Surface Water Supply of the United States 1955

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 1381

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 : 1957

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.

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, C. G. Paulsen, chief, succeeded by L. B. Leopold, under the general direction of J. V. B. Wells, chief, Surface Water Branch, and B. J. Peterson, chief, Annual Reports Section.

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

B. L. Bigwood----------Hartford, Conn.
H. B. Kinnison----------Boston, Mass.
M. R. Stackpole----------Augusta, Maine

CALENDAR FOR WATER YEAR 1955

OCTOBER 1954

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

NOVEMBER 1954

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

DECEMBER 1954

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

JANUARY 1955

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

FEBRUARY 1955

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

MARCH 1955

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

APRIL 1955

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

MAY 1955

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

JUNE 1955

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

JULY 1955

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

AUGUST 1955

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

SEPTEMBER 1955

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

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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, 1955. 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 13,250 gaging stations in the 48 States and at many others in the Territories of Alaska and Hawaii. On September 30, 1955, the Geological Survey and cooperating organizations were maintaining 6,860 gaging stations, including those in Alaska and Hawaii. Discharge measurements only were made at many other points in the 1955 water year, most of which are published at the end of each report. 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 Commission, H. P. Koppleman, chairman, and W. S. Wise, director; city of Hartford, Department of Public Works, C. W. Cooke, director; city of New Britain, Board of Water Commissioners, Russell Willoughby, chairman, and G. W. Wood, chief engineer.

Maine: Maine Public Utilities Commission, S. T. Pike, 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; Metropolitan District Commission, C. W. Greenough, commissioner, and H. J. Toole, director and chief engineer of Water Division; city of Attleboro, C. K. Brennan, mayor.

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

Rhode Island: State Department of Public Works, Henry Ise , 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 38 gaging stations, of which 1 was in Connecticut, 11 were in Massachusetts, 15 in New Hampshire, and 11 in Vermont.

Full cooperation exists between the Geological Survey of the United States Department of the Interior and the Water Resources Branch, Department of Northern Affairs and National Resources, Canada. On waters adjacent to the international boundary, certain stations are maintained jointly by the United States and Canada under the terms of the Boundary Waters Treaty of 1909, and others are maintained under a subsequent agreement between the two

Governments. The records from all these stations are obtained in such a manner as to be equally acceptable and available in both countries. These stations are herein designated 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	939 Post Office Building.
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.

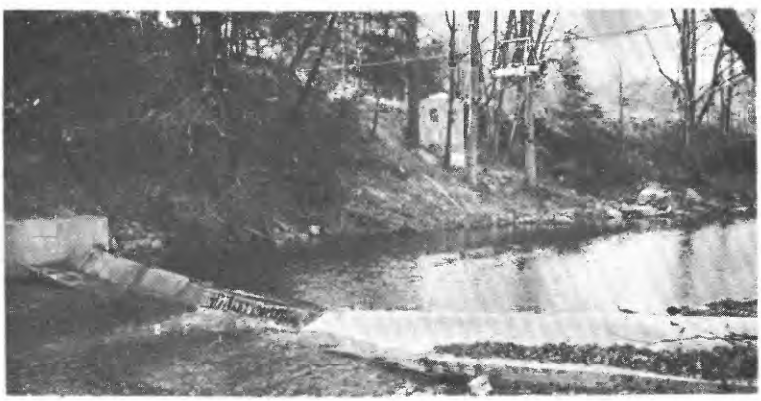
The order of listing used before the publication of the 1951 report listed first all stations on the main stem from headwaters toward mouth, then all stations on the uppermost tributary to the main stem from the tributary's source to mouth, and then all stations from source to mouth of the uppermost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

A, OTTER BROOK NEAR KEENE, N. H.

B, PEQUABUCK RIVER AT FORESTVILLE, CONN.



C, MILL RIVER AT NORTHAMPTON, MASS.

FIGURE 1.—GAGING-STATION STRUCTURES.

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 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 1955 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 extensive 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 therin 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 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 presented. Peak discharges are not published for canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man.

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 frequent 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 usually given in the first report in which data for the reservoir are published, but it is omitted from succeeding 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 therfore 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.
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.

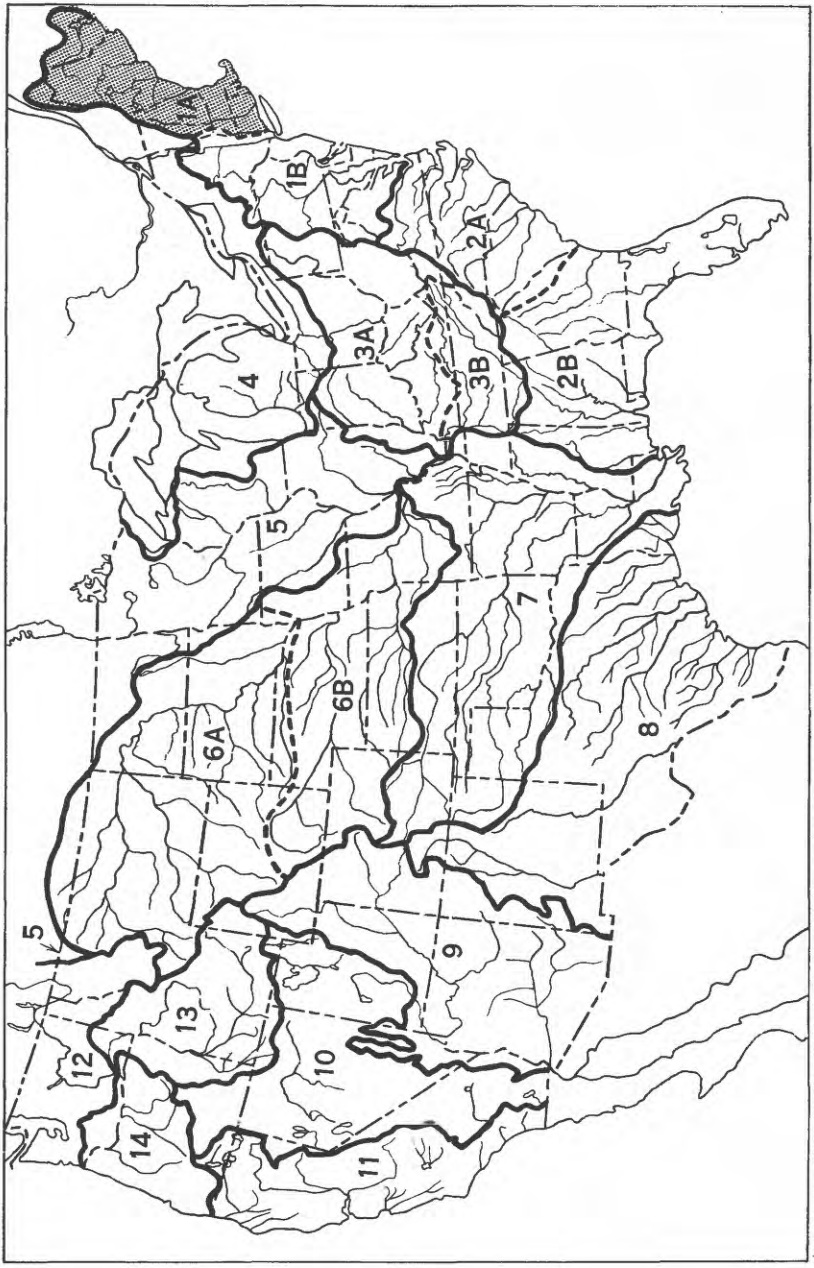


Figure 2.--Map of the United States showing areas covered by the 18 annual volumes on surface-water supply. The area covered by this report is shaded.

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 height, 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, 1899-1955

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

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.

Records of discharge have been published also in State reports. Most of these records are also compiled in Water-Supply Paper 1301; however, some of them are not contained in publications of the Geological Survey. The following table contains a list of these reports for the area covered by this report.

State reports containing compilations of records of discharge

State	Period	Report	Issued by
Connecticut...	1900-1927	Bull. 44, Water resources of Connecticut.....	State Geological and Natural History Survey.
Do.....	1912-33	5th biennial report.....	State Water Commission.
Maine.....	1887-1920	1st annual report.....	Maine Water Power Commission.
New Hampshire.	1889-1922	Annual and statistical report, vol. 12.....	Public Service Commission.
Rhode Island..	1929-41	7th annual report.....	Department of Public Works.
Do.....	1929-50	Geological Bull. 6, Ground-water resources of Rhode Island.	Rhode Island Development Council.

Note.--In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports in which are contained records of discharge: Connecticut, Maine, and Rhode Island.

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 SUFVEY

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 1954 to September 1955 by agencies other than the Geological Survey. The records of these stations are not contained in publications of the Geological Survey, nor have they been published elsewhere.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
Androscoggin River.....	Lewiston, Maine.....	1929-55	Central Maine Power Co.
Kennebec River.....	Bingham, Maine.....	1931-55	Do.
Penobscot River.....	Old Town, Maine.....	1915-55	T. W. Clark.
Race Brook.....	Orange, Conn.....	1911-55	New Haven Water Co.
Saco River.....	Hiram, Maine.....	1930-55	Central Maine Power Co.
Do.....	West Buxton, Maine.....	1940-55	Do.
Stillwater Branch Penobscot River.	Stillwater, Maine.....	1915-55	T. W. Clark.
Wepawaug River.....	Orange, Conn.....	1911-55	New Haven Water Co.
West River.....	Guilford, Conn.....	1930-55	Do.

HYDROLOGIC CONDITIONS

The outstanding feature of the 1955 water year in the area covered by this report was the record-breaking flood of Aug. 19, 20 in southern New England, caused by hurricane Diane. Peak discharges at many gaging stations were 2 to 5 times previous maximums in 25 to 40 years of record. A preliminary report of this flood has been published as Circular 377; a comprehensive report is in preparation, to be published as WSP 1420. During October to December, February, August, and September all or most of the area covered by this report had excessive runoff. During May runoff was deficient in part of the area, and in July it was deficient over almost the entire area. Mean discharge for August was record-high at key gaging stations in Connecticut and Massachusetts. Runoff of St. John River at Fort Kent, Maine, in October was record-high for the month. In September, runoff of Little Androscoggin River near South Paris, Maine, was record-low for the month. For two key gaging stations in the area covered by this report, a comparison of the monthly and yearly mean discharge during the 1955 water year with the median discharge for the 25-year period 1921-45 is shown in figure 3 below.

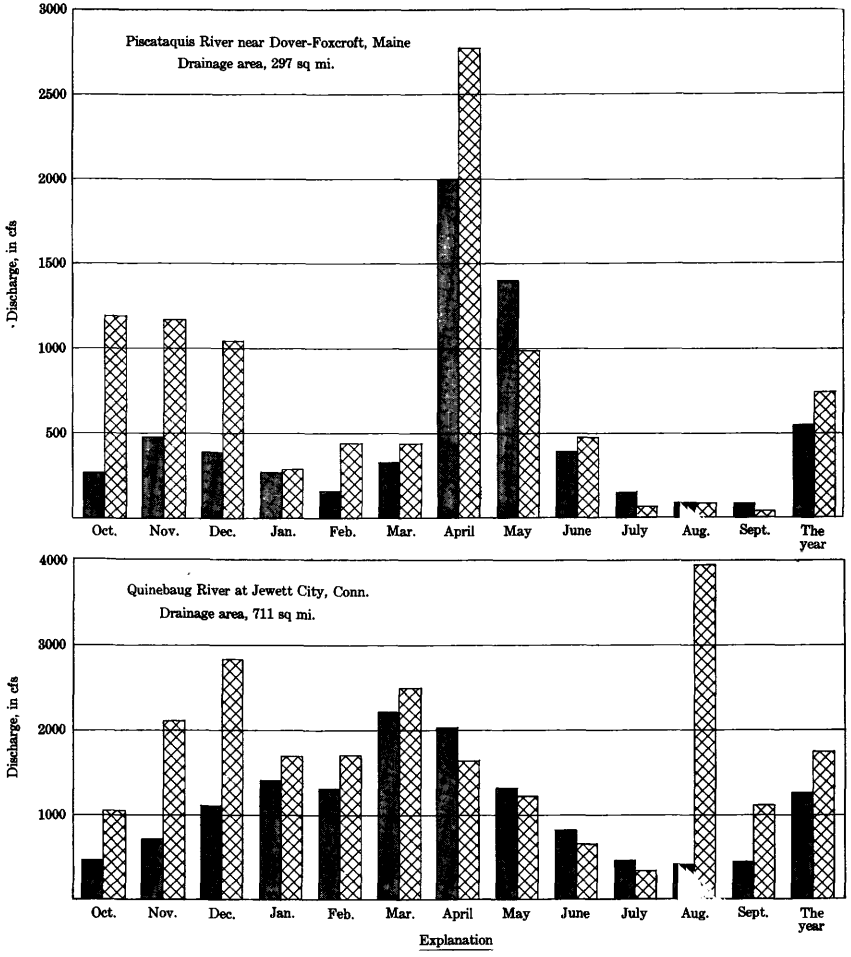


Figure 3. Comparison of discharge at two key gaging stations during 1955 water year with median discharge for 25-year period.

ST. JOHN RIVER BASIN

St. John River at Ninemile Bridge, Maine

Location.--Lat 46°42', long 69°43', T. 12, R. 15, Aroostook County, on right bank 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 1955.

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

Extremes.--Maximum discharge during year, 25,400 cfs Apr. 20 (gage height, 9.33 ft); maximum gage height, 9.61 ft Apr. 14 (backwater from ice); minimum discharge, 89 cfs July 13, 14 (gage height, 0.43 ft).
1950-55: 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 period of ice effect, which are fair.

