	42	21	141	b64	102	132	167	65	10	8.4	8.4	8.4
17	38	12	171	b60	104	141	156	55	36	37	8.0	20
18	35	46	150	b59	94	132	147	34	36	34	11	8.0
19	38	68	125	b67	96	123	139	51	10	26	23	39
20	34	49	114	70	94	124	132	66	43	10	8.4	20
21	36	39	110	78	94	133	128	54	27	17	8.4	5.5
22	31	62	107	92	82	150	127	*59	10	27	8.0	6.0
23	38	69	145	284	84	150	110	56	21	15	27	25
24	45	53	141	b341	87	143	79	52	40	9.2	8.0	5.8
25	45	46	146	248	*85	130	89	21	46	34	9.2	37
26	40	64	136	222	92	120	*96	32	33	36	23	26
27	24	77	126	198	149	113	91	60	30	10	8.8	37
28	42	*65	124	177	142	107	94	48	44	9.2	33	6.0
29	52	56	136	162	-	103	91	70	13	24	31	6.0
30	46	54	147	150	--------	98	86	42	24	8.4	22	26
31	43	--------	b132	*140	--------	111	--------	46	--------	8.4	8.4	--------
Total	1,284	1,324	3,028	3,805	3,221	3,859	5,441	1,774	944	672.6	482.3	522.5
Mean	41.4	44.1	97.7	123	115	124	181	57.2	31.5	21.7	15.6	17.4
Cfsm	0.711	0.758	1.68	2.11	1.98	2.13	3.11	0.983	0.541	0.373	0.268	0.299
In.	0.82	0.85	1.94	2.43	2.06	2.46	3.47	1.13	0.60	0.43	0.31	0.33

Calendar year 1956: Max 690 Min 7.4 Mean 115 Cfsm 1.98 In. 26.81
Water year 1956-57: Max 370 Min 5.5 Mean 72.2 Cfsm 1.24 In. 16.83

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Backwater from debris on control May 8-22, Sept. 9-30.

Moosup River at Moosup, Conn.

Location.--Lat 41°42'37", long 71°53'11", on right bank at outlet of tailrace from Majestic Metal Specialties, Inc. (formerly Aldrich Bros.) mill at Moosup, Windham County, 100 ft upstream from New York, New Haven and Hartford Railroad bridge, 0.5 mile downstream from Ekonk Brook, and 3.8 miles upstream from mouth.

Drainage area.--83.5 sq mi.

Records available.--October 1932 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 196.64 ft above mean sea level, datum of 1929.

Average discharge.--25 years, 162 cfs.

Extremes.--Maximum discharge during year, 1,230 cfs Apr. 6 (gage height, 4.71 ft); minimum, 4.4 cfs Oct. 20 (gage height, 0.68 ft); minimum daily, 5.7 cfs Oct. 6, 13.
1932-57: Maximum discharge, 4,260 cfs Mar. 12, 1936 (gage height, 8.35 ft), from sharp, short rise of unknown origin; maximum natural discharge, 4,100 cfs July 24, 1938 (gage height, 8.20 ft), from rating curve extended above 1,500 cfs on basis of computation of flow over dam a quarter of a mile upstream at gage heights 6.9 and 8.2 ft; minimum, 0.1 cfs Feb. 3, 1934; minimum gage height, 0.36 ft Oct. 17, 1947; minimum daily discharge, 1.1 cfs Aug. 24, 1949.

Remarks.--Records excellent except those for periods of ice effect, which are good. Low flow completely regulated by mills upstream.

Revisions (water years).--WSP 781: Drainage area. WSP 851: 1933, 1934(M), 1935-37.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 1				Aug. 1 to Sept. 30	
0.7	4.8	2.0	117	0.9	6
.9	9.7	2.5	262	1.0	9
1.1	17	3.0	435	1.2	18
1.3	29	4.0	875		
1.6	56	4.6	1,170		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	58	43	b139	149	234	175	89	13	9.2	9.4	7.5
2	56	99	78	b201	118	192	246	87	14	9.2	9.8	7.5
3	27	59	110	b108	99	180	427	106	77	9.4	10	7.8
4	16	66	90	b151	190	151	360	48	58	8.9	11	8.4
5	28	84	82	b66	186	137	392	47	33	*9.2	*11	8.7
6	5.7	59	91	95	189	136	1,140	106	30	9.2	10	9.0
7	48	32	101	118	137	133	995	100	42	10	10	9.4
8	115	37	28	134	128	119	672	79	13	9.4	10	9.8
9	67	32	98	b89	167	305	740	67	11	*8.9	10	10
10	49	7.3	117	93	250	300	650	77	32	8.4	10	*10
11	46	25	149	b120	336	308	475	44	38	8.1	10	10
12	38	50	236	b64	257	234	374	32	28	7.8	10	11
13	5.7	59	255	87	179	198	314	102	36	7.8	10	11
14	8.4	35	297	b100	149	147	276	73	41	9.7	10	11
15	37	42	538	b90	122	164	240	99	13	26	11	11
16	61	33	560	b90	112	183	225	91	10	21	12	11
17	32	11	495	b85	77	219	193	85	21	24	11	12
18	31	121	370	b85	131	216	187	16	27	17	11	11
19	18	197	255	b65	110	196	184	53	25	13	10	12
20	7.8	151	204	b80	102	188	160	126	30	12	9.4	12
21	12	76	147	b170	115	188	166	61	24	12	8.4	11
22	30	166	157	b125	105	280	163	*81	12	11	7.8	14
23	25	217	283	728	70	290	139	78	10	11	7.5	14
24	33	134	314	695	68	255	144	76	23	13	6.9	12
25	30	67	311	538	124	216	145	14	22	11	7.8	12
26	*53	269	266	332	102	192	114	33	25	12	8.7	12
27	20	297	216	225	267	148	111	78	18	12	7.8	12
28	20	234	201	192	286	156	90	92	18	11	7.2	12
29	37	171	204	191	-	140	148	61	11	12	7.2	12
30	38	137	b144	138	--------	94	118	14	9.7	11	7.5	12
31	39	--------	158	*165	--------	135	--------	68	--------	11	7.8	--------
Total	1,093.6	3,025.3	6,598	5,559	4,305	6,034	9,763	2,183	764.7	365.2	290.2	323.1
Mean	35.3	101	213	179	154	195	325	70.4	25.5	11.8	9.36	10.8
Cfsm	0.423	1.21	2.55	2.14	1.84	2.34	3.89	0.843	0.305	0.141	0.112	0.129
In.	0.49	1.35	2.94	2.47	1.92	2.70	4.34	0.97	0.34	0.16	0.13	0.14

Calendar year 1956: Max 852 Min 5.2 Mean 167 Cfsm 2.00 In. 27.23
Water year 1956-57: Max 1,140 Min 5.7 Mean 110 Cfsm 1.32 In. 17.95

Peak discharge (base, 800 cfs).--Jan. 23 (2 p.m.) 945 cfs (4.17 ft); Apr. 6 (9 a.m.) 1,230 cfs (4.71 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Quinebaug River at Jewett City, Conn.

Location.--Lat.41°35'52", long 71°59'05", on left bank in rear of high school on Slater Avenue at Jewett City, New London County, 570 ft downstream from outlet of canal from Fisk Mills, Inc., at mouth of Pauchaug River, 1,000 ft downstream from railroad bridge, and at mile 6.1.

Drainage area.--711 sq mi.

Records available.--July 1918 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 63.07 ft above mean sea level, datum of 1929.

Average discharge.--39 years, 1,247 cfs.

Extremes.--Maximum discharge during year, 6,570 cfs Apr. 6 (gage height, 12.20 ft); minimum, 39 cfs Oct. 6 (gage height, 3.70 ft); minimum daily, 57 cfs Aug. 10.
1918-57: Maximum discharge, 40,700 cfs Aug. 20, 1955 (gage height, 29.0 ft, from floodmarks), from rating curve extended above 11,000 cfs by computation of peak flows over three nearby dams at gage heights 21.7, 22.5, 24.0 and 29.0 ft; minimum daily, 18 cfs Aug. 28, Dec. 11, 1949.

Remarks.--Records excellent. Flow regulated by many ponds and reservoirs upstream, the largest of which are Lake Chaubunagungamaug and Pauchaug Pond.

Revisions (water years).--WSP 781: Drainage area. WSP 1301: 1919-26(M).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 6

3.8	52	6.0	790
4.2	123	8.0	2,130
4.6	220	10.0	4,060
5.0	350	11.8	6,090

Apr. 7 to Sept. 30

3.8	49	5.0	337
4.2	116	6.0	790
4.6	212		

Note.--Same as preceding table above 6.0 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	515	440	615	1,120	*1,340	2,220	1,270	915	373	*221	*174	92
2	404	426	568	1,060	1,240	1,930	1,460	815	334	196	103	86
3	429	321	690	915	1,090	1,730	2,490	765	392	*162	90	93
4	403	402	615	915	1,340	1,580	2,400	740	384	148	95	124
5	349	495	590	915	1,370	1,370	2,490	640	355	151	97	129
6	87	444	590	815	1,340	1,240	5,530	715	327	169	112	97
7	432	403	512	890	1,240	1,180	6,090	665	290	155	118	88
8	760	433	440	865	1,180	1,180	5,050	690	259	135	99	93
9	722	398	590	815	1,120	1,580	5,270	615	235	122	90	86
10	592	67	940	840	1,580	2,310	5,050	640	284	126	57	*110
11	534	133	890	765	2,130	2,220	4,170	740	274	129	68	99
12	310	457	1,120	715	1,810	1,890	3,560	715	284	135	79	90
13	360	376	1,440	740	1,540	1,730	3,060	383	373	137	160	79
14	301	338	1,510	815	1,340	1,580	2,670	555	337	151	101	79
15	497	351	2,310	690	1,180	1,480	2,400	740	262	142	79	81
16	358	380	2,400	665	1,090	1,650	2,130	740	183	146	81	88
17	346	66	2,490	672	970	2,010	1,970	690	172	146	79	133
18	356	378	2,220	640	1,120	1,890	1,810	590	188	148	74	110
19	328	815	1,810	640	1,000	1,730	1,650	526	226	155	76	92
20	67	715	1,540	615	940	1,690	1,510	640	250	133	126	79
21	195	640	1,340	715	890	1,770	1,480	740	215	108	108	79
22	416	730	1,240	740	840	2,050	1,370	*765	193	99	88	101
23	359	1,060	1,580	2,280	840	2,090	1,300	715	168	97	79	108
24	356	890	1,770	4,610	790	1,890	*1,240	665	162	112	68	118
25	345	715	1,810	3,960	915	1,770	1,150	518	185	99	97	106
26	*322	970	1,810	3,160	*915	1,620	1,120	448	204	95	154	95
27	67	1,210	1,580	2,310	1,750	*1,480	1,120	540	215	112	177	84
28	232	1,120	1,400	1,930	2,490	1,340	1,000	565	238	110	99	105
29	418	970	1,340	1,650	-	1,240	1,060	495	262	116	88	105
30	336	815	1,340	1,510	--------	1,180	970	444	244	162	90	92
31	359	--------	1,090	1,370	--------	1,240	--------	403	--------	155	93	--------
Total	11,555	16,958	40,180	40,342	35,390	51,860	73,840	19,817	7,868	4,271	3,049	2,921
Mean	373	565	1,296	1,301	1,264	1,673	2,461	639	262	138	98.4	97.4
Cfsm	0.525	0.795	1.82	1.83	1.78	2.35	3.46	0.899	0.368	0.194	0.138	0.137
In.	0.61	0.89	2.10	2.11	1.85	2.71	3.86	1.04	0.41	0.22	0.16	0.15

Calendar year 1956: Max 7,170 Min 28 Mean 1,289 Cfsm 1.81 In. 24.69
Water year 1956-57: Max 6,090 Min 57 Mean 844 Cfsm 1.19 In. 16.11

Peak discharge (base, 4,500 cfs).--Jan. 24 (8 a.m.) 4,940 cfs (10.78 ft); Apr. 6 (9 p.m.) 6,570 cfs (12.20 ft).

* Discharge measurement made on this day.

Yantic River at Yantic, Conn.

Location.--Lat 41°33'31", long 72°07'19", on left bank at Yantic, New London County, 700 ft downstream from stone-arch highway bridge, 1 mile downstream from Susquetenscut Brook, and 4.8 miles upstream from mouth.

Drainage area.--88.6 sq mi.

Records available.--October 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 94.46 ft above mean sea level, datum of 1929.

Average discharge.--27 years, 160 cfs.

Extremes.--Maximum discharge during year, 1,540 cfs Jan. 23 (gage height, 6.86 ft); minimum, 4.2 cfs Aug. 19, 20 (gage height, 0.62 ft); minimum daily, 4.3 cfs Aug. 18-20.
1930-57: Maximum discharge, 13,500 cfs Sept. 21, 1938 (gage height, 14.66 ft, from floodmark), by computation of flow over 2 dams 2½ miles upstream and 3 miles downstream from station, respectively; minimum, 2.3 cfs sometime during period July 21 to Aug. 11, 1949; minimum gage height, 0.41 ft Oct. 13, 1930; minimum daily discharge, 3.3 cfs Oct. 13, 1930.

Remarks.--Records good. Low flow completely regulated by mills upstream.

Revisions (water years).--WSP 781: Drainage area. WSP 1051: 1931-33. WSP 1301: 1934(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.6	4.0	2.0	84
.8	6.8	3.0	225
1.0	12	4.0	445
1.2	22	5.0	740
1.6	47	6.4	1,290

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	58	65	122	138	249	107	88	23	9.0	6.6	6.2
2	43	70	66	106	135	200	233	79	23	*9.0	6.5	6.0
3	40	54	66	96	124	199	370	71	50	9.0	6.5	6.0
4	38	62	67	95	178	178	265	71	51	9.0	6.5	6.0
5	38	50	62	95	205	152	418	74	59	9.0	6.5	5.8
6	34	65	58	86	186	139	1,290	68	60	8.7	6.3	5.7
7	120	60	62	95	160	141	710	64	48	8.5	6.2	5.7
8	154	49	61	93	150	152	445	61	12	8.5	*6.0	5.8
9	102	39	96	94	173	285	680	53	12	8.2	5.8	5.8
10	53	18	202	96	370	315	515	66	59	8.0	5.7	5.7
11	75	16	156	94	325	235	358	32	55	7.8	5.7	*5.7
12	37	27	270	95	221	186	285	52	52	7.4	5.4	5.5
13	15	32	269	90	170	163	245	61	51	7.6	5.1	5.4
14	15	30	282	85	148	150	217	58	34	8.5	4.9	5.3
15	61	32	590	78	138	138	198	109	10	8.0	4.9	5.1
16	46	32	500	68	130	202	182	102	10	7.6	4.9	5.1
17	48	32	358	73	131	221	170	69	40	7.4	4.7	5.4
18	48	161	257	71	122	181	163	58	41	7.4	4.3	5.5
19	38	176	182	70	119	160	176	54	43	7.6	4.3	5.5
20	12	116	154	64	116	231	168	66	38	7.6	4.3	5.4
21	12	81	142	74	99	277	158	*110	38	7.2	5.1	5.7
22	18	156	151	120	96	311	142	87	11	7.2	5.4	6.6
23	47	168	249	1,080	100	249	131	67	11	7.2	5.3	6.8
24	60	112	253	709	131	190	*130	66	35	7.2	5.3	6.5
25	50	70	249	345	150	156	122	55	32	7.0	6.2	6.3
26	44	133	200	233	*164	139	126	44	34	7.0	9.6	6.2
27	36	163	158	184	445	*135	128	43	10	6.8	7.8	6.2
28	30	116	146	169	370	126	116	56	10	6.8	6.5	6.0
29	54	90	154	157	-	118	112	43	9.6	7.2	6.3	6.0
30	54	76	148	*148	--------	122	94	30	9.3	7.0	6.3	6.0
31	*56	--------	131	141	--------	116	--------	26	--------	6.8	6.3	--------
Total	1,529	2,344	5,804	5,126	4,994	5,816	8,454	1,983	970.9	241.2	181.2	174.9
Mean	49.3	78.1	187	165	178	188	282	64.0	32.4	7.78	5.85	5.83
Cfsm	0.556	0.881	2.11	1.86	2.01	2.12	3.18	0.722	0.366	0.088	0.066	0.066
In.	0.64	0.98	2.43	2.14	2.09	2.44	3.55	0.83	0.41	0.10	0.08	0.07

Calendar year 1956: Max 725 Min 7.8 Mean 152 Cfsm 1.72 In. 23.49
Water year 1956-57: Max 1,290 Min 4.3 Mean 103 Cfsm 1.16 In. 15.76

Peak discharge (base, 1,000 cfs).--Jan. 23 (11 a.m.) 1,540 cfs (6.86 ft); Apr. 6 (5:30 a.m.) 1,490 cfs (6.76 ft).

* Discharge measurement made on this day.

Connecticut River at First Connecticut Lake, near Pittsburg, N. H.

Location.--Lat 45°05'15", long 71°17'35", on right bank a quarter of a mile downstream from dam at First Connecticut Lake and 6 miles northeast of Pittsburg, Coos County.

Drainage area.--83.0 sq mi.

Records available.--April 1917 to September 1957.

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 a quarter of a mile upstream. Jan. 1 to July 28, 1918, staff gage at present site and datum.

Average discharge.--40 years, 195 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 547 cfs Dec. 31 (gage height, 3.11 ft); minimum daily, 8.7 cfs Apr. 10-17.

1917-57: 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 except those below 20 cfs, which are fair. Flow regulated by First Connecticut and Second Connecticut Lakes (see p. 233).

Revisions (water years).--WSP 756: Drainage area. WSP 1001: 1931-39. WSP 1231: 1921-23(M), 1925-26.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.4	8.1	2.2	142
1.5	15	2.5	240
1.7	38	3.0	480
2.0	92	3.5	830

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	163	361	129	540	157	9.3	99	13	14	15	16	268
2	242	330	330	540	157	9.3	108	13	14	15	16	264
3	380	330	334	534	157	9.3	113	*12	14	15	16	264
4	380	330	334	528	157	95	113	12	14	15	16	95
5	380	330	334	504	246	280	110	12	14	15	186	15
6	380	330	330	450	438	320	108	12	14	15	264	15
7	380	330	330	444	432	320	108	12	14	15	264	15
8	380	325	158	438	426	320	104	12	14	15	260	15
9	380	325	15	432	432	320	56	12	14	15	260	16
10	236	325	15	432	432	294	8.7	12	14	15	260	16
11	17	325	15	432	426	244	8.7	12	14	15	260	16
12	17	325	15	432	432	222	8.7	13	14	15	264	16
13	17	325	15	420	432	248	8.7	13	14	15	260	16
14	164	325	15	415	432	280	8.7	13	14	16	260	16
15	375	325	15	g415	432	307	8.7	13	14	15	260	17
16	375	325	15	420	432	325	8.7	13	14	15	260	17
17	375	325	187	426	426	330	8.7	13	242	15	260	17
18	375	325	409	g426	426	330	9.3	13	300	15	260	17
19	375	325	157	g426	426	330	9.3	13	14	15	260	17
20	370	320	163	g432	426	320	9.9	13	14	15	*260	17
21	370	320	163	g432	426	316	11	13	14	15	264	17
22	370	128	163	g432	426	307	11	13	15	19	264	17
23	370	15	163	218	432	298	11	13	15	16	264	18
24	375	15	163	13	420	272	11	13	15	16	264	18
25	370	145	163	13	420	230	11	13	15	16	276	18
26	370	370	163	13	400	195	11	13	15	16	280	18
27	370	370	163	12	129	166	11	13	15	16	276	18
28	370	*370	163	139	9.3	145	12	14	15	16	272	18
29	370	246	163	432	-	131	13	14	15	17	272	18
30	*370	15	163	432	--------	118	13	14	15	16	272	18
31	375	--------	294	338	--------	106	--------	14	--------	16	268	--------
Total	9,841	8,555	5,239	11,560	9,986.3	7,196.9	1,132.1	398	943	480	7,134	1,327
Mean	317	285	169	373	357	232	37.7	12.8	31.4	15.5	230	44.2
(†)	-232	-153	-64.3	-285	-302	-149	+518	+282	+102	+227	-187	+39.9
Adjusted for change in reservoir contents												
Mean	85.5	132	105	88.1	54.7	82.7	556	295	134	243	42.7	84.2
Cfsm	1.03	1.59	1.27	1.06	0.659	0.996	6.70	3.55	1.61	2.93	0.514	1.01
In.	1.19	1.77	1.45	1.22	0.69	1.15	7.47	4.09	1.80	3.37	0.59	1.13

	Observed			Adjusted		
Calendar year 1956:	Max 547	Min 8.7	Mean 167	Mean 178	Cfsm 2.14	In. 29.13
Water year 1956-57:	Max 540	Min 8.7	Mean 175	Mean 159	Cfsm 1.92	In. 25.92

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in First Connecticut and Second Connecticut Lakes.

g Computed from once-daily tape-gage readings and records of gate operation at First Connecticut Lake.

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Connecticut River below Indian Stream, near Pittsburg, N. H.

Location.--Lat 45°02'25", long 71°26'35", on right bank 1,200 ft downstream from Indian Stream and 2.5 miles west of Pittsburg, Coos County.

Drainage area.--254 sq mi.

Records available.--October 1956 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 1,150 ft (from topographic map).

Extremes.--Maximum discharge during year, 2,580 cfs Apr. 22 (gage height, 5.44 ft); minimum daily, 41 cfs Sept. 12, 13.

Remarks.--Records good except those for the periods of no gage-height record, which are fair. Flow regulated by First Connecticut and Second Connecticut Lakes and Lake Francis (see p. 233).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.7	38	3.0	470
2.0	86	3.5	760
2.3	163	4.0	1,140
2.5	234	5.0	2,100

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	400	730	b260	742	410	604	b157	476	116	225	219	530
2	550	652	688	858	400	574	248	340	120	552	170	530
3	800	646	670	980	390	514	b375	*280	160	309	148	558
4	800	646	676	1,060	385	582	b280	242	123	386	142	272
5	800	640	670	996	530	916	201	230	106	513	567	62
6	800	640	670	844	865	908	204	201	95	560	580	56
7	850	640	700	837	865	893	246	177	*157	275	574	51
8	1,000	640	580	830	858	879	b197	157	204	197	564	49
9	900	634	b235	837	858	879	173	145	142	148	558	45
10	600	634	b220	837	851	879	b151	186	116	128	586	44
11	150	628	b200	837	851	879	151	316	99	116	592	42
12	130	634	177	830	851	872	163	227	90	101	598	*41
13	120	640	b151	*830	844	872	197	183	93	90	569	41
14	350	640	b125	830	844	872	170	166	84	84	558	269
15	790	640	120	830	844	886	b142	383	76	223	552	362
16	790	652	139	830	*844	932	148	682	69	187	537	61
17	*788	748	485	830	844	972	208	390	435	148	547	168
18	*578	712	943	830	844	1,150	284	280	715	108	547	97
19	774	670	385	830	844	1,360	489	227	254	84	542	69
20	767	670	405	830	837	1,360	872	280	232	73	*542	60
21	760	688	400	830	844	1,340	1,820	370	136	66	536	58
22	754	1,110	395	b830	837	*697	1,840	263	101	341	530	62
23	754	561	380	b730	837	b190	1,080	216	84	310	517	287
24	748	b305	380	b700	830	b163	1,170	197	76	187	542	298
25	748	b385	385	676	837	157	879	173	84	136	536	170
26	742	865	380	598	851	b136	676	148	156	113	542	120
27	742	851	360	520	b560	154	652	148	148	97	542	104
28	736	*830	370	651	b540	b160	604	166	128	88	403	93
29	748	638	370	940	-	b163	476	190	126	258	48	82
30	*754	b130	b365	916	--------	b163	694	148	126	777	103	75
31	754	--------	b450	696	--------	b157	--------	128	--------	335	530	--------
Total	20,977	19,499	12,734	25,215	20,995	21,263	14,947	7,715	4,651	7,215	14,521	4,756
Mean	677	650	411	813	750	686	498	249	155	233	468	159
(†)	-416	-269	-100	-516	-544	-359	+1,003	+509	+187	+442	-292	+55.2
Adjusted for change in reservoir contents												
Mean	261	381	310	297	206	327	1,501	758	342	674	176	214
Cfsm	1.03	1.50	1.22	1.17	0.811	1.29	5.91	2.98	1.35	2.65	0.693	0.843
In.	1.18	1.67	1.41	1.35	0.84	1.49	6.59	3.44	1.50	3.06	0.80	0.94

	Observed			Adjusted		
Calendar year 1956:	Max -	Min -	Mean -	Mean -	Cfsm -	In. -
Water year 1956-57:	Max 1,840	Min 41	Mean 478	Mean 454	Cfsm 1.79	In. 24.27

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in First Connecticut and Second Connecticut Lakes and Lake Francis.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Oct. 1-16, Jan. 14, 15; discharge estimated on basis of weather records and records of gate operation and flow released from Lake Francis.

Connecticut River at North Stratford, N. H.

Location.--Lat 44°44'55", long 71°37'55", on left bank at North Stratford, Coos County, 400 ft downstream from Nulhegan River.

Drainage area.--799 sq mi.

Records available.--August 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 880.17 ft above mean sea level, datum of 1929.

Average discharge.--27 years, 1,549 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 9,550 cfs Apr. 21, 22 (gage height, 8.58 ft); maximum gage height, 10.08 ft Jan. 23 (ice jam); minimum daily discharge, 145 cfs Sept. 13.

1930-57: 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, 112 cfs Aug. 28, 1948.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes and Lake Francis (see p. 233).

Revisions (water years).--WSP 781: 1934(M). WSP 891: Drainage area.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.8	136	5.0	2,270
3.1	242	7.0	5,850
3.5	467	9.0	10,600
4.0	910		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,080	1,100	612	720	1,400	1,950	1,040	2,430	730	683	987	604
2	1,140	1,130	800	850	1,050	1,750	1,840	*1,790	810	1,120	710	598
3	1,340	1,010	950	1,500	950	1,500	2,400	1,480	1,080	994	629	730
4	1,400	976	1,100	1,350	880	1,400	1,670	1,340	850	1,770	683	814
5	1,270	954	1,100	1,350	850	1,500	1,400	1,200	701	2,330	557	395
6	1,180	932	1,150	1,150	1,150	1,550	1,490	1,070	*612	2,290	910	274
7	1,860	910	1,250	1,150	1,350	1,500	2,120	890	904	1,270	830	214
8	3,000	910	1,900	1,150	1,250	1,450	1,530	890	1,120	1,080	790	213
9	2,220	900	1,400	1,150	1,250	1,400	1,370	790	820	830	770	188
10	1,790	900	1,030	1,200	1,300	1,450	1,140	908	692	790	991	161
11	1,190	880	1,080	1,100	1,300	1,400	1,150	1,780	556	692	1,440	156
12	830	921	1,240	1,100	1,200	1,400	1,200	1,350	533	601	1,260	172
13	730	1,150	1,230	1,150	1,250	1,350	1,610	1,150	511	511	1,010	*145
14	683	1,120	1,010	g1,100	1,250	1,450	1,300	1,260	467	434	890	147
15	967	1,070	1,040	g1,050	1,200	1,550	1,060	2,770	414	395	827	446
16	1,190	1,190	998	g1,050	1,200	2,000	1,080	3,800	389	533	760	428
17	1,180	1,490	1,150	g1,050	1,150	2,200	1,430	2,400	336	511	730	504
18	1,100	1,410	1,610	g1,050	1,150	2,260	1,840	1,680	904	414	720	482
19	954	1,150	1,200	g1,050	1,150	2,200	2,750	1,360	781	347	710	371
20	1,070	1,120	1,320	g1,050	1,150	2,260	4,650	1,900	830	299	692	196
21	1,070	1,330	1,180	g1,050	1,100	2,160	8,080	3,190	564	244	*674	283
22	1,070	5,450	1,020	1,200	1,150	*2,150	8,600	2,100	408	3,150	665	295
23	1,070	3,380	900	4,000	1,150	1,440	5,690	1,630	347	3,100	647	1,190
24	1,070	1,650	900	3,800	1,100	1,390	5,010	1,400	325	1,460	620	1,430
25	1,040	1,050	910	2,590	1,100	1,120	4,160	1,180	283	987	638	854
26	1,020	1,610	820	2,240	1,200	1,010	3,580	1,010	691	701	656	612
27	1,010	1,760	790	2,080	1,650	1,130	3,340	1,080	760	588	692	474
28	1,020	*1,590	850	1,960	1,950	1,150	3,040	1,070	790	482	674	414
29	1,020	1,490	800	2,000	-	1,220	2,460	1,120	720	564	465	359
30	*1,010	1,020	550	1,900	--------	1,190	2,850	921	612	2,310	230	325
31	1,010	--------	620	1,700	--------	1,060	--------	810	--------	1,480	271	--------
Total	37,584	41,553	32,510	46,840	33,830	48,540	80,880	47,749	19,540	32,960	23,128	13,474
Mean	1,212	1,385	1,049	1,511	1,208	1,566	2,696	1,540	651	1,063	746	449
(†)	-416	-269	-100	-516	-544	-359	+1,003	+509	+187	+442	-292	+55.2

Adjusted for change in reservoir contents

Mean	797	1,116	948	995	664	1,207	3,699	2,050	838	1,505	454	504
Cfsm	0.997	1.40	1.19	1.25	0.831	1.51	4.63	2.57	1.05	1.88	0.568	0.631
In.	1.15	1.56	1.37	1.44	0.87	1.74	5.16	2.96	1.17	2.17	0.65	0.70

	Observed			Adjusted		
Calendar year 1956:	Max 9,100	Min 341	Mean 1,355	Mean 1,378	Cfsm 1.72	In. 23.49
Water year 1956-57:	Max 8,600	Min 145	Mean 1,256	Mean 1,233	Cfsm 1.54	In. 20.94

Peak discharge base, 10,000 cfs.--No peak above base.

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in First Connecticut and Second Connecticut Lakes and Lake Francis.
g Computed from twice-daily tape-gage readings.
Note.--Stage-discharge relation affected by ice Nov. 24, 25, Dec. 2-9, Dec. 28 to Jan. 23, Jan. 29 to Mar. 17, Mar. 19, 28.

Upper Ammonoosuc River near Groveton, N. H.

Location.--Lat 44°37'30", long 71°28'10", on left bank 75 ft upstream from highway bridge, 0.2 mile downstream from Nash Stream, and 2¾ miles northeast of Groveton, Coos County.

Drainage area.--232 sq mi.

Records available.--August 1940 to September 1957.

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

Average discharge.--17 years, 475 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 3,070 cfs Apr. 22 (gage height, 6.34 ft); maximum gage height, 8.23 ft Jan. 24 (ice jam); minimum discharge, 61 cfs Sept. 10.

1940-57: Maximum discharge, 9,950 cfs Mar. 27, 1953 (gage height, 9.44 ft), from rating curve extended above 5,800 cfs by logarithmic plotting; 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 excellent except those for periods of ice effect, which are fair. Some regulation by pond on Nash Stream. Small diversion above station for municipal supply of Berlin.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 22

2.9	108	5.0	1,480
3.2	210	6.0	2,610
3.5	345	7.0	4,250
4.0	645		

Apr. 23 to Sept. 30

2.6	44	3.2	211
2.9	115	3.5	345

Note.--Same as preceding table above 3.5 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	476	238	270	170	310	850	250	916	335	325	290	67
2	444	325	285	165	290	650	600	*722	406	340	238	67
3	355	268	250	160	280	500	940	631	575	264	223	92
4	305	230	285	160	260	420	620	556	428	530	208	110
5	254	218	250	155	250	350	486	504	365	792	186	94
6	222	199	250	155	240	290	486	462	*320	924	170	79
7	348	188	400	155	230	250	638	428	498	510	157	75
8	631	181	800	155	220	220	486	406	498	395	144	70
9	434	174	600	155	215	280	417	390	375	330	135	65
10	330	171	450	155	210	330	355	417	310	350	135	63
11	282	154	350	150	205	290	380	694	277	325	173	67
12	250	174	380	150	200	260	428	562	254	286	180	*77
13	234	250	340	*145	195	240	659	530	250	242	154	*77
14	226	254	310	140	190	220	516	908	223	219	135	70
15	214	226	290	135	190	250	400	1,410	215	*234	124	67
16	206	272	310	135	*190	580	390	1,680	197	219	118	81
17	199	335	330	130	185	600	492	1,110	174	204	110	115
18	188	295	280	130	180	450	631	778	163	180	107	99
19	178	230	260	125	180	350	815	638	183	160	102	77
20	171	190	240	125	180	310	1,320	914	259	144	97	75
21	167	270	220	125	180	*290	2,390	1,450	211	138	89	82
22	164	1,450	210	150	175	290	2,940	1,230	170	742	84	100
23	164	1,210	205	800	175	330	2,140	916	174	1,190	82	467
24	185	659	200	1,800	175	310	1,860	778	474	575	77	367
25	196	390	200	1,000	190	280	1,650	673	330	474	75	190
26	171	460	200	700	500	270	1,430	549	428	375	82	132
27	160	*450	170	540	1,200	270	1,380	530	428	295	87	107
28	157	380	190	450	1,600	270	1,280	486	422	272	87	94
29	*154	330	180	400	-	270	1,190	450	370	305	79	84
30	154	320	165	360	--------	270	1,180	400	320	498	75	79
31	174	--------	150	330	--------	250	--------	370	--------	395	70	--------
Total	7,793	10,491	9,020	9,605	8,595	10,790	28,749	22,488	9,632	12,232	4,073	3,289
Mean	251	350	291	310	307	348	958	725	321	395	131	110
(†)	2.69	2.48	2.39	2.53	2.50	2.58	2.35	2.27	2.62	2.20	2.28	2.53
Adjusted for diversion												
Mean	254	352	293	312	309	351	961	728	324	397	134	112
Cfsm	1.09	1.52	1.26	1.34	1.33	1.51	4.14	3.14	1.40	1.71	0.578	0.483
In.	1.26	1.69	1.46	1.55	1.39	1.74	4.62	3.62	1.56	1.97	0.66	0.54

	Observed			Adjusted		
Calendar year 1956:	Max 3,490	Min 78	Mean 463	Mean 466	C"sm 2.01	In. 27.31
Water year 1956-57:	Max 2,940	Min 63	Mean 375	Mean 377	C"sm 1.62	In. 22.06

Peak discharge (base, 2,900 cfs).--Apr. 22 (10 to 11:30 a.m.) 3,070 cfs (6.34 ft).

* Discharge measurement made on this day.

† Diversion, equivalent in cubic feet per second, for municipal supply of Berlin. Records furnished by city of Berlin.

Note.--Stage-discharge relation affected by ice Nov. 20, Nov. 25 to Apr. 4 (no gage-height record Jan. 24 to Feb. 3).

Connecticut River near Dalton, N. H.

Location.--Lat 44°24'35", long 71°43'00", on left bank 250 ft upstream from highway bridge, 1,200 ft downstream from dam of Gilman Paper Co., and 1¼ miles downstream from Dalton, Coos County.

Drainage area.--1,514 sq mi.

Records available.--March 1927 to September 1957. 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, datum of 1929. Prior to Sept. 30, 1935, chain gage at bridge 10½ miles downstream at mean sea level. Jan. 1, 1935, to June 29, 1937, chain gage at bridge 250 ft downstream at present datum.

Average discharge.--30 years, 2,881 cfs (adjusted to drainage area at present site and for storage).

Extremes.--Maximum discharge during year, 13,800 cfs Apr. 22 (gage height, 15.50 ft); minimum daily, 154 cfs Sept. 11.
1927-57: Maximum discharge, 48,300 cfs Mar. 20, 1936 (gage height, 25.6 ft); minimum daily, 115 cfs Oct. 3, 1937.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis (see p. 233), and other reservoirs. These reservoirs have a combined usable capacity of about 8 1/3 billion cubic feet.

Revisions (water years).--WSP 891: Drainage area. WSP 1231: 1935. WSP 1301: 1928-35(M).

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,240	1,520	1,700	a750	2,500	3,830	2,270	5,270	1,590	1,180	2,640	475
2	1,770	1,930	900	a700	2,400	3,620	2,430	4,300	1,270	1,860	2,150	275
3	2,030	2,230	1,150	a2,200	1,450	3,140	4,720	3,490	2,190	1,890	1,540	1,060
4	2,170	1,290	1,600	a1,600	1,600	2,620	4,340	3,020	*2,290	2,070	957	1,090
5	2,180	1,110	1,800	a1,900	1,700	2,360	3,370	2,710	1,900	3,270	1,010	1,250
6	1,840	1,420	1,750	a1,500	1,750	2,080	3,220	2,420	1,550	5,170	1,440	a770
7	1,400	1,330	1,990	a1,600	1,650	2,190	3,970	2,240	1,630	4,060	1,330	a850
8	3,370	1,370	2,870	1,650	1,750	2,180	3,900	2,020	2,190	2,910	1,310	a290
9	4,150	1,310	4,070	1,600	1,850	2,200	3,140	1,940	2,080	2,370	1,270	a175
10	3,180	1,380	3,130	1,600	1,550	2,020	2,710	1,760	1,500	1,960	1,240	166
11	2,630	1,210	2,630	1,550	1,650	2,120	2,520	2,040	1,500	1,920	1,090	154
12	2,240	991	2,430	1,650	1,700	2,210	2,510	2,730	1,330	1,730	2,120	492
13	1,400	1,600	2,520	1,400	1,700	2,040	3,370	2,680	1,050	1,510	1,900	269
14	796	2,080	2,480	a1,500	1,550	2,120	3,350	3,110	1,210	768	*1,450	312
15	1,080	1,920	2,190	a1,250	1,550	2,280	2,850	4,380	931	1,000	1,290	492
16	1,550	1,740	1,650	1,350	1,700	2,970	2,480	8,050	542	940	1,240	529
17	1,800	2,080	2,260	1,200	1,500	4,190	2,510	7,050	907	1,210	1,140	894
18	1,810	2,220	2,630	1,350	1,450	4,190	3,080	5,010	847	1,330	836	612
19	1,670	2,050	2,560	1,400	1,600	3,590	3,910	3,770	1,360	968	784	626
20	1,640	1,820	2,290	1,350	1,600	*3,480	5,840	3,550	1,770	836	998	752
21	1,150	1,850	2,100	1,400	1,600	3,330	9,740	6,260	1,330	429	958	274
22	1,450	4,500	2,070	1,450	1,550	3,440	12,800	6,410	1,040	1,630	990	336
23	1,630	8,290	1,810	2,700	1,550	3,610	13,100	4,890	782	6,050	974	1,900
24	1,620	5,460	1,520	6,800	1,400	3,200	10,900	3,930	1,050	4,820	908	2,430
25	1,590	3,370	1,410	6,920	1,450	2,720	9,130	3,450	1,270	3,230	699	2,250
26	1,590	2,400	1,510	5,370	1,600	2,490	7,750	2,980	1,340	2,570	850	1,450
27	1,570	*2,680	1,570	4,100	2,390	2,330	6,900	2,710	2,070	2,020	998	1,090
28	1,180	3,070	1,280	3,300	3,530	2,370	6,410	2,380	2,200	959	911	958
29	*1,190	2,880	1,510	3,000	-	2,420	5,790	2,360	2,270	1,200	940	329
30	1,490	2,590	1,550	2,800	--------	2,420	*5,270	2,240	1,390	2,310	828	641
31	1,510	--------	a800	2,600	--------	2,280	--------	1,930	--------	3,260	859	--------
Total	55,916	69,691	61,730	69,540	49,270	86,040	154,280	111,080	44,379	67,430	37,650	23,191
Mean	1,804	2,323	1,991	2,243	1,760	2,775	5,143	3,583	1,479	2,175	1,215	773
(†)	-416	-269	-100	-516	-544	-359	+1,003	+509	+187	+442	-292	+55.2
Adjusted for change in reservoir contents												
Mean	1,388	2,054	1,891	1,727	1,216	2,417	6,145	4,093	1,666	2,617	922	828
Cfsm	0.917	1.36	1.25	1.14	0.803	1.60	4.06	2.70	1.10	1.73	0.609	0.547
In.	1.06	1.51	1.44	1.31	0.84	1.84	4.53	3.12	1.23	1.99	0.70	0.61

	Observed			Adjusted		
Calendar year 1956:	Max 17,900	Min 570	Mean 2,667	Mean 2,691	Cfsm 1.78	In. 24.18
Water year 1956-57:	Max 13,100	Min 154	Mean 2,275	Mean 2,251	Cfsm 1.49	In. 20.18

Peak discharge (base, 16,500 cfs).--No peak above base.

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in First Connecticut and Second Connecticut Lake and Lake Francis.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage when available, powerplant records, and observer's twice-daily chain-gage readings.
Note.--Stage-discharge relation affected by ice Dec. 2-6, Dec. 31 to Jan. 23, Jan. 27 to Feb. 26.

East Branch Passumpsic River near East Haven, Vt.

Location.--Lat 44°38'02", long 71°53'53", on right bank in Burke, Caledonia County, 2.1 miles south of East Haven, Essex County.

Drainage area.--53.8 sq mi.

Records available.--July 1939 to October 1945, October 1948 to September 1957. 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, datum of 1929 (levels by Corps of Engineers).

Average discharge.--15 years, 100 cfs.

Extremes.--Maximum discharge during year, 764 cfs Apr. 21 (gage height, 3.96 ft); maximum gage height, 5.95 ft Jan. 23 (ice jam); minimum discharge, 20 cfs Sept. 2.
1939-45, 1948-57: Maximum discharge, 2,180 cfs May 28, 1940 (gage height, 6.21 ft); minimum, 13 cfs Sept. 1-5, 1953.
Maximum stage known, about 12.6 ft sometime in November 1927, from information by local resident.

Remarks.--Records good except those for periods of ice effect, which are fair.

Revisions.--WSP 1141: Drainage area.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 22		Jan. 23 to Sept. 30			
1.0	32	0.8	18	2.0	163
1.5	83	1.0	30	3.0	415
2.0	163	1.2	47	4.0	780
3.0	415	1.5	80		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	74	60	50	64	130	88	*165	81	84	52	21
2	68	73	*62	45	61	90	204	141	130	71	43	21
3	72	60	58	42	58	70	179	130	119	60	46	50
4	60	53	62	45	56	64	122	123	94	161	42	38
5	53	49	58	42	55	58	115	117	*86	288	36	32
6	47	47	57	40	53	56	190	111	77	162	33	30
7	262	46	110	40	52	52	175	104	169	102	30	27
8	192	45	130	40	50	50	129	100	117	87	28	25
9	119	44	88	40	49	51	115	96	93	75	27	24
10	94	43	84	40	50	54	109	127	80	71	152	22
11	81	44	90	38	48	52	109	155	71	67	108	*22
12	72	50	80	40	46	50	120	119	71	60	72	24
13	69	90	74	38	44	50	130	144	67	52	*53	24
14	66	68	72	*37	43	52	109	169	62	47	44	24
15	62	63	70	36	44	60	100	374	58	45	39	22
16	59	75	73	35	43	110	108	273	54	46	36	36
17	57	85	75	34	42	100	139	175	49	44	33	55
18	53	71	64	33	*42	78	165	141	45	38	30	34
19	49	63	62	32	42	*68	269	123	62	35	28	28
20	48	60	60	32	42	70	404	302	74	32	27	30
21	48	110	58	32	40	70	660	299	54	31	25	36
22	48	327	57	50	40	84	460	190	46	154	24	38
23	47	155	56	300	39	98	376	157	42	111	22	176
24	46	100	56	170	39	94	342	145	49	71	21	83
25	44	95	56	120	38	79	290	122	50	53	21	53
26	*43	95	50	100	48	80	262	115	143	44	25	42
27	44	84	45	90	250	91	242	122	86	39	27	36
28	46	75	53	80	200	94	218	111	123	41	24	34
29	44	70	50	75	-	97	185	102	86	75	22	31
30	44	65	42	70	--------	94	201	93	70	103	22	30
31	44	--------	40	67	--------	88	--------	87	--------	65	22	--------
Total	2,159	2,379	2,052	1,933	1,678	2,334	6,315	4,732	2,408	2,414	1,214	1,148
Mean	69.6	79.3	66.2	62.4	59.9	75.3	210	153	80.3	77.9	39.2	38.3
Cfsm	1.29	1.47	1.23	1.16	1.11	1.40	3.90	2.84	1.49	1.45	0.729	0.712
In.	1.49	1.64	1.42	1.34	1.16	1.61	4.37	3.27	1.66	1.67	0.84	0.79

Calendar year 1956:	Max	729	Min	20	Mean	94.7	Cfsm	1.76	In.	23.96
Water year 1956-57:	Max	660	Min	21	Mean	84.3	Cfsm	1.57	In.	21.26

Peak discharge (base, 800 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 20, 21, Nov. 24 to Mar. 19 (no gage-height record Jan. 6-14, Feb. 5-18; discharge estimated on basis of 2 discharge measurements, weather records, and records for Ammonoosuc River at Bethlehem Junction, N. H., Black River at Coventry, Vt., and other stations on nearby streams).

Moose River at Victory, Vt.

Location.--Lat 44°30'40", long 71°50'15", on right bank at Victory, Essex County, 2.7 miles upstream from highway bridge.

Drainage area.--75.2 sq mi.

Records available.--January 1947 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 1,103.99 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--10 years, 139 cfs.

Extremes.--Maximum discharge during year, 1,370 cfs Apr. 22 (gage height, 8.32 ft); minimum daily, 7.4 cfs Sept. 11.
1947-57: Maximum discharge, 2,940 cfs Apr. 21, 1950 (gage height, 10.89 ft), from rating curve extended above 1,600 cfs by logarithmic plotting; minimum, 3.7 cfs Sept. 16, 17, 1948.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Revisions.--WSP 1381: Drainage area.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.5	5.5	4.5	150
2.7	10	5.0	225
3.0	20	6.0	443
3.5	50	7.0	765
4.0	92	8.0	1,210

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	86	78	51	70	270	160	197	72	75	77	8.1
2	82	137	*85	50	65	200	254	162	120	70	63	10
3	92	93	70	49	60	150	456	142	196	60	50	15
4	79	73	73	48	56	130	313	132	*112	130	41	19
5	71	62	62	48	54	115	206	121	85	190	33	15
6	61	56	68	46	52	100	277	108	75	350	31	13
7	179	52	110	46	50	90	391	96	120	175	23	11
8	412	49	260	46	48	86	250	90	175	110	25	10
9	228	47	180	46	47	86	198	87	120	93	23	9.0
10	144	46	130	46	46	102	170	96	85	86	23	*8.3
11	112	40	105	45	45	90	174	200	65	80	50	7.4
12	93	46	110	44	42	82	182	142	58	70	45	8.6
13	83	127	110	43	41	78	252	136	54	58	34	9.0
14	77	109	90	42	40	83	198	283	52	48	23	8.8
15	71	86	85	41	39	100	159	440	47	46	25	8.8
16	66	111	90	41	39	186	162	594	42	43	21	8.8
17	61	129	100	42	*39	270	216	316	36	41	19	21
18	57	101	90	43	38	244	263	205	32	37	17	19
19	52	78	80	41	37	167	379	163	30	32	16	13
20	49	70	75	40	36	*135	597	250	42	28	14	12
21	48	100	70	40	35	119	995	569	35	25	12	18
22	47	714	66	45	34	135	1,120	409	29	300	11	20
23	46	694	62	200	34	174	688	248	23	550	9.4	132
24	46	297	58	500	35	186	563	206	50	250	8.5	108
25	44	177	62	300	37	158	462	162	60	110	8.0	47
26	*40	153	58	200	39	144	358	136	160	75	8.0	31
27	40	145	50	150	200	169	328	137	140	58	9.2	23
28	42	127	58	120	450	174	292	121	115	52	10	19
29	42	111	54	105	-	184	235	109	105	75	9.8	18
30	40	100	48	90	--------	182	*242	91	90	120	9.3	16
31	39	--------	52	78	--------	160	--------	83	--------	95	8.6	--------
Total	2,614	4,216	2,689	2,726	1,808	4,549	10,540	6,231	2,425	3,532	762.8	666.8
Mean	84.3	141	86.7	87.9	64.6	147	351	201	80.8	114	24.6	22.2
Cfsm	1.12	1.88	1.15	1.17	0.859	1.95	4.67	2.67	1.07	1.52	0.327	0.295
In.	1.29	2.09	1.33	1.35	0.89	2.25	5.21	3.08	1.20	1.75	0.38	0.33

Calendar year 1956: Max 1,530 Min 8.6 Mean 143 Cfsm 1.90 In. 25.93
Water year 1956-57: Max 1,120 Min 7.4 Mean 117 Cfsm 1.56 In. 21.15

Peak discharge (base, 1,000 cfs).--Nov. 22 (7:30 to 8:30 p.m.) 1,040 cfs (7.64 ft); Apr. 22 (2 to 3 a.m.) 1,370 cfs (8.32 ft).

* Discharge measurement made on this day.
Note.--No gage-height record June 5 to Aug. 27, Sept. 2-10; discharge estimated on basis of 1 discharge measurement, weather records, and records for Moose River at St. Johnsbury, Vt., Upper Ammonoosuc River near Groveton, N. H., and stations on other nearby streams. Stage-discharge relation affected by ice Nov. 24, 25, Nov. 29 to Dec. 1, Dec. 3 to Mar. 7, Mar. 17.

Moose River at St. Johnsbury, Vt.

Location.--Lat 44°25'20", long 72°00'05", on left bank at St. Johnsbury, Caledonia County, half a mile upstream from mouth.

Drainage area.--128 sq mi.

Records available.--August 1928 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 585 ft (from topographic map). Prior to Nov. 16, 1934, chain gage at site a quarter of a mile upstream at different datum.

Average discharge.--29 years, 221 cfs.

Extremes.--Maximum discharge during year, 1,690 cfs Apr. 22 (gage height, 3.84 ft); maximum gage height not determined; minimum discharge, 11 cfs sometime during period of no gage-height record Aug. 24 to Sept. 11.
1928-57: 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 fair.

Revisions (water years).--WSP 1231: 1929-30, 1931-34(M). WSP 1381: Drainage area.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 10, Nov. 2, June 3, 4, 7-9, 26-29, July 4, 8, 9, 25, 30, Sept. 24)

Oct. 1 to Jan. 22

2.1	54	3.5	440
2.5	94	3.6	570
2.9	165	3.7	790
3.2	255	3.8	1,450
3.4	360		

Jan. 23 to Sept. 30

1.4	10	2.0	45
1.7	25	2.5	94

Note.--Same as preceding table above 2.5 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88	86	*130	75	74	350	227	*306	113	111	97	12
2	113	165	125	73	71	200	358	252	125	102	77	12
3	120	129	120	72	69	150	528	214	232	88	63	20
4	115	104	115	70	67	130	452	196	168	191	61	26
5	100	92	110	68	66	120	368	182	*129	286	54	22
6	88	83	110	68	64	110	442	165	111	476	46	19
7	205	78	160	68	63	105	570	148	173	260	42	16
8	500	74	330	67	61	100	493	136	220	159	37	14
9	293	71	250	67	60	105	360	127	154	140	35	13
10	175	68	200	66	60	110	300	127	118	123	39	12
11	142	61	155	65	59	100	286	207	97	120	66	*12
12	125	70	160	64	58	94	282	208	87	105	70	12
13	113	133	155	63	58	100	330	190	84	86	50	13
14	105	147	140	61	57	105	342	370	77	71	41	13
15	100	118	125	60	56	140	306	550	71	68	35	12
16	94	123	130	61	55	350	273	700	63	64	*31	14
17	87	144	150	61	55	400	273	460	54	62	28	22
18	82	133	130	62	*54	336	324	300	47	56	26	33
19	76	110	120	60	54	278	424	250	45	48	23	26
20	72	94	110	58	54	*214	619	330	55	42	21	24
21	70	138	100	58	54	202	1,030	700	56	37	18	31
22	69	766	95	65	53	244	1,450	600	43	399	16	40
23	68	1,110	92	*600	53	291	1,030	350	37	742	14	126
24	67	600	86	350	52	300	886	300	76	347	13	151
25	64	300	90	240	52	264	670	240	90	150	12	93
26	62	210	84	180	70	241	528	200	225	111	12	58
27	60	180	75	120	300	255	440	190	204	87	13	45
28	*60	160	82	105	500	255	400	170	172	78	15	40
29	61	150	80	90	-	260	342	155	159	98	15	33
30	59	140	73	80	-------	264	324	135	136	163	14	33
31	58	-------	64	77	-------	234	-------	125	-------	132	13	-------
Total	3,491	5,837	3,946	3,274	2,349	6,407	14,657	8,583	3,421	5,008	1,097	997
Mean	113	195	127	106	83.9	207	489	277	114	162	35.4	33.2
Cfsm	0.883	1.52	0.992	0.828	0.655	1.62	3.82	2.16	0.891	1.27	0.277	0.259
In.	1.01	1.70	1.15	0.95	0.68	1.86	4.26	2.49	0.99	1.46	0.32	0.29

Calendar year 1956: Max 2,530 Min 15 Mean 225 Cfsm 1.76 In. 23.93
Water year 1956-57: Max 1,450 Min 12 Mean 162 Cfsm 1.27 In. 17.16

Peak discharge (base, 1,700 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--No gage-height record Jan. 6-15, Feb. 7-17, Feb. 28 to Mar. 8, May 13-31, Aug. 24 to Sept. 11; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage when available, and records for Moose River at Victory, Vt., Ammonoosuc River at Bethlehem Junction, N. H., Upper Ammonoosuc River near Groveton, N. H., and stations on other nearby streams. Stage-discharge relation affected by ice Nov. 27 to Mar. 16.

Passumpsic River at Passumpsic, Vt.

Location.--Lat 44°21'55", long 72°02'20", on right bank 0.7 mile upstream from Andrick Brook (revised) and 1 mile downstream from dam and village of Passumpsic, Caledonia County.

Drainage area.--436 sq mi.

Records available.--October 1928 to September 1957. October 1928 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Altitude of gage is 490 ft (from topographic map).

Average discharge.--29 years, 727 cfs.

Extremes.--Maximum discharge during year, 4,460 cfs Apr. 22 (gage height, 8.41 ft); minimum daily, 79 cfs Aug. 31.

1928-57: Maximum discharge, 16,000 cfs Mar. 18, 1936 (gage height, 21.23 ft), from rating curve extended above 9,200 cfs on basis of computation of peak flow over dam; minimum daily, 13 cfs Sept. 12, 1948.

Maximum stage known, about 31.5 ft in November 1927, from information by local resident.

Remarks.--Records excellent except those below 150 cfs, which are good, and those for periods of ice effect or no gage-height record, which are fair. Flow regulated by powerplants above station.

Revisions (water years).--WSP 781: 1933(M). WSP 871: Drainage area. WSP 1231: 1929, 1930-31(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 21				Apr. 22 to Sept. 30			
2.2	186	5.0	1,880	1.5	69	3.0	535
2.5	291	8.0	4,130	1.9	132	5.0	1,880
3.0	535			2.2	193	8.0	4,130
				2.5	292		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	305	375	380	300	440	1,400	741	1,040	450	405	430	118
2	386	584	*430	280	420	1,050	1,430	872	553	407	350	88
3	411	433	450	270	400	850	1,690	765	*900	325	290	167
4	385	330	370	260	405	650	1,130	735	590	946	270	187
5	328	312	360	255	370	590	984	687	491	1,400	220	173
6	288	291	350	250	355	530	1,620	628	420	1,520	190	134
7	1,170	273	560	245	360	500	1,780	590	830	747	160	119
8	1,540	270	1,050	240	345	470	1,190	535	810	657	140	99
9	893	255	750	235	335	500	1,000	513	552	518	130	*144
10	612	248	600	230	325	520	879	513	450	470	150	109
11	502	220	550	230	325	490	886	970	375	425	500	100
12	440	260	500	220	315	460	942	723	348	385	400	95
13	390	545	480	220	300	480	1,220	755	339	305	320	125
14	385	502	460	*230	300	500	991	1,200	305	266	270	86
15	346	372	440	210	290	660	810	2,080	292	317	230	103
16	334	420	450	205	280	1,500	824	2,090	288	276	197	131
17	323	460	460	200	280	1,400	1,080	1,280	248	253	166	192
18	302	430	430	200	275	1,000	1,320	935	193	223	155	178
19	272	333	400	195	*270	780	1,680	759	213	234	178	136
20	270	291	370	190	265	720	2,420	1,450	336	146	170	154
21	260	562	360	190	260	*680	3,750	2,450	271	157	136	137
22	262	2,570	355	230	260	860	3,870	1,520	182	1,710	116	177
23	268	1,730	350	2,000	260	940	2,570	1,100	186	1,960	120	749
24	265	840	345	1,800	260	940	2,190	942	365	871	92	662
25	250	600	340	1,100	260	844	1,840	765	311	510	87	326
26	243	590	320	800	310	778	1,570	669	1,030	386	132	234
27	232	610	280	650	1,700	840	1,450	681	750	270	130	194
28	*242	550	320	570	1,800	850	1,310	634	784	290	143	169
29	246	470	320	510	-	844	1,130	584	612	357	131	153
30	240	430	270	470	-------	844	*1,220	513	472	783	114	158
31	214	-------	250	440	-------	735	-------	486	-------	550	79	-------
Total	12,604	16,156	13,350	13,425	11,765	24,205	45,517	29,464	13,946	18,069	6,196	5,596
Mean	407	539	431	433	420	781	1,517	950	465	583	200	187
Cfsm	0.933	1.24	0.989	0.993	0.963	1.79	3.48	2.18	1.07	1.34	0.459	0.429
In.	1.08	1.38	1.14	1.15	1.00	2.06	3.88	2.51	1.19	1.54	0.53	0.48

Calendar year 1956: Max 5,900 Min 98 Mean 684 Cfsm 1.57 In. 21.33
Water year 1956-57: Max 3,870 Min 79 Mean 576 Cfsm 1.32 In. 17.91

Peak discharge (base, 5,000 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--No gage-height record July 31 to Aug. 15; discharge estimated on basis of weather records, recorded range in stage, and records for East Branch Passumpsic River near East Haven, Moose River at St. Johnsbury, and Moose River at Victory. Stage-discharge relation affected by ice Nov. 24 to Mar. 24, Mar. 27.

Ammonoosuc River at Bethlehem Junction, N. H.

Location.--Lat 44°16'10", long 71°37'50", on left bank 0.25 mile upstream from Pierce Bridge and Bethlehem Junction, 0.8 mile upstream from unnamed tributary entering from left, 3 miles east of Bethlehem, Grafton County, and 3.4 miles downstream from Little River.

Drainage area.--87.6 sq mi.

Records available.--August 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 1,180.74 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--18 years, 209 cfs.

Extremes.--Maximum discharge during year, 2,280 cfs Apr. 21 (gage height, 6.17 ft); maximum gage height, 6.23 ft Jan. 23 (ice jam); minimum discharge, 26 cfs Sept. 15, 16.
1939-57: Maximum discharge, 10,500 cfs Mar. 27, 1953 (gage height, 11.22 ft), from rating curve extended above 4,100 cfs by logarithmic plotting; minimum, 16 cfs Nov. 14, 1952 (caused by anchor ice upstream).

Remarks.--Records excellent except those for periods of ice effect, which are fair.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23				Jan. 24 to Sept. 30			
1.3	53	2.5	250	0.99	26	2.5	255
1.5	73	3.0	395	1.0	27	3.0	395
2.0	140			1.2	42	4.0	740
				1.5	75	5.0	1,310
				2.0	150	6.0	2,110

Note.--Same as following table above 3.0 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	101	91	86	82	183	95	365	155	117	98	30
2	110	166	96	80	80	143	298	281	176	120	85	30
3	114	112	82	75	78	112	274	238	*213	104	75	38
4	104	97	99	77	78	95	155	213	163	417	70	40
5	99	89	82	74	76	86	135	202	145	380	68	32
6	90	84	125	72	75	94	190	183	128	322	64	30
7	253	81	250	72	74	92	224	172	197	183	60	30
8	262	78	326	*72	71	83	152	179	174	142	56	30
9	164	77	195	69	68	89	135	195	136	153	53	*29
10	132	74	147	70	70	111	122	206	117	206	55	28
11	118	68	129	67	66	88	125	253	106	176	65	28
12	108	76	177	69	*64	83	150	195	102	154	*56	29
13	104	118	164	66	62	84	216	335	104	123	51	28
14	100	92	126	64	60	92	143	450	94	105	48	28
15	95	88	130	63	60	111	122	602	88	105	46	26
16	91	108	151	63	59	226	123	790	80	102	45	28
17	88	118	158	64	59	198	157	374	73	102	43	41
18	84	104	126	64	58	*135	178	286	69	87	40	34
19	81	85	84	63	57	116	276	238	74	78	39	30
20	77	82	121	62	*56	112	565	414	104	70	38	30
21	76	125	110	62	56	106	1,680	540	76	67	37	32
22	75	868	101	*74	54	117	814	374	65	312	36	33
23	77	318	95	1,150	55	130	647	297	60	302	34	371
24	147	171	97	446	55	120	697	271	79	163	33	122
25	*104	134	101	231	55	105	544	226	71	183	32	68
26	90	154	80	178	100	101	479	202	129	135	33	54
27	84	*151	65	135	570	105	590	238	106	108	38	47
28	81	127	92	123	311	101	548	231	130	102	36	44
29	78	118	86	117	-	106	*431	231	153	128	33	41
30	75	108	62	100	-------	106	601	187	147	143	32	40
31	73	-------	60	85	-------	94	-------	170	-------	110	32	-------
Total	3,344	4,172	3,808	4,093	2,609	3,524	10,866	9,138	3,514	4,999	1,531	1,471
Mean	108	139	123	132	93.2	114	362	295	117	161	49.4	49.0
Cfsm	1.23	1.59	1.40	1.51	1.06	1.30	4.13	3.37	1.34	1.84	0.564	0.559
In.	1.42	1.77	1.62	1.74	1.11	1.50	4.61	3.88	1.49	2.12	0.65	0.62

Calendar year 1956: Max 2,170 Min 38 Mean 202 Cfsm 2.31 In. 31.46
Water year 1956-57: Max 1,680 Min 26 Mean 145 Cfsm 1.66 In. 22.53

Peak discharge (base, 2,700 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 5-7, Dec. 27 to Jan. 15, Jan. 17-20, 23, Jan. 30 to Feb. 19, Feb. 26, 27.

Ammonoosuc River near Bath, N. H.

Location.--Lat 44°09'15", long 71°59'10", on left bank 0.4 mile downstream from Wild Ammonoosuc River and 1½ miles downstream from Bath, Grafton County.

Drainage area.--395 sq mi.

Records available.--September 1935 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 454.14 ft above mean sea level, datum of 1929 (levels by Connecticut River Power Co.).

Average discharge.--22 years, 672 cfs.

Extremes.--Maximum discharge during year, 5,810 cfs Jan. 23 (gage height, 7.73 ft); maximum gage height, 9.34 ft Jan. 23 (ice jam); minimum daily discharge, 35 cfs Sept. 15. 1935-57: Maximum discharge, 27,900 cfs Mar. 18, 1936 (gage height, 15.40 ft), from rating curve extended above 13,000 cfs; minimum daily, that of Sept. 15, 1957.

Remarks.--Records good except those for periods of ice effect and doubtful or no gage-height record, which are fair. Diurnal fluctuation at low flow caused by small power-plants above station.

Revisions.--WSP 871: Drainage area.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 26				Feb. 27 to Sept. 30			
1.8	169	4.0	1,060	1.0	31	3.0	545
2.0	212	5.0	1,900	1.3	60	4.0	1,080
2.5	340	5.5	2,440	1.5	87	5.0	1,900
3.0	525			2.0	187	6.0	3,100
				2.5	335	6.5	3,800

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	334	240	270	260	295	960	432	1,000	428	455	328	58
2	337	445	280	280	285	640	868	780	455	402	*264	53
3	329	377	*270	240	280	500	1,200	665	670	328	203	76
4	315	312	280	250	280	360	700	600	500	933	205	70
5	298	285	290	240	260	310	615	558	446	1,340	174	60
6	280	264	285	235	255	310	868	514	370	1,290	162	65
7	462	252	500	230	250	310	1,100	*504	496	715	170	73
8	800	247	950	230	255	300	785	432	586	500	144	63
9	525	237	650	225	260	310	680	486	428	410	151	87
10	409	237	460	225	240	370	595	509	332	595	140	76
11	355	212	400	220	240	350	630	630	*289	550	153	83
12	326	217	520	220	225	315	655	581	270	455	256	61
13	312	290	560	215	220	300	1,090	564	267	346	a170	52
14	301	334	480	210	210	382	780	1,220	250	335	a130	49
15	296	282	430	205	220	586	600	1,140	213	390	a105	35
16	285	282	480	205	220	1,280	576	1,990	208	328	a90	41
17	272	312	520	205	210	1,230	640	1,120	182	276	a93	*97
18	249	312	450	205	210	805	740	830	158	264	a85	52
19	245	282	300	205	*220	605	900	700	149	224	a85	80
20	233	242	380	205	215	605	1,370	1,050	190	174	a92	64
21	224	311	370	200	200	576	3,180	2,220	205	190	a78	61
22	233	2,040	340	200	210	695	2,390	1,380	155	238	a76	79
23	233	1,380	310	2,400	190	775	1,530	1,020	142	727	a70	1,270
24	257	720	310	*2,000	190	700	1,610	858	192	468	52	728
25	298	450	340	840	180	581	1,460	735	208	398	60	322
26	254	470	340	640	250	*540	1,160	625	420	299	63	227
27	*230	480	250	480	2,000	545	1,350	690	482	264	73	153
28	221	410	300	440	1,740	522	1,320	665	990	216	65	138
29	235	370	270	400	-	522	1,140	635	630	289	61	127
30	212	350	230	360	-------	514	1,200	536	572	518	72	112
31	208	-------	200	310	-------	442	-------	478	-------	386	60	-------
Total	9,568	12,642	12,015	12,780	9,810	17,240	32,164	25,715	10,883	14,303	3,930	4,512
Mean	309	421	388	412	350	556	1,072	830	363	461	127	150
Cfsm	0.782	1.07	0.982	1.04	0.886	1.41	2.71	2.10	0.919	1.17	0.322	0.380
In.	0.90	1.19	1.13	1.20	0.92	1.62	3.03	2.42	1.02	1.35	0.37	0.42

Calendar year 1956: Max 5,900 Min 110 Mean 639 Cfsm 1.62 In. 22.00
Water year 1956-57: Max 3,180 Min 35 Mean 454 Cfsm 1.15 In. 15.57

Peak discharge (base, 6,500 cfs).--No peak above base.