Rating table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	83	3.0	2,180
.5	102	4.0	4,230
.7	149	5.0	7,050
1.0	240	6.0	10,700
1.3	368	7.0	14,600
1.6	551	8.0	18,700
2.0	882	9.0	23,600
2.5	1,430		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,980	1,940	1,570	1,160	580	675	810	16,900	2,050	390	307	270
2	9,520	1,820	1,380	1,090	580	705	865	17,000	3,290	349	237	248
3	8,260	1,680	1,160	1,040	575	690	880	16,900	3,760	307	220	220
4	8,160	1,940	1,050	1,000	565	675	930	17,800	3,060	278	200	200
5	9,070	3,180	920	975	560	625	955	19,400	2,570	244	168	182
6	8,200	3,690	875	945	560	590	1,020	18,900	2,420	213	152	168
7	6,700	3,330	830	920	560	580	1,070	16,400	1,930	188	220	152
8	*5,090	2,800	1,000	900	550	560	1,120	14,000	1,490	168	4,290	142
9	3,880	2,400	1,100	880	550	540	1,180	13,000	1,180	149	5,130	134
10	3,140	2,080	1,050	855	540	520	1,310	11,100	956	134	2,970	126
11	2,860	1,870	955	820	540	510	1,500	9,220	810	115	1,780	132
12	7,390	*1,680	930	800	530	550	1,680	7,790	698	104	1,330	173
13	12,600	1,440	1,000	760	530	590	1,940	6,890	783	94	1,150	240
14	12,000	1,280	1,100	740	530	640	2,440	6,480	1,140	92	919	312
15	9,980	1,110	1,300	725	525	725	3,990	6,210	1,170	104	900	325
16	7,510	1,010	1,410	680	520	810	8,770	5,830	1,050	149	2,150	325
17	5,950	1,300	1,490	650	520	935	15,100	6,760	873	935	2,280	447
18	4,910	1,150	1,580	640	520	1,140	17,400	6,330	706	1,840	1,890	447
19	4,040	1,120	1,900	625	520	1,310	19,900	5,440	558	1,820	1,350	363
20	3,400	1,430	2,200	620	525	1,300	20,700	5,120	472	1,500	1,180	384
21	2,900	3,100	2,150	620	530	*1,290	20,100	*4,440	401	1,010	919	1,020
22	2,550	7,290	2,000	620	545	1,150	19,400	3,710	374	775	846	1,180
23	2,250	7,820	1,960	620	560	1,070	18,800	3,200	447	792	1,320	891
24	2,020	5,700	1,860	610	590	1,000	18,600	3,100	955	1,570	1,870	857
25	1,820	4,230	1,700	*610	610	955	17,800	3,200	1,250	1,900	1,390	524
26	1,660	3,270	1,570	595	625	910	17,000	3,380	1,040	1,220	946	484
27	1,540	2,510	1,490	590	640	865	16,300	3,140	837	810	666	435
28	1,900	2,130	1,410	590	655	810	14,800	2,580	657	603	511	374
29	2,260	2,000	1,310	590	-	775	14,200	2,230	558	511	418	423
30	2,150	1,760	1,280	580	------	775	15,700	2,160	466	396	349	610
31	2,040	--	1,190	580	------	790	------	2,050	--- -- -	312	303	
Total	163,710	77,860	42,720	23,430	15,635	25,060	276,260	260,460	37,951	19,072	38,161	11,588
Mean	5,281	2,595	1,378	758	558	808	9,209	8,402	1,265	615	1,231	386
Cfsm	4.09	2.01	1.07	0.586	0.433	0.626	7.14	6.51	0.981	0.477	0.954	0.299
In.	4.72	2.24	1.23	0.68	0.45	0.72	7.97	7.50	1.09	0.55	1.10	0.33

Calendar year 1954: Max 26,600 Min 245 Mean 3,265 Cfsm 2.53 In. 34.35
Water year 1954-55: Max 20,700 Min 92 Mean 2,718 Cfsm 2.11 In. 28.58

Peak discharge (base, 10,000 cfs).--Oct. 14 (2 a.m.) 12,400 cfs (6.42 ft); Apr. 20 (3 p.m.) 25,400 cfs (9.33 ft); May 5 (10 p.m.) 20,100 cfs (8:30 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 6 to Apr. 16.

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 1955.

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.--9 years (1946-55), 4,783 cfs.

Extremes.--Maximum discharge during year, 42,700 cfs May 5 (gage height, 12.98 ft); maximum gage height, 16.47 ft Apr. 15 (backwater from ice); minimum discharge, 342 cfs July 15 (gage height, 1.69 ft).
1910-11, 1946-55: 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 tables, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 16		Apr. 17 to Sept. 30			
2.4	955	1.7	350	5.0	5,810
3.0	1,770	2.0	630	6.0	8,500
5.0	5,810	2.5	1,190	8.0	15,200
7.0	11,600	3.0	1,860	10.0	24,500
9.0	19,500	4.0	3,600	13.0	42,800
10.0	24,500				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,300	3,930	3,120	2,360	1,130	1,180	1,910	36,000	6,220	1,150	798	798
2	15,700	3,780	2,870	2,290	1,120	1,200	1,700	36,900	8,590	1,020	682	724
3	14,200	3,520	2,940	2,250	1,110	1,200	1,910	35,400	9,820	939	662	640
4	12,500	3,820	2,910	2,200	1,090	1,200	1,960	37,800	8,260	873	662	590
5	13,600	5,100	2,540	2,100	1,080	1,200	2,000	42,300	6,650	917	620	520
6	13,600	6,730	2,310	2,000	1,080	1,180	2,070	40,600	5,710	1,030	530	492
7	11,500	6,810	2,180	1,950	1,070	1,180	2,120	34,100	5,080	884	780	444
8	9,300	5,930	2,340	1,900	1,070	1,170	2,200	28,800	4,200	735	4,920	401
9	7,450	5,170	2,580	1,800	1,060	1,180	2,360	25,600	3,560	630	10,600	392
10	6,220	4,560	2,640	1,760	1,060	1,200	2,510	22,800	3,170	540	7,400	384
11	5,590	3,930	2,450	1,700	1,040	1,200	2,700	19,400	3,050	454	4,720	384
12	10,200	3,580	2,100	1,650	1,040	1,280	2,910	17,100	2,730	426	3,160	482
13	18,800	3,300	2,080	1,610	1,030	1,310	3,210	15,500	2,990	376	2,480	950
14	19,600	3,080	2,170	1,550	1,020	1,410	3,500	14,700	3,950	350	2,070	974
15	16,600	3,040	2,400	1,510	1,020	1,510	4,220	14,600	3,950	367	2,010	895
16	12,900	3,120	2,490	1,450	1,020	1,610	10,000	13,600	3,460	473	3,170	884
17	10,400	2,830	2,510	1,400	1,000	1,770	28,200	13,600	3,170	1,070	5,030	864
18	8,900	2,810	2,680	1,340	1,000	1,880	32,200	*15,200	3,160	2,450	4,370	808
19	7,520	2,830	2,910	1,300	1,000	2,020	36,700	11,800	2,960	3,290	3,460	917
20	6,500	4,300	3,150	1,300	1,020	2,150	37,600	11,000	2,830	2,800	2,800	1,150
21	5,710	12,300	3,600	1,250	*1,040	2,180	38,400	10,000	2,680	2,360	2,370	2,510
22	5,100	16,800	3,400	1,200	1,060	2,170	36,200	8,740	2,490	2,000	1,950	3,080
23	4,630	12,900	3,300	1,200	1,080	*2,120	35,100	7,970	2,730	1,750	1,680	2,890
24	4,220	9,730	3,150	*1,180	1,090	2,100	36,100	10,300	a3,210	1,890	1,940	2,110
25	3,900	7,340	3,040	1,180	1,110	2,080	36,800	12,100	a3,120	3,030	2,460	1,650
26	3,580	5,790	2,910	1,170	1,120	2,050	35,900	10,000	a3,140	3,080	1,980	1,400
27	3,300	4,870	2,810	1,170	1,140	2,000	34,800	8,380	a2,940	2,270	1,550	1,220
28	3,540	4,430	2,700	1,160	1,160	1,980	32,000	6,890	a2,680	1,690	1,240	*1,110
29	3,900	4,140	2,600	1,160	-	1,980	29,300	6,450	1,420	1,320	1,050	1,030
30	4,240	3,520	2,510	1,140	------	1,950	31,700	6,760	1,280	1,120	906	962
31	4,070		2,450	1,140	------	1,930	------	6,600	----	939	808	-
Total	278,370	163,990	83,840	48,370	29,860	50,570	528,480	578,990	119,200	42,223	78,858	31,653
Mean	8,980	5,466	2,705	1,560	1,066	1,631	17,620	18,680	3,973	1,362	2,544	1,055
Cfsm	3.33	2.02	1.00	0.578	0.395	0.604	6.53	6.92	1.47	0.504	0.942	0.391
In.	3.84	2.25	1.15	0.67	0.41	0.70	7.29	7.98	1.64	0.58	1.09	0.44

Calendar year 1954: Max 55,700 Min 410 Mean 6,766 Cfsm 2.51 In. 34.01
Water year 1954-55: Max 42,300 Min 350 Mean 5,574 Cfsm 2.06 In. 28.04

Peak discharge (base, 27,000 cfs).--Apr. 21 (2:30 a.m.) 40,900 cfs (12.73 ft); May 5 (6 to 9 p.m.) 42,700 cfs (12.98 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for stations at Fort Kent and Ninemile Bridge.

Note.--Stage-discharge relation affected by ice Dec. 17 to Apr. 16 (no gage-height record Dec. 22 to Feb. 20 and Mar. 5-23; discharge estimated on basis of 3 discharge measurements, weather records, and records for stations on 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 1955.

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.--24 years (1931-55), 1,946 cfs.

Extremes.--Maximum discharge during year, 15,900 cfs May 5 (gage height, 9.40 ft); maximum gage height, 10.58 ft Apr. 17 (backwater from ice); minimum discharge, 274 cfs Sept. 10 (gage height, 2.05 ft).
1910-11, 1931-55: 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 good except those for periods of ice effect and no gage-height record, which are fair. Some storage in lakes above station.

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

Rating table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.0	250	4.0	2,300
2.4	480	5.0	4,000
2.6	631	6.0	6,090
2.8	800	7.0	8,540
3.1	1,100	8.0	11,400
3.5	1,590	10.0	18,100

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,980	2,400	2,300	1,580	695	825	845	11,600	3,900	854	592	531
2	4,000	2,330	2,110	1,540	690	845	855	11,900	3,810	809	561	487
3	3,870	2,220	2,020	1,500	680	835	865	12,000	3,590	809	502	426
4	4,100	2,670	1,860	1,450	670	820	880	13,700	3,270	774	466	400
5	4,750	3,050	1,720	1,410	665	800	920	15,700	3,080	836	419	377
6	4,570	2,980	1,590	1,380	665	785	1,060	14,400	2,910	748	400	353
7	4,210	2,850	1,470	1,340	650	765	1,210	13,400	2,710	664	553	337
8	3,850	2,710	1,400	1,320	640	755	1,410	12,500	2,420	631	1,250	310
9	3,580	2,590	1,310	1,290	630	740	1,720	11,800	2,240	592	1,290	294
10	3,340	2,420	1,250	1,260	625	720	2,150	11,000	2,090	561	1,140	289
11	3,310	2,340	1,190	1,220	615	715	2,770	10,400	1,960	524	1,040	299
12	4,940	2,240	1,120	1,200	610	695	3,360	10,000	1,900	487	940	502
13	5,190	2,080	1,080	1,180	600	690	4,100	9,570	2,020	453	845	890
14	5,170	2,030	1,020	1,140	590	680	4,900	9,310	2,140	439	791	722
15	4,830	1,930	1,010	1,110	590	695	5,650	9,310	2,120	480	854	689
16	4,650	1,870	1,040	1,080	585	715	6,770	8,760	1,940	546	1,370	672
17	4,610	1,820	1,000	1,040	585	720	7,630	8,620	1,790	664	1,080	639
18	4,430	1,750	1,080	1,020	575	730	8,150	*7,990	1,670	783	940	592
19	4,150	1,710	1,210	1,000	575	750	8,410	7,760	1,520	774	836	569
20	3,890	1,720	1,420	950	570	765	8,620	7,640	1,380	681	791	722
21	3,650	1,790	1,720	930	*570	785	8,730	6,990	1,230	664	714	1,220
22	3,430	2,420	1,940	910	575	800	8,480	6,470	1,140	656	697	1,110
23	3,290	4,060	2,080	890	575	*810	8,760	6,200	1,270	697	664	900
24	3,080	4,000	2,060	*880	585	825	9,920	6,130	1,420	1,160	791	818
25	2,880	3,520	1,990	865	590	865	10,400	6,200	1,260	1,200	845	740
26	2,720	3,200	1,900	835	600	880	10,200	5,630	1,180	1,010	845	656
27	2,630	2,910	1,850	820	715	900	10,200	5,000	1,130	910	800	592
28	2,610	2,660	1,780	800	800	910	9,750	4,550	1,040	827	714	*569
29	2,510	2,510	1,720	785	-	880	9,690	4,210	950	748	631	553
30	2,440	2,390	1,710	775	------	870	10,700	4,020	890	689	569	538
31	2,400	-- --	1,620	750	------	855	-------	4,150	-------	639	546	- -
Total	117,080	75,170	48,570	34,250	17,515	24,425	169,085	276,910	59,970	22,309	24,476	17,796
Mean	3,776	2,506	1,567	1,105	626	788	5,636	8,933	1,999	720	790	593
Cfsm	3.02	2.00	1.25	0.884	0.501	0.630	4.51	7.15	1.60	0.576	0.632	0.474
In.	3.48	2.23	1.44	1.02	0.52	0.73	5.03	8.24	1.78	0.66	0.73	0.53

Calendar year 1954: Max 14,900 Min 290 Mean 3,090 Cfsm 2.47 In. 33.56
Water year 1954-55: Max 15,700 Min 289 Mean 2,432 Cfsm 1.95 In. 26.39

Peak discharge (base, 5,700 cfs).--Apr. 20 (5 p.m.) 12,200 cfs (8.25 ft); May 5 (11 a.m.) 15,900 cfs (9.40 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 7 to Apr. 18 (no gage-height record Dec. 7 to Jan. 23, Feb. 25 to Mar. 23; discharge estimated on basis of 3 discharge measurements, weather records, and records for nearby stations).

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 1955.

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

Extremes.--Maximum discharge during year, 8,770 cfs May 6 (gage height, 11.53 ft); minimum, 102 cfs Sept. 9, 10 (gage height, 2.25 ft).
1951-55: Maximum discharge, that of May 6, 1955; minimum, 102 cfs Oct. 6, 1953, Sept. 9, 10, 1955; minimum gage height, 2.18 ft Oct. 6, 1953.

Remarks.--Records excellent except those below 200 cfs, which are good. 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.2	90	5.0	1,540
2.3	113	7.0	3,340
2.5	166	9.0	5,540
3.0	339	11.0	8,080
3.5	556	11.5	8,730
4.0	831		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,400	863	1,230	566	286	286	372	7,390	2,280	621	197	139
2	1,790	850	1,160	547	282	308	380	7,810	2,370	566	194	136
3	1,980	831	1,090	543	278	312	388	7,980	2,430	533	185	134
4	2,030	837	1,020	533	275	304	401	8,020	2,400	505	172	126
5	1,980	889	929	515	260	300	413	8,340	2,230	469	163	118
6	1,860	1,030	863	496	257	300	434	8,730	2,020	455	158	116
7	1,730	1,140	825	501	260	304	478	8,220	1,800	446	197	110
8	1,600	1,180	776	496	251	296	515	7,310	1,620	434	260	108
9	1,460	1,170	735	482	247	286	551	7,100	1,460	421	264	107
10	1,360	1,120	729	478	240	282	591	5,720	1,390	405	260	102
11	1,280	1,040	718	464	244	282	636	5,130	1,370	384	260	104
12	1,400	996	679	446	264	296	680	4,720	1,320	351	257	118
13	1,720	922	646	438	257	304	747	4,380	1,300	331	240	136
14	2,350	857	610	417	243	320	876	4,110	1,280	304	229	136
15	2,670	819	605	409	236	331	1,160	3,860	1,260	292	238	144
16	2,740	764	621	405	233	356	1,780	3,660	1,250	296	236	158
17	2,540	729	600	405	229	380	2,700	3,460	1,230	308	233	158
18	2,310	685	591	401	229	401	3,690	*3,240	1,160	300	226	163
19	2,070	662	600	392	229	409	4,490	2,970	1,060	289	219	166
20	1,870	657	636	384	226	409	5,070	2,740	962	271	210	197
21	1,700	724	680	372	223	413	5,340	2,520	869	268	200	278
22	1,550	962	724	351	229	409	5,430	2,350	812	264	200	469
23	1,410	1,440	741	347	243	425	5,520	2,200	812	264	200	712
24	1,310	1,870	735	343	250	421	5,700	2,220	844	264	197	825
25	1,200	1,990	707	339	254	409	6,010	2,300	915	260	188	825
26	1,120	1,890	673	*328	257	401	6,460	2,410	955	254	172	758
27	1,050	1,720	641	324	268	409	7,040	2,350	915	251	166	668
28	989	1,560	636	320	275	397	7,200	2,180	837	240	160	610
29	908	1,460	631	308	-	388	7,070	2,090	764	229	150	*556
30	895	1,320	605	304	------	380	7,050	2,080	696	216	142	496
31	869	------	591	296	------	376	------	2,170	------	206	139	------
Total	51,141	32,977	23,027	12,950	7,025	10,894	89,172	139,760	40,611	10,697	6,310	6,873
Mean	1,650	1,100	743	418	251	351	2,972	4,508	1,354	345	204	296
Cfsm	3.33	2.22	1.50	0.843	0.506	0.708	5.99	9.09	2.73	0.696	0.411	0.597
In.	3.83	2.47	1.73	0.97	0.53	0.82	6.69	10.48	3.04	0.80	0.47	0.67

Calendar year 1954: Max 8,070 Min 139 Mean 1,237 Cfsm 2.49 In. 33.85
Water year 1954-55: Max 8,730 Min 102 Mean 1,187 Cfsm 2.39 In. 32.50

Peak discharge (base, 3,200 cfs).--May 6 (11 a.m.) 8,770 cfs (11.53 ft).
* 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 1955. 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.--31 years (1903-8, 1929-55), 1,372 cfs.

Extremes.--Maximum discharge during year, 10,900 cfs May 5 (gage height, 10.25 ft); minimum, 163 cfs Sept. 10 (gage height, 2.56 ft).
1903-8, 1911, 1929-55: 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 period 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 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to May 4		May 5 to Sept. 30			
3.4	565	2.5	145	5.0	2,000
4.0	990	2.7	209	6.0	3,420
5.0	2,000	3.0	332	8.0	6,660
6.0	3,420	3.5	604	10.3	11,000
8.0	6,660	4.0	980		
10.0	10,400				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,880	1,840	2,120	1,370	700	680	710	9,540	3,360	735	243	284
2	1,880	1,830	2,010	1,340	680	690	695	9,780	3,280	678	238	255
3	1,880	1,760	1,940	1,320	675	700	720	*10,000	3,150	664	232	243
4	1,900	1,940	1,840	1,300	670	695	740	10,300	2,980	617	220	236
5	1,940	2,040	1,750	1,280	665	690	770	10,900	2,830	604	213	220
6	1,920	2,090	1,670	1,240	655	670	849	10,700	2,670	572	206	209
7	1,840	2,120	1,630	1,220	655	660	897	10,300	2,510	541	288	199
8	1,820	2,130	1,540	1,210	650	650	930	9,820	2,350	524	351	175
9	1,770	2,120	1,480	1,180	650	630	964	9,510	2,210	489	314	169
10	1,720	2,090	1,420	1,160	645	605	1,010	9,100	2,080	472	288	166
11	1,760	2,040	1,360	1,140	640	600	1,090	8,820	1,950	419	276	172
12	2,170	1,990	1,300	1,120	640	595	1,140	8,470	1,830	389	251	251
13	2,390	1,920	1,240	1,100	630	590	1,270	8,120	1,830	374	243	232
14	2,510	1,870	1,220	1,080	625	590	1,480	7,790	1,770	356	243	206
15	2,600	1,760	1,190	1,060	620	595	1,920	7,420	1,680	360	268	199
16	2,670	1,690	1,170	1,040	620	600	2,760	7,070	1,620	379	351	182
17	2,820	1,630	1,150	1,010	615	605	3,630	6,680	1,540	414	351	178
18	2,840	1,570	1,170	990	615	620	4,460	6,300	1,460	394	346	178
19	2,830	1,530	1,190	975	605	640	5,280	5,950	1,360	360	414	182
20	2,790	1,520	1,230	955	605	665	5,660	5,630	1,300	337	429	259
21	2,700	1,580	1,320	940	605	680	6,010	5,340	1,240	332	442	323
22	2,620	1,940	1,420	915	*600	*720	6,350	5,070	1,180	328	445	268
23	2,520	2,140	1,540	895	605	740	6,750	4,810	1,180	328	489	251
24	2,390	2,260	1,520	880	615	760	7,190	4,680	1,100	328	461	255
25	2,300	2,350	1,500	865	615	785	7,810	4,540	1,020	319	429	251
26	2,220	2,360	1,480	*880	620	805	8,300	4,360	980	297	409	232
27	2,140	2,360	1,470	840	640	785	8,670	4,200	921	288	374	228
28	2,050	2,290	1,450	820	665	760	8,650	4,050	872	284	337	*236
29	1,990	2,270	1,430	785	-	740	8,840	3,880	817	268	314	232
30	1,920	2,200	1,420	755	-------	730	9,230	3,720	780	255	301	228
31	1,890	--	1,400	740	-------	720	-------	3,530	-------	251	301	---
Total	68,670	59,230	45,570	32,385	17,825	20,995	114,775	220,360	53,830	12,956	10,068	6,699
Mean	2,215	1,974	1,470	1,045	637	677	3,826	7,108	1,794	418	325	223
Cfsm	2.54	2.27	1.69	1.20	0.731	0.777	4.39	8.16	2.06	0.480	0.373	0.256
In.	2.93	2.53	1.95	1.38	0.76	0.90	4.90	9.41	2.30	0.55	0.43	0.29

Calendar year 1954: Max 9,300 Min 355 Mean 2,322 Cfsm 2.67 In. 36.21
Water year 1954-55: Max 10,900 Min 166 Mean 1,817 Cfsm 2.09 In. 28.33

Peak discharge (base, 5,700 cfs).--May 5 (1 to 3 p.m.) 10,900 cfs (10.25 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 8 to Apr. 5 (no gage-height record Jan. 29 to Feb. 22; discharge estimated on basis of 2 discharge measurements, weather records, and records of flow at nearby stations).

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 1955.

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.--29 years, 9,668 cfs.

Extremes.--Maximum discharge during year, 85,100 cfs May 5, (gage height, 20.68 ft); maximum gage height, 21.72 ft Apr. 17 (backwater from ice); minimum discharge, 1,120 cfs Sept. 10, 11 (gage height, 1.30 ft).
1926-55: 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 period 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 table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.3	1,120	8.0	14,200
1.5	1,270	9.5	19,700
2.0	1,710	11.0	25,900
3.0	2,800	13.0	35,400
4.0	4,300	15.0	46,100
5.0	6,200	18.0	65,200
6.5	9,640	21.0	87,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17,200	9,430	9,670	6,000	3,000	3,000	3,600	70,300	16,700	3,940	2,280	2,000
2	23,900	9,180	9,030	5,800	3,000	3,020	3,560	73,200	18,100	3,640	2,040	1,900
3	23,900	8,860	8,280	5,700	2,980	3,090	3,520	*72,400	19,800	3,470	1,830	1,750
4	22,100	9,430	7,620	5,700	2,980	3,100	3,500	75,700	18,400	3,280	1,750	1,620
5	22,800	10,900	6,450	5,500	2,940	3,100	3,500	83,900	16,200	3,240	1,680	1,520
6	23,600	12,700	5,600	5,300	2,930	3,070	3,620	82,800	14,300	3,290	1,580	1,420
7	21,200	13,300	5,680	5,200	2,920	3,060	3,780	73,900	12,900	3,170	1,840	1,330
8	18,300	12,600	5,640	5,010	2,900	3,020	3,920	65,200	11,300	2,890	4,240	1,240
9	15,800	11,600	5,900	4,950	2,860	3,000	4,130	59,400	10,100	2,670	11,100	1,180
10	13,700	10,700	6,220	4,900	2,830	3,000	4,480	54,100	9,080	2,410	10,700	1,130
11	12,800	9,820	5,960	4,800	2,810	3,020	4,840	48,600	8,380	2,200	7,570	1,130
12	17,400	9,260	5,920	4,700	2,780	3,100	5,180	44,500	7,710	2,030	5,560	1,470
13	28,400	8,690	5,350	4,610	2,700	3,200	5,450	41,200	7,890	1,890	4,480	1,950
14	31,100	8,220	5,330	4,610	2,620	3,400	5,800	38,800	9,080	1,790	3,830	2,420
15	29,400	7,600	5,640	4,410	2,600	3,600	6,620	37,800	9,180	1,770	3,620	2,210
16	25,700	7,200	6,200	4,300	2,550	3,810	11,000	35,900	8,640	1,910	4,860	2,120
17	22,600	6,980	6,120	4,100	2,520	4,050	34,400	34,400	7,890	2,330	6,640	2,100
18	20,300	7,090	5,920	4,000	2,500	4,250	52,200	33,500	7,160	3,170	6,750	2,000
19	18,100	6,940	6,810	3,950	2,480	4,390	59,700	30,600	6,520	4,770	5,620	2,020
20	16,300	7,010	7,920	3,910	2,400	4,520	62,300	28,800	5,940	4,730	4,860	2,580
21	14,900	8,540	8,620	3,810	2,400	4,500	64,200	26,800	5,410	4,320	4,200	3,980
22	13,500	16,500	8,310	3,750	*2,380	4,440	61,900	24,400	5,050	4,020	3,730	5,160
23	12,500	25,500	8,100	3,600	2,420	4,300	61,400	22,400	5,280	3,500	3,410	5,410
24	11,600	23,500	7,800	3,500	2,540	*4,250	63,800	23,700	6,370	3,520	3,200	4,730
25	10,900	19,400	7,310	3,400	2,640	4,050	67,200	26,800	6,200	4,320	3,870	4,080
26	10,100	16,400	7,120	*3,280	2,740	3,950	67,500	24,300	6,280	5,250	4,020	3,580
27	9,590	13,900	7,010	3,200	2,800	3,860	67,400	21,400	5,880	4,500	3,580	3,140
28	9,360	12,300	6,900	3,200	2,830	3,860	64,300	19,000	5,240	3,700	3,070	2,860
29	9,360	11,300	6,600	3,190	-	3,740	60,900	17,900	4,680	3,130	2,580	*2,700
30	9,850	10,700	6,410	3,100	-----	3,700	64,000	17,500	4,250	2,740	2,250	2,510
31	9,690	--	6,100	3,000	-------	3,600	-------	17,400	------	2,440	2,090	-
Total	545,950	345,550	211,540	134,480	76,050	112,050	927,700	‡1,326.6	279,910	100,040	128,830	73,240
Mean	17,610	11,520	6,824	4,338	2,716	3,615	30,920	42,790	9,330	3,227	4,156	2,441
Cfsm	3.09	2.02	1.20	0.762	0.477	0.635	5.43	7.52	1.64	0.567	0.730	0.429
In.	3.56	2.25	1.38	0.88	0.50	0.73	6.06	8.67	1.83	0.65	0.84	0.48

Calendar year 1954: Max 95,300 Min 1,600 Mean 14,270 Cfsm 2.51 In. 34.04
Water year 1954-55: Max 83,900 Min 1,130 Mean 11,680 Cfsm 2.05 In. 27.83

Peak discharge (base, 45,000 cfs).--May 5 (7:30 p.m.) 85,100 cfs (20.68 ft).
* Discharge measurement made on this day.
‡ Expressed in thousands.
Note.--Stage-discharge relation affected by ice Dec. 21 to Apr. 17 (no gage-height record Jan. 30 to Feb. 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.--328 sq mi.

Records available.--June 1951 to September 1955.