* Discharge measurement made on this day.
a Doubtful or no gage-height record; discharge estimated on basis of recorder graph, weather records, and records for station at Bethlehem Junction.
Note.--Stage-discharge relation affected by ice Nov. 24 to Feb. 27, Mar. 2-9, 11-13 (no gage-height record Jan. 3-15; discharge estimated on basis of weather records, recorded range in stage, and records for station at Bethlehem Junction).

Connecticut River at Wells River, Vt.

Location.--Lat 44°09'15", long 72°02'35", on right bank 200 ft downstream from bridge on U. S. Highway 302, at Wells River, Orange County, 400 ft upstream from Wells River, and 1,200 ft downstream from Ammonoosuc River.

Drainage area.--2,644 sq mi.

Records available.--October 1949 to September 1957. 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, datum of 1929.

Average discharge.--8 years, 4,831 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 19,600 cfs Apr. 22 (gage height, 7.95 ft); minimum daily, 345 cfs Aug. 25.
1949-57: Maximum discharge, 54,000 cfs Mar. 27, 1953 (gage height, 15.96 ft); minimum daily, 337 cfs Aug. 7, 1955.

Remarks.--Records good. Flow regulated by powerplants, by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore Reservoir and Comerford Station Pond (see p. 233), and other reservoirs (combined usable capacity, about 14¾ billion cubic feet).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation indefinite Oct. 8, 9. Shifting-control method used Oct. 10, 11)

1.0	340	4.0	4,730
1.4	600	5.0	7,250
2.0	1,240	7.0	15,300
3.0	2,660	7.5	17,600

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,000	2,330	2,820	2,300	4,180	5,920	4,430	6,860	2,160	2,140	3,980	375
2	2,560	2,490	1,840	g3,600	2,160	5,330	6,140	6,580	1,280	2,590	2,300	370
3	2,930	2,490	*3,030	g3,700	1,650	3,920	7,850	4,860	4,630	2,510	1,740	753
4	4,000	1,960	2,970	g3,100	3,390	6,000	7,730	2,330	4,570	3,270	945	1,540
5	2,970	1,770	3,660	g2,090	4,590	5,920	7,280	1,460	3,680	6,820	1,220	1,850
6	2,330	2,800	3,720	g1,610	4,140	7,100	5,900	5,470	2,460	8,060	2,180	1,420
7	2,590	2,380	4,160	g1,830	3,750	6,890	7,160	*4,660	3,810	6,600	1,990	714
8	6,000	2,240	3,580	g2,590	3,560	6,280	7,370	3,940	3,310	4,840	1,680	365
9	6,800	2,150	4,420	g2,490	2,360	3,360	7,670	3,790	1,750	4,410	2,090	575
10	5,310	2,150	5,640	g2,430	2,160	1,650	7,520	3,490	3,270	3,310	1,700	1,360
11	4,450	1,080	4,520	g2,350	3,040	4,180	7,580	2,610	*3,210	2,950	919	1,520
12	2,920	998	5,210	g1,700	4,100	5,780	6,220	1,440	4,450	3,310	1,940	1,350
13	2,160	2,140	5,340	g1,460	3,850	5,190	5,240	4,150	2,240	1,950	2,540	1,290
14	1,810	2,880	4,580	g2,000	3,350	5,210	3,350	5,050	1,860	1,260	1,930	699
15	2,520	2,840	2,910	g3,200	3,350	6,200	6,890	6,350	1,530	2,050	1,820	396
16	3,470	2,380	2,730	4,200	2,840	5,560	7,280	10,600	805	2,360	2,030	577
17	3,810	2,350	4,520	2,500	1,220	4,590	7,640	8,500	871	2,120	1,760	*1,410
18	3,620	2,000	4,380	2,100	3,150	6,360	7,760	5,350	1,370	1,760	821	1,480
19	2,280	2,180	4,750	1,400	*3,720	7,100	7,940	2,200	1,400	1,740	934	1,260
20	2,200	3,430	4,380	636	3,770	7,550	8,500	7,910	1,420	1,570	1,650	1,360
21	1,060	3,490	3,720	1,500	3,750	7,430	10,700	13,800	1,370	800	1,660	810
22	1,930	9,490	2,350	2,300	3,410	7,250	17,300	11,000	1,290	3,680	1,740	457
23	3,190	12,800	2,360	6,800	2,060	4,990	16,400	8,480	758	8,090	1,700	3,160
24	3,210	10,600	2,140	7,880	1,560	4,380	13,500	6,650	1,210	6,380	869	3,850
25	2,970	2,720	1,720	7,340	2,580	6,770	12,000	5,280	2,180	4,750	345	3,640
26	2,270	3,640	3,080	7,760	3,640	*7,370	10,600	2,860	3,880	3,410	591	2,630
27	*2,200	4,800	3,120	5,870	7,270	6,740	6,200	5,440	4,710	1,850	1,190	1,710
28	1,060	4,640	3,120	5,780	7,050	6,800	5,850	5,160	5,400	1,010	1,520	1,680
29	1,500	4,550	1,590	5,210	-	6,420	7,240	5,080	3,210	1,940	1,040	1,070
30	2,200	4,290	1,340	4,820	-------	5,350	7,940	2,030	1,460	4,090	1,200	838
31	2,270	-------	2,100	4,380	-------	2,190	-------	4,320	-------	5,300	627	-------
Total	90,590	106,058	105,800	106,926	95,650	175,780	245,180	167,700	75,544	106,920	48,651	40,509
Mean	2,922	3,535	3,413	3,449	3,416	5,670	8,173	5,410	2,518	3,449	1,569	1,350
(†)	-620	-131	-149	-493	-1,161	-1,225	+1,869	+1,120	+252	+367	-317	-134

Adjusted for change in reservoir contents

Mean	2,302	3,404	3,264	2,956	2,255	4.446	10,040	6,530	2,771	3,816	1,252	1,216
Cfsm	0.871	1.29	1.23	1.12	0.853	1.68	3.80	2.47	1.05	1.44	0.474	0.460
In.	1.00	1.44	1.42	1.29	0.89	1.94	4.24	2.85	1.17	1.66	0.55	0.51

	Observed			Adjusted		
Calendar year 1956:	Max 22,700	Min 385	Mean 4,351	Mean 4,566	Cfsm 1.73	In. 23.50
Water year 1956-57:	Max 17,300	Min 345	Mean 3,741	Mean 3,692	Cfsm 1.40	In. 18.96

Peak discharge (base, 23,000 cfs).--No peak above base.

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in First Connecticut and Second Connecticut Lakes, Lake Francis, and Moore Reservoir and Comerford Station Pond.
g Computed from twice-daily Telemark readings.
Note.--Stage-discharge relation affected by ice Dec. 31 to Jan. 4, Jan. 12, 14-19, 21-23, Feb. 12, 13.

Wells River at Wells River, Vt.

Location.--Lat 44°09'05", long 72°04'00", on right bank 800 ft upstream from railroad bridge, 0.8 mile west of village of Wells River, Orange County, and 1.5 miles upstream from mouth.

Drainage area.--98.4 sq mi.

Records available.--August 1940 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 505.53 ft above mean sea level, datum of 1929 (levels by Connecticut River Power Co.).

Average discharge.--17 years, 140 cfs.

Extremes.--Maximum discharge during year, 570 cfs Nov. 22 (gage height, 3.61 ft); maximum gage height, 4.72 ft Jan. 31 (affected by ice); minimum discharge, 13 cfs Sept. 16, 17; minimum daily, 13 cfs Sept. 16.

1940-57: Maximum discharge, 3,230 cfs June 2, 1952 (gage height, 8.12 ft), from rating curve extended above 1,300 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 period of ice effect, which are fair. Some diurnal fluctuation at low flow caused by small powerplant 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.

Rating tables, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 31				Feb. 1 to Sept. 30			
1.6	31	2.5	168	1.3	11	2.0	77
1.7	39	3.0	311	1.4	15	2.5	175
1.9	59	3.5	517	1.6	30	3.0	311
2.2	102			1.8	50	3.5	517

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	56	42	55	77	160	135	166	79	104	37	14
2	49	67	51	52	74	130	231	142	91	80	34	16
3	61	54	*49	55	74	115	264	127	105	63	30	38
4	57	50	51	58	75	100	194	121	83	115	27	49
5	55	47	47	53	68	90	170	111	74	174	25	47
6	50	43	54	49	64	94	229	106	67	163	25	46
7	156	42	95	55	67	90	264	*100	118	100	25	41
8	168	41	180	53	70	87	212	93	102	79	22	39
9	100	40	120	50	60	92	189	88	80	67	22	32
10	82	42	105	47	68	84	170	87	67	64	23	22
11	72	37	92	43	58	78	166	102	*59	57	39	19
12	66	44	100	44	52	80	166	93	58	53	49	18
13	61	65	100	42	58	85	220	109	56	44	36	17
14	60	58	86	40	62	120	187	142	49	41	29	15
15	57	51	84	40	52	170	161	164	50	58	26	14
16	54	49	90	40	50	270	152	207	46	50	25	13
17	52	49	100	38	54	220	187	148	40	39	23	*15
18	51	48	80	36	54	170	220	125	38	38	21	17
19	48	44	64	33	51	135	252	107	38	34	21	16
20	49	46	80	31	*50	125	299	262	42	30	20	15
21	48	65	75	35	46	129	378	398	34	31	19	21
22	46	394	70	45	43	161	332	241	30	40	18	22
23	46	194	68	340	47	185	264	189	31	73	17	117
24	46	110	70	*210	45	177	230	164	54	47	16	63
25	43	83	78	160	50	148	202	131	55	43	16	35
26	42	87	68	135	85	*142	185	113	185	38	16	25
27	*43	87	51	120	300	144	175	125	111	33	21	21
28	44	75	70	105	210	142	166	115	254	45	19	20
29	43	70	65	95	-	146	157	102	182	46	17	18
30	42	60	53	85	--------	146	194	90	139	56	16	16
31	41	--------	50	80	--------	137	--------	83	--------	40	16	--------
Total	1,880	2,198	2,388	2,324	2,064	4,152	6,351	4,351	2,417	1,945	750	861
Mean	60.6	73.3	77.0	75.0	73.7	134	212	140	80.6	62.7	24.2	28.7
Cfsm	0.616	0.745	0.783	0.762	0.749	1.36	2.15	1.42	0.819	0.637	0.246	0.292
In.	0.71	0.83	0.90	0.88	0.78	1.57	2.40	1.64	0.91	0.74	0.28	0.33

Calendar year 1956: Max 1,130 Min 24 Mean 133 Cfsm 1.35 In. 18.35
Water year 1956-57: Max 398 Min 13 Mean 86.8 Cfsm 0.882 In. 11.97

Peak discharge (base, 980 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 24 to Mar. 20.

Ompompanoosuc River at Union Village, Vt.

Location.--Lat 43°47'20", long 72°15'20", on right bank 100 ft upstream from covered bridge at Union Village, Orange County, a quarter of a mile downstream from Avery Brook, and 0.3 mile downstream from Union Village Reservoir.

Drainage area.--130 sq mi.

Records available.--September 1940 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 435 ft (from topographic map).

Average discharge.--17 years, 199 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 740 cfs Jan. 24 (gage height, 5.61 ft); minimum, 16 cfs Sept. 1, 2; minimum daily, 16 cfs Sept. 1, 2.

1940-57: 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 determination of peak flow; minimum, 1.7 cfs Oct. 14, 1949; minimum daily, 2.0 cfs Oct. 20, 1949.

Maximum stage known, about 14.5 ft in November 1927, from information by local resident.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by Union Village Reservoir (see p. 233) since October 1949. Some regulation by Lake Fairlee.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-7		Oct. 8 to Sept. 30			
3.5	89	2.9	14	4.0	177
4.0	183	3.1	26	5.0	495
		3.3	46	6.0	940
		3.6	91		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	107	72	100	105	190	327	298	180	130	140	80	16
2	101	83	95	105	182	317	311	160	124	106	54	16
3	101	74	91	105	175	228	358	150	142	89	45	20
4	96	68	89	105	167	185	348	145	108	173	40	24
5	96	64	87	105	157	180	440	133	94	274	36	19
6	90	62	*85	100	150	175	478	124	85	249	33	*18
7	163	60	95	100	140	145	470	114	122	157	30	18
8	*167	60	130	99	128	128	382	106	105	*150	29	19
9	120	59	172	98	120	130	355	100	85	110	27	18
10	103	57	167	97	116	*133	324	96	74	101	30	18
11	96	57	152	*96	110	130	308	114	68	83	45	18
12	89	60	170	93	105	133	298	103	64	75	46	20
13	86	83	209	91	100	135	321	112	63	63	35	20
14	83	77	217	90	93	200	282	142	56	60	29	19
15	83	70	214	87	*87	291	252	187	54	128	27	19
16	78	69	209	84	83	402	249	157	50	78	*26	21
17	75	68	203	81	80	436	273	120	43	62	27	26
18	72	70	198	78	78	389	291	106	38	54	24	27
19	69	69	140	76	77	355	314	98	35	47	22	22
20	66	75	118	73	75	264	327	265	40	42	22	20
21	64	101	160	71	74	217	351	355	35	46	20	20
22	63	276	185	70	70	*273	301	223	30	80	18	25
23	64	252	177	160	70	358	264	185	30	91	18	217
24	68	172	172	520	68	358	240	154	49	60	18	*82
25	63	133	172	537	68	317	225	128	74	62	17	54
26	60	125	170	360	75	285	*217	118	284	49	18	46
27	60	120	138	320	244	282	209	216	138	43	22	37
28	60	115	115	261	340	282	198	162	378	42	18	34
29	*60	110	115	214	-	282	185	135	225	50	18	30
30	59	105	110	210	--------	314	209	116	174	123	17	30
31	60	--------	110	200	--------	324	--------	*135	--------	77	17	--------
Total	2,622	2,866	4,565	4,791	3,422	7,975	9,078	4,639	2,997	2,964	908	973
Mean	84.6	95.5	147	155	122	257	303	150	99.9	95.6	29.3	32.4
(†)	-0.67	+4.28	-1.87	+6.24	+7.61	-10.5	-4.59	+0.07	-0.04	-0.34	-0.26	+0.04

Adjusted for change in contents in Union Village Reservoir

Mean	83.9	99.8	145	161	130	247	298	150	99.9	95.3	29.0	32.5
Cfsm	0.645	0.768	1.12	1.24	1.00	1.90	2.29	1.15	0.768	0.733	0.223	0.250
In.	0.74	0.86	1.29	1.43	1.04	2.19	2.56	1.33	0.86	0.85	0.26	0.28

	Observed			Adjusted		
Calendar year 1956:	Max 1,700	Min 31	Mean 201	Mean 202	Cfsm 1.55	In. 21.08
Water year 1956-57:	Max 537	Min 16	Mean 131	Mean 131	Cfsm 1.01	In. 13.69

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Union Village Reservoir.

Note.--Stage-discharge relation affected by ice Nov. 26 to Dec. 7, Dec. 28 to Jan. 24, Jan. 26, 27, Jan. 30 to Feb. 1, Feb. 3, 6, 9, 11-13, 15-17, 19-22, 24, 28, Mar. 4-6, 11.

Ayers Brook at Randolph, Vt.

Location.--Lat 43°56'05", long 72°39'30", on right bank 55 ft upstream from bridge on State Highway 12, just north of village limits of Randolph, Orange County, 0.4 mile upstream from Adams Brook, and 1.2 miles upstream from mouth.

Drainage area.--30.5 sq mi.

Records available.--July 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 632.75 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--18 years, 46.6 cfs.

Extremes.--Maximum discharge during year, about 420 cfs Jan. 23; maximum gage height, 3.43 ft Feb. 27 (ice jam); minimum daily, 3.8 cfs Sept. 14.

1939-57: Maximum discharge, 3,490 cfs June 1, 1952 (gage height, 7.58 ft), from rating curve extended above 500 cfs by logarithmic plotting; minimum, 1.2 cfs Aug. 27, 1949.

Maximum stage known, about 16 ft in November 1927, from information by local residents.

Remarks.--Records excellent except those for periods of ice effect or backwater from beaver dams, which are fair.

Rating tables, water year 1956-57, except periods of ice effect or backwater from beaver dams (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 26				Feb. 27 to Sept. 30			
0.5	8.5	1.5	73	0.2	3.0	1.0	32
.9	24	2.0	129	.3	4.6	1.5	74
1.2	45	2.5	212	.4	6.7	2.0	129
				.7	17	2.5	212

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	16	19	21	39	60	46	41	28	30	17	4.5
2	*14	17	23	20	35	51	84	36	29	24	13	4.3
3	16	15	20	21	33	45	69	35	28	21	11	5.6
4	15	14	*22	22	35	40	58	34	25	32	9.9	9.0
5	15	14	20	21	32	35	58	32	22	58	9.9	6.4
6	14	13	27	19	25	36	92	30	21	43	9.0	5.4
7	72	13	51	20	27	35	84	28	38	35	8.4	4.7
8	42	12	69	20	27	34	71	26	26	55	7.6	4.3
9	28	12	49	19	23	35	69	24	22	35	7.6	*4.1
10	24	12	43	19	26	33	64	26	19	30	9.0	4.0
11	22	11	39	17	21	30	62	32	17	27	12	3.9
12	21	13	48	18	*14	30	65	28	16	*25	15	3.9
13	20	20	59	18	20	32	66	34	16	22	12	4.0
14	20	16	49	16	23	45	60	34	14	23	10	3.8
15	19	15	43	16	20	80	54	55	14	46	*7.6	3.9
16	18	14	50	16	20	101	54	40	12	27	7.0	4.0
17	18	14	54	15	21	70	58	32	10	22	6.6	5.0
18	17	14	51	14	20	58	62	30	9.6	19	6.2	5.4
19	16	13	38	13	20	*56	68	28	12	16	6.0	4.5
20	16	13	45	12	18	54	73	86	12	15	5.8	4.0
21	16	29	40	13	17	*60	78	81	9.3	18	5.2	4.2
22	15	105	39	15	15	69	66	54	8.4	30	5.0	4.5
23	15	43	39	200	17	70	*56	46	8.4	27	5.0	21
24	15	28	39	110	16	63	52	50	18	20	4.6	*13
25	14	24	40	85	17	56	49	39	36	20	4.4	10
26	14	27	32	75	30	54	47	36	69	16	5.0	7.0
27	14	27	26	65	160	54	45	42	31	13	6.0	6.2
28	14	26	38	56	80	51	42	35	67	13	5.6	5.6
29	13	25	34	50	-	51	40	31	46	16	5.0	5.0
30	*13	23	24	45	--------	50	49	*28	34	25	4.8	4.7
31	13	--------	17	41	--------	47	--------	31	--------	17	4.7	--------
Total	598	638	1,187	1,112	851	1,585	1,841	1,184	717.7	820	245.9	175.9
Mean	19.3	21.3	38.3	35.9	30.4	51.1	61.4	38.2	23.9	26.5	7.93	5.86
Cfsm	0.633	0.698	1.26	1.18	0.997	1.68	2.01	1.25	0.784	0.869	0.260	0.192
In.	0.73	0.78	1.45	1.36	1.04	1.93	2.24	1.44	0.88	1.00	0.30	0.21

Calendar year 1956: Max 496 Min 3.5 Mean 42.0 Cfsm 1.38 In. 18.73
Water year 1956-57: Max 200 Min 3.8 Mean 30.0 Cfsm 0.984 In. 13.33

Peak discharge (base, 350 cfs).--Jan 23 (about 3 p.m.) about 420 cfs.

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 24, 30, Dec. 1, 3, 9, 10, 14, 19, 26, 27, Dec. 31 to Mar. 15. Backwater from beaver dams Aug. 9 to Sept. 30.

White River at West Hartford, Vt.

Location.--Lat 43°42'45", long 72°25'10", on left bank 500 ft upstream from highway bridge at West Hartford, Windsor County, and 7 miles upstream from mouth.

Drainage area.--690 sq mi.

Records available.--June 1915 to September 1957. Monthly discharge only October 1927 to September 1928, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 374.53 ft above mean sea level, datum of 1929. Prior to Oct. 30, 1927, staff gage at same site and datum.

Average discharge.--42 years, 1,194 cfs.

Extremes.--Maximum discharge during year, 11,100 cfs Jan. 23 (gage height, 10.52 ft); minimum, 111 cfs Sept. 15; minimum daily, 120 cfs Sept. 14.

1915-57: 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 determination of peak flow; minimum observed, about 35 cfs Aug. 4, 1918; minimum daily, 64 cfs Aug. 4, 1918.

Remarks.--Records good except those for periods of ice effect or doubtful gage-height record, which are fair. Some diurnal fluctuation at low flow caused by powerplant above station.

Revisions (water years).--WSP 756: Drainage area. WSP 781: 1928(M). WSP 1031: 1916(m), 1923. WSP 1301: 1916-26(M), 1929(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23				Jan. 24 to Sept. 30			
3.2	267	5.0	1,340	2.7	113	5.0	1,390
3.5	378	6.0	2,400	3.0	195	6.0	2,440
4.0	620	8.0	5,630	3.5	378	8.0	5,630
4.5	940	9.0	7,300	4.0	620		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*412	343	500	540	1,000	2,000	1,110	1,100	710	1,020	612	133
2	386	378	580	520	930	1,500	2,260	970	668	768	504	130
3	399	370	520	540	880	1,300	2,570	898	906	604	370	160
4	438	351	570	580	900	1,100	1,710	874	698	728	315	273
5	420	339	510	560	800	950	1,590	810	609	1,660	288	198
6	403	328	600	495	700	980	2,260	747	535	1,910	280	162
7	1,140	309	1,400	490	720	940	2,570	698	749	1,110	252	146
8	1,630	317	3,160	510	740	920	2,070	656	850	1,370	230	138
9	1,040	309	1,930	500	660	920	1,830	614	620	1,070	217	133
10	812	298	1,390	480	720	900	1,670	570	530	866	217	*133
11	686	284	1,200	420	620	800	1,610	686	470	710	322	*123
12	609	298	1,350	435	500	810	1,550	668	424	*626	395	126
13	565	412	1,670	450	560	860	1,910	650	412	560	362	128
14	535	475	1,550	410	*610	1,000	1,600	761	382	505	269	120
15	510	403	1,250	*390	520	1,500	1,430	1,010	370	944	*244	126
16	475	382	1,300	390	500	2,650	1,380	1,100	346	680	221	126
17	456	386	1,540	375	540	2,100	1,450	858	299	535	214	162
18	424	399	1,380	360	540	1,700	1,630	734	277	447	192	171
19	412	378	1,000	340	520	*1,350	1,830	674	273	391	186	143
20	391	335	1,200	320	500	1,350	2,160	1,430	315	350	180	128
21	382	446	1,120	340	490	1,400	2,680	2,740	269	330	162	133
22	382	3,800	1,030	370	450	1,550	2,360	1,660	241	370	152	143
23	378	1,860	978	6,000	475	1,800	1,830	1,300	217	657	152	633
24	370	1,050	962	4,130	460	1,700	1,610	1,130	332	475	141	*582
25	366	800	1,110	2,690	470	1,450	1,480	962	465	403	136	346
26	339	880	940	2,170	540	*1,240	1,380	826	1,770	354	141	258
27	339	877	640	1,790	4,000	1,240	1,280	1,140	1,090	303	183	211
28	343	798	962	1,550	2,400	1,200	1,190	970	2,140	295	174	189
29	343	700	926	1,400	-	1,210	*1,110	*818	1,420	338	149	168
30	*347	660	620	1,200	-------	1,190	1,190	728	1,190	729	143	165
31	343	-------	420	1,100	-------	1,110	-------	710	-------	545	143	-------
Total	16,075	18,965	34,308	31,845	22,745	40,720	52,300	29,492	19,577	21,653	7,546	5,787
Mean	519	632	1,107	1,027	812	1,314	1,743	951	653	698	243	193
Cfsm	0.752	0.916	1.60	1.49	1.18	1.90	2.53	1.38	0.946	1.01	0.352	0.280
In.	0.87	1.02	1.85	1.72	1.23	2.19	2.82	1.59	1.06	1.17	0.41	0.31

Calendar year 1956 : Max 14,900 Min 150 Mean 1,143 Cfsm 1.66 In. 22.55
Water year 1956-57 : Max 6,000 Min 120 Mean 825 Cfsm 1.20 In. 16.24

Peak discharge (base, 11,600 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--Doubtful gage-height record Feb. 28 to Mar. 26; discharge computed on basis of 2 discharge measurements, recorded graph, weather records, and records for Dog River at Northfield Falls, and Mad River near Moretown. Stage-discharge relation affected by ice Nov. 24-26, Nov. 29 to Dec. 7, Dec. 11, 12, 14, 15, 26, 27, Dec. 30 to Jan. 23, Jan. 28 to Feb. 27, and at times during period of doubtful gage-height record.

Connecticut River at White River Junction, Vt.

Location.--Lat 43°38'50", long 72°18'45", on right bank 50 ft downstream from railroad bridge at White River Junction, Windsor County, and 500 ft downstream from White River.
Drainage area.--4,092 sq mi.
Records available.--October 1911 to September 1957.
Gage.--Water-stage recorder. Datum of gage is 321.52 ft above mean sea level, datum of 1929. Prior to June 16, 1918, painted staff gage on downstream side of pier of railroad bridge 50 ft upstream at same datum. June 16, 1918, to Nov. 2, 1930, chain gage at various locations on upstream and downstream sides of railroad bridge at same datum.
Average discharge.--46 years, 7,182 cfs (adjusted for storage).
Extremes.--Maximum discharge during year, about 23,000 cfs Jan. 23, occurred during period of no gage-height record; minimum daily, 154 cfs Sept. 22.
1911-57: Maximum discharge, 136,000 cfs Nov. 4, 1927 (gage height, 35.0 ft, present site), from rating curve extended above 70,000 cfs by logarithmic plotting; minimum daily, 115 cfs Aug. 2, 1953.
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, Comerford Station Pond, Moore Reservoir, Union Village Reservoir (see p. 233), and other reservoirs (combined usable capacity, about 1$\frac{7}{8}$ billion cubic feet).
Cooperation.--Wire-weight-gage readings furnished by U. S. Weather Bureau.
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).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.6	151	5.0	2,150
3.0	301	6.0	3,730
3.5	585	8.0	8,180
4.0	990	12.0	20,000

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,560	3,620	3,520	1,800	5,900	5,000	7,560	9,100	3,000	4,150	4,400	g239
2	4,030	3,730	1,980	4,300	4,100	7,000	8,770	9,100	2,700	4,040	3,900	g624
3	3,790	2,820	4,420	a4,150	1,850	5,400	10,900	7,100	6,670	4,070	1,710	2,680
4	4,860	1,830	3,960	a4,100	5,400	8,800	10,700	3,600	5,990	3,260	g407	2,300
5	4,910	3,180	4,410	a2,450	5,500	7,580	10,400	2,000	5,040	9,080	3,250	1,320
6	2,980	2,940	4,660	a2,500	5,000	8,330	11,000	6,810	4,000	11,000	3,310	1,460
7	3,030	2,780	5,870	a4,000	4,700	8,630	10,500	5,700	4,600	9,570	2,770	*789
8	8,430	2,910	8,220	a3,000	5,120	7,500	11,200	5,300	4,100	*7,000	2,010	g184
9	*8,430	3,230	6,370	a3,000	3,780	6,920	10,600	4,700	2,500	5,200	2,300	1,510
10	6,160	1,880	7,220	a3,500	2,500	2,530	10,400	4,600	4,700	4,300	1,230	1,400
11	6,080	957	6,770	a2,900	4,700	5,160	10,600	2,600	4,600	4,000	750	1,850
12	4,640	1,820	6,970	a2,300	4,700	6,770	9,580	1,170	5,000	4,600	3,150	1,930
13	2,600	3,600	7,050	a1,800	4,100	6,740	8,700	5,570	3,500	2,750	3,180	1,690
14	1,050	3,860	7,410	a3,100	4,300	6,800	6,100	6,380	2,800	1,500	2,120	708
15	4,540	4,080	4,930	a3,500	*4,900	8,430	8,920	7,510	1,200	3,400	3,400	g169
16	4,800	3,630	4,550	4,000	3,400	12,300	9,990	10,400	922	3,300	2,920	1,540
17	4,740	2,210	6,710	3,300	1,800	7,750	9,330	10,700	2,800	2,900	g258	2,060
18	4,250	1,650	6,470	3,700	4,600	10,200	10,300	7,460	1,900	3,000	g231	2,090
19	3,820	3,780	6,200	1,300	4,600	9,430	11,000	4,260	1,850	3,050	3,010	1,710
20	2,010	4,240	5,970	750	4,500	9,480	12,000	8,170	2,000	1,780	2,430	1,340
21	1,400	4,470	5,370	3,000	4,500	9,720	13,500	16,500	2,100	g522	2,530	g172
22	3,810	a12,500	4,370	3,200	4,200	9,370	16,800	12,800	780	6,000	2,180	g154
23	3,800	a12,400	3,700	a14,000	2,850	8,890	19,500	11,600	g374	8,320	1,110	4,690
24	3,760	a12,300	4,520	a14,500	1,700	7,940	17,100	10,000	2,990	7,200	g554	6,550
25	3,330	5,560	2,760	11,000	4,300	8,770	14,000	7,950	3,320	4,600	g380	4,640
26	3,570	5,580	5,130	9,690	4,200	*9,880	12,200	3,580	6,770	4,500	2,480	3,170
27	1,930	5,950	4,530	7,140	13,500	9,070	10,700	8,200	6,530	1,400	2,190	2,500
28	644	5,770	4,430	8,150	11,000	8,980	8,200	7,670	7,050	1,250	1,510	g337
29	3,200	5,630	2,910	7,500	-	9,260	9,500	6,340	4,630	3,780	992	505
30	3,050	5,480	1,600	6,400	--------	8,340	9,300	3,500	2,750	5,520	1,300	2,240
31	2,730	--------	3,630	6,400	--------	3,360	--------	5,400	--------	6,340	g215	--------
Total	119,934	134,387	156,610	150,430	131,700	244,330	329,350	215,770	107,166	141,382	62,177	52,551
Mean	3,869	4,480	5,052	4,853	4,704	7,882	10,980	6,960	3,572	4,561	2,006	1,752
(†)	-621	-127	-151	-487	-1,154	-1,235	+1,864	+1,120	+252	+367	-318	-134
Adjusted for change in reservoir contents												
Mean	3,248	4,353	4,901	4,366	3,550	6,646	12,842	8,081	3,825	4,928	1,688	1,618
Cfsm	0.794	1.06	1.20	1.07	0.868	1.62	3.14	1.97	0.935	1.20	0.413	0.395
In.	0.92	1.19	1.38	1.23	0.90	1.87	3.50	2.28	1.04	1.39	0.48	0.44

	Observed					Adjusted			
Calendar year 1956:	Max 39,900	Min 187	Mean 6,494			Mean 6,709	Cfsm 1.64	In. 22.31	
Water year 1956-57:	Max 19,500	Min 154	Mean 5,057			Mean 5,009	Cfsm 1.22	In. 16.62	

Peak discharge (base, 34,000 cfs).--No peak above base.

* Discharge measurement made on this day.
† *Change in contents, equivalent in cubic feet per second, in First Connecticut and Second Connecticut Lakes, Lake Francis, Comerford Station Pond, Moore Reservoir, and Union Village Reservoir.*
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage when available, powerplant records, and records for White River at West Hartford.
g Computed from twice-daily wire-weight-gage readings.
Note.--Doubtful or no gage-height record Feb. 10 to Mar. 3; discharge estimated on basis of 1 discharge measurement, weather records, powerplant records, twice-daily wire-weight-gage readings, and records for White River at West Hartford. Stage-discharge relation affected by ice Dec. 30, Jan. 2, 16-22, Jan. 29 to Feb. 7, and at times during periods of no gage-height record Jan. 3-15, 23, 24, and period of doubtful or no gage-height record Feb. 10 to Mar. 3.

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Mascoma River at West Canaan, N. H.

Location.--Lat 43°39'00", long 72°04'50", on right bank 45 ft downstream from Boston and Maine Railroad bridge, 0.9 mile east of West Canaan, Grafton County, 1.2 miles downstream from Indian River, and 3½ miles west of Canaan.

Drainage area.--80.5 sq mi.

Records available.--July 1939 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 835 ft (from topographic map).

Average discharge.--18 years, 121 cfs.

Extremes.--Maximum discharge during year, 430 cfs Nov. 22 (gage height, 3.35 ft); maximum gage height, 4.32 ft Jan. 24, 25 (backwater from ice); minimum discharge, 5.1 cfs Sept. 15.

1939-57: 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 determination at gage height 9.6 ft; minimum, 3.3 cfs Aug. 3, 4, 1953.

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 periods of ice effect or no gage-height record, which are fair.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	3.6	2.0	122
.6	7.7	2.5	215
.9	17	3.0	334
1.2	34	3.5	475
1.5	60		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	39	50	50	65	215	118	107	47	42	32	22
2	36	59	55	49	60	175	199	88	54	30	24	17
3	39	48	49	47	56	130	251	79	*102	24	19	*17
4	41	40	49	54	58	100	173	74	70	59	17	19
5	41	37	48	50	52	80	145	68	52	237	19	14
6	a40	33	52	45	49	70	160	63	44	266	17	11
7	a70	31	74	44	47	64	213	58	68	106	15	9.4
8	*a105	30	138	44	54	62	179	54	68	108	14	8.8
9	70	30	120	43	52	65	156	50	48	94	13	8.3
10	59	28	*110	42	50	90	140	47	39	118	41	7.5
11	61	22	105	38	*48	75	145	47	33	79	62	6.8
12	49	26	110	39	42	70	142	46	29	60	*58	6.8
13	44	47	125	40	39	66	184	49	27	*47	39	6.6
14	42	54	110	*38	37	80	149	79	24	40	26	5.7
15	40	46	103	37	36	110	124	79	28	38	21	5.3
16	36	43	112	36	36	170	116	80	26	32	18	6.4
17	33	41	135	38	36	200	128	63	20	27	16	9.7
18	31	40	110	37	35	150	147	55	17	23	15	9.4
19	29	37	80	36	34	125	179	49	17	21	14	7.7
20	28	37	88	35	32	115	202	121	30	20	13	*6.8
21	28	52	85	36	31	105	228	294	23	19	22	6.4
22	28	379	78	44	29	135	*202	169	17	21	39	6.8
23	28	225	71	150	30	166	162	119	15	28	27	82
24	33	122	79	280	30	158	140	102	28	23	36	53
25	32	100	100	180	31	*138	132	79	27	20	28	26
26	29	86	88	140	34	130	119	67	89	17	22	19
27	30	85	65	115	185	135	110	96	106	16	19	14
28	28	76	86	100	250	133	104	91	91	15	22	12
29	26	71	78	86	-	133	97	72	74	20	25	11
30	25	61	55	76	--------	133	118	60	59	68	54	10
31	*24	--------	45	70	--------	120	--------	51	--------	40	35	--------
Total	1,245	2,025	2,653	2,119	1,538	3,698	4,662	2,556	1,372	1,758	822	445.4
Mean	40.2	67.5	85.6	68.4	54.9	119	155	82.5	45.7	56.7	26.5	14.8
Cfsm	0.499	0.839	1.06	0.850	0.682	1.48	1.93	1.02	0.568	0.704	0.329	0.184
In.	0.58	0.94	1.23	0.98	0.71	1.71	2.15	1.18	0.63	0.81	0.38	0.21

Calendar year 1956: Max 1,560 Min 8.8 Mean 122 Cfsm 1.52 In. 20.69
Water year 1956-57: Max 379 Min 5.3 Mean 68.2 Cfsm 0.847 In. 11.51

Peak discharge (base, 950 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage, and records for Baker River near Rumney.
Note.--Stage-discharge relation affected by ice Nov. 25, Dec. 1, 2, 4, 5, 10, 11, 13, 14, 19-22, 26-28, Dec. 30 to Feb. 23, Feb. 26 to Mar. 22.

Mascoma River at Mascoma, N. H.

Location.--Lat 43°39'00", long 72°11'05", on left bank at Mascoma, Grafton County, 250 ft downstream from railroad bridge and 1,000 ft downstream from outlet of Mascoma Lake.

Drainage area.--153 sq mi.

Records available.--August 1923 to September 1957.

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

Average discharge.--34 years, 216 cfs (adjusted for storage since October 1928).

Extremes.--Maximum discharge during year, 305 cfs Apr. 3, 4 (gage height, 1.70 ft); minimum daily, 26 cfs Aug. 31, Sept. 1, 7, 14.
1923-57: 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, 1929, Sept. 1, 1940.

Remarks.--Records excellent. Flow regulated by Mascoma and Crystal Lakes and Goose and Grafton Ponds (see p. 233).

Revisions (water years).--WSP 726: Drainage area. WSP 801: 1925(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.3	24	1.0	114
.5	42	1.5	241
.7	65	2.0	412

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*112	97	53	118	185	229	279	118	41	64	64	26
2	132	87	67	118	182	244	292	108	51	64	56	41
3	127	49	106	121	182	247	298	92	87	64	36	84
4	127	59	104	121	188	256	305	51	87	64	46	82
5	110	*95	103	121	193	263	298	64	87	66	65	81
6	65	95	103	121	190	266	260	104	87	60	64	68
7	77	93	*90	121	185	269	247	95	72	*57	64	26
8	118	92	51	121	188	266	253	87	48	110	63	47
9	118	82	63	121	193	269	256	82	58	134	52	82
10	116	44	108	121	190	263	256	70	87	165	34	81
11	116	44	108	*123	*190	256	253	41	87	185	38	81
12	103	69	108	121	193	247	250	46	110	158	*61	81
13	59	90	110	118	198	244	253	82	106	118	61	74
14	71	90	114	129	196	238	253	82	86	106	61	26
15	114	89	116	141	198	241	247	82	51	82	60	46
16	114	82	116	136	204	250	244	82	56	82	50	114
17	114	44	116	136	201	275	238	66	92	81	32	120
18	112	53	118	134	198	*288	232	42	92	79	35	99
19	100	87	118	132	201	288	232	50	92	67	57	97
20	55	87	118	129	204	288	238	87	90	46	55	*88
21	68	85	118	129	201	285	241	87	73	53	54	35
22	108	89	118	127	198	282	244	92	46	79	54	49
23	108	86	118	132	196	279	205	95	55	75	46	95
24	106	51	118	136	190	279	150	80	87	69	28	95
25	106	69	118	158	190	279	153	53	95	68	39	95
26	93	104	118	170	201	275	153	63	95	58	73	95
27	52	104	118	172	204	275	155	*103	85	37	82	82
28	63	104	118	172	212	272	150	99	72	47	79	34
29	104	104	118	172	-	269	*129	85	46	64	79	49
30	101	94	118	178	--------	263	118	73	51	64	61	95
31	99	--------	118	185	--------	256	--------	*63	--------	64	26	--------
Total	3,068	2,418	3,288	4,234	5,451	8,201	6,882	2,424	2,272	2,530	1,675	2,168
Mean	99.0	80.6	106	137	195	265	229	78.2	75.7	81.6	54.0	72.3
(†)	-40.9	+36.9	+52.2	-12.1	-111	-26.1	+73.3	+55.0	-1.39	+5.30	-26.9	-53.8

Adjusted for change in reservoir contents

Mean	58.0	118	158	124	84.1	238	303	133	74.3	86.9	27.1	18.4
Cfsm	0.379	0.771	1.03	0.810	0.550	1.56	1.98	0.869	0.486	0.568	0.177	0.120
In.	0.44	0.86	1.19	0.94	0.57	1.80	2.21	1.00	0.54	0.65	0.20	0.13

	Observed			Adjusted		
Calendar year 1956:	Max 1,800	Min 44	Mean 212	Mean 215	Cfsm 1.41	In. 19.17
Water year 1956-57:	Max 305	Min 26	Mean 122	Mean 119	Cfsm 0.778	In. 10.53

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Mascoma and Crystal Lakes and Goose and Grafton Ponds.

Ottauquechee River at North Hartland, Vt.

Location.--Lat 43°36'05", long 72°21'20", on left bank 300 ft upstream from highway bridge at North Hartland, Windsor County, and 1 mile upstream from mouth.

Drainage area.--221 sq mi.

Records available.--October 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 336.77 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--27 years, 398 cfs.

Extremes.--Maximum discharge during year not determined (occurred Jan. 23 during period of no gage-height record); maximum gage height, 8.55 ft Jan. 23 (ice jam); minimum discharge, 15 cfs Sept. 1; minimum daily, 17 cfs Aug. 25.

1930-57: 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 stage known, 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 periods of ice effect or no gage-height record, which are fair. Flow regulated by powerplants above station. Small seasonal storage in reservoir at Plymouth.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23				Jan. 24 to Sept. 30			
2.4	113	4.0	695	1.4	16	2.6	147
2.7	184	4.5	970	1.7	33	3.0	273
3.0	274	5.0	1,360	2.0	54	3.5	465
3.5	465	6.0	2,420	2.3	87		

Note.--Same as preceding table above 3.5 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	242	169	180	220	350	573	422	348	298	238	245	37
2	215	*179	230	210	320	478	788	312	238	175	171	49
3	268	158	200	220	300	414	890	290	252	137	110	72
4	255	153	220	230	310	352	632	284	202	199	93	112
5	268	146	210	220	280	275	582	270	172	516	99	78
6	236	134	256	190	250	275	1,080	256	153	547	86	68
7	452	134	*469	200	250	275	1,030	235	256	301	90	57
8	520	132	977	200	260	300	812	218	228	228	82	*60
9	*374	132	636	190	240	294	720	205	172	174	79	50
10	319	124	456	185	250	308	655	190	158	161	93	52
11	288	113	444	170	215	255	636	196	135	144	128	50
12	271	128	542	180	175	287	609	199	123	*130	215	56
13	255	176	710	190	190	294	720	205	117	122	166	60
14	248	179	715	170	210	444	609	208	105	103	98	24
15	245	156	550	*160	185	573	537	273	104	147	87	44
16	227	151	578	160	175	958	510	290	100	109	*89	86
17	215	153	627	155	185	715	537	228	96	94	77	87
18	212	166	560	145	*185	560	591	199	83	80	72	83
19	201	146	398	135	180	470	622	175	75	75	77	69
20	190	130	496	130	160	474	665	428	74	64	76	59
21	190	196	444	145	160	478	765	745	77	49	72	27
22	195	1,170	414	150	150	*528	690	474	60	81	70	53
23	184	676	402	2,000	170	568	564	363	42	76	66	274
24	184	359	406	1,400	160	555	506	315	108	73	59	176
25	171	285	444	900	170	501	474	262	162	72	17	*89
26	161	315	382	700	220	488	*435	235	621	71	55	73
27	163	326	280	600	1,300	488	422	354	367	54	79	64
28	161	298	390	500	780	470	390	290	371	30	78	28
29	158	264	363	460	-	474	367	248	322	164	70	46
30	151	248	270	400	--------	478	386	218	298	378	68	67
31	148	--------	170	370	--------	439	--------	*202	--------	344	43	--------
Total	7,367	7,096	13,419	11,285	7,780	14,041	18,646	8,715	5,569	5,136	2,910	2,150
Mean	238	237	433	364	278	453	622	281	186	166	93.9	71.7
Cfsm	1.08	1.07	1.96	1.65	1.26	2.05	2.81	1.27	0.842	0.751	0.425	0.324
In.	1.24	1.19	2.26	1.90	1.31	2.36	3.14	1.47	0.94	0.86	0.49	0.36

Calendar year 1956: Max 5,900 Min 67 Mean 417 Cfsm 1.89 In. 25.70
Water year 1956-57: Max 2,000 Min 17 Mean 285 Cfsm 1.29 In. 17.52

Peak discharge (base, 5,500 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 23 to Feb. 18; discharge estimated on basis of 1 discharge measurement, weather records, and records for White River at West Hartford. Stage-discharge relation affected by ice Nov. 25, Dec. 1-5, 27, 28, Dec. 30 to Jan. 22, Feb. 19-27, Mar. 5-8, 11, 19, and at times during period of no gage-height record.

Sugar River at West Claremont, N. H.

Location.--Lat 43°23'15", long 72°21'45", on right bank 0.2 mile downstream from Redwater Brook at West Claremont, Sullivan County.

Drainage area.--269 sq mi.

Records available.--May 1928 to September 1957. Published as "at Claremont" prior to October 1928.

Gage.--Water-stage recorder. Datum of gage is 358.78 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1928, chain gage at site 0.8 mile upstream at different datum.

Average discharge.--29 years, 396 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 4,500 cfs Jan. 23 (gage height, 5.91 ft); minimum daily, 21 cfs Sept. 1.

1928-57: 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, that of Sept. 1, 1957.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by mills above station and by Sunapee Lake (see p. 233).

Revisions (water years).--WSP 711: 1930(M). WSP 756: Drainage area.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	20	2.5	565
1.1	45	3.0	885
1.3	86	4.0	1,750
1.6	175	5.0	3,020
2.0	325		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	105	125	180	250	605	421	293	175	110	102	21
2	102	119	149	175	230	460	726	261	172	*108	72	45
3	100	110	149	190	220	380	990	238	202	76	72	61
4	100	110	*149	200	240	335	692	220	*172	76	54	50
5	108	108	127	190	210	270	589	216	149	149	56	47
6	102	100	143	170	190	245	661	209	137	241	63	41
7	137	97	159	185	190	230	808	192	143	162	45	42
8	241	94	269	190	190	220	698	178	137	128	39	37
9	189	94	309	185	175	223	625	165	125	102	50	39
10	149	89	265	175	195	216	565	159	122	84	45	47
11	131	86	250	150	170	210	583	156	116	86	56	45
12	122	94	399	160	160	210	553	165	82	72	156	44
13	110	102	583	165	145	215	631	178	89	72	149	44
14	110	122	541	150	155	312	541	175	93	68	110	42
15	113	119	373	140	140	464	464	210	116	71	86	38
16	105	113	474	135	135	829	425	297	137	86	74	60
17	102	108	495	130	135	836	439	238	128	91	58	81
18	100	119	412	125	135	655	480	189	97	70	47	74
19	97	122	285	120	130	524	524	182	89	61	42	68
20	86	108	335	115	125	464	553	384	137	28	54	63
21	89	133	325	115	120	416	571	808	102	37	52	59
22	97	680	285	130	120	485	512	518	108	35	59	60
23	91	512	231	2,000	120	*553	435	382	45	49	50	106
24	94	325	305	1,300	130	547	390	305	67	47	63	146
25	97	235	373	900	140	506	353	234	113	34	33	*100
26	91	225	295	600	200	474	333	213	153	42	62	79
27	*84	216	270	450	700	458	309	277	265	41	56	68
28	89	199	293	380	800	474	*305	325	206	39	54	61
29	97	178	273	350	-	474	301	281	156	44	54	50
30	89	165	165	300	--------	464	313	223	131	74	47	58
31	89	--------	150	260	--------	435	--------	209	--------	102	42	--------
Total	3,430	4,987	8,956	10,015	5,850	13,189	15,790	8,080	3,964	2,485	2,002	1,776
Mean	111	166	289	323	209	425	526	261	132	80.2	64.6	59.2
(†)	-30.2	-14.7	+19.0	+24.3	+5.37	+30.6	+47.1	-11.2	-26.2	-20.5	-17.5	-31.6
Adjusted for change in contents in Sunapee Lake												
Mean	80.4	152	308	347	214	456	573	249	106	59.6	47.0	27.6
Cfsm	0.299	0.565	1.14	1.29	0.796	1.70	2.13	0.926	0.394	0.222	0.175	0.103
In.	0.34	0.63	1.32	1.49	0.83	1.95	2.38	1.07	0.44	0.26	0.20	0.11

	Observed			Adjusted		
Calendar year 1956:	Max 4,820	Min 61	Mean 423	Mean 422	Cfsm 1.57	In. 21.35
Water year 1956-57:	Max 2,000	Min 21	Mean 221	Mean 218	Cfsm 0.810	In. 11.02

Peak discharge (base, 3,000 cfs).--Jan. 23 (7 to 7:30 p.m.) 4,500 cfs (5.91 ft).

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Sunapee Lake.

Note.--No gage-height record Jan. 24 to Feb. 3; discharge estimated on basis of weather records and records for Cold River at Drewsville, N. H., Saxtons River at Saxtons River, Vt., and Black River at North Springfield, Vt. Stage-discharge relation affected by ice Nov. 24-26, Dec. 1, 10, 11, 19, 20, 26, 27, Dec. 30 to Jan. 23, Feb. 4 to Mar. 7, Mar. 11-13, and during part of period of no gage-height record.

Black River at North Springfield, Vt.

Location.--Lat 43°20'00", long 72°30'55", on right bank at North Springfield, Windsor County, 1,300 ft upstream from Great Brook.

Drainage area.--158 sq mi.

Records available.--October 1929 to September 1957. October 1929 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 445.79 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--28 years, 282 cfs.

Extremes.--Maximum discharge during year, about 2,300 cfs Jan. 23; maximum gage height, 9.24 ft Jan. 23 (ice jam); minimum daily discharge, 17 cfs Sept. 10.
1929-57: 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, 10 cfs Oct. 17, 1937.

Remarks.--Records excellent except those for periods of ice effect and shifting control or backwater from bridge construction, which are fair. Flow regulated by mills above station.

Revisions (water years).--WSP 756: Drainage area. WSP 781: 1931(M), 1934(M).

Rating tables, water year 1956-57, except periods of ice effect or shifting control and/or backwater from bridge construction (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to June 19				June 20 to Sept. 30			
2.1	41	3.0	205	1.6	13	2.2	103
2.4	79	4.0	535	1.7	21	2.7	250
2.7	135	6.0	1,560	1.9	45	3.1	420

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	125	67	128	145	240	450	320	220	170	111	105	24
2	117	78	144	140	220	350	682	200	160	*91	89	27
3	122	101	128	145	200	300	647	180	170	82	74	34
4	118	89	*144	150	210	250	488	170	*140	117	71	43
5	127	76	120	140	190	210	456	167	120	383	74	31
6	108	77	128	130	170	200	1,020	157	105	269	53	22
7	221	71	195	140	160	190	896	144	110	167	43	27
8	213	68	492	130	170	190	656	124	105	119	49	22
9	156	68	432	120	160	205	555	124	90	109	43	27
10	137	62	320	115	180	200	492	115	80	95	38	17
11	116	56	269	110	140	180	470	120	75	88	74	24
12	116	64	344	120	110	190	488	127	70	91	65	26
13	106	104	554	120	120	200	567	137	58	80	57	23
14	108	100	470	110	130	280	478	126	50	76	44	24
15	98	102	386	100	120	370	418	200	55	114	41	23
16	118	80	390	100	115	740	380	280	50	89	42	33
17	71	82	436	92	120	559	390	200	46	67	36	50
18	76	83	372	87	120	428	410	170	42	58	37	43
19	69	86	269	83	115	362	430	140	45	46	29	42
20	63	81	308	80	110	338	460	450	40	40	28	40
21	63	107	275	78	105	320	500	580	41	37	39	28
22	70	868	273	88	98	394	450	400	42	37	24	30
23	69	499	265	1,500	95	*428	380	300	37	34	26	72
24	68	314	277	1,200	92	408	340	240	55	31	24	67
25	69	215	311	800	100	369	300	200	68	33	26	*43
26	65	208	260	600	120	348	280	180	230	34	35	33
27	*57	202	250	450	900	355	250	280	174	31	40	28
28	63	173	290	350	600	352	270	250	165	35	29	35
29	63	163	254	320	-	358	240	220	175	62	29	31
30	57	148	165	300	--------	355	260	200	161	122	27	31
31	62	--------	120	260	--------	320	--------	180	--------	138	23	--------
Total	3,091	4,492	8,769	8,303	5,210	10,199	13,973	6,581	2,929	2,886	1,414	1,000
Mean	99.7	150	283	268	186	329	466	212	97.6	93.1	45.6	33.3
Cfsm	0.631	0.949	1.79	1.70	1.18	2.08	2.95	1.34	0.618	0.589	0.289	0.211
In.	0.73	1.06	2.06	1.95	1.23	2.40	3.29	1.55	0.69	0.68	0.33	0.24

Calendar year 1956: Max 4,210 Min 23 Mean 291 Cfsm 1.84 In. 25.09
Water year 1956-57: Max 1,500 Min 17 Mean 189 Cfsm 1.20 In. 16.21

Peak discharge (base, 3,600 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 10, 26-28, Dec. 30 to Mar. 16 (no gage-height record Jan. 26 to Feb. 2). Shifting-control method and/or backwater from bridge construction Apr. 16 to May 3, May 15 to June 19.

Williams River at Brockway Mills, Vt.

Location.--Lat 43°12'30", long 72°31'05", on left bank 25 ft upstream from highway bridge at Brockway Mills, Windham County, 4 miles downstream from Hall Brook, 4.6 miles upstream from mouth, and 6 miles northwest of Bellows Falls.

Drainage area.--103 sq mi.

Records available.--June 1940 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 430 ft (from topographic map).

Average discharge.--17 years, 166 cfs.

Extremes.--Maximum discharge during year, 2,000 cfs Jan. 23 (gage height, 6.15 ft); maximum gage height, 7.04 ft Jan. 23 (ice jam); minimum discharge, 6.2 cfs Aug. 24.

1940-57: 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 determination 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 reached a stage of 22.7 ft, from floodmarks.

Remarks.--Records excellent except those for periods of ice effect, which are fair.

Revisions (water years).--WSP 1031: 1943-44(P). WSP 1301: 1941-42(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	6.0	2.3	186
1.0	11	3.0	390
1.2	20	4.0	770
1.5	44	5.0	1,280
1.8	83		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	37	50	72	110	210	172	121	52	35	24	7.0
2	28	45	63	67	100	165	585	104	51	26	17	6.8
3	29	82	*55	82	95	135	410	97	57	21	13	12
4	30	53	56	88	105	105	259	93	*46	54	12	15
5	39	42	54	82	95	95	292	86	42	156	12	10
6	32	37	56	75	84	93	844	78	39	97	11	8.7
7	67	35	98	79	84	93	585	72	60	47	10	7.9
8	70	33	227	82	90	97	397	65	51	35	9.6	7.9
9	46	32	149	80	120	100	342	60	39	28	9.0	7.7
10	38	32	105	74	*110	93	314	55	33	28	9.8	7.0
11	34	26	100	62	100	78	301	57	30	24	13	7.9
12	32	32	227	64	85	90	304	72	28	23	14	9.0
13	30	42	345	67	75	93	304	73	28	21	11	8.1
14	29	41	254	62	83	201	248	63	25	19	9.6	7.7
15	29	36	174	56	73	280	214	99	24	18	9.0	7.7
16	28	35	254	55	70	602	198	147	22	16	8.7	15
17	27	34	264	54	63	393	208	88	20	14	8.4	38
18	26	38	201	50	59	280	214	75	18	14	8.4	18
19	25	30	150	47	56	240	221	65	17	12	8.4	13
20	24	31	175	45	54	221	224	353	18	12	7.9	11
21	24	57	153	50	52	219	232	364	17	11	7.0	11
22	24	481	149	70	51	277	194	179	15	11	6.6	11
23	25	161	142	1,000	50	*301	167	136	14	11	6.4	28
24	30	85	155	393	52	286	151	110	18	10	6.4	24
25	28	65	198	257	52	237	*136	86	21	10	6.4	*15
26	25	80	145	224	75	219	130	77	156	11	7.9	13
27	25	78	132	191	550	219	121	112	*80	10	12	11
28	*25	69	150	160	285	221	152	88	43	12	9.6	10
29	25	61	134	145	-	214	138	72	74	21	7.9	10
30	24	58	76	135	--------	201	142	61	61	28	7.7	9.8
31	24	--------	57	120	--------	181	--------	56	--------	35	7.7	--------
Total	971	1,968	4,548	4,088	2,878	6,239	8,199	3,264	1,199	870	311.4	368.2
Mean	31.3	65.6	147	132	103	201	273	105	40.0	28.1	10.0	12.3
Cfsm	0.304	0.637	1.43	1.28	1.00	1.95	2.65	1.02	0.388	0.273	0.097	0.119
In.	0.35	0.71	1.64	1.48	1.04	2.25	2.96	1.18	0.43	0.31	0.11	0.13

Calendar year 1956:	Max	2,810	Min	8.6	Mean	165	Cfsm	1.60	In.	21.76	
Water year 1956-57:	Max	1,000	Min	6.4	Mean	95.6	Cfsm	0.928	In.	12.59	

Peak discharge (base, 2,600 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 19, 20, 24, 25, Nov. 29 to Dec. 5, Dec. 10, 11, 20, 26, 28, Dec. 30 to Jan. 23, Jan. 28 to Mar. 7, Mar. 9-11, 13.

Saxtons River at Saxtons River, Vt.

Location.--Lat 43°08'15", long 72°29'15", on right bank 130 ft upstream from highway bridge, 0.8 mile east of Saxtons River, Windham County, 1.4 miles upstream from Bundy Brook, and 3.9 miles upstream from mouth.

Drainage area.--72.2 sq mi.

Records available.--June 1940 to September 1957.

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

Average discharge.--17 years, 118 cfs.

Extremes.--Maximum discharge during year not determined, occurred Jan. 23 during period of no gage-height record; minimum, 3.4 cfs Sept. 10; minimum daily, 3.6 cfs Sept. 9, 10.
1940-57: Maximum discharge, 5,430 cfs June 1, 1952 (gage height, 11.37 ft), from rating curve extended above 1,800 cfs on basis of slope-area determinations at gage heights 10.51 and 11.37 ft; minimum, 1.9 cfs July 25, 1949; minimum daily, 2.4 cfs Aug. 6, 1955.
Flood in September 1938 reached a stage of 17.9 ft, from floodmarks.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Occasional diurnal fluctuation at low flow caused by sawmill above station; fluctuation more frequent prior to 1946.

Revisions (water years).--WSP 1301: 1948-49(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.0	2.8	3.0	76
2.1	4.8	3.5	160
2.2	7.7	4.0	276
2.4	16	5.0	620
2.7	40	6.0	1,100

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	32	46	67	70	160	125	82	38	25	15	4.2
2	16	56	48	65	66	130	383	72	37	20	11	4.0
3	18	87	*42	66	64	110	273	68	43	15	8.5	5.1
4	18	49	43	70	72	100	178	67	35	25	8.0	5.1
5	26	37	44	65	64	93	226	63	*32	50	8.0	4.4
6	20	31	44	60	57	89	508	59	29	35	7.0	4.0
7	57	29	56	64	57	84	376	53	39	28	6.5	3.8
8	49	26	142	*66	60	79	250	48	34	24	6.3	4.2
9	31	25	114	64	80	84	223	44	27	20	5.8	3.6
10	25	23	82	58	*75	77	209	41	23	19	6.4	3.6
11	22	18	82	50	66	72	204	47	20	16	8.5	5.1
12	20	24	140	52	56	72	211	59	19	15	9.0	4.8
13	20	29	239	54	50	85	209	58	18	14	7.0	4.6
14	20	29	207	50	56	157	172	51	16	13	6.3	4.2
15	19	27	139	45	50	190	150	81	17	12	6.0	4.6
16	18	26	152	45	48	349	141	99	16	11	5.7	10
17	17	26	176	43	45	250	147	64	15	10	5.5	*22
18	16	28	145	40	43	193	150	56	13	9.0	5.5	12
19	16	23	100	37	42	170	154	50	12	8.5	5.5	7.7
20	16	32	132	36	41	154	156	219	12	8.0	5.3	6.5
21	16	37	114	38	40	156	154	235	10	7.5	5.1	6.2
22	16	292	116	50	40	184	130	128	9.4	7.0	4.6	6.2
23	16	125	109	700	41	198	114	100	8.8	7.0	4.4	32
24	20	72	113	244	43	*191	104	79	10	6.5	4.0	20
25	18	67	150	166	45	168	*96	64	11	6.5	4.0	12
26	16	70	120	143	75	154	93	58	55	7.0	6.8	9.1
27	16	64	109	120	380	152	87	86	*38	6.5	7.4	7.1
28	*16	56	116	104	215	154	110	64	25	8.0	5.9	6.5
29	15	56	106	94	-	149	101	55	35	14	4.8	6.2
30	14	53	90	84	--------	141	92	47	30	18	4.8	6.2
31	15	--------	60	75	--------	130	--------	42	--------	22	4.6	--------
Total	640	1,549	3,376	2,915	2,041	4,475	5,526	2,339	727.2	487.5	203.2	235.0
Mean	20.6	51.6	109	94.0	72.9	144	184	75.5	24.2	15.7	6.55	7.83
Cfsm	0.285	0.715	1.51	1.30	1.01	1.99	2.55	1.05	0.335	0.217	0.091	0.108
In.	0.33	0.80	1.74	1.50	1.05	2.31	2.85	1.20	0.37	0.25	0.10	0.12

Calendar year 1956: Max 1,670 Min 4.8 Mean 112 Cfsm 1.55 In. 21.06
Water year 1956-57: Max 700 Min 3.6 Mean 67.2 Cfsm 0.931 In. 12.62

Peak discharge (base, 1,750 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--No gage-height record Dec. 31 to Jan. 23, June 28 to Aug. 21; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage when available, and records for Williams River at Brockway Mills, Ottauquechee River at North Hartland, and stations on other nearby streams. Stage-discharge relation affected by ice Nov. 24, 25, Nov. 28 to Dec. 2, Dec. 10, 11, 19, 26, Dec. 30 to Jan. 23, Jan. 29 to Mar. 7, Mar. 11, 13.

Connecticut River at North Walpole, N. H.