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

Extremes.--Maximum discharge during year, 5,710 cfs May 5 (gage height, 6.03 ft); maximum gage height, 9.97 ft Apr. 17 (backwater from ice); minimum discharge, 19 cfs Sept. 18, 19 (gage height, 0.38 ft).
1951-55: 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, that of Sept. 18, 19, 1955.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, 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 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 18		Apr. 19 to Sept. 30			
1.0	105	0.3	11	2.0	685
1.3	220	.4	21	2.5	1,070
1.6	371	.5	34	3.0	1,540
2.0	622	.7	71	4.0	2,670
3.0	1,440	1.0	157	5.0	4,060
4.0	2,480	1.3	280	6.0	5,660
5.0	3,720	1.6	436		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	679	940	522	365	130	265	260	4,020	860	81	230	110
2	790	980	508	350	126	280	275	4,280	969	106	265	107
3	836	940	471	335	122	290	300	*4,190	822	445	330	104
4	950	1,200	400	315	122	285	330	4,430	706	226	290	101
5	1,030	1,400	394	310	120	280	350	5,370	720	234	295	98
6	1,010	1,350	382	315	116	275	380	5,120	666	440	33	95
7	934	1,250	370	310	116	270	445	4,220	505	107	42	93
8	813	1,060	345	300	112	260	490	3,150	340	420	71	90
9	752	900	320	280	112	255	490	2,890	480	148	56	88
10	672	770	310	265	108	250	495	2,230	490	93	285	85
11	723	670	300	250	116	245	530	2,630	465	90	270	83
12	1,020	560	290	245	170	240	590	1,980	380	90	335	83
13	1,500	480	285	235	270	245	695	1,800	330	138	54	164
14	1,800	420	305	225	260	250	805	2,250	290	350	40	131
15	1,690	370	370	215	250	255	1,010	2,040	243	90	39	65
16	1,500	340	400	205	240	250	1,260	1,900	300	101	39	56
17	1,350	339	360	200	230	255	2,480	1,990	410	112	39	48
18	1,200	*339	355	190	220	260	3,490	*1,770	395	104	39	24
19	1,100	339	370	186	210	275	3,730	1,490	275	90	40	20
20	1,020	400	415	174	205	300	3,190	1,210	271	83	39	28
21	930	602	490	170	200	300	3,790	1,240	350	53	39	39
22	860	868	535	166	190	*285	2,890	1,050	320	42	42	40
23	800	950	570	162	*186	290	2,840	660	205	122	56	40
24	760	*934	550	156	190	285	3,720	850	230	220	60	39
25	720	901	520	150	200	280	3,820	1,200	85	63	54	36
26	680	836	500	148	215	275	3,800	1,080	85	48	76	36
27	650	745	470	*140	230	275	3,800	945	305	44	134	34
28	620	730	450	138	250	270	3,540	540	85	45	124	34
29	680	672	430	136	-	270	3,320	565	*76	40	118	34
30	760	629	410	132	------	265	3,550	830	78	280	115	*34
31	860		390	130	-------	265	------	785	------	200	115	------
Total	29,689	22,914	12,787	6,898	5,016	8,345	56,665	68,705	11,736	4,705	3,764	2,039
Mean	958	764	412	223	179	269	1,889	2,216	391	152	121	68.0
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 13,200 Min 48 Mean 933 Cfsm 2.84 In. 38.58
Water year 1954-55: Max 5,370 Min 20 Mean 639 Cfsm 1.95 In. 26.46

Peak discharge (base, 3,200 cfs).--May 5 (11 a.m.) 5,710 cfs (6.03 ft).
* Discharge measurement made on this day.
Note.--No gage-height record Oct. 12 to Nov. 16; discharge estimated on basis of recorded range in stage, weather records, and records for nearby stations. Stage-discharge relation affected by ice Dec. 7 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.--1,620 sq mi, approximately.

Records available.--August 1930 to September 1955.

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.--25 years, 2,605 cfs (unadjusted).

Extremes.--Maximum discharge during year, 20,200 cfs May 6 (gage height, 9.43 ft); maximum gage height, 13.40 ft Dec. 22 (backwater from ice); minimum discharge, 296 cfs July 27 (gage height, 1.86 ft).
1930-55: Maximum discharge, 37,800 cfs Mar. 22, 1936 (gage height, 11.80 ft); 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 periods of ice effect or no gage height record, 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 240,000,000 cu ft), used for log-driving.

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

Rating table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	260	5.0	5,300
2.0	390	6.0	7,990
2.5	820	8.0	14,500
3.0	1,440	10.0	23,000
4.0	3,150		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,610	4,140	2,480	2,200	1,050	2,380	2,000	15,200	4,040	549	439	308
2	3,850	4,360	2,160	2,140	1,050	2,320	1,980	16,300	4,640	621	425	308
3	3,970	4,140	1,870	2,070	1,040	2,240	1,930	16,600	4,300	910	453	308
4	4,550	6,360	1,950	1,980	1,020	2,160	1,900	16,800	3,630	720	439	301
5	5,280	8,210	1,800	1,900	990	2,100	1,900	19,200	3,420	549	418	376
6	5,250	8,260	1,460	1,850	980	2,050	2,000	19,900	2,960	549	411	439
7	4,790	6,960	1,440	1,790	970	1,970	2,210	17,700	2,690	860	314	439
8	4,080	6,020	1,430	1,740	945	1,930	2,580	14,100	1,920	603	355	425
9	3,530	5,030	1,500	1,710	920	1,880	3,040	12,700	1,800	820	341	418
10	3,300	4,460	1,590	1,680	920	1,870	3,610	11,700	1,560	404	425	418
11	3,170	3,690	1,440	1,620	955	1,850	4,250	10,800	1,820	341	525	411
12	5,660	3,420	1,310	1,590	1,120	1,880	4,810	9,640	1,290	314	480	418
13	8,020	3,070	1,270	1,580	1,410	1,930	5,460	8,740	1,710	411	540	418
14	9,880	2,720	1,220	1,540	2,070	1,930	6,450	8,650	2,210	530	327	540
15	9,580	2,510	1,300	1,500	2,380	1,900	7,500	8,820	2,220	460	320	453
16	8,430	2,160	1,440	1,470	2,440	1,870	9,020	8,430	1,840	418	348	432
17	7,830	2,380	1,660	1,440	2,410	1,930	10,100	*8,210	1,560	439	327	432
18	7,720	2,090	2,070	1,430	2,380	2,120	11,200	7,610	1,310	432	341	404
19	7,320	1,900	2,580	1,410	2,310	2,290	11,300	6,750	1,110	770	549	397
20	6,610	2,040	3,470	1,380	2,270	2,410	11,400	5,800	870	800	516	500
21	5,640	3,260	3,450	1,340	2,210	2,510	11,200	5,280	780	720	418	657
22	4,810	5,580	3,320	1,310	2,140	*2,550	11,200	4,760	810	657	369	576
23	4,140	6,070	3,170	1,300	*2,140	2,480	12,000	3,930	780	594	383	500
24	3,670	5,050	3,040	1,290	2,240	2,430	13,200	3,710	693	720	383	439
25	3,340	4,250	2,940	1,270	2,410	2,380	13,500	4,520	693	425	390	411
26	2,830	3,790	2,810	1,240	2,480	2,310	13,400	5,460	760	320	369	376
27	2,740	3,300	2,690	*1,200	2,500	2,240	13,200	5,330	780	383	362	383
28	3,020	2,960	2,580	1,170	2,460	2,170	13,000	4,040	830	630	362	369
29	3,110	2,850	2,500	1,140	-	2,120	13,000	3,150	585	684	334	355
30	3,210	2,630	2,410	1,100	--------	2,100	14,200	3,750	576	621	308	*341
31	3,650	--------	2,310	1,060	--------	2,050	--------	4,080	--------	603	308	--------
Total	156,590	123,660	66,660	47,460	48,210	66,350	232,540	291,660	54,187	17,857	12,279	12,552
Mean	5,051	4,122	2,150	1,531	1,722	2,140	7,751	9,408	1,806	576	396	418
(†)	+3.0	-1.9	-20	-184	-160	-652	+502	+372	+37	-75	-17	-254
Adjusted for change in contents in Millinocket and Squapan Lakes												
Mean	5,054	4,120	2,130	1,347	1,562	1,488	8,253	9,780	1,843	501	379	164
Cfsm	3.12	2.54	1.31	0.831	0.964	0.919	5.09	6.04	1.14	0.309	0.234	0.101
In.	3.60	2.83	1.51	0.96	1.00	1.06	5.68	6.96	1.27	0.36	0.27	0.11

	Observed			Adjusted				
Calendar year 1954:	Max 28,900	Min 720	Mean 4,548	Mean 4,550	Cfsm 2.81	In. 38.10		
Water year 1954-55:	Max 19,900	Min 301	Mean 3,096	Mean 3,058	Cfsm 1.89	In. 25.61		

Peak discharge (base, 13,000 cfs).--May 6 (1 a.m.) 20,200 cfs (9.43 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 Dec. 7 to Apr. 17. No gage-height record Dec. 22 to Jan. 27, Feb. 15-22, Feb. 26 to May 2; discharge estimated on basis of records for nearby streams and downstream power station records.

Medumnekeag 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 1955. October 1940 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 338.92 ft above mean sea level, datum of 1929.

Average discharge.--15 years, 286 cfs.

Extremes.--Maximum discharge during year, 3,860 cfs Apr. 16 (gage height, 7.40 ft); minimum, 15 cfs Sept. 10, 11 (gage height, 2.32 ft).
1940-55: 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 table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.3	13	4.0	620
2.4	23	5.0	1,300
2.5	37	6.0	2,210
2.7	75	7.0	3,320
3.0	160	8.0	4,700
3.5	360		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	268	930	288	250	19	54	230	1,280	602	49	31	33
2	304	909	272	240	19	51	215	1,170	530	44	29	30
3	380	874	255	230	19	47	220	1,070	440	42	23	29
4	610	1,160	240	220	19	54	225	1,030	344	42	20	27
5	764	1,100	225	215	20	64	230	1,090	300	39	17	22
6	662	867	210	230	21	62	245	993	260	34	16	20
7	520	698	200	220	23	64	280	836	212	31	19	19
8	405	608	184	205	26	75	315	728	176	29	46	17
9	336	545	168	184	31	88	365	686	148	26	52	16
10	308	485	160	180	39	95	450	620	136	24	42	15
11	340	430	142	176	54	88	560	535	133	21	29	15
12	640	400	136	*172	80	90	720	475	139	19	47	18
13	1,140	356	132	164	130	106	1,000	425	208	18	40	20
14	1,220	332	136	148	280	136	1,940	390	252	18	36	21
15	874	304	148	130	*530	160	3,180	400	220	19	42	20
16	758	280	160	116	560	176	3,800	375	172	26	40	20
17	752	276	176	102	535	200	3,140	365	142	42	60	20
18	764	272	200	90	465	215	2,650	332	112	85	60	20
19	680	*268	245	75	360	240	2,670	*385	100	88	51	19
20	572	320	300	69	280	280	2,420	276	85	71	44	21
21	495	540	390	58	240	295	2,170	244	75	54	37	24
22	465	698	520	54	200	300	1,920	216	73	46	42	22
23	470	638	460	51	176	310	1,710	188	69	44	109	21
24	425	*520	430	42	160	315	1,630	176	80	52	139	20
25	365	435	385	37	100	*305	1,560	172	73	52	115	19
26	332	375	355	34	75	295	1,400	232	64	46	85	17
27	352	332	340	29	64	285	1,420	264	60	40	67	*17
28	465	308	315	26	58	270	1,430	232	60	49	54	17
29	455	300	300	23	-	260	1,360	208	58	51	46	18
30	644	300	280	21	------	250	1,340	470	52	42	40	17
31	930	----	265	20	------	240	------	590	----	36	36	-
Total	17,695	15,860	8,017	3,811	4,583	5,470	40,795	16,453	5,375	1,279	1,514	614
Mean	571	529	259	123	164	176	1,360	531	179	41.3	48.8	20.5
Cfsm	3.26	3.02	1.48	0.703	0.937	1.01	7.77	3.03	1.02	0.236	0.279	0.117
In.	3.76	3.37	1.71	0.81	0.98	1.16	8.67	3.49	1.14	0.27	0.32	0.13

Calendar year 1954: Max 5,570 Min 49 Mean 513 Cfsm 2.93 In. 39.80
Water year 1954-55: Max 3,800 Min 15 Mean 333 Cfsm 1.90 In. 25.81

Peak discharge (base, 2,100 cfs).--Apr. 16 (4 p.m.) 3,860 cfs (7.40 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4 to Apr. 13.

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 Spednik Lake.

Drainage area.--435 sq mi, approximately.

Records available.--October 1928 to September 1955.

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

Average discharge.--27 years, 698 cfs.

Extremes.--Maximum discharge during year, 2,350 cfs Nov. 4 (gage height, 7.43 ft); maximum gage height, 7.52 ft Dec. 22; minimum discharge, 92 cfs Aug. 9 (gage height, 3.16 ft).

1929-55: 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 below 150 cfs, which are good. Flow regulated by Chiputneticook Lakes (combined usable capacity, about 13,200,000,000 cu ft).

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 21				Dec. 22 to Sept. 30			
3.5	149	5.5	825	3.1	84	5.5	780
4.0	257	6.0	1,130	3.5	145	6.0	1,090
4.5	401	7.0	1,920	4.0	247	7.0	1,850
5.0	590	8.0	2,980	4.5	377	8.0	2,800
				5.0	544		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,210	770	1,140	2,110	1,380	1,240	1,580	2,020	846	888	1,520	990
2	1,190	1,080	1,130	2,110	1,360	1,240	1,570	1,210	846	888	1,500	972
3	1,190	1,720	1,120	2,090	1,340	1,240	1,570	312	846	888	1,480	960
4	750	2,240	1,120	2,080	1,340	1,240	1,550	314	555	882	1,480	942
5	210	2,320	1,120	1,970	1,320	1,230	1,530	319	380	876	1,480	930
6	208	2,300	1,120	1,790	1,310	1,230	1,530	685	670	870	1,450	918
7	206	2,280	1,120	1,740	1,300	1,590	835	1,650	846	864	1,430	906
8	345	1,650	1,120	1,730	1,290	1,730	125	1,410	846	858	1,430	882
9	780	1,200	1,120	1,720	1,270	1,700	125	1,170	846	852	1,270	852
10	910	1,190	1,120	1,700	1,250	1,700	126	*1,170	1,050	852	1,380	834
11	910	1,190	1,120	*1,680	1,240	1,690	128	1,170	1,150	846	1,350	822
12	910	1,200	1,120	1,660	1,260	1,650	130	1,460	1,130	840	1,180	822
13	916	1,190	1,120	1,650	1,250	1,630	136	1,280	960	840	680	810
14	910	1,190	1,120	1,630	1,250	1,630	138	1,080	920	795	1,110	780
15	910	1,190	1,120	1,610	1,240	1,610	143	1,060	930	810	1,310	770
16	922	1,180	1,120	1,590	1,220	1,610	149	885	924	810	1,270	760
17	928	1,540	1,120	1,570	1,220	1,680	154	828	924	810	1,250	750
18	922	2,080	1,120	1,570	1,250	1,660	158	828	924	912	1,240	735
19	922	2,090	1,150	1,550	1,250	1,650	163	560	918	948	1,220	720
20	922	2,030	1,450	1,540	1,250	1,620	920	430	912	948	1,200	715
21	1,130	2,020	2,180	1,520	1,240	1,610	1,870	430	906	942	1,170	720
22	1,190	1,200	2,260	1,500	1,220	1,410	1,890	430	906	942	1,160	700
23	1,180	379	2,280	1,490	1,220	1,130	1,910	600	906	805	1,150	680
24	1,190	690	2,280	1,470	1,230	1,130	1,960	852	906	585	1,130	665
25	920	1,140	2,260	1,460	1,240	1,130	1,970	852	906	916	1,110	670
26	815	1,140	2,220	1,450	1,240	1,140	1,970	852	906	1,150	1,090	655
27	815	1,150	2,200	1,440	1,240	1,140	1,970	852	900	1,310	1,080	635
28	825	1,150	2,200	1,430	1,240	1,330	2,000	852	894	1,400	1,080	621
29	820	1,150	2,200	1,400	-	1,630	2,010	852	894	1,610	1,040	617
30	810	1,150	2,180	1,400	-------	1,610	2,010	846	894	1,570	1,010	604
31	634	-- --	2,160	1,390	-------	1,590	-------	846	-- ----	1,550	996	-- ---
Total	26,500	42,799	47,210	51,040	35,460	45,420	32,320	28,105	26,441	30,059	38,246	23,437
Mean	855	1,427	1,523	1,646	1,266	1,465	1,077	907	881	970	1,234	781
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 4,350 Min 87 Mean 1,056 Cfsm - In. -
Water year 1954-55: Max 2,320 Min 125 Mean 1,170 Cfsm - In. -

* Discharge measurement made on this day.

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 of dam of Grand Lake.

Drainage area.--224 sq mi.

Records available.--October 1928 to September 1955.

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

Average discharge.--27 years, 354 cfs.

Extremes.--Maximum discharge during year, 2,030 cfs May 19 (gage height, 5.34 ft); minimum, 83 cfs Aug. 13-20, 24 (gage height, 1.60 ft).
1928-55: 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 no gage-height record, which are fair. 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.6	83	3.0	541
1.7	99	3.5	790
1.9	141	4.0	1,080
2.2	225	5.0	1,760
2.5	326		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	373	258	300	1,290	1,240	305	1,010	291	635	170	566	942
2	373	260	600	1,280	1,220	308	996	294	635	173	561	924
3	381	600	900	1,090	1,200	725	990	294	630	173	600	912
4	393	940	900	823	1,180	1,210	990	270	315	173	550	894
5	397	930	900	823	1,150	1,200	984	201	123	173	700	878
6	389	925	900	823	1,130	1,190	978	201	120	545	620	862
7	381	920	906	823	1,130	1,180	715	201	120	828	561	845
8	373	910	900	823	1,100	1,170	271	201	120	818	566	828
9	369	900	889	823	1,100	1,150	268	201	120	806	556	812
10	373	890	906	818	1,090	1,130	265	*201	120	801	546	790
11	373	620	912	*812	1,070	1,130	265	204	118	796	520	780
12	377	345	894	812	1,090	1,120	265	204	118	570	340	780
13	377	345	878	806	1,070	1,100	265	204	395	590	85	775
14	377	345	867	801	1,070	1,100	265	201	605	580	83	750
15	373	345	878	790	1,070	1,070	268	201	605	570	83	735
16	635	345	894	785	1,060	1,070	271	895	605	570	83	735
17	1,390	345	884	780	1,060	1,070	271	665	600	575	83	720
18	1,560	345	862	780	720	1,060	271	870	600	300	83	710
19	984	640	912	770	294	515	271	1,380	495	149	83	695
20	978	900	1,010	1,120	294	125	278	985	635	144	83	700
21	972	650	1,370	1,470	294	670	278	620	1,170	144	85	705
22	954	290	1,380	1,450	294	1,040	278	420	1,420	144	85	685
23	825	290	1,350	1,420	302	590	278	210	1,110	144	85	665
24	385	290	1,340	1,400	302	302	278	630	918	144	83	650
25	373	295	1,330	1,380	302	319	284	640	906	360	250	645
26	393	295	1,310	1,360	302	319	284	655	906	570	451	635
27	475	295	1,300	1,330	302	322	288	645	450	570	451	620
28	430	300	1,290	1,310	302	322	291	545	170	570	446	605
29	395	300	1,310	1,300	-	520	291	116	167	570	432	600
30	280	300	1,300	1,280	------	875	291	120	167	570	600	590
31	261	-	1,300	1,260	------	1,010	- ------	520	--------	566	960	-- --- -
Total	16,969	15,413	31,672	32,632	22,738	25,217	12,998	13,285	15,098	13,856	11,280	22,467
Mean	547	514	1,022	1,053	812	813	433	429	503	447	364	749
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 2,110 Min 162 Mean 519 Cfsm - In. -
Water year 1954-55: Max 1,560 Min 83 Mean 640 Cfsm - In. -

* Discharge measurement made on this day.
Note.--No gage-height record Nov. 2 to Dec. 5, July 21-29; discharge estimated on basis of gage openings at dam upstream and weekly gage-height readings.

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, approximately.

Records available.--November 1919 to September 1955.

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

Average discharge.--36 years, 2,216 cfs.

Extremes.--Maximum discharge during year, 11,000 cfs Dec. 20 (gage height, 7.43 ft); minimum daily, 495 cfs Sept. 5.
1919-55: 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 below 600 cfs, 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.7	470	3.0	2,850
.9	590	4.0	4,340
1.2	800	6.0	7,850
1.5	1,040	7.0	9,950
2.0	1,570		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,500	4,840	3,130	5,990	3,360	4,200	4,370	4,920	2,540	2,590	2,440	2,350
2	2,410	4,670	3,000	4,790	3,400	4,140	4,390	3,580	2,570	2,570	2,610	2,150
3	2,400	5,290	2,840	4,980	3,480	4,020	4,870	2,580	2,490	1,060	2,720	2,140
4	2,380	6,930	2,820	4,740	3,520	3,890	5,090	2,540	2,500	1,030	2,550	1,060
5	3,110	7,700	2,260	4,770	3,540	3,900	5,090	2,540	2,840	2,490	2,370	495
6	3,240	7,890	2,450	4,210	3,400	3,860	5,470	3,200	3,210	2,660	2,590	2,250
7	*2,600	7,080	2,850	3,920	3,730	3,960	5,920	3,480	*2,570	2,420	1,220	2,280
8	2,370	6,850	2,850	3,940	4,340	4,000	5,760	4,080	2,590	2,100	2,330	2,120
9	2,370	4,890	3,950	2,980	3,980	4,180	4,990	4,710	2,610	2,190	2,670	2,110
10	2,220	3,080	4,110	3,560	3,480	4,390	3,730	*3,410	2,460	1,420	2,640	1,870
11	2,460	2,880	4,990	*3,950	3,470	4,470	4,070	2,580	2,450	1,970	2,640	2,160
12	2,120	3,080	4,450	3,940	5,150	4,530	4,180	2,610	1,240	2,270	2,520	2,010
13	2,130	3,050	4,510	3,420	5,040	4,120	4,080	2,950	2,480	2,270	2,390	2,020
14	2,220	2,910	3,660	2,860	5,190	4,640	4,560	3,460	2,580	2,240	1,470	2,150
15	2,490	2,100	4,240	2,770	4,930	5,310	5,360	2,680	2,630	2,160	2,400	2,190
16	3,050	1,350	5,360	2,840	4,720	5,330	6,760	2,520	2,480	2,160	2,500	2,190
17	4,850	2,700	5,360	3,340	4,800	5,450	7,270	2,500	2,460	1,280	2,450	1,800
18	5,120	2,640	5,330	3,590	4,770	5,280	7,040	2,530	2,530	2,230	2,330	980
19	5,500	2,620	6,840	3,110	4,800	5,110	6,460	2,500	1,350	2,680	2,260	1,370
20	4,060	2,550	9,570	3,030	3,940	4,640	6,730	2,270	2,060	2,710	2,370	1,150
21	2,870	2,780	8,790	2,980	4,520	4,250	7,040	2,520	2,540	2,630	1,140	1,210
22	2,850	5,300	8,470	2,990	3,950	3,890	7,110	1,140	2,580	2,430	2,100	1,230
23	3,140	4,000	7,780	3,190	3,660	3,940	6,960	2,370	2,030	2,290	2,060	1,220
24	2,700	2,990	7,550	3,920	3,830	4,140	6,750	2,530	2,700	1,680	2,480	1,240
25	3,050	2,780	6,810	3,800	3,950	3,710	6,980	2,070	2,590	2,580	2,520	1,180
26	2,080	2,780	4,420	3,680	4,060	3,560	6,980	2,540	2,340	2,750	2,430	1,220
27	2,290	2,740	4,620	3,400	3,290	2,700	6,600	3,040	2,920	2,710	2,220	1,200
28	2,210	1,420	5,240	3,740	4,060	3,300	7,000	3,540	2,550	2,700	980	1,220
29	2,020	2,350	5,550	3,470	-	3,850	6,950	2,160	2,410	2,520	2,350	1,170
30	2,990	2,750	6,250	2,230	------	4,280	6,660	2,940	2,610	2,560	2,580	1,200
31	4,170	------	6,300	3,440	------	4,340	------	2,550	------	1,250	2,320	------
Total	89,970	114,990	156,350	113,570	114,360	131,380	175,220	89,040	73,910	68,600	70,650	48,935
Mean	2,902	3,833	5,044	3,664	4,084	4,238	5,841	2,872	2,464	2,213	2,279	1,631
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 19,900 Min 955 Mean 3,460 Cfsm - In. -
Water year 1954-55: Max 9,570 Min 495 Mean 3,416 Cfsm - In. -

* Discharge measurement made on this day.

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 1955. 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.--42 years (1905-21, 1929-55), 951 cfs.

Extremes.--Maximum discharge during year, 4,610 cfs Dec. 20 (gage height, 8.67 ft); minimum, 22 cfs Sept. 10 (gage height, 2.38 ft).
1905-21, 1929-55: 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 cofferdams 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.4	23	4.0	520
2.6	39	4.5	890
2.8	63	5.0	1,330
3.0	97	6.0	2,220
3.3	175	7.0	3,120
3.6	295	9.0	4,910

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	826	2,620	2,000	2,400	795	1,680	1,920	3,360	435	552	178	142
2	850	2,180	1,640	2,240	770	2,010	1,920	2,960	520	452	163	140
3	858	1,940	1,340	2,080	755	2,050	1,760	2,670	508	340	82	140
4	1,170	3,050	1,040	1,910	745	1,780	1,700	2,460	458	282	58	135
5	1,630	3,500	970	1,780	740	1,470	1,720	2,400	452	246	62	128
6	*1,560	2,900	948	1,600	730	1,290	1,960	2,400	*458	222	95	125
7	1,340	2,260	842	1,500	740	1,470	2,060	2,480	435	214	118	120
8	1,130	1,820	1,010	1,380	795	1,510	2,220	2,430	394	210	142	120
9	1,040	1,590	1,190	1,330	840	1,330	2,010	*2,400	367	196	145	74
10	988	1,400	1,540	*1,290	920	1,200	1,780	2,350	345	196	145	26
11	970	1,250	2,460	1,260	1,050	1,200	1,800	2,210	740	200	154	31
12	1,040	1,170	2,260	1,230	1,510	1,580	1,890	2,530	410	310	362	84
13	1,100	1,100	1,840	1,200	3,080	1,750	1,780	2,620	142	435	775	148
14	1,100	1,040	1,380	1,180	*2,950	1,550	1,660	2,340	423	458	458	148
15	1,240	979	2,150	1,160	2,490	1,380	1,890	2,130	760	470	345	145
16	1,040	946	3,560	1,140	1,840	1,310	2,300	1,420	515	641	305	138
17	2,080	906	3,340	1,120	1,510	1,980	2,340	962	458	954	264	118
18	2,530	890	2,460	1,100	1,380	2,140	2,080	778	435	922	238	115
19	2,080	882	3,490	1,060	1,310	1,630	2,080	692	376	738	214	115
20	1,650	874	4,560	1,050	1,240	1,340	2,530	634	340	634	182	125
21	1,380	1,640	4,160	1,020	1,220	1,160	2,930	225	367	572	172	142
22	1,200	2,530	3,340	980	1,240	1,040	3,070	62	477	546	172	145
23	1,120	2,060	2,540	960	1,270	1,410	2,620	115	578	566	175	142
24	1,070	1,610	1,950	945	1,340	2,090	1,990	335	648	585	175	135
25	979	1,350	1,690	920	1,600	2,050	1,850	552	599	559	175	140
26	914	1,200	1,500	900	1,800	1,800	1,930	572	552	572	175	135
27	874	1,100	1,490	880	1,770	2,250	2,020	501	501	572	172	120
28	882	1,080	1,530	865	1,690	2,760	2,720	501	429	470	172	132
29	898	1,450	1,600	860	-	2,200	3,190	470	463	315	166	166
30	1,960	2,080	2,000	835	-------	1,770	3,520	441	572	218	148	175
31	2,960	---	2,560	810	-------	1,730	-------	446	------	196	142	---
Total	40,459	49,397	64,378	38,985	38,120	51,910	65,240	46,446	14,177	13,843	6,329	3,749
Mean	1,305	1,647	2,077	1,258	1,361	1,675	2,175	1,498	473	447	204	125
Cfsm	2.86	3.60	4.54	2.75	2.98	3.67	4.76	3.28	1.04	0.978	0.446	0.274
In.	3.30	4.02	5.23	3.17	3.10	4.23	5.31	3.78	1.16	1.13	0.51	0.31

Calendar year 1954: Max 11,200 Min 250 Mean 1,467 Cfsm 3.21 In. 43.54
Water year 1954-55: Max 4,560 Min 26 Mean 1,186 Cfsm 2.60 In. 35.25

Peak discharge (base, 3,200 cfs).--Nov. 5 (6 a.m.) 3,600 cfs (7.54 ft); Dec. 16 (8 p.m.) 3,700 cfs (7.65 ft); Dec. 20 (12 m. to 3 p.m.) 4,610 cfs (8.67 ft); Apr. 30 (9 a.m. to 1 p.m.) 3,540 cfs (7.48 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 24 to Feb. 27, Mar. 3, 8,115 (no gage-height record Dec. 31 to Jan. 10; discharge estimated on basis of weather records and records for station at East Machias).