Location.--Lat 43°07'35", long 72°26'15", on left bank at North Walpole, Cheshire County, 100 ft upstream from Saxtons River and 0.7 mile downstream from Vilas Bridge between Bellows Falls, Vt., and North Walpole, N. H. Records include flow of Saxtons River.
Drainage area.--5,493 sq mi, includes that of Saxtons River.
Records available.--March 1942 to September 1957.
Gage.--Water-stage recorder. Datum of gage is 218.63 ft above mean sea level, datum of 1929.
Average discharge.--15 years, 9,339 cfs (adjusted for storage).
Extremes.--Maximum discharge during year, 38,900 cfs Jan. 23 (gage height, 17.67 ft); minimum daily, 115 cfs Sept. 2.
1942-57: 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 known, 43.8 ft Mar. 19, 1936, from floodmarks.
Remarks.--Records excellent except those for periods of ice effect and doubtful or no gage-height record, which are good. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore Reservoir and Comerford Station Pond (see p. 233), and other reservoirs (combined usable capacity, about 19½ billion cubic feet).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.8	115	6.0	2,270
4.0	202	7.0	4,230
4.5	488	10.0	11,700
5.0	930	14.0	25,000
5.5	1,510		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,630	4,430	4,500	1,710	7,800	12,500	8,670	11,200	4,220	4,560	7,050	119
2	4,730	5,270	2,800	5,490	7,200	12,200	10,700	11,300	4,100	5,050	4,860	115
3	4,700	*2,440	5,000	4,700	4,600	8,770	16,300	10,600	6,830	4,020	2,430	2,730
4	6,120	2,510	4,700	4,500	5,200	8,950	13,900	5,040	6,490	4,470	850	2,920
5	5,890	3,590	5,400	4,630	7,000	9,900	14,100	d3,800	5,730	7,410	3,600	1,960
6	2,990	3,640	5,280	3,280	6,600	9,310	16,500	7,340	5,660	11,300	3,300	1,690
7	3,910	3,600	6,600	5,300	6,900	9,720	16,400	6,860	5,820	10,600	3,300	923
8	7,230	4,700	8,680	4,700	6,200	9,370	15,500	6,840	4,070	10,800	2,700	146
9	9,500	4,020	11,200	4,600	5,400	9,780	14,700	6,460	2,270	*7,320	2,700	1,950
10	9,790	2,040	8,830	4,600	4,560	5,400	13,800	5,970	5,790	5,630	1,300	1,590
11	7,030	1,120	8,590	4,100	5,400	6,460	14,100	2,430	5,330	5,370	1,500	2,160
12	5,240	1,510	10,400	3,500	5,900	7,140	13,400	2,100	5,730	4,960	3,600	1,920
13	4,090	4,150	9,500	3,000	5,700	7,840	12,800	6,660	4,120	4,260	3,600	2,470
14	656	4,690	9,860	4,400	5,200	9,260	12,000	6,510	4,040	2,680	3,400	774
15	6,020	4,810	9,510	3,800	5,700	10,300	11,000	6,630	1,910	2,910	4,300	242
16	5,880	4,650	6,100	4,400	5,500	16,000	9,670	11,200	735	4,210	4,200	1,790
17	5,800	2,680	7,260	3,700	3,450	16,600	11,400	12,700	3,290	3,700	700	2,410
18	5,110	2,320	9,580	4,500	4,400	12,900	12,800	10,800	2,640	3,360	200	2,510
19	4,640	5,300	9,130	3,500	5,550	13,700	13,200	5,370	d2,280	3,310	3,800	1,800
20	1,680	4,500	8,390	2,000	5,400	12,900	15,000	7,640	2,120	2,830	2,900	1,850
21	1,510	5,000	8,310	4,100	5,300	12,700	16,200	20,300	2,010	1,550	2,350	910
22	5,180	12,000	7,090	4,400	5,200	12,000	19,300	16,300	1,020	2,270	2,200	530
23	4,950	15,000	5,300	15,000	4,530	12,600	22,200	14,200	692	7,450	1,640	5,190
24	4,120	14,000	6,630	21,000	3,400	11,300	20,200	11,700	3,280	7,340	119	5,390
25	3,950	10,000	5,010	14,000	4,080	*12,000	17,300	11,400	3,180	7,380	471	6,260
26	3,980	6,600	6,620	12,500	5,430	12,000	13,900	5,560	7,220	5,960	2,700	4,450
27	1,950	6,400	7,210	11,000	11,400	12,000	13,000	7,530	8,310	3,520	2,890	3,550
28	706	7,200	5,570	9,400	18,000	11,900	*11,500	8,640	8,000	1,100	1,670	652
29	3,390	6,800	4,330	10,000	-	11,900	11,200	8,700	8,280	1,920	1,520	378
30	3,400	6,900	3,780	8,400	--------	11,900	11,200	5,530	5,530	3,520	1,540	2,180
31	3,900	--------	4,370	7,800	--------	7,760	--------	6,740	--------	5,970	218	--------
Total	142,672	161,870	215,530	198,010	171,000	337,060	421,940	265,050	130,697	156,730	77,608	61,559
Mean	4,602	5,396	6,953	6,387	6,107	10,870	14,060	8,550	4,357	5,056	2,503	2,052
(†)	-692	-104	-80.0	-475	-1,259	-1,231	+1,984	+1,164	+225	+352	-362	-219

Adjusted for change in reservoir contents

Mean	3,911	5,291	6,873	5,913	4,848	9,642	16,050	9,714	4,581	5,408	2,141	1,833
Cfsm	0.712	0.963	1.25	1.08	0.883	1.76	2.92	1.77	0.834	0.985	0.390	0.334
In.	0.82	1.07	1.44	1.24	0.92	2.02	3.26	2.04	0.93	1.13	0.45	0.37

	Observed						Adjusted					
Calendar year 1956:	Max	63,800	Min	310	Mean	8,726	Mean	8,944	Cfsm	1.63	In.	22.15
Water year 1956-57:	Max	22,200	Min	115	Mean	6,410	Mean	6,356	Cfsm	1.16	In.	15.69

Peak discharge (base, 44,000 cfs).--No peak above base.

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in First Connecticut and Second Connecticut Lakes, Lake Francis, Moore Reservoir and Comerford Station Pond, Union Village Reservoir, 4 reservoirs in Mascoma River basin, and Sunapee Lake.
d Doubtful gage-height record; discharge computed on basis of recorded graph, powerplant records, and records for Saxtons River at Saxtons River, Vt.
Note.--No gage-height record Nov. 20 to Dec. 4, Jan. 15-23, Aug. 4-22; discharge estimated on basis of weather records, recorded range in stage, powerplant records, and records for Saxtons River at Saxtons River, Vt. Stage-discharge relation affected by ice Jan. 3, 4, Jan. 7 to Feb. 9, Feb. 11-17, 20-22, 24, 28, Mar. 1.

Cold River at Drewsville, N. H.

Location.--Lat 43°07'55", long 72°23'25", on left bank 50 ft upstream from bridge on State Highway 101 at Drewsville, Cheshire County, 1.0 mile upstream from Great Brook, 2.7 miles east of Bellow Falls, Vt., and 3.4 miles upstream from mouth.

Drainage area.--82.7 sq mi.

Records available.--June 1940 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 375 ft (from topographic map).

Average discharge.--17 years, 115 cfs.

Extremes.--Maximum discharge during year, 1,040 cfs Jan. 23 (gage height, 5.74 ft); maximum gage height, 6.03 ft Jan. 23 (ice jam); minimum discharge, 6.0 cfs Nov. 11, Sept. 14, 15.

1940-57: Maximum discharge, 8,160 cfs Nov. 26, 1950 (gage height, 10.29 ft), from rating curve extended above 3,400 cfs by logarithmic plotting; minimum, 1.3 cfs Sept. 23, 1940.

Remarks.--Records excellent except those for periods of ice effect, 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).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23				Jan. 24 to Sept. 30			
1.6	11	3.5	155	1.3	5.4	3.0	96
1.9	20	4.0	248	1.5	9.0	3.5	157
2.2	30	4.5	395	1.8	17	4.0	248
2.6	55	5.0	605	2.2	34	4.5	395
3.0	91	5.5	870	2.6	61	5.0	605

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	13	21	41	82	175	143	82	41	22	22	6.5
2	15	16	*32	40	79	135	319	71	43	14	14	6.7
3	15	17	29	45	68	105	353	65	59	14	9.9	7.2
4	16	15	29	50	75	82	231	62	46	34	9.5	6.7
5	24	14	24	46	69	72	204	58	*38	47	12	6.8
6	21	13	30	43	60	70	299	53	34	43	9.0	6.5
7	37	13	34	45	60	67	312	50	39	28	7.8	6.4
8	51	13	55	48	61	65	250	46	37	20	7.2	6.2
9	37	14	58	46	55	67	225	43	32	17	6.8	6.2
10	30	14	45	43	63	68	212	41	27	15	9.7	6.2
11	26	11	42	37	58	60	214	38	24	13	12	6.5
12	24	15	143	40	52	60	214	41	22	12	12	6.2
13	22	20	195	40	45	62	225	50	21	11	9.9	6.2
14	22	23	160	36	46	122	186	47	19	9.9	8.0	6.2
15	20	20	100	35	*42	191	157	87	20	14	7.4	6.5
16	20	19	107	33	40	324	144	139	20	13	8.0	9.4
17	19	19	100	34	40	290	148	82	17	11	7.2	17
18	17	20	88	33	40	221	150	67	14	9.0	6.8	11
19	16	16	55	31	39	179	154	58	23	8.0	6.8	8.4
20	15	15	75	30	37	160	154	183	29	7.4	6.7	7.2
21	14	25	78	30	35	156	152	322	19	7.0	6.5	6.8
22	14	194	69	34	34	180	138	190	15	7.2	6.8	6.7
23	14	101	67	650	34	202	123	144	12	7.0	6.8	33
24	15	47	76	450	34	202	111	108	12	6.8	6.7	24
25	14	32	102	300	37	*179	100	84	16	6.8	6.8	16
26	13	43	71	205	60	163	*94	68	46	6.8	8.0	12
27	13	46	66	150	308	163	88	88	*61	6.8	7.6	*9.7
28	*13	40	80	120	219	166	105	75	36	7.0	7.2	8.8
29	13	36	73	110	-	166	96	63	27	12	6.8	8.4
30	12	28	51	88	--------	162	94	51	23	17	6.8	8.0
31	12	--------	37	80	--------	148	--------	44	--------	29	6.7	--------
Total	610	912	2,192	3,013	1,872	4,462	5,395	2,600	872	475.7	269.4	283.4
Mean	19.7	30.4	70.7	97.2	66.9	144	180	83.9	29.1	15.3	8.69	9.45
Cfsm	0.238	0.368	0.855	1.18	0.809	1.74	2.18	1.01	0.352	0.185	0.105	0.114
In.	0.27	0.41	0.99	1.35	0.84	2.01	2.43	1.17	0.39	0.21	0.12	0.13

Calendar year 1956: Max 1,820 Min 5.7 Mean 112 Cfsm 1.35 In. 18.51
Water year 1956-57: Max 650 Min 6.2 Mean 62.9 Cfsm 0.761 In. 10.32

Peak discharge (base, 1,000 cfs).--Jan. 23 (1 p.m.) 1,040 cfs (5.74 ft).

* Discharge measurement mede on this day.

Note.--Stage-discharge relation affected by ice Nov. 19, 20, 24, 25, 30, Dec. 1, 11, 14, 15, 17-19, 26, Dec. 30 to Jan. 16, Jan. 18, 22-31, Feb. 3, 6, 7, 9, 11-13, 15, 16, 20-22, Mar. 1-7, 11, 13 (no gage-height record Jan. 2-11).

West River at Jamaica, Vt.

Location.--Lat 43°06'30", long 72°46'30", on left bank a quarter of a mile upstream from highway bridge at Jamaica, Windham County, and 0.4 mile upstream from Ball Mountain Brook.

Drainage area.--179 sq mi.

Records available.--October 1946 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 640 ft (from topographic map).

Average discharge.--11 years, 367 cfs.

Extremes.--Maximum discharge during year, 6,200 cfs Jan. 23 (gage height, 9.49 ft); maximum gage height, 9.54 ft Jan. 23 (ice jam); minimum discharge, 11 cfs Aug. 25.
1946-57: Maximum discharge, 29,500 cfs Dec. 31, 1948 (gage height, 14.87 ft), from rating curve extended above 9,800 cfs by logarithmic plotting, verified by slope-area determination of peak flow; minimum, 5.0 cfs Aug. 28, 1949.

Remarks.--Records good except those for periods of ice effect, which are fair.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.7	12	5.5	460
3.9	24	6.0	750
4.2	52	7.0	1,680
4.5	105	8.0	3,060
5.0	243	9.0	5,010

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	80	130	185	200	485	280	284	121	130	151	14
2	73	186	140	180	185	347	1,540	226	114	82	81	14
3	88	382	120	180	175	255	1,180	201	164	59	50	15
4	86	207	125	190	185	215	602	189	114	351	40	33
5	143	153	*110	180	170	190	560	169	114	1,100	36	28
6	107	128	170	170	155	170	1,940	153	82	610	33	23
7	279	114	450	175	155	170	1,470	138	173	243	29	21
8	306	103	1,080	185	145	164	828	123	150	148	26	18
9	183	103	572	170	140	160	614	110	99	107	22	16
10	136	88	383	160	170	150	510	103	75	*99	30	15
11	114	66	320	150	180	135	490	114	60	79	56	16
12	110	90	983	*155	135	150	515	172	56	82	48	18
13	101	170	1,320	150	120	163	632	180	52	66	39	17
14	92	153	948	150	*130	356	460	150	51	55	29	16
15	86	140	560	135	125	560	365	285	45	48	25	18
16	79	146	770	130	120	1,300	352	493	41	41	23	27
17	73	148	836	125	120	990	410	258	36	36	19	107
18	71	150	590	120	120	566	495	291	31	31	17	*58
19	68	115	400	110	115	440	572	172	28	27	16	37
20	65	103	450	105	110	388	680	1,130	32	23	17	30
21	63	223	383	100	115	347	876	1,300	29	21	16	26
22	63	2,260	370	170	110	396	632	572	24	21	14	26
23	66	752	338	3,300	105	440	440	392	21	33	12	123
24	82	350	360	1,380	105	*450	370	292	28	27	12	111
25	79	250	510	715	105	388	308	213	43	26	12	56
26	*66	280	378	535	150	347	*276	189	1,140	24	16	40
27	65	225	295	400	1,200	334	250	325	422	20	25	31
28	65	200	320	300	738	329	370	233	198	47	24	26
29	60	170	288	250	-	342	342	*183	224	112	18	24
30	58	150	220	220	--------	329	356	150	239	144	16	24
31	58	--------	170	210	--------	296	--------	128	--------	276	15	--------
Total	3,064	7,685	14,089	10,685	5,583	11,352	18,715	8,828	4,006	4,168	967	1,028
Mean	98.8	256	454	345	199	366	624	285	134	134	31.2	34.3
Cfsm	0.552	1.43	2.54	1.93	1.11	2.04	3.49	1.59	0.749	0.749	0.174	0.192
In.	0.64	1.60	2.93	2.22	1.16	2.36	3.89	1.83	0.83	0.87	0.20	0.21

Calendar year 1956:	Max	6,270	Min	9.1	Mean	373	Cfsm	2.08	In.	28.42	
Water year 1956-57:	Max	3,300	Min	12	Mean	247	Cfsm	1.38	In.	18.74	

Peak discharge (base, 4,500 cfs).--Jan. 23 (11:30 a.m.) 6,200 cfs (9.49 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 11, 19, 20, Nov. 24 to Dec. 7, Dec. 19, 27, Dec. 30 to Jan. 23, Jan. 27 to Feb. 27, Mar. 3-7, 9-11.

West River at Newfane, Vt.

Location.--Lat 42°59'45", long 72°38'20", on right bank 600 ft downstream from highway bridge and 1 mile northeast of Newfane, Windham County.

Drainage area.--308 sq mi.

Records available.--September 1919 to September 1923, October 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 384.21 ft above mean sea level, datum of 1929. Prior to June 27, 1931, chain gage at site 600 ft upstream at same datum.

Average discharge.--33 years, 617 cfs.

Extremes.--Maximum discharge during year, 11,000 cfs Jan. 23 (gage height, 10.30 ft); maximum gage height not determined, occurred Jan. 23 (ice jam) during brief period of no gage-height record; minimum discharge, 26 cfs Aug. 25.

1919-23, 1928-57: 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 determination at gage height 19.3 ft and slope-area determinations at gage heights 19.46 and 22.81 ft; minimum, 13 cfs Sept. 17, 18, 1948, Aug. 27, 28, 1949.

Flood of Nov. 3, 1927, reached a stage of 23.0 ft, from floodmarks, at chain-gage site (discharge, 45,000 cfs, from rating curve extended by logarithmic plotting and on basis of computation of flow over dam at West Dummerston).

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair.

Revisions (water years).--WSP 756: Drainage area. WSP 1231: 1922-23, 1929-31(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 6				Apr. 7 to Sept. 30			
4.1	73	6.0	1,410	3.8	24	5.0	520
4.3	138	7.0	2,710	3.9	38	5.5	910
4.5	225	8.0	4,550	4.1	79	6.0	1,410
5.0	505	9.0	6,920	4.3	145	7.0	2,710
5.5	905			4.5	230		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	112	200	310	340	924	492	464	203	222	230	29
2	100	244	245	300	320	666	2,280	374	190	146	136	28
3	104	686	245	300	300	470	2,110	330	240	104	84	29
4	119	369	240	320	330	380	1,120	308	198	394	66	34
5	159	265	*216	300	290	325	1,030	286	165	1,180	64	46
6	163	212	240	280	265	320	3,070	255	145	945	56	40
7	236	184	463	300	280	315	2,640	226	194	384	49	34
8	482	163	1,560	310	250	305	1,490	208	262	235	44	33
9	280	159	966	285	240	305	1,140	194	173	169	40	30
10	202	142	612	260	310	290	928	181	137	*141	39	29
11	163	108	480	245	320	240	919	221	107	122	85	29
12	146	130	1,320	*250	240	275	910	284	98	111	79	30
13	142	212	2,000	260	225	265	1,180	346	90	101	69	30
14	127	245	1,650	235	*220	551	865	280	84	87	53	29
15	119	202	952	220	216	952	692	401	92	76	44	30
16	111	212	1,100	210	212	2,040	653	684	84	66	42	39
17	100	207	1,380	205	202	1,730	692	438	72	60	38	115
18	97	220	981	190	202	1,070	796	340	62	51	33	*110
19	97	184	642	180	189	824	892	296	58	46	32	69
20	91	142	690	170	180	714	1,030	1,350	56	42	34	51
21	86	218	620	165	194	628	1,280	2,240	53	39	32	46
22	86	3,110	612	160	176	706	1,060	1,060	48	36	33	42
23	86	1,250	561	5,800	176	798	740	700	44	39	30	92
24	104	635	568	2,500	167	*824	625	527	42	48	27	197
25	115	380	790	1,000	172	706	534	396	57	40	26	104
26	*97	440	642	800	256	650	*478	335	1,120	40	29	72
27	91	410	519	650	1,900	605	438	453	717	38	39	56
28	89	358	533	550	1,400	598	485	396	314	51	42	48
29	86	300	486	475	-	605	555	*313	272	138	38	42
30	81	285	300	415	--------	582	513	260	395	166	33	40
31	79	--------	250	370	--------	519	--------	221	--------	276	32	--------
Total	4,146	11,784	22,063	18,015	9,552	20,182	31,637	14,367	5,772	5,593	1,678	1,603
Mean	134	393	712	581	341	651	1,055	463	192	180	54.1	53.4
Cfsm	0.435	1.28	2.31	1.89	1.11	2.11	3.43	1.50	0.623	0.584	0.176	0.173
In.	0.50	1.42	2.66	2.18	1.15	2.44	3.82	1.73	0.70	0.68	0.20	0.19

Calendar year 1956: Max 11,900 Min 23 Mean 627 Cfsm 2.04 In. 27.72
Water year 1956-57: Max 5,800 Min 26 Mean 401 Cfsm 1.30 In. 17.67

Peak discharge (base, 8,800 cfs).--Jan. 23 (1:30 p.m.) 11,000 cfs (10.30 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 24 to Feb. 14; discharge estimated on basis of 1 discharge measurement, weather records, and records for station at Jamaica. Stage-discharge relation affected by ice Nov. 19, 20, 24, 25, 30, Dec. 1, 11, Dec. 30 to Jan. 23, Feb. 27, 28, Mar. 3-7, 11, and at times during period of no gage-height record.

Connecticut River at Vernon, Vt.

Location.--Lat 42°46'10", long 72°30'50", on right bank just downstream from Vernon Dam at Vernon, Windham County, 2 miles upstream from Ashuelot River.

Drainage area.--6,266 sq mi.

Records available.--February to April 1936 (in WSP 798), September and October 1938 (in WSP 867), October 1944 to September 1957.

Gage.--Water-stage recorder. Datum of gage is at mean sea level, datum of 1929. Prior to Jan. 20, 1948, at datum 94.13 ft higher.

Average discharge.--13 years (1944-57), 10,720 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, about 30,000 cfs Jan. 24 (elevation, 192.36 ft, backwater from ice); minimum daily, 260 cfs June 16.
1936, 1938, 1944-57: Maximum discharge, 176,000 cfs Mar. 19, 20, 1936 (gage height, 128.8 ft, datum then in use), from rating curve extended above 69,000 cfs; minimum daily, 99 cfs Oct. 8, 1944.

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 Reservoir and Comerford Station Pond (see p. 233), and other reservoirs (combined usable capacity, about 20 billion cubic feet).

Revisions.--WSP 1031: Drainage area.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,990	5,520	5,150	2,090	8,000	15,900	8,960	11,100	5,340	5,980	6,720	321
2	5,230	7,110	2,380	6,400	10,000	14,000	12,500	9,150	5,050	5,450	4,450	316
3	5,170	3,290	6,550	6,000	4,800	11,700	18,400	10,600	7,140	*4,600	1,190	3,570
4	5,850	1,690	5,700	6,060	6,800	11,600	15,800	7,410	7,300	5,360	408	3,060
5	6,390	4,740	6,320	4,000	7,800	10,900	16,100	2,280	6,440	7,700	3,970	2,170
6	2,810	4,540	6,300	3,350	8,000	10,500	20,800	7,660	7,010	12,100	3,670	1,460
7	4,500	4,510	7,560	7,340	6,600	11,600	21,000	7,480	7,160	12,200	3,670	343
8	7,500	4,750	8,750	6,490	6,000	9,050	17,000	6,890	3,980	11,700	3,390	343
9	10,200	4,720	12,000	5,940	7,800	10,900	16,500	7,350	683	7,500	3,530	2,550
10	10,300	1,810	10,800	5,700	5,000	5,430	14,900	7,250	6,870	6,020	1,530	2,410
11	8,560	720	9,530	5,100	6,730	7,810	15,500	4,170	5,900	5,620	964	2,650
12	5,980	1,410	13,100	3,070	6,390	9,670	15,400	2,450	5,510	5,540	4,410	2,260
13	2,380	4,900	10,900	2,690	6,820	7,660	14,600	6,540	4,530	3,130	4,370	2,200
14	1,390	4,730	12,400	5,700	6,190	10,600	13,900	6,780	5,030	1,640	4,010	338
15	6,780	5,160	12,400	4,700	6,370	12,200	13,700	8,060	1,950	3,860	4,670	343
16	6,880	5,250	7,930	4,800	*7,110	18,300	12,800	12,200	260	3,650	4,500	3,070
17	6,410	3,190	9,020	4,300	3,040	19,800	12,000	13,200	3,630	3,260	*497	2,290
18	6,380	3,620	12,300	5,240	5,860	14,500	13,000	12,500	3,310	3,220	310	2,190
19	6,110	5,800	11,200	4,660	5,870	15,500	13,200	4,820	2,520	3,710	3,510	2,770
20	1,290	6,290	8,510	3,070	6,500	14,400	15,300	8,980	2,880	3,010	3,470	1,940
21	862	6,200	9,620	5,800	6,460	14,400	16,800	22,500	1,940	883	3,360	348
22	5,100	14,100	8,640	5,800	5,770	13,600	20,200	16,900	265	4,040	3,000	295
23	6,410	16,400	7,460	18,000	4,730	13,600	22,400	14,600	346	9,350	2,100	6,280
24	4,780	15,200	8,530	28,000	2,200	13,700	19,800	13,500	3,370	7,450	321	5,740
25	4,040	11,200	7,150	18,000	6,880	13,600	17,800	13,200	3,120	5,790	310	6,540
26	4,340	8,070	7,550	15,000	6,620	*13,400	15,000	4,760	6,370	6,290	2,950	2,920
27	570	7,790	8,630	13,000	13,400	13,400	*13,400	8,480	10,200	2,290	3,500	*2,930
28	270	8,500	6,710	11,000	19,100	13,400	13,300	*11,000	9,250	678	1,780	1,010
29	*3,630	7,680	4,970	10,500	-	13,200	12,900	10,000	6,400	3,740	1,660	305
30	3,460	7,770	4,210	10,500	--------	13,000	12,200	6,240	6,700	4,250	2,120	2,230
31	3,530	--------	6,050	9,000	--------	9,560	--------	7,270	--------	6,570	326	--------
Total	152,092	186,660	258,320	241,300	196,940	386,880	465,160	285,320	140,454	166,581	84,664	65,192
Mean	4,906	6,222	8,333	7,784	7,034	12,480	15,510	9,204	4,682	5,374	2,731	2,173
(†)	-692	-104	-80.0	-475	-1,259	-1,231	+1,984	+1,164	+225	+352	-362	-219
Adjusted for change in reservoir contents												
Mean	4,215	6,118	8,253	7,309	5,775	11,249	17,490	10,370	4,907	5,725	2,369	1,954
Cfsm	0.673	0.976	1.32	1.17	0.992	1.80	2.79	1.65	0.783	0.914	0.378	0.312
In.	0.78	1.09	1.52	1.34	0.96	2.07	3.11	1.91	0.87	1.05	0.44	0.35

	Observed			Adjusted		
Calendar year 1956:	Max 75,600	Min 270	Mean 10,050	Mean 10,270	Cfsm 1.64	In. 22.31
Water year 1956-57:	Max 28,000	Min 260	Mean 7,204	Mean 7,150	Cfsm 1.14	In. 15.49

Peak discharge (base, 50,000 cfs.--No peak above base.

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in First Connecticut and Second Connecticut Lakes, Lake Francis, Moore Reservoir and Comerford Station Pond, Union Village Reservoir, 4 reservoirs in Mascoma River basin, and Sunapee Lake.
Note.--Stage-discharge relation affected by ice Jan. 2, 3, 10, 11, 14-17, Jan. 21 to Feb. 10.

Ashuelot River near Gilsum, N. H.

Location.--Lat 43°02'20", long 72°16'15", on right bank 50 ft downstream from White Brook, 60 ft upstream from stone-arch bridge just off Keene-Newport road, and 0.7 mile downstream from Gilsum, Cheshire County.

Drainage area.--71.1 sq mi.

Records available.--August 1922 to September 1957.

Gage.--Water-stage recorder. Concrete control since Oct. 13, 1942. Datum of gage is 773.86 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--35 years, 125 cfs.

Extremes.--Maximum discharge during year, 568 cfs Jan. 23 (gage height, 4.58 ft); maximum gage height not determined, occurred Jan. 23 (ice jam); minimum discharge, 4.2 cfs Sept. 1, 2.

1922-57: Maximum discharge, 5,220 cfs Sept. 21, 1938 (gage height, 11.24 ft in gage well), from rating curve extended above 2,000 cfs on basis of float measurements and slope-area determination at gage height 11.24 ft; maximum gage height, 12.80 ft Mar. 19, 1936; minumum discharge, about 1 cfs Oct. 6, 1922, July 10, 1923, Nov. 14, 1952.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by reservoir above station. Diurnal fluctuation caused by powerplant above station prior to 1938.

Revisions (water years).--WSP 661: Drainage area. WSP 781: 1934(M). WSP 1231: 1923-27(M), 1928, 1929-30(M), 1931, 1932(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 24 to June 5; backwater from sandbags Oct. 12)

Oct. 1-12		Oct. 13 to Sept. 30					
1.7	17	1.29	4.2	1.7	19	4.0	387
2.0	38	1.3	4.3	2.0	39	5.0	715
		1.4	6.3	2.5	88		
		1.5	9.2	3.0	163		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	12	45	49	120	299	136	91	69	37	24	4.3
2	22	15	*43	46	105	200	242	77	67	28	17	4.2
3	21	18	36	47	95	145	368	68	*72	23	14	4.3
4	21	15	36	50	87	120	319	62	63	34	12	5.4
5	23	14	34	45	80	90	271	59	53	45	12	5.2
6	20	13	36	42	72	75	290	54	*45	52	10	4.9
7	29	13	38	43	66	62	326	46	48	43	8.8	6.3
8	35	13	61	44	62	58	297	40	46	35	7.9	7.6
9	32	14	87	46	58	57	269	36	39	28	7.6	6.1
10	29	14	90	40	55	64	236	35	32	24	11	5.8
11	25	12	89	36	51	60	227	39	27	21	13	5.8
12	21	13	168	35	46	58	219	46	24	20	12	5.6
13	21	17	276	35	44	56	230	49	23	19	11	5.8
14	20	18	292	33	39	77	209	46	20	20	9.2	5.8
15	19	18	247	32	*36	135	184	60	18	20	7.9	5.8
16	18	18	209	31	35	276	158	100	17	16	8.2	7.6
17	*17	19	184	30	34	302	153	104	16	14	8.2	12
18	16	21	160	29	33	249	156	84	15	13	7.6	9.2
19	15	21	120	28	32	193	163	66	21	12	6.5	7.3
20	14	21	115	27	31	163	173	109	29	12	6.3	6.5
21	14	27	103	27	29	146	184	272	23	11	6.1	6.1
22	14	160	97	32	28	163	180	249	18	10	5.8	5.8
23	14	188	84	350	28	182	163	197	16	9.7	5.4	9.7
24	15	156	101	526	27	191	146	156	14	9.2	5.2	*11
25	14	114	110	427	28	*175	132	118	14	8.8	5.0	9.2
26	13	92	100	329	40	165	118	94	*50	8.2	5.2	9.7
27	13	78	95	278	235	154	107	97	88	7.9	5.2	7.6
28	13	66	90	242	385	153	109	133	67	8.5	5.0	7.6
29	13	57	80	193	-	154	*109	116	57	12	4.7	6.3
30	12	47	58	160	-------	154	102	94	46	17	4.5	5.8
31	12	-------	53	140	-------	146	-------	78	-------	28	4.5	-------
Total	589	1,304	3,337	3,472	1,981	4,522	5,976	2,875	1,137	646.3	270.8	204.9
Mean	19.0	43.5	108	112	70.8	146	199	92.7	37.9	20.8	8.74	6.83
Cfsm	0.267	0.612	1.52	1.58	0.996	2.05	2.80	1.30	0.533	0.293	0.123	0.096
In.	0.31	0.68	1.75	1.82	1.04	2.37	3.13	1.50	0.59	0.34	0.14	0.11

Calendar year 1956: Max 1,720 Min 4.4 Mean 119 Cfsm 1.67 In. 22.73
Water year 1956-57: Max 526 Min 4.2 Mean 72.1 Cfsm 1.01 In. 13.78

Peak discharge (base, 1,000 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 25, Nov. 29 to Dec. 1, Dec. 5, 10, 11, 19-23, Dec. 25 to Jan. 23, Jan. 30 to Feb. 15, Feb. 27, 28, Mar. 2-7, 10, 11, 13.

Ashuelot River below Surry Mountain Dam, near Keene, N. H.

Location.--Lat 42°59'45", long 72°18'40", on right bank 600 ft downstream from Surry Mountain Dam, 2½ miles upstream from Sturtevant Brook, and 4½ miles north of Keene, Cheshire County.

Drainage area.--101 sq mi.

Records available.--September 1945 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 480.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Average discharge.--12 years, 170 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 579 cfs Jan. 28 (gage height, 7.50 ft); minimum daily, 4.8 cfs Sept. 2.
1945-57: Maximum discharge, 1,090 cfs Mar. 31, Apr. 9, 1950 (gage height, 8.94 ft); minimum daily, 0.8 cfs Dec. 4-7, 1948.

Remarks.--Records excellent. Flow regulated by Surry Mountain Reservoir (see p. 233).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

4.1	4.3	5.5	82
4.2	5.9	6.0	154
4.4	10	6.5	257
4.7	20	7.0	402
5.0	36	7.5	579

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	18	30	76	103	405	199	132	87	51	34	4.9
2	32	23	31	76	116	268	280	116	83	40	24	4.8
3	31	31	31	60	115	230	448	104	*90	31	18	5.6
4	31	26	32	64	103	180	428	96	78	46	16	5.9
5	37	22	32	85	103	132	356	90	*41	60	16	6.1
6	31	20	32	83	103	119	359	83	78	68	14	5.7
7	45	20	32	*83	102	119	421	74	61	58	12	7.0
8	51	20	48	76	87	118	468	65	60	46	10	13
9	45	24	96	72	81	105	377	58	51	38	9.3	10
10	39	22	119	72	80	100	309	56	44	32	16	8.5
11	35	19	128	72	81	88	312	70	38	28	18	9.1
12	32	22	157	72	*67	81	295	86	34	26	16	8.7
13	30	26	250	71	61	95	301	85	30	24	14	8.0
14	28	28	359	64	61	114	281	76	28	22	12	8.2
15	27	26	374	55	62	178	242	108	26	25	11	7.8
16	26	26	402	50	62	364	216	138	23	20	11	10
17	*24	28	315	50	61	514	205	140	21	17	11	16
18	24	31	188	50	61	334	205	121	19	16	9.8	15
19	22	30	124	50	60	344	209	102	28	14	8.7	12
20	20	28	141	49	52	374	214	151	43	13	*8.2	9.8
21	20	36	162	49	48	295	220	312	32	13	7.6	9.1
22	20	210	182	50	48	250	216	304	25	13	7.8	8.5
23	20	227	157	71	47	273	199	230	20	16	6.8	14
24	21	197	144	112	40	284	184	184	17	15	6.3	*16
25	20	150	149	330	36	260	169	148	*19	15	6.1	13
26	18	121	151	489	45	*240	157	124	66	14	7.6	13
27	18	114	149	482	159	227	146	118	114	13	7.0	11
28	18	65	148	533	366	227	152	151	92	14	6.3	10
29	18	28	148	514	-	227	*152	136	76	15	5.7	9.6
30	17	*30	110	321	--------	223	144	115	64	21	5.6	8.5
31	17	--------	75	161	--------	209	--------	98	--------	44	5.3	--------
Total	852	1,668	4,496	4,442	2,410	6,977	7,864	3,871	1,488	868	391.1	288.8
Mean	27.5	55.6	145	143	86.1	225	262	125	49.6	28.0	11.6	9.63
(†)	-0.04	+7.60	+5.41	+0.30	+5.70	-17.7	-0.23	-0.11	-0.08	-0.04	-0.04	0
Adjusted for change in contents in Surry Mountain Reservoir												
Mean	27.5	63.2	150	144	91.8	207	262	125	49.5	28.0	11.6	9.63
Cfsm	0.272	0.626	1.49	1.43	0.909	2.05	2.59	1.24	0.490	0.277	0.115	0.095
In.	0.31	0.70	1.72	1.64	0.95	2.37	2.89	1.42	0.55	0.32	0.13	0.11

	Observed			Adjusted			
Calendar year 1956 :	Max 988	Min 5.7	Mean 167	Mean 167	Cfsm 1.65	In. 22.50
Water year 1956-57 :	Max 533	Min 4.8	Mean 97.5	Mean 97.5	Cfsm 0.965	In. 13.11

* Discharge measurement made on this day..
† Change in contents, equivalent in cubic feet per second, in Surry Mountain Reservoir.

Otter Brook near Keene, N. H.

Location.--Lat 42°57'55", long 72°14'00", on left bank 10 ft downstream from bridge near State Highway 9, 3½ miles northeast of Keene, Cheshire County, and 3½ miles upstream from Minnewawa Brook.

Drainage area.--42.3 sq mi.

Records available.--October 1923 to September 1957.

Gage.--Water-stage recorder. Concrete control since Nov. 17, 1936. Datum of gage is 716.11 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--34 years, 71.0 cfs.

Extremes.--Maximum discharge during year, 480 cfs Jan. 23 (gage height, 4.40 ft); maximum gage height, 6.34 ft Jan. 23 (ice jam); minimum discharge, 1.0 cfs Sept. 2.
1923-57: Maximum discharge, 6,130 cfs Sept. 21, 1938 (gage height, 7.93 ft), from rating curve extended above 1,300 cfs on basis of surface-float measurements and slope-area and contracted-opening determinations at gage heights 7.10 and 7.93 ft; minimum, that of Sept. 2, 1957.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated at times by Granite Lake above station.

Revisions (water years).--WSP 871: Drainage area. WSP 1231: 1924(M), 1928, 1933-34(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 22

2.3	4.8
2.4	7.0
2.6	13

Note.--Same as following table above 2.6 ft.

Jan. 23 to Sept. 30

1.9	1.1	2.8	21
2.0	1.7	3.0	37
2.1	2.6	3.2	60
2.2	3.8	3.5	113
2.4	7.4	3.8	203
2.6	13	4.1	330

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.6	5.7	*19	28	65	129	90	49	36	11	6.8	1.2
2	12	7.0	21	26	60	95	174	42	48	8.1	5.1	1.1
3	33	11	20	28	54	83	211	40	*54	7.0	4.4	1.4
4	37	8.6	20	29	49	65	151	37	41	19	4.4	4.6
5	42	7.3	17	26	44	50	134	35	35	18	4.5	9.0
6	36	6.3	20	25	40	42	198	32	28	15	3.5	11
7	48	5.9	24	25	37	37	214	30	27	9.5	3.0	12
8	45	6.3	46	26	35	36	176	26	23	8.1	2.7	18
9	42	8.9	50	27	32	35	160	22	20	7.2	2.6	13
10	38	7.5	42	23	30	38	142	25	19	7.0	3.0	9.7
11	37	6.2	37	21	28	36	136	47	17	6.4	3.5	9.5
12	35	7.5	119	21	26	35	142	62	14	5.8	3.6	8.3
13	33	11	154	21	24	38	151	52	13	5.2	2.6	7.2
14	32	19	129	20	23	62	129	46	11	4.9	2.8	6.4
15	30	21	98	19	22	98	109	62	9.7	4.4	2.6	5.8
16	30	20	92	18	21	196	100	66	8.8	3.6	*2.7	5.8
17	29	20	90	18	21	179	98	53	7.9	3.5	2.4	7.0
18	28	15	78	17	20	136	98	47	7.2	3.4	2.4	5.6
19	26	13	65	17	19	116	98	42	7.0	3.1	2.3	4.4
20	26	12	62	16	18	100	98	68	9.0	2.8	2.4	3.9
21	25	20	58	16	17	96	94	113	7.0	2.3	2.4	3.8
22	24	143	54	20	17	*105	89	84	5.8	2.2	2.1	3.8
23	25	89	50	330	16	116	78	69	5.1	2.8	1.8	20
24	26	56	56	316	16	118	*72	58	*3.9	2.7	1.5	*10
25	24	40	64	230	17	111	65	48	4.7	2.4	1.4	6.6
26	22	38	56	180	25	102	60	45	25	2.1	1.4	5.4
27	20	36	53	155	145	102	57	53	25	2.0	1.3	4.4
28	19	32	50	130	185	102	65	74	14	2.1	1.2	4.1
29	*17	28	45	105	-	102	60	58	13	3.9	1.2	3.6
30	15	24	34	90	-------	100	56	48	13	16	1.1	3.5
31	9.0	-------	30	75	-------	92	-------	40	-------	12	1.1	-------
Total	873.6	725.2	1,753	2,098	1,106	2,752	3,505	1,573	552.1	203.5	83.8	210.1
Mean	28.2	24.2	56.5	67.7	39.5	88.8	117	50.7	18.4	6.56	2.70	7.00
Cfsm	0.667	0.572	1.34	1.60	0.934	2.10	2.77	1.20	0.435	0.155	0.064	0.165
In.	0.77	0.64	1.54	1.84	0.97	2.42	3.08	1.38	0.49	0.18	0.07	0.18

Calendar year 1956: Max 1,160 Min 1.2 Mean 74.2 Cfsm 1.75 In. 23.87
Water year 1956-57: Max 330 Min 1.1 Mean 42.3 Cfsm 1.00 In. 13.56

Peak discharge (base, 600 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 24, 25, Nov. 29 to Dec. 1, Dec. 5, 19, Dec. 22 to Jan. 23, Jan. 25 to Feb. 28, Mar. 2-14 (no gage-height record Jan. 31 to Feb. 9). Discharge in cubic feet per second per square mile and runoff in inches during October do not represent natural flow because of regulation.

South Branch Ashuelot River at Webb, near Marlboro, N. H.

Location.--Lat 42°52'20", long 72°12'55", on right bank 15 ft downstream from bridge, 800 ft southwest of Webb station on Boston and Maine Railroad, and 2½ miles south of Marlboro, Cheshire County.

Drainage area.--36.0 sq mi.

Records available.--October 1920 to September 1957. October 1920 monthly discharge only, 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, datum of 1929 (levels by Corps of Engineers).

Average discharge.--37 years, 59.5 cfs.

Extremes.--Maximum discharge during year, about 475 cfs Jan. 23 (occurred during period of no gage-height record); maximum gage height, 5.61 ft Jan. 23 (ice jam); minimum discharge, 1.8 cfs Sept. 3, 4; minimum daily, 2.0 cfs Sept. 3, 4, 30.

1920-57: 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 determinations 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.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by powerplant and several small reservoirs above station.

Revisions (water years).--WSP 641: 1925(M). WSP 871: Drainage area. WSP 1231: 1921-24(M), 1926(M), 1929, 1933-34(M), 1939.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 21		Nov. 22 to Sept. 30					
1.8	4.4	1.69	2.0	2.5	22	4.0	122
2.0	8.4	1.7	2.1	3.0	40	4.3	215
2.3	19	1.9	5.5	3.5	60	4.6	350
2.6	28	2.2	13	3.8	86		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.4	8.0	*19	32	60	101	86	31	35	*26	4.7	2.4
2	11	8.7	16	31	55	71	152	26	38	19	4.6	2.1
3	13	17	17	30	50	55	194	25	68	12	4.0	2.0
4	14	13	17	29	47	50	125	24	39	26	3.6	2.0
5	22	12	16	28	44	38	107	21	31	35	3.1	2.3
6	20	12	16	27	42	35	214	21	25	30	3.0	2.6
7	20	11	20	27	40	32	208	22	31	23	3.3	3.3
8	24	10	30	28	39	32	146	20	26	21	5.8	2.7
9	20	10	33	29	37	40	122	19	22	12	4.6	2.1
10	16	10	29	30	38	40	101	20	19	9.7	6.3	2.1
11	13	8.7	26	27	*38	37	109	50	17	7.7	3.1	2.8
12	11	7.3	113	26	32	35	120	101	15	6.8	2.7	3.4
13	10	9.5	161	26	29	45	114	85	14	5.9	2.6	3.6
14	7.5	13	130	22	26	70	96	73	13	5.9	2.7	3.4
15	7.1	12	80	22	24	104	88	88	13	5.9	2.8	2.3
16	8.7	11	76	23	23	242	77	94	16	5.9	3.0	*2.9
17	9.2	12	90	22	22	214	55	70	14	5.9	3.0	5.5
18	9.0	12	71	21	22	141	68	51	13	5.3	2.6	5.7
19	8.7	12	60	20	22	109	67	34	16	4.6	2.4	4.7
20	8.2	13	48	19	21	84	55	66	33	4.4	2.4	4.2
21	6.4	22	42	19	20	80	56	141	22	3.6	2.4	3.6
22	5.8	290	40	32	19	*90	66	93	16	3.3	2.8	2.6
23	7.1	157	39	330	18	100	54	60	9.0	3.6	3.0	5.6
24	*8.2	64	46	300	19	96	*48	48	7.7	3.8	3.0	4.9
25	8.2	37	82	210	22	101	38	31	15	4.2	2.7	4.7
26	8.0	32	70	160	41	98	41	29	47	3.8	2.4	4.6
27	8.0	33	57	130	212	96	35	*109	88	4.9	2.3	4.4
28	7.3	30	44	110	160	94	32	166	56	5.6	2.3	3.8
29	5.8	25	45	90	-	103	40	90	42	6.8	2.4	2.4
30	6.4	22	35	80	-------	86	37	53	34	5.7	2.6	2.0
31	7.3	-------	33	70	-------	83	-------	42	-------	4.6	2.7	-------
Total	339.3	934.2	1,601	2,050	1,222	2,602	2,751	1,803	834.7	321.9	98.9	100.7
Mean	10.9	31.1	51.6	66.1	43.6	83.9	91.7	58.2	27.8	10.4	3.19	3.36
Cfsm	0.303	0.864	1.43	1.84	1.21	2.33	2.55	1.62	0.772	0.289	0.89	0.093
In.	0.35	0.97	1.65	2.12	1.26	2.69	2.84	1.86	0.86	0.33	0.10	0.10

Calendar year 1956: Max 1,000 Min 2.5 Mean 65.8 Cfsm 1.83 In. 24.89
Water year 1956-57: Max 330 Min 2.0 Mean 40.2 Cfsm 1.12 In. 15.17

Peak discharge (base, 550 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 15-22, Jan. 24 to Feb. 11; discharge estimated on basis of 1 discharge measurement, weather records, and records for Ashuelot River near Gilsum, Ashuelot River at Hinsdale, and Otter Brook near Keene. Stage-discharge relation affected by ice Nov. 25, Dec. 1, 5, 11, 19, 20, 26, 27, Dec. 30 to Jan. 8, Jan. 23, Feb. 12-15, 18, 20-22, 28, Mar. 3-7, 10, 11, 13, and at times during periods of no gage-height record.

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Ashuelot River at Hinsdale, N. H.

Location.--Lat 42°47'05", long 72°29'10", on left bank 40 ft upstream from highway bridge at Hinsdale, Cheshire County, a quarter of a mile downstream from dam, and 1¼ miles upstream from mouth.

Drainage area.--420 sq mi.

Records available.--March 1907 to December 1911, July 1914 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 201.32 ft above mean sea level (levels by Corps of Engineers). Prior to Sept. 29, 1933, chain gage on highway bridge at same datum.

Average discharge.--47 years, 656 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 2,010 cfs Jan. 24 (gage height, 5.88 ft); minimum, 21 cfs Sept. 30; minimum daily, 25 cfs Sept. 6.
1907-11, 1914-57: Maximum discharge, 18,500 cfs Mar. 29, 1920 (gage height, 10.1 ft, from graph based on gage readings), from rating curve extended above 8,000 cfs; 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.

Remarks.--Records excellent except those for periods of ice effect, and those computed from twice-daily tape-gage readings, which are good. Flow regulated by mills above station. High flow affected by Surry Mountain Reservoir since 1942 (see p. 233).

Revisions (water years).--WSP 661: Drainage area. WSP 781: 1907-11 calendar years, 1914-34. WSP 1301: 1915(M), 1917-19(M), 1921-33(M). WSP 1331: 1920(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.6	24	4.1	445
2.9	51	4.5	700
3.2	97	5.0	1,070
3.5	172	6.0	2,170
3.8	283		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146	140	220	400	668	1,410	812	487	427	212	78	55
2	172	169	185	390	583	1,170	915	445	368	185	79	58
3	160	227	195	380	557	840	1,340	403	493	*152	78	49
4	185	195	220	370	544	742	1,390	368	493	212	72	35
5	224	163	209	370	538	661	1,280	311	391	242	73	27
6	242	146	*209	330	512	583	1,550	311	310	231	67	25
7	212	138	224	320	487	570	1,830	325	316	163	66	28
8	271	133	271	340	481	564	1,670	297	311	166	67	33
9	283	138	336	360	457	564	1,500	267	246	158	66	43
10	235	138	385	350	475	531	1,340	227	224	140	64	58
11	205	112	391	340	460	480	1,270	388	224	120	64	61
12	205	114	594	340	430	505	1,240	616	209	112	61	63
13	192	116	1,030	300	397	463	1,200	728	195	110	56	64
14	155	128	1,260	300	374	609	1,120	602	179	99	58	63
15	155	138	1,160	280	358	900	1,010	564	179	98	58	58
16	172	140	1,090	300	*330	1,510	952	707	152	88	58	47
17	172	143	1,090	290	325	1,910	885	707	146	83	59	64
18	169	155	960	280	330	1,730	848	590	138	79	58	73
19	160	160	680	270	336	1,520	855	469	146	79	56	72
20	143	149	661	240	306	1,230	833	505	182	76	52	66
21	114	169	654	240	280	1,200	763	975	158	78	51	61
22	105	643	642	310	270	1,140	742	1,110	158	73	54	58
23	136	1,090	570	1,000	246	1,160	700	915	128	70	51	76
24	152	848	668	1,860	238	1,180	668	735	123	67	55	118
25	*149	550	798	1,770	258	1,140	635	596	99	66	51	92
26	140	493	780	1,610	364	*1,050	609	469	114	68	56	74
27	136	469	680	1,420	977	1,010	*583	570	374	72	52	66
28	104	439	721	1,240	1,350	982	499	*840	463	72	51	61
29	101	380	668	1,200	-	952	524	840	330	72	50	*60
30	116	279	518	1,090	-------	938	518	648	242	67	50	48
31	120	-------	410	878	-------	848	-------	493	-------	72	51	-------
Total	5,231	8,302	18,479	19,168	12,931	29,892	30,081	17,508	7,518	3,582	1,862	1,756
Mean	169	277	596	618	462	964	1,003	565	251	116	60.1	58.5
(†)	-0.04	+7.60	+5.41	+.30	+5.70	-17.7	-0.23	-0.11	-0.08	-0.04	-0.04	0

Adjusted for change in contents in Surry Mountain Reservoir

Mean	169	284	602	619	468	947	1,002	565	251	116	60.0	58.5
Cfsm	0.402	0.676	1.43	1.47	1.11	2.25	2.39	1.35	0.598	0.276	0.143	0.139
In.	.0.46	0.76	1.65	1.70	1.16	2.60	2.66	1.55	0.67	0.32	0.16	0.16

	Observed			Adjusted			
Calendar year 1956:	Max 5,550	Min 57	Mean 675	Mean 675	Cfsm 1.61	In. 21.85	
Water year 1956-57:	Max 1,910	Min 25	Mean 428	Mean 428	Cfsm 1.02	In. 13.85	

Peak discharge (base, 3,000 cfs).--No peak above base.

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Surry Mountain Reservoir.
Note.--Discharge for period Oct. 1-25 computed from twice-daily tape-gage readings. Stage-discharge relation affected by ice Dec. 1, 19, 26, 27, Dec. 31 to Jan. 23, Feb. 11, 12, 21, 22, Mar. 11.

Tarbell Brook near Winchendon, Mass.

Location.--Lat 42°42'45", long 72°05'09", on left bank 0.1 mile downstream from Spud Brook, 0.3 mile downstream from Massachusetts-New Hampshire State line, and 2¾ miles northwest of Winchendon, Worcester County.

Drainage area.--18.2 sq mi.

Records available.--May 1916 to September 1957. Prior to October 1950, published as Sip Pond Brook near Winchendon.

Gage.--Water-stage recorder. Datum of gage is 872.82 ft above mean sea level, datum of 1929. May 29 to June 29, 1916, staff gage; June 30 to Dec. 12, 1916, water-stage recorder; and Dec. 13, 1916, to June 26, 1917, staff gage, at site 450 ft downstream at same datum.

Average discharge.--41 years, 30.0 cfs.

Extremes.--Maximum discharge during year, 103 cfs Apr. 6 (gage height, 7.53 ft); minimum, 0.3 cfs Sept. 22.

1916-57: 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 periods of ice effect or no gage-height record, which are fair. Flow regulated by Pearly and Sip Ponds, Damon Reservoirs, and small mill above station.

Revisions (water years).--WSP 781: 1934. WSP 871: Drainage area. WSP 1051: 1928(M), 1933-34. WSP 1301: 1917(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from beaver dam Sept. 3-5)

Oct. 1 to Sept. 5				Sept. 5-30	
4.9	0.6	6.0	22	5.0	1.0
5.0	1.3	6.5	42	5.1	1.8
5.1	2.2	7.0	68	5.3	4.0
5.3	4.9	7.5	101	5.5	6.8
5.6	11			5.7	10

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.9	6.8	9.3	24	27	44	36	*16	14	14	5.2	2.6
2	9.9	10	7.8	19	24	32	40	18	13	11	4.5	2.0
3	11	6.8	10	18	23	26	58	13	18	9.1	5.0	2.7
4	12	4.8	*11	18	26	28	59	9.9	17	7.6	4.2	1.8
5	11	6.2	11	16	24	27	56	10	*16	6.3	3.3	*1.8
6	7.6	6.3	11	16	22	23	83	14	13	5.6	*1.3	1.5
7	9.0	5.8	12	18	20	22	97	14	15	4.6	.9	1.8
8	13	6.8	8.8	17	20	21	86	13	10	7.7	1.1	1.9
9	12	9.8	8.2	15	21	22	79	13	8.4	11	1.2	2.0
10	12	6.4	12	15	16	19	66	13	12	10	1.4	1.7
11	14	4.5	12	16	20	24	60	14	10	8.8	1.6	1.9
12	11	7.9	22	13	*20	22	60	18	11	7.4	3.0	1.7
13	7.0	8.9	25	11	19	23	58	40	11	4.9	2.5	2.4
14	5.9	5.6	46	12	17	24	55	37	9.4	3.9	2.2	2.1
15	8.6	8.4	46	*14	14	25	52	36	6.4	5.2	2.2	1.3
16	8.6	6.9	45	12	12	46	40	46	5.6	7.2	2.8	1.5
17	8.0	5.2	48	11	10	66	41	38	10	5.7	2.8	3.0
18	8.2	5.4	45	a12	17	62	37	24	8.6	7.2	2.9	3.7
19	10	5.2	38	a12	16	56	32	24	15	7.5	6.9	3.0
20	6.4	8.3	32	a10	15	52	33	37	16	5.1	1.9	4.4
21	4.6	12	30	a12	15	50	32	47	11	4.1	1.2	3.8
22	7.2	18	25	a13	14	48	31	42	8.2	5.0	1.5	1.0
23	8.6	17	26	a40	10	50	25	37	7.0	6.5	1.6	1.5
24	6.6	15	29	77	9.7	50	22	31	9.9	5.4	1.7	2.8
25	8.9	15	34	71	17	49	21	23	11	4.9	2.5	4.9
26	6.8	20	39	58	18	45	20	23	14	4.6	2.5	7.2
27	5.1	21	35	46	25	42	16	27	*16	4.5	3.1	6.9
28	3.9	18	31	44	32	*40	14	30	16	4.6	3.8	6.4
29	3.6	12	28	38	-	38	20	30	11	5.1	4.5	8.2
30	6.4	13	28	35	--------	39	18	22	10	5.6	4.5	9.3
31	5.1	--------	26	31	--------	36	--------	20	--------	6.3	4.1	--------
Total	261.9	297.0	791.1	764	523.7	1,151	1,347	779.9	353.5	206.4	87.9	96.8
Mean	8.45	9.90	25.5	24.6	18.7	37.1	44.9	25.2	11.8	6.66	2.84	3.23
Cfsm	0.464	0.544	1.40	1.35	1.03	2.04	2.47	1.38	0.648	0.366	0.156	0.177
In.	0.54	0.61	1.62	1.56	1.07	2.35	2.75	1.59	0.72	0.42	0.18	0.20

Calendar year 1956: Max 462 Min 1.8 Mean 31.8 Cfsm 1.75 In. 23.78
Water year 1956-57: Max 97 Min 0.9 Mean 18.2 Cfsm 1.00 In. 13.61

Peak discharge (base, 150 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Millers River near Winchendon, Priest Brook near Winchendon, and Ware River near Barre.
Note.--Stage-discharge relation affected by ice Dec. 16, 23, Dec. 25 to Jan. 17, Jan. 27, Jan. 30 to Feb. 15, Feb. 21, 22, Mar. 3, 11, and probably during period of no gage-height record.

Millers River near Winchendon, Mass.

Location.--Lat 42°41'03", long 72°05'02", on right bank 10 ft downstream from Nolan Bridge, a third of a mile downstream from Tarbell Brook, and 2 miles west of Winchendon, Worcester County.

Drainage area.--83.0 sq mi.

Records available.--June 1916 to September 1957. 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, datum of 1929. Prior to July 27, 1916, chain gage at bridge at same datum.

Average discharge.--41 years, 143 cfs.

Extremes.--Maximum discharge during year, 792 cfs Jan. 23 (gage height, 7.04 ft); minimum daily, 5.9 cfs Sept. 1, 2.

1916-57: Maximum discharge, 8,500 cfs Sept. 22, 1938 (gage height, 21.55 ft, from floodmarks), from rating curve extended above 2,900 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 periods of ice effect or no gage-height record, which are fair. Flow regulated by Lake Monomonac 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.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23				Jan. 24 to Sept. 30			
3.7	12	4.5	139	3.56	5.6	4.2	73
3.8	19	5.0	311	3.6	7.0	4.5	140
4.0	39	6.0	524	3.7	12	5.0	311
4.2	70	7.0	780	3.8	20	6.0	524
				4.0	43	7.0	780

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	20	47	86	220	174	149	*46	77	36	11	5.9
2	90	31	42	80	190	135	174	50	70	30	9.7	5.9
3	88	52	42	80	170	110	231	47	79	23	9.7	7.0
4	84	47	*45	85	150	98	212	42	77	23	10	*7.2
5	72	37	42	84	130	94	205	40	*67	20	9.7	8.2
6	72	31	42	80	110	92	374	44	59	17	*8.7	8.7
7	86	28	46	85	101	90	393	40	63	16	8.7	9.2
8	92	28	46	80	96	90	362	35	65	17	8.7	11
9	86	32	47	76	92	110	374	38	54	21	8.7	12
10	95	37	63	72	92	155	346	37	51	20	8.7	9.7
11	113	27	60	70	90	150	348	77	43	18	8.7	26
12	106	28	120	68	88	143	344	167	34	17	9.2	40
13	92	30	170	66	*80	143	341	194	29	14	8.7	34
14	80	27	191	64	78	177	308	164	22	12	8.7	57
15	70	25	158	*62	74	216	270	152	20	12	8.7	51
16	40	24	167	62	68	326	230	198	20	*14	9.2	49
17	32	22	184	62	63	341	210	161	25	13	9.2	50
18	29	24	177	60	61	304	200	127	33	12	9.2	49
19	27	25	150	60	63	271	180	107	36	14	11	61
20	25	24	136	60	58	242	150	148	45	12	9.7	91
21	22	31	121	60	56	224	125	264	40	10	7.8	73
22	22	117	111	125	55	231	120	235	36	9.7	7.8	51
23	24	121	111	600	54	231	115	198	28	12	7.4	44
24	24	97	111	650	55	224	100	164	30	12	7.4	42
25	24	72	139	579	60	209	80	140	35	12	7.4	34
26	*22	70	145	522	75	198	80	137	40	11	7.0	30
27	21	74	130	440	187	191	75	167	47	9.7	6.6	31
28	19	70	116	390	180	*188	70	220	59	9.7	7.4	29
29	17	60	106	355	-	180	70	191	47	9.7	7.4	25
30	19	55	92	310	--------	161	60	152	40	11	7.8	22
31	19	--------	90	260	--------	158	--------	122	--------	12	6.6	--------
Total	1,707	1,366	3,247	5,733	2,796	5,656	6,296	3,904	1,371	479.8	266.5	973.8
Mean	55.1	45.5	105	185	99.9	182	210	126	45.7	15.5	8.60	32.5
Cfsm	0.664	0.548	1.27	2.23	1.20	2.19	2.53	1.52	0.551	0.187	0.104	0.392
In.	0.76	0.61	1.45	2.57	1.25	2.53	2.82	1.75	0.61	0.21	0.12	0.44

Calendar year 1956: Max 1,360 Min 6.6 Mean 164 Cfsm 1.98 In. 26.90
Water year 1956-57: Max 650 Min 5.9 Mean 92.6 Cfsm 1.12 In. 15.12

Peak discharge (base, 690 cfs).--Jan. 23 (4 p.m.) 792 cfs (7.04 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Apr. 15 to May 1, June 18-26; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage when available, and records for Priest Brook near Winchendon and Ware River near Barre. Stage-discharge relation affected by ice Dec. 19, 26, 27, Dec. 30 to Jan. 23, Jan. 30 to Feb. 6, Feb. 9, 11-26, Mar. 4-9, 11.

Priest Brook near Winchendon, Mass.

Location.--Lat 42°40'57", long 72°06'56", on right bank 100 ft downstream from highway bridge, 3 miles upstream from mouth, and 3½ miles west of Winchendon, Worcester County.

Drainage area.--19.4 sq mi.

Records available.--May 1916 to September 1957. October 1917 to July 1918 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Concrete control since September 1936. Datum of gage is 849.67 ft above mean sea level, datum of 1929. Prior to Mar. 22, 1933, staff gage and Mar. 22, 1933, to Sept. 11, 1936, float gage, on left bank at same datum.

Average discharge.--41 years, 33.3 cfs.

Extremes.--Maximum discharge during year, 207 cfs Jan. 24 (gage height, 4.19 ft); minimum, 0.3 cfs Aug. 25.

1916-57: Maximum discharge, 3,000 cfs Sept. 21, 1938 (gage height, 9.90 ft), from rating curve extended above 330 cfs on basis of contracted-opening determinations at gage heights 8.4 and 9.90 ft; minimum, 0.08 cfs several times in September 1929.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by ponds and mill above station.

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).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.1	0.3	2.7	15
2.2	1.1	3.0	34
2.3	2.4	3.5	86
2.4	4.4	4.0	159
2.5	7.0		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.4	2.4	16	29	28	64	43	*15	19	9.6	0.6	0.4
2	5.1	3.8	15	27	29	53	58	15	14	14	.5	.4
3	3.7	9.8	15	26	28	45	75	13	19	13	.4	.7
4	3.1	10	*15	24	28	37	75	14	18	7.4	.5	*.7
5	4.8	9.1	14	23	27	30	71	12	*15	6.3	.7	.8
6	4.8	8.4	13	21	24	26	124	15	12	7.1	*.6	.7
7	5.9	7.4	14	20	23	23	106	19	15	2.8	.5	.7
8	9.4	6.7	16	19	22	23	100	10	14	2.9	.4	.6
9	10	5.3	20	19	20	26	91	8.8	10	4.7	.4	.6
10	8.0	5.1	20	19	19	33	78	9.1	9.4	9.9	.4	.5
11	4.6	5.6	20	18	18	28	73	24	8.8	2.4	.5	.6
12	3.7	6.1	54	17	18	26	67	54	12	1.8	.6	.6
13	3.9	11	74	16	*18	29	67	53	19	1.5	.6	.6
14	4.6	25	79	15	18	38	62	42	16	1.4	.4	1.0
15	4.4	16	65	*14	16	50	57	46	8.7	1.3	.5	.7
16	3.9	6.7	76	14	15	76	45	63	5.1	1.1	.5	.8
17	3.3	6.1	78	14	16	110	40	49	5.4	1.0	.5	1.2
18	3.3	6.4	67	13	15	108	41	38	5.2	.9	.4	1.0
19	3.1	6.4	56	13	15	82	39	30	6.9	.8	.4	.9
20	2.9	6.1	45	13	14	65	37	37	15	.8	.4	.7
21	2.9	7.9	40	13	13	57	31	64	7.5	.7	.4	.7
22	2.9	46	35	15	12	60	31	50	4.6	.7	.5	.7
23	3.3	64	34	82	12	59	32	45	3.5	.8	.5	.7
24	3.7	52	37	148	13	59	26	33	2.8	.7	.4	.7
25	2.8	38	52	106	14	59	20	23	2.4	.7	.4	.6
26	*2.4	34	49	94	24	58	22	24	5.7	.7	.6	.6
27	2.4	33	44	73	59	48	22	33	*24	.6	.6	.5
28	2.3	28	41	53	73	*47	21	40	25	.7	.4	.5
29	2.1	18	37	50	-	45	22	33	21	.7	.4	.5
30	2.0	16	33	39	--------	47	17	26	5.9	.7	.4	.5
31	2.0	--------	31	30	--------	42	--------	24	--------	.6	.4	--------
Total	129.7	500.3	1,205	1,077	631	1,553	1,593	961.9	349.9	98.3	14.8	20.2
Mean	4.18	16.7	38.9	34.7	22.5	50.1	53.1	31.0	11.7	3.17	0.477	0.673
Cfsm	0.215	0.861	2.01	1.79	1.16	2.58	2.74	1.60	0.603	0.163	0.025	0.035
In.	0.25	0.96	2.31	2.06	1.21	2.98	3.05	1.84	0.67	0.19	0.03	0.04

Calendar year 1956: Max 526 Min 0.8 Mean 35.5 Cfsm 1.83 In. 24.94
Water year 1956-57: Max 148 Min 0.4 Mean 22.3 Cfsm 1.15 In. 15.59

Peak discharge (base, 150 cfs).--Jan. 24 (12 m.) 207 cfs (4.19 ft); Apr. 6 (6 p.m.) 166 cfs (3.95 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 25, Dec. 10, 16-19, 22, 26, 27, 30, Jan. 3-28, Jan. 30 to Feb. 1, Feb. 10-12, Feb. 27 to Mar. 7, Mar. 10, 11, 13, 14, 17-19, 21. Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

Millers River at South Royalston, Mass.

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

Drainage area.--187 sq mi.