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 1955.

Gage.--Staff gage and crest-stage indicator; gage read once daily. Datum of gage is 34.9 ft above mean sea level, datum of 1929. Prior to Oct. 1, 1950, at datum 1.00 ft higher.

Average discharge.--28 years (1927-55), 516 cfs.

Extremes.--Maximum discharge during year, 1,930 cfs Dec. 22 (gage height, 6.81 ft); minimum, 55 cfs Sept. 28 (gage height, 1.47 ft).
1926-55: 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Jan. 15)

1.4	49	4.0	595
1.7	81	5.0	1,010
2.0	124	6.0	1,500
2.5	208	7.0	2,100
3.0	310		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	600	900	960	1,520	340	1,020	1,240	1,340	320	230	130	91
2	565	1,030	965	1,480	325	1,040	1,220	1,290	315	220	120	89
3	545	1,080	940	1,440	315	1,050	1,210	1,240	315	215	114	86
4	550	1,120	915	1,360	305	1,020	1,200	1,180	315	210	108	84
5	575	1,210	875	1,290	290	982	1,190	1,120	315	205	102	82
6	590	1,310	830	1,220	290	954	1,180	1,070	*315	200	96	81
7	*600	1,300	810	1,170	305	945	1,190	1,050	305	198	91	80
8	590	1,290	785	1,100	330	922	1,210	958	295	194	90	74
9	575	1,240	795	1,030	335	905	1,220	*936	290	184	90	68
10	565	1,180	800	*955	340	874	1,210	896	285	172	96	64
11	555	1,140	950	890	390	840	1,200	857	275	162	98	59
12	550	1,080	975	830	715	874	1,170	818	280	152	90	59
13	545	995	1,010	775	840	900	1,150	770	285	142	85	61
14	535	915	1,080	725	*995	892	1,150	730	295	134	93	62
15	525	890	1,180	680	1,020	874	1,150	680	310	140	102	64
16	560	860	1,300	640	1,040	865	1,160	660	305	156	110	62
17	710	770	1,340	605	991	918	1,180	630	300	172	120	60
18	795	690	1,380	575	963	*972	1,180	600	290	166	126	57
19	825	665	1,570	550	932	932	1,180	575	285	184	124	56
20	850	670	1,730	520	896	892	1,200	550	280	198	124	59
21	840	675	1,830	500	865	835	1,210	510	270	192	122	64
22	830	800	1,920	460	840	789	1,220	465	265	184	120	62
23	825	840	1,900	445	814	840	1,210	445	255	176	118	60
24	815	865	1,860	430	883	1,000	1,200	430	260	172	112	58
25	750	855	1,780	420	945	1,010	1,200	400	265	170	110	56
26	680	850	1,670	410	982	1,030	1,190	385	265	166	110	58
27	660	865	1,550	405	982	1,150	1,180	370	260	160	106	57
28	625	810	1,440	395	991	1,250	1,220	355	250	156	102	55
29	660	860	1,420	385	-	1,260	1,270	350	245	150	98	56
30	715	915	1,460	370	------	1,250	1,350	345	235	142	96	56
31	795		1,510	350	------	1,240	------	335	------	138	93	
Total	20,400	28,670	39,510	23,925	19,259	30,325	36,040	22,340	8,545	5,440	3,296	1,980
Mean	658	956	1,275	772	688	978	1,201	721	285	175	106	66.0
Cfsm	2.62	3.81	5.08	3.08	2.74	3.90	4.78	2.88	1.14	0.697	0.422	0.263
In.	3.02	4.25	5.86	3.55	2.85	4.50	5.33	3.32	1.27	0.80	0.49	0.29

Calendar year 1954: Max 3,360 Min 122 Mean 803 Cfsm 3.20 In. 43.46
Water year 1954-55: Max 1,920 Min 55 Mean 657 Cfsm 2.62 In. 35.52

* 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 1955.

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.--7 years, 523 cfs.

Extremes.--Maximum discharge during year not determined (probably occurred Dec. 19); minimum, 31 cfs Sept. 10 (gage height, 7.12 ft).
1948-55: Maximum discharge, 7,250 cfs Nov. 28, 1950 (gage height, 15.81 ft); minimum, that of Sept. 10, 1955.

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

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

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

7.1	29	9.0	425
7.3	46	9.5	620
7.5	69	10.0	850
7.7	96	11.0	1,460
8.0	149	12.0	2,250
8.5	270	13.0	3,300

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	332	1,200	650	850	230	994	1,120	918	250	108	43	42
2	326	1,100	520	775	230	1,310	1,110	754	264	96	43	43
3	323	1,250	460	715	220	1,180	999	650	245	96	39	43
4	525	1,960	450	665	220	1,080	961	578	221	96	36	40
5	726	1,770	435	620	215	1,050	956	550	219	98	37	37
6	686	1,450	415	580	230	1,010	1,000	612	211	86	37	37
7	591	1,050	400	540	270	955	1,070	642	190	79	42	37
8	491	892	480	505	360	825	1,140	612	170	72	63	35
9	422	778	540	480	460	699	1,110	*586	155	68	67	32
10	379	*676	1,150	*460	600	595	961	538	147	63	56	31
11	370	607	1,010	445	780	763	902	484	143	59	62	35
12	422	566	880	430	2,120	1,070	907	436	145	56	270	49
13	447	522	700	425	1,910	900	918	395	293	52	236	55
14	432	484	600	410	*1,650	780	902	386	323	47	226	47
15	395	465	800	400	1,420	710	934	418	290	49	179	45
16	402	432	1,980	390	1,130	850	1,110	412	242	59	145	43
17	1,150	425	1,600	375	900	1,420	1,200	415	214	129	122	41
18	1,290	418	1,300	360	720	1,080	1,130	379	179	129	108	40
19	1,090	410	2,350	350	625	907	988	341	153	99	98	43
20	855	395	2,100	340	580	740	1,040	323	131	82	86	46
21	676	600	1,700	330	570	582	1,060	296	147	72	74	58
22	574	1,180	1,380	320	580	518	983	270	211	67	65	55
23	526	980	1,100	310	640	1,280	871	253	224	59	68	46
24	488	750	910	300	740	1,470	792	242	209	56	83	44
25	439	620	780	295	995	1,280	736	234	177	55	83	49
26	412	530	680	280	955	1,060	704	237	155	49	70	48
27	412	480	640	275	892	1,690	754	242	153	48	59	44
28	480	400	640	265	940	1,460	801	232	145	49	56	49
29	495	660	670	255	-	1,110	913	214	129	47	47	72
30	1,430	740	720	250	------	988	1,090	211	122	45	45	*69
31	1,380	-- -	910	240	------	1,020	-------	224	- ---	43	42	-
Total	18,966	23,790	28,950	13,235	21,182	31,376	29,162	13.084	5,857	2,213	2,745	1,355
Mean	612	793	934	427	756	1,012	972	422	195	71.4	88.5	45.2
Cfsm	2.64	3.42	4.03	1.84	3.26	4.36	4.19	1.82	0.841	0.308	0.381	0.195
In.	3.04	3.82	4.65	2.12	3.40	5.03	4.68	2.10	0.94	0.36	0.44	0.22

Calendar year 1954: Max 6,330 Min 78 Mean 694 Cfsm 2.99 In. 40.63
Water year 1954-55: Max 2,350 Min 31 Mean 526 Cfsm 2.27 In. 30.80

Peak discharge (base, 1,500 cfs).--Nov. 4 (3 p.m.) 1,990 cfs (11.70 ft); Dec. 16 (time and discharge unknown); Dec. 19 (time and discharge unknown); Feb. 12 (time and discharge unknown); Mar. 17 (5 a.m.) 1,500 cfs (11.06 ft); Mar. 23 (10 p.m.) 1,800 cfs (11.46 ft); Mar. 27 (8 p.m.) 1,990 cfs (11.70 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Nov. 19 to Jan. 10; discharge estimated on basis of weather records and records for nearby stations. Stage-discharge relation affected by ice Jan. 11 to Feb. 26, Mar. 4-8, 12-16 (no gage-height record Feb. 14-21).

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 1955. Published as Union River at Amherst October 1910 to September 1913.

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

Average discharge.--36 years, 263 cfs.

Extremes.--Maximum discharge during year, 1,500 cfs Dec. 19 (gage height, 6.62 ft); maximum gage height, 8.53 ft Feb. 15 (backwater from ice); minimum discharge, 11 cfs Sept. 28 (gage height, 3.06 ft).
1909-19, 1929-55: 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, 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 table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.0	8.5	4.0	155
3.1	12	4.5	305
3.2	18	5.0	515
3.3	26	5.5	780
3.4	37	6.0	1,100
3.6	66	6.5	1,430

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	263	481	422	590	170	620	510	559	214	49	17	18
2	253	515	376	555	166	655	535	505	211	47	16	17
3	272	579	341	515	160	565	544	472	199	50	15	17
4	449	780	300	490	156	510	599	426	182	45	13	16
5	515	763	265	465	152	465	636	409	177	38	12	15
6	*535	701	250	445	148	445	740	426	168	36	14	15
7	520	642	250	420	158	420	863	422	152	34	16	14
8	486	589	255	400	182	400	933	401	139	32	21	12
9	440	*544	255	*395	215	370	863	376	127	28	17	12
10	397	472	265	380	270	340	851	353	112	26	14	12
11	368	409	270	355	355	319	913	319	105	26	25	12
12	372	372	285	340	840	431	959	292	103	24	42	18
13	364	334	300	325	*805	418	959	266	115	21	36	16
14	357	302	325	305	725	376	972	260	119	19	40	15
15	334	282	525	295	665	349	1,120	263	124	19	47	13
16	388	260	690	285	615	388	1,220	*244	127	20	49	13
17	535	244	631	275	575	467	1,240	238	127	26	47	12
18	510	235	655	265	555	454	1,280	214	115	25	44	12
19	481	229	1,420	255	530	418	1,290	205	105	24	40	12
20	431	282	1,310	245	500	384	1,320	185	101	27	37	12
21	388	458	1,220	240	495	345	1,240	177	92	34	36	15
22	349	544	1,090	235	490	312	1,160	163	82	35	33	13
23	312	515	965	225	525	384	1,090	152	73	34	44	12
24	292	472	870	220	615	418	1,000	147	66	37	32	12
25	263	431	780	215	690	418	900	150	64	32	26	12
26	253	384	675	210	710	388	810	208	63	27	25	12
27	250	349	585	205	680	449	746	238	61	24	24	12
28	253	334	545	196	650	440	679	241	56	24	23	12
29	250	380	595	190	-	397	652	229	55	20	20	13
30	323	454	670	186	-----	380	604	223	50	18	17	12
31	418	----	625	180	-----	426	-----	217	-----	17	17	-
Total	11,621	13,336	18,010	9,902	12,797	13,151	27,228	8,980	3,484	918	859	408
Mean	375	445	581	319	457	424	908	290	116	29.6	27.7	13.6
Cfsm	2.53	3.01	3.93	2.16	3.09	2.86	6.14	1.96	0.784	0.200	0.187	0.092
In.	2.92	3.36	4.53	2.49	3.22	3.30	6.85	2.26	0.87	0.23	0.22	0.10

Calendar year 1954: Max 2,490 Min 52 Mean 411 Cfsm 2.78 In. 37.73
Water year 1954-55: Max 1,420 Min 12 Mean 331 Cfsm 2.24 In. 30.35

Peak discharge (base, 1,000 cfs).--Dec. 19 (6 a.m.) 1,500 cfs (6.62 ft); Apr. 20 (5 a.m.) 1,340 cfs (6.37 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4-13, Dec. 22 to Mar. 10.

East Branch Penobscot River at Grindstone, Maine

Location.--Lat 45°43'50", long 68°35'20", on left bank 500 ft downstream from Bangor and 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 1955. 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.--53 years, 1,883 cfs (unadjusted).

Extremes.--Maximum discharge during year, 11,200 cfs Apr. 16 (gage height, 9.86 ft); minimum, 162 cfs Aug. 6 (gage height, 3.99 ft).
1902-55: Maximum discharge, 37,000 cfs Apr. 30, 1923 (gage height, 16.9 ft, site then in use, present datum); minimum daily (1914-55), 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. 40).

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

Rating tables, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 13				Apr. 14 to Sept. 30			
5.3	1,050	7.0	3,520	4.0	165	6.0	1,970
5.5	1,250	8.0	5,700	4.4	325	7.0	3,800
6.0	1,860	8.7	7,500	4.9	650	8.0	6,020
				5.5	1,260	9.7	10,600

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,600	2,650	1,830	2,320	1,200	2,080	2,340	8,130	4,900	474	235	570
2	1,630	2,320	1,780	2,280	1,180	2,030	2,440	6,950	4,950	375	227	570
3	2,220	2,280	1,690	2,200	1,170	1,970	2,490	6,480	4,420	365	208	556
4	3,340	4,710	1,630	2,160	1,160	1,920	2,570	7,080	3,950	365	194	549
5	4,440	6,320	1,580	2,140	1,150	1,890	2,600	8,020	2,340	340	181	749
6	5,210	5,900	1,540	2,070	1,150	1,900	2,810	9,510	2,570	335	165	514
7	5,100	5,310	1,530	1,990	1,140	1,920	2,970	9,020	3,140	325	197	507
8	4,060	5,430	1,520	1,920	1,140	1,930	3,220	7,290	3,320	316	549	500
9	2,360	5,190	1,490	1,860	1,130	1,960	3,320	6,380	2,550	292	454	487
10	1,860	4,440	1,480	1,800	1,150	2,000	3,420	5,440	2,310	278	655	487
11	1,860	3,300	1,470	1,780	1,250	2,080	3,720	*5,560	2,500	269	1,010	487
12	2,790	2,840	1,440	1,730	1,730	2,290	3,940	5,950	1,400	239	1,130	500
13	4,910	2,260	1,440	1,640	2,790	2,810	4,290	5,720	1,860	235	1,180	500
14	7,500	1,990	1,500	1,600	2,700	2,770	5,330	4,620	2,260	231	1,010	480
15	6,680	1,870	1,730	1,540	2,600	2,600	8,250	5,080	1,350	248	940	474
16	5,450	1,810	2,600	1,530	*2,570	*2,550	10,400	5,030	1,610	325	910	487
17	7,470	1,740	2,440	1,480	2,440	2,460	9,570	*4,810	1,390	642	930	461
18	7,500	1,690	2,360	1,470	2,360	2,410	8,850	4,420	890	830	930	454
19	5,850	1,640	2,520	1,460	2,290	2,360	9,650	4,120	812	722	910	442
20	5,160	1,720	5,580	1,440	2,220	2,440	9,920	3,930	749	474	840	442
21	4,140	3,150	5,210	1,460	2,220	3,060	9,920	3,760	1,590	370	803	740
22	3,720	4,410	4,800	1,480	2,230	2,950	9,540	2,640	1,700	320	920	570
23	3,560	3,740	4,440	1,580	2,310	2,770	9,220	3,140	1,640	320	1,180	454
24	3,020	3,130	4,020	1,480	2,440	2,680	9,510	2,800	1,540	330	1,340	442
25	2,880	2,410	3,740	1,360	2,470	2,580	9,510	3,120	970	330	910	528
26	2,410	2,100	3,520	1,300	2,360	2,500	8,820	3,320	521	297	740	677
27	2,130	1,970	3,130	1,270	2,290	2,420	8,770	3,900	474	278	704	634
28	2,700	1,920	2,860	1,250	2,200	2,360	8,660	3,140	435	311	650	602
29	3,020	1,900	2,600	1,230	-	2,290	7,550	2,770	417	311	610	634
30	3,520	1,940	2,490	1,220	--------	2,220	7,810	3,600	411	274	586	448
31	3,740	--------	2,410	1,210	--------	2,260	--------	3,970	--------	244	570	--------
Total	121,830	92,080	78,370	51,250	53,040	72,460	191,410	159,700	58,969	11,065	21,768	15,945
Mean	3,930	3,069	2,528	1,653	1,894	2,337	6,380	5,152	1,966	357	702	532
(†)	-45.6	-69.8	-172	-558	-508	-541	+867	+720	+124	-1.9	-454	-479

Adjusted for change in reservoir contents

Mean	3,884	2,999	2,356	1,095	1,386	1,796	7,247	5,872	2,090	355	248	53
Cfsm	3.63	2.80	2.20	1.02	1.30	1.68	6.77	5.49	1.95	0.332	0.232	0.050
In.	4.18	3.12	2.54	1.18	1.35	1.94	7.55	6.33	2.18	0.38	0.27	0.06

	Observed			Adjusted		
Calendar year 1954:	Max 15,600	Min 833	Mean 3,045	Mean 3,041	Cfsm 2.84	In. 38.54
Water year 1954-55:	Max 10,400	Min 165	Mean 2,542	Mean 2,450	Cfsm 2.29	In. 31.08

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, of Chamberlain, Telos, Second and Grand Lakes, and Round Pond.
Note.--Stage-discharge relation affected by ice Dec. 3 to Apr. 13.

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, 1¼ miles upstream from Mattaseunk Brook, and 4¼ 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 1955.

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

Average discharge.--15 years, 5,644 cfs (unadjusted).

Extremes.--Maximum discharge during year, 27,500 cfs May 10 (gage height, 9.16 ft); minimum daily, 1,700 cfs Sept. 5.
1940-55: 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. 40).

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,600	12,800	7,560	6,950	5,560	7,610	9,360	13,800	12,700	3,310	3,750	4,050
2	11,000	13,500	7,250	4,700	5,620	7,400	9,360	13,400	11,900	3,220	3,800	4,150
3	10,900	13,700	7,100	5,480	5,510	7,500	6,580	12,900	9,270	2,850	4,150	4,450
4	13,300	12,000	6,680	6,580	5,830	7,350	8,030	13,700	6,470	2,420	3,410	3,360
5	15,600	14,000	4,500	5,930	5,830	7,400	10,400	19,000	6,740	3,560	3,560	1,700
6	13,700	15,200	4,000	5,240	4,200	5,990	10,600	24,800	5,880	3,170	3,460	4,250
7	11,100	14,400	2,940	5,620	5,670	5,720	11,200	26,700	6,470	3,220	3,850	4,650
8	7,770	13,800	3,310	5,620	5,880	6,840	11,800	26,900	6,790	3,310	4,150	4,050
9	5,130	14,000	5,020	5,240	5,670	6,900	12,000	27,200	6,420	3,650	4,960	3,170
10	4,450	10,800	5,720	4,300	5,830	6,840	9,840	*27,300	6,040	3,750	4,350	3,950
11	4,960	7,560	6,580	5,620	5,720	6,950	10,800	27,300	5,990	3,850	4,650	4,350
12	7,560	6,630	3,650	6,260	6,630	7,000	12,900	26,700	5,560	3,800	4,910	3,750
13	10,100	7,300	3,580	6,370	6,470	6,470	13,200	21,500	5,460	3,650	4,860	4,700
14	12,900	5,460	4,750	6,200	6,530	6,580	14,600	16,500	5,990	3,600	4,400	4,150
15	13,200	5,830	5,480	6,370	7,720	7,500	16,800	16,400	5,400	3,600	4,250	3,360
16	12,400	5,670	7,050	5,300	8,310	*7,000	17,900	17,000	4,910	4,050	4,050	3,950
17	16,000	6,040	8,070	4,650	8,310	6,680	15,900	17,800	4,700	4,960	4,450	3,900
18	20,900	4,500	7,560	5,770	8,220	6,790	14,600	17,900	4,250	5,880	4,400	3,460
19	22,200	6,150	8,620	5,990	7,610	7,500	15,900	16,700	4,150	4,800	4,800	3,360
20	22,200	6,040	11,800	5,830	6,740	5,080	17,000	9,220	5,130	3,800	4,350	4,000
21	20,800	4,550	13,200	6,150	5,990	5,880	17,400	8,220	5,350	4,100	4,350	4,200
22	18,200	9,700	12,300	6,530	6,950	7,870	16,300	6,530	5,720	3,750	4,650	3,700
23	17,200	9,700	11,200	5,080	7,300	9,450	16,000	5,880	5,560	4,100	4,860	3,080
24	14,200	9,000	9,840	4,860	7,610	9,840	15,000	5,460	5,460	4,050	5,020	3,850
25	12,000	8,310	7,870	5,930	7,870	10,400	14,200	6,310	4,960	3,600	5,080	4,150
26	9,270	8,120	7,050	6,370	7,930	10,100	15,000	6,950	4,400	4,400	4,100	4,250
27	8,260	9,600	6,740	6,420	6,740	6,370	14,600	8,220	4,300	3,650	4,600	4,450
28	8,890	7,050	7,400	6,840	6,740	7,870	14,500	9,180	4,100	3,560	4,200	3,750
29	12,400	6,420	7,610	7,250	-	9,000	14,200	8,620	3,900	3,600	4,100	4,200
30	14,800	7,660	7,350	6,200	--------	9,140	13,400	9,600	3,560	3,460	3,510	3,900
31	14,400	--------	6,950	5,400	--------	8,890	--------	11,000	--------	3,360	4,050	--------
Total	396,390	275,490	218,690	181,030	184,990	231,910	399,370	478,690	177,530	116,080	133,080	116,290
Mean	12,790	9,183	7,054	5,840	6,607	7,481	13,310	15,440	5,918	3,745	4,293	3,876
(†)	+491	-735	-609	-2,711	-2,287	-3,807	+8,025	+3,535	-844	-2,656	-3,401	-3,801

Adjusted for change in reservoir contents

Mean	13,280	8,448	6,445	3,129	4,320	3,674	21,340	18,980	5,074	1,089	892	75
Cfsm	4.01	2.55	1.95	0.945	1.31	1.11	6.45	5.73	1.53	0.329	0.269	0.023
In.	4.62	2.84	2.25	1.09	1.36	1.28	7.20	6.61	1.71	0.38	0.31	0.03

	Observed			Adjusted		
Calendar year 1954:	Max 32,900	Min 2,900	Mean 8,812	Mean 9,210	Cfsm 2.78	In. 37.78
Water year 1954-55:	Max 27,300	Min 1,700	Mean 7,971	Mean 7,235	Cfsm 2.19	In. 29.68

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, of reservoirs on West and East Branches of Penobscot River.
Note.--Stage-discharge relation affected by ice or backwater from aquatic vegetation most of the year.

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.--1,400 sq mi, approximately.

Records available.--October 1934 to September 1955.

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

Average discharge.--21 years, 2,406 cfs.

Extremes.--Maximum discharge during year, 18,900 cfs Apr. 21 (gage height, 11.38 ft); minimum, 187 cfs Sept. 30 (gage height, 0.59 ft).
1934-55: 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 periods of ice effect or no gage-height record, which are fair.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 20		Apr. 21 to Sept. 30			
1.9	1,010	0.6	191	4.0	2,860
2.0	1,070	1.0	375	6.0	6,080
2.3	1,270	1.6	755	8.0	10,500
Note.--Same as following table above 2.3 ft.		2.3	1,270	10.0	15,400
		3.0	1,820	11.4	19,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,530	4,500	2,740	3,140	1,150	4,080	2,510	12,200	5,010	874	448	636
2	2,500	4,400	2,520	2,920	1,140	3,900	2,750	11,800	5,310	762	402	570
3	2,580	4,500	2,280	2,740	1,100	3,670	3,040	11,300	5,240	678	365	508
4	3,440	6,600	1,910	2,550	1,080	3,410	3,390	10,800	4,880	615	330	454
5	4,430	7,650	1,740	2,400	1,070	3,180	3,820	10,100	4,470	563	307	419
6	4,880	7,740	1,600	2,290	1,050	2,980	4,290	9,950	4,000	508	284	386
7	4,860	7,440	1,500	2,190	1,030	2,790	4,790	9,750	3,490	466	298	370
8	4,470	6,680	1,480	2,060	1,030	2,620	5,290	9,240	2,960	414	360	355
9	3,900	5,850	1,510	2,000	1,020	2,480	5,700	8,470	2,500	380	419	325
10	3,410	5,010	1,580	1,910	1,020	2,340	6,080	7,610	2,170	360	436	298
11	3,060	4,270	1,640	1,850	1,030	2,280	6,910	*7,020	1,960	330	430	284
12	3,250	3,760	1,720	1,780	1,090	2,330	7,850	5,850	1,810	312	442	307
13	4,030	3,340	1,800	1,730	1,660	2,410	8,870	5,330	1,800	284	508	307
14	4,930	2,990	1,880	1,660	2,270	2,510	9,880	4,670	1,890	280	570	302
15	5,570	2,750	2,000	1,620	2,620	2,620	11,700	4,240	1,970	276	544	302
16	5,870	2,490	2,400	1,580	*2,980	2,800	14,500	3,990	1,900	307	508	307
17	5,760	2,340	2,980	1,540	3,240	2,980	16,700	3,840	1,650	455	556	280
18	5,640	2,200	3,820	1,500	3,560	3,180	17,700	3,620	1,400	1,450	713	266
19	5,660	2,100	5,350	1,460	3,640	3,110	18,400	3,350	1,250	2,160	755	248
20	5,510	2,130	6,930	1,440	3,380	2,920	18,800	3,040	1,150	1,900	713	244
21	5,110	2,600	8,290	1,400	3,240	2,760	18,800	2,790	1,400	1,440	825	248
22	4,590	3,510	8,530	1,380	3,110	2,620	18,100	2,430	1,630	1,130	1,180	240
23	4,100	4,150	8,140	1,360	3,030	2,480	17,500	2,130	1,580	972	1,440	235
24	3,760	4,400	7,500	1,330	3,100	2,400	16,600	1,960	1,460	980	1,650	222
25	3,390	4,190	6,810	1,300	3,350	2,380	15,700	1,990	1,280	909	1,620	209
26	3,080	3,800	5,890	1,270	3,600	2,370	15,000	2,480	1,190	811	1,400	200
27	2,860	3,370	5,130	1,260	3,940	2,360	14,200	3,140	1,260	699	1,240	191
28	4,200	3,040	4,640	1,230	4,070	2,340	13,700	3,300	1,200	664	1,120	191
29	4,100	2,940	4,150	1,200	-	2,330	13,100	3,110	1,100	622	972	191
30	4,200	2,860	3,670	1,190	------	2,340	12,600	3,110	988	563	832	191
31	4,600	------	3,380	1,170	------	2,400	------	4,130	------	502	713	------
Total	130,270	123,600	115,510	54,450	63,600	85,370	328,270	176,740	69,898	22,666	22,390	9,286
Mean	4,202	4,120	3,726	1,756	2,271	2,754	10,940	5,701	2,330	731	722	310
Cfsm	3.00	2.94	2.66	1.25	1.62	1.97	7.81	4.07	1.66	0.522	0.516	0.221
In.	3.46	3.28	3.07	1.44	1.69	2.27	8.71	4.69	1.85	0.60	0.59	0.25

Calendar year 1954: Max 23,400 Min 540 Mean 3,758 Cfsm 2.68 In. 36.43
Water year 1954-55: Max 18,800 Min 191 Mean 3,293 Cfsm 2.35 In. 31.90

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 27 to Nov. 5, May 11, 12; discharge estimated on basis of weather records and records for nearby stations. Stage-discharge relation affected by ice Dec. 4-18, Dec. 30 to Apr. 10.

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 1955.

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.--53 years, 587 cfs.