Records available.--July 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 792.00 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--18 years, 316 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 1,410 cfs Jan. 25 (gage height, 6.64 ft); maximum gage height, 8.29 ft Jan. 24 (ice jam); minimum daily discharge, 22 cfs Aug. 24.
1939-57: Maximum discharge, 4,400 cfs Apr. 13, 1940 (gage height, 8.40 ft); minimum daily, 9.3 cfs Aug. 4, 1956.
Maximum stage known, 15.9 ft Sept. 21 or 22, 1938, from floodmarks.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by Lake Monomonac and other reservoirs, by mills and powerplants prior to 1955, and at high flow by Birch Hill Reservoir since 1941 (see p. 233).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.5	21	5.0	335
3.8	42	5.5	570
4.1	76	6.0	880
4.5	149	6.5	1,280

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	161	66	140	230	540	530	353	164	192	89	35	24
2	149	91	132	215	465	438	394	132	152	83	34	23
3	139	142	121	210	430	344	520	123	172	73	31	24
4	132	142	213	210	402	270	535	119	169	71	29	25
5	149	117	127	210	*375	266	515	117	144	68	31	33
6	142	101	121	200	285	254	685	116	127	68	29	34
7	164	89	127	195	250	243	845	121	125	61	27	32
8	199	86	142	190	228	243	852	106	130	*58	26	35
9	188	98	158	185	215	294	824	101	114	56	25	39
10	175	101	169	180	230	366	771	101	98	60	25	38
11	182	103	175	175	235	326	733	233	92	58	26	37
12	172	87	345	170	225	*344	715	448	80	51	26	68
13	158	96	520	160	210	312	703	530	82	48	26	58
14	137	104	586	155	180	394	667	480	76	45	25	72
15	*125	96	505	150	165	490	614	438	68	42	25	80
16	103	89	525	145	150	637	*535	480	60	40	25	73
17	92	82	565	145	145	733	434	443	58	40	25	77
18	84	84	540	140	150	727	380	358	59	39	25	77
19	76	89	420	140	149	673	358	286	65	39	24	73
20	73	84	400	135	135	576	335	304	177	39	25	100
21	70	93	376	130	130	505	322	535	153	39	24	110
22	67	348	326	150	130	505	286	560	101	37	24	82
23	71	470	304	200	127	505	262	485	80	38	23	68
24	82	412	322	800	130	495	243	407	68	37	22	67
25	79	290	380	1,090	139	470	213	326	64	36	23	60
26	73	*243	402	1,250	210	452	202	286	85	34	26	55
27	70	254	350	1,150	443	425	199	*335	172	32	26	55
28	67	243	320	1,100	545	412	192	430	169	31	29	54
29	64	206	280	1,200	-	402	178	416	149	31	26	50
30	63	172	250	1,000	--------	389	172	335	112	32	25	46
31	62	--------	240	690	--------	371	--------	266	--------	*34	25	--------
Total	3,568	4,678	9,491	12,300	7,018	13,391	14,037	9,581	3,393	1,509	817	1,669
Mean	115	156	306	397	251	432	468	309	113	48.7	26.4	55.6
(†)	-0.41	+0.42	+0.60	+2.28	-1.03	-0.90	-0.93	+0.34	-0.62	-0.26	-0.04	+0.04

Adjusted for change in contents in Birch Hill Reservoir

Mean	115	156	307	399	250	431	467	309	112	48.4	26.3	55.7
Cfsm	0.615	0.834	1.64	2.13	1.34	2.30	2.50	1.65	0.599	0.259	0.141	0.298
In.	0.71	0.93	1.89	2.46	1.39	2.66	2.79	1.91	0.67	0.30	0.16	0.33

	Observed			Adjusted		
Calendar year 1956:	Max 2,020	Min 9.3	Mean 353	Mean 353	Cfsm 1.89	In. 25.66
Water year 1956-57:	Max 1,250	Min 22	Mean 223	Mean 223	Cfsm 1.19	In. 16.20

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Birch Hill Reservoir.
Note.--Stage-discharge relation affected by ice Dec. 1, 19, 20, Dec. 27 to Jan. 24, Jan. 26 to Feb. 3, Feb. 5-7, 9-18, 20, 21.

East Branch Tully River near Athol, Mass.

Location.--Lat 42°38'32", long 72°13'34", on right bank 300 ft downstream from Tully Dam, 1.3 miles downstream from Lawrence Brook, and 3½ miles north of Athol, Worcester County.

Drainage area.--50.4 sq mi.

Records available.--October 1915 to September 1957. 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, datum of 1929 (Corps of Engineers bench mark). Prior to Oct. 26, 1948, staff gage at site 0.2 mile upstream at datum 14.40 ft higher.

Average discharge.--42 years, 84.0 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 276 cfs Mar. 19 (gage height, 4.14 ft); minimum, 0.1 cfs Nov. 23, 24; minimum daily, 0.1 cfs Nov. 23.

1915-57: 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 determination of peak flow by computation of flow over dam and contracted-opening determination; minimum, 0.03 cfs Jan. 4, Mar. 3, 1949, Aug. 21, 22, 1955; minimum daily, 0.04 cfs Aug. 21, 1955.

Remarks.--Records excellent. Flow regulated by Tully Reservoir since 1948 (see p. 233).

Revisions (water years).--WSP 451: 1916. WSP 891: Drainage area. WSP 1051: 1916(M), 1928. WSP 1301: 1917-35(M), 1937(M).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 19				Mar. 20 to Sept. 30			
2.3	0.1	2.9	29	2.36	0.6	2.7	12
2.4	.9	3.2	66	2.4	1.1	2.9	28
2.5	2.8	3.6	147	2.45	1.9	3.1	50
2.6	6.5	4.0	259	2.5	2.9	3.5	118
2.7	12	4.5	450	2.55	4.2	4.0	238
				2.6	6.2	4.5	400

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.2	7.0	34	80	180	183	152	43	51	27	*2.3	0.6
2	8.0	10	33	53	106	183	128	39	48	20	1.7	.6
3	8.0	23	33	25	68	177	148	36	63	16	1.4	.7
4	8.5	24	33	25	45	120	159	34	58	17	1.2	1.0
5	19	19	32	25	*30	90	161	33	45	22	1.6	1.2
6	19	15	32	25	41	61	178	32	38	22	1.7	1.2
7	21	13	32	*25	46	47	216	30	39	19	1.7	1.2
8	27	12	32	25	46	47	214	28	44	*14	1.6	1.1
9	24	14	32	80	46	48	219	25	35	11	1.2	1.0
10	19	14	34	110	46	50	219	25	28	9.7	1.2	1.0
11	15	12	36	78	58	70	195	58	25	7.8	1.1	.8
12	13	12	36	40	65	79	178	126	22	6.2	1.1	.8
13	12	15	50	27	60	*77	171	161	20	5.4	1.1	*.9
14	11	16	111	27	38	77	166	135	17	5.0	1.0	1.6
15	10	15	177	37	38	79	146	118	17	4.6	1.0	1.7
16	10	14	172	40	38	124	*120	137	15	4.0	1.0	1.7
17	9.8	14	172	29	38	198	108	131	12	3.4	1.0	2.5
18	9.8	18	170	29	38	231	100	104	10	3.2	1.0	2.9
19	*8.6	20	118	29	38	264	93	82	11	2.7	.8	2.5
20	8.0	7.3	90	29	36	260	87	82	31	2.3	.7	2.1
21	7.5	.2	86	29	34	167	85	135	27	2.1	.7	1.9
22	7.0	.3	59	33	28	131	78	139	19	1.9	.7	1.7
23	7.5	.1	42	68	26	131	74	*112	15	2.3	.7	1.6
24	8.6	34	44	82	36	133	69	89	12	2.5	.6	1.6
25	8.0	77	44	54	41	133	61	72	11	2.1	.7	1.4
26	7.5	69	80	128	42	135	57	64	24	1.9	1.0	1.2
27	7.0	*68	97	130	90	133	56	74	67	1.7	1.0	1.1
28	7.0	68	93	154	140	133	51	102	63	1.7	.8	1.0
29	7.0	46	92	199	-	156	49	110	43	2.3	.8	.8
30	6.5	31	92	188	--------	185	48	84	35	2.7	.7	.8
31	6.5	--------	88	180	--------	171	--------	64	--------	2.7	.7	--------
Total	350.0	687.9	2,276	2,083	1,538	4,073	3,786	2,504	945	246.2	33.8	40.2
Mean	11.3	22.9	73.4	67.2	54.9	131	126	80.8	31.5	7.94	1.09	1.34
(†)	0	+8.06	0	+1.87	0	-6.68	-3.05	+0.04	-0.04	-0.07	0	0

Adjusted for change in contents in Tully Reservoir

Mean	11.3	31.0	73.4	69.1	54.9	125	123	8.08	31.5	7.88	1.09	1.34
Cfsm	0.224	0.615	1.46	1.37	1.09	2.48	2.44	1.60	0.625	0.156	0.022	0.027
In.	0.26	0.69	1.68	1.58	1.13	2.85	2.73	1.85	0.70	0.18	0.02	0.03

	Observed			Adjusted		
Calendar year 1956:	Max 540	Min 0.06	Mean 74.0	Mean 74.1	Cfsm 1.47	In. 20.02
Water year 1956-57:	Max 264	Min 0.1	Mean 50.9	Mean 50.9	Cfsm 1.01	In. 13.70

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Tully Reservoir.

Moss Brook at Wendell Depot, Mass.

Location.--Lat 42°36'10", long 72°21'36", on left bank a quarter of a mile upstream from mouth and a quarter of a mile north of Wendell Depot, Franklin County.

Drainage area.--12.3 sq mi.

Records available.--June 1909 to August 1910, June 1916 to September 1957. Published as "at Wendell" 1909-10.

Gage.--Staff gage read twice daily except once daily during some winter months. Datum of gage is 508.9 ft above mean sea level, datum of 1929. Prior to April 1910, staff gage at site 1,200 ft downstream at different datum. April to August 1910 staff gage and sharp-crested weir at site 300 ft downstream at different datum.

Average discharge.--41 years (1916-57), 21.0 cfs.

Extremes.--Maximum discharge during year not determined; maximum gage height, 3.19 ft Jan. 25, from graph based on gage readings (backwater from ice); minimum discharge, 0.4 cfs Aug. 18, 19.

1916-57: 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 determinations at gage heights 5.62 and 6.30 ft; minimum, 0.2 cfs Sept. 4, 5, 1929.

Remarks.--Records good except those for periods of ice effect, 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).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	0.4	1.5	7.6
1.0	1.0	1.6	10
1.1	1.7	1.8	18
1.2	2.4	2.1	36
1.3	3.6	2.5	72
1.4	5.1	2.8	109

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.1	2.8	5.8	12	8.4	33	17	8.0	11	4.2	1.0	0.5
2	2.6	4.8	5.6	11	9.0	28	22	6.8	11	2.8	*.8	.5
3	2.4	7.3	5.6	10	10	24	35	6.0	15	2.3	.6	1.1
4	2.6	5.3	5.0	9.0	10	21	25	6.0	11	3.6	1.5	1.1
5	4.6	4.2	4.8	8.5	10	18	30	5.8	8.6	3.9	2.0	1.7
6	3.8	3.6	4.6	8.0	10	16	73	5.8	6.8	4.2	1.2	1.2
7	5.3	3.2	5.1	7.6	*9.6	14	77	5.3	9.3	2.8	1.0	.9
8	6.0	3.0	5.1	7.0	10	14	47	4.5	8.6	2.1	.8	1.0
9	8.0	3.3	5.6	7.0	10	17	42	4.5	6.0	1.8	.7	.8
10	5.6	3.0	6.8	7.0	10	20	38	4.0	5.0	1.8	.7	*.6
11	4.2	2.8	5.8	6.6	11	17	38	19	4.2	1.6	.8	.7
12	3.4	2.8	20	6.3	10	15	31	46	3.9	1.4	1.0	.8
13	3.1	3.3	28	6.0	9.0	16	38	40	3.4	1.2	.8	.7
14	2.8	3.1	25	5.5	8.5	25	32	26	3.0	1.5	.6	1.2
15	2.8	2.8	25	5.0	7.5	34	28	25	2.8	1.2	.6	1.0
16	*2.6	2.6	24	5.0	7.5	*60	25	35	2.6	1.1	.6	1.0
17	2.6	2.8	29	5.0	7.5	74	22	26	2.3	1.0	.5	2.6
18	2.4	3.6	28	4.9	7.7	48	20	19	2.1	.9	.4	1.6
19	2.2	3.6	23	4.7	7.4	38	19	14	2.0	.9	.4	1.2
20	2.0	3.5	18	4.7	7.0	31	18	24	6.3	.8	.5	.9
21	2.0	4.8	17	4.7	6.6	30	15	44	4.0	.8	.5	.9
22	2.0	40	15	5.0	6.3	31	14	39	2.8	.7	1.0	.9
23	1.9	26	14	55	6.3	32	*13	*24	2.3	1.1	.7	.9
24	2.4	13	17	100	6.6	31	12	18	2.1	1.0	.5	.9
25	2.2	10	20	90	8.3	27	11	13	2.2	.9	.5	.7
26	2.1	8.3	22	60	14	25	11	16	6.6	.7	1.2	.7
27	2.1	*8.8	19	25	38	24	11	18	15	.7	1.0	.6
28	2.1	8.6	17	13	49	22	10	27	*9.0	.9	.7	.6
29	2.0	6.6	16	11	-	22	9.0	25	6.0	1.1	.5	.6
30	2.0	5.8	14	10	-------	21	8.8	16	4.8	1.4	.6	.6
31	2.0	-------	13	9.0	-------	19	-------	14	-------	1.4	.6	-------
Total	94.9	203.3	463.8	523.5	315.2	847	791.8	584.7	179.7	51.8	24.3	28.5
Mean	3.06	6.78	15.0	16.9	11.3	27.3	26.4	18.9	5.99	1.67	0.78	0.95
Cfsm	0.249	0.551	1.22	1.37	0.919	2.22	2.15	1.54	0.487	0.136	0.063	0.077
In.	0.29	0.61	1.40	1.58	0.95	2.56	2.39	1.77	0.54	0.16	0.07	0.09

Calendar year 1956: Max 217 Min 1.0 Mean 17.2 Cfsm 1.40 In. 19.02
Water year 1956-57: Max 100 Min 0.4 Mean 11.3 Cfsm 0.919 In. 12.41

Peak discharge (base, 160 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 20, Dec. 1, 2, 5, 6, 12, 19, 22, Dec. 24 to Feb. 5, Feb. 9-21, Mar. 2-11.

Millers River at Erving, Mass.

Location.--Lat 42°35'51", long 72°26'19", on right bank 75 ft downstream from bridge at Farley, 0.6 mile upstream from Mormon Hollow Brook, 2.4 miles downstream from Erving, Franklin County, and 5.5 miles upstream from mouth.

Drainage area.--375 sq mi.

Records available.--August 1914 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 380 ft (from topographic map). Prior to June 30, 1915, staff gage, June 30, 1915, to Sept. 20, 1938, water-stage recorder, and Sept. 21 to Dec. 31, 1938, staff gage, at site 2.2 miles upstream at different datum. Jan. 1 to Mar. 29, 1939, staff gage and Mar. 30, 1939, to Sept. 12, 1941, water-stage recorder, at site 0.4 mile downstream at different datum.

Average discharge.--43 years, 631 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 1,990 cfs Apr. 6 (gage height, 4.92 ft); maximum gage height, 5.77 ft Jan. 23 (ice jam); minimum daily discharge, 20 cfs Aug. 25, Sept. 2.

1914-57: 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 determinations; 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 period of ice effect, which are fair. Flow regulated by powerplants, Lake Monomonac and other reservoirs, and high flow by Birch Hill and Tully Reservoirs (see p. 233).

Revisions (water years).--WSP 641: 1920(M). WSP 756: Drainage area. WSP 781: 1928(M), 1933(M). WSP 1301: 1915(M).

Rating tables, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23				Jan. 24 to Sept. 30			
1.9	72	3.5	705	1.3	18	3.0	430
2.2	126	4.0	1,040	1.6	44	4.0	1,120
2.5	199	4.5	1,420	2.0	103	5.0	2,080
3.0	396			2.5	221		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	232	108	263	440	950	1,100	778	331	419	253	69	23
2	214	141	256	400	800	970	862	315	354	207	70	20
3	196	205	253	350	720	810	1,050	279	388	188	36	58
4	199	217	246	350	660	690	1,060	257	377	180	58	65
5	229	199	246	335	600	610	1,080	253	331	183	87	64
6	214	171	246	*325	540	560	1,630	253	290	190	66	59
7	226	162	246	320	500	520	1,750	250	275	166	63	30
8	391	152	256	325	470	500	1,630	237	283	145	64	22
9	488	143	295	350	450	600	1,590	221	264	141	*62	60
10	291	141	303	400	450	708	1,500	234	240	134	39	73
11	217	144	307	360	500	652	1,510	424	213	132	44	68
12	218	167	585	310	470	701	1,460	911	199	123	65	73
13	196	142	874	280	440	666	1,410	1,060	180	97	62	*103
14	180	161	984	270	380	785	1,260	932	170	101	66	110
15	178	150	963	270	340	968	1,110	869	154	91	60	91
16	193	144	1,030	265	335	*1,390	1,060	911	145	61	62	131
17	144	115	1,120	260	320	1,540	932	911	139	97	31	140
18	137	148	1,030	255	320	1,490	834	785	131	81	26	113
19	125	168	848	250	315	1,350	771	638	141	78	51	102
20	101	145	776	250	300	1,280	722	715	272	54	59	108
21	107	169	692	245	280	1,130	624	1,120	287	40	64	138
22	120	623	608	270	270	1,070	624	1,120	218	79	68	125
23	109	712	536	1,150	260	1,050	*617	976	180	83	65	120
24	121	562	575	1,800	265	946	568	827	168	75	29	98
25	128	450	705	1,300	280	890	496	*659	152	69	20	85
26	127	434	744	1,400	400	890	460	532	231	71	60	78
27	84	434	670	1,450	900	911	460	624	442	47	64	77
28	106	428	600	1,550	1,150	883	388	834	442	65	64	42
29	123	396	540	1,700	-	855	372	799	382	90	66	70
30	103	*321	480	1,450	--------	862	359	645	310	78	65	102
31	86	--------	460	1,150	--------	785	--------	520	--------	79	30	--------
Total	5,583	7,652	17,737	19,830	13,665	28,162	28,967	19,442	7,777	3,478	1,735	2,448
Mean	180	255	572	640	488	908	966	627	259	112	56.0	81.6
(†)	-0.41	+8.49	+0.60	+4.14	-1.03	-7.58	-3.97	+0.37	-0.66	-0.34	-0.04	+0.04

Adjusted for change in reservoir contents

Mean	180	264	573	644	487	901	962	628	259	112	55.9	81.6
Cfsm	0.480	0.704	1.53	1.72	1.30	2.40	2.57	1.67	0.691	0.299	0.149	0.218
In.	0.55	0.78	1.76	1.98	1.35	2.77	2.86	1.93	0.77	0.34	0.17	0.24

	Observed			Adjusted		
Calendar year 1956:	Max 4,430	Min 31	Mean 634	Mean 634	Cfsm 1.69	In. 23.00
Water year 1956-57:	Max 1,800	Min 20	Mean 429	Mean 429	Cfsm 1.14	In. 15.50

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Birch Hill and Tully Reservoirs.

Note.--Stage-discharge relation affected by ice Dec. 27 to Mar. 9.

Connecticut River at Turners Falls, Mass.

Location.--Lat 42°36'40", long 72°33'20", at dam of Western Massachusetts Electric Co., at Turners Falls, Franklin County, 0.2 mile upstream from Falls River.

Drainage area.--7,163 sq mi.

Records available.--January 1915 to September 1957.

Average discharge.--42 years, 11,880 cfs (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 Reservoir, and Comerford Station Pond (see p. 233), and other reservoirs (combined usable capacity, about 24½ 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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,280	5,800	6,730	2,540	9,670	18,300	10,400	12,500	6,580	7,810	6,540	384
2	5,930	7,340	2,300	7,650	10,700	15,100	13,200	9,170	6,130	5,040	5,580	138
3	5,860	6,320	7,310	8,020	6,880	15,200	21,100	11,000	9,300	5,180	190	4,010
4	6,500	138	6,150	6,160	7,950	12,700	18,800	9,730	8,380	6,340	532	3,660
5	6,920	5,200	6,440	5,680	9,440	12,800	17,700	2,660	7,210	7,790	4,860	2,750
6	3,870	5,040	7,750	2,940	8,300	12,600	24,200	8,690	8,000	12,000	4,330	2,360
7	4,860	5,020	8,590	7,360	7,240	12,400	26,800	8,920	8,360	12,100	3,590	172
8	8,920	5,620	8,360	7,440	7,880	11,000	21,200	7,640	5,520	11,500	3,720	362
9	11,000	5,970	12,500	7,100	8,900	11,800	19,900	3,310	456	9,400	4,720	994
10	11,200	1,920	11,200	6,320	5,420	7,630	18,100	8,280	7,770	6,640	1,220	2,850
11	9,550	138	9,600	6,350	8,360	9,520	18,200	4,780	6,660	6,560	454	3,010
12	7,030	2,120	14,100	3,190	7,540	11,300	18,500	5,430	6,820	6,460	4,590	3,100
13	3,090	5,730	13,100	2,770	7,870	9,040	16,700	7,660	5,170	3,090	4,550	2,560
14	678	5,660	14,000	6,860	7,180	10,600	15,700	9,240	5,250	1,470	4,260	138
15	7,930	9,680	14,100	5,710	7,300	13,500	15,900	9,460	2,570	5,030	4,800	138
16	7,480	6,120	10,700	4,900	7,880	19,600	15,500	12,500	138	4,540	5,320	2,780
17	7,250	4,740	11,500	5,440	2,940	24,400	14,700	14,900	4,720	3,490	217	2,560
18	6,770	3,030	14,000	6,360	7,960	17,500	14,800	14,100	3,660	3,300	340	2,740
19	6,370	7,050	13,200	3,810	6,940	19,000	14,600	6,820	3,180	3,720	4,400	2,900
20	1,980	7,400	10,200	2,650	7,220	17,200	16,100	9,660	2,860	2,990	3,700	2,550
21	554	6,790	10,900	7,250	6,860	16,200	19,400	22,700	3,540	705	3,880	138
22	6,120	13,600	10,400	6,520	6,620	15,600	21,900	21,000	138	5,540	2,770	145
23	6,890	17,800	8,840	14,000	6,020	15,200	25,600	16,400	138	8,240	2,900	7,450
24	5,170	16,000	9,160	30,900	2,140	15,100	23,700	15,400	3,790	8,950	138	6,480
25	5,330	13,400	9,110	21,400	8,980	15,400	20,900	14,800	3,550	6,310	330	6,460
26	4,930	9,960	8,800	16,100	9,830	15,500	16,800	7,220	5,870	7,790	3,110	5,430
27	555	8,760	10,300	15,100	13,600	15,500	14,800	9,660	11,700	2,100	3,310	2,630
28	138	9,760	8,910	15,300	20,400	15,500	14,600	11,800	10,400	543	2,050	138
29	4,550	9,560	7,390	13,000	-	15,300	14,500	12,000	7,720	3,700	1,800	145
30	4,190	8,140	3,210	12,800	--------	14,600	13,900	7,790	7,310	5,990	2,520	2,720
31	3,780	--------	8,130	11,500	--------	13,000	--------	9,510	--------	6,660	182	--------
Total	171,675	209,806	296,980	273,120	228,020	448,090	538,200	329,730	162,890	180,978	90,903	71,892
Mean	5,538	6,994	9,580	8,810	8,144	14,450	17,940	10,640	5,430	5,838	2,932	2,396
(†)	-692	-88.3	-74.0	-470	-1,254	-1,256	+1,980	+1,164	+224	+351	-362	-219

Adjusted for change in reservoir contents

Mean	4,846	6,905	9,506	8,340	6,890	13,200	19,920	11,800	5,654	6,189	2,570	2,177
Cfsm	0.677	0.964	1.33	1.16	0.962	1.84	2.78	1.65	0.789	0.864	0.359	0.304
In.	0.78	1.08	1.53	1.34	1.00	2.12	3.10	1.90	0.88	1.00	0.41	0.34

	Observed			Adjusted		
Calendar year 1956:	Max 79,200	Min 138	Mean 11,590	Mean 11,810 Cfsm 1.65	In. 22.45	
Water year 1956-57:	Max 30,900	Min 138	Mean 8,225	Mean 8,171 Cfsm 1.14	In. 15.48	

† Change in contents, equivalent in cubic feet per second, in First Connecticut and Second Connecticut Lakes, Lake Francis, Moore Reservoir, Comerford Station Pond, Union Village Reservoir, 4 reservoirs in Mascoma River basin, Sunapee Lake, and Surry Mountain, Birch Hill, and Tully Reservoirs.

Deerfield River at Charlemont, Mass.

Location.--Lat 42°37'33", long 72°51'20", on left bank 1 mile downstream from Charlemont, Franklin County, and 2.5 miles downstream from Chickley River.

Drainage area.--362 sq mi.

Records available.--June 1913 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 517.36 ft above mean sea level, datum of 1929.

Average discharge.--44 years, 898 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 5,430 cfs Jan. 23 (gage height, 6.12 ft); minimum daily, 29 cfs Sept. 29.

1913-57: 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 determinations 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. 233), and by several powerplants above station.

Revisions (water years).--WSP 781: 1915(M). WSP 1301: 1918(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23				Jan. 24 to Sept. 30			
1.5	74	3.0	910	1.3	29	2.5	500
1.7	129	4.0	1,980	1.5	70	3.0	910
2.0	235	6.0	5,210	1.7	125	4.0	1,980
2.5	500			2.0	235	4.5	2,650

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	636	708	215	570	808	1,160	1,190	202	228	86	310	137
2	576	826	207	850	800	1,240	1,660	194	198	66	246	217
3	456	974	866	1,000	775	1,190	1,320	197	266	59	64	508
4	618	324	986	1,100	808	1,150	768	132	238	113	63	604
5	614	636	918	*1,090	791	1,130	958	163	208	116	216	786
6	404	650	960	500	*774	1,130	1,710	216	200	113	174	503
7	354	747	992	900	774	1,130	1,380	217	259	110	*374	365
8	854	729	940	1,060	766	1,130	986	195	162	210	528	146
9	415	734	766	1,050	755	1,060	806	188	125	149	556	492
10	394	380	868	1,060	800	964	786	238	242	99	350	580
11	496	268	1,090	1,050	760	1,100	650	470	200	*140	57	*480
12	305	478	1,390	850	860	1,110	659	582	317	168	442	500
13	276	722	1,380	340	1,300	1,140	748	470	204	140	396	634
14	77	784	1,340	650	1,300	1,260	429	467	211	96	138	338
15	500	662	764	920	1,240	*1,340	537	501	197	390	386	98
16	586	632	660	980	1,070	1,380	522	573	188	390	362	474
17	666	351	1,230	920	1,060	1,170	*570	645	294	366	64	529
18	*599	334	1,210	950	1,060	1,220	560	289	316	390	38	544
19	637	702	1,120	750	1,060	1,200	598	195	562	395	481	554
20	388	700	1,080	630	1,050	1,250	450	1,230	542	64	697	539
21	148	848	1,050	630	1,050	1,240	464	1,740	254	74	688	316
22	519	2,000	1,080	800	1,050	1,260	413	1,040	83	262	598	48
23	698	854	678	3,800	1,040	1,270	548	559	83	82	745	444
24	733	718	760	1,590	541	1,090	510	*463	194	70	186	453
25	781	403	520	1,040	739	1,260	464	273	126	301	92	151
26	748	1,000	836	622	1,180	1,240	405	336	116	290	442	129
27	395	942	1,090	400	2,230	1,230	220	648	140	128	272	129
28	84	929	1,180	500	1,550	1,230	165	752	99	136	515	42
29	456	*820	1,170	850	-	1,230	258	382	91	560	509	29
30	629	761	750	840	--------	1,230	221	221	88	747	494	272
31	642	--------	720	830	--------	1,190	--------	227	--------	409	118	--------
Total	15,684	21,616	28,816	29,122	27,991	36,924	20,955	14,005	6,431	6,719	10,601	11,041
Mean	506	721	930	939	1,000	1,191	698	452	214	217	342	368
(†)	-304	+59.8	+71.4	-132	-426	-353	+788	+429	+109	+58.9	-305	-254

Adjusted for change in reservoir contents

Mean	202	780	1,001	807	574	838	1,487	881	323	276	37.0	114
Cfsm	0.558	2.15	2.77	2.23	1.59	2.31	4.11	2.43	0.892	0.762	0.102	0.315
In.	0.64	2.40	3.19	2.57	1.65	2.67	4.58	2.80	1.00	0.88	0.12	0.35

	Observed			Adjusted		
Calendar year 1956:	Max 6,450	Min 40	Mean 866	Mean 884	Cfsm 2.44	In. 33.21
Water year 1956-57:	Max 3,800	Min 29	Mean 630	Mean 609	Cfsm 1.68	In. 22.85

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Somerset and Harriman Reservoirs.
Note.--Stage-discharge relation affected by ice Dec. 30 to Jan. 4, Jan. 6, 7, 11-21, 23, 27-31, Feb. 3, 9, 11-14, 20, 21, Mar. 5, 11.

North River at Shattuckville, Mass.

Location.--Lat 42°38'18", long 72°43'32", on right bank in Shattuckville, Franklin County, 1¼ miles south of Griswoldville and 1.3 miles upstream from mouth.

Drainage area.--88.4 sq mi.

Records available.--October 1939 to September 1957. October, November 1939 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 458.36 ft above mean sea level, datum of 1929.

Average discharge.--18 years, 180 cfs.

Extremes.--Maximum discharge during year, 2,380 cfs Jan. 23 (gage height, 6.00 ft); maximum gage height, 6.42 ft Jan. 23 (ice jam); minimum discharge, 6.6 cfs Sept. 28; minimum daily, 8.9 cfs Sept. 7.

1939-57: Maximum discharge, 13,200 cfs Oct. 15, 1955 (gage height, 10.37 ft), from rating curve extended above 5,700 cfs by logarithmic plotting; minimum daily, 5.1 cfs Oct. 3, 1948.

Remarks.--Records good except those for periods of ice effect, which are fair. Diurnal fluctuation at low flow caused by mill above station; prior to 1950, greater regulation by mill.

Revisions (water years).--WSP 1111: 1945(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	8.0	3.0	207
1.7	18	3.5	360
1.9	32	4.0	580
2.1	51	5.0	1,250
2.5	103		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	42	68	120	125	273	153	82	77	38	23	10
2	25	535	64	105	120	215	357	74	82	32	19	9.8
3	30	266	73	110	115	160	315	69	96	27	16	13
4	32	133	75	120	130	140	218	69	72	38	15	14
5	55	92	72	100	120	135	336	67	63	53	14	11
6	38	73	73	*95	*100	135	818	62	55	53	12	11
7	137	63	130	93	105	131	553	56	92	38	12	8.9
8	97	67	245	90	100	129	346	52	74	31	12	11
9	58	84	173	88	92	136	314	49	56	26	11	17
10	44	66	135	84	148	125	290	54	48	24	11	13
11	38	50	105	80	140	116	304	195	43	*23	11	*12
12	34	59	306	82	90	120	339	289	40	17	12	14
13	32	82	362	80	100	147	328	161	38	16	*12	13
14	32	68	264	70	96	268	261	131	32	17	12	11
15	31	60	197	70	88	*313	223	207	36	17	11	9.8
16	29	56	263	71	82	618	204	193	32	16	12	10
17	27	66	278	72	82	415	*204	120	29	15	13	18
18	*26	69	212	68	80	294	202	103	28	14	11	18
19	23	61	150	66	77	253	197	91	32	12	10	15
20	23	57	175	66	74	223	187	425	40	12	11	11
21	23	86	157	64	74	220	180	490	32	12	11	11
22	23	545	164	70	70	245	153	229	28	16	17	9.8
23	24	214	164	1,100	69	258	140	168	24	19	18	40
24	27	120	194	480	72	258	129	*136	23	17	15	35
25	24	98	245	261	80	226	117	108	21	16	12	20
26	23	106	180	215	189	210	115	129	101	14	18	16
27	22	103	140	190	1,000	202	110	392	90	13	24	14
28	23	91	159	160	410	200	100	202	56	14	16	12
29	23	*82	151	150	-	197	92	136	56	23	14	11
30	21	75	100	140	--------	187	92	105	53	38	12	11
31	22	--------	100	130	--------	164	--------	88	--------	30	12	--------
Total	1,093	3,569	5,174	4,690	4,028	6,713	7,377	4,732	1,549	731	429	430.3
Mean	35.3	119	167	151	144	217	246	153	51.6	23.6	13.8	14.3
Cfsm	0.399	1.35	1.89	1.71	1.63	2.45	2.78	1.73	0.584	0.267	0.156	0.162
In.	0.46	1.50	2.18	1.97	1.69	2.82	3.10	1.99	0.65	0.31	0.18	0.18

Calendar year 1956:	Max	2,160	Min	10	Mean	166	Cfsm	1.88	In.	25.52
Water year 1956-57:	Max	1,100	Min	8.9	Mean	111	Cfsm	1.26	In.	17.03

Peak discharge (base, 1,880 cfs).--Jan. 23 (1 p.m.) 2,380 cfs (6.00 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 24, 25, Nov. 30 to Dec. 2, Dec. 10, 11, 19, 27, Dec. 31 to Jan. 23, Jan. 26 to Feb. 9, Feb. 11-13, 15-18, 20-22, 27, Mar. 3-6.

Deerfield River near West Deerfield, Mass.

Location.--Lat 42°32'09", long 72°39'14", on right bank 0.4 mile downstream from South River, 1¼ miles west of West Deerfield, Franklin County, and 2½ miles west of Deerfield.

Drainage area.--558 sq mi.

Records available.--March 1904 to December 1905 (gage heights only), October 1940 to September 1957. Published as "at Deerfield" 1904-5.

Gage.--Water-stage recorder. Altitude of gage is 155 ft (from topographic map). Prior to Dec. 16, 1905, chain gage at site 1.5 miles downstream at different datum.

Average discharge.--17 years (1940-57), 1,300 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 9,570 cfs Jan. 23 (gage height, 6.71 ft); maximum gage height, 7.49 ft Jan. 23 (ice jam); minimum daily discharge, 50 cfs Aug. 18.
1940-57: Maximum discharge, 48,500 cfs Dec. 31, 1948 (gage height, 15.43 ft); minimum daily, 46 cfs Aug. 3, 1947, Oct. 4, 1953.

Remarks.--Records excellent except those for periods of ice effect, which are good. Flow regulated by Somerset and Harriman Reservoirs (see p. 233), and by several powerplants above station.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.4	35	2.5	605
1.5	56	3.0	1,130
1.6	84	4.0	2,670
1.8	155	5.0	4,690
2.1	310	6.0	7,370

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	612	790	494	950	1,100	1,690	1,540	431	360	164	256	134
2	822	1,680	317	1,150	1,100	1,750	2,340	367	384	87	315	192
3	585	1,690	994	1,400	1,100	1,570	2,270	417	512	149	116	588
4	526	564	1,150	1,450	1,100	1,340	1,240	344	397	168	99	530
5	705	632	1,130	1,400	1,100	1,280	1,640	306	396	182	246	749
6	607	890	1,130	800	950	1,380	3,140	355	287	218	314	582
7	613	972	1,130	1,300	1,050	1,480	2,760	345	412	131	224	451
8	1,080	782	1,550	1,400	*950	1,490	1,710	343	389	548	*486	160
9	585	982	1,140	1,400	1,000	1,490	1,410	294	202	73	662	487
10	372	684	1,110	1,500	1,050	1,230	1,460	352	382	227	408	626
11	669	338	1,350	1,300	1,000	1,240	1,260	992	278	141	81	482
12	335	602	1,900	1,150	1,080	1,450	1,360	1,540	379	189	408	*470
13	486	769	2,100	650	1,590	1,460	1,490	560	319	166	452	652
14	141	1,030	1,980	850	1,640	*1,870	1,030	730	149	115	352	514
15	477	774	1,350	1,100	1,490	2,260	1,030	1,030	299	360	271	160
16	539	800	1,190	1,200	1,290	2,720	982	818	187	480	302	544
17	760	582	1,760	1,300	1,210	2,100	995	924	356	378	126	537
18	710	458	1,750	1,200	1,260	1,900	*974	604	496	428	50	460
19	617	932	1,460	1,100	1,240	1,720	1,000	466	673	368	475	659
20	681	938	1,420	850	1,200	1,550	879	1,670	700	209	745	523
21	196	912	1,490	900	1,220	1,740	910	2,810	444	76	726	455
22	437	3,240	1,500	1,050	1,250	1,840	803	1,460	152	264	602	138
23	*825	1,420	1,200	5,900	1,230	1,870	862	918	104	143	891	465
24	834	848	1,200	2,830	819	1,750	840	*746	226	182	209	614
25	852	728	1,320	1,640	792	1,600	804	510	233	272	138	238
26	758	1,040	984	1,200	1,790	1,870	655	590	392	316	480	65
27	638	1,180	1,480	800	3,980	1,620	575	1,240	225	124	714	310
28	118	*1,180	1,650	650	2,590	1,680	394	1,190	240	162	348	69
29	442	1,080	1,570	1,050	-	1,660	422	586	147	614	654	52
30	657	901	1,000	1,100	--------	1,680	400	430	156	818	607	237
31	672	--------	1,050	1,000	--------	1,630	--------	436	--------	549	264	--------
Total	18,351	29,418	40,849	41,570	37,171	51,910	37,175	23,804	9,876	8,301	12,021	12,143
Mean	592	981	1,318	1,341	1,328	1,675	1,259	768	329	268	388	405
(†)	-304	+59.8	+71.4	-132	-426	-353	+788	+429	+109	+58.9	-305	-254
Adjusted for change in reservoir contents												
Mean	288	1,040	1,389	1,209	902	1,321	2,028	1,197	438	327	82.8	150
Cfsm	0.516	1.86	2.49	2.17	1.62	2.37	3.63	2.15	0.785	0.586	0.148	0.269
In.	0.59	2.08	2.87	2.50	1.68	2.73	4.05	2.47	0.88	0.67	0.17	0.30

	Observed			Adjusted		
Calendar year 1956:	Max 10,400	Min 56	Mean 1,235	Mean 1,252	Cfsm 2.24	In. 30.54
Water year 1956-57:	Max 5,900	Min 50	Mean 884	Mean 863	Cfsm 1.55	In. 20.99

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Somerset and Harriman Reservoirs.
Note.--Stage-discharge relation affected by ice Dec. 31 to Jan. 23, Jan. 26 to Feb. 11.

Connecticut River at Montague City, Mass.

Location.--Lat 42°34'48", long 72°34'30", on left bank 75 ft downstream from New York, New Haven and Hartford Railroad bridge at Montague City, Franklin County, and 1,000 ft downstream from Deerfield River.

Drainage area.--7,865 sq mi.

Records available.--March 1904 to September 1957. 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, datum of 1929. Prior to Oct. 1, 1917, chain gage; Oct. 1, 1917, to Oct. 8, 1921, water-stage recorder used for low stages, chain gage otherwise; and Oct. 9, 1921, to Sept. 30, 1929, water-stage recorder, at site 9 miles downstream at datum 1.00 ft lower. Gages at both sites in operation Oct. 1, 1929, to Sept. 30, 1932.

Average discharge.--53 years, 13,740 cfs (adjusted for storage since October 1923).

Extremes.--Maximum discharge during year, about 36,000 cfs Jan. 24; maximum gage height, 23.78 ft Jan. 24 (backwater from ice); minimum daily discharge, 357 cfs Sept. 29.
1904-57: Maximum discharge, 236,000 cfs Mar. 19, 1936 (gage height, 49.2 ft, from floodmarks), from rating curve extended above 160,000 cfs; minimum daily, 325 cfs July 4, 1949.

Remarks.--Records good except those for periods of ice effect or no gage-height record and those below 1,500 cfs, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore Reservoir and Comerford Station Pond (see p. 233), and other reservoirs (combined usable capacity, about 32½ billion cubic feet).

Revisions (water years).--WSP 471: 1904-13 calendar years, 1914-17. 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).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.9	345	7.0	3,620
4.2	525	9.0	7,110
4.5	735	13.0	17,800
5.0	1,170	18.0	35,700
6.0	2,260		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,620	6,230	7,360	3,800	10,700	21,000	11,800	13,000	6,700	8,070	6,770	581
2	6,720	8,920	2,990	8,800	11,700	17,500	15,700	10,200	6,430	5,490	5,730	a429
3	6,240	8,680	8,210	9,300	8,000	17,000	23,800	11,800	9,710	5,480	a684	4,480
4	7,200	1,290	7,340	7,600	9,000	14,200	21,700	9,830	8,590	6,250	a678	4,090
5	7,500	5,790	7,810	7,100	10,400	14,100	20,400	3,290	7,450	8,080	4,990	3,440
6	4,850	6,030	8,990	4,100	9,200	13,900	28,400	8,550	8,130	12,500	4,480	3,030
7	5,180	6,000	9,960	8,700	8,300	14,000	31,200	9,360	8,710	12,700	3,600	796
8	10,100	6,420	10,400	8,800	8,900	13,000	24,500	7,630	5,870	12,700	4,110	706
9	11,800	6,640	14,600	8,500	9,800	13,700	23,000	8,580	987	9,840	5,120	1,300
10	11,700	2,940	12,400	7,800	6,500	9,120	20,800	8,730	7,950	6,610	1,950	3,210
11	10,100	750	11,300	7,700	9,300	10,500	20,700	5,690	6,810	6,740	a649	3,460
12	7,130	2,650	16,400	4,300	8,700	13,100	20,900	7,120	6,910	*6,360	4,600	3,670
13	3,630	5,980	15,800	3,800	9,300	11,300	19,900	8,640	5,590	3,260	4,760	3,110
14	1,160	6,550	17,100	7,700	8,700	*13,700	18,500	10,100	5,400	1,710	4,410	951
15	7,860	6,360	16,500	6,800	8,800	16,800	17,800	11,000	3,000	4,930	5,070	a483
16	8,080	6,830	12,200	6,100	9,100	22,400	17,300	13,600	659	4,880	5,570	3,020
17	8,080	5,210	13,500	6,700	4,500	28,500	15,800	16,600	5,000	3,720	*600	3,090
18	7,910	3,790	16,800	7,500	9,200	21,400	*16,200	15,400	4,160	3,680	a497	3,040
19	6,710	7,640	15,300	4,900	8,100	22,100	16,400	7,500	3,810	4,190	4,490	3,460
20	3,000	8,590	12,100	3,900	8,400	20,000	17,800	10,900	3,770	3,080	4,390	2,910
21	1,050	8,240	12,600	8,100	8,000	19,400	20,400	26,500	4,100	a976	4,440	794
22	*6,290	16,500	12,000	7,600	7,900	18,800	23,000	24,500	637	5,330	3,770	559
23	7,470	20,800	10,200	19,000	7,200	18,500	26,700	18,600	a525	8,440	3,680	6,940
24	5,770	19,800	10,600	35,000	3,300	18,400	25,000	17,400	3,990	9,030	721	6,680
25	6,260	16,100	10,600	24,000	9,550	18,200	22,300	*16,500	3,880	6,470	a495	6,430
26	5,770	10,600	10,200	18,000	10,000	18,300	18,500	8,170	5,770	7,790	3,240	5,570
27	1,330	10,200	12,700	15,800	17,400	18,000	16,600	10,800	12,500	2,580	4,100	2,640
28	a668	*11,000	10,600	16,000	23,500	17,800	15,700	13,700	11,000	a664	2,370	a510
29	4,650	10,700	8,830	14,000	-	17,500	15,400	13,400	8,150	3,960	2,330	a357
30	4,470	9,170	4,600	13,800	--------	17,300	14,600	8,120	7,260	6,720	2,910	2,750
31	4,500	--------	9,120	12,500	--------	15,200	--------	9,730	--------	7,070	688	--------
Total	189,798	245,600	349,110	317,700	263,450	524,720	600,800	364,940	173,448	189,300	101,892	82,486
Mean	6,123	8,187	11,260	10,250	9,409	16,930	20,030	11,770	5,782	6,106	3,287	2,750
(†)	-996	-28.6	-2.65	-603	-1,680	-1,610	+2,769	+1,593	+333	+410	-667	-474

Adjusted for change in reservoir contents

Mean	5,126	8,158	11,260	9,646	7,729	15,320	22,800	13,370	6,115	6,517	2,620	2,276
Cfsm	0.652	1.04	1.43	1.23	0.983	1.95	2.90	1.70	0.777	0.829	0.333	0.289
In.	0.75	1.16	1.65	1.41	1.02	2.25	3.23	1.96	0.87	0.96	0.38	0.32

	Observed			Adjusted		
Calendar year 1956:	Max 92,900	Min 357	Mean 13,350	Mean 13,580	Cfsm 1.73	In. 23.50
Water year 1956-57:	Max 35,000	Min 357	Mean 9,324	Mean 9,250	Cfsm 1.18	In. 15.96

Peak discharge (base, 61,000 cfs).--No peak above base.

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in all reservoirs from First Connecticut and Second Connecticut Lakes to 2 reservoirs in Deerfield River basin listed on page 233.
a No gage-height record; discharge estimated on basis of weather records, shape of normal recession graph, and records for Connecticut River at Turners Falls and Deerfield River near West Deerfield.

Note.--Stage-discharge relation affected by ice Dec. 22-25, 30, Jan. 1 to Feb. 24, Feb. 28 to Mar. 3.

Mill River at Northampton, Mass.

Location.--Lat 42°19'05", long 72°39'21", on right bank at Northampton, Hampshire County, 3½ miles upstream from mouth.

Drainage area.--52.8 sq mi.

Records available.--October 1938 to September 1957. 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.--19 years, 97.3 cfs.

Extremes.--Maximum discharge during year, 660 cfs Feb. 27 (gage height, 3.81 ft); maximum gage height, 4.64 ft Jan. 23 (ice jam); minimum discharge, 4.0 cfs July 23, Aug. 24, 25; minimum daily, 4.2 cfs Aug. 21, 23, 24.
1938-57: 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, that of Aug. 21, 23, 24, 1957.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by mill above station.

Revisions (water years).--WSP 921: 1940. WSP 1231: 1940-42(M), 1944-45(M), 1948(M), 1949.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.36	4.2	2.1	63
1.4	5.0	2.5	138
1.5	7.8	3.0	290
1.6	12	3.5	500
1.8	26		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	36	26	65	56	143	72	49	34	22	7.1	5.0
2	30	76	25	55	54	125	102	45	37	18	6.2	4.8
3	*26	75	28	60	55	110	106	45	48	14	6.0	5.0
4	24	41	30	70	57	95	*81	45	39	11	5.8	5.0
5	34	30	33	65	56	88	165	44	34	12	5.5	6.0
6	28	25	30	50	50	69	397	43	30	12	5.2	5.4
7	39	21	33	55	50	74	252	*41	35	11	5.2	5.0
8	45	21	47	52	50	80	174	38	39	9.8	5.2	5.4
9	29	26	60	50	50	110	183	34	31	12	5.0	5.0
10	21	20	47	47	70	102	180	33	25	11	5.0	4.7
11	17	17	39	45	63	71	185	108	21	11	5.0	5.2
12	16	21	96	46	45	83	185	150	19	10	4.8	4.8
13	14	24	114	45	50	83	163	96	*20	9.0	4.8	4.6
14	14	21	*99	40	47	129	138	75	17	9.0	4.6	6.4
15	17	*19	78	40	46	158	125	114	16	8.6	4.8	6.0
16	16	18	131	42	42	254	116	74	16	7.8	4.6	5.8
17	16	18	128	43	44	204	114	57	14	6.8	4.6	10
18	*14	31	91	40	43	136	98	50	11	6.2	4.4	8.0
19	13	33	66	39	44	123	91	49	12	6.0	4.4	6.0
20	12	25	76	39	37	112	89	117	20	5.5	4.4	5.5
21	12	31	72	38	36	110	83	166	18	5.2	4.2	5.2
22	12	183	81	45	38	125	75	89	14	5.5	4.4	5.0
23	17	75	106	370	43	118	72	74	11	4.8	4.2	6.6
24	30	43	106	150	48	114	69	117	10	5.0	4.2	5.7
25	24	33	158	95	52	98	66	72	8.6	5.0	4.4	5.2
26	18	39	105	78	93	92	68	62	21	5.0	5.0	5.0
27	16	42	82	71	460	92	64	69	22	8.3	4.6	4.7
28	15	38	85	65	*212	100	63	64	22	6.8	4.6	4.6
29	15	34	80	65	-	96	59	52	18	*7.4	*5.0	4.5
30	14	30	57	60	--------	94	53	45	21	8.6	5.4	4.4
31	14	--------	60	58	--------	82	--------	38	--------	8.6	5.1	--------
Total	643	1,146	2,269	2,083	1,991	3,470	3,888	2,155	683.6	282.9	153.7	164.5
Mean	20.7	38.2	73.2	67.2	71.1	112	123	69.5	22.8	9.13	4.96	5.48
Cfsm	0.392	0.723	1.39	1.27	1.35	2.12	2.33	1.32	0.432	0.173	0.094	0.104
In.	0.45	0.81	1.60	1.47	1.40	2.44	2.60	1.52	0.48	0.20	0.11	0.12

Calendar year 1956: Max 883 Min 6.7 Mean 89.5 Cfsm 1.70 In. 23.08
Water year 1956-57: Max 460 Min 4.2 Mean 51.3 Cfsm 0.972 In. 13.20

Peak discharge (base, 1,250 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--No gage-height record Aug. 30 to Sept. 30; discharge estimated on basis of weather records, recorded range in stage, and records for West Branch Westfield River at Huntington. Stage-discharge relation affected by ice Nov. 23-25, Dec. 18, 19, 26, 27, Dec. 29 to Feb. 17, Feb. 20-22, Mar. 2-6, 10, 11.

Ware River near Barre, Mass.

Location.--Lat 42°25'35", long 72°01'30", on left bank 1,100 ft downstream from bridge at Barre Falls, 1.6 miles upstream from Burnshirt River, and 4 miles east of Barre, Worcester County.

Drainage area.--55.0 sq mi.

Records available.--July 1946 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 745 ft (from topographic map).

Average discharge.--11 years, 95.1 cfs.

Extremes.--Maximum discharge during year, 365 cfs Jan. 24 (gage height, 4.22 ft); maximum gage height, 4.63 ft Jan. 24 (backwater from ice); minimum discharge, 1.0 cfs Sept. 13. 1946-57: Maximum discharge, 1,890 cfs Oct. 16, 1955 (gage height, 6.31 ft), from rating curve extended above 960 cfs by logarithmic plotting; minimum, that of Sept. 13, 1957.

Remarks.--Records good except those for periods of ice effect, which are fair. Some regulation by Long Pond and other small reservoirs.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 22		Nov. 23 to Sept. 30			
2.2	9.8	1.7	1.6	2.7	34
2.4	19	1.8	2.4	3.0	64
2.7	40	2.0	4.9	3.5	145
3.1	82	2.2	9.5	4.0	236
3.5	153	2.4	16	4.5	485

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*21	30	57	67	64	161	94	54	44	50	6.8	3.6
2	18	40	50	64	67	129	112	50	38	38	6.2	3.2
3	16	44	48	60	80	109	154	44	44	29	5.1	3.1
4	17	43	46	57	85	91	143	42	38	26	7.0	2.9
5	28	38	*44	57	85	81	141	41	31	24	*16	3.1
6	26	33	42	53	77	74	240	38	23	23	11	2.9
7	42	29	44	51	80	72	300	35	24	19	8.5	2.7
8	52	29	50	51	76	70	260	28	26	16	6.8	2.8
9	39	36	61	52	72	91	227	29	24	15	6.2	2.6
10	29	35	63	52	77	121	210	29	21	13	5.5	2.2
11	25	29	58	50	81	107	207	78	19	11	5.5	2.4
12	20	29	111	49	*73	105	201	120	18	10	5.3	2.4
13	19	36	159	46	70	97	201	116	16	9.2	5.7	2.4
14	17	36	166	43	63	121	182	94	16	9.8	5.3	2.9
15	16	32	141	41	59	152	159	94	15	9.0	5.1	3.2
16	15	30	145	*40	56	207	143	112	14	*8.0	4.9	4.4
17	14	29	161	39	55	245	135	94	13	7.0	4.4	12
18	14	38	150	37	52	212	127	76	12	6.6	4.0	11
19	13	42	120	36	54	168	120	65	27	6.2	3.7	8.5
20	11	37	118	36	50	147	114	67	118	5.5	3.6	7.0
21	11	43	101	40	48	137	107	90	129	5.3	3.5	6.4
22	11	110	91	80	48	145	99	84	74	5.3	3.6	6.2
23	22	143	93	250	48	145	88	69	46	8.6	3.6	6.0
24	37	114	96	345	52	139	83	70	31	6.4	3.0	5.3
25	34	81	114	325	56	129	76	59	26	4.9	3.6	4.6
26	28	87	112	250	80	120	74	58	37	4.6	6.8	4.2
27	25	107	102	190	166	116	74	77	109	4.2	5.5	3.8
28	23	96	94	140	201	111	70	70	109	4.4	4.2	3.5
29	*20	83	84	105	-	*107	64	58	77	4.7	4.1	3.5
30	19	72	74	83	-------	105	*59	48	62	5.7	4.0	3.5
31	20	-------	70	74	-------	102	-------	40	-------	6.4	4.0	-------
Total	702	1,631	2,865	2,863	2,075	3,916	4,264	2,029	1,281	395.8	172.5	132.3
Mean	22.6	54.4	92.4	92.4	74.1	126	142	65.5	42.7	12.8	5.56	4.41
Cfsm	0.411	0.989	1.68	1.68	1.35	2.29	2.58	1.19	0.776	0.233	0.101	0.080
In.	0.47	1.10	1.94	1.94	1.40	2.65	2.88	1.37	0.87	0.27	0.12	0.09

Calendar year 1956:	Max	779	Min	3.8	Mean	99.0	Cfsm	1.80	In.	24.49
Water year 1956-57:	Max	345	Min	2.2	Mean	61.2	Cfsm	1.11	In.	15.10

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 25, Dec. 1, 2, 10, 11, Dec. 30 to Jan. 28, Jan. 30 to Feb. 3, Feb. 5-9, 11-24, Mar. 9 (no gage-height record Jan. 3-15, 18-23; discharge estimated on basis of weather records and records for station at Coldbrook).

Ware River at Coldbrook, Mass.

Location.--Lat 42°23'30", long 72°03'40", on right bank above diversion dam at Ware River intake works at Coldbrook, Worcester County, 2 miles east of South Barre and 2.7 miles downstream from Burnshirt River.

Drainage area.--96.8 sq mi.

Records available.--January 1928 to September 1957.

Gage.--Venturi meters and water-stage recorder. Datum of gage is 5.65 ft below mean sea level, datum of 1929. 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.--29 years, 167 cfs.

Extremes.--Maximum daily discharge during year, 631 cfs Jan. 24; minimum daily, 7.0 cfs Sept. 11, 12.
1928-57: Maximum discharge, 14,000 cfs Sept. 21, 1938 (gage height, 664.28 ft), by computation of flow over dam; minimum daily, 4.7 cfs Sept. 6, 1953.

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.

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 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	30	109	125	174	287	189	108	69	87	15	8.8
2	38	53	96	117	163	229	268	99	67	71	14	8.8
3	83	67	90	111	150	187	305	94	85	58	12	8.8
4	54	49	78	104	162	161	258	90	74	51	26	8.8
5	64	58	80	107	160	150	354	90	61	47	30	8.8
6	53	51	79	99	145	143	564	86	49	47	21	8.8
7	95	46	82	98	145	138	581	80	53	42	18	8.5
8	105	45	89	100	140	141	495	73	53	38	18	8.4
9	73	56	109	101	136	208	410	72	48	34	18	7.6
10	56	55	120	101	149	222	372	78	47	32	18	7.3
11	47	47	119	97	160	208	405	147	43	30	17	7.0
12	41	49	264	96	136	193	377	221	40	26	17	7.0
13	37	58	327	95	126	196	376	207	38	25	17	7.1
14	36	58	306	81	119	254	337	174	35	25	16	8.4
15	34	54	264	81	111	315	284	186	33	25	16	9.1
16	32	48	293	79	104	452	263	197	29	22	15	11
17	30	47	290	79	105	449	225	160	28	20	15	19
18	28	56	243	78	109	393	204	140	26	15	14	23
19	26	63	202	53	109	313	216	135	130	14	12	16
20	24	59	196	69	101	274	179	127	249	14	12	14
21	23	87	172	73	94	234	184	161	193	13	12	13
22	24	263	162	173	93	288	151	161	110	13	12	13
23	39	261	166	586	94	274	142	139	71	16	27	12
24	45	210	172	631	93	267	149	128	58	14	15	11
25	49	140	223	578	105	259	144	112	51	13	14	11
26	47	168	194	431	207	189	142	126	136	12	12	10
27	43	188	173	311	390	223	135	126	223	12	13	9.7
28	28	163	172	264	361	186	141	118	173	12	13	9.1
29	30	136	154	230	-	202	135	97	127	13	30	8.8
30	30	131	126	202	-------	186	118	81	103	15	13	8.0
31	27	-------	126	177	-------	185	-------	70	-------	16	9.0	-------
Total	1,388	2,796	5,276	5,527	4,141	7,406	8,103	3,883	2,502	872	511.0	311.8
Mean	44.8	93.2	170	178	148	239	270	125	83.4	28.1	16.5	10.4
Cfsm	0.463	0.963	1.76	1.84	1.53	2.47	2.79	1.29	0.862	0.290	0.170	0.107
In.	0.53	1.07	2.03	2.12	1.59	2.85	3.11	1.49	0.96	0.34	0.20	0.12

Calendar year 1956: Max 1,720 Min 10 Mean 189 Cfsm 1.95 In. 26.61
Water year 1956-57: Max 631 Min 7.0 Mean 117 Cfsm 1.21 In. 16.41

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Ware River at Gibbs Crossing, Mass.

Location.--Lat 42°14'07", long 72°16'45", on right bank half a mile upstream from Gibbs Crossing, Hampshire County, 1.8 miles upstream from Beaver Brook, and 2½ miles southwest of Ware.
Drainage area.--199 sq mi.
Records available.--August 1912 to September 1957.
Gage.--Water-stage recorder. Datum of gage is 379.79 ft above mean sea level, datum of 1929. Prior to Mar. 1, 1930, at site half a mile downstream at different datum.
Average discharge.--45 years, 324 cfs (adjusted for diversion).
Extremes.--Maximum discharge during year, 2,200 cfs Jan. 23 (gage height, 5.11 ft); minimum, 16 cfs Sept. 15; minimum daily, 19 cfs July 11.
1912-57: 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 determination at gage height 12.83 ft and slope-area determination at gage height 18.2 ft; minimum, 5.0 cfs Oct. 26, 1914; minimum daily, 6.0 cfs Oct. 4, 1914.
Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by mills above station. Diversion at times since March 1931 from 97 sq mi in Ware River basin for supply of Boston metropolitan district.
Revisions (water years).--WSP 661: Drainage area. WSP 1031: 1944. WSP 1301: 1914(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from aquatic vegetation May 27 to Sept. 30)

Oct. 1 to Jan. 23				Jan. 24 to Sept. 30			
1.7	24	3.0	465	1.6	16	2.7	300
1.8	34	3.5	850	1.7	24	3.0	460
2.1	87	4.0	1,290	1.8	34	3.5	780
2.4	175	4.2	1,470	2.1	87	4.0	1,180
2.7	300			2.4	175	4.3	1,450

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	81	134	205	338	610	370	236	100	112	33	28
2	82	110	141	328	283	466	326	214	115	90	32	27
3	58	68	210	237	290	395	460	*198	168	72	29	28
4	104	92	155	207	330	365	375	194	107	62	36	27
5	*138	180	141	156	315	269	430	186	97	61	50	29
6	60	102	137	165	275	251	940	204	83	61	47	29
7	107	107	152	260	260	244	820	175	76	57	37	28
8	281	91	107	200	264	234	834	157	69	52	33	24
9	140	109	148	190	225	350	616	140	74	80	*32	27
10	111	59	244	185	315	520	562	136	76	49	32	26
11	104	65	205	200	380	454	574	235	56	19	31	27
12	78	173	468	160	285	436	538	375	53	34	33	26
13	57	110	696	140	250	395	490	430	58	27	30	27
14	45	*114	690	285	217	454	478	345	*46	33	28	26
15	125	112	531	200	210	532	408	370	42	41	28	21
16	74	110	565	180	155	738	375	440	44	35	28	29
17	74	53	*706	185	188	836	365	341	46	32	26	32
18	65	81	595	205	223	738	355	260	42	30	26	33
19	79	213	447	160	186	466	340	242	46	32	28	34
20	34	121	387	175	191	370	335	293	251	22	27	34
21	32	142	351	190	169	355	325	305	268	27	26	38
22	97	356	267	215	151	400	320	310	178	33	29	38
23	78	569	361	1,400	136	346	291	273	104	32	27	35
24	79	373	378	1,450	172	355	286	294	90	28	27	32
25	100	260	493	*1,040	216	380	273	230	58	26	29	32
26	86	331	528	852	270	294	264	194	99	26	33	37
27	71	248	408	675	*653	299	260	238	423	25	31	26
28	37	274	365	580	731	292	278	218	286	23	28	23
29	149	211	244	472	-	*276	278	186	202	27	27	21
30	70	203	255	418	--------	253	251	120	151	29	31	23
31	69	--------	375	354	--------	345	--------	127	--------	34	35	--------
Total	2,800	5,118	10,884	11,669	7,678	12,718	12,617	7,666	3,508	1,311	969	867
Mean	90.3	171	351	376	274	410	421	247	117	42.3	31.3	28.9
(†)	0	0	0	0	0	42.6	132	0	0	0	0	0
Adjusted for diversion												
Mean	90.3	171	351	376	274	453	553	247	117	42.3	31.3	28.9
Cfsm	0.454	0.859	1.76	1.89	1.38	2.28	2.78	1.24	0.588	0.213	0.157	0.145
In.	0.52	0.96	2.03	2.18	1.43	2.62	3.10	1.43	0.66	0.24	0.18	0.16

	Observed			Adjusted		
Calendar year 1956:	Max 2,370	Min 14	Mean 359	Mean 374	Cfsm 1.88	In. 25.56
Water year 1956-57:	Max 1,450	Min 19	Mean 213	Mean 228	Cfsm 1.15	In. 15.51

Peak discharge (base, 1,300 cfs).--Jan. 23 (7:30 p.m.) 2,200 cfs (5.11 ft).

* Discharge measurement made on this day.
† Diversion, equivalent in cubic feet per second, from 97 sq mi in Ware River basin for supply of Boston metropolitan district; furnished by Metropolitan District Commission.
Note.--Stage-discharge relation affected by ice Dec. 30 to Jan. 1, Jan. 6-25, Feb. 3, 5-7, 9, 11-13, 16.

Hop Brook near New Salem, Mass.

Location.--Lat 42°28'42", long 72°20'05", on right bank 1.5 miles upstream from mouth and 1½ miles south of New Salem, Franklin County.

Drainage area.--3.39 sq mi.

Records available.--October 1947 to September 1957. October 1947 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 725 ft (from topographic map).

Average discharge.--10 years, 6.33 cfs.

Extremes.--Maximum discharge during year, 135 cfs June 26 (gage height, 2.63 ft), from rating curve extended above 78 cfs by logarithmic plotting; minimum, 0.006 cfs Aug. 24, 25.

1947-57: Maximum discharge, 275 cfs Aug. 19, 1955 (gage height, 3.13 ft), from rating curve extended above 78 cfs by logarithmic plotting; minimum, 0.004 cfs Aug. 3, 9, 10, 1955.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23

0.7	0.54
.8	.99
1.0	2.35
1.2	4.6

Note.--Same as following table above 1.2 ft.

Jan. 24 to Sept. 30

0.32	0.01	1.2	4.6
.4	.04	1.4	9.0
.5	.15	1.6	17.1
.6	.37	1.8	29
.7	.71	2.0	45
.8	1.20	2.1	54
1.0	2.6		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.22	3.7	3.5	b4.6	3.9	8.2	5.0	3.3	2.4	1.85	0.21	0.02
2	1.05	5.1	3.5	b4.3	4.1	6.6	13.1	3.1	3.9	1.3	*.10	.02
3	1.22	3.8	3.6	b4.0	4.8	5.6	8.2	3.1	3.4	1.05	.05	.02
4	2.8	2.4	3.8	b4.0	5.2	b5.2	6.5	3.1	2.4	1.35	.10	.13
5	3.1	2.0	3.5	b4.1	4.8	b5.1	14.8	3.0	2.15	1.9	.19	.43
6	1.7	1.75	3.9	3.8	4.5	b5.1	26	2.9	1.9	1.35	.06	.12
7	4.8	1.6	4.4	3.8	*4.2	5.1	14.0	2.6	2.7	.80	.03	.06
8	2.6	2.15	4.1	3.8	4.2	5.2	10.8	2.4	2.05	.61	.02	.06
9	1.7	2.5	4.4	3.7	b4.5	9.2	10.8	2.25	1.65	.67	*.02	.04
10	1.4	1.75	3.8	3.9	7.2	7.4	12.4	2.7	1.4	.66	.02	*.02
11	1.3	1.45	5.4	3.7	b5.0	b6.0	13.4	9.3	1.20	.49	.04	.03
12	1.22	2.7	22	3.6	b4.6	5.9	13.0	8.8	1.20	.40	.02	.07
13	1.22	2.7	14.0	3.5	4.0	*7.3	10.8	4.9	1.05	.46	.02	.36
14	1.22	2.0	8.8	3.3	3.9	9.4	8.8	5.1	.94	.51	.01	.55
15	1.16	1.75	8.0	3.0	3.8	9.1	8.0	6.0	.84	.29	.01	.37
16	1.10	1.7	16.1	3.2	b3.6	16.1	7.5	4.6	.63	.22	.02	.57
17	1.05	1.7	11.3	3.0	3.8	10.0	7.2	3.3	.47	.17	.02	1.4
18	.99	2.7	9.0	3.0	3.5	8.0	6.8	3.4	.41	.14	.01	.43
19	*.94	2.35	8.5	2.9	3.4	7.2	*6.3	3.0	6.7	.11	.01	.12
20	.88	2.35	7.0	2.9	3.1	7.0	6.1	13.1	4.0	.08	.02	.08
21	.94	8.4	6.8	3.5	3.4	8.9	5.7	9.3	1.5	.06	.01	.09
22	.94	28	7.9	10.0	3.3	8.5	5.4	5.2	.94	.06	.02	.12
23	3.3	7.6	8.0	50	3.3	7.2	4.8	*4.2	.71	.16	.02	.11
24	2.1	5.3	9.6	25	3.4	6.5	4.8	3.6	.61	.12	.01	.09
25	1.4	4.4	13.8	13.0	4.3	6.1	4.5	2.9	.58	.15	.04	.05
26	1.3	5.9	8.5	9.0	11.0	5.9	4.8	7.8	29	.08	.21	.05
27	1.3	*5.9	7.6	7.5	25	5.9	4.4	5.9	7.3	.07	.08	.04
28	1.22	4.6	6.8	6.4	b11.0	5.6	4.1	5.9	*3.4	.11	.03	.04
29	1.10	4.2	6.8	5.6	-	5.4	3.8	3.8	3.7	.81	.02	.04
30	1.05	3.8	b5.3	5.0	--------	6.6	3.5	3.0	2.4	1.20	.02	.05
31	1.16	--------	b5.0	4.4	--------	5.7	--------	2.6	--------	.46	.03	--------
Total	48.48	126.25	234.7	211.5	150.8	221.0	255.3	144.15	91.53	17.69	1.47	5.58
Mean	1.56	4.21	7.57	6.82	5.39	7.13	8.51	4.65	3.05	0.571	0.047	0.186
Cfsm	0.460	1.24	2.23	2.01	1.59	2.10	2.51	1.37	0.900	0.168	0.014	0.055
In.	0.53	1.39	2.57	2.32	1.65	2.42	2.80	1.58	1.00	0.19	0.02	0.06

Calendar year 1956:	Max	76	Min	0.02	Mean	6.51	Cfsm	1.92	In.	26.14
Water year 1956-57:	Max	50	Min	0.01	Mean	4.13	Cfsm	1.22	In.	16.53

Peak discharge (base, 72 cfs).--Jan. 23 (time unknown) 88 cfs (2.37 ft); June 26 (1:30 p.m.) 135 cfs (2.63 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Jan. 6 to Feb. 6; discharge estimated on basis of weather records, recorded range in stage, and records for East Branch Swift River near Hardwick and Ware River near Barre.

East Branch Swift River near Hardwick, Mass.

Location.--Lat 42°23'36", long 72°14'21", on left bank 100 ft above spillway of regulating dam and 4.6 miles northwest of Hardwick, Worcester County.

Drainage area.--43.7 sq mi.

Records available.--January 1937 to September 1957. 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, datum of 1929.

Average discharge.--20 years, 71.0 cfs.

Extremes.--Maximum discharge during year, 540 cfs Jan. 23 (gage height, 20.495 ft); no flow Aug. 21-25, Aug. 28 to Sept. 15.

1937-57: Maximum discharge, 6,780 cfs Sept. 21, 1938, average of slope-area and contracted-opening determinations; maximum gage height, 22.49 ft June 25, 1944; no flow at times in 1939, 1949, 1953, 1957.

Remarks.--Records good.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

19.1	0	19.4	18
19.15	.4	19.5	36
19.2	1.6	19.6	67
19.25	3.8	20.0	239
19.3	7.2	20.3	410
19.35	12		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	20	39	61	67	144	65	34	28	26	1.2	0
2	19	36	35	53	64	105	84	31	29	19	.8	0
3	18	33	38	48	61	82	123	27	32	14	.6	0
4	20	34	34	48	67	64	115	28	30	13	2.4	0
5	31	31	34	50	62	56	121	29	27	13	4.7	0
6	32	27	34	46	61	56	253	28	24	11	4.4	0
7	46	23	35	48	57	54	293	28	25	10	3.6	0
8	51	25	39	48	54	54	214	25	23	8.4	2.3	0
9	44	34	54	45	54	100	181	24	20	6.8	1.7	0
10	36	33	54	50	62	109	153	23	16	5.7	1.4	0
11	30	29	50	48	67	96	159	54	15	4.4	1.2	0
12	25	31	117	44	59	86	164	99	13	4.1	1.1	0
13	23	34	181	42	53	78	161	109	13	3.6	.6	0
14	23	32	146	40	50	96	146	90	11	3.8	.3	0
15	23	30	148	36	45	130	121	88	11	3.0	.2	0
16	23	28	134	40	42	188	103	92	10	2.5	.2	.1
17	23	27	155	38	40	205	92	75	8.8	1.7	.2	1.1
18	20	38	138	36	38	161	88	59	7.2	1.4	.1	1.7
19	17	36	105	34	39	128	82	50	13	1.1	.1	1.4
20	15	33	92	34	36	111	75	56	56	1.0	.1	1.0
21	15	30	82	34	34	103	71	101	51	.8	0	1.4
22	14	125	80	37	33	109	64	99	31	.6	0	1.1
23	18	157	90	303	34	111	57	78	21	.6	0	2.8
24	21	109	90	410	34	107	54	67	16	.6	0	1.7
25	19	73	113	229	36	96	51	51	14	.6	0	1.4
26	17	71	117	157	50	86	48	50	19	.5	.1	1.1
27	16	71	97	117	155	80	51	61	54	.6	.1	.6
28	16	64	86	96	181	76	50	59	64	.6	0	.5
29	15	54	82	90	-	75	45	51	39	.8	0	.4
30	15	48	80	80	--------	76	39	39	32	1.4	0	.4
31	15	--------	65	69	--------	73	--------	34	--------	1.7	0	--------
Total	722	1,416	2,644	2,511	1,635	3,095	3,323	1,739	743.0	162.3	27.4	16.7
Mean	23.3	47.2	85.3	81.0	58.4	99.8	111	56.1	24.8	5.24	0.88	0.56
Cfsm	0.533	1.08	1.95	1.85	1.34	2.28	2.54	1.28	0.568	0.120	0.020	0.013
In.	0.61	1.21	2.25	2.14	1.39	2.63	2.83	1.48	0.63	0.14	0.02	0.01

Calendar year 1956: Max 802 Min 1.9 Mean 79.8 Cfsm 1.83 In. 24.85
Water year 1956-57: Max 410 Min 0 Mean 49.4 Cfsm 1.13 In. 15.34

Peak discharge (base, 350 cfs).--Jan. 23 (10 to 12 p.m.) 540 cfs (20.495 ft).

Swift River at West Ware, Mass.

Location.--Lat 42°16'04", long 72°19'59", on left bank at West Ware, Hampshire County, 1.4 miles downstream from Quabbin Reservoir and 3½ miles east of Belchertown.

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.

Records available.--July 1910 to September 1912 (twice-daily gage heights and corresponding discharges), October 1912 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 365.18 ft above mean sea level, datum of 1929. Prior to Aug. 25, 1912, chain gage at site 400 ft upstream at same datum.

Average discharge.--45 years (1912-57), 306 cfs (adjusted for storage and diversions).

Extremes.--Maximum discharge during year, 184 cfs Sept. 16 (gage height, 3.00 ft); minimum daily, 33 cfs Feb. 22, May 30.
1910-57: Maximum discharge, 7,590 cfs Mar. 19, 1936 (gage height, 15.00 ft); minimum, 2.5 cfs Sept. 20, 1940; minimum daily, 15 cfs Sept. 20, 1940.

Remarks.--Records good. Flow regulated since August 1939 by Quabbin Reservoir (see p. 233). Diversion from Ware River to Quabbin Reservoir since 1940, from Quabbin Reservoir to Wachusett Reservoir since 1941, and from Quabbin Reservoir to Chicopee Valley aqueduct since 1950.

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).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.9	26
2.1	43
2.5	98
3.0	184

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	117	127	59	a35	101	104	111	101	56	109	119	128
2	105	126	47	a115	58	57	106	101	44	102	110	128
3	105	101	110	a105	45	48	*102	*102	109	102	55	148
4	*105	120	103	a105	111	112	105	55	99	76	a45	126
5	104	134	103	a60	100	102	108	43	97	135	a110	a125
6	98	103	102	a50	101	102	65	110	100	99	a100	a125
7	130	101	102	a115	100	103	50	103	97	128	101	a105
8	136	115	59	a105	100	103	113	101	55	140	110	a125
9	104	126	48	102	57	63	106	102	41	105	124	a150
10	104	99	115	103	48	49	109	101	94	105	100	a125
11	101	122	103	103	112	114	108	60	80	99	122	122
12	35	122	107	59	100	103	87	47	83	103	131	123
13	68	136	105	48	98	103	41	91	82	58	101	125
14	47	*105	*102	110	96	103	49	100	*82	48	*109	105
15	109	102	58	100	101	103	47	100	86	116	110	128
16	101	102	50	100	56	62	50	102	122	104	125	151
17	102	85	113	100	45	48	93	100	131	104	100	125
18	99	124	105	*106	111	113	104	57	101	100	119	125
19	99	138	103	59	102	104	36	44	116	113	130	124
20	97	104	103	48	102	103	68	109	123	100	114	125
21	125	104	102	112	102	104	48	101	123	50	125	106
22	124	40	58	96	33	103	110	104	98	132	127	130
23	102	113	49	100	67	59	102	101	122	114	125	148
24	101	90	115	87	44	48	97	102	144	126	108	120
25	103	122	36	87	106	112	102	57	122	113	133	127
26	91	133	117	53	98	103	101	44	125	99	132	126
27	99	104	104	48	106	102	57	108	124	60	116	126
28	120	104	104	114	102	102	47	102	113	48	127	106
29	132	103	62	102	-	102	108	101	57	112	125	130
30	103	103	49	102	--------	58	101	33	45	102	120	151
31	115	--------	a115	102	--------	47	--------	109	--------	110	103	--------
Total	3,181	3,308	2,708	2,731	2,402	2,739	2,531	2,691	2,871	3,112	3,476	3,808
Mean	103	110	87.4	88.1	85.8	88.4	84.4	86.8	95.7	100	112	127
(†)	-17.6	+90.8	+322	+213	+181	+243	+370	+193	+79.5	-128	-171	-169
Adjusted for diversion and change in reservoir contents												
Mean	85.1	201	409	301	267	331	455	280	175	-28.0	-59.1	-42.3
Cfsm	0.453	1.07	2.18	1.60	1.42	1.76	2.42	1.49	0.931	-0.149	-0.314	-0.225
In.	0.52	1.19	2.51	1.85	1.48	2.03	2.70	1.72	1.04	-0.17	-0.36	-0.25

	Observed			Adjusted		
Calendar year 1956:	Max 1,800	Min 35	Mean 255	Mean 349	Cfsm 1.86	In. 25.27
Water year 1956-57:	Max 151	Min 33	Mean 97.4	Mean 197	Cfsm 1.05	In. 14.26

* Discharge measurement made on this day.
† Change in contents in Quabbin Reservoir (adjusted for diversion from Ware River), diversion to Wachusett Reservoir, and diversion to Chicopee Valley Aqueduct, equivalent in cubic feet per second.
‡ Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and typical regulation pattern.

Quaboag River at West Brimfield, Mass.

Location.--Lat 42°10'56", long 72°15'51", on right bank 10 ft upstream from abandoned highway bridge at West Brimfield, Hampden County, 0.9 mile upstream from Blodgett Mill Brook, and 3½ miles northeast of Palmer.

Drainage area.--151 sq mi.

Records available.--August 1909 to August 1912 (twice-daily gage heights and corresponding discharges), September 1912 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 390 ft (from topographic map). Prior to Aug. 19, 1912, staff gage and Aug. 19, 1912, to Oct. 31, 1955, water-stage recorder, at several sites 0.5 mile downstream at different datum.

Average discharge.--45 years (1912-57), 244 cfs.

Extremes.--Maximum discharge during year, about 780 cfs Jan. 23; maximum gage height, 7.17 ft Jan. 23 (ice jam); minimum daily discharge, 6.6 cfs Sept. 28, 29.
1909-57: 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 determination of peak flow; minimum daily, that of Sept. 28, 29, 1957.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Slight diurnal fluctuation at low flow caused by mill above station prior to 1956; regulation much greater prior to 1938.

Revisions (water years).--WSP 451: 1916. WSP 711: Drainage area. WSP 1301: 1918(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23

2.5	32	3.5	214
2.8	75	4.0	339
3.1	129	5.0	690

Jan. 24 to Sept. 30

2.0	6.6	2.5	36
2.1	9.6	2.8	75
2.2	14		

Note.--Same as preceding table above 2.8 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	69	125	200	320	331	278	172	110	45	21	9.6
2	57	75	115	190	290	331	315	160	118	40	18	10
3	57	75	114	175	270	315	320	147	121	38	15	11
4	58	69	103	165	280	296	317	145	99	37	17	9.6
5	*69	64	99	165	284	276	384	145	89	36	23	10
6	66	65	101	160	278	261	566	137	82	34	19	9.2
7	80	64	99	160	261	251	558	125	77	32	17	8.3
8	84	62	97	160	249	244	582	*118	68	32	15	8.3
9	78	62	120	160	237	309	622	114	64	31	14	10
10	75	52	125	160	260	302	610	112	59	30	14	12
11	72	50	127	160	300	328	614	183	55	26	14	12
12	69	56	223	160	310	347	606	196	51	26	*14	12
13	66	48	232	155	300	336	562	177	47	26	13	11
14	62	*46	242	140	290	356	526	190	46	26	12	17
15	60	47	256	150	270	361	502	201	43	24	12	17
16	60	46	284	145	260	425	478	203	39	24	10	19
17	55	42	*302	140	270	406	444	192	*37	22	11	28
18	50	70	281	130	230	409	419	192	34	21	10	16
19	46	80	275	125	200	409	391	177	37	21	9.2	11
20	43	77	264	120	180	385	364	196	46	18	9.6	15
21	42	87	256	130	175	385	334	201	38	18	9.6	17
22	41	192	254	220	170	412	312	183	35	21	9.6	16
23	48	188	266	500	170	385	299	183	33	23	9.6	19
24	48	143	266	590	185	367	281	181	32	20	9.2	11
25	44	140	281	*580	210	350	266	179	32	20	9.6	8.0
26	43	149	274	510	260	347	251	174	42	19	11	7.4
27	42	149	260	480	*320	334	239	164	47	18	11	6.8
28	42	143	251	445	323	317	221	143	44	18	9.6	6.6
29	47	143	244	420	-	*299	205	147	44	18	9.6	6.6
30	53	137	150	375	--------	299	183	131	42	17	*9.6	6.8
31	52	--------	230	350	--------	291	--------	121	--------	17	9.6	--------
Total	1,767	2,670	6,316	7,720	7,152	10,464	12,049	5,089	1,711	798	395.8	361.2
Mean	57.0	89.0	204	249	255	338	402	164	57.0	25.7	12.8	12.0
Cfsm	0.377	0.589	1.35	1.65	1.69	2.24	2.66	1.09	0.377	0.170	0.085	0.079
In.	0.44	0.66	1.56	1.90	1.76	2.58	2.97	1.25	0.42	0.20	0.10	0.09

Calendar year 1956: Max 1,500 Min 18 Mean 258 Cfsm 1.71 In. 23.24
Water year 1956-57: Max 622 Min 6.6 Mean 155 Cfsm 1.03 In. 13.93

Peak discharge (base, 840 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 1-9, 13-22, Feb. 1-4, 10-26; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage when available, and records for Quinebaug River at Westville and Ware River near Barre. Stage-discharge relation affected by ice Nov. 25, Dec. 1, 2, 19, 27, Dec. 30 to Jan. 31.

Chicopee River at Indian Orchard, Mass.

Location.--Lat 42°09'38", long 72°30'52", on left bank 1,000 ft downstream from West Street Bridge at Indian Orchard, Hampden County, and 1.1 miles upstream from Fuller Brook.

Drainage area.--688 sq mi.

Records available.--August 1928 to September 1957. 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, at site 1 3/4 miles downstream at different datum.

Average discharge.--29 years, 1,106 cfs (adjusted to present drainage area and for storage and diversions).

Extremes.--Maximum discharge during year, 3,840 cfs Jan. 24 (gage height, 8.22 ft); minimum daily, 48 cfs Oct. 28.
1928-57: Maximum discharge, 45,200 cfs Sept. 21, 1938, by computation of flow over dam; minimum daily, 10 cfs several times in 1929-31.

Remarks.--Records excellent except those for periods of ice effect, which are 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 and, since 1950, for city of Chicopee. Diversion from Ludlow Reservoir for Springfield and, prior to 1952, for Chicopee. Flow regulated by powerplants above station, by Quabbin Reservoir on Swift River since 1939 (see p. 233), and by smaller reservoirs.

Revisions (water years).--WSP 711: Drainage area. WSP 1231: 1934.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.2	43	5.0	650
3.5	83	6.0	1,390
4.0	195	7.0	2,310
4.5	380	8.0	3,450

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	548	418	510	b520	1,130	1,420	1,030	722	308	570	236	108
2	418	450	258	b750	820	1,080	1,010	658	342	488	204	99
3	*394	232	433	b640	698	988	*1,290	656	620	381	174	418
4	358	211	702	b640	967	1,080	1,090	273	746	216	56	253
5	430	591	379	430	1,020	978	1,230	469	430	283	350	237
6	205	*527	480	516	1,000	868	2,240	735	468	211	238	216
7	190	312	508	688	894	844	2,310	690	520	54	*259	108
8	732	419	316	704	833	856	1,920	*516	150	466	211	101
9	531	486	319	b540	583	633	1,980	552	194	450	221	289
10	526	239	660	b500	708	1,220	1,840	576	519	374	52	256
11	390	53	684	b520	1,110	1,200	1,790	190	501	288	182	216
12	228	311	956	b340	1,000	1,120	1,700	694	401	259	305	260
13	244	754	1,240	b450	926	1,130	1,520	951	319	55	200	215
14	170	342	1,290	b560	889	1,090	1,360	897	367	176	211	112
15	465	411	1,150	b500	741	1,180	1,420	860	112	308	215	144
16	324	404	1,050	b540	443	1,520	1,310	936	192	182	220	327
17	362	120	1,470	b400	480	1,670	1,160	902	302	204	112	310
18	352	238	1,300	b450	779	1,650	1,060	750	*287	181	105	229
19	370	714	*1,110	b200	598	1,380	1,040	549	366	178	262	246
20	176	602	1,020	b250	698	1,150	1,020	824	376	150	210	288
21	51	470	990	b640	655	1,190	882	889	530	103	196	114
22	392	446	705	*675	326	1,230	1,080	902	384	321	212	116
23	332	1,110	832	b2,000	526	1,110	946	862	308	270	194	389
24	334	760	1,000	3,260	530	986	940	794	592	206	114	273
25	313	692	1,120	2,260	744	1,140	912	666	426	337	110	242
26	358	820	1,200	1,860	626	1,090	816	476	438	248	296	232
27	200	853	1,090	1,500	1,140	1,020	666	850	490	55	275	267
28	48	720	942	1,420	*1,600	984	644	750	628	168	235	109
29	500	659	837	1,350	-	938	924	701	420	317	207	107
30	341	612	b720	1,220	--------	736	815	450	382	201	234	308
31	355	--------	b670	1,100	--------	814	--------	629	--------	206	119	--------
Total	10,637	14,976	25,941	27,423	22,464	34,295	37,945	21,369	12,118	7,906	6,215	6,589
Mean	343	499	837	885	802	1,106	1,265	689	404	255	200	220
(†)	-15.3	+104	+329	+216	+184	+288	+506	+197	+80.3	-132	-174	-165
Adjusted for diversion and change in reservoir contents												
Mean	328	603	1,165	1,101	986	1,394	1,771	886	484	123	26.8	54.9
Cfsm	0.477	0.876	1.69	1.60	1.43	2.03	2.57	1.29	0.703	0.179	0.039	0.080
In.	0.55	0.98	1.95	1.84	1.49	2.34	2.87	1.48	0.79	0.21	0.04	0.09

	Observed			Adjusted			
Calendar year 1956:	Max 6,290	Min 43	Mean 1,121	Mean 1,234	Cfsm 1.79	In. 24.42	
Water year 1956-57:	Max 3,260	Min 48	Mean 624	Mean 742	Cfsm 1.08	In. 14.63	

* Discharge measurement made on this day.
† Diversion from Ware River, change in contents in Quabbin Reservoir (adjusted for diversion from Ware River), diversion to Wachusett Reservoir and city of Chicopee, change in contents in Ludlow Reservoir, and diversion from Ludlow Reservoir, equivalent in cubic feet per second.
b Stage-discharge relation affected by ice.

Westfield River at Knightville, Mass.

Location.--Lat 42°17'16", long 72°51'53", on left bank at Knightville, Hampshire County, 0.2 mile downstream from Knightville Dam, 0.2 mile upstream from Sykes Brook, 2.4 miles upstream from Middle Branch, and 3.5 miles north of Huntington.

Drainage area.--162 sq mi.

Records available.--August 1909 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 461.25 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Prior to Jan. 11, 1935, chain 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, staff gage at site 700 ft upstream at datum 18.75 ft higher.

Average discharge.--48 years, 325 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 2,080 cfs Jan. 24 (gage height, 5.20 ft); minimum, 9.4 cfs Aug. 21; minimum daily, 10 cfs Aug. 18, 19, 21.

1909-57: 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 determinations at gage heights 24.07 and 29.58 ft; minimum, 0.6 cfs Aug. 11, 1941; minimum daily, 4 cfs Aug. 10, 1913.

Remarks.--Records excellent except those for periods of ice effect or shifting control, which are good, and those for period of no gage-height record, which are fair. Flow regulated by Knightville Reservoir since 1941 (see p. 233).

Revisions (water years).--WSP 415: 1909-12. WSP 1001: 1941-43. WSP 1231: 1910, 1912, 1913(M) calendar years, 1914-15, 1916-19(M), 1921-23(M), 1925-27(M), 1929-33(M), 1935(M).

Rating table, water year 1956-57, except periods of ice effect or shifting control (gage height, in feet, and discharge, in cubic feet per second)

1.7	6.9	3.0	225
1.8	11	3.5	440
2.0	26	4.0	765
2.3	59	4.5	1,220
2.6	114	5.0	1,810

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	250	159	b160	222	706	269	161	108	75	34	16
2	*106	420	151	196	261	415	439	151	110	50	25	14
3	95	470	154	190	b220	300	548	143	151	40	20	14
4	84	300	154	187	193	b250	*362	138	126	36	18	13
5	136	230	151	190	265	b245	465	136	101	49	24	22
6	121	200	151	187	277	240	1,070	131	89	95	33	18
7	240	170	159	178	160	247	1,240	*121	130	59	23	16
8	250	160	262	181	176	250	676	114	164	43	23	14
9	180	180	330	178	265	250	600	101	114	39	20	13
10	140	160	285	178	247	254	537	97	91	42	16	12
11	120	130	203	156	b225	190	574	322	75	40	16	13
12	105	140	243	124	b185	184	634	676	69	33	18	12
13	96	190	633	131	184	261	712	433	*67	30	16	13
14	92	160	698	b135	184	339	543	292	58	29	16	32
15	88	*131	447	b140	184	537	442	451	101	29	14	34
16	82	121	438	146	181	1,030	410	296	82	26	12	27
17	75	126	669	143	173	1,050	420	215	59	22	11	29
18	70	148	*474	146	170	603	420	187	47	19	10	30
19	66	138	280	143	167	473	400	173	44	*18	10	26
20	66	121	269	143	121	405	385	392	178	17	11	20
21	66	169	317	138	b110	381	366	835	101	16	10	18
22	66	1,130	334	171	119	430	322	420	69	17	11	16
23	190	538	309	499	124	435	284	300	50	18	16	20
24	220	280	352	919	126	446	265	330	44	18	16	79
25	150	203	543	938	173	385	247	229	38	18	14	38
26	120	205	531	1,440	257	362	247	203	49	16	16	27
27	110	176	366	734	858	339	232	229	142	18	22	21
28	100	187	313	395	*1,230	330	215	209	79	22	21	18
29	90	178	313	376	-	330	199	173	69	32	16	16
30	80	167	198	339	--------	313	178	146	79	46	18	16
31	80	--------	97	237	--------	288	--------	128	--------	44	22	--------
Total	3,598	7,178	9,983	9,418	7,057	12,268	13,701	7,932	2,684	1,056	552	657
Mean	116	239	322	304	252	396	457	256	89.5	34.1	17.8	21.9
(†)	+0.04	+2.66	+2.65	-1.57	+8.18	-10.8	-0.02	-0.07	-0.04	-0.04	0	0

Adjusted for change in contents in Knightville Reservoir

Mean	116	242	325	302	260	385	456	256	89.4	34.0	17.8	21.9
Cfsm	0.716	1.49	2.01	1.86	1.60	2.38	2.81	1.58	0.552	0.210	0.110	0.135
In.	0.83	1.67	2.31	2.15	1.67	2.74	3.14	1.82	0.62	0.24	0.13	0.15

	Observed			Adjusted		
Calendar year 1956:	Max 4,030	Min 14	Mean 322	Mean 322	Cfsm 1.99	In. 27.05
Water year 1956-57:	Max 1,440	Min 10	Mean 208	Mean 208	Cfsm 1.28	In. 17.47

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Knightville Reservoir.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Oct. 7 to Nov. 14; discharge estimated on basis of weather records and records for Middle Branch Westfield River at Goss Heights and West Branch Westfield River at Huntington. Shifting-control method used Oct. 1-6, Nov. 15-28, Jan. 24, 25, Jan. 27 to Feb. 27, Mar. 1-16, Mar. 18 to Apr. 5, Apr. 9-12, Apr. 14 to May 11, May 13 to June 17, June 20-22, June 26 to July 1, July 6, 7, Sept. 23, 24.

Sykes Brook at Knightville, Mass.

Location.--Lat 42°17'27", long 72°52'15", on right bank 200 ft downstream from bridge on State Highway 112 at Knightville, Hampshire County, 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.

Records available.--June 1945 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 641.40 ft above mean sea level, datum of 1929.

Average discharge.--12 years, 2.77 cfs.

Extremes.--Maximum discharge during year, about 19 cfs Jan. 23, occurred during period of ice effect; maximum gage height, 2.36 ft Jan. 24 (backwater from ice); minimum discharge, 0.04 cfs Aug. 24, 25.

1945-57: Maximum discharge, 680 cfs Aug. 19, 1955 (gage height, 4.485 ft), from rating curve extended above 80 cfs; minimum, 0.03 cfs Aug. 31, Sept. 1, 1953.

Remarks.--Records good except those for periods of ice effect, which are fair.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.05	0.03	1.5	1.14
1.1	.06	1.6	2.1
1.15	.10	1.7	3.8
1.2	.16	1.8	6.4
1.3	.31	1.9	10.0
1.4	.59	2.0	15.0

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.34	1.00	0.67	1.6	1.4	3.5	2.1	1.07	0.69	0.22	0.11	0.06
2	*.27	2.5	.62	1.4	1.35	3.0	3.1	.93	.96	.16	.09	.08
3	.27	1.58	.69	1.5	1.4	2.5	3.0	.90	1.00	.13	.08	.12
4	.47	1.00	.74	1.7	1.45	2.2	*2.5	.90	.78	.12	.10	.10
5	.70	.78	.74	1.5	1.4	2.0	5.5	.84	.65	.13	.10	.14
6	.42	.69	.74	1.25	1.35	1.9	10.0	.78	.55	.12	.08	.07
7	1.42	.59	.87	1.15	1.3	1.87	7.5	*.74	.80	.10	.07	.06
8	*.94	.55	1.14	1.21	1.25	2.1	5.8	.67	.72	.09	.06	.06
9	.59	.53	1.77	1.18	1.25	2.4	5.2	.62	.57	.11	.06	.06
10	.42	.44	1.34	1.25	1.5	2.1	5.2	.67	.46	.11	.07	.05
11	.34	.35	1.29	1.18	1.4	1.75	5.1	1.44	.38	.09	.07	.06
12	.28	.48	3.0	1.18	1.2	2.1	5.1	2.0	.32	.08	.06	.05
13	.28	.48	3.2	1.14	1.25	2.7	4.6	1.47	*.30	.10	.06	.05
14	.28	.41	2.6	1.10	1.2	3.7	3.7	1.50	.26	.11	.06	.05
15	.26	*.39	2.4	1.04	1.15	4.2	3.2	2.1	.24	.08	.07	.05
16	.25	.39	4.4	1.00	1.05	7.8	3.0	1.38	.22	.08	.06	.12
17	.24	.38	4.0	1.00	1.1	5.6	2.8	1.10	.19	.08	.05	.18
18	.22	.71	*3.0	1.00	1.1	4.3	2.6	1.00	.16	*.07	.05	.09
19	.21	.61	2.0	.96	1.1	3.8	2.4	.93	.24	*.07	.05	.07
20	.22	.51	2.2	.93	.95	3.4	2.2	3.0	.26	.07	.06	.06
21	.22	1.32	2.1	1.00	.90	3.6	2.1	3.0	.19	.07	.06	.06
22	.23	4.2	2.7	1.8	.96	3.5	1.87	1.82	.15	.22	.06	.06
23	1.23	1.89	3.1	13	1.1	3.5	1.77	1.59	.13	.14	.05	.10
24	.96	1.25	3.4	3.5	1.14	3.4	1.72	3.6	.12	.10	.04	.08
25	.53	1.00	4.0	2.2	1.34	3.1	1.52	1.77	.11	.09	.06	.06
26	.40	1.00	3.0	1.9	2.3	3.0	1.52	1.34	.48	.08	.12	.06
27	.35	1.04	2.2	1.7	9.0	2.9	1.42	1.21	.37	.35	.08	.05
28	.33	.93	2.3	1.6	5.2	2.8	1.29	1.25	.26	.22	.06	.05
29	.29	.84	2.2	1.55	-	2.6	1.21	1.04	.41	.25	.05	.05
30	.26	.78	1.6	1.5	--------	2.5	1.14	.87	.28	.16	.08	.05
31	.30	--------	1.5	1.45	--------	2.1	--------	.74	--------	.18	.07	--------
Total	13.52	28.62	65.51	55.47	47.09	95.92	100.16	42.27	12.25	3.98	2.14	2.20
Mean	0.436	0.954	2.11	1.79	1.68	3.09	3.34	1.36	0.408	0.128	0.069	0.073
Cfsm	0.266	0.582	1.29	1.09	1.02	1.88	2.04	0.829	0.249	0.078	0.042	0.045
In.	0.31	0.65	1.49	1.26	1.07	2.18	2.27	0.96	0.28	0.09	0.05	0.05

Calendar year 1956: Max 31 Min 0.07 Mean 2.53 Cfsm 1.54 In. 21.01
Water year 1956-57: Max 13 Min 0.04 Mean 1.29 Cfsm 0.787 In. 10.66

Peak discharge (base, 35 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 18, 19, 26, 27, Dec. 30 to Jan. 6, Jan. 22 to Feb. 23, Feb. 26-28, Mar. 3-6, 11.

Middle Branch Westfield River at Goss Heights, Mass.

Location.--Lat 42°15'31", long 72°52'23", on right bank at upstream side of highway bridge at Goss Heights, Hampshire County, 0.35 mile upstream from mouth and 1.7 miles north of Huntington.
Drainage area.--52.6 sq mi.
Records available.--July 1910 to September 1957.
Gage.--Water-stage recorder. Datum of gage is 400.30 ft above mean sea level, datum of 1929. Prior to Sept. 8, 1912, chain gage at same site. Prior to June 25, 1930, at datum 1.00 ft higher.
Average discharge.--47 years, 105 cfs.
Extremes.--Maximum discharge during year, 1,850 cfs Jan. 23 (gage height, 4.07 ft); maximum gage height, 4.97 ft Jan. 23 (ice jam); minimum discharge, 1.8 cfs Aug. 20, 21.
1910-57: Maximum discharge, 19,900 cfs Sept. 21, 1938 (gage height, 10.61 ft), from rating curve extended above 3,200 cfs on basis of mean of two contracted-opening determinations of peak flow; maximum gage height, 13.87 ft Mar. 12, 1936 (ice jam); practically no flow Sept. 3, 22, Oct. 20, 1910, July 30, 1912, Oct. 26, 27, 1914.
Remarks.--Records good except those for periods of ice effect or no gage-height record and those for periods of backwater from leaves, which are fair. Some diurnal fluctuation at low flow prior to 1952 caused by mill above station.
Revisions (water years).--WSP 415: 1910-12 calendar years. WSP 781: 1933(M), drainage area.

Rating tables, water year 1956-57, except periods of ice effect or backwater from leaves (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23

0.4	20	2.0	361
.5	27	2.5	575
.7	46	3.0	860
1.0	86	3.5	1,260
1.4	166		

Jan. 24 to Sept. 30

-0.06	1.8	0.6	31
0.0	3.0	.8	51
.2	8.5	1.0	80
.4	18	1.4	166

Note.--Same as preceding table above 1.4 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	75	55	80	82	154	74	43	32	24	10	3.4
2	*33	236	47	62	76	120	140	40	35	16	7.3	3.4
3	29	168	47	68	72	91	144	38	44	14	5.8	5.0
4	29	97	47	88	78	71	102	37	33	10	5.5	4.4
5	70	73	46	74	66	66	155	36	28	9.7	6.1	6.4
6	48	60	44	58	62	62	440	35	24	9.7	8.5	5.0
7	102	52	75	58	62	62	337	*31	34	9.3	6.4	3.7
8	95	48	115	62	55	62	231	29	36	8.2	5.2	3.4
9	62	55	115	60	50	66	190	26	25	7.9	4.2	3.2
10	45	45	85	58	78	64	171	24	21	7.3	3.7	3.0
11	37	37	75	52	61	56	185	110	19	6.7	4.2	3.0
12	33	41	206	56	48	60	225	225	18	6.7	4.7	3.0
13	31	56	231	48	56	76	228	127	*16	6.7	4.2	3.2
14	30	46	180	a41	50	146	171	92	15	6.7	3.4	5.6
15	28	*40	131	a41	46	174	136	154	14	6.4	3.4	12
16	26	35	223	a42	43	399	123	89	20	5.0	4.2	8.9
17	24	33	222	a43	44	260	123	61	16	4.4	2.6	9.7
18	22	42	*162	a41	40	171	120	54	14	4.0	2.4	11
19	21	37	116	a40	36	141	112	49	11	*3.4	2.2	7.6
20	21	33	115	a40	34	120	106	151	25	3.2	2.0	5.5
21	21	48	99	a38	40	116	100	236	16	3.0	1.8	4.2
22	21	437	111	a36	38	127	87	116	11	a4.6	3.4	4.2
23	58	184	135	a1,100	37	130	78	87	9.7	6.1	5.8	7.9
24	76	107	148	*317	38	132	72	160	9.7	5.2	3.7	6.7
25	48	85	222	182	38	116	64	87	8.5	4.4	3.2	5.5
26	36	85	152	140	121	106	64	67	14	4.0	5.2	5.0
27	33	80	120	115	520	100	61	70	30	4.4	7.0	4.0
28	31	71	113	105	*232	*98	58	66	16	7.3	5.8	3.4
29	28	64	100	96	-	94	52	54	15	11	4.4	3.0
30	25	55	68	90	--------	91	48	43	19	20	4.2	2.8
31	25	--------	74	86	--------	80	--------	36	--------	15	4.0	--------
Total	1,222	2,525	3,679	3,467	2,203	3,611	4,197	2,473	628.9	254.3	144.5	157.1
Mean	39.4	84.2	119	112	78.7	116	140	79.8	21.0	8.20	4.66	5.24
Cfsm	0.749	1.60	2.26	2.13	1.50	2.21	2.66	1.52	0.399	0.156	0.089	0.100
In.	0.86	1.79	2.60	2.45	1.56	2.55	2.97	1.75	0.44	0.18	0.10	0.11

Calendar year 1956: Max 1,220 Min 1.9 Mean 102 Cfsm 1.94 In. 26.33
Water year 1956-57: Max 1,100 Min 1.8 Mean 67.3 Cfsm 1.28 In. 17.36

Peak discharge (base, 1,650 cfs).--Jan. 23 (12 m. to 12:30 p.m.) 1,850 cfs (4.07 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for West Branch Westfield River.
Note.--Stage-discharge relation affected by ice Nov. 20, Nov. 30 to Dec. 7, Dec. 10, 11, 20, Dec. 30 to Jan. 23, Jan. 26 to Feb. 23, Mar. 4-9, 11. Backwater from leaves Nov. 3-22, Sept. 26-30. Discharge for Oct. 2-4, 13-22, 29-31, May 9, 10, June 6, 9-26, June 28 to July 21, July 23 to Sept. 30 computed from once-daily chain-gage readings.

West Branch Westfield River at Huntington, Mass.

Location.--Lat 42°14'14", long 72°53'46", on left bank at Huntington, Hampshire County, 0.4 mile downstream from Roaring Brook and 1½ miles upstream from mouth.

Drainage area.--93.7 sq mi.

Records available.--September 1935 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 388.60 ft above mean sea level, datum of 1929.

Average discharge.--22 years, 191 cfs.

Extremes.--Maximum discharge during year, 2,940 cfs Jan. 23 (gage height, 5.09 ft); maximum gage height, 5.33 ft Jan. 23 (backwater from ice); minimum discharge, 4.6 cfs Aug. 19-21.

1935-57: 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 determination of peak flow; minimum, 3.3 cfs Aug. 9, 1955.

Remarks.--Records good. Some diurnal fluctuation at low flow caused by mill above station.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.39	4.6	1.7	155
.4	4.9	2.0	270
.6	12	2.5	560
.8	22	3.0	950
1.1	47	4.0	1,780
1.4	85	5.0	2,830

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	112	95	150	155	257	133	85	64	29	20	8.0
2	*45	298	80	110	141	203	256	80	69	24	14	8.0
3	38	242	79	120	135	165	266	76	98	17	10	18
4	51	141	80	160	147	130	192	74	70	15	9.0	16
5	100	104	79	141	125	120	278	73	58	15	9.8	14
6	66	84	76	104	115	118	399	69	50	15	11	13
7	117	74	129	106	116	116	609	*64	69	14	9.8	10
8	121	70	165	111	105	118	448	60	79	12	8.0	9.0
9	81	80	195	109	94	127	376	54	55	11	7.3	8.7
10	61	68	152	106	140	120	330	53	45	13	6.7	8.0
11	52	55	127	96	127	104	360	179	39	11	7.0	22
12	47	59	376	100	89	113	442	335	35	10	8.0	22
13	44	86	382	91	104	137	448	216	*32	9.8	8.7	21
14	42	76	310	76	93	248	340	149	29	10	7.0	20
15	39	*65	235	76	85	305	275	261	26	10	6.4	18
16	37	58	407	78	80	654	248	155	25	9.4	6.7	15
17	34	56	407	79	82	433	248	113	22	8.4	6.1	16
18	32	68	*295	75	78	310	235	100	20	7.6	5.2	13
19	30	68	195	73	78	257	218	96	18	7.0	4.9	11
20	27	62	199	72	61	222	199	253	38	7.0	4.6	9.0
21	27	99	178	70	70	215	188	374	35	6.7	4.6	8.0
22	27	667	200	140	70	239	165	203	22	8.1	6.4	7.6
23	120	302	275	1,900	70	239	149	168	18	17	9.8	7.6
24	139	174	274	*595	70	235	141	358	16	13	8.0	14
25	76	127	400	360	74	203	127	199	15	10	6.7	12
26	56	135	280	280	191	188	127	141	21	8.7	9.0	9.0
27	50	127	215	235	752	181	120	130	51	9.9	12	8.0
28	46	111	207	205	*377	*175	113	116	30	11	10	7.3
29	41	100	185	180	-	168	106	100	25	12	*3.4	6.7
30	38	91	125	170	-------	158	94	84	26	22	8.7	*6.4
31	36	-------	135	160	-------	141	-------	72	-------	*22	8.4	-------
Total	1,764	3,859	6,537	6,328	3,824	6,399	7,630	4,490	1,200	395.6	262.2	366.3
Mean	56.9	129	211	204	137	206	254	145	40.0	12.8	8.46	12.2
Cfsm	0.607	1.38	2.25	2.18	1.46	2.20	2.71	1.55	0.427	0.137	0.090	0.130
In.	0.70	1.53	2.59	2.51	1.52	2.54	3.03	1.78	0.48	0.16	0.10	0.15

Calendar year 1956: Max 2,390 Min 6.7 Mean 179 Cfsm 1.91 In. 26.05
Water year 1956-57: Max 1,900 Min 4.6 Mean 118 Cfsm 1.26 In. 17.09

Peak discharge (base, 2,700 cfs).--Jan. 23 (12:30 p.m.) 2,940 cfs (5.09 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 30 to Jan. 4, Jan. 15-23, 25, Jan. 28 to Feb. 1, Feb. 5, 6, 8, 10, 20, 21, Mar. 4, 5.

Westfield Little River at outlet of Cobble Mountain Reservoir, near Westfield, Mass.

Location.--Lat 42°07'34", long 72°53'37", at Cobble Mountain Dam, 7½ miles west of Westfield, Hampden County.

Drainage area.--45.8 sq mi.

Records available.--July 1905 to September 1957. 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, staff or chain gages at site a quarter of a mile upstream and Mar. 1, 1910, to Sept. 30, 1935, water-stage recorder at diversion dam 2¾ miles downstream.

Average discharge.--47 years (1910-57), 91.1 cfs (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. 233); discharge adjusted for effect of this regulation.

Cooperation.--Records furnished by Board of Water Commissioners, Springfield.

Revisions.--WSP 501: Drainage area.

Monthly discharge, in cubic feet per second, water year October 1956 to September 1957

Month	Mean	Per square mile	Runoff in inches
October	15.6	0.341	0.39
November	40.2	.878	.98
December	87.3	1.91	2.20
Calendar year 1956	83.2	1.82	24.74
January	72.0	1.57	1.81
February	64.8	1.41	1.47
March	93.7	2.05	2.36
April	141	3.08	3.43
May	41.4	.904	1.04
June	4.10	.090	.10
July	.629	.014	.02
August	-1.54	-.034	-.04
September	.653	.014	.02
Water year 1956-57	46.5	1.02	13.78

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

Westfield River near Westfield, Mass.

Location.--Lat 42°06'24", long 72°41'58", on left bank 0.7 mile downstream from Great Brook and 3 miles east of Westfield, Hampden County.
Drainage area.--497 sq mi.
Records available.--June 1914 to September 1957.
Gage.--Water-stage recorder. Datum of gage is 98.25 ft above mean sea level, datum of 1929. Prior to Nov. 3, 1933, on right bank at same datum.
Average discharge.--43 years, 953 cfs (adjusted for diversion and, since October 1931, for storage).
Extremes.--Maximum discharge during year, 6,140 cfs Jan. 23 (gage height, 9.8 ft, from high-water mark); minimum, 69 cfs July 21, 22, Aug. 19; minimum daily, 70 cfs Aug. 19.
1914-57: 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.
Remarks.--Records excellent except those for periods of ice effect, which are good, and those for period of no gage-height record, which are fair. Flow regulated by diversion from Westfield Little River for municipal supply of Springfield and by Borden Brook Reservoir, Cobble Mountain Reservoir since 1931, and Knightville Reservoir since 1941 (see p. 233).
Revisions (water years).--WSP 601: 1924(M). WSP 756: Drainage area. WSP 1051: 1919-21(M), 1925(M). WSP 1231: 1915-16(M), 1920.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 6		Apr. 7 to Sept. 30			
3.3	191	2.67	70	4.5	645
3.5	254	2.7	73	5.0	945
4.0	445	3.1	133	6.0	1,690
5.0	1,000	3.5	233	8.0	3,720
7.0	2,660	4.0	420		
9.0	4,990				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	312	354	422	600	606	*1,720	756	505	340	176	139	150
2	284	960	412	640	662	1,110	970	*449	291	176	120	74
3	*261	1,170	470	600	578	902	1,480	437	424	141	105	92
4	420	680	466	630	618	724	*1,020	462	360	131	104	104
5	454	548	436	620	596	672	1,360	313	306	183	84	99
6	432	436	414	475	645	685	2,880	446	246	149	96	111
7	397	392	440	540	585	720	3,190	440	277	129	*92	112
8	816	372	626	540	495	774	2,110	438	377	131	96	95
9	454	409	826	560	570	814	1,840	381	284	159	98	75
10	376	400	838	520	670	742	1,550	420	288	164	98	89
11	337	322	598	475	680	641	1,630	531	322	172	89	91
12	298	345	1,040	425	562	663	1,700	1,280	246	124	79	81
13	264	388	1,430	400	510	630	1,910	1,160	322	124	95	84
14	250	427	1,520	530	520	919	1,470	790	309	104	93	79
15	277	384	1,230	540	481	1,340	1,200	971	221	110	89	103
16	248	*352	1,240	500	458	2,250	1,090	820	176	103	83	151
17	232	326	1,750	450	430	2,310	1,030	568	319	96	78	188
18	244	386	1,360	440	470	1,640	1,040	462	*378	92	74	119
19	210	472	*886	400	458	1,270	978	437	361	77	70	119
20	216	392	838	375	454	1,110	906	843	249	81	78	104
21	202	432	820	475	383	1,050	868	1,940	313	71	78	104
22	211	2,140	868	700	436	1,170	838	1,090	181	102	93	96
23	276	1,550	1,010	4,500	377	1,080	730	820	160	106	86	83
24	590	864	992	*2,500	388	1,090	718	926	151	99	81	92
25	406	570	1,510	1,500	469	1,020	786	718	131	96	83	115
26	330	640	1,400	2,180	768	982	788	536	152	93	85	107
27	301	575	1,000	1,630	2,630	928	592	651	254	98	86	98
28	244	515	928	952	2,420	937	564	536	240	89	88	91
29	274	520	868	898	-	860	590	496	206	*110	89	86
30	228	468	560	808	--------	787	496	360	184	131	96	78
31	235	--------	550	678	--------	754	--------	363	--------	151	102	--------
Total	10,079	17,789	27,748	27,081	18,919	32,294	37,080	20,589	8,068	3,768	2,827	3,070
Mean	325	593	895	874	676	1,042	1,236	664	269	122	91.2	102
(†)	+6.01	+44.9	+89.8	+47.2	+55.8	+62.1	+107	-11.1	-37.4	-6.27	-8.62	-2.62

Adjusted for diversion and change in reservoir contents

Mean	331	638	985	921	731	1,104	1,343	653	232	115	82.6	99.7
Cfsm	0.666	1.28	1.98	1.85	1.47	2.22	2.70	1.31	0.467	0.231	0.166	0.201
In.	0.77	1.43	2.28	2.14	1.53	2.56	3.01	1.51	0.52	0.27	0.19	0.22

	Observed			Adjusted			
Calendar year 1956:	Max 6,340	Min 87	Mean 918	Mean 967	Cfsm 1.95	In. 26.48	
Water year 1956-57:	Max 4,500	Min 70	Mean 573	Mean 602	Cfsm 1.21	In. 16.43	

* Discharge measurement made on this day.
† Diversion from Westfield Little River and change in contents in Knightville, Borden Brook, and Cobble Mountain Reservoirs, equivalent in cubic feet per second.
Note.--No gage-height record Jan. 7-24; discharge estimated on basis of 1 discharge measurement, weather records, high-water mark, and records for other stations in Westfield River basin. Stage-discharge relation affected by ice Dec. 30 to Jan. 6, Feb. 10, 11, and during parts of period of no gage-height record.

Connecticut River at Thompsonville, Conn.

Location.--Lat 41°59'14", long 72°36'21", on right bank just upstream from Enfield Dam, 1 mile downstream from Thompsonville, Hartford County.

Drainage area.--9,661 sq mi.

Records available.--July 1928 to September 1957.

Gage.--Water-stage recorder on river and on canal of Connecticut Light and Power Co. Datum of gage is 38.48 ft above mean sea level, datum of 1929.

Average discharge.--29 years, 16,470 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 47,100 cfs Jan. 25 (gage height, 4.07 ft); minimum daily, 1,220 cfs Sept. 2.
1928-57: Maximum discharge, 282,000 cfs Mar. 20, 1936 (gage height, 16.6 ft, from floodmarks); minimum daily, 1,060 cfs Aug. 28, 1949, Sept. 27, 1958.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Discharge includes water diverted around station by canal of Connecticut Light & Power Co. Flow regulated by powerplants, by diversion from Chicopee River basin, and by First Connecticut and Second Connecticut Lakes, Lake Francis, Comerford Station Pond and Moore Reservoir, Quabbin Reservoir (see p. 233), and other reservoirs (combined usable capacity, about 93½ billion cubic feet).

Revisions (water years).--WSP 741: 1932: WSP 891: Drainage area.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,470	6,880	9,830	9,210	15,800	29,800	16,800	16,000	10,100	9,290	8,320	a1,340
2	7,380	8,910	7,700	7,720	14,200	24,700	16,200	13,600	8,010	8,180	7,370	a1,220
3	8,070	13,400	6,660	10,400	12,500	22,400	22,900	12,900	9,780	5,990	4,430	2,980
4	*8,040	7,880	10,000	11,200	11,700	19,600	28,000	13,000	11,200	6,090	1,470	5,410
5	8,780	4,880	9,510	b9,260	12,200	17,200	25,900	8,710	9,480	8,550	3,720	4,910
6	8,050	6,840	9,710	b8,670	13,300	16,600	32,800	7,720	8,870	10,300	5,790	4,530
7	5,720	7,400	10,900	7,280	12,300	16,600	40,700	10,000	9,490	13,100	5,500	2,490
8	9,960	8,480	12,300	9,960	11,900	16,600	35,800	*10,800	10,200	13,700	4,870	1,700
9	13,800	8,290	14,800	11,200	11,600	16,600	31,100	9,490	4,720	13,700	5,080	2,270
10	14,300	6,770	17,400	10,500	11,500	16,800	28,700	10,300	4,710	9,280	4,830	3,210
11	13,400	3,090	15,400	9,850	10,800	12,000	26,800	10,200	7,950	7,420	2,260	3,840
12	10,800	2,860	17,400	8,810	10,600	14,900	*27,100	8,840	8,310	7,100	3,600	4,520
13	6,920	5,570	21,100	6,020	11,800	15,800	26,300	11,400	7,060	6,960	5,520	4,590
14	3,200	7,620	22,100	6,600	11,800	14,900	24,900	11,600	6,970	3,340	5,850	2,930
15	4,880	7,970	21,800	8,400	10,800	18,400	23,300	13,100	6,060	4,050	5,860	1,480
16	9,180	*8,020	19,600	8,920	11,000	23,800	22,100	15,100	2,280	5,730	6,230	2,870
17	9,600	7,440	18,300	7,710	9,200	33,900	21,100	16,900	3,430	5,140	4,460	*4,920
18	10,000	5,920	21,100	7,560	8,290	31,600	20,100	17,800	*5,330	4,450	1,840	4,530
19	9,020	7,220	20,800	7,630	10,500	26,200	20,100	15,000	5,750	4,360	2,880	4,290
20	6,300	10,200	18,100	6,200	10,400	25,100	20,100	11,500	4,650	4,290	5,050	4,230
21	3,410	10,200	15,700	6,630	10,300	23,900	22,500	19,200	4,470	2,890	5,680	2,800
22	3,680	15,000	16,300	9,640	10,300	23,800	24,900	32,000	4,030	3,500	5,400	a1,310
23	7,390	25,400	16,000	18,100	8,770	22,600	28,700	24,500	1,680	7,410	4,630	4,070
24	8,930	24,000	14,600	37,000	8,040	22,400	30,100	21,200	3,190	9,410	3,410	7,710
25	7,510	21,700	17,100	41,100	7,930	22,500	26,900	19,500	4,590	9,320	a1,510	7,630
26	7,590	17,200	15,600	29,200	11,100	22,200	24,500	17,400	5,570	7,960	a2,870	7,230
27	5,580	13,900	16,300	23,300	16,900	21,800	20,800	10,600	10,200	6,120	a4,010	5,500
28	2,680	13,100	15,500	21,200	28,700	21,200	18,900	13,200	13,600	*2,560	a4,590	2,700
29	2,980	13,900	b12,900	19,800	-	21,100	18,800	15,600	10,900	3,540	a3,600	a1,290
30	5,080	12,500	b9,450	17,300	--------	20,400	17,800	13,500	8,670	5,700	3,670	2,660
31	5,410	--------	b9,350	16,900	--------	19,700	--------	10,900	--------	7,710	2,850	--------
Total	232,110	312,540	463,310	413,270	334,230	655,100	744,700	441,560	211,250	217,140	137,150	111,160
Mean	7,487	10,420	14,950	13,330	11,940	21,130	24,820	14,240	7,042	7,005	4,424	3,705
(†)	-1,069	+56.4	+375	-400	-1,501	-1,318	+3,317	+1,707	+288	+192	-928	-713
Adjusted for change in contents and diversion												
Mean	6,418	10,470	15,320	12,930	10,440	19,810	28,140	15,950	7,330	7,196	3,496	2,992
Cfsm	0.664	1.08	1.59	1.34	1.08	2.05	2.91	1.65	0.759	0.745	0.362	0.310
In.	0.77	1.21	1.83	1.54	1.12	2.36	3.25	1.90	0.85	0.86	0.42	0.35

	Observed						Adjusted					
Calendar year 1956:	Max	108,000	Min	1,220	Mean	16,700	Mean	17,030	Cfsm	1.76	In.	23.99
Water year 1956-57:	Max	41,100	Min	1,220	Mean	11,710	Mean	11,710	Cfsm	1.21	In.	16.46

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in all reservoirs from First Connecticut and Second Connecticut Lakes to Borden Brook and Cobble Mountain Reservoirs, listed on p. 233 and diversion from Chicopee River basin.
a No gage-height record; discharge estimated on basis of recorded range in stage when available, weekly regulation pattern, and records for Connecticut River at Montague City, Mass., Westfield River near Westfield, Mass., and Chicopee River at Indian Orchard, Mass.
b Stage-discharge relation affected by ice.

Scantic River at Broad Brook, Conn.

Location.--Lat 41°54'42", long 72°33'48", on left bank 300 ft upstream from bridge on State Highway 140, half a mile downstream from Broad Brook, 1 mile southwest of town of Broad Brook, Hartford County, and 8¼ miles upstream from mouth.

Drainage area.--98.4 sq mi.

Records available.--August 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 26.23 ft above mean sea level, datum of 1929.

Average discharge.--29 years, 142 cfs.

Extremes.--Maximum discharge during year 642 cfs Apr. 7 (gage height, 5.61 ft); minimum, 18 cfs July 24-28, Sept. 9-16, 27-29 (gage height, 0.48 ft); minimum daily, 18 cfs July 24-28, Sept. 10-15, 27-29.

1928-57: Maximum discharge, 13,300 cfs Aug. 19, 1955 (gage height, 19.9 ft, from floodmarks), from rating curve extended above 1,200 cfs on basis of computation of flow over dams, 7 and 9 miles above station, at gage heights 13.9 and 14.4 ft, adjusted for flow from intervening area on basis of computation of flow over dam on Broad Brook and by slope-area determination of peak flow at gage height 19.9 ft; minimum, 10 cfs Aug. 13, 14, 1944; minimum daily, 16 cfs Aug. 13, 1944.

Remarks.--Records excellent. Flow regulated by mills and small reservoirs upstream. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 726: 1931. WSP 781: Drainage area. WSP 851: 1936(M). WSP 921: 1940. WSP 1201: 1929(M), 1934(M), 1938-39, 1948-49.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 24		Jan. 24 to Sept. 30			
0.8	34	0.4	12	3.0	332
1.5	105	.7	37	4.0	447
2.5	200	1.0	67	5.4	613
3.5	320	2.0	177		
4.0	370				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	*70	57	106	*118	204	108	97	60	31	*23	22
2	50	86	53	99	116	153	*155	95	59	30	22	22
3	49	84	54	87	107	144	*235	89	67	*29	22	*22
4	48	71	57	85	120	132	212	89	64	29	23	22
5	56	62	57	85	130	118	282	88	59	29	25	22
6	58	57	56	79	124	111	*524	88	57	28	23	22
7	71	55	*54	79	119	111	613	84	55	26	22	21
8	79	54	54	80	120	126	*491	80	51	27	22	20
9	68	62	82	80	131	227	502	77	50	28	22	19
10	56	62	111	82	252	261	469	74	50	31	22	18
11	50	56	99	68	227	219	*414	79	48	28	22	18
12	49	55	149	79	165	174	345	98	45	27	22	18
13	50	56	164	81	126	153	303	99	47	26	20	18
14	54	56	164	72	117	144	261	92	44	26	19	18
15	49	54	194	68	111	141	227	97	41	25	19	18
16	47	52	210	70	105	227	197	102	40	23	20	20
17	47	50	212	70	103	244	177	80	37	22	19	26
18	41	80	186	68	101	219	169	78	35	22	20	22
19	45	111	146	69	100	168	169	76	35	21	19	23
20	44	98	114	68	101	152	157	*87	35	20	19	19
21	44	80	110	74	93	168	150	118	34	19	21	19
22	45	135	114	101	90	212	140	111	32	19	23	19
23	50	144	146	366	89	204	130	91	32	19	21	20
24	49	129	164	490	94	177	126	85	30	18	20	20
25	48	91	194	452	96	150	121	75	31	18	22	19
26	46	81	172	265	108	136	120	68	30	18	24	19
27	45	86	146	174	235	129	126	69	31	18	22	18
28	45	83	122	141	235	*123	120	77	*31	18	21	18
29	46	71	118	136	-	120	*109	77	33	26	21	18
30	46	62	114	125	-------	117	100	67	32	25	22	20
31	45	-------	100	118	-------	113	-------	63	-------	23	22	-------
Total	1,574	2,293	3,775	4,017	3,633	5,077	7,252	2,650	1,295	749	664	600
Mean	50.8	76.4	122	130	130	164	242	85.5	43.2	24.2	21.4	20.0
Cfsm	0.516	0.776	1.24	1.32	1.32	1.67	2.46	0.869	0.439	0.246	0.217	0.203
In.	0.59	0.87	1.43	1.52	1.38	1.92	2.74	1.00	0.49	0.28	0.25	0.23

Calendar year 1956: Max 1,030 Min 27 Mean 144 Cfsm 1.46 In. 19.91
Water year 1956-57: Max 613 Min 18 Mean 92.0 Cfsm 0.935 In. 12.70

Peak discharge (base, 550 cfs).--Jan. 24 (8 p.m.) 560 cfs (5.00 ft); Apr. 7 (1 to 3 p.m.) 642 cfs (5.61 ft).

* Discharge measurement made on this day.

West Branch Farmington River near New Boston, Mass.

Location.--Lat 42°04'45", long 73°04'24", on left bank 5 ft downstream from highway bridge, 0.3 mile downstream from Clam River, and 1 mile south of New Boston, Berkshire County.

Drainage area.--92.0 sq mi.

Records available.--May 1913 to September 1957. 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, datum of 1929.

Average discharge.--44 years, 183 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 1,510 cfs Jan. 23 (gage height, 5.90 ft); maximum gage height, 9.27 ft Jan. 23 (ice jam); minimum daily discharge, 2.4 cfs Aug. 20,21. 1913-57: 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 determination of peak flow; minimum daily, that of Aug. 20, 21, 1957.

Remarks.--Records good except those below 4 cfs and those for periods of ice effect, which are fair. Flow regulated by Otis Reservoir (see p. 233).

Revisions (water years).--WSP 641: 1924(M). WSP 756: Drainage area. WSP 781: 1928(M). WSP 1231: 1914.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23

2.3	18	4.0	360
2.5	32	4.5	570
2.8	64	5.0	840
3.1	112	5.5	1,180
3.5	203		

Jan. 24 to Sept. 30

1.9	2.0	2.3	19
2.0	4.5	2.5	32
2.1	8.3		

Note.--Same as preceding table above 2.5 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	132	68	120	130	219	105	78	37	21	15	6.2
2	29	174	68	90	120	173	247	*70	48	17	9.8	4.8
3	26	192	68	100	110	130	247	65	80	12	8.0	4.8
4	26	116	67	130	120	105	190	63	53	11	7.0	4.7
5	49	83	64	115	105	100	248	62	41	11	9.8	4.2
6	38	64	67	90	96	96	559	59	36	9.8	7.0	3.3
7	83	54	92	86	95	95	511	54	50	8.8	5.1	3.3
8	*75	49	107	90	90	94	407	53	50	7.4	4.2	3.6
9	59	55	167	90	105	105	325	48	36	7.0	3.6	3.3
10	43	46	125	86	130	98	268	46	30	7.8	4.2	3.1
11	36	39	120	80	105	90	281	126	29	7.4	6.6	3.3
12	32	48	358	82	84	91	350	148	*25	9.3	6.6	3.6
13	31	58	318	74	93	112	374	137	22	10	5.8	2.8
14	29	52	253	60	84	171	284	112	19	10	5.1	2.8
15	28	*49	206	62	76	206	227	142	17	8.8	4.5	2.8
16	26	45	304	64	84	450	200	108	17	7.0	3.9	5.5
17	24	42	314	65	76	342	198	86	17	6.2	3.1	17
18	22	73	*236	62	68	244	198	74	14	5.1	3.3	13
19	22	71	155	60	61	198	196	67	12	8.4	3.6	6.2
20	21	60	160	60	58	166	178	156	9.3	4.5	2.4	4.8
21	20	93	142	57	*65	162	166	233	11	4.2	2.4	5.1
22	21	471	153	140	63	166	148	153	8.8	4.2	3.3	86
23	116	276	214	*1,000	62	178	135	112	7.8	9.4	4.5	98
24	136	170	218	580	60	169	127	99	7.4	12	3.6	20
25	83	136	322	332	62	155	112	88	7.0	9.3	3.3	99
26	59	116	210	220	110	144	125	72	10	7.4	8.8	92
27	47	112	172	173	450	137	116	64	17	7.4	7.8	11
28	41	98	157	151	308	*133	103	59	21	6.2	*5.8	3.9
29	37	84	144	146	-	129	101	48	21	20	4.8	81
30	33	73	105	140	--------	122	86	41	19	23	5.8	84
31	32	--------	115	135	--------	110	--------	44	--------	22	7.4	--------
Total	1,360	3,131	5,269	4,740	3,070	4,890	6,812	2,767	772.3	314.6	176.1	683.1
Mean	43.9	104	170	153	110	158	227	89.3	25.7	10.1	5.68	22.8
(†)	+3.1	+11.0	+20.7	+41.9	+36.3	+19.0	+46.6	+13.1	0	-2.7	-3.9	-23.7

Adjusted for change in contents in Otis Reservoir‡

Mean	47.0	115	191	195	146	177	274	102	25.7	7.46	1.81	-0.930
Cfsm	0.511	1.25	2.08	2.12	1.59	1.92	2.98	1.11	0.279	0.081	0.020	-0.010
In.	0.59	1.40	2.39	2.44	1.65	2.21	3.32	1.28	0.31	0.09	0.02	-0.01

	Observed			Adjusted		
Calendar year 1956:	Max 2,110	Min 4.6	Mean 190	Mean 173	C"sm 1.88	In. 25.57
Water year 1956-57:	Max 1,000	Min 2.4	Mean 93.1	Mean 106	C"sm 1.15	In. 15.69

Peak discharge (base, 1,400 cfs).--Jan. 23 (11 a.m.) 1,510 cfs (5.90 ft).

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Otis Reservoir.
‡ Negative figures indicate that evaporation and seepage from reservoir exceeded inflow.
Note.--Stage-discharge relation affected by ice Nov. 11, 20, 30, Dec. 1, 10, 11, 19, 20, 26, Dec. 30 to Jan. 23, Jan. 30 to Feb. 27, Mar. 3-7, 11.

West Branch Farmington River above Still River, at Riverton, Conn.

Location.--Lat 41°57'46", long 73°01'05", on right bank at downstream side of bridge on State Highway 20 at Riverton, Litchfield County, 0.3 mile upstream from Still River, 0.7 mile upstream from former gage site, and at mile 52.0.

Drainage area.--130 sq mi.

Records available.--August 1955 to September 1957.

Gage.--Water-stage recorder. Prior to Mar. 29, 1957, wire-weight gage read twice daily. Datum of gage is 485.60 ft above mean sea level, datum of 1929.

Extremes.--1955-56: Maximum discharge observed during water year, 10,600 cfs Oct. 16 (gage height, 12.47 ft); minimum observed, 9.8 cfs Aug. 18.

1956-57: Maximum discharge during water year, 2,110 cfs Jan. 23 (gage height, 7.2 ft, from graph based on gage readings); minimum, 2.9 cfs Sept. 16 (gage height, 2.43 ft).

1955-57: Maximum discharge observed, 10,600 cfs Oct. 16, 1955 (gage height, 12.47 ft); minimum discharge, that of Sept. 16, 1957.

Flood of Aug. 19, 1955, reached a stage of 21.1 ft, from floodmarks (discharge, 57,200 cfs, from computation of peak flow at slope-area reach 1.5 miles upstream).

Revisions.--Minimum discharge for the water year 1956 has been revised to 9.8 cfs Aug. 18 (gage height, 2.48 ft, affected by backwater from unknown causes), superseding figure published in WSP 1431.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by Otis Reservoir (see p. 233).

Revisions.--Revised figures of discharge for the water year 1956, superseding those published in WSP 1431, are given herewith.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	155	1,010	143	b52	b210	227	192	1,600	390	19	16	24
2	127	790	135	b60	206	233	g227	1,160	397	18	16	37
3	105	640	167	b65	b200	236	300	1,160	g805	16	16	54
4	*100	g1,750	244	b70	b195	250	*g390	980	595	17	15	29
5	87	g3,350	341	*b150	b190	256	g820	840	411	g28	14	22
6	g200	1,520	294	b140	b190	294	950	765	341	g178	14	22
7	760	1,100	b180	b135	b190	465	g1,010	690	300	d99	14	44
8	735	920	b150	b130	b185	411	765	595	265	56	14	34
9	710	740	b130	bg750	b180	307	665	550	217	83	14	29
10	g570	690	b115	g1,060	180	272	g690	690	233	51	14	22
11	124	g1,090	b105	740	178	253	765	640	253	30	25	21
12	200	890	b100	890	b200	310	840	572	*185	26	17	20
13	177	840	b98	a700	b200	268	g890	528	148	g32	17	19
14	200	g920	97	a500	b195	262	g1,000	485	120	g178	19	19
15	*g4,550	*950	106	a350	194	244	g1,070	441	99	122	16	19
16	g7,310	890	86	*287	185	b210	g2,120	425	80	75	12	21
17	g3,290	890	79	262	192	b215	2,100	404	65	61	11	51
18	g2,060	665	77	211	196	b220	1,520	411	54	44	10	70
19	1,680	595	b70	180	187	b210	1,300	404	42	30	12	42
20	1,240	528	b60	b190	169	b215	1,070	394	38	22	15	32
21	920	505	b55	b180	160	187	815	355	35	29	14	44
22	740	433	b55	b170	b170	b210	765	341	38	59	14	40
23	665	397	b55	b160	b170	b205	950	330	32	42	14	30
24	572	334	b65	152	b165	b210	980	348	30	32	12	g117
25	840	304	b85	165	g260	b205	865	304	29	25	11	116
26	640	256	b75	156	g485	204	890	287	24	*22	11	69
27	595	233	b65	156	348	196	865	320	23	19	10	42
28	505	227	b60	b175	275	183	g1,250	341	27	19	11	40
29	449	201	b55	b195	244	174	g2,600	294	22	17	12	43
30	g1,000	167	b55	b210	--------	206	g3,140	275	20	17	21	70
31	g2,180	--------	b55	b215	--------	199	--------	281	--------	17	22	--------
Total	33,486	23,825	3,457	8,856	6,099	7,537	31,804	17,210	5,318	1,483	453	1,242
Mean	1,080	794	112	286	210	243	1,060	555	177	47.8	14.6	41.4
(†)	+36.9	-8.7	+18.2	-40.0	-86.5	-62.2	+16.8	-31.3	-42.2	-2.2	+3.5	+3.2

Adjusted for change in reservoir contents

Mean	1,117	785	130	246	124	181	1,077	524	135	45.6	18.1	44.6
Cfsm	8.59	6.04	1.00	1.89	0.954	1.39	8.28	4.03	1.04	0.351	0.139	0.343
In.	9.90	6.74	1.15	2.18	1.03	1.60	9.24	4.65	1.16	0.40	0.16	0.38

	Observed			Adjusted		
Calendar year 1956:	Max -	Min -	Mean -	Mean -	Cfsm -	In. -
Water year 1956-57:	Max 7,310	Min 10	Mean 385	Mean 369	Cfsm 2.84	In. 38.59

Peak discharge (base, 1,800 cfs).--Oct. 16 (8:25 a.m.) 10,600 cfs (12.47 ft); Oct. 31 (3 a.m.) 3,100 cfs (8.1 ft); Nov. 5 (3 a.m.) 5,200 cfs (9.8 ft); Jan. 9 (11 p.m.) 1,800 cfs (6.7 ft); Apr. 16 (8 p.m.) 3,000 cfs (8.0 ft); Apr. 30 (5 a.m.) 4,000 cfs (8.9 ft).

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Otis Reservoir; furnished by The Collins Co.
a No gage-height record; discharge estimated on basis of records for station at New Boston, Mass.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed from adjusted readings.
g From graph based on gage readings.

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West Branch Farmington River above Still River at Riverton, Conn.--Continued

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-23		Oct. 23 to Sept. 16				Sept. 16-30	
2.5	18	2.5	5	4.0	252	2.6	8.5
2.7	34	2.7	17	5.0	620	2.8	24
3.2	99	2.9	39	6.4	1,460	3.0	48
		3.5	143			3.3	95

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	153	84	160	175	282	143	109	52	25	26	11
2	30	222	100	120	161	230	306	98	51	*25	19	11
3	30	232	85	130	150	167	342	92	94	19	16	10
4	29	151	87	165	150	92	257	91	70	16	15	9.0
5	32	114	80	150	140	85	350	87	54	16	15	9.5
6	42	87	80	130	130	98	*880	84	51	14	16	9.0
7	69	75	103	120	120	113	770	78	51	14	14	7.5
8	89	67	135	*128	*115	122	611	*75	67	14	12	7.5
9	62	73	204	120	125	153	494	70	50	15	11	8.0
10	44	65	175	110	160	135	406	67	42	16	11	6.5
11	34	56	187	105	130	101	410	136	38	15	15	8.0
12	32	70	470	105	110	*122	486	165	37	14	14	7.5
13	30	72	*403	95	120	135	522	169	35	16	13	8.0
14	29	70	340	80	105	204	403	137	31	16	12	6.5
15	28	67	279	82	100	285	321	175	27	16	11	8.0
16	26	60	350	84	105	575	285	141	25	14	10	13
17	25	60	430	85	95	434	266	109	25	13	9.0	30
18	24	94	308	82	85	344	260	92	23	12	8.0	23
19	24	107	183	80	80	263	266	85	20	11	8.0	14
20	24	84	179	80	75	225	240	156	18	13	8.0	*12
21	24	105	179	75	85	206	222	294	16	10	7.5	9.8
22	*24	575	179	95	82	218	200	198	16	10	8.5	44
23	72	318	308	1,400	80	232	181	147	15	10	*7.5	86
24	151	177	268	770	80	227	169	126	14	15	8.0	42
25	100	105	450	450	80	220	157	109	14	15	8.5	64
26	73	147	285	274	163	191	169	92	18	13	15	85
27	60	137	209	213	745	185	163	84	27	11	16	39
28	60	120	209	171	410	179	145	80	32	12	13	12
29	51	105	187	171	-	173	135	67	28	16	11	52
30	54	98	132	171	--------	167	120	59	28	34	11	80
31	46	--------	134	137	--------	155	--------	54	--------	29	11	--------
Total	1,469	3,866	6,802	6,138	4,156	6,318	9,679	3,526	1,069	489	380.0	732.8
Mean	47.4	129	219	198	148	204	323	114	35.6	15.8	12.3	24.4
(†)	+3.1	+11.0	+20.7	+41.9	+36.3	+19.0	+46.6	+13.1	0	-2.7	-3.9	-23.7

Adjusted for change in reservoir contents

Mean	50.5	140	240	240	184	223	370	127	35.6	13.1	8.36	0.727
Cfsm	0.388	1.08	1.85	1.85	1.42	1.72	2.85	0.977	0.274	0.101	0.064	0.0056
In.	0.45	1.20	2.13	2.13	1.48	1.98	3.18	1.13	0.31	0.12	0.07	0.006

	Observed			Adjusted		
Calendar year 1956:	Max 3,140	Min 10	Mean 252	Mean 235	Cfsm 1.81	In. 24.58
Water year 1956-57:	Max 1,400	Min 6.5	Mean 122	Mean 135	Cfsm 1.04	In. 14.19

Peak discharge (base, 1,800 cfs).--Jan. 23 (10 a.m.) 2,110 cfs (7.2 ft).

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Otis Reservoir; furnished by The Collins Co.
Note.--Stage-discharge relation affected by ice Jan. 1-23, 25, Feb. 3-23.

Mad River at Winsted, Conn.

Location.--Lat 41°55'51", long 73°04'56", on left bank at Winsted, Litchfield County, by U. S. Highway 44, 0.2 mile upstream from Indian Meadow Brook, 0.2 mile downstream from Winsted city line, and 1.8 miles upstream from mouth.

Drainage area.--18.4 sq mi.

Records available.--October 1956 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 764.18 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 335 cfs Jan. 23 (gage height, 3.60 ft); maximum gage height, 3.76 ft Jan. 23 (ice jam); minimum discharge, 0.3 cfs July 24-23, Sept. 15, 16 (gage height, 0.46 ft).

Flood of Aug. 19, 1955, reached a stage of 11.8 ft, from floodmarks (discharge, 10,200 cfs, by slope-area measurement, half a mile upstream).

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. Flow regulated by storage and diversion for municipal water supply of city of Winsted.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 27-31)

0.46	0.3	1.2	13
.5	.5	1.5	23
.6	1.35	1.9	49
.8	4.1	2.5	115
1.0	7.8	3.0	200

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a2.5	10	b4.6	b15	b22	43	8.7	19	3.4	2.8	1.5	0.55
2	a2.2	6.8	b4.3	a14	b20	34	14	18	3.8	1.8	1.05	.45
3	a2.0	23	5.0	a13	b20	30	20	17	5.6	1.5	.65	.5
4	a2.1	10	5.3	b12	24	b24	14	16	4.1	2.1	.7	.55
5	a3.5	6.4	5.1	b12	b22	b23	26	15	3.4	2.2	1.25	.65
6	a2.3	4.8	5.1	b11	b21	b20	*79	13	3.0	1.35	1.05	.4
7	a3.5	4.0	5.8	*10	*b19	*21	92	*6.6	3.4	.95	.8	.35
8	a4.5	3.8	6.2	10	19	23	112	5.8	3.5	.95	.55	.35
9	a3.0	4.3	14	9.8	b24	28	93	5.3	2.8	*.95	.55	.35
10	a2.2	3.5	11	b8.5	47	24	78	5.0	2.4	.85	1.0	.35
11	a1.9	2.9	b8.7	b7.2	b41	b22	79	7.6	2.4	.8	.95	.4
12	a1.7	3.0	50	7.4	b24	24	88	9.1	2.2	.7	1.05	.35
13	a1.6	5.0	*45	7.0	b20	30	85	12	2.2	.7	.8	.4
14	a1.6	4.1	32	6.8	b19	47	70	11	2.1	1.35	.65	.35
15	a1.5	3.5	28	6.0	18	50	58	15	2.0	.95	.55	.3
16	a1.5	3.4	54	6.2	b17	90	50	8.0	1.7	.65	.65	2.0
17	a1.4	3.4	61	6.2	b15	64	47	6.0	1.6	.5	.5	8.3
18	a1.4	*10	41	5.8	b16	47	45	5.5	1.5	.45	.45	2.4
19	a1.4	8.9	b29	5.5	b16	40	69	5.8	1.5	.4	.4	1.35
20	a1.3	5.8	23	5.3	b15	38	54	17	*1.25	.4	.45	.95
21	a1.3	6.7	21	5.6	b14	36	47	18	1.25	.35	1.1	.8
22	a1.3	29	26	b10	b13	30	39	9.3	1.05	.35	1.25	.8
23	a4.0	35	55	b185	14	15	34	8.0	.95	.4	*1.15	.95
24	a6.5	19	47	101	15	14	32	6.4	1.05	.3	.55	.85
25	a3.5	b12	64	b76	18	12	29	5.0	1.15	.3	.5	.7
26	a2.3	12	45	b45	35	11	37	4.4	2.6	.3	2.5	.65
27	1.85	12	31	b33	121	11	34	5.1	4.8	.3	1.5	.5
28	*1.7	6.2	26	a27	61	11	29	6.8	2.9	.4	.95	.45
29	1.6	5.5	24	a27	-	10	24	4.8	3.0	3.5	.7	.45
30	1.6	b4.6	b20	a23	-------	9.8	21	4.0	3.2	3.0	.8	.45
31	2.1	-------	b16	b21	-------	8.9	-------	3.5	-------	2.2	.7	-------
Total	70.85	268.6	813.1	732.3	730	890.7	1,507.7	293.0	75.80	33.75	27.25	27.90
Mean	2.29	8.95	26.2	23.6	26.1	28.7	50.3	9.45	2.53	1.09	0.879	0.930

Calendar year 1956: Max - Min - Mean -
Water year 1956-57: Max 185 Min 0.3 Mean 15.0

Peak discharge (base, 300 cfs).--Jan. 23 (1:30 p.m.) 335 cfs (3.60 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, engineers' notes, and records for nearby streams.
b Stage-discharge relation affected by ice.

Still River at Robertsville, Conn.

Location.--Lat 41°58'04", long 73°02'03", on left bank 1,500 ft downstream from Sandy Brook, 1 mile southeast of Robertsville, Litchfield County, 1 mile northwest of Riverton, and 1 mile upstream from mouth.

Drainage area.--84.4 sq mi.

Records available.--July 1948 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 510.24 ft above mean sea level, datum of 1929.

Average discharge.--9 years, 190 cfs.

Extremes.--Maximum discharge during year, 1,390 cfs Jan. 23 (gage height, 5.24 ft); maximum gage height, 5.56 ft Jan. 23 (ice jam); minimum discharge, 0.2 cfs Sept. 14 (gage height, 0.96 ft); minimum daily, 0.3 cfs Sept. 14.

1948-57: Maximum discharge, 44,000 cfs Aug. 19, 1955 (gage height, 16.48 ft, from floodmark), from rating curve extended above 5,600 cfs on basis of slope-area determination of peak flow; minimum, that of Sept. 14, 1957; minimum daily, that of Sept. 14, 1957; minimum gage height, 0.29 ft Aug. 8, 1955.

Remarks.--Records good except those for periods of ice effect, which are poor. Ordinary flow regulated by powerplant upstream.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Jan. 23)

0.9	0.05	1.8	31
1.0	.35	2.1	64
1.1	1.1	2.5	132
1.2	2.5	3.0	252
1.4	7.7	4.0	620
1.6	17	4.6	940

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	99	50	65	131	224	106	102	35	27	13	7.4
2	44	120	44	70	101	181	198	95	31	14	11	7.1
3	43	270	54	65	87	150	217	84	78	12	9.0	7.1
4	43	136	58	60	136	141	185	78	39	12	8.1	7.4
5	47	95	41	50	123	130	280	70	59	11	15	18
6	37	75	52	60	117	126	670	87	31	11	7.7	16
7	44	62	67	55	108	*128	568	71	57	10	7.4	5.0
8	57	55	63	*50	*107	118	504	63	31	12	7.1	6.2
9	43	54	110	47	89	143	456	*67	23	*21	6.8	16
10	37	45	116	44	179	115	392	55	43	22	7.1	5.6
11	36	35	99	37	190	126	378	57	30	23	10	7.6
12	36	44	262	45	140	134	*402	65	23	20	9.0	4.5
13	34	52	231	40	126	134	382	96	39	12	8.6	2.9
14	22	52	184	37	109	196	308	93	28	12	7.4	.3
15	32	54	161	32	100	221	282	110	25	11	6.8	.8
16	30	46	251	35	80	382	246	90	17	9.8	6.8	29
17	29	40	290	35	74	282	230	75	38	9.4	6.5	59
18	28	84	229	33	90	232	216	51	18	9.4	6.2	26
19	28	92	160	32	86	303	258	31	21	9.4	5.9	15
20	22	79	144	27	*83	186	211	129	38	9.0	5.9	35
21	16	76	134	35	80	193	184	179	13	8.1	6.2	25
22	26	270	136	50	95	208	170	117	24	7.7	9.0	25
23	46	187	233	900	93	172	157	104	9.8	7.4	*7.4	34
24	*63	117	222	480	79	163	147	74	11	7.1	6.8	25
25	47	81	286	307	96	154	138	69	31	7.1	6.5	26
26	39	84	229	205	175	137	153	51	21	6.8	26	22
27	33	86	169	178	524	128	135	76	44	6.5	17	22
28	27	60	158	176	322	121	122	66	42	6.2	20	19
29	32	67	117	146	-	117	137	58	34	8.1	9.0	19
30	33	65	101	131	-------	92	101	42	19	16	7.7	22
31	33	-------	50	124	-------	83	-------	36	-------	16	8.1	-------
Total	1,131	2,682	4,501	3,651	3,720	5,220	7,933	2,441	952.8	374.0	289.0	514.9
Mean	36.5	89.4	145	118	133	168	264	78.7	31.8	12.1	9.32	17.2
Cfsm	0.432	1.06	1.72	1.40	1.58	1.99	3.13	0.932	0.377	0.143	0.110	0.204
In.	0 50	1.18	1.98	1.61	1.64	2.29	3.49	1.07	0.42	0.16	0.13	0.23

Calendar year 1956: Max 1,840 Min 4.3 Mean 153 Cfsm 1.81 In. 24.69
Water year 1956-57: Max 900 Min 0.3 Mean 91.5 Cfsm 1.08 In. 14.70

Peak discharge (base, 1,300 cfs).--Jan. 23 (1 p.m.) 1,390 cfs (5.24 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 30 to Jan. 23, Jan. 30, 31, Feb. 17-23.

Burlington Brook near Burlington, Conn.

Location.--Lat 41°47'10", long 72°57'55", on left bank 1¼ miles north of Burlington, Hartford County, 3 miles upstream from mouth, and 3 miles southwest of Collinsville.

Drainage area.--4.12 sq mi.

Records available.--September 1931 to September 1957.

Gage.--Water-stage recorder and sharp-edged square orifice and rectangular weir. Datum of gage is 714.00 ft above mean sea level, datum of 1929.

Average discharge.--26 years, 8.18 cfs.

Extremes.--Maximum discharge during year, 80 cfs Jan. 23 (gage height, 2.47 ft); minimum, 0.32 cfs July 18 (gage height, 0.18 ft); minimum daily, 0.46 cfs July 18.
1931-57: Maximum discharge, 1,690 cfs Aug. 19, 1955 (gage height, 9.22 ft), from rating curve extended above 100 cfs on basis of one current-meter measurement and form of theoretical rating; minimum, 0.13 cfs (regulated) June 21, 1933; minimum daily, that of July 18, 1957; minimum gage height, 0.03 ft Oct. 11, 13, 1943 (orifice plate removed).

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. Infrequent low water regulation.

Revisions (water years).--WSP 1171: Drainage area. WSP 1301: 1933-45(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 7 to Sept. 30)

0.2	0.30	1.1	4.55
.4	.81	1.3	10.3
.7	1.85	1.7	29.0
1.0	3.11	2.1	53

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.37	8.99	3.57	b4.3	4.33	b6.8	3.93	5.26	a2.1	1.02	0.99	1.06
2	1.33	6.03	3.57	b4.1	4.13	6.57	18.8	5.26	a2.1	.90	.69	.90
3	1.26	9.27	3.93	b3.9	b3.7	5.77	11.9	5.02	a3.0	.87	.67	.84
4	1.40	3.93	4.33	b3.7	6.03	b5.0	7.71	5.02	a2.5	.90	.92	.78
5	1.74	2.93	4.13	3.57	6.03	b4.1	23.7	5.02	a2.0	.99	1.16	.75
6	1.37	2.46	4.13	3.15	b5.0	b4.1	59	4.55	a1.8	.78	.81	.72
7	2.88	2.21	4.33	3.42	4.55	4.55	29.2	4.13	a2.0	.90	.72	.72
8	1.93	2.33	4.33	3.57	3.57	6.85	19.2	3.74	a1.7	.87	.67	.69
9	1.58	2.67	10.3	3.42	6.95	11.1	27.4	3.42	a1.5	.99	.72	.67
10	1.40	2.13	8.95	3.57	19.7	8.95	20.7	3.20	a1.4	1.29	.67	.64
11	1.37	1.89	7.71	3.42	10.3	b6.0	16.4	3.57	a1.3	.96	.90	.78
12	1.33	2.13	16.6	3.29	b5.5	7.41	12.6	4.78	a1.3	.72	.72	.69
13	1.33	2.17	8.95	3.57	b4.8	7.41	11.1	4.55	a1.2	.90	.61	.75
14	1.33	1.97	7.41	3.11	5.02	7.13	9.60	4.33	a1.2	1.33	1.01	.72
15	1.29	1.93	9.93	2.71	4.55	6.57	8.63	7.41	a1.1	.99	2.54	.72
16	1.26	2.05	22.2	2.97	b4.1	19.2	8.32	4.78	a1.1	.81	.93	1.10
17	1.26	2.09	16.9	2.93	4.13	9.93	8.00	3.93	a1.0	.64	.59	2.71
18	1.23	9.89	9.60	2.80	3.93	7.71	7.71	3.93	a1.0	.46	.67	1.44
19	1.19	6.57	6.57	2.71	4.13	6.85	9.27	4.78	a1.1	a.7	.69	1.40
20	1.19	4.33	5.77	2.62	*3.74	*6.85	8.00	14.3	1.16	a.5	.75	.99
21	1.23	*3.42	6.57	3.23	b3.4	8.00	7.41	13.4	1.06	a.6	.94	.99
22	1.23	12.6	8.63	b9.60	b3.35	9.60	6.85	*7.13	.96	a.7	2.35	1.09
23	3.16	6.57	15.6	52	3.57	7.71	6.57	5.77	.96	1.09	1.13	1.06
24	2.70	4.55	9.93	b20	3.74	6.30	6.30	4.78	.96	.84	.90	.87
25	2.01	4.13	13.0	b12	4.33	5.52	*5.77	3.74	.96	.72	1.02	.75
26	a1.75	4.55	8.63	b6.6	7.13	5.26	8.32	3.20	1.37	*.75	2.80	.72
27	a1.55	5.26	6.57	6.03	25.2	5.26	7.13	3.11	1.47	.64	*1.40	.69
28	a1.4	4.33	5.77	5.26	9.60	5.02	6.30	2.84	1.33	.90	.96	.69
29	a1.3	4.13	5.77	5.26	-	4.55	5.77	a2.6	1.47	2.18	.84	.69
30	1.26	3.93	b5.3	4.78	--------	4.33	5.52	a2.4	1.16	1.40	.99	.69
31	1.37	--------	b5.0	b4.1	--------	4.33	--------	a2.2	--------	1.06	2.25	--------
Total	48.00	131.44	253.98	195.69	175.49	214.73	387.11	152.15	43.26	28.40	33.01	27.31
Mean	1.55	4.38	8.19	6.31	6.27	6.93	12.9	4.91	1.44	0.916	1.06	0.910
Cfsm	0.376	1.06	1.99	1.53	1.52	1.68	3.13	1.19	0.350	0.222	0.257	0.221
In.	0.43	1.18	2.29	1.76	1.58	1.94	3.49	1.37	0.39	0.26	0.30	0.25

Calendar year 1956: Max 83 Min 0.93 Mean 7.63 Cfsm 1.85 In. 25.17
Water year 1956-57: Max 59 Min 0.46 Mean 4.63 Cfsm 1.12 In. 15.24

Peak discharge (base, 140 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records for nearby streams.
b Stage-discharge relation affected by ice.

Pequabuck River at Forestville, Conn.

Location.--Lat 41°40'23", long 72°54'04", on left bank 700 ft upstream from station of New York, New Haven and Hartford Railroad at Forestville, Hartford County, a quarter of a mile downstream from Copper Mine Brook, and 6½ miles upstream from mouth.
Drainage area.--45.2 sq mi.
Records available.--July 1941 to September 1957.
Gage.--Water-stage recorder. Datum of gage is 197.72 ft above mean sea level, datum of 1929 (levels by Connecticut State Water Commission).
Average discharge.--16 years, 87.1 cfs (adjusted for storage and diversion).
Extremes.--Maximum discharge during year, 614 cfs Apr. 6 (gage height, 2.68 ft); minimum, 16 cfs Aug. 18, Sept. 29, 30 (gage height, 0.86 ft).

1941-57: Maximum discharge, 11,700 cfs Aug. 19, 1955 (gage height, 13.22 ft, from high-water mark in gage house), from rating curve extended above 2,100 cfs on basis of slope-area determinations at gage heights 7.3 and 13.22 ft; minimum, 6.5 cfs Sept. 21, 22, 1941 (gage height, 0.64 ft).

Flood in September 1938 reached a stage of about 7.3 ft, from floodmarks (discharge, 3,800 cfs, on basis of slope-area determination of peak flow and computation of peak flow over dam).

Remarks.--Records good. Flow regulated by Whigville Reservoir (see p. 234) and mills above station. Diversion for municipal water supply of city of New Britain from Copper Mine Brook.
Revisions (water years).--WSP 971: 1941-42. WSP 1111: 1947.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from ice Jan. 14, 15, 18, 20. Backwater from aquatic growth May 22 to Aug. 25)

0.8	14	1.5	101
1.0	23	2.0	262
1.1	30	2.5	510
1.3	60		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	97	24	39	40	57	40	48	24	18	19	17
2	26	48	24	35	40	55	146	48	26	18	18	18
3	23	52	26	35	36	52	101	48	26	18	17	20
4	33	33	26	38	57	48	75	46	25	17	20	20
5	25	*29	25	38	52	45	246	42	25	18	19	20
6	23	28	25	33	*50	48	460	43	24	17	18	20
7	50	26	25	38	48	48	246	43	24	17	18	18
8	28	28	24	36	46	70	208	42	22	18	18	17
9	25	27	65	34	88	83	317	40	22	19	18	18
10	24	25	46	35	161	62	197	40	22	18	20	22
11	23	23	38	33	83	52	160	37	22	18	18	24
12	23	26	77	30	55	50	121	40	22	*17	18	20
13	22	28	55	29	48	57	118	40	22	18	18	20
14	20	25	80	*29	48	57	104	40	22	23	18	20
15	22	24	88	28	46	50	97	64	22	18	18	18
16	22	24	144	29	42	118	90	42	20	18	18	34
17	22	23	111	29	39	70	86	36	22	18	17	26
18	22	84	79	28	39	58	81	33	22	18	16	22
19	22	40	60	26	40	55	81	38	27	18	18	20
20	20	33	55	26	40	*68	75	108	22	18	18	20
21	20	38	58	30	38	70	70	86	20	17	27	20
22	22	73	62	64	36	70	70	53	19	18	22	18
23	28	40	83	291	35	57	66	42	18	20	18	20
24	24	30	73	88	35	52	64	36	20	18	17	19
25	23	28	73	62	39	48	*60	36	20	18	18	19
26	22	34	60	50	62	48	71	27	20	21	48	19
27	22	30	53	43	128	46	66	28	20	18	*22	18
28	21	29	55	43	66	46	57	*26	20	20	20	17
29	22	28	55	45	-	46	55	26	24	24	20	17
30	22	26	45	42	--------	43	53	25	18	24	20	18
31	28	--------	42	40	--------	40	--------	24	--------	20	18	--------
Total	756	1,079	1,756	1,446	1,537	1,769	3,681	1,327	662	580	612	599
Mean	24.4	36.0	56.6	46.6	54.9	57.1	123	42.8	22.1	18.7	19.7	20.0
(†)	+6.2	+6.5	+8.2	+7.8	+6.5	+7.0	+9.3	+6.6	+7.0	+5.5	+4.6	+3.9

Adjusted for diversion and change in reservoir contents

Mean	30.6	42.5	64.8	54.4	61.4	64.1	132	49.4	29.1	24.2	24.3	23.9
Cfsm	0.677	0.940	1.43	1.20	1.36	1.42	2.92	1.09	0.644	0.535	0.538	0.529
In.	0.78	1.05	1.65	1.38	1.42	1.64	3.26	1.26	0.72	0.62	0.62	0.59

	Observed			Adjusted		
Calendar year 1956:	Max 504	Min 20	Mean 75.7	Mean 83.0	C°sm 1.84	In. 25.03
Water year 1956-57:	Max 460	Min 16	Mean 43.3	Mean 49.9	C°sm 1.10	In. 14.99

Peak discharge (base, 660 cfs).--No peak above base.

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Whigville Reservoir, diversion for municipal supply of city of New Britain from Whigville Reservoir, and at Whites Bridge pumping plant.

Salmon Brook near Granby, Conn.

Location.--Lat 41°56'14", long 72°46'36", on left bank 50 ft upstream from New York, New Haven and Hartford Railroad bridge, 0.5 mile downstream from confluence of East Branch and West Branch, 1.2 miles southeast of Granby, Hartford County, and 1.9 miles upstream from mouth.

Drainaga area.--66.8 sq mi.

Records available.--July 1946 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 147.54 ft above mean sea level, datum of 1929.

Average discharge.--11 years, 134 cfs.

Extremes.--Maximum discharge during year, 780 cfs Jan. 23 (gage height, 5.49 ft); minimum, about 5 cfs Aug. 18 (gage height, 2.15 ft).
1946-57: Maximum discharge, about 40,000 cfs Aug. 19, 1955, from a comparison of unit runoff of tributary and nearby streams; maximum gage height, 23.58 ft Aug. 19, 1955 (prior to destruction of railroad bridge); minimum discharge, that of Aug. 18, 1957; minimum gage height, 1.42 ft Aug. 26, 1949.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Infrequent regulation at low flow.

Revisions.--WSP 1431: Drainage area.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	51	40	b63	85	126	70	72	41	18	12	10
2	34	72	36	b60	81	107	119	69	41	17	11	10
3	32	90	36	b57	78	101	123	64	46	16	10	11
4	32	64	40	b55	79	88	97	63	43	16	12	11
5	35	55	40	53	80	83	220	62	41	16	13	12
6	34	47	*38	b50	78	*78	565	60	39	16	12	12
7	41	43	38	b49	75	79	380	58	38	15	11	12
8	43	43	38	49	75	87	275	55	38	14	11	12
9	36	46	60	50	90	139	*318	*54	36	17	11	12
10	34	43	67	b51	120	127	285	51	35	28	11	12
11	32	39	56	b50	95	102	251	62	34	18	13	13
12	31	38	159	b49	80	99	213	66	33	15	14	13
13	31	37	121	b48	75	96	185	65	33	13	14	13
14	31	36	99	*b46	70	101	155	59	31	12	13	13
15	31	35	96	b44	*64	99	135	74	30	11	13	14
16	30	34	164	b41	62	189	121	63	30	10	13	14
17	30	33	175	b38	59	161	114	55	28	9	11	22
18	30	50	121	b36	59	123	111	55	28	9	8.5	18
19	29	80	b90	b38	59	107	126	54	27	12	8	16
20	28	65	82	b39	57	103	114	76	26	11	9.5	16
21	28	55	78	b42	b53	106	105	126	25	11	10	16
22	28	100	83	b75	53	127	94	85	24	11	12	16
23	31	120	134	530	55	115	88	70	24	11	11	16
24	36	90	115	300	60	101	85	61	23	12	11	15
25	33	65	151	220	63	93	80	55	22	12	13	14
26	31	55	121	140	90	88	91	51	23	*13	*16	14
27	30	60	97	110	345	85	87	49	26	14	12	14
28	30	55	88	100	187	82	81	50	21	15	11	14
29	29	50	84	95	-	80	76	47	21	18	10	14
30	29	45	b72	91	--------	77	73	44	20	16	10	14
31	30	--------	b68	88	--------	72	--------	43	--------	13	11	--------
Total	992	1,696	2,687	2,757	2,427	3,221	4,837	1,918	927	439	358.0	413
Mean	32.0	56.5	86.7	88.9	86.7	104	161	61.9	30.9	14.2	11.5	13.8
Cfsm	0.479	0.846	1.30	1.33	1.30	1.56	2.41	0.927	0.463	0.213	0.172	0.207
In.	0.55	0.94	1.50	1.53	1.35	1.80	2.69	1.07	0.52	0.25	0.20	0.23

Calendar year 1956: Max 840 Min 22 Mean 105 Cfsm 1.57 In. 21.49
Water year 1956-57: Max 565 Min 8 Mean 62.1 Cfsm 0.930 In. 12.63

Peak discharge (base, 1,000 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Nov. 13 to Dec. 5, Jan. 23 to Feb. 14; discharge estimated on basis of weather records, engineers' notes, existing record, and records for nearby streams.

Farmington River at Rainbow, Conn.

Location.--Lat 41°54'41", long 72°41'16", on left bank at Rainbow, Hartford County, 300 ft from Stevens Paper Mill, 0.4 mile downstream from Farmington River Power Co. dam, 1.3 miles upstream from Poquonock, 6.4 miles downstream from Salmor Brook, and 8 miles upstream from mouth.

Drainage area.--591 sq mi.

Records available.--August 1928 to September 1957. Prior to 1940, published as "at Tariffville."

Gage.--Water-stage recorder. Datum of gage is 35.36 ft above mean sea level, datum of 1929. Prior to July 1, 1939, at site 5½ miles upstream at datum 9[illegible].85 ft higher.

Average discharge.--29 years, 1,082 cfs (adjusted to present site; adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 4,500 cfs Apr. 7 (gage height, 5.34 ft); minimum daily, 24 cfs Aug. 17, Sept. 22.

1928-57: Maximum discharge, 69,200 cfs Aug. 19, 1955 (gage height, 23.5 ft, from floodmarks), by computation of flow over Rainbow Dam; minimum daily, 5.1 cfs Mar. 5, 1944, Oct. 28, Nov. 11, 1945, and Feb. 22, 1947.

Remarks.--Records good. Flow regulated by powerplant, by Otis, Barkhamsted, East Branch, Nepaug, and Whigville Reservoirs, having a combined capacity of about 6,450,000,000 cu ft (see p. 233), and by diversions for domestic water supply from Barkhamsted, Nepaug, and Whigville Reservoirs and Whites Bridge pumping plant.

Revisions (water years).--WSP 851: 1936. WSP 1051: 1945(m). WSP 1301: 1937-43 (adjusted figures of monthly and yearly discharge and runoff). WSP 1431: Drainage area.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to July 27				July 28 to Sept. 30			
1.0	40	2.5	850	0.9	14	1.5	190
1.2	94	3.0	1,310	1.0	30	1.8	340
1.5	210	4.6	3,400	1.2	80		
2.0	485						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	138	776	338	446	622	1,400	476	626	322	92	232	62
2	358	881	361	358	623	950	935	581	283	186	109	146
3	425	886	372	500	515	730	1,050	464	286	197	240	164
4	455	1,010	401	662	627	692	1,300	469	270	186	136	158
5	430	586	427	552	653	706	1,180	524	316	109	144	110
6	386	651	414	440	662	*704	2,390	438	340	109	80	65
7	296	486	596	410	540	754	3,400	418	630	72	92	178
8	312	376	134	583	560	854	2,670	481	66	112	142	27
9	626	404	268	488	605	888	2,530	*461	182	212	60	78
10	408	396	894	505	1,090	642	2,530	466	192	334	53	114
11	506	206	752	528	1,110	686	1,940	326	228	302	97	111
12	577	379	920	448	916	794	1,730	442	400	233	110	72
13	364	375	1,430	455	608	657	1,700	574	262	244	61	107
14	242	279	1,040	400	590	596	1,680	782	487	224	76	70
15	302	400	1,160	375	668	728	1,300	633	275	188	96	70
16	155	412	1,030	360	479	1,380	1,180	414	270	146	102	164
17	632	282	1,490	354	531	1,670	1,090	444	248	140	24	248
18	440	339	1,580	352	524	1,260	1,030	494	216	125	85	146
19	341	630	1,100	394	*496	1,280	1,070	356	400	132	88	58
20	254	606	737	366	576	611	1,220	420	220	54	92	166
21	220	519	810	370	450	936	946	757	316	84	103	180
22	327	544	860	565	467	846	928	1,250	126	188	110	24
23	364	1,430	961	1,630	402	966	843	650	260	108	113	154
24	290	1,000	1,430	*2,470	405	884	772	567	224	80	160	148
25	422	354	1,040	2,210	419	653	734	347	154	114	146	204
26	552	416	1,580	1,370	580	737	798	340	262	76	*172	248
27	513	593	1,000	909	1,510	894	754	392	267	104	121	330
28	322	522	850	613	2,100	708	684	431	502	86	80	294
29	215	369	900	712	-	724	551	466	350	118	147	205
30	260	636	672	741	--------	596	660	280	212	134	108	197
31	426	--------	598	726	--------	600	--------	283	--------	238	128	--------
Total	11,558	16,745	26,145	21,292	19,328	26,726	40,071	15,596	8,588	4,729	3,507	4,298
Mean	373	558	843	687	690	862	1,336	503	286	153	113	143
(†)	-72	+77	+186	+162	+153	+177	+319	+79	-47	-10	+3	-33

Adjusted for diversion and change in reservoir contents

Mean	301	635	1,029	849	843	1,039	1,655	582	239	143	116	110
Cfsm	0.509	1.07	1.74	1.44	1.43	1.76	2.80	0.985	0.404	0.242	0.196	0.186
In.	0.59	1.19	2.01	1.66	1.49	2.03	3.12	1.14	0.45	0.28	0.23	0.21

	Observed			Adjusted		
Calendar year 1956:	Max 6,790	Min 124	Mean 1,075	Mean 1,105	Cfsm 1.87	In. 25.49
Water year 1956-57:	Max 3,400	Min 24	Mean 544	Mean 626	Cfsm 1.06	In. 14.40

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Otis, Barkhamsted, East Branch, Nepaug, and Whigville Reservoirs and Whites Bridge pumping plant; furnished by Collins Co., Water Bureau of Hartford Metropolitan District Commission, and Board of Water Commissioners of New Britain.

South Branch Park River at Hartford, Conn.

Location.--Lat 41°44'02", long 72°42'51", on left bank at upstream side of bridge on Newfield Avenue in Hartford, Hartford County, 0.7 mile downstream from confluence of Trout Brook and Piper Brook and 3.3 miles upstream from confluence with North Branch.

Drainage area.--40.6 sq mi.

Records available.--October 1936 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 31.07 ft above mean sea level, datum of 1929 (levels by Department of Engineering, city of Hartford).

Average discharge.--21 years, 72.2 cfs.

Extremes.--Maximum discharge during year, 678 cfs Apr. 6; maximum gage height, 7.76 ft Apr. 6; minimum discharge, 7 cfs Sept. 2, 3 (gage height, 1.47 ft).

1936-57: Maximum discharge, 5,000 cfs Aug. 19, 1955, from rating curve extended above 800 cfs on basis of records for North Branch Park River and Park River at Hartford; maximum gage height, 19.65 ft Aug. 19, 1955, from floodmarks; minimum daily, 7 cfs Sept. 2, 1957.

Flood of Mar. 12, 1936, reached a stage of 12.1 ft, as determined by Hartford city engineers, from floodmarks.

Remarks.--Records good except those for periods of ice effect and those below 10 cfs, which are fair. Some regulation by dams upstream and by storage and diversion at Hartford water-supply reservoirs on headwater streams.

Revisions (water years).--WSP 1201: 1939-40(P), 1941(M), 1943-44(P), 1950. WSP 1431: 1955.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 8				Apr. 9 to May 20		May 21 to Sept. 30	
1.7	21	6.0	270	1.8	15	1.45	6.5
2.2	39	6.5	345	4.0	125	1.7	14
4.0	125	7.2	515	Note.--Same as preceding table above 4.0 ft.		2.3	47
						4.0	125

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	106	25	36	63	58	38	28	20	18	15	7.5
2	36	57	23	*39	63	57	136	30	19	16	12	7
3	27	97	26	39	62	53	97	42	25	17	11	9
4	36	44	27	34	84	46	73	49	22	23	12	11
5	33	*36	26	33	*79	*50	*353	24	20	18	17	12
6	27	28	26	31	72	49	502	*24	23	12	25	9.5
7	82	27	26	30	72	49	203	24	23	11	14	8.5
8	*34	36	32	30	62	63	184	31	21	14	11	7.5
9	30	32	108	30	111	112	370	25	16	48	12	8
10	36	27	77	33	200	76	164	22	18	39	13	9.5
11	39	24	52	34	84	62	128	20	21	16	12	16
12	30	26	103	33	62	58	112	24	21	*13	10	11
13	28	30	65	29	53	58	105	23	21	12	11	10
14	26	27	104	30	43	60	92	28	21	36	11	14
15	28	26	237	30	42	52	90	53	20	14	13	9
16	30	42	270	28	40	110	88	25	17	13	13	17
17	38	54	166	26	38	66	86	20	17	13	9.5	52
18	39	165	98	25	37	54	73	19	19	13	7.5	13
19	40	82	72	24	38	51	60	21	*41	12	9	12
20	31	58	63	23	38	54	51	66	30	11	11	11
21	27	39	68	24	36	81	48	56	19	9.5	13	18
22	28	144	62	65	35	77	55	36	16	10	*20	11
23	30	49	125	300	34	63	55	31	14	12	12	10
24	27	42	93	100	30	56	54	31	16	10	9	11
25	27	38	102	67	32	52	52	23	22	10	31	12
26	26	54	77	69	47	40	54	18	57	12	121	16
27	24	35	63	65	164	39	40	25	83	14	25	16
28	23	30	62	64	65	38	36	23	28	9	14	16
29	23	29	63	67	--------	36	34	21	37	71	11	14
30	27	27	53	66	--------	34	32	18	24	28	17	14
31	38	--------	44	64	--------	32	--------	18	--------	34	10	--------
Total	1,008	1,511	2,438	1,568	1,786	1,786	3,465	898	751	588.5	542.0	392.5
Mean	32.5	50.4	78.6	50.6	63.8	57.6	116	29.0	25.0	19.0	17.5	13.1
Cfsm	0.800	1.24	1.94	1.25	1.57	1.42	2.86	0.714	0.616	0.468	0.431	0.323
In.	0.92	1.38	2.24	1.44	1.64	1.64	3.19	0.82	0.69	0.54	0.50	0.36

Calendar year 1956 : Max 423 Min 13 Mean 64.1 Cfsm 1.58 In. 21.46
Water year 1956-57 : Max 502 Min 7 Mean 45.8 Cfsm 1.13 In. 15.36

Peak discharge (base, 550 cfs).--Jan. 23 (10:30 a.m.) 552 cfs (7.03 ft at 1:30 p.m.); Apr. 6 (2 a.m.) 678 cfs (7.76 ft at 4 a.m.).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Jan. 1, 3-7, 11-24.

North Branch Park River at Hartford, Conn.

Location.--Lat 41°47'03", long 73°42'31", on right bank 60 ft downstream from stone-arch bridge on Albany Avenue, Hartford, Hartford County, and 3 miles upstream from confluence with South Branch.

Drainage area.--25.3 sq mi.

Records available.--October 1936 to September 1957.

Gage.--Water-stage recorder and masonry control. Datum of gage is 34.20 ft above mean sea level, datum of 1929 (levels by Department of Engineering, city of Hartford).

Average discharge.--21 years, 38.2 cfs.

Extremes.--Maximum discharge during year, 660 cfs Apr. 6; maximum gage height, 6.06 ft Jan. 23 (ice jam); minimum discharge, 0.9 cfs Sept. 30 (gage height, 1.08 ft).

1936-57: Maximum discharge, 10,000 cfs Aug. 19, 1955, from rating curve extended above 1,600 cfs on basis of slope-area determination of peak flow 2.6 miles upstream; maximum gage height, 18.8 ft Aug. 19, 1955, from floodmarks; minimum discharge, 0.04 cfs Sept. 24, 1943.

Flood of Mar. 12, 1936, reached a stage of 11.2 ft as determined from floodmarks by city engineers of Hartford (discharge, about 2,800 cfs).

Remarks.--Records good except those for periods of backwater from ice or debris, which are fair. Some regulation at small dams upstream and by storage and diversion at a Hartford water-supply reservoir on headwater stream.

Revisions (water years).--WSP 891: 1939. WSP 1201: 1937(M), 1938, 1939(M), 1940, 1941(M), 1942(P), 1943, 1944(M), 1945, 1946(P), 1947(M), 1948-49(P), 1950. Revised figures of discharge, in cubic feet per second, for the water year 1956, superseding those published in WSP 1431, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1956		1956-Con.		1956-Con.		1956-Con.	
Aug. 1	3.3	Aug. 17	2.7	Sept. 2	9.7	Sept.18	5.4
2	3.0	18	2.8	3	5.8	19	4.4
3	3.0	19	2.7	4	4.1	20	7.3
4	3.3	20	2.2	5	3.3	21	5.6
5	2.8	21	5.4	6	3.3	22	3.7
6	2.7	22	6.0	7	20	23	3.9
7	3.0	23	4.7	8	6.5	24	9.7
8	4.6	24	3.9	9	4.1	25	8.1
9	3.0	25	4.6	10	3.0	26	5.8
10	2.7	26	2.7	11	2.7	27	4.9
11	2.5	27	2.5	12	2.5	28	15
12	2.2	28	3.3	13	3.5	29	8.9
13	2.2	29	4.4	14	3.3	30	5.4
14	2.5	30	6.0	15	2.8	31	-
15	2.8	31	7.3	16	4.6		
16	3.0	Sept. 1	7.1	17	4.6		

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
August 1956.....	108.3	7.3	2.2	3.49	0.138	0.16
September.....	179.0	20	2.5	5.97	.236	.26
Water year 1955-56.....	-	2,500	2.2	61.0	2.41	32.80

North Branch Park River at Hartford, Conn.--Continued

Rating table, water year 1956-57, except periods of ice effect or backwater from debris (gage height, in feet, and discharge, in cubic feet per second)

1.05	0.75	2.2	51
1.2	1.7	2.6	119
1.4	5.2	3.5	340
1.6	10	4.2	480
1.9	24		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.2	32	8.1	15	14	27	14	12	6.2	4.7	5.4	3.7
2	5.2	23	8.1	11	14	30	81	11	6.2	3.5	4.4	3.0
3	5.0	39	*8.9	8.9	14	37	60	10	7.1	2.7	3.7	2.7
4	5.4	18	11	9.2	*20	30	*28	9.7	8.5	4.0	3.5	4.1
5	7.3	*11	9.5	10	26	*24	273	9.5	*6.0	4.9	3.5	4.6
6	6.5	8.6	8.9	9.5	23	24	461	*8.9	5.2	3.3	2.3	3.9
7	25	8.4	8.9	9.7	32	26	119	8.1	5.6	2.8	1.7	3.5
8	*13	8.1	8.9	10	36	54	96	8.4	5.0	3.7	1.5	2.8
9	7.8	9.2	78	11	86	126	278	8.4	4.4	28	1.9	3.5
10	6.2	8.1	69	11	198	65	98	8.6	3.3	20	3.3	3.0
11	5.8	6.7	40	9.5	65	31	57	8.4	4.1	*5.8	3.7	4.7
12	5.6	7.1	128	9.2	31	30	43	8.9	4.9	4.6	3.7	5.6
13	5.4	8.9	48	8.9	18	28	40	10	5.0	4.6	4.4	5.8
14	5.4	8.4	60	8.6	15	27	32	10	5.0	7.8	3.0	6.9
15	5.2	7.6	141	8.4	15	26	27	14	4.7	5.8	3.9	6.2
16	5.2	7.6	183	8.4	16	145	25	12	5.2	4.7	4.6	7.5
17	5.0	7.1	105	8.1	16	52	24	8.1	5.4	4.4	3.9	9.5
18	5.0	58	67	7.8	15	34	23	7.1	5.0	4.1	2.3	5.4
19	4.4	33	41	7.6	16	28	35	6.5	*4.9	3.9	1.7	4.1
20	4.1	17	32	7.6	16	36	25	32	4.4	4.1	1.8	3.5
21	4.6	15	47	7.8	13	71	20	42	3.7	4.1	2.3	4.4
22	5.2	90	61	34	12	62	20	19	4.6	4.9	*3.0	4.7
23	5.6	30	111	180	12	36	18	14	4.1	4.9	2.8	5.2
24	6.9	16	79	50	14	27	16	12	4.6	4.1	2.7	4.6
25	5.6	10	92	28	16	22	19	9.5	5.0	3.7	3.5	3.3
26	5.4	23	48	19	28	20	18	8.1	9.2	3.7	10	2.5
27	5.8	23	34	16	175	19	20	9.2	7.1	3.5	5.8	3.5
28	5.6	16	34	16	51	18	18	11	5.6	3.7	4.1	1.9
29	5.6	13	41	13	-	18	17	7.6	6.7	12	2.8	1.2
30	5.4	10	36	15	-------	16	13	6.7	5.2	7.3	3.7	.95
31	6.2	-------	17	15	-------	15	-------	6.2	-------	5.6	4.1	-------
Total	199.6	572.8	1,664.3	583.2	1,005	1,204	2,018	356.9	159.9	184.9	109.0	126.25
Mean	6.44	19.1	53.7	18.8	35.9	38.8	67.3	11.5	5.33	5.96	3.52	4.21
Cfsm	0.255	0.755	2.12	0.743	1.42	1.53	2.66	0.455	0.211	0.236	0.139	0.166
In.	0.29	0.84	2.44	0.86	1.48	1.76	2.97	0.52	0.24	0.27	0.16	0.19

Calendar year 1956: Max 409 Min 2.2 Mean 35.6 Cfsm 1.41 In. 19.14
Water year 1956-57: Max 461 Min 0.95 Mean 22.4 Cfsm 0.885 In. 12.02

Peak discharge (base, 500 cfs).--Apr. 6 (3:30 a.m.) 660 cfs (5.10 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Jan. 11-24, 29, Feb. 12, 14-18, 21, 22. Backwater from debris on control Oct. 1, 2, Oct. 18 to Nov. 5, Nov. 12 to Dec. 3, Dec. 8 to Jan. 3, Apr. 15, 16, 19-21, May 17 to June 5, June 5 to July 5, Aug. 4-22.

Park River at Hartford, Conn.

Location.--Lat 41°45'36", long 72°41'42", on left bank at downstream side of plate-girder footbridge on Riverside Street in Hartford, Hartford County, 1,300 ft downstream from confluence of North and South Branches, 1,300 ft upstream from Capitol Avenue Bridge, 0.9 mile upstream from inlet of Park River conduit, and 2.0 miles upstream from mouth.

Drainage area.--74.0 sq mi.

Records available.--October 1936 to September 1957.

Gage.--Water-stage recorder above spillway of timber dam. Datum of gage is 27.13 ft above mean sea level, datum of 1929 (levels by Department of Engineering, city of Hartford).

Average discharge.--21 years, 121 cfs.

Extremes.--Maximum discharge during year, 1,170 cfs Apr. 6 (gage height, 4.94 ft); minimum, 11 cfs Aug. 18, 19, Sept. 8; minimum gage height, 2.33 ft July 29.

1936-57: Maximum discharge, 14,000 cfs Aug. 19, 1955 (gage height, 16.36 ft, from floodmark in gage house), from rating curve extended above 3,600 cfs on basis of slope-area determination of peak flow; minimum, about 4 cfs Sept. 23, 1937; minimum gage height, 1.58 ft July 23, Aug. 15, 1943, result of temporary diversions upstream; minimum daily discharge, 11 cfs Oct. 6, 1941, Aug. 18, 1957.

Remarks.--Records good. Some regulation by dams above station and by storage and diversion at Hartford water-supply reservoirs on small headwater streams.

Revisions water years).--WSP 1431: 1955.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	176	40	62	78	101	55	48	27	27	24	13
2	46	*90	37	55	75	98	246	44	27	22	19	12
3	34	187	42	*55	72	104	201	52	37	22	18	15
4	43	72	44	50	*110	90	*116	62	31	34	18	19
5	46	55	42	48	116	*87	513	40	29	27	24	21
6	*34	40	40	46	104	84	980	*37	29	19	29	16
7	135	35	40	46	113	84	412	37	31	16	19	14
8	55	46	46	46	107	113	293	42	29	19	15	12
9	42	52	207	46	191	281	685	37	25	79	15	14
10	46	40	193	48	465	191	326	35	24	93	16	16
11	50	33	107	48	176	110	209	33	27	*25	18	24
12	42	35	276	46	101	101	173	33	29	21	15	19
13	40	44	155	44	84	98	162	37	29	19	16	19
14	35	40	205	44	68	101	135	42	29	48	16	25
15	35	37	470	44	65	92	129	78	27	21	18	16
16	40	55	505	42	62	314	126	46	25	19	19	31
17	50	75	359	40	60	145	120	37	25	19	16	77
18	50	268	194	37	58	101	101	31	27	19	11	22
19	50	149	132	37	60	90	107	29	*58	18	12	18
20	42	84	110	35	58	101	84	138	40	18	15	18
21	33	65	120	37	52	162	75	110	25	16	16	24
22	35	295	132	130	52	176	78	58	24	18	*35	18
23	42	105	276	635	52	116	81	50	21	19	18	18
24	37	72	183	211	48	95	78	48	24	15	14	19
25	37	58	225	107	50	84	78	37	29	15	25	18
26	35	92	149	92	80	75	81	31	101	16	166	21
27	37	72	113	81	401	70	68	37	120	19	33	21
28	31	58	101	78	146	68	60	40	35	14	21	19
29	31	52	113	81	-	65	55	33	48	120	16	16
30	37	46	101	81	--------	62	52	29	31	40	22	16
31	52	--------	70	78	--------	58	--------	27	--------	44	16	--------
Total	1,368	2,528	4,827	2,530	3,104	3,517	5,879	1,438	1,063	621	735	611
Mean	44.1	84.3	156	81.6	111	113	196	46.4	35.4	20.7	23.7	20.4
Cfsm	0.596	1.14	2.11	1.10	1.50	1.53	2.65	0.627	0.478	0.401	0.320	0.276
In.	0.69	1.27	2.43	1.27	1.56	1.76	2.96	0.72	0.53	0.46	0.37	0.31

Calendar year 1956: Max 655 Min 18 Mean 112 Cfsm 1.51 In. 20.55
Water year 1956-57: Max 980 Min 11 Mean 78.1 Cfsm 1.06 In. 14.33

Peak discharge (base, 1,000 cfs).--Apr. 6 (5:30 a.m.) 1,170 cfs (4.94 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Jan. 1, 3-8, 11-23.

Hockanum River near East Hartford, Conn.

Location.--Lat 41°46'59", long 72°35'16", on left bank 700 ft downstream from dam at Case Bros., Inc., paper mill, 1½ miles downstream from Hop Brook, and 2¾ miles east of East Hartford, Hartford County.

Drainage area.--74.5 sq mi.

Records available.--September 1919 to September 1921, July 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 54.5 ft above mean sea level, datum of 1929 (levels by Department of Engineering, city of Hartford).

Average discharge.--31 years, 116 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 455 cfs Apr. 9 (gage height, 4.32 ft); minimum, 16 cfs Aug. 24, 25 (gage height, 1.01 ft); minimum daily, 21 cfs Oct. 14, Aug. 25.
1919-21, 1928-57: Maximum discharge, 5,160 cfs Sept. 21, 1938 (gage height, 13.78 ft, from floodmark), by computation of flow over dam just above gage; practically no flow at times caused by regulation; minimum daily, 1.2 cfs Sept. 2, 1920.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by Shenipsit Lake (see p. 234), other small reservoirs and industrial plants upstream.

Revisions (water years).--WSP 781: Drainage area. WSP 851: 1934(M), 1936(M). WSP 1051: 1920-21 and 1928-45 (monthly and yearly discharge and runoff). WSP 1201: 1920(M), 1929(M), 1931, 1932-34(m), 1944.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 28 to July 30, Aug. 14 to Sept. 30)

1.1	19	2.0	97
1.2	25	3.0	225
1.5	48	4.2	435

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	58	39	88	128	125	84	89	55	48	*104	28
2	38	71	27	a85	54	118	164	84	55	42	*55	26
3	23	84	51	a85	83	110	176	84	61	39	49	26
4	79	62	62	a95	156	99	122	86	55	38	49	24
5	99	48	63	a50	113	98	207	78	52	45	63	26
6	39	42	61	a110	102	97	415	74	50	42	46	26
7	59	41	66	a95	100	98	330	78	50	36	42	25
8	120	43	38	a90	122	110	279	78	49	*35	39	26
9	75	53	66	*89	65	183	425	71	46	46	32	25
10	66	44	155	99	205	171	357	74	43	104	28	24
11	64	43	85	102	214	124	287	73	44	60	28	*23
12	63	41	151	44	117	118	248	76	48	*47	28	23
13	30	42	125	61	110	112	218	78	52	43	28	26
14	21	41	154	77	106	108	183	79	51	65	28	28
15	50	38	187	109	117	105	170	101	51	53	27	27
16	63	32	239	74	54	161	163	76	51	52	27	28
17	65	30	225	a80	74	132	153	66	44	49	26	52
18	57	98	167	a90	128	110	148	68	43	46	25	35
19	32	*101	132	a35	99	109	170	62	66	45	27	29
20	24	66	120	a50	*94	124	152	89	76	48	26	26
21	22	64	138	a100	94	139	136	120	58	46	26	28
22	75	108	65	137	111	157	126	88	56	49	26	31
23	35	92	182	350	56	136	124	*79	50	55	26	28
24	46	64	164	*248	47	112	120	75	46	49	23	26
25	53	55	170	160	79	104	112	64	44	45	21	26
26	53	107	183	73	107	106	114	55	50	42	37	25
27	53	76	124	101	215	104	112	84	63	46	34	23
28	50	64	133	143	148	*100	99	97	74	50	28	22
29	74	64	74	114	-	99	*96	66	62	64	27	24
30	69	68	120	90	--------	98	95	52	52	58	26	23
31	*52	--------	99	89	--------	89	--------	52	--------	77	28	--------
Total	1,755	1,840	3,665	3,213	3,098	3,656	5,585	2,396	1,597	1,564	1,079	809
Mean	56.6	61.3	118	104	111	118	186	77.3	53.2	50.5	34.8	27.0
(†)	-12.0	+14.8	+22.1	+9.9	+9.3	+15.3	+6.1	-10.7	-18.4	-23.9	-7.9	-3.4
Adjusted for change in contents in Shenipsit Lake												
Mean	44.6	76.1	140	114	120	133	192	66.6	34.8	26.6	26.9	23.6
Cfsm	0.599	1.02	1.88	1.53	1.61	1.79	2.58	0.894	0.467	0.357	0.361	0.317
In.	0.69	1.14	2.17	1.76	1.68	2.06	2.88	1.03	0.52	0.41	0.42	0.35

	Observed			Adjusted		
Calendar year 1956:	Max 470	Min 20	Mean 124	Mean 124	Cfsm 1.66	In. 22.67
Water year 1956-57:	Max 425	Min 21	Mean 82.9	Mean 82.9	Cfsm 1.11	In. 15.11

Peak discharge (base, 900 cfs).--No peak above base.

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Shenipsit Lake; furnished by Rockville Water & Aqueduct Co.
a No gage-height record; discharge estimated on basis of recorded range in stage, patterns of regulation, weather records, and records for Scantic River at Broad Brook.

Salmon River near East Hampton, Conn.

Location.--Lat 41°33'11", long 72°26'57", on right bank at Old Comstock Bridge, a short distance downstream from New London-Middlesex County line, 0.6 mile downstream from Dickinson Creek and 3½ miles southeast of East Hampton, Middlesex County.

Drainage area.--105 sq mi.

Records available.--July 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 69.50 ft above mean sea level, datum of 1929.

Average discharge.--29 years (1928-57), 179 cfs.

Extremes.--Maximum discharge during year, 1,540 cfs Apr. 6 (gage height, 3.57 ft); maximum gage height, 3.73 ft Jan. 23, ice jam; minimum discharge, 2.9 cfs Aug. 20, 21 (gage height, 0.39 ft).

1928-57: Maximum discharge, 12,400 cfs Sept. 21, 1938 (gage height, 10.96 ft), by computation of flow over dam half a mile upstream; minimum, 1.0 cfs Oct. 31, 1935 (gage height, -0.17 ft); minimum daily, about 1 cfs Oct. 13, 1929.

Remarks --Records good except those for periods of ice effect, which are fair. Slight regulation at low flow by mills upstream.

Revisions (water years).--WSP 1021: 1929.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 21				Aug. 22 to Sept. 30	
0.4	3.6	1.5	187	0.4	3.3
.5	9.4	2.0	370	.5	8.3
.7	24	3.0	1,020	.7	21
1.0	62	3.4	1,390		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	77	68	b150	b155	252	128	106	36	12	11	6.8
2	31	101	73	b131	150	230	295	101	36	9.4	8.8	11
3	28	136	64	b140	150	230	*410	101	45	8.8	7.1	11
4	30	92	73	b135	210	197	269	99	40	7.7	6.5	5.8
5	44	64	*68	b135	227	175	504	99	34	8.8	7.1	*5.8
6	41	54	68	b125	194	165	1,340	92	32	11	*5.9	5.8
7	255	49	72	b130	165	175	689	85	31	8.8	5.9	4.8
8	197	48	68	b130	165	197	490	79	29	*3.2	a4.8	4.8
9	101	54	136	b125	197	368	804	75	27	5.3	a4.2	4.8
10	60	46	217	b125	470	395	550	70	25	7.7	3.6	3.8
11	48	40	159	b120	362	272	395	66	23	8.2	5.9	4.3
12	42	41	298	b115	238	234	334	72	22	7.1	7.1	4.3
13	40	48	269	b110	197	207	302	75	22	6.5	4.8	4.3
14	38	45	311	a100	178	187	276	73	21	13	a3.6	4.3
15	35	41	598	a90	165	178	252	148	19	11	a17	5.3
16	33	39	538	b90	150	322	230	113	18	8.8	a15	5.8
17	32	36	420	b90	150	290	220	81	18	7.1	a8.0	9.6
18	31	163	298	b85	142	224	213	72	15	5.9	4.8	10
19	30	190	224	b85	*142	197	224	70	15	5.3	a3.3	9.0
20	29	113	197	b85	134	224	213	101	25	4.8	2.9	7.3
21	29	85	190	b90	120	280	200	150	20	4.2	3.8	7.3
22	30	217	197	b200	116	330	181	106	16	3.6	a8.3	14
23	41	204	322	b1,120	118	262	172	*88	14	5.3	a7.3	18
24	45	126	310	a515	120	220	168	92	13	5.9	a6.8	15
25	41	90	298	a310	123	187	168	72	13	4.8	a9.6	12
26	38	128	244	234	145	178	159	57	11	4.8	14	9.6
27	34	139	197	b190	562	168	156	54	13	12	14	7.8
28	32	108	190	*b187	354	162	145	56	*13	7.7	9.0	7.3
29	30	88	197	181	-	156	126	48	14	19	8.3	7.3
30	30	77	178	172	--------	150	*113	42	13	15	7.3	6.8
31	29	--------	168	b155	--------	139	--------	38	--------	13	6.8	--------
Total	1,562	2,739	6,710	5,650	5,599	6,951	9,726	2,581	673	260.7	232.5	233.7
Mean	50.4	91.3	216	182	200	224	324	83.3	22.4	8.41	7.50	7.79
Cfsm	0.480	0.870	2.06	1.73	1.90	2.13	3.09	0.793	0.213	0.080	0.071	0.074
In.	0.55	0.97	2.38	1.99	1.98	2.46	3.45	0.91	0.24	0.09	0.08	0.08

Calendar year 1956: Max 784 Min 9 Mean 186 Cfsm 1.77 In. 24.15
Water year 1956-57: Max 1,340 Min 2.9 Mean 118 Cfsm 1.12 In. 15.18

Peak discharge (base, 1,300 cfs).--Jan. 23 (11 a.m.) 1,490 cfs (3.50 ft); Apr. 6 (7 a.m.) 1,540 cfs (3.57 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for nearby streams.
b Stage-discharge relation affected by ice.

Eightmile River at North Plain, Conn.

Location.--Lat 41°26'30", long 72°20'00", at center of span on downstream side of bridge on State Highway 82 at North Plain, Middlesex County, 500 ft downstream from Strongs Brook, 0.8 mile upstream from confluence with East Branch, and 6 miles upstream from mouth of Eightmile River.

Drainage area.--18.6 sq mi.

Records available.--September 1937 to September 1957. Prior to October 1938, published as West Branch Eightmile River near North Lyme. October 1938 to September 1954 published as West Branch Eightmile River at North Plain.

Gage.--Wire-weight gage and, since Nov. 2, 1952, crest-stage indicator; gage read once daily. Datum of gage is 57.74 ft above mean sea level, datum of 1929. Prior to May 1, 1939, staff gage at bridge 0.7 mile downstream at datum 12.17 ft lower.

Average discharge.--20 years, 39.9 cfs (adjusted to present site).

Extremes.--Maximum discharge during year, 650 cfs Jan. 23 (gage height, 5.63 ft); minimum daily, 0.5 cfs July 26 (gage height, 1.76 ft).
1937-57: Maximum discharge, 2,350 cfs Oct. 15, 1955 (gage height, 7.72 ft), from rating curve extended above 1,200 cfs on basis of computation of peak flow through highway bridge and over road; minimum observed, 0.05 cfs Sept. 12, 1944 (gage height, 1.60 ft).

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Revisions (water years).--WSP 1141: 1948. WSP 1331: 1940-41(M), 1943(M), 1948(M), 1951(M), 1952-53(P).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.7	0.1	3.0	45
1.8	.8	3.5	86
1.9	2.0	4.0	154
2.1	6.2	4.5	265
2.5	19	4.8	350

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.3	22	17	b34	38	60	28	24	8.4	1.6	*2.0	1.4
2	6.8	22	17	b32	a36	52	79	22	9.3	1.4	1.8	1.2
3	6.0	17	17	b32	38	48	a86	20	a8.7	1.2	1.3	1.3
4	5.7	14	17	a32	52	43	56	20	7.9	a1.2	1.4	1.4
5	9.0	12	15	b31	48	38	162	18	6.8	1.2	2.0	*1.3
6	6.8	11	a19	29	43	39	335	a18	6.5	1.0	1.4	1.3
7	59	9.9	18	a29	39	a38	145	17	6.2	.9	1.0	1.2
8	26	a9.3	15	a29	38	38	107	15	a5.7	*.9	.9	1.2
9	18	a9.3	32	a28	43	72	184	15	5.5	.9	.8	1.2
10	14	a8.7	52	a27	91	68	a114	a14	5.0	1.2	.75	.9
11	a12	8.2	36	26	68	52	86	13	4.5	1.0	.9	1.0
12	10	9.0	82	a25	52	48	72	17	4.3	a.9	1.0	.9
13	9.9	9.6	77	b24	48	42	68	15	4.3	.8	.8	.8
14	9.3	8.7	77	a22	41	39	60	15	3.8	2.6	.65	.8
15	8.7	8.4	154	b20	38	36	52	64	3.6	2.4	2.2	1.0
16	7.9	8.2	136	a20	36	60	48	30	2.9	1.6	2.2	1.2
17	7.6	8.4	96	b20	34	48	45	22	2.9	1.0	1.0	3.1
18	7.0	54	72	a19	32	41	43	19	2.6	.9	.8	2.0
19	6.2	38	60	a19	32	38	45	a18	2.6	a.8	*.8	1.8
20	6.0	24	52	b18	a31	a48	40	25	3.3	.75	.75	a1.4
21	6.0	22	56	a19	*30	64	39	*32	2.8	.65	.9	1.9
22	6.2	52	45	a26	28	64	a37	24	2.4	.65	a2.6	4.5
23	a9.0	38	72	312	27	52	36	20	a2.0	1.2	2.2	4.8
24	9.3	28	60	a228	26	44	34	22	1.9	.9	1.4	3.4
25	7.6	22	a60	102	27	*38	*32	16	2.0	.65	2.4	1.8
26	6.5	38	52	77	30	38	a34	14	1.9	a.5	4.5	1.8
27	6.5	30	a45	60	107	35	34	13	*1.9	5.0	3.8	a1.6
28	6.5	25	43	*48	68	a34	32	12	2.0	2.6	2.2	1.4
29	6.2	22	42	a45	-	32	28	11	2.2	1.9	1.8	1.3
30	6.0	20	a39	43	-------	31	26	9.6	1.8	2.4	1.6	1.3
31	6.0	-------	a37	38	-------	28	-------	8.7	-------	2.4	1.6	-------
Total	319.0	608.7	1,612	1,514	1,221	1,408	2,187	603.3	125.7	43.10	49.45	50.2
Mean	10.3	20.3	52.0	48.8	43.6	45.4	72.9	19.5	4.19	1.39	1.60	1.67
Cfsm	0.554	1.09	2.80	2.62	2.34	2.44	3.92	1.05	0.225	0.075	0.086	0.090
In.	0.64	1.22	3.23	3.02	2.44	2.81	4.37	1.21	0.25	0.09	0.10	0.10

Calendar year 1956: Max 184 Min 2.0 Mean 36.3 Cfsm 1.95 In. 26.60
Water year 1956-57: Max 335 Min 0.5 Mean 26.7 Cfsm 1.44 In. 19.48

Peak discharge (base, 350 cfs).--Jan. 23 (about 4 p.m.) 650 cfs (5.63 ft); Apr. 6 (about 1 a.m.) 485 cfs (5.20 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for station on East Branch.
b Stage-discharge relation affected by ice.

East Branch Eightmile River near North Lyme, Conn.

Location.--Lat 41°25'40", long 72°20'05", on left bank at bridge on State Highway 156, 0.4 mile upstream from mouth, 1.1 miles north of North Lyme, New London County, 1.2 miles south of North Plain, and 5½ miles upstream from mouth of Eightmile River.

Drainage area.--22.0 sq mi.

Records available.--September 1937 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 55.21 ft above mean sea level, datum of 1929.

Average discharge.--20 years, 46.0 cfs.

Extremes.--Maximum discharge during year, 470 cfs Jan. 23 (gage height, 3.52 ft); minimum, 0.25 cfs Aug. 14 (gage height, -0.31 ft).
1937-57: Maximum discharge, 2,950 cfs Sept. 21, 1938 (gage height, 7.00 ft), computed on basis of study of flow at contracted control section; no flow Sept. 3, 1938, result of regulation; minimum daily, about 0.03 cfs Oct. 2, 1941.

Remarks.--Records good except those for periods of ice effect, which are fair, and no gage-height record, which are poor. Occasional regulation at low flow.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23

-0.31	0.25	0.1	4.0	1.0	52
-.3	.3	1.2	5.8	1.5	107
-.2	.9	.3	8.2	2.0	165
-.1	1.6	.4	12	2.5	233
0	2.6	.5	18	2.8	287

Jan. 23 to Sept. 4

1.0	52
1.5	116
2.0	182
2.9	325

Note.--Same as preceding table above 1.0 ft.

Sept. 4-30

-0.1	0.8
0.0	1.3
.2	2.6
.5	7.0

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	33	23	b41	47	74	35	28	10	1.7	a1.3	1.8
2	11	48	22	b36	45	64	78	26	10	a1.5	a1.1	a1.6
3	9.0	34	23	b31	41	64	155	25	10	a1.3	a.9	a1.5
4	8.0	25	24	31	57	57	91	24	10	a1.3	a.9	*1.5
5	11	20	22	33	70	49	119	23	9.0	a1.3	a1.5	*1.5
6	12	17	25	32	59	46	325	23	8.2	a1.1	a1.4	1.3
7	40	16	27	32	50	46	200	22	7.7	a1.0	*1.1	1.2
8	51	15	25	34	47	48	142	20	7.2	a1.0	a.9	1.5
9	30	15	37	34	50	74	200	19	6.5	a1.1	a.7	1.3
10	19	13	68	b32	112	106	164	18	5.8	a1.4	a.55	1.0
11	15	12	54	b31	106	72	122	17	5.6	a1.2	a.4	1.0
12	12	12	82	b30	62	56	98	21	5.3	a1.0	a.35	1.0
13	11	13	100	b29	51	50	86	23	5.1	a.9	a.3	.9
14	10	12	97	b27	46	47	75	22	4.7	1.8	*.25	.9
15	10	12	172	b25	44	44	68	68	4.4	a1.4	2.3	1.1
16	9.7	12	162	b25	42	61	60	56	3.9	a1.1	2.5	1.2
17	9.3	12	134	b24	43	73	56	34	3.6	a.9	a1.6	2.8
18	9.0	46	95	b23	39	54	54	27	3.2	a.8	a1.2	3.1
19	8.6	64	73	b23	38	46	54	25	3.0	a.7	*.9	2.8
20	8.6	*41	64	b21	37	57	52	28	3.2	a.6	a.7	2.2
21	8.6	30	61	b21	*34	79	50	*38	2.7	a.5	a.8	2.6
22	8.6	43	59	b32	32	94	45	30	2.5	a.5	2.3	4.1
23	11	48	75	276	34	74	42	25	2.4	a1.1	a1.6	4.6
24	18	34	82	241	34	57	42	26	2.3	a.7	a1.2	4.2
25	14	26	79	122	34	*48	*39	22	2.3	a.5	1.8	3.7
26	11	38	67	82	36	46	41	19	2.2	a.4	4.2	3.2
27	10	49	55	66	130	44	43	17	2.3	4.4	6.8	3.0
28	10	37	52	*60	123	42	38	16	2.2	2.2	4.0	2.8
29	9.3	31	52	57	-	40	35	14	2.0	a1.5	2.7	2.8
30	9.0	27	48	52	--------	39	31	12	1.9	a1.8	2.3	2.7
31	8.6	--------	43	48	--------	37	--------	11	--------	a1.5	2.1	--------
Total	425.3	835	2,002	1,651	1,543	1,788	2,640	779	149.2	38.2	50.65	64.9
Mean	13.7	27.8	64.6	53.3	55.1	57.7	88.0	25.1	4.97	1.23	1.63	2.16
Cfsm	0.623	1.26	2.94	2.42	2.50	2.62	4.00	1.14	0.226	0.056	0.074	0.098
In.	0.72	1.41	3.39	2.79	2.60	3.02	4.46	1.31	0.25	0.06	0.09	0.11

Calendar year 1956: Max 173 Min 2.5 Mean 43.4 Cfsm 1.97 In. 26.86
Water year 1956-57: Max 325 Min 0.25 Mean 32.8 Cfsm 1.49 In. 20.21

Peak discharge (base, 300 cfs).--Jan. 23 (7 p.m.) 470 cfs (3.52 ft); Apr. 6 (12:30 p.m.) 365 cfs (3.12 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, engineers' notes and records for station on Eightmile River.
b Stage-discharge relation affected by ice.

Reservoirs in Connecticut River basin

First Connecticut and Second Connecticut Lakes on Connecticut River are operated as a unit for storage of water for power. The reservoirs, in 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 2/3 miles northeast of Pittsburg, N. H., 3,330,000,000 cu ft. Records furnished by New England Power Co.

Lake Francis on Connecticut River at Pittsburg, N. H., completed in March 1940, used for storage of water for power, has usable capacity of 4,326,000,000 cu ft. Records furnished by New England Water Resources Board.

Moore Reservoir and Comerford Station Pond on Connecticut River are operated as a unit for storage of water for hydroelectric power development. The reservoirs in downstream order and usable capacity of each are as follows: Moore Reservoir, 4½ miles northwest of Littleton, N. H., filled in April 1956, 4,970,000,000 cu ft; Comerford Station Pond, 4½ miles northeast of Barnet, Vt., completed in 1930, 1,279,000,000 cu ft. Records furnished by New England Power Co.

Union Village Reservoir on Ompompanoosuc River, 1¼ miles 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.

Lakes and ponds in Mascoma River basin. These reservoirs are operated as a unit for storage of water for power. The reservoirs and usable capacity of each are as follows: Goose Pond, 5¼ miles northeast of Mascoma, N. H., 509,000,000 cu ft; Grafton Pond, 8½ miles southeast of Mascoma, 144,000,000 cu ft; Crystal Lake, 5¾ miles southeast of Mascoma, 75,000,000 cu ft; 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.

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.

Surry Mountain Reservoir on Ashuelot River, 4½ miles north of Keene, N. H., completed in 1942 for flood control, has usable capacity of 1,420,000,000 cu ft. Records furnished by Corps of Engineers.

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.

Tully Reservoir on East Branch Tully River, 3½ 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.

Somerset and Harriman Reservoirs in Deerfield River basin are operated as a unit for storage of water for hydroelectric power development. The downstream order and usable capacity of each are as follows: Somerset Reservoir on East Branch Deerfield River, 2½ miles northeast of Somerset, Vt., 2,500,000,000 cu ft; Harriman Reservoir on Deerfield River at Davis Bridge, Vt., 5,060,000,000 cu ft. Records furnished by New England Power Co.

Quabbin Reservoir on Swift River, 3¼ miles east of Belchertown, Mass., completed in August 1939 for storage of water for municipal supply, has usable capacity of 55,700,000,000 cu ft. Records furnished by Water Division, Metropolitan District Commission.

Ludlow Reservoir in Chicopee River basin, 3¼ 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.

Watershops Pond on Mill River in Springfield, Mass., completed in 1857 for storage of water for power, has usable capacity of 70,600,000 cu ft. Records furnished by Ordnance Department, Department of the Army.

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.

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, 3½ miles south of Blandford, Mass., 344,000,000 cu ft; Cobble Mountain Reservoir on Westfield Little River, 6½ miles west of Westfield, Mass., 3,050,000,000 cu ft. Records furnished by Board of Water Commissioners, Springfield, Mass.

Otis Reservoir in Farmington River basin, lat 42°09'35", long 73°03'33", 1 mile northeast of Cold Spring, Berkshire County, Mass. Drainage area, 17.2 sq mi. Completed in 1865 for storage of water for power. Usable capacity, 780,000,000 cu ft. Records available, April 1913 to September 1957. Records furnished by The Collins Co., Collinsville, Conn.

Barkhamsted, East Branch and Nepaug Reservoirs in Farmington River basin are operated as a unit for municipal water supply and compensation for water diverted from river. The downstream order and capacity are as follows: Barkhamsted Reservoir on East Branch Farmington River, lat 41°54'38", long 72°57'15", 1¼ miles south of Barkhamsted, Litchfield County, Conn. Drainage area, 53.8 sq mi. Completed in 1939 for storage of water for municipal supply. Total capacity, 4,250,000,000 cu ft. Records available, March 1940 to September 1957. East Branch Reservoir on East Branch Farmington River, lat 41°52'49", long 72°57'30", 1 mile east of New Hartford, Litchfield County, Conn.

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Reservoirs in Connecticut River basin--Continued

Barkhamsted, East Branch and Nepaug Reservoirs--Continued.
Drainage area, 61.2 sq mi. Completed in 1919 for storage of water to compensate for water diverted from the river. Total capacity, 400,000,000 cu ft. Records available, August 1928 to September 1957. Nepaug Reservoir on Nepaug River, lat 41°49'37", long 72°56'34", 1½ miles northwest of Collinsville, Hartford County, Conn. Drainage area, 32.0 sq mi. Completed in 1918 for storage of water for municipal supply. Total capacity, 1,280,000,000 cu ft. Records available, August 1928 to September 1957. All three reservoirs are equipped with water-stage recorders. Records furnished by Water Bureau, Metropolitan District Commission, Hartford, Conn.

Whigville Reservoir on Whigville Brook in Pequabuck River basin, lat 41°44'08", long 72°57'02", at Whigville, Hartford County, Conn. Drainage area, 3.95 sq mi. Completed in 1908 for storage of water for domestic water supply. Total capacity, 8,650,000 cu ft. Records available, July 1928 to September 1957. Records furnished by Board of Water Commissioners, New Britain, Conn.

Shenipsit Lake on Hockanum River, lat 41°52'06", long 72°25'59", three-quarters of a mile east of Rockville, Tolland County, Conn. Drainage area, 16.5 sq mi. Dam raised to its present crest elevation in 1871, providing a usable capacity of 250,000,000 cu ft for municipal supply and power; total capacity of lake, 730,000,000 cu ft. Capacities based on lake survey by Connecticut State Board of Fisheries and Game. Records available, September 1919 to September 1921, July 1928 to September 1957. Stage records furnished by Rockville Water & Aqueduct Co.

Month-end usable contents, in millions of cubic feet, water year October 1956 to September 1957

Date	First and Second Connecticut Lakes	Lake Francis	Moore Reservoir and Comerford Station Pond	Union Village Reservoir	Lakes and ponds in Mascoma River basin
Sept.30, 1956	3,164.8	3,404.5	6,217.0	3.6	838.6
Oct. 31	2,543.6	2,912.5	5,670.0	1.8	729.0
Nov. 30	2,146.1	2,612.0	6,028.5	12.9	824.7
Dec. 31	1,974.0	2,515.5	5,897.0	7.9	964.4
Jan. 31, 1957	1,211.2	1,895.1	5,959.4	24.6	931.9
Feb. 28	480.7	1,310.1	4,465.7	43.0	664.5
Mar. 31	80.4	749.9	2,145.8	14.8	594.6
Apr. 30	1,423.6	2,005.9	4,389.9	2.9	784.6
May 31	2,178.8	2,615.0	6,025.8	3.1	931.9
June 30	2,443.7	2,834.7	6,195.4	3.0	928.3
July 31	3,052.1	3,409.3	5,996.2	2.1	942.5
Aug. 31	2,550.0	3,128.0	5,929.8	1.4	870.4
Sept.30	2,653.5	3,167.5	5,439.8	1.5	730.9

	Sunapee Lake	Surry Mountain Reservoir	Birch Hill Reservoir	Tully Reservoir	Somerset and Harriman Reservoirs
Sept.30, 1956	333	0.2	2.3	0.1	5,221.0
Oct. 31	252	.1	1.2	.1	4,406.1
Nov. 30	214	19.8	2.3	21.0	4,561.0
Dec. 31	265	34.3	3.9	21.0	4,752.2
Jan. 31, 1957	330	35.1	10.0	26.0	4,397.7
Feb. 28	343	48.9	7.5	26.0	3,368.3
Mar. 31	425	1.4	5.1	8.1	2,421.7
Apr. 30	547	.8	2.7	.2	4,465.5
May 31	517	.5	3.6	.3	5,613.9
June 30	449	.3	2.0	.2	5,896.4
July 31	394	.2	1.3	0	6,054.2
Aug. 31	347	.1	1.2	0	5,237.4
Sept.30	265	.1	1.3	0	4,577.8

	Quabbin Reservoir†	Ludlow Reservoir	Watershops Pond	Knightville Reservoir	Borden Brook and Cobble Mountain Reservoirs
Sept.30, 1956	50,618	145.3	0	0.2	2,419.2
Oct. 31	49,504	143.2	0	.3	2,304.8
Nov. 30	48,776	169.4	0	7.2	2,285.8
Dec. 31	48,835	181.1	49.0	14.3	2,395.4
Jan. 31, 1957	49,070	181.1	51.6	10.1	2,401.3
Feb. 28	49,227	181.1	45.3	29.9	2,408.6
Mar. 31	49,811	179.9	45.8	1.0	2,487.3
Apr. 30	51,060	181.1	46.3	.5	2,638.2
May 31	50,209	180.7	45.8	.3	2,466.5
June 30	49,129	174.2	43.9	.2	2,197.2
July 31	47,258	154.4	47.4	.1	2,016.0
Aug. 31	45,743	139.6	41.0	.1	1,837.0
Sept.30	44,459	142.9	39.6	.1	1,690.1

	Otis Reservoir	Barkhamsted, East Branch and Nepaug Reservoirs	Whigville Reservoir	Shenipsit Lake
Sept.30, 1956	18	4,020	3.7	557.2
Oct. 31	26	3,605	4.2	525.0
Nov. 30	55	3,583	4.0	563.4
Dec. 31	110	3,832	6.5	622.6
Jan. 31, 1957	222	3,974	6.8	649.2
Feb. 28	310	4,088	5.6	671.8
Mar. 31	361	4,339	6.3	712.7
Apr. 30	482	4,889	7.7	728.4
May 31	517	4,851	4.4	699.8
June 30	517	4,493	5.3	652.0
July 31	510	4,242	4.4	588.0
Aug. 31	500	4,053	4.5	566.8
Sept.30	438	3,829	4.9	558.1

† Affected by diversion from Ware River and diversion to Wachusett Reservoir and Chicopee Valley aqueduct.

Menunketesuck River near Clinton, Conn.

Location.--Lat 41°18'10", long 72°31'00", on right bank at Fairy Dell, 100 ft downstream from Cobb's Bridge, 1.7 miles north of Clinton, Middlesex County, 2.4 miles downstream from Kelseytown Reservoir, and 4.9 miles upstream from mouth.
Drainage area.--11.6 sq mi.
Records available.--June 1941 to September 1957.
Gage.--Water-stage recorder. Datum of gage is 23.64 ft above mean sea level, datum of 1929.
Average discharge.--16 years, 22.0 cfs (adjusted).
Extremes (unadjusted for storage or diversion).--Maximum discharge during year, 280 cfs Apr. 6 (gage height, 3.99 ft); no flow part of day July 24-29, Aug. 2-4, 18-21.
1941-57: Maximum discharge, 1,500 cfs Sept. 11, 1954 (gage height, 8.51 ft), from rating curve extended above 270 cfs on basis of computation of peak flow over Kelseytown Dam; no flow at times during August and September 1944, July and August 1957; minimum gage height, 0.48 ft Sept. 9-12, 1944.
Remarks.--Records excellent except those for June 4-17, Aug. 16, 22, 23, Sept. 22, 23, which are fair, and those for period of no gage-height record and those below 2.0 cfs, which are poor. The daily discharge record for all periods except those of low flow is a summation of daily flow at gaging station and daily diversion from Kelseytown Reservoir as measured by venturi meter. During periods of low flow, diversions from Kelseytown Reservoir are compensated for by release of water from Killingworth Reservoir which is located about 2.5 miles upstream from Kelseytown Reservoir on a small tributary of Menunketesuck River. The drainage area of Killingworth Reservoir is so small that its yield is considered negligible during periods of low flow when it becomes necessary to draw upon it. Therefore, the daily discharge record for periods of low flow June 4 to Sept. 30 is a summation of daily flow at gaging station and daily diversion from Kelseytown Reservoir, minus daily draft on Killingworth Reservoir adjusted for daily change in contents in Kelseytown Reservoir. Change in contents in Kelseytown Reservoir and draft on Killingworth Reservoir are determined from a continuous chart record of Kelseytown Reservoir water surface. No account is taken of evaporation from the reservoir surfaces. Flow at recording gage station regulated by Killingworth and Kelseytown Reservoirs and by diversion for domestic water supply from Kelseytown Reservoir.
Cooperation.--Venturi-meter records and some other data furnished by the Guilford-Chester Water Co.
Revisions (water years).--WSP 1301: 1942-44(M).

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	15	12	21	19	41	15	12	7.5	1.1	0.8	1.2
2	3.0	23	11	17	19	36	49	11	7.5	1.0	.7	1.0
3	2.7	16	11	16	18	33	87	11	7.0	.9	.6	.9
4	2.5	13	11	15	27	29	47	10	6.0	1.0	.5	*1.0
5	2.9	9.9	11	15	35	26	69	10	5.4	.9	1.5	.9
6	3.1	8.6	12	15	29	24	222	9.5	4.9	.8	1.0	.8
7	26	7.0	15	16	24	23	104	9	4.5	.8	*.7	.7
8	26	7.0	14	16	24	26	66	8.5	4.0	.7	.6	.8
9	15	7.5	25	15	28	45	90	8	3.7	*.7	.6	.7
10	9.8	6.9	49	16	63	55	71	7.5	3.4	.6	.5	.6
11	7.0	5.9	32	16	51	39	51	7.5	3.2	.6	.8	.7
12	5.8	6.0	*54	15	35	32	42	8	3.0	.5	.7	.7
13	4.7	6.0	58	15	26	28	38	8	2.8	.5	.6	.6
14	4.6	5.8	62	12	24	24	32	8	2.6	1.0	.5	.5
15	4.2	5.4	122	10	22	22	29	50	2.5	.8	1.1	.5
16	3.9	5.5	96	12	20	32	26	30	2.3	.7	2.2	.7
17	3.6	5.6	71	12	20	34	24	20	2.0	.6	1.3	1.5
18	3.5	25	52	12	18	24	23	17	1.8	.5	.9	1.3
19	3.2	30	40	12	18	23	24	15	1.6	.5	.7	1.1
20	2.8	*18	35	12	18	31	22	20	1.7	.4	.6	1.0
21	2.8	15	33	12	*16	35	21	28	1.5	.4	1.4	1.3
22	2.8	22	32	15	15	38	18	20	1.4	.3	3.8	2.2
23	4.8	22	45	142	15	32	18	*16	1.4	.6	2.1	2.2
24	5.6	17	43	100	15	24	18	44	1.3	.4	1.1	1.9
25	4.4	14	44	50	15	*21	*18	26	1.3	.3	1.5	1.6
26	3.9	19	35	36	15	20	17	18	1.3	.3	1.7	1.4
27	3.7	22	29	30	74	20	17	14	*1.2	1.1	2.6	1.2
28	3.3	17	28	*26	54	18	16	12	1.2	.9	2.0	1.1
29	3.0	15	28	25	-	18	15	9.9	1.2	.7	1.7	1.0
30	3.3	14	29	23	-------	17	13	8.3	1.2	1.0	1.5	.9
31	3.4	-------	22	20	-------	16	-------	7.3	-------	.9	1.4	-------
Total	178.8	404.1	1,161	769	757	886	1,302	483.5	90.4	21.5	37.7	32.0
Mean	5.77	13.5	37.5	24.8	2.70	28.6	43.4	15.6	3.01	0.69	1.22	1.07
Cfsm	0.497	1.16	3.23	2.14	2.33	2.47	3.74	1.34	0.259	0.059	0.105	0.092
In.	0.57	1.29	3.72	2.47	2.43	2.85	4.17	1.54	0.29	0.07	0.12	0.10

Calendar year 1956: Max 137 Min 0.9 Mean 21.3 Cfsm 1.84 In. 25.00
Water year 1956-57: Max 222 Min 0.3 Mean 16.8 Cfsm 1.45 In. 19.62

Peak discharge (base, 200 cfs, unadjusted for storage or diversion).--Jan. 23 (4 p.m.) 250 cfs (3.79 ft); Apr. 6 (8 a.m.) 280 cfs (3.99 ft).

* Discharge measurement made on this day.
Note.--No gage-height record Apr. 25 to May 20; discharge estimated on basis of records for nearby streams.

Quinnipiac River at Wallingford, Conn.

Location.--Lat 41°26'58", long 72°50'29", on right bank 0.8 mile downstream from Quinnipiac Street Bridge in Wallingford, New Haven County, and 2 miles upstream from Worton Brook.

Drainage area.--109 sq mi.

Records available.--October 1930 to September 1957.

Gage.--Water-stage recorder and timber control. Datum of gage is 20.24 ft above mean sea level, datum of 1929.

Average discharge.--27 years, 207 cfs.

Extremes.--Maximum discharge during year, 890 cfs Apr. 7 (gage height, 4.48 ft); minimum observed, 29 cfs Aug. 10, 21 (gage height, -0.16 ft).
1930-57: Maximum discharge, 5,230 cfs Sept. 21, 1938 (gage height, 9.55 ft); by computation of flow over dam 1 mile upstream; minimum, 8 cfs Nov. 2, 1930; minimum observed gage height, that of Aug. 10, 21, 1957.

Remarks.--Records excellent except those for periods of twice-daily gage readings, which are good, and those for periods of no gage-height record, which are fair. Low flow regulated by mills upstream. Records of chemical analyses and temperatures for the water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 781: Drainage area. WSP 851: 1933, 1936. WSP 971: 1940-42. WSP 1171: 1947 (calendar year mean). WSP 1201: 1931(M), 1932, 1934-35, 1937, 1949-50(M). WSP 1381: 1936, 1938, 1940-41, 1943-44, 1949.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

-0.2	26	2.0	286
+.4	68	3.0	530
1.0	117	4.2	815

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	164	93	153	137	216	126	135	70	54	63	32
2	69	183	86	128	137	198	206	125	70	50	44	35
3	68	154	85	125	131	208	276	120	76	46	41	36
4	70	117	87	126	162	187	232	116	74	44	42	45
5	79	*98	86	125	193	168	405	114	70	47	48	*46
6	76	89	85	118	*165	160	790	112	67	43	40	38
7	160	81	84	119	154	159	815	108	64	45	34	42
8	124	82	81	120	153	173	630	106	62	43	39	38
9	97	92	131	120	209	254	655	88	60	41	36	44
10	79	86	173	126	392	261	605	86	59	40	32	42
11	72	76	158	118	331	204	480	84	58	39	30	44
12	69	74	194	113	218	182	380	82	57	38	41	42
13	68	81	198	117	176	171	343	82	56	48	38	41
14	67	78	233	106	160	164	286	96	55	51	36	44
15	68	74	308	98	153	158	265	173	54	45	39	39
16	67	72	355	96	146	324	240	147	53	41	39	41
17	66	72	380	94	142	331	224	112	52	38	32	41
18	66	185	343	94	134	234	220	98	52	36	31	53
19	64	189	308	90	134	189	214	95	67	35	37	55
20	64	135	216	90	132	*194	200	124	65	34	37	48
21	63	108	189	98	124	216	191	175	*56	34	64	44
22	63	204	189	134	124	224	180	150	53	37	88	44
23	71	183	252	409	120	208	170	123	51	45	60	48
24	74	129	259	430	122	187	*165	122	49	41	48	53
25	68	106	248	269	119	165	168	106	48	*39	67	45
26	64	111	222	200	140	168	171	94	55	35	180	46
27	64	115	189	168	392	152	173	90	82	34	94	46
28	62	120	180	156	297	149	162	92	70	32	61	36
29	62	228	191	153	-	143	150	*82	76	47	46	38
30	62	126	193	145	--------	139	142	78	62	57	43	46
31	64	--------	162	139	--------	131	--------	74	--------	82	35	--------
Total	2,284	3,612	5,958	4,577	4,997	6,017	9,264	3,389	1,843	1,341	1,565	1,292
Mean	73.7	120	192	148	178	194	309	109	61.4	43.3	50.5	43.1
Cfsm	0.676	1.10	1.76	1.36	1.63	1.78	2.83	1.00	0.563	0.397	0.463	0.395
In.	0.78	1.23	2.03	1.57	1.70	2.05	3.16	1.15	0.63	0.46	0.53	0.44

Calendar year 1956: Max 705 Min 59 Mean 197 Cfsm 1.81 In. 24.63
Water year 1956-57: Max 815 Min 30 Mean 126 Cfsm 1.16 In. 15.73

Peak discharge (base, 900 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 14-22, 26-31, Jan. 16-20, May 10-14, May 31 to June 26, June 30 to July 23, Aug. 1; discharge estimated on basis of recorder graph, weather records, and records for nearby streams. Period July 24 to Sept. 30, except Aug. 1, 22, 26, 27, based on twice-daily staff-gage readings.

East Branch Housatonic River at Coltsville, Mass.

Location.--Lat 42°28'10", long 73°11'49", on right bank at Coltsville, Berkshire County, 1¼ miles upstream from Unkamet Brook and 2 miles northeast of Pittsfield.

Drainage area.--57.1 sq mi.

Records available.--March 1936 to September 1957. 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, datum of 1929.

Average discharge.--21 years, 116 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 1,120 cfs Jan. 23 (gage height, 5.70 ft); minimum daily, 13 cfs Sept. 2.

1936-57: 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 stage known since at least 1755, that of Sept. 21, 1938.

Remarks.--Records good. Flow regulated by powerplants above station. Diversion above station from Cleveland Brook Reservoir for municipal supply of Pittsfield since May 1950.

Revisions (water years).--WSP 851: 1936(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.9	12	3.0	155
2.1	23	3.5	267
2.3	41	4.0	412
2.5	67	5.0	800

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	72	49	69	107	127	66	*35	36	32	18	15
2	54	134	46	68	103	94	119	36	40	27	16	13
3	57	139	54	70	90	76	141	35	62	22	15	14
4	67	79	52	62	105	72	88	33	44	17	15	17
5	99	65	52	69	100	73	94	25	37	27	20	18
6	71	57	55	53	95	64	247	43	32	27	19	19
7	109	56	67	64	93	66	252	32	63	20	15	19
8	123	*60	82	64	89	68	165	23	50	22	15	17
9	*84	74	80	63	90	70	129	37	36	22	15	23
10	68	66	78	64	95	63	116	27	31	22	15	18
11	64	39	62	59	98	63	124	108	29	22	14	19
12	60	54	151	55	86	66	135	205	*28	21	14	21
13	56	70	*153	50	84	79	161	155	29	20	17	26
14	52	61	118	60	80	127	149	105	25	18	18	41
15	54	53	93	49	79	165	127	173	29	20	18	30
16	46	52	122	53	74	260	112	114	28	19	18	31
17	43	51	141	*52	72	223	120	70	28	20	17	41
18	42	51	112	48	76	147	98	64	29	18	15	37
19	43	55	80	47	75	118	98	54	29	17	15	33
20	38	50	81	40	73	103	93	133	44	18	16	32
21	37	69	76	49	73	98	82	242	35	16	24	32
22	44	373	77	73	67	107	91	132	27	16	14	29
23	57	210	100	756	68	103	74	91	17	*16	15	76
24	72	93	118	414	64	109	65	84	25	18	18	42
25	58	59	205	216	76	104	61	69	20	18	16	35
26	46	66	151	151	105	95	62	63	21	17	16	34
27	40	70	109	129	312	*90	56	77	22	16	17	34
28	39	64	105	129	202	80	38	72	22	15	18	33
29	47	60	93	116	-	78	46	65	21	14	17	29
30	42	57	70	112	--------	69	44	33	18	18	18	33
31	44	--------	73	105	--------	59	--------	52	--------	21	18	--------
Total	1,813	2,459	2,905	3,409	2,731	3,116	3,253	2,487	957	616	516	861
Mean	58.5	82.0	93.7	110	97.5	101	108	80.2	31.9	19.9	16.6	28.7
(†)	11.5	10.9	12.0	12.6	13.1	12.3	12.8	11.9	12.3	12.6	11.8	12.4
Adjusted for diversion												
Mean	70.0	92.9	106	123	111	113	121	92.2	44.2	32.5	28.4	41.1
Cfsm	1.23	1.63	1.86	2.15	1.94	1.98	2.12	1.61	0.774	0.569	0.497	0.720
In.	1.41	1.82	2.13	2.47	2.02	2.28	2.37	1.86	0.86	0.66	0.57	0.80

	Observed			Adjusted		
Calendar year 1956:	Max 1,130	Min 14	Mean 105	Mean 117	Cfsm 2.05	In. 27.90
Water year 1956-57:	Max 756	Min 13	Mean 68.8	Mean 81.0	Cfsm 1.42	In. 19.25

Peak discharge (base, 1,150 cfs).--No peak above base.

* Discharge measurement made on this day.

† Diversion above station from Cleveland Brook Reservoir for municipal supply of Pittsfield, equivalent in cubic feet per second. Records furnished by city of Pittsfield.

Housatonic River near Great Barrington, Mass.

Location.--Lat 42°13'55", long 73°21'19", 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, Berkshire County.

Drainage area.--280 sq mi.

Records available.--May 1913 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 683.04 ft above mean sea level, datum of 1929. Prior to Oct. 1, 1931, staff gage at same site and datum.

Average discharge.--44 years, 529 cfs.

Extremes.--Maximum discharge during year, 2,240 cfs Jan. 23 (gage height, 6.06 ft); minimum daily, 26 cfs Aug. 17.
1913-57: 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 except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by powerplants above station.

Revisions (water years).--WSP 415: 1913 calendar year. WSP 781: 1928(M). WSP 1051: 1928, 1933. WSP 1301: 1914-15(M), 1917-27(M), 1929-31(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 3, 7-10, 13-26, Mar. 3, 5-14, 31, Apr. 1)

1.8	26	3.5	407
2.1	48	4.0	735
2.5	97	5.0	1,500
3.0	209	6.0	2,200

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	321	246	309	b420	507	690	427	317	299	162	131	78
2	282	330	253	b400	478	532	438	*298	231	158	116	46
3	232	444	343	343	403	425	585	257	413	148	126	158
4	225	329	327	374	501	461	545	286	326	146	173	130
5	288	369	305	374	460	407	539	192	264	158	202	129
6	327	294	301	292	434	384	1,020	298	260	137	195	116
7	243	279	326	368	418	374	1,330	282	246	140	100	104
8	409	304	351	351	418	374	1,210	222	356	97	106	80
9	*346	*274	348	356	407	398	1,050	209	180	168	94	109
10	294	226	482	338	413	346	922	189	262	148	94	113
11	253	157	404	326	513	411	842	340	218	125	62	122
12	262	293	499	321	434	379	850	576	*194	142	a110	107
13	242	252	*712	b270	388	384	922	724	197	140	a110	99
14	156	263	668	b340	384	431	826	572	184	124	60	96
15	274	276	585	272	369	545	802	585	195	147	83	87
16	215	235	564	287	365	826	698	608	170	129	27	156
17	180	256	803	*298	284	930	668	484	153	112	26	156
18	197	219	712	281	386	842	660	402	156	118	31	160
19	155	335	552	251	369	675	630	302	163	118	103	170
20	214	269	484	218	356	592	569	474	195	107	73	133
21	126	280	441	332	*351	578	519	718	200	68	118	159
22	211	749	460	341	338	559	569	765	170	123	110	134
23	204	1,100	495	1,480	329	545	507	652	124	81	100	141
24	275	780	622	1,980	266	484	434	712	140	113	102	325
25	269	443	890	1,540	363	547	393	615	154	107	74	271
26	242	474	930	1,010	384	507	407	409	151	111	141	179
27	242	423	712	682	756	482	398	488	154	97	96	161
28	171	384	600	b640	866	*472	292	428	160	*79	94	162
29	258	379	539	592	-	458	424	347	147	127	78	87
30	231	351	439	559	--------	434	343	327	168	106	108	220
31	203	--------	388	507	--------	345	--------	349	--------	178	107	--------
Total	7,547	11,013	15,844	16,143	11,940	15,817	19,819	13,427	6,230	3,914	3,150	4,188
Mean	243	367	511	521	426	510	661	433	208	126	102	140
Cfsm	0.868	1.31	1.82	1.86	1.52	1.82	2.36	1.55	0.743	0.450	0.364	0.500
In.	1.00	1.46	2.10	2.14	1.59	2.10	2.63	1.78	0.83	0.52	0.42	0.56

Calendar year 1956: Max 4,180 Min 54 Mean 538 Cfsm 1.92 In. 26.14
Water year 1956-57: Max 1,980 Min 26 Mean 354 Cfsm 1.26 In. 17.13

Peak discharge (base, 2,400 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for East Branch Housatonic River at Coltsville.
b Stage-discharge relation affected by ice.

Green River near Great Barrington, Mass.

Location.--Lat 42°11'31", long 73°23'28", on left bank 250 ft downstream from Seekonk Road highway bridge, 0.2 mile downstream from Seekonk Brook, 1½ miles west of Great Barrington, Berkshire County, and 3 miles upstream from mouth.

Drainage area.--52.5 sq mi.

Records available.--October 1951 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 690 ft (from topographic map).

Average discharge.--6 years, 91.1 cfs.

Extremes.--Maximum discharge during year, 683 cfs Jan. 23 (gage height, 4.88 ft); minimum, 4.1 cfs Aug. 24-26, 28-30.
1951-57: Maximum discharge, 1,790 cfs Apr. 17, 1956 (gage height, 7.65 ft), from rating curve extended above 680 cfs; minimum, 3.0 cfs Sept. 2-5, 1953.

Remarks.--Records good except those for periods of ice effect, which are fair.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. to Nov. 8		Nov. 9 to Sept. 30			
2.2	12	2.1	3.4	3.2	180
2.4	34	2.2	10	3.5	255
2.7	82	2.6	56	4.0	390
		2.9	108	5.0	730

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	24	60	100	85	81	65	53	48	19	16	4.6
2	22	34	58	83	80	74	88	*51	56	14	11	4.6
3	20	68	58	80	73	68	90	50	65	12	10	4.6
4	19	56	56	80	73	62	80	46	50	11	11	4.6
5	25	50	55	68	68	58	115	42	44	12	10	4.6
6	24	44	53	64	64	56	345	41	41	13	10	4.6
7	27	40	55	62	62	58	315	39	50	10	8.9	4.6
8	32	44	56	59	59	60	265	38	48	11	8.0	5.2
9	*30	*52	68	56	62	68	258	35	39	10	8.0	4.6
10	26	44	62	53	85	65	232	34	35	8.9	7.2	4.6
11	24	39	60	48	70	56	228	66	32	8.0	7.2	4.6
12	22	39	100	51	55	60	248	96	*29	8.9	7.2	4.6
13	20	43	*106	50	53	66	260	83	26	8.0	6.5	5.2
14	19	40	100	44	51	81	228	73	24	7.2	6.5	4.6
15	18	39	100	40	48	104	198	85	25	8.0	6.5	4.6
16	18	36	131	36	46	200	178	68	22	7.2	5.8	5.2
17	16	33	150	*35	44	162	165	60	20	7.2	5.8	5.8
18	16	38	131	34	42	136	153	56	18	6.5	5.2	5.8
19	14	36	106	34	41	122	141	56	17	5.8	5.2	5.8
20	13	35	106	34	39	117	129	94	26	5.2	5.2	5.8
21	12	44	104	37	*35	110	115	138	21	5.2	5.2	5.8
22	12	260	108	55	36	108	104	98	16	6.5	5.2	5.8
23	17	165	158	*464	39	108	96	90	16	6.5	4.6	5.8
24	25	120	172	250	39	100	90	158	14	5.8	4.6	4.6
25	22	28	248	182	41	92	81	113	13	5.8	4.1	4.6
26	21	96	195	158	50	88	78	94	14	5.8	5.8	4.6
27	19	94	170	136	150	86	73	86	13	4.6	5.2	4.6
28	18	81	160	120	92	*81	68	80	10	4.6	*4.1	4.6
29	16	74	150	110	-	78	65	68	12	8.9	4.1	4.6
30	14	68	120	100	--------	74	59	60	16	*10	5.8	5.2
31	14	--------	105	86	--------	68	--------	53	--------	17	5.2	--------
Total	617	1,934	3,361	2,809	1,682	2,747	4,610	2,204	860	273.6	215.1	148.8
Mean	19.9	64.5	108	90.6	60.1	88.6	154	71.1	28.7	8.83	6.94	4.96
Cfsm	0.379	1.23	2.06	1.73	1.14	1.69	2.93	1.35	0.547	0.168	0.132	0.094
In.	0.44	1.37	2.38	1.99	1.19	1.95	3.27	1.56	0.61	0.19	0.15	0.11

Calendar year 1956: Max 1,060 Min 4.7 Mean 83.9 Cfsm 1.60 In. 21.77
Water year 1956-57: Max 464 Min 4.1 Mean 58.8 Cfsm 1.12 In. 15.21

Peak discharge (base, 750 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 30 to Jan. 5, Jan. 10-22, 24, Feb. 3, 12, 21, Mar. 5.

Blackberry River at Canaan, Conn.

Location.--Lat 42°01'26", long 73°20'32", on right bank downstream from highway bridge on U. S. Highway 44, 0.7 mile southwest of Canaan, Litchfield County, and 1¼ miles upstream from mouth.

Drainage area.--48.2 sq mi.

Records available.--July 1949 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 645.72 ft above mean sea level, datum of 1929.

Average discharge.--8 years, 87.2 cfs.

Extremes.--Maximum discharge during year, 880 cfs Jan. 23 (gage height, 6.28 ft); minimum, 2.2 cfs July 25, 26, 27, 28 (gage height, 1.25 ft).

1949-57: Maximum discharge, 14,200 cfs Aug. 19, 1955 (gage height, 13.01 ft), from rating curve extended above 2,400 cfs on basis of slope-area determination of peak flow; minimum, 2.2 cfs Aug. 28, 1949, July 25, 26, 27, 28, 1957; minimum gage height, 1.12 ft Aug. 28, 1949; minimum daily discharge, 2.3 cfs Aug. 28, 1949.

Flood of Dec. 31, 1948, reached a stage of 12.0 ft, from floodmarks (discharge, 7,000 cfs, from slope-area determination at East Canaan, 2.5 miles upstream, adjusted for intervening drainage area).

Remarks.--Records excellent except those for periods of ice effect, which are good. Infrequent regulation at low flow.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 22		Jan. 23 to Sept. 30			
1.6	9.6	1.2	1.1	3.0	142
1.7	13	1.3	3.2	4.0	305
2.0	34	1.5	9.7	5.0	505
3.0	142	1.7	19	5.5	610
3.6	230	2.0	41		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	102	28	b50	55	b73	41	42	18	11	7.2	3.5
2	17	73	28	b45	51	b58	112	39	28	7.9	5.5	3.2
3	14	127	30	b45	51	57	114	37	45	6.1	4.6	3.2
4	15	78	33	43	55	b47	75	36	30	5.5	6.5	2.8
5	24	46	32	43	49	b38	118	35	23	5.5	11	3.2
6	16	36	32	38	47	b37	345	34	20	5.2	6.8	*3.0
7	29	30	37	37	47	*39	259	31	22	4.6	5.2	2.8
8	28	28	39	37	48	46	173	29	21	4.6	4.6	2.8
9	18	30	82	*35	49	63	158	27	18	4.6	4.4	2.8
10	14	25	74	36	108	53	134	*24	14	4.6	4.1	2.6
11	12	21	61	b34	74	b43	134	49	13	4.6	6.1	3.0
12	12	22	174	b36	*49	48	150	59	12	4.1	5.2	3.2
13	11	28	130	36	44	59	146	*51	11	4.6	4.4	3.2
14	11	23	102	b30	43	74	119	43	10	5.2	4.1	3.0
15	11	20	94	b34	39	88	98	55	9.7	*4.6	3.5	3.2
16	10	19	148	b31	36	170	86	41	9.0	4.1	4.1	4.1
17	9.9	18	140	b31	35	117	78	33	8.3	3.5	3.2	16
18	9.9	48	111	b28	35	85	76	30	7.5	3.2	2.8	7.5
19	9.6	42	b77	b28	37	71	106	32	7.2	3.0	2.8	5.2
20	9.6	*32	75	b28	30	64	92	67	*6.8	2.8	3.5	4.4
21	9.6	51	73	b27	30	65	79	93	6.5	2.8	3.8	4.4
22	9.6	222	87	b90	29	67	*69	56	5.8	2.8	4.9	4.6
23	30	117	166	b610	30	68	64	47	5.5	2.8	4.6	6.8
24	*41	b66	146	253	32	63	62	40	5.5	2.8	3.8	6.8
25	26	b44	196	127	37	57	57	32	5.5	2.6	3.5	5.5
26	19	51	128	90	59	53	66	29	7.2	2.6	7.2	4.4
27	15	55	98	72	170	52	63	29	10	2.4	6.1	4.1
28	13	46	89	61	100	51	57	39	16	2.6	4.6	4.1
29	12	40	85	66	-	49	51	30	12	22	3.8	4.4
30	11	37	b70	56	--------	47	46	25	11	17	4.1	4.4
31	12	--------	b60	51	--------	43	--------	22	--------	11	4.4	--------
Total	497.2	1,577	2,725	2,228	1,469	1,945	3,228	1,236	418.5	170.7	150.4	132.2
Mean	16.0	52.6	87.9	71.9	52.5	62.7	108	39.9	14.0	5.51	4.85	4.41
Cfsm	0.332	1.09	1.82	1.49	1.09	1.30	2.24	0.828	0.290	0.114	0.101	0.091
In.	0.38	1.22	2.10	1.72	1.14	1.50	2.50	0.95	0.32	0.13	0.12	0.10

Calendar year 1956: Max 847 Min 6.8 Mean 79.9 Cfsm 1.66 In. 22.55
Water year 1956-57: Max 610 Min 2.4 Mean 43.2 Cfsm 0.896 In. 12.18

Peak discharge (base, 800 cfs).--Jan. 23 (7:30 a.m.) 880 cfs (6.28 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Housatonic River at Falls Village, Conn.

Location.--Lat 41°56'56", long 73°22'05", on left bank 0.6 mile downstream from hydroelectric plant of Connecticut Power Co. at Falls Village, Litchfield County, 2 miles downstream from Hollenbeck River, and at mile 75.3.

Drainage area.--632 sq mi.

Records available.--July 1912 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 522.34 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--45 years, 1,078 cfs.

Extremes.--Maximum discharge during year, 3,350 cfs Jan. 24 (gage height, 8.00 ft; backwater from ice); maximum gage height, 8.08 ft Jan. 24 (backwater from ice); minimum discharge, 51 cfs Sept. 10; minimum daily, 93 cfs Sept. 9.
1912-57: Maximum discharge, 23,900 cfs Jan. 1, 1949 (gage height, 22.9 ft, from floodmarks); practically no flow at times when powerplant was shut down; minimum daily, 24 cfs Oct. 15, 1914, Sept. 18, 1932.

Remarks.--Records excellent except those for periods of ice effect, which are good. Low flow completely regulated by powerplant of Connecticut Power Co.

Revisions.--WSP 781: Drainage area.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	80
1.5	252
3.0	955
6.9	3,280

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	369	645	664	960	1,050	1,450	716	664	528	289	175	168
2	486	695	579	820	1,000	1,160	970	596	471	224	195	121
3	406	901	565	730	890	964	1,240	575	566	224	202	121
4	284	952	654	790	880	804	1,140	520	706	236	218	408
5	416	662	638	870	950	788	1,230	515	471	222	265	237
6	476	698	554	810	880	742	2,090	456	430	218	300	*222
7	518	533	659	720	860	718	3,000	519	458	168	*282	190
8	455	494	648	780	840	679	2,720	508	464	200	174	168
9	656	573	818	*770	840	834	2,530	424	592	172	142	93
10	506	502	922	730	1,050	836	2,290	420	333	234	159	109
11	434	417	898	640	1,140	*695	2,110	572	381	193	182	148
12	372	376	1,130	680	*1,060	799	2,050	776	352	168	119	118
13	414	514	1,350	680	867	753	2,050	1,140	312	194	202	103
14	381	478	1,280	510	796	876	2,050	1,040	341	238	159	105
15	298	464	1,220	520	702	1,070	1,820	993	298	*178	128	209
16	392	508	1,400	490	679	1,510	1,700	1,000	295	172	121	172
17	337	442	1,760	480	704	1,820	1,570	898	324	170	119	240
18	298	572	1,820	570	589	1,760	1,430	746	228	172	114	227
19	288	500	1,380	510	674	1,480	*1,440	652	262	172	116	252
20	289	590	1,190	470	645	1,290	1,360	885	278	170	119	146
21	213	552	1,130	510	582	1,190	1,280	*1,310	282	168	121	139
22	272	1,100	1,090	730	578	1,160	1,150	1,320	286	202	119	163
23	401	1,700	1,460	1,900	588	1,160	1,120	1,200	242	172	146	146
24	*455	1,650	1,450	3,250	562	1,090	1,020	1,050	252	172	148	296
25	513	1,180	1,880	3,050	532	1,050	1,020	1,110	190	175	140	406
26	398	913	1,990	2,500	718	1,000	880	874	208	182	154	260
27	471	937	1,820	1,700	1,330	968	914	763	252	172	190	220
28	324	875	1,590	1,600	1,620	958	890	797	262	172	149	256
29	252	785	1,380	1,300	-	898	750	720	266	180	164	158
30	394	736	1,150	1,200	--------	857	770	592	244	185	121	141
31	341	--------	880	1,100	--------	844	--------	556	--------	175	209	--------
Total	12,109	21,944	35,949	32,370	23,606	32,203	45,300	24,191	10,574	5,969	5,152	5,742
Mean	391	731	1,160	1,044	843	1,039	1,510	780	352	193	166	191
Cfsm	0.619	1.16	1.84	1.65	1.33	1.64	2.39	1.23	0.557	0.305	0.263	0.302
In.	0.71	1.29	2.12	1.90	1.38	1.89	2.67	1.42	0.62	0.35	0.30	0.34

Calendar year 1956: Max 8,590 Min 130 Mean 1,092 Cfsm 1.73 In. 23.54
Water year 1956-57: Max 3,250 Min 93 Mean 699 Cfsm 1.11 In. 14.99

Peak discharge (base, 3,600 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 30 to Feb. 10.

Tenmile River near Gaylordsville, Conn.

Location.--Lat 41°39'32", long 73°31'44", on right bank 0.1 mile downstream from Deuel Hollow Brook, 1.2 miles upstream from New York-Connecticut State line, 1.7 miles upstream from mouth, and 2½ miles northwest of Gaylordsville, Litchfield County.

Drainage area.--204 sq mi.

Records available.--October 1929 to September 1957. Monthly discharge only for October to December 1929, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 304.4 ft above mean sea level, datum of 1929 (levels by Connecticut Light & Power Co.).

Average discharge.--28 years, 298 cfs.

Extremes.--Maximum discharge during year, 1,230 cfs Apr. 6 (gage height, 4.28 ft); minimum, 5 cfs Sept. 8 (gage height, 0.65 ft); minimum daily, 9 cfs Sept. 7-11, 28-30.
1929-57: Maximum discharge, 17,400 cfs Aug. 19, 1955 (gage height, 14.9 ft, from high-water mark), from rating curve extended above 9,800 cfs by logarithmic plotting; minimum, that of Sept. 8, 1957; minimum gage height, 0.52 ft Sept. 24, 26, 1939; minimum daily, 9 cfs Sept. 23-26, 1939, Sept. 7-11, 28-30, 1957.

Remarks.--Records excellent except those for periods of ice effect and backwater from aquatic growth, which are good. Infrequent regulation at low flow.

Revisions (water years).--WSP 1201: 1939.

Rating table, water year 1956-57, except periods of ice effect and backwater from aquatic growth (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-31)

0.5	7	1.5	135
.6	13	2.0	255
.8	30	3.0	600
1.0	52	4.0	1,070

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	274	148	b340	266	319	224	226	97	29	28	11
2	65	310	142	b290	250	299	332	214	97	27	*21	11
3	59	271	142	b302	222	299	406	204	113	24	19	11
4	55	229	146	b274	255	274	340	199	106	23	19	11
5	60	187	142	b263	250	247	465	192	94	21	19	10
6	62	164	139	b234	237	237	1,070	178	86	20	17	10
7	69	146	139	b242	237	239	1,070	168	81	20	16	9
8	86	135	139	b229	239	250	895	162	80	19	16	9
9	74	129	185	224	269	319	1,070	148	72	19	16	9
10	62	119	239	b219	775	356	995	139	66	18	16	9
11	56	110	214	b187	600	290	870	135	63	17	17	*9
12	51	106	288	242	b379	*288	775	153	60	17	17	10
13	48	106	302	224	b334	290	730	175	58	16	17	10
14	46	104	325	b178	*310	296	662	153	55	21	16	10
15	47	99	552	*b157	288	304	588	175	52	20	16	11
16	46	95	708	b180	271	490	532	168	50	18	16	13
17	44	92	752	b170	255	472	492	148	51	15	16	15
18	42	153	640	b160	245	406	461	139	47	15	15	14
19	40	192	520	b150	242	375	472	153	42	13	14	14
20	40	168	465	b150	234	372	442	263	40	13	15	12
21	39	162	446	b150	209	375	406	*366	38	12	18	12
22	39	307	461	b180	209	366	*362	224	37	12	25	12
23	55	307	685	b550	209	340	337	212	34	12	18	12
24	86	250	640	620	212	319	325	192	33	12	15	12
25	78	209	752	b442	214	296	302	159	32	11	13	11
26	68	199	662	b362	242	288	313	139	32	11	22	11
27	60	202	564	b316	476	282	316	133	31	12	18	10
28	55	192	520	296	372	274	304	133	31	13	15	9
29	50	178	500	288	-	260	279	125	31	16	13	9
30	47	168	b424	b268	--------	250	247	111	31	26	12	9
31	56	--------	b356	b250	--------	237	--------	106	--------	30	12	--------
Total	1,757	5,363	12,337	8,137	8,301	9,709	16,082	5,392	1,740	552	527	325
Mean	56.7	179	398	262	296	313	536	174	58.0	17.8	17.0	10.8
Cfsm	0.278	0.877	1.95	1.28	1.45	1.53	2.63	0.853	0.284	0.087	0.083	0.053
In.	0.32	0.98	2.25	1.48	1.51	1.76	2.93	0.98	0.32	0.10	0.10	0.06

Calendar year 1956: Max 7,310 Min 24 Mean 302 Cfsm 1.48 In. 20.16
Water year 1956-57: Max 1,070 Min 9 Mean 192 Cfsm 0.941 In. 12.79

Peak discharge (base, 1,400 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Backwater from aquatic growth June 16 to Sept. 30.

Housatonic River at Gaylordsville, Conn.

Location.--Lat 41°39'11", long 73°29'25", on left bank 0.4 mile downstream from hydroelectric plant of Connecticut Light & Power Co., 0.5 mile upstream from bridge on U. S. Highway 7 at Gaylordsville, Litchfield County, 1½ miles downstream from Tenmile River, and at mile 50.6.

Drainage area.--994 sq mi.

Records available.--October 1900 to December 1904 (fragmentary), January 1905 to December 1908 (gage heights only), January 1909 to December 1912 (fragmentary), January 1913 to October 1914 (gage heights only), November 1914 (fragmentary), July 1940 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 236.78 ft above mean sea level, datum of 1929. October 1900 to November 1914 chain gage on covered bridge 0.6 mile downstream at different datum.

Average discharge.--17 years (1940-57), 1,675 cfs.

Extremes.--Maximum discharge during year, 4,930 cfs Apr. 7 (gage height, 6.25 ft); maximum gage height, 6.35 ft Jan. 23 (ice jam); minimum daily discharge, 114 cfs Aug. 5.
1900-1914, 1940-57: Maximum discharge, 51,800 cfs Aug. 19, 1955 (gage height, 18.58 ft); minimum observed, about 30 cfs Oct. 28, 1914 (gage height, 2.18 ft, site and datum then in use); minimum daily since July 1940, about 60 cfs Aug. 31, 1944, Sept. 20, 1949.
Flood in May 1854 reached a stage of 21 ft 3 in., former site and datum; reported by observer in 1902. Flood of Sept. 22, 1938, reached a stage of 14.5 ft, from floodmarks, at present site (discharge, 37,000 cfs, by computation of peak flow over dam 2½ miles upstream adjusted for flow from intervening area).

Remarks.--Records good except those below 200 cfs, which are fair. Ordinary flow regulated by powerplants above station.

Revisions (water years).--WSP 1301: 1949.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	85	2.5	680
1.2	165	3.0	1,000
1.3	198	4.0	1,920
1.5	260	5.0	3,120
2.0	450	6.2	4,930

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	461	1,160	990	1,590	1,500	2,070	1,180	1,160	816	290	250	260
2	562	1,340	904	1,410	1,480	1,710	1,480	1,060	722	353	267	312
3	556	1,340	824	1,280	1,420	1,600	1,990	996	737	306	252	130
4	574	1,430	914	1,270	1,310	1,380	1,790	910	890	343	379	176
5	464	1,190	911	1,320	1,370	1,210	2,140	878	762	356	114	334
6	658	988	948	1,250	1,360	1,210	3,970	810	670	248	328	267
7	710	910	821	1,170	1,330	1,140	4,930	806	566	334	394	254
8	714	832	944	1,170	1,280	1,160	4,440	824	724	190	263	213
9	658	812	1,080	1,200	1,300	1,310	4,600	828	694	296	202	*179
10	738	848	1,380	1,170	2,220	1,460	3,970	648	604	235	174	133
11	620	690	1,310	1,050	2,130	*1,300	3,670	705	520	301	296	157
12	596	626	1,610	1,140	1,720	1,230	3,390	1,020	517	247	270	*197
13	482	701	1,910	1,090	1,480	1,300	3,320	1,310	470	206	242	240
14	532	737	2,050	1,020	*1,400	1,380	3,180	1,420	429	330	272	194
15	504	704	2,190	995	1,250	1,530	2,860	1,380	443	269	214	175
16	376	711	2,720	1,060	1,150	2,320	2,670	1,330	416	283	202	240
17	583	678	2,990	975	1,170	2,610	2,490	1,250	366	182	137	378
18	405	866	2,920	935	1,110	2,490	2,250	1,140	487	226	138	334
19	375	940	2,350	965	1,050	2,200	*2,320	1,040	332	226	232	290
20	446	852	2,080	970	1,130	1,970	2,190	1,280	312	230	176	310
21	376	899	1,940	915	1,020	1,890	2,080	*1,950	344	230	152	248
22	376	1,390	1,970	972	984	1,850	1,830	1,780	384	224	191	213
23	456	2,200	2,620	3,320	974	1,780	1,820	1,650	378	241	188	263
24	634	2,140	2,610	3,740	982	1,720	1,680	1,480	362	271	215	120
25	604	1,660	3,180	3,530	954	1,600	1,600	1,450	346	240	218	481
26	702	1,360	3,120	3,250	1,030	1,520	1,500	1,340	302	269	267	418
27	489	1,320	2,800	2,550	2,070	1,500	1,530	1,070	356	245	208	287
28	536	1,300	2,490	2,030	2,290	1,460	1,490	1,040	394	245	246	288
29	498	1,200	2,230	1,830	-	1,420	1,310	1,040	436	308	214	320
30	390	1,050	1,990	1,680	--------	1,340	1,210	984	381	288	240	194
31	548	--------	1,490	1,550	--------	1,320	--------	799	--------	322	196	--------
Total	16,623	32,874	58,286	48,397	38,464	49,980	74,880	35,378	15,160	8,334	7,137	7,605
Mean	536	1,096	1,880	1,561	1,374	1,612	2,496	1,141	505	269	230	254
Cfsm	0.539	1.10	1.89	1.57	1.38	1.62	2.51	1.15	0.508	0.271	0.231	0.256
In.	0.62	1.23	2.18	1.81	1.44	1.87	2.80	1.33	0.57	0.31	0.27	0.29

Calendar year 1956: Max 11,300 Min 168 Mean 1,694 Cfsm 1.70 In. 23.21
Water year 1956-57: Max 4,930 Min 114 Mean 1,077 Cfsm 1.08 In. 14.72

Peak discharge (base, 4,500 cfs).--Apr. 7 (9:30 a.m.) 4,930 cfs (6.25 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Jan. 1-3, 6, 11-21, 23.

Still River near Lanesville, Conn.

Location.--Lat 41°31'12", long 73°25'07", on left bank at upstream side of highway bridge, a quarter of a mile east of U. S. Highway 7, 1.1 miles south of Lanesville, Litchfield County, 3 miles upstream from mouth, and 4 miles south of New Milford.

Drainage area.--68.5 sq mi.

Records available.--October 1931 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 213.05 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--26 years, 122 cfs.

Extremes.--Maximum discharge during year, 627 cfs Apr. 7 (gage height, 7.07 ft); minimum, 12 cfs Sept. 30; minimum daily, 15 cfs Sept. 30; minimum gage height, 1.61 ft Oct. 22. 1931-57: Maximum discharge, 7,980 cfs Oct. 16, 1955 (gage height, 14.11 ft, from floodmarks), from rating curve extended above 3,000 cfs by logarithmic plotting; minimum, 5 cfs Oct. 20, 1946; minimum daily, 8 cfs Sept. 27, 1948; minimum gage height, 0.77 ft Aug. 10, 1939.

Remarks.--Records good except those for periods of ice effect or backwater from aquatic vegetation, which are fair. Some diurnal fluctuation caused by mills at Brookfield and Danbury.

Revisions (water years).--WSP 781: Drainage area. WSP 801: 1931-35. WSP 851: 1936. WSP 871: 1938. WSP 1031: 1944. WSP 1081: 1946. WSP 1301: 1944(M). WSP 1331: 1936(M), 1938(M), 1941(M).

Rating table, water year 1956-57, except periods of ice effect and backwater from aquatic vegetation (gage height, in feet, and discharge, in cubic feet per second)

0.9	12.5	4.0	182
1.5	31	5.0	283
2.0	52	6.0	406
3.0	105	7.0	609

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	250	70	100	87	128	80	77	50	40	*44	22
2	32	420	65	90	84	122	124	74	47	37	35	20
3	30	310	65	85	77	136	235	69	53	35	30	22
4	30	156	71	80	90	118	152	66	51	34	26	28
5	42	114	68	80	136	105	200	64	49	34	26	26
6	37	96	66	75	108	96	450	64	47	33	26	25
7	39	87	68	70	105	96	593	62	47	31	24	22
8	46	82	67	75	105	99	458	60	45	29	23	20
9	38	93	86	70	108	144	435	57	43	33	22	20
10	32	82	178	70	266	173	442	54	40	37	22	20
11	29	70	128	70	283	125	317	52	43	34	22	*23
12	27	66	136	75	156	111	240	53	43	31	20	26
13	26	74	148	70	114	111	210	56	44	32	22	23
14	25	70	157	60	105	*105	186	57	44	52	21	23
15	24	64	341	60	102	105	164	228	45	41	22	21
16	25	63	413	55	96	96	152	317	44	35	26	19
17	25	61	392	55	90	99	144	125	51	34	24	37
18	27	128	311	*55	*82	128	136	84	50	33	20	37
19	26	191	210	55	84	114	144	76	48	30	18	27
20	26	118	173	55	82	122	132	85	49	29	20	25
21	23	96	168	60	80	132	125	178	48	27	22	29
22	22	161	186	80	77	125	*114	118	45	25	48	37
23	56	173	200	306	77	111	108	87	42	27	39	27
24	*128	111	191	399	80	102	108	99	40	29	27	27
25	64	87	186	245	77	93	102	99	45	28	23	24
26	42	84	164	132	87	93	105	74	47	27	51	22
27	36	96	136	105	200	93	111	66	54	27	54	21
28	31	87	128	99	215	90	96	62	48	29	35	21
29	28	80	132	96	-	87	90	58	48	59	27	18
30	29	76	128	93	-------	87	84	*54	48	132	24	15
31	33	-------	111	90	-------	84	-------	48	-------	76	26	-------
Total	1,113	3,644	4,943	3,110	3,253	3,430	6,037	2,723	1,398	1,180	869	727
Mean	35.9	121	159	100	116	111	201	87.8	46.6	38.1	28.0	24.2
Cfsm	0.524	1.77	2.32	1.46	1.69	1.62	2.93	1.28	0.680	0.556	0.409	0.353
In.	0.60	1.98	2.68	1.68	1.76	1.87	3.27	1.48	0.76	0.64	0.47	0.39

Calendar year 1956: Max 435 Min 21 Mean 118 Cfsm 1.72 In. 23.35
Water year 1956-57: Max 593 Min 15 Mean 88.8 Cfsm 1.30 In. 17.58

Peak discharge (base, 600 cfs).--Apr. 7 (8 to 10 a.m.) 627 cfs (7.07 ft).

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Jan. 1-22. Backwater from aquatic vegetation Oct. 1 to Nov. 1, May 1 to Sept. 30.

Shepaug River at Woodville, Conn.

Location.--Lat 41°43'24", long 73°17'37", at left end of dam at outlet of Shepaug Reservoir, 1 mile north of Woodville, Litchfield County, and 3.5 miles upstream from Bantam River.

Drainage area.--38.0 sq mi.

Records available.--October 1935 to September 1957.

Gage.--Nonrecording gage at dam or at auxiliary artificial control below dam; read usually once daily.

Average discharge.--22 years, 86.3 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 709 cfs Jan. 23; no flow at times (result of regulation).
1935-57: Maximum discharge observed, 13,800 cfs Aug. 19, 1955; no flow at times (result of regulation).

Remarks.--Records good. Discharge computed on basis of flow over spillway, through floodgates, and through fountain at toe of dam. Rating curves for floodgates and fountain computed by means of a temporary sharp-crested weir below dam. Rating curve for spillway computed for discharges below 18.5 cfs by means of same weir, and for discharges above 18.5 cfs by a formula selected to fit the spillway-crest sections. At times of ice effect on spillway, flow computed from gage readings at permanent artificial control below the dam, which was calibrated with the sharp-crested weir. Water diverted from Shepaug River for municipal supply of Waterbury. Flow regulated since September 1933 by Shepaug Reservoir (see p. 254).

Cooperation.--Records furnished by Bureau of Engineering, city of Waterbury.

Revisions (water years).--WSP 971: 1936-42. WSP 1231: 1937(M), 1940-41(M), 1943-45(M), 1947, 1948(M), 1950(M). WSP 1301: 1936.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	0.6	2.4	53	49	98	12	16	2.4	2.4	2.4	2.4
2	2.4	0	2.4	42	46	87	160	11	2.4	2.4	2.4	2.4
3	2.4	0	2.4	42	44	76	184	6.9	2.4	2.4	2.4	2.4
4	2.4	0	5.5	42	53	59	116	9.8	2.4	2.4	2.4	2.4
5	2.4	0	28	49	51	21	130	9.8	2.4	2.4	2.4	2.4
6	2.4	0	31	44	49	23	538	8.8	2.4	2.4	2.4	2.4
7	2.4	0	33	42	46	16	385	7.9	2.4	2.4	2.4	2.4
8	2.4	0	35	42	44	21	273	5.3	2.4	2.4	2.4	2.4
9	2.4	0	64	40	53	35	268	4.0	2.4	2.4	2.4	2.4
10	2.4	0	98	40	135	42	214	2.9	2.4	2.4	2.4	2.4
11	2.4	0	76	38	158	35	198	2.5	2.4	2.4	2.4	2.4
12	2.4	0	169	38	107	28	173	2.9	2.4	2.4	2.4	2.4
13	2.4	0	131	38	74	37	145	13	2.4	2.4	2.4	2.4
14	2.4	0	135	37	64	55	128	6.1	2.4	2.4	2.4	2.4
15	2.4	0	145	35	55	55	98	23	2.4	2.4	2.4	2.4
16	2.4	0	202	35	44	169	79	8.8	2.4	2.4	2.4	2.4
17	2.4	0	302	35	18	110	67	4.6	2.4	2.4	2.4	2.4
18	2.4	0	180	33	16	76	53	3.4	2.4	2.4	2.4	2.4
19	2.4	0	128	31	12	62	59	3.4	2.4	2.4	2.4	2.4
20	2.4	0	113	29	8.8	51	57	38	2.4	2.4	2.4	2.4
21	2.4	0	104	29	5.3	44	51	122	2.4	2.4	2.4	2.4
22	2.4	0	125	37	5.3	57	40	42	2.4	2.4	2.4	2.4
23	2.4	11	187	520	6.9	53	31	31	2.4	2.4	2.4	2.4
24	2.4	22	155	260	11	42	24	18	2.4	2.4	2.4	2.4
25	2.4	3.7	202	162	11	35	21	14	2.4	2.4	2.4	2.4
26	2.4	8.8	145	116	26	29	21	8.8	2.4	2.4	2.4	2.4
27	2.4	14	110	84	230	24	26	6.1	2.4	2.4	2.4	2.4
28	2.4	12	98	59	119	20	21	7.9	2.4	2.4	2.4	2.4
29	2.4	6.9	90	55	-	18	20	5.3	2.4	2.4	2.4	2.4
30	2.4	3.4	76	59	--------	17	14	2.5	2.4	2.4	2.4	2.4
31	2.4	--------	64	53	--------	14	--------	2.4	--------	2.4	2.4	--------
Total	74.4	82.4	3,238.7	2,219	1,541.3	1,509	3,606	448.1	72.0	74.4	74.4	72.0
Mean	2.40	2.75	104	71.6	55.0	48.7	120	14.5	2.40	2.40	2.40	2.40
(†)	+11.5	+43.2	+3.5	-0.1	+11.0	+25.2	+28.9	+15.3	+6.1	+1.8	+.7	+1.9

Adjusted for diversion and change in contents in Shepaug Reservoir

Mean	13.9	46.0	108	71.5	66.0	73.9	149	29.8	8.50	4.20	3.10	4.30
Cfsm	0.366	1.21	2.84	1.88	1.74	1.94	3.92	0.784	0.224	0.111	0.082	0.113
In.	0.42	1.35	3.27	2.17	1.81	2.24	4.37	0.90	0.25	0.13	0.09	0.13

	Observed			Adjusted		
Calendar year 1956:	Max 980	Min 0	Mean 64.8	Mean 74.9	Cfsm 1.97	In. 26.82
Water year 1956-57:	Max 538	Min 0	Mean 35.6	Mean 48.0	Cfsm 1.26	In. 17.13

† Net diversion and change in contents, equivalent in cubic feet per second, in Shepaug Reservoir, furnished by city of Waterbury.

Shepaug River near Roxbury, Conn.

Location.--Lat 41°32'59", long 73°19'49", on right bank at downstream side of Wellers highway bridge on Wellers Bridge road, half a mile south of Roxbury station, 1½ miles southwest of village of Roxbury, Litchfield County, and 2.4 miles upstream from Jack's Brook.

Drainage area.--133 sq mi.

Records available.--October 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 281.98 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--27 years, 249 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 1,350 cfs Apr. 6 (gage height, 4.52 ft); minimum, 5.5 cfs Aug. 14, 15, 18-21 (gage height, 1.01 ft).

1930-57: Maximum discharge, 50,300 cfs Aug. 19, 1955 (gage height, 17.2 ft, from floodmarks), from rating curve extended above 3,500 cfs on basis of computation of flow over dam at gage heights 10.77 and 12.8 ft and slope-area determination of peak flow; minimum, 2 cfs Oct. 6, 1951; minimum gage height, that of Aug. 14, 15, 18-21, 1957.

Remarks.--Records good except those for periods of ice effect, which are fair. Water diverted from Shepaug Reservoir for municipal supply of city of Waterbury. Flow regulated by Shepaug Reservoir (see p. 254). Diurnal fluctuations from an unknown cause during low flow.

Revisions (water years).--WSP 801: 1931-36. WSP 971: 1936, 1939-40, 1942. WSP 1301: 1936(M), 1947(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 22		Jan. 23 to Sept. 30			
1.3	18	1.0	5	2.0	162
1.6	56	1.1	10	2.5	322
2.0	146	1.2	17	3.0	520
2.5	322	1.4	38	4.0	1,040
3.2	600	1.7	90	4.4	1,280

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	235	67	237	150	266	144	139	38	16	14	8.5
2	42	126	65	209	140	239	338	129	40	14	10	8.0
3	*35	91	67	179	135	233	400	117	40	12	8.5	8.5
4	36	74	69	199	175	208	262	110	36	12	8.0	9.0
5	48	69	78	189	200	170	450	108	33	11	9.0	8.5
6	41	62	89	183	180	157	1,250	101	32	11	8.5	8.0
7	48	59	93	167	170	157	860	94	30	11	7.5	7.5
8	47	58	95	170	160	162	750	86	27	10	7.0	7.5
9	39	63	184	170	180	217	860	80	26	11	6.5	7.5
10	36	56	237	161	488	217	675	68	24	*11	6.0	*7.5
11	33	50	173	150	368	176	600	62	23	11	6.5	8.0
12	31	52	320	150	270	*176	540	58	23	9.5	7.0	8.5
13	37	54	297	130	235	179	508	58	22	9.5	6.5	9.5
14	20	52	326	100	217	190	464	56	22	18	6.0	11
15	28	48	392	110	196	196	408	90	22	14	6.0	11
16	27	48	598	105	180	380	360	80	20	11	6.5	12
17	30	48	600	*100	162	315	333	56	19	9.5	6.5	34
18	20	127	456	100	*146	259	*315	50	17	9.0	6.0	21
19	27	102	364	95	141	236	308	50	18	8.5	5.5	15
20	24	79	332	95	129	236	283	109	22	8.5	5.5	13
21	19	78	332	100	119	239	262	211	19	8.0	6.5	14
22	22	167	348	120	114	242	236	134	17	7.5	20	16
23	41	112	476	500	110	220	220	103	16	9.5	15	16
24	43	105	428	370	108	205	205	*105	16	9.0	11	15
25	37	97	480	300	114	190	187	82	16	7.5	9.0	14
26	31	97	420	250	149	184	223	70	*19	8.0	28	13
27	28	100	352	210	424	176	211	62	28	9.0	20	11
28	22	*95	332	185	304	170	190	58	21	11	14	10
29	26	87	320	170	-	165	165	53	20	22	11	9.5
30	28	78	270	160	--------	159	154	48	19	23	9.5	9.5
31	32	--------	266	155	--------	149	--------	42	--------	21	9.0	--------
Total	1,019	2,569	8,926	5,519	5,464	6,468	12,161	2,669	725	363.0	300.0	351.5
Mean	32.9	85.6	288	178	195	209	405	86.1	24.2	11.7	9.68	11.7
(†)	+11.5	+43.2	+3.5	-0.1	+11.0	+25.2	+28.9	+15.3	+6.1	+1.8	+0.7	+1.9
Adjusted for diversion and change in contents in Shepaug Reservoir												
Mean	44.4	129	292	178	206	234	434	101	30.3	13.5	10.4	13.6
Cfsm	0.334	0.970	2.20	1.34	1.55	1.76	3.26	0.759	0.228	0.102	0.078	0.102
In.	0.38	1.08	2.54	1.54	1.61	2.03	3.64	0.88	0.25	0.12	0.09	0.11

	Observed			Adjusted		
Calendar year 1956:	Max 1,840	Min 10	Mean 216	Mean 226	Cfsm 1.70	In. 23.16
Water year 1956-57:	Max 1,250	Min 5.5	Mean 127	Mean 139	Cfsm 1.05	In. 14.27

Peak discharge (base, 1,500 cfs).--No peak above base.

* Discharge measurement made on this day.

† Net diversion and change in contents, equivalent in cubic feet per second, in Shepaug Reservoir, furnished by city of Waterbury.

Note.--Stage-discharge relation affected by ice Nov. 25, Dec. 1, 2, Jan. 11 to Feb. 9, Feb. 12, 13, 16.

Pomperaug River at Southbury, Conn.

Location.--Lat 41°28'50", long 73°13'30", on right bank 200 ft upstream from highway bridge, 800 ft downstream from Bullet Hill Brook, 0.6 mile west of Southbury, New Haven County, and 5.8 miles upstream from mouth.

Drainage area.--75.3 sq mi.

Records available.--June 1932 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 165.60 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--25 years, 130 cfs.

Extremes.--Maximum discharge during year, 1,100 cfs Jan. 23 (gage height, 6.26 ft); minimum, 4.0 cfs Aug. 10 (gage height, 2.31 ft).

1932-57: Maximum discharge, 29,400 cfs Aug. 19, 1955 (gage height, 21.8 ft, from floodmarks), from rating curve extended above 1,200 cfs by computation of flow over dam at gage height 16.0 ft and by slope-area determination of peak flow; minimum, 3.3 cfs Aug. 27, 1949; minimum gage height, that of Aug. 10, 1957.

Remarks.--Records excellent except those for periods of ice effect, which are good, or no gage-height record, which are fair. Infrequent regulation at low flow by mill upstream.

Revisions (water years).--WSP 781: Drainage area. WSP 851: 1934(M), 1936(M). WSP 1201: 1933-34, 1935(M), 1937(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 5

2.5	9.0	4.0	206
2.7	20	4.5	337
3.0	44	5.0	515
3.5	111	5.9	920

Apr. 6 to Sept. 30

2.3	4.5	2.8	28
2.4	7.7	3.0	44
2.6	16.5		

Note.--Same as preceding table above 3.0 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	156	36	97	82	123	74	79	29	11	*14	8.5
2	15	88	35	b73	79	120	264	72	29	10	10	8.1
3	14	69	38	b83	b70	128	198	66	35	9.7	8.9	8.5
4	a16	52	40	63	92	111	139	64	30	9.3	8.1	*8.5
5	a18	42	38	72	108	95	404	64	27	9.3	11	8.1
6	a15	38	37	b72	89	94	910	61	26	8.1	8.9	7.7
7	a30	33	39	72	94	95	454	56	24	8.1	7.4	8.1
8	a24	31	39	b69	95	106	413	52	22	7.7	7.4	7.7
9	a20	34	94	67	162	150	615	49	21	8.5	6.4	7.1
10	a18	31	124	70	457	146	367	45	20	*8.1	6.1	7.1
11	a16	27	80	b65	206	108	289	42	19	7.7	6.4	7.7
12	15	28	158	b82	135	108	255	46	19	7.4	6.1	7.1
13	14	31	125	b64	109	105	238	52	18	8.5	6.1	7.1
14	14	29	150	b65	106	*103	210	46	16	15	5.8	7.4
15	14	27	268	b59	100	103	185	90	16	14	5.8	7.7
16	14	26	412	b51	94	242	169	84	15	11	6.1	8.1
17	13	26	309	*b53	90	163	161	54	14	9.3	5.1	16
18	13	100	221	b52	*82	132	*156	47	13	8.9	4.5	14
19	12	77	161	b52	86	121	161	45	16	8.1	6.1	11
20	12	54	146	b52	82	130	144	87	18	7.1	5.8	10
21	12	50	148	b53	70	139	133	118	15	6.1	6.1	15
22	12	153	152	b60	69	135	120	76	13	7.1	19	14
23	26	88	204	b590	72	118	113	*62	13	7.4	12	13
24	*32	65	177	b193	73	105	113	73	13	6.7	8.5	12
25	21	53	189	b141	76	97	103	54	13	6.4	7.7	11
26	18	55	146	118	94	97	137	44	*13	6.1	26	10
27	16	55	126	106	282	100	123	46	13	5.8	18	9.7
28	16	48	123	94	148	97	114	51	13	6.1	12	9.3
29	15	45	128	94	-	92	98	40	13	13	10	8.9
30	14	40	109	84	-------	88	88	35	12	22	9.7	8.9
31	15	-------	b100	79	-------	77	-------	32	-------	23	9.7	-------
Total	522	1,651	4,152	2,945	3,302	3,628	6,948	1,832	558	296.5	284.7	287.3
Mean	16.8	55.0	134	95.0	118	117	232	59.1	18.6	9.56	9.18	9.58
Cfsm	0.223	0.730	1.78	1.26	1.57	1.55	3.08	0.785	0.247	0.127	0.122	0.127
In.	0.26	0.81	2.05	1.45	1.64	1.79	3.44	0.90	0.28	0.15	0.14	0.14

Calendar year 1956: Max 651 Min 8.3 Mean 112 Cfsm 1.49 In. 20.23
Water year 1956-57: Max 910 Min 4.5 Mean 72.3 Cfsm 0.960 In. 13.05

Peak discharge (base, 1,400 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for nearby streams.
b Stage-discharge relation affected by ice.

Housatonic River at Stevenson, Conn.

Location.--Lat 41°23'05", long 73°10'05", on left bank in New Haven County, 0.2 mile downstream from dam of Connecticut Light & Power Co. at Stevenson, Fairfield County, 0.2 mile upstream from Eight Mile Brook, and at mile 19.2.

Drainage area.--1,545 sq mi.

Records available.--August 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 24.98 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--29 years, 2,616 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 13,000 cfs Apr. 8 (gage height, 10.73 ft); minimum, 56 cfs Mar. 28 (gage height, 0.64 ft); minimum daily, 86 cfs May 5.
1928-57: Maximum discharge, 75,800 cfs Oct. 16, 1955 (gage height, 24.50 ft), from rating curve extended above 35,000 cfs on basis of computations of flow at Stevenson and Derby dams and slope-area determinations at gage heights 23.5 and 21.5 ft; practically no flow at times, result of regulation.

Remarks.--Records good. Ordinary flow completely regulated by Stevenson hydroelectric plant. Flow regulated by Lake Candlewood, Lake Lillinonah, Lake Zoar and Shepaug Reservoir, having a combined usable capacity of 6,840,000,000 cu ft, corrected (see p. 254), and by small diversion from basin at Shepaug Reservoir.

Revisions (water years).--WSP 711: 1929(M). WSP 781: Drainage area. WSP 1231: 1951. WSP 1301: 1933-34(M), 1936-37.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.9	82	4.0	1,250
1.0	94	5.0	2,130
1.5	170	7.0	4,860
2.0	285	9.4	9,700
3.0	660		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	312	4,280	850	1,580	2,390	4,410	2,380	2,080	1,300	230	390	242
2	268	3,710	90	2,120	1,810	2,250	4,130	2,040	2,160	130	346	190
3	*450	1,930	2,150	1,880	1,250	1,700	3,700	2,330	1,430	190	325	888
4	654	120	2,000	2,260	1,770	2,310	2,560	1,240	996	210	140	846
5	222	1,180	2,150	1,830	1,880	1,930	3,700	86	2,010	272	292	242
6	1,060	1,360	1,450	1,320	2,030	1,900	7,120	1,320	1,100	224	250	290
7	1,290	374	2,100	1,780	1,930	2,840	9,000	1,220	1,070	184	302	236
8	360	1,140	950	1,480	1,720	2,460	8,660	1,350	922	208	376	151
9	238	932	900	1,910	2,000	2,360	9,700	1,970	127	374	398	*293
10	770	620	2,450	2,250	4,110	543	7,200	1,740	1,250	432	598	244
11	338	88	2,040	1,620	5,720	2,090	4,580	285	1,420	154	206	320
12	1,560	1,050	1,800	1,360	2,630	2,480	4,560	1,280	1,280	238	358	408
13	310	1,200	3,690	470	1,740	1,800	4,990	1,500	914	189	478	519
14	87	400	4,280	2,090	2,000	*1,980	4,810	2,650	1,360	220	322	221
15	477	850	4,100	2,260	1,960	3,550	4,360	2,380	299	231	641	121
16	706	1,150	4,430	1,780	1,990	3,700	4,040	2,480	194	231	728	992
17	968	230	5,280	1,450	1,080	5,000	3,440	1,760	1,360	270	291	1,280
18	954	1,100	5,590	1,980	1,940	3,640	3,860	893	595	258	149	246
19	361	1,600	3,930	1,160	1,400	4,000	2,700	551	994	214	1,950	258
20	178	1,650	2,980	1,460	1,620	1,870	3,720	2,840	640	200	630	428
21	256	1,350	3,820	2,340	*1,670	3,270	2,460	3,610	238	330	298	376
22	760	1,950	3,430	*1,530	1,100	2,700	2,750	2,480	192	1,440	291	178
23	704	3,500	3,750	6,050	1,640	1,570	2,650	2,330	154	1,200	352	720
24	*740	3,200	4,330	7,800	438	1,830	*2,440	2,010	196	316	320	270
25	563	2,350	4,870	6,240	2,640	2,650	2,810	1,030	202	302	244	151
26	1,220	1,600	3,970	5,260	2,000	1,940	2,550	1,270	188	274	656	506
27	106	1,950	4,710	3,160	3,100	1,680	2,840	2,450	161	210	320	330
28	87	2,600	3,660	3,590	4,310	1,900	562	1,350	216	359	286	444
29	858	1,900	3,960	1,740	--------	2,330	2,240	1,710	180	409	282	212
30	352	2,050	2,280	2,390	--------	1,550	2,150	*626	210	342	262	192
31	461	--------	3,050	2,530	--------	820	--------	1,530	--------	276	342	--------
Total	17,670	47,414	95,040	76,670	59,868	75,053	122,662	52,391	23,358	10,117	12,823	11,794
Mean	570	1,580	3,066	2,473	2,138	2,421	4,089	1,690	779	326	414	393
(†)	+47	+249	-11	-202	+109	+88	+141	-62	-146	-26	-137	-107

Adjusted for diversion and change in reservoir contents

Mean	617	1,829	3,055	2,271	2,247	2,509	4,230	1,628	633	300	277	286
Cfsm	0.399	1.18	1.98	1.47	1.45	1.62	2.74	1.05	0.410	0.194	0.179	0.185
In.	0.46	1.32	2.28	1.70	1.51	1.87	3.06	1.21	0.46	0.22	0.21	0.21

	Observed			Adjusted		
Calendar year 1956:	Max 14,500	Min 87	Mean 2,499	Mean 2,529	Cfsm 1.64	In. 22.26
Water year 1956-57:	Max 9,700	Min 86	Mean 1,657	Mean 1,651	Cfsm 1.07	In. 14.51

Note.--No gage-height record Nov. 12 to Dec. 10 and doubtful gage-height record June 30 to July 4; discharge computed from powerplant data.
* Discharge measurement made on this day.

West Branch Naugatuck River at Torrington, Conn.

Location.--Lat 41°48'03", long 73°07'26", on downstream side of Prospect Street Bridge in Torrington, Litchfield County, half a mile upstream from confluence with East Branch and 3 miles downstream from Stillwater Pond.

Drainage area.--33.4 sq mi.

Records available.--August 1956 to September 1957.

Gage.--Wire-weight gage read twice daily. Crest-stage indicator since Dec. 18, 1956. Datum of gage is 540.54 ft above mean sea level, datum of 1929.

Extremes.--1956: Maximum discharge observed during period August to September not determined, occurred Sept. 6; minimum observed, 5.8 cfs Aug. 19 (gage height, 3.61 ft).
1956-57: Maximum discharge during water year, 1,470 cfs Jan. 23 (gage height, 7.54 ft); minimum observed, 4.4 cfs July 14, 20, 21, Aug. 3, 11; minimum gage height observed, 3.86 ft July 11.

Remarks.--Records good. City of Torrington diverts an average of about 4,000,000 gal of water a day for municipal supply from North Pond and Reuben Hart and Hatchaloosie Reservoirs. Regulation at low water by Stillwater Pond.

Rating table, Aug. 16, 1956, to Sept. 30, 1957 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 30 to July 12, 1957)

3.9	4.1	5.0	66
4.1	6.8	5.5	160
4.3	11	6.0	325
4.5	20	6.7	710
4.7	34		

Discharge, in cubic feet per second, 1956

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	9.1	7	-	16	13	-	8.7	19	6.1	9.7	25	9.5	10
2	-	12	8	-	7.9	14	-	9.1	20	9.5	11	26	7.9	9.7
3	-	10	9	-	8.3	15	-	6.5	21	16	9.5	27	10	9.5
4	-	12	10	-	9.1	16	9.3	8.3	22	10	7.4	28	10	13
5	-	11	11	-	8.7	17	8.7	13	23	10	7.9	29	13	10
6	-	28	12	-	8.7	18	7.5	9.5	24	11	14	30	13	11
												31	15	
Total													-	318.6
Mean													-	10.6
Cubic feet per second per square mile													-	0.317
Runoff in inches													-	0.35

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	17	16	34	38	59	41	29	11	9.1	6.3	5.5
2	9.1	21	18	28	37	50	126	25	20	*6.6	5.8	4.8
3	9.1	79	22	25	36	47	94	28	14	6.5	4.4	6.0
4	12	37	19	26	43	38	64	20	12	6.9	9.3	5.1
5	8.3	24	19	26	37	32	146	23	9.3	7.2	6.8	*4.8
6	7.4	20	18	24	34	30	309	25	7.7	6.9	5.8	6.1
7	12	18	20	26	36	33	191	20	8.9	7.2	6.5	4.8
8	10	17	22	25	35	41	188	17	6.9	6.5	6.0	4.6
9	8.5	15	40	24	54	61	191	15	6.6	4.7	6.1	5.7
10	10	13	42	*26	137	52	153	14	6.8	5.1	6.1	7.1
11	8.1	11	36	24	73	38	142	15	6.9	4.7	5.0	6.8
12	7.5	14	120	24	41	43	139	26	7.4	5.5	6.9	7.4
13	7.4	16	69	24	40	48	126	*25	7.1	6.8	6.1	6.8
14	8.9	16	53	20	34	61	101	21	7.1	5.3	7.1	5.6
15	9.5	14	59	19	32	*65	76	29	6.6	7.5	7.2	5.1
16	8.5	16	146	22	30	a170	69	25	6.5	6.1	6.8	6.1
17	8.5	12	120	21	29	59	*66	16	6.8	5.8	5.1	11
18	8.7	43	74	20	30	61	60	15	7.1	6.1	5.2	6.5
19	8.1	34	44	19	*28	54	80	21	8.5	5.6	6.9	5.8
20	6.8	25	44	19	22	59	69	60	7.7	4.4	7.1	6.5
21	9.7	24	43	21	22	56	61	80	7.4	4.4	7.4	5.3
22	11	97	50	48	22	59	52	43	8.5	9.1	10	5.1
23	*13	43	116	*650	24	54	45	32	8.1	6.1	6.8	7.2
24	10	30	80	126	25	55	41	22	10	6.5	5.3	6.9
25	9.3	25	137	67	28	50	38	13	11	6.1	5.1	7.5
26	10	22	61	56	75	51	52	14	19	6.1	12	6.5
27	9.1	25	50	50	232	45	46	18	14	5.2	6.5	5.3
28	8.7	21	45	46	72	41	41	19	12	7.1	7.2	5.1
29	9.5	21	44	47	-	38	39	9.7	14	13	7.5	4.8
30	9.1	19	31	a44	--------	a38	32	9.7	*8.7	7.4	8.1	7.4
31	12	--------	36	a42	--------	38	--------	11	--------	6.9	6.8	--------
Total	293.8	789	1,694	1,673	1,346	1,626	2,878	740.4	287.6	202.4	209.2	184.2
Mean	9.48	26.3	54.6	54.0	48.1	52.5	95.9	23.9	9.59	6.53	6.75	6.14
Cfsm	0.284	0.787	1.63	1.62	1.44	1.57	2.87	0.716	0.287	0.196	0.202	0.184
In.	0.33	0.88	1.88	1.87	1.50	1.81	3.20	0.83	0.32	0.23	0.23	0.21

Calendar year 1956 : Max - Min - Mean - Cfsm - In. -
Water year 1956-57 : Max 650 Min 4.4 Mean 32.7 Cfsm 0.979 In. 13.29

Peak discharge (base, 800 cfs).--Jan. 23 (about 4 a.m.) 1,470 cfs (7.54 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for stations on East Branch and Naugatuck River near Thomaston.

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East Branch Naugatuck River at Torrington, Conn.

Location.--Lat 41°48'12", long 73°07'06", on upstream side of Wall Street Bridge in Torrington, Litchfield County, 0.3 mile downstream from Troy Brook and 0.6 mile upstream from confluence with West Branch.

Drainage area.--13.8 sq mi.

Records available.--August 1956 to September 1957.

Gage.--Wire-weight gage read twice daily. Crest-stage indicator since Dec. 18, 1956. Datum of gage is 539.26 ft above mean sea level, datum of 1929.

Extremes.--1956: Maximum discharge observed during period August to September, 21 cfs Aug. 21 (gage height, 3.43 ft); minimum observed, 0.5 cfs Sept. 15 (gage height, 2.87 ft).

1956-57: Maximum discharge during water year, 305 cfs Jan. 23 (gage height, 4.77 ft); minimum observed, 0.5 cfs Oct. 20; minimum gage height observed, 2.85 ft July 28.

Flood of Aug. 19, 1955, reached a peak discharge of 6,210 cfs at a point 1½ miles upstream, drainage area 10.2 sq mi.

Remarks.--Records good except those for periods of ice effect, which are fair, and those for periods of no gage-height record, which are poor. Some regulation at low flow.

Rating table, Aug. 16, 1956, to Sept. 30, 1957, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 16 to Dec. 16, 1956)

2.8	0.6	3.1	6.0	4.0	112
2.9	1.5	3.3	16	4.4	199
3.0	3.2	3.6	49		

Discharge, in cubic feet per second, 1956

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	1.5	7	-	12	13	-	1.1	19	7.4	1.8	25	6.0	2.4
2	-	1.5	8	-	1.5	14	-	1.1	20	9.6	2.0	26	6.0	2.0
3	-	1.3	9	-	.9	15	-	.6	21	16	1.5	27	6.9	1.5
4	-	1.1	10	-	1.1	16	7.8	1.8	22	8.7	.9	28	3.2	6.0
5	-	1.2	11	-	1.1	17	7.8	1.8	23	7.8	.8	29	2.0	3.5
6	-	10	12	-	1.1	18	6.9	2.8	24	7.4	7.8	30	1.5	2.6
												31	4.0	
Total													-	76.3
Mean													-	2.54
Cubic feet per second per square mile													-	0.184
Runoff in inches													-	0.21

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	22	b6	b24	b12	21	20	10	4.3	2.4	2.0	2.1
2	3.0	12	6.9	b22	11	17	57	9.6	6.4	*1.9	1.6	1.8
3	3.0	30	8.2	b20	b10	15	35	8.7	5.4	1.6	1.3	3.0
4	6.9	11	8.7	b19	14	b14	24	8.7	4.9	1.6	1.3	2.7
5	5.4	8.7	8.2	20	b13	b13	101	8.2	4.6	2.0	2.2	2.5
6	2.0	7.4	8.7	b16	12	b13	164	8.2	4.3	2.4	1.8	2.5
7	8.2	6.9	9.2	b14	13	13	72	8.7	5.2	1.6	2.4	2.3
8	6.9	8.7	8.7	16	12	18	75	7.8	4.0	1.5	4.9	1.4
9	3.8	7.4	26	14	34	30	88	7.8	3.8	1.6	6.9	1.5
10	3.0	6.0	14	*14	60	20	63	7.4	3.8	1.8	7.8	2.4
11	3.0	4.3	10	b13	37	b17	55	7.8	3.8	1.5	3.8	3.8
12	2.4	6.0	43	13	b19	20	49	13	3.8	1.5	2.7	3.0
13	2.2	8.2	25	12	b15	22	44	*11	3.8	1.5	2.8	2.8
14	2.4	6.0	20	b8	11	29	36	11	3.8	2.4	2.4	3.0
15	2.8	5.7	26	b9	10	*28	29	14	2.8	2.2	2.7	1.8
16	2.4	5.7	87	b8	b10	72	26	8.7	2.8	2.0	2.3	5
17	2.4	5.4	48	b8	b9	37	*24	7.4	3.2	1.8	1.4	12
18	2.8	23	35	b8	b9	30	22	6.0	3.2	1.9	1.2	5
19	2.8	12	44	b8	*9.2	29	30	9.6	3.0	1.6	1.7	3.4
20	1.1	9.2	26	b10	b9	30	24	33	3.8	1.5	2.5	2.8
21	2.0	8.7	32	b18	b8.5	33	19	24	3.2	1.4	9	2.5
22	2.8	28	33	37	b8.5	33	16	13	2.4	3.2	12	2.4
23	*9.2	13	52	*192	8.2	28	15	10	2.0	2.4	4	2.3
24	6.9	8.2	47	64	7.8	26	14	8.7	2.8	2.0	2.2	2.7
25	6.0	b7.5	55	48	10	24	13	6.9	2.8	2.0	2.0	2.8
26	3.8	9.2	33	26	16	24	23	5.4	6.9	1.8	20	2.7
27	2.8	9.6	28	b20	70	23	15	8.7	4.6	1.5	6	2.6
28	1.9	7.8	28	b16	25	23	14	6.4	4.9	1.8	2.6	2.3
29	2.8	7.4	26	b17	-	23	14	5.4	4.6	6.9	3.2	1.5
30	4.9	b7	b24	b14	-------	21	12	4.6	2.6	4.0	3.0	1.3
31	8.7	-------	b22	b12	-------	18	-------	4.3	-------	2.4	2.4	-------
Total	121.8	312.0	848.6	740	483.2	764	1,193	304.0	117.5	65.7	122.1	87.9
Mean	3.93	10.4	27.4	23.9	17.3	24.6	39.8	9.81	3.92	2.12	3.94	2.93
Cfsm	0.285	0.754	1.99	1.73	1.25	1.78	2.88	0.711	0.284	0.154	0.286	0.212
In.	0.33	0.84	2.29	1.99	1.30	2.05	3.21	0.82	0.32	0.18	0.33	0.24

Calendar year 1956: Max - Min - Mean - Cfsm - In. -
Water year 1956-57: Max 192 Min 1.1 Mean 14.1 Cfsm 1.02 In. 13.90

Peak discharge (base, 300 cfs).--Jan. 23 (about 4 a.m.) 305 cfs (4.77 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Aug. 6, 7, 12-31, Sept. 1-30; discharge computed on basis of observer's and engineer's notes, weather records, and records for stations on West Branch and Naugatuck River near Thomaston.

Naugatuck River near Thomaston, Conn.

Location.--Lat 41°42'15", long 73°03'53", on right bank near downstream side of Twomile Bridge, 250 ft downstream from New York, New Haven and Hartford Railroad bridge, 0.4 mile upstream from Leadmine Brook, 2 miles north of Thomaston, Litchfield County, and at mile 31.

Drainage area.--71.9 sq mi.

Records available.--October 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 389.44 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--27 years, 144 cfs.

Extremes.--Maximum discharge during year, 1,600 cfs Jan. 23 (gage height, 4.34 ft); maximum gage height, at least 5.0 ft Jan. 24 (ice jam); minimum discharge, 8.0 cfs Sept. 30 (gage height, 0.25 ft); minimum daily, 9.5 cfs Sept. 29.
1930-57: Maximum discharge, 41,600 cfs Aug. 19, 1955 (gage height, 24.0 ft, from floodmark), from rating curve extended above 6,000 cfs on basis of slope-area determination of peak flow; minimum, about 7 cfs (result of freezeup) Mar. 12, 1940; minimum daily, that of Sept. 29, 1957; minimum gage height, that of Sept. 30, 1957.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Diurnal fluctuation at low flow.

Revisions (water years).--WSP 741: 1931-32. WSP 781: Drainage area. WSP 821: 1936(M). WSP 1111: 1939(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 23

0.4	15	1.8	260
.7	43	2.5	535
1.2	117	3.5	1,050

Jan. 23 to Sept. 30

0.2	5.5	0.7	46
.4	18	1.1	100

Note.--Same as preceding table above 1.1 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	139	45	b114	88	133	91	77	32	*a20	*18	16
2	23	74	48	b112	86	121	332	75	33	17	17	12
3	21	151	54	b98	78	114	250	71	40	15	14	16
4	26	100	55	98	97	98	153	68	36	14	12	17
5	28	66	51	89	96	90	441	67	33	22	15	15
6	21	53	51	b80	90	88	1,020	67	30	17	16	15
7	40	47	53	b80	86	91	574	63	30	15	15	14
8	33	47	55	82	88	105	436	58	28	14	17	10
9	26	51	141	80	123	155	517	56	24	13	23	11
10	25	41	130	80	314	135	384	52	24	20	26	14
11	24	34	98	*b74	182	105	*339	56	24	12	21	20
12	21	38	258	74	110	112	308	64	24	11	17	16
13	20	49	182	b68	96	117	278	67	24	14	17	17
14	18	42	*160	b51	90	133	239	61	24	24	16	16
15	21	40	198	b54	82	139	198	*86	a22	18	17	11
16	21	40	359	b49	78	356	175	67	20	a15	17	22
17	20	35	312	b50	77	205	162	a60	20	a14	14	57
18	21	130	212	b49	77	155	151	a57	21	a13	10	23
19	21	105	143	b49	77	139	178	a55	28	a13	12	18
20	19	72	135	b53	*71	*139	162	a110	26	a12	15	17
21	19	66	141	b58	66	143	143	a130	26	a11	30	17
22	23	200	162	b76	64	155	126	a100	24	a10	60	14
23	39	126	294	b990	66	137	112	a80	20	a14	21	15
24	32	82	230	254	68	126	108	a90	23	a13	16	16
25	28	63	300	153	75	117	102	a65	a25	a12	13	15
26	24	69	200	124	137	112	130	a55	a30	a11	91	15
27	22	68	151	107	470	108	124	a57	a35	a11	27	14
28	21	61	141	100	185	105	107	a65	a26	a12	*20	13
29	20	56	135	102	-	102	97	a52	a25	a25	19	9.5
30	22	53	107	92	-------	100	90	44	a22	a28	21	10
31	25	-------	107	85	-------	91	-------	36	-------	21	17	-------
Total	752	2,198	4,708	3,625	3,217	4,026	7,527	2,111	799	481	664	495.5
Mean	24.3	73.3	152	117	115	130	251	68.1	26.6	15.5	21.4	16.5
Cfsm	0.338	1.02	2.11	1.63	1.60	1.81	3.49	0.947	0.370	0.216	0.298	0.229
In.	0.39	1.14	2.43	1.88	1.67	2.09	3.89	1.09	0.41	0.25	0.34	0.26

Calendar year 1956: Max 1,490 Min 17 Mean 128 Cfsm 1.78 In. 24.27
Water year 1956-57: Max 1,020 Min 9.5 Mean 83.8 Cfsm 1.17 In. 15.84

Peak discharge (base, 1,500 cfs).--Jan. 23 (7 a.m.) 1,600 cfs (4.34 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for stations on nearby streams.
b Stage-discharge relation affected by ice.

Leadmine Brook near Thomaston, Conn.

Location.--Lat 41°42'06", long 73°03'28", on left bank 10 ft downstream from highway bridge, 0.4 mile upstream from mouth, and 2¼ miles northeast of Thomaston, Litchfield County.

Drainage area.--24.0 sq mi.

Records available.--September 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 401.23 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--27 years, 48.1 cfs.

Extremes.--Maximum discharge during year, 640 cfs Jan. 23 (gage height, 6.18 ft); minimum, about 0.04 cfs Aug. 21 (gage height, 1.90 ft).

1930-57: Maximum discharge, 10,400 cfs Aug. 19, 1955 (gage height, 13.1 ft, from floodmarks in gage house), from rating curve extended above 2,600 cfs on basis of contracted-opening determination of peak flow; minimum, that of Aug. 21, 1957; minimum gage height, 1.60 ft at times during period Sept. 12-15, 1931, and on July 30, Aug. 12, 1933.

Remarks.--Records good except those for periods of ice effect, which are fair, and those below 1 cfs, which are poor. Occasional low-water regulation.

Revisions (water years).--WSP 781: Drainage area. WSP 1301: 1947. WSP 1331: 1931(M), 1933(M), 1934, 1935(M), 1936, 1937(M), 1938, 1939-40(P), 1942(P), 1943-44(M), 1945, 1947(M), 1949, 1951(P), 1953(P).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Jan. 23)

Oct. 1 to Jan. 23				Jan. 23 to Sept. 30			
2.3	2.6	3.4	43	1.9	0.04	3.0	11
2.5	4.8	4.0	102	2.0	.15	3.5	35
2.7	9.0	4.5	177	2.1	.3	4.0	88
3.0	20	5.3	350	2.2	.55	4.5	171
				2.3	.9	5.0	275
				2.5	2.1	5.5	400
				2.7	4.4		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.2	38	10	24	26	49	26	24	8.3	*1.7	1.2	0.9
2	5.7	26	11	23	25	42	140	23	8.1	1.1	.65	.6
3	5.0	35	11	22	24	39	85	22	9.4	.8	.5	.45
4	5.5	22	13	25	27	33	53	21	8.3	.7	.5	.4
5	8.0	17	12	23	29	31	195	20	7.2	.6	.5	.3
6	6.4	14	12	20	27	30	388	19	6.5	.5	.35	.3
7	9.3	12	13	22	27	33	196	18	6.1	.5	.3	.2
8	9.3	12	13	22	27	42	150	17	5.8	.45	.3	.2
9	6.4	14	33	21	44	74	210	16	5.2	.6	.25	.3
10	5.2	12	32	*20	138	58	146	14	4.4	.5	1.2	.25
11	4.6	10	24	19	78	42	119	15	4.1	.45	1.9	.2
12	4.2	10	67	18	45	42	90	19	3.8	.4	1.4	.15
13	4.1	11	42	18	*38	42	76	20	3.6	.4	.7	.15
14	3.8	*10	37	16	31	41	64	18	3.2	1.8	.45	.15
15	3.7	9.0	52	14	27	*41	55	*29	3.0	1.4	.3	.15
16	3.7	8.4	95	16	25	128	49	22	2.6	.8	.25	1.3
17	3.6	8.3	78	16	24	69	*47	17	2.4	.45	.15	11
18	3.5	30	51	15	24	50	44	16	2.1	.3	.1	7.2
19	3.5	26	34	14	24	46	50	19	3.5	.2	.08	9.4
20	3.5	18	31	15	22	45	46	56	3.4	.15	.07	10
21	3.5	17	33	16	20	55	41	63	2.4	.15	.2	10
22	3.5	44	40	32	20	63	36	34	1.8	.1	8.2	10
23	6.6	26	75	350	22	48	33	28	1.4	.15	3.0	10
24	9.3	17	56	102	24	41	33	24	*1.2	.1	1.1	5.0
25	7.3	14	66	68	28	36	31	19	1.1	.2	.65	1.1
26	6.4	16	44	54	39	34	41	16	1.4	.25	12	.7
27	6.2	17	34	45	172	33	37	14	6.1	.6	6.3	.45
28	5.9	15	31	34	69	32	32	13	3.4	.65	*2.7	.3
29	5.7	14	31	34	-	31	29	11	3.1	2.4	1.4	.3
30	5.5	11	24	31	-------	29	26	9.9	2.6	5.2	1.0	.3
31	5.9	-------	26	28	-------	28	-------	9.1	-------	2.3	1.0	-------
Total	171.0	533.7	1,131	1,177	1,126	1,407	2,568	666.0	125.5	25.90	48.70	81.75
Mean	5.52	17.8	36.5	38.0	40.2	45.4	85.6	21.5	4.18	0.835	1.57	2.72
Cfsm	0.230	0.742	1.52	1.58	1.68	1.89	3.57	0.896	0.174	0.034	0.065	0.113
In.	0.27	0.83	1.75	1.82	1.75	2.18	3.98	1.03	0.19	0.04	0.07	0.13

Calendar year 1956: Max 460 Min 0.5 Mean 41.9 Cfsm 1.75 In. 23.76
Water year 1956-57: Max 388 Min 0.07 Mean 24.8 Cfsm 1.03 In. 14.04

Peak discharge (base, 650 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 30, Dec. 19, 20, Jan. 2-13, 16-23, 31, Feb. 1-9, 12-24.

Naugatuck River at Beacon Falls, Conn.

Location.--Lat 41°26'32", long 73°03'47", on left bank at downstream side of Bridge Street highway bridge at Beacon Falls, New Haven County, 0.4 mile upstream from Bronson Brook and at mile 10.1

Drainage area.--261 sq mi.

Records available.--June 1918 to September 1924, September 1928 to September 1957. Prior to October 1955, published as "near Naugatuck."

Gage.--Water-stage recorder. Datum of gage is 117.28 ft above mean sea level, datum of 1929. Prior to Oct. 1, 1955, water-stage recorder at site 2.5 miles upstream at datum 37.89 ft higher. Oct. 1, 1955, to Mar. 21, 1957, wire-weight or chain gage at present site and datum.

Average discharge.--35 years (1918-24, 1928-57), 474 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, about 4,500 cfs Jan. 23; minimum, 49 cfs Aug. 18 (gage height, 1.53 ft); minimum daily, 55 cfs Aug. 18.

1918-24, 1928-57: Maximum discharge, 106,000 cfs Aug. 19, 1955 (gage height, 25.7 ft, from floodmarks), from rating curve extended above 9,000 cfs on basis of slope-area determinations at gage heights 12.4 and 25.7 ft (site and datum then in use); minimum, 24 cfs Oct. 21, 1935; minimum daily, 40 cfs Oct. 5, 12, 1930, Sept. 7, 1936; minimum gage height (present site and datum), that of Aug. 18, 1957.

Flood in November 1927 reached a stage of 14 ft, site and datum then in use (discharge, about 26,000 cfs).

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by industrial plants upstream during low stages, and by Pitch, Morris, and Wigwam Reservoirs having a combined capacity of 550,000,000 cu ft (see p. 254). Flow increased by diversion from Shepaug Reservoir into Naugatuck River basin.

Revisions (water years).--WSP 781: Drainage area. WSP 1171: 1918-24, 1928-49. The supplemental peak discharges for the water year 1956 have been revised as shown below, superseding figures published in WSP 1431.

Revised peak discharge.--1955-56: Oct. 31 (about 10 a.m.) 11,700 cfs (11.6 ft); Nov. 5 (1:30 a.m.) 10,700 cfs (11.24 ft).

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	582	151	299	343	600	317	313	132	92	98	64
2	100	251	147	248	310	500	1,300	289	138	92	88	60
3	98	335	168	231	267	450	900	273	159	88	74	80
4	104	260	181	273	374	400	600	264	159	77	61	*94
5	127	226	166	270	418	370	1,330	248	147	64	74	98
6	104	193	164	200	346	350	3,350	251	142	64	80	84
7	198	170	168	279	328	370	2,000	242	138	62	84	73
8	142	164	159	286	328	450	1,450	228	124	71	84	58
9	113	162	374	273	382	700	2,040	220	107	99	87	71
10	101	151	366	286	1,050	550	*1,410	208	115	92	88	84
11	98	140	242	234	700	450	1,190	188	125	84	80	104
12	94	147	700	226	500	470	1,050	202	125	81	84	96
13	87	170	528	205	*400	462	930	242	125	80	84	92
14	78	155	502	202	350	454	840	242	124	110	86	80
15	90	151	675	223	310	478	728	*410	109	87	94	64
16	99	137	1,050	220	290	1,300	675	332	94	88	88	84
17	101	140	840	226	280	728	625	240	105	84	70	198
18	99	462	650	205	280	*573	591	200	118	87	55	134
19	96	358	555	168	280	528	600	195	118	84	134	104
20	78	237	502	190	260	582	582	412	115	69	80	102
21	76	208	506	*200	240	586	542	650	112	56	148	156
22	*105	470	532	282	240	650	502	402	100	73	172	98
23	186	390	870	2,960	250	528	474	313	90	88	117	107
24	164	293	700	810	280	478	458	313	100	88	74	104
25	140	248	810	537	320	450	430	240	110	87	66	96
26	134	220	650	402	450	438	498	195	130	87	284	90
27	122	220	478	382	1,500	426	482	202	140	80	157	85
28	104	210	462	366	800	406	422	195	*129	66	110	80
29	93	188	406	398	-	378	398	179	127	114	98	60
30	115	181	350	350	--------	350	350	147	105	142	94	65
31	120	--------	320	343	--------	320	--------	142	--------	124	77	--------
Total	3,464	7,219	14,372	11,774	11,876	15,775	27,064	8,177	3,662	2,660	3,070	2,765
Mean	112	241	464	380	424	509	902	264	122	85.8	99.0	92.2
(†)	-16.8	-24.4	+14.7	-7.3	+0.8	-25.5	-29.1	-16.7	-26.7	-23.7	-23.4	-23.6

Adjusted for diversion and change in reservoir contents

Mean	95.2	217	479	373	425	484	873	247	95.3	62.1	75.6	68.6
Cfsm	0.365	0.831	1.84	1.43	1.63	1.85	3.34	0.946	0.365	0.238	0.290	0.263
In.	0.42	0.93	2.12	1.65	1.70	2.13	3.73	1.09	0.41	0.27	0.33	0.29

	Observed			Adjusted		
Calendar year 1956:	Max 3,010	Min 74	Mean 448	Mean 439	Cfsm 1.68	In. 22.91
Water year 1956-57:	Max 3,350	Min 55	Mean 307	Mean 290	Cfsm 1.11	In. 15.07

Peak discharge (base, 4,000 cfs).--Jan. 23 (time unknown) about 4,500 cfs.

* Discharge measurement made on this day.

† Diversion from Shepaug Reservoir and change in contents in Wigwam, Morris, and Pitch Reservoirs, equivalent in cubic feet per second; furnished by city of Waterbury.

Note.--No gage-height record Nov. 12, Feb. 10 to Mar. 10, Apr. 2-4, June 20-27, Sept. 26-30; discharge estimated on basis of records for stations near Thomaston.

Reservoirs in Housatonic River basin

Lake Candlewood (Rocky River Reservoir) on Rocky River, lat 41°35'00", long 73°26'00", 2 miles west of New Milford, Litchfield County, Conn. Drainage area, 40.4 sq mi. Completed in 1928 for storage of water for power; impounds water pumped from the Housatonic River during off peak power periods. Usable capacity, 6,210,000,000 cu ft. Records available, August 1928 to September 1957. Records furnished by The Connecticut Light & Power Co.

Shepaug Reservoir on Shepaug River, lat 41°43'24", long 73°17'37", 1 mile north of Woodville, Litchfield County, Conn. Drainage area, 38.0 sq mi. Completed in 1933 for storage of water for municipal supply. Usable capacity, 77,000,000 cu ft. Records available, February 1933 to September 1957. Records furnished by Bureau of Engineering, city of Waterbury, Conn.

Lake Lillinonah on Housatonic River, lat 41°26'52", long 73°17'49", in Litchfield County, 2.3 miles north of Newtown, Fairfield County, Conn. Drainage area, 1,392 sq mi. Completed in 1955 for storage of water for power. Usable capacity, 219,000,000 cu ft. Records available, February 1955 to September 1957. Records furnished by The Connecticut Light & Power Co.

Lake Zoar on Housatonic River, lat 41°23'05", long 73°09'55", at Stevenson, Fairfield County, Conn. Drainage area, 1,545 sq mi. Completed in 1919 for storage of water for power. Usable capacity, 331,000,000 cu ft. Records available, August 1928 to September 1957. Records furnished by The Connecticut Light & Power Co.

Pitch, Morris, and Wigwam Reservoirs on Branch Brook, are operated as a unit with Shepaug Reservoir for storage of water for municipal supply. The downstream order and capacity of each is as follows: Pitch Reservoir, lat 41°41'34", long 73°09'04", 4 miles northwest of Thomaston, Litchfield County, Conn. Drainage area, 5.74 sq mi. Completed in 1943. Total capacity, 190,000,000 cu ft. Records available November 1943 to September 1957. Morris Reservoir, lat 41°40'29", long 73°08'39", 3½ miles west of Thomaston, Litchfield County, Conn. Drainage area, including Pitch Reservoir, 13.3 sq mi. Completed in 1913. Total capacity, 265,000,000 cu ft. Records available, May 1918 to September 1924, September 1928 to September 1957. Wigwam Reservoir, lat 41°39'50", long 73°07'41", 3 miles west of Thomaston, Litchfield County, Conn. Drainage area, including Pitch and Morris Reservoirs, 18.1 sq mi. Total capacity, 97,000,000 cu ft. Records available, May 1918 to September 1924, September 1928 to September 1957. Records furnished by Bureau of Engineering, city of Waterbury, Conn.

Month-end contents, water year October 1956 to September 1957

Date	Contents (m.c.f.)	Change in contents (equivalent in cfs)	Contents (m.c.f.)	Change in contents (equivalent in cfs)	Contents (m.c.f.)	Change in contents (equivalent in cfs)
	Lake Candlewood (Rocky River Reservoir)		Shepaug Reservoir		Lake Lillinonah	
Sept.30	5,499	-	73.2	-	2,841	-
Oct. 31	5,523	+9.0	48.3	-9.3	2,935	+35.1
Nov. 30	6,016	+190.2	96.1	+18.4	2,943	+3.1
Dec. 31	6,016	0	97.8	+.6	2,935	-3.0
Calendar year 1956	-	+22.4	-	+.2	-	-.9
Jan. 31	5,583	-161.7	97.6	-.1	2,877	-21.7
Feb. 28	5,666	+34.3	98.5	+.4	2,958	+33.5
Mar. 31	5,702	+13.4	96.7	-.7	3,127	+63.1
Apr. 30	5,991	+111.5	96.7	0	3,096	-12.0
May 31	5,871	-44.8	95.9	-.3	3,003	-34.7
June 30	5,750	-46.7	77.4	-7.1	2,735	-103.4
July 31	5,428	-120.2	46.7	-11.5	2,965	+85.9
Aug. 31	4,993	-162.4	24.4	-8.3	3,049	+31.4
Sept.30	4,761	-89.5	26.1	+.7	3,018	-12.0
Water year 1956-57	-	-23.4	-	-1.5	-	+5.6
	Lake Zoar		Pitch, Morris, and Wigwam Reservoirs			
Sept.30	307.9	-	486.3	-		
Oct. 31	285.1	-8.5	497.1	+4.0		
Nov. 30	317.0	+12.3	498.2	+.4		
Dec. 31	285.1	-11.9	545.2	+17.5		
Calendar year 1956	-	-1.4	-	+.7		
Jan. 31	235.7	-18.4	525.7	-7.3		
Feb. 28	307.9	+29.8	553.2	+11.4		
Mar. 31	271.6	-13.6	554.2	+.4		
Apr. 30	303.3	+12.2	553.6	-.2		
May 31	307.9	+1.7	550.7	-1.1		
June 30	303.3	-1.8	515.7	-13.5		
July 31	321.6	+6.8	487.9	-10.4		
Aug. 31	303.3	-6.8	449.5	-14.3		
Sept.30	285.1	-7.0	391.6	-22.3		
Water year 1956-57	-	-.7	-	-3.0		

Saugatuck River near Westport, Conn.

Location.--Lat 41°10'15", long 73°22'00", on left bank on old Ford Road (Clinton Ave.), 400 ft downstream from West Branch, 600 ft downstream from Aspetuck River and dam of Dorr Co., 2 miles north of Westport, Fairfield County, and 5½ miles upstream from mouth.

Drainage area.--77.5 sq mi.

Records available.--September 1932 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 18.16 ft above mean sea level, datum of 1929.

Average discharge.--25 years, 143 cfs (adjusted for storage in and diversion from Saugatuck Reservoir since October 1941).

Extremes.--Maximum discharge during year, 1,070 cfs Apr. 6 (gage height, 5.78 ft); minimum, 0.8 cfs July 9 (gage height, 1.92 ft); minimum daily, 1.8 cfs July 9.

1932-57: Maximum discharge, 14,800 cfs Oct. 16, 1955 (gage height, 15.93 ft, from high-water marks in gage house), from rating curve extended above 2,400 cfs on basis of computation of peak flow over dam at gage height 10.38 ft and contracted-opening determination of peak flow; minimum, 0.2 cfs Oct. 19, 1953; minimum gage height, 1.92 ft Oct. 19, 1953, and July 9, 1957; minimum daily, 1.0 cfs Aug. 11, 1939.

Remarks.--Records good. Flow regulated by storage and diversion at Saugatuck Reservoir (total capacity, 11,900,000,000 gal) and Aspetuck Reservoir. At Aspetuck Reservoir, Bridgeport Hydraulic Co. diverts an indeterminable amount of water for domestic supply from about 17 sq mi of Saugatuck River basin through Hemlocks Reservoir in Mill River basin. Infrequent regulation at dam of Dorr Co.

Revisions (water years).--WSP 781: Drainage area. WSP 1301: 1936.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.0	1.7	3.0	88
2.1	4.0	3.5	195
2.2	7.5	4.0	335
2.3	12	5.0	700
2.5	25	5.7	1,020
2.7	45		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	234	35	62	85	208	69	68	19	8.0	8.8	7.0
2	10	158	34	50	90	182	153	61	19	7.5	7.5	7.4
3	*9.3	109	35	42	78	182	203	54	18	7.5	7.2	7.0
4	8.4	75	35	42	96	160	144	45	17	8.0	7.2	6.5
5	7.5	55	32	44	124	128	448	43	16	15	*7.2	7.0
6	9.8	45	31	41	105	113	995	48	16	8.0	6.4	7.4
7	29	42	31	41	102	111	720	48	17	7.5	6.1	6.5
8	21	41	30	41	103	118	540	36	12	3.2	6.1	6.5
9	20	41	60	40	131	190	620	28	15	1.8	6.1	6.5
10	10	37	80	43	254	203	465	23	14	6.1	5.8	*6.2
11	13	33	55	37	262	160	369	20	12	5.8	5.8	7.0
12	11	33	69	35	175	133	320	23	12	5.8	5.8	6.5
13	12	36	74	35	139	*118	290	28	12	6.8	5.8	6.5
14	12	32	145	26	124	111	254	22	11	8.4	5.4	6.5
15	12	29	290	30	114	107	226	102	11	8.4	6.1	6.5
16	12	25	279	30	105	226	190	54	10	7.5	6.8	7.0
17	12	26	234	29	100	203	175	42	10	6.8	6.4	9.0
18	12	104	163	29	91	170	169	42	9.8	6.4	6.1	8.3
19	16	83	114	28	91	146	178	40	9.3	6.1	6.1	7.0
20	9.8	58	98	27	90	158	168	54	8.8	5.8	6.4	7.4
21	11	52	107	*26	*77	158	158	82	8.4	5.8	6.8	8.8
22	11	96	114	29	72	133	135	59	8.4	5.8	7.4	7.8
23	51	72	172	220	69	120	*111	50	8.0	5.8	6.5	8.8
24	48	49	156	180	71	111	109	100	8.0	5.8	6.2	8.8
25	25	48	148	100	72	107	98	75	7.5	5.8	7.0	7.8
26	21	*49	116	77	99	91	102	53	8.0	5.6	13	7.4
27	18	46	90	96	350	90	103	45	8.4	5.8	9.0	7.0
28	17	43	82	102	248	85	95	38	8.4	6.8	7.0	7.0
29	19	41	80	95	-	82	93	28	8.8	11	6.5	7.0
30	16	40	77	88	--------	85	83	22	8.4	15	8.8	7.0
31	26	--------	68	83	--------	75	--------	20	--------	11	7.8	--------
Total	520.8	1,832	3,134	1,848	3,517	4,264	7,782	1,453	351.2	224.8	215.1	217.1
Mean	16.8	61.1	101	59.6	126	138	259	46.9	11.7	7.25	6.94	7.24
(†)	+14.8	+52.6	+85.8	+44.3	+4.1	+6.1	+6.4	+17.1	+0.2	-0.90	-2.45	-3.71

Adjusted for diversion and change in contents in Saugatuck Reservoir

Mean	31.6	114	187	104	130	144	265	64.0	11.9	6.35	4.49	3.53
Cfsm	0.408	1.47	2.41	1.34	1.68	1.86	3.42	0.826	0.154	0.082	0.058	0.046
In.	0.47	1.64	2.78	1.54	1.75	2.14	3.82	0.95	0.17	0.09	0.07	0.05

	Observed				Adjusted			
Calendar year 1956:	Max 510	Min 4.7	Mean 102		Mean 125	Cfsm 1.61	In. 21.90	
Water year 1956-57:	Max 995	Min 1.8	Mean 69.5		Mean 88.4	Cfsm 1.14	In. 15.47	

Peak discharge (base, 900 cfs).--Apr. 6 (2 p.m.) 1,070 cfs (5.78 ft).

* Discharge measurement made on this day.

† Change in contents and diversion, equivalent in cubic feet per second, from Saugatuck Reservoir for domestic water supply. No adjustments made for Aspetuck Reservoir.

Measurements of streamflow made at points other than regular gaging stations in the area covered by this report 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. Measurements believed to have been made under base-flow conditions are identified by an asterisk (*) to the left of the discharge figure. These measurement 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 stream. The column headed, "Measured previously" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at points other than gaging stations during water year 1957

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
		Piscataqua River basin, N. H.				
Bellamy River	Piscataqua River.	Lat 43°10,50", long 70°56'45", at bridge at Fancy Hill, 3¾ miles southwest of Dover.	-		Apr. 15 July 15 July 22	43.0 2.50 1.80
		Westport River basin, Mass.				
Shingle Island River.	Westport River.	Lat 41°40'54", long 71°01'04", at bridge on Old Fall River Rd., 0.7 mile east of Hixville.	5.10		July 30	*0.10
Copicut River	Shingle Island River.	Lat 41°41'00", long 71°01'40", at bridge on Old Fall River Rd., 0.3 mile northeast of Hixville.	7.09		July 30	*.864
		Taunton River basin, Mass.				
Purchade Brook.	Taunton River	Lat 41°55'35", long 70°56'16", at bridge at Purchade St., 2.6 mile northwest of Middleboro.	2.79		July 29	3.81
Dam Lot Brook.	....do.....	Lat 41°54'45", long 71°02'54", at bridge at Warren St., 2½ miles east of Taunton.	2.54		July 31	*.68
Rattlesnake Brook.	Assonet River	Lat 41°46'36", long 71°05'23", at bridge at South Main St., 1.7 miles southwest of Assonet.	3.74		July 29	.18
		Connecticut River basin, Mass.				
Broad Brook..	Manhan River.	Lat 42°11'36", long 72°40'31", at Rock Valley St., at Rock Valley, 2¾ miles west of Holyoke.	1.44		Aug. 14 Sept. 5	*0.07 .04
Harris Brook.	Higher Brook.	Lat 42°11'24", long 72°28'44", at Church and Rood Sts., 1 mile west of Ludlow Center.	2.77		Aug. 15 Sept. 6	*.44 .18
North Branch Mill River.	Connecticut River.	Lat 42°07'02", long 72°28'18", at Wilbraham Rd., 2.1 miles west of Wilbraham.	7.61		Aug. 15 Sept. 6	.80 .70
Arm Brook....	Powdermill Brook.	Lat 42°08'38", long 72°44'22", at Lockhouse Rd., 0.25 mile above mouth and 1½ miles north of Westfield.	4.33		Aug. 14 Sept. 5	*.58 .59
Still Brook..	Muddy Brook..	Lat 42°02'31", long 72°41'00", at Pine St., 3 miles southwest of West Agawam.	5.33		Aug. 15 Sept. 5	*.57 .41
		Menunketesuck River basin, Conn.				
Killingworth Reservoir Outlet.	Menunketesuck River.	Just below Killingworth Reservoir, near Killingworth.	-	1941-56 1941-56 1941-56	June 27 Aug. 7 Sept. 4	0.97 .46 .01
		Quinnipiac River basin, Conn.				
Eightmile River.	Quinnipiac River.	Lat 41°36'54", long 72°55'24", at bridge on woods road, 1.6 miles southeast of Southington.	6.42	1954-56	Dec. 6 Feb. 5 Mar. 4 Apr. 25 Apr. 30 May 22 May 23 June 24	5.26 11.4 10.3 12.3 12.1 11.9 10.7 5.96
		Housatonic River basin				
Wassaic Creek	Tenmile River	Lat 41°47'36", long 73°33'06", at bridge, 0.7 mile southeast of Wassaic, N. Y., and 1.0 mile above confluence with Webatuck Creek.	36.6	1956	Apr. 4 June 25 Aug. 9 Aug. 15	49.9 *4.95 *2.04 *.14
Webatuck Creek.	....do.....	Lat 41°46'48", long 73°33'12", at bridge, 200 ft above confluence with Wassaic Creek and 1.6 miles southwest of South Amenia, N. Y.	81.0	1956	Apr. 4 June 27 Aug. 9 Aug. 14	134 *8.82 *4.77 *3.39
Tenmile River	Housatonic River.	Lat 41°46'45", long 73°33'34", at Dutchess County highway bridge A-30, 0.2 mile below confluence of Wassaic and Webatuck Creeks and 1.6 miles south of Wassaic, N. Y.	120	1956	Apr. 4 June 27 Aug. 8 Aug. 14	202 *15.3 *5.90 6.58
Naugatuck River.	....do.....	Lat 41°40'25", long 73°04'13", at U. S. highway bridge on Route 6, at Thomaston, Conn.	107		Sept. 3	15.4

* Base flow.

Discharge measurements made at points other than gaging stations during water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
		Housatonic River basin--Continued				
Bladens River	Naugatuck River.	Lat 41°23'53", long 73°03'25", at State highway bridge on Route 67, 0.9 mile upstream from mouth, near Seymour, Conn.	9.8		Sept. 3	2.46
Do.....	....do.....	Lat 41°23'05", long 73°04'05", 0.2 mile upstream from mouth, at Seymour, Conn.	10.5		Sept. 3	3.84
		Rippowam River basin, N. Y.				
Mill River...	Rippowam River.	Lat 41°10'42", long 73°33'14", at bridge on Trinity Pass Rd., 1.0 mile south of Scott Corners.	13.2	1956	Nov. 14	*8.34
					Mar. 7	18.0
					May 2	*8.19
					May 23	*9.00
					June 12	*.95
					Aug. 29	*.37
		Mianus River basin, N. Y.				
Mianus River.	Long Island Sound.	Lat 41°12'05", long 73°38'00", at bridge on Middle Patent Rd., 0.6 mile east of Bedford.	10.7	1903,1956	Nov. 14	*7.64
					Jan. 28	16.3
					Mar. 12	19.0
					May 2	*10.9
					May 23	*9.99
					June 12	*2.85
					Aug. 29	*1.34
		Byram River basin, N. Y.				
Byram River..	Long Island Sound.	Lat 41°07'28", long 73°42'09", at bridge on State Highways 22 and 128, 0.6 mile east of Armonk.	3.78	1956	Nov. 14	*1.95
					Jan. 28	5.50
					Mar. 7	6.80
					May 2	*4.12
					May 23	*2.91
					June 12	*.90
					Aug. 29	*.11

* Base flow.

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U.S. GOVERNMENT PRINTING OFFICE: 1959 O - 505692