Extremes.--Maximum discharge during year, 9,560 cfs Apr. 16 (gage height, 10.75 ft); minimum, 14 cfs Aug. 2, 3 (gage height, 1.47 ft).
1902-55: 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 or no gage-height record, 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 tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 29		Mar. 30 to Sept. 30			
2.1	100	1.4	11	3.5	700
2.5	216	1.6	21	4.0	1,060
3.0	415	1.8	40	5.0	1,990
Note.--Same as following table above 3.0 ft.		2.0	72	7.0	4,320
		2.2	119	9.0	6,910
		2.5	209	10.2	8,710
		3.0	415		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	570	1,410	668	*610	138	565	694	1,800	1,540	130	27	61
2	600	1,440	581	575	130	535	786	1,680	1,350	119	15	59
3	630	1,630	536	520	130	505	726	1,590	950	112	14	54
4	2,000	3,910	455	490	126	480	884	1,500	828	106	15	51
5	1,700	2,510	375	460	126	465	1,110	1,840	905	96	15	48
6	1,400	1,770	280	430	122	455	1,480	2,680	786	94	16	43
7	1,050	1,390	285	405	138	440	1,940	2,100	605	87	20	40
8	860	1,170	420	380	138	430	1,990	1,740	492	74	26	37
9	740	1,020	375	360	140	420	1,570	1,690	415	83	53	31
10	700	884	415	335	146	415	1,480	1,570	366	67	51	29
11	680	807	435	315	166	435	2,100	1,280	338	41	43	29
12	1,000	746	365	305	395	475	2,550	1,050	321	23	48	30
13	1,350	680	330	295	1,170	575	2,500	877	654	24	54	30
14	1,200	611	300	280	995	520	2,860	758	861	23	54	29
15	1,000	564	525	260	920	*465	5,360	700	548	19	54	29
16	980	450	1,750	250	685	435	8,660	617	445	29	114	29
17	3,200	465	1,120	245	585	450	5,660	531	379	83	187	28
18	1,900	460	930	230	*525	520	4,430	460	317	149	135	27
19	1,600	460	6,960	225	465	425	4,770	415	261	112	112	27
20	1,370	540	3,910	215	420	370	5,560	379	231	90	87	27
21	1,140	1,840	2,210	210	395	360	4,250	338	216	79	72	25
22	1,000	2,510	1,520	196	365	360	3,220	313	203	70	74	24
23	900	1,570	1,230	190	355	365	2,720	273	203	65	200	23
24	800	1,160	1,050	182	635	370	2,750	253	193	61	465	23
25	740	950	890	178	940	575	2,410	281	174	54	245	23
26	680	835	800	174	820	380	2,200	785	168	50	168	22
27	760	1,040	765	168	700	365	2,300	548	174	44	141	22
28	1,420	700	745	*156	*610	365	2,090	388	168	39	112	22
29	1,270	713	715	152	-	365	1,960	321	152	37	85	22
30	1,780	746	695	150	------	366	*1,910	492	143	37	70	23
31	1,620	----	640	148	------	415	------	1,190	----	32	67	----
Total	36,640	34,981	32,275	9,089	12,480	13,466	82,920	30,439	14,186	2,129	2,839	967
Mean	1,182	1,166	1,041	293	446	434	2,764	982	473	68.7	91.6	32.2
Cfsm	3.98	3.93	3.51	0.987	1.50	1.46	9.31	3.31	1.59	0.231	0.308	0.108
In.	4.59	4.38	4.05	1.14	1.56	1.68	10.39	3.82	1.77	0.27	0.36	0.12

Calendar year 1954: Max 10,000 Min 52 Mean 1,065 Cfsm 3.59 In. 48.70
Water year 1954-55: Max 8,660 Min 14 Mean 746 Cfsm 2.51 In. 34.13

Peak discharge (base, 4,000 cfs).--Nov. 4 (9 to 10 a.m.) 4,340 cfs (7.02 ft); Dec. 19 (12 m.) 9,020 cfs (10.40 ft); Apr. 16 (11 a.m.) 9,560 cfs (10.75 ft); Apr. 20 (4 a.m.) 6,360 cfs (8.60 ft).
* Discharge measurement made on this day.
Note.--No gage-height record Oct. 1-29; discharge estimated on basis of weather records and records for nearby stations. Stage-discharge relation affected by ice Dec. 4-9, 12-16, Dec. 22 to Mar. 29.

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 1955.

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.--31 years, 616 cfs (unadjusted).

Extremes.--Maximum discharge during year, 4,170 cfs Apr. 20 (gage height, 8.04 ft); minimum, 86 cfs July 15, 16 (gage height, 2.01 ft).
1924-55: 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 except those for period of no gage-height record, which are good. Flow partly regulated by Sebec Lake and other reservoirs above station.

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

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 20		Apr. 21 to Sept. 30			
2.6	296	2.0	84	5.0	1,790
3.0	484	2.2	139	6.0	2,500
3.5	760	2.5	251	7.0	3,260
4.0	1,060	3.0	495	8.0	4,130
5.0	1,740	3.5	810	8.1	4,220
Note.--Same as following table above 6.0 ft.		4.0	1,140		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	868	1,170	934	940	420	826	560	1,940	1,080	192	121	512
2	838	1,190	916	904	328	826	576	1,860	1,220	156	124	495
3	838	1,220	886	874	328	820	582	1,780	1,160	156	104	490
4	1,020	1,480	862	844	324	808	598	1,730	1,130	156	104	490
5	1,310	1,660	844	802	319	796	631	1,730	1,110	156	104	484
6	1,720	1,680	820	778	319	784	712	1,740	1,070	153	104	484
7	1,720	1,610	790	766	324	778	630	1,640	1,020	149	102	462
8	1,540	1,500	724	742	324	760	700	1,670	984	149	104	440
9	1,370	1,420	688	718	319	748	808	1,430	958	153	104	484
10	1,250	1,390	654	694	319	736	862	1,200	560	156	102	478
11	1,190	1,320	642	677	324	730	922	860	415	156	102	473
12	1,190	1,280	654	671	337	718	1,040	456	420	127	104	462
13	1,190	1,250	654	671	337	706	1,180	*840	650	115	102	446
14	1,160	1,210	636	671	337	700	1,360	997	1,090	118	104	446
15	1,110	1,170	677	648	351	688	1,940	984	1,090	96	104	440
16	1,140	1,130	683	626	360	677	3,190	605	665	89	104	440
17	1,510	1,100	671	626	383	677	3,920	478	636	92	104	435
18	1,670	1,060	688	614	407	659	3,930	512	630	92	104	435
19	1,660	1,040	1,040	592	412	665	3,960	517	623	94	104	440
20	1,580	1,030	1,480	587	426	626	4,140	522	610	94	104	435
21	1,480	1,040	1,660	582	435	620	4,000	512	604	96	106	425
22	1,370	1,100	1,690	587	445	626	3,680	506	604	96	106	425
23	1,280	1,160	1,600	582	460	631	3,350	500	610	99	108	430
24	1,200	1,150	1,510	571	700	614	3,160	500	604	102	112	425
25	1,120	1,100	1,410	560	802	592	2,940	500	490	102	255	420
26	1,060	1,020	1,330	550	796	609	2,700	522	222	102	415	400
27	1,040	994	1,210	539	808	609	2,520	528	218	102	420	390
28	1,100	976	1,160	529	820	604	2,340	517	210	102	420	380
29	1,090	964	1,110	514	-	587	2,170	500	210	102	450	376
30	1,130	958	1,040	499	-------	571	2,050	539	210	102	517	361
31	1,160	-------	994	489	-------	560	-------	*755	-------	104	*517	-------
Total	38,904	36,372	30,657	20,447	12,264	21,351	61,151	29,370	21,103	3,758	5,536	13,303
Mean	1,255	1,212	989	660	438	689	2,038	947	703	121	179	443
(†)	-73.2	-34.3	-84.0	-147	+42.6	-230	+630	+142	-171	-46.7	+12.7	-404

Adjusted for change in contents in Sebec Lake and Wilson Pond

Mean	1,182	1,178	905	513	481	459	2,668	1,089	532	74.3	192	39.0
Cfsm	3.61	3.60	2.77	1.57	1.47	1.40	8.16	3.33	1.63	0.227	0.587	0.119
In.	4.16	4.02	3.19	1.81	1.53	1.61	9.10	3.84	1.82	0.26	0.68	0.13

	Observed			Adjusted				
Calendar year 1954:	Max 5,150	Min 121	Mean 1,007	Mean 997	Cfsm 3.05	In. 41.38		
Water year 1954-55:	Max 4,140	Min 89	Mean 806	Mean 775	Cfsm 2.37	In. 32.15		

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Sebec Lake and Wilson Pond.
Note.--No gage-height record Nov. 9-25; discharge estimated on basis of recorded range in stage and record of gate openings in storage dam just upstream.

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 1955.

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.--35 years, 695 cfs.

Extremes.--Maximum discharge during year, 7,540 cfs Apr. 16 (gage height, 7.10 ft); minimum, 74 cfs Aug. 5, 6 (gage height, 1.61 ft).
1920-55: Maximum discharge, 24,400 cfs Apr. 30, 1923 (gage height, 14.33 ft, site and datum then in use), from rating curve extended above 5,500 cfs from floodmarks; 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.6	71	3.5	1,340
1.8	128	4.0	1,960
2.0	198	5.0	3,520
2.5	460	6.0	5,300
3.0	825	7.0	7,330

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	617	1,440	793	735	148	745	460	2,810	1,780	198	95	*288
2	561	1,440	714	690	138	775	435	2,720	1,540	194	95	274
3	680	1,600	655	655	128	705	515	2,650	1,210	227	93	245
4	2,170	3,080	610	630	122	670	500	2,780	1,040	232	84	227
5	2,090	2,810	595	595	116	630	520	3,330	1,040	198	76	202
6	1,630	2,120	555	560	110	660	615	4,240	910	168	76	202
7	1,260	1,680	525	525	116	670	610	3,370	753	158	101	187
8	990	1,390	520	495	130	595	670	2,620	639	148	236	161
9	844	1,200	555	480	116	590	745	2,440	554	128	274	161
10	777	1,040	595	460	112	600	825	2,060	493	135	183	161
11	809	920	555	435	112	630	1,020	1,740	460	131	161	168
12	1,520	844	520	410	340	685	1,580	*1,500	435	116	269	206
13	1,650	777	475	395	1,280	620	1,980	1,310	617	98	288	232
14	1,340	706	480	*390	1,280	575	2,540	1,210	920	95	240	219
15	1,100	668	595	370	1,180	*560	4,260	1,120	920	98	219	206
16	1,340	632	825	340	1,120	565	7,200	1,020	730	128	288	206
17	3,470	610	785	315	*1,040	630	6,130	930	581	304	357	202
18	2,850	588	1,330	300	970	575	4,780	844	486	602	386	168
19	2,020	588	5,360	290	920	525	5,030	793	410	416	298	135
20	1,630	722	5,310	280	870	495	5,420	730	397	293	232	138
21	1,340	2,000	3,230	260	825	460	4,630	661	493	236	202	138
22	1,150	3,050	2,150	245	785	415	3,910	602	428	194	350	135
23	1,010	2,300	1,580	235	855	405	3,320	581	380	165	3,180	131
24	901	1,660	1,250	215	1,000	395	3,380	574	335	161	2,720	131
25	801	1,300	1,050	205	1,040	395	3,200	595	304	151	1,570	141
26	751	1,070	950	198	940	415	2,670	706	283	161	950	131
27	935	920	870	190	845	430	2,800	668	264	131	683	119
28	1,480	854	825	182	785	415	2,540	560	240	128	526	135
29	1,320	863	920	175	-	410	2,510	526	223	122	403	168
30	1,560	854	825	168	------	405	2,730	1,280	202	107	346	176
31	1,560	----	785	160	------	395	------	*1,740	----	98	309	----
Total	42,246	39,726	36,887	11,584	17,423	17,040	77,305	48,710	19,067	5,721	15,290	5,393
Mean	1,363	1,324	1,190	374	622	550	2,577	1,571	636	185	493	180
Cfsm	4.23	4.11	3.70	1.16	1.93	1.71	8.00	4.88	1.98	0.575	1.53	0.559
In.	4.88	4.59	4.27	1.34	2.01	1.97	8.93	5.63	2.21	0.66	1.76	0.62

Calendar year 1954: Max 8,800 Min 126 Mean 1,143 Cfsm 3.55 In. 48.24
Water year 1954-55: Max 7,200 Min 76 Mean 922 Cfsm 2.86 In. 38.87

Peak discharge (base, 3,700 cfs).--Dec. 19 (7 p.m.) 6,850 cfs (6.77 ft); Apr. 16 (12 m. to 3 p.m.) 7,540 cfs (7.10 ft); May 6 (7 a.m.) 4,340 cfs (5.48 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 3-17, Dec. 23 to Apr. 13.

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 1955.

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.--31 years, 2,297 cfs.

Extremes.--Maximum discharge during year, 22,300 cfs Apr. 16 (gage height, 9.81 ft); minimum, 232 cfs Aug. 6, 7 (gage height, 1.61 ft).
1924-55: 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 periods of ice effect or no gage-height record, 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 tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 15				Apr. 16 to Sept. 30			
2.1	537	5.0	5,090	1.6	227	4.0	2,750
2.5	880	6.0	7,800	2.0	440	5.0	4,780
3.0	1,440	7.0	11,300	2.5	840	6.0	7,240
3.5	2,130	8.6	18,000	3.0	1,340	8.0	14,300
4.0	2,960			3.5	1,980	9.8	22,300

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,630	5,440	3,250	2,780	860	2,780	1,900	7,800	5,010	705	288	*950
2	2,730	5,420	2,960	2,640	805	2,580	2,480	7,400	4,940	566	278	921
3	2,830	5,560	2,610	2,510	740	2,450	2,330	7,000	4,080	573	273	885
4	6,280	10,100	2,210	2,390	660	2,310	2,550	7,700	3,580	612	259	849
5	7,060	9,320	2,040	2,290	615	2,230	2,700	9,000	3,640	669	241	822
6	5,890	7,230	1,900	2,130	590	2,130	3,570	9,950	3,440	510	236	804
7	5,220	6,080	1,840	2,020	765	2,070	4,070	8,100	3,020	454	255	786
8	4,420	5,290	1,770	1,900	820	2,010	4,270	7,000	2,560	434	392	759
9	3,840	4,700	1,700	1,810	765	2,000	3,960	6,000	2,270	416	503	732
10	3,530	4,220	1,650	1,700	730	1,950	4,250	5,200	2,090	422	428	723
11	3,530	3,790	1,640	1,570	920	2,130	4,700	4,800	1,710	540	404	723
12	4,770	3,590	1,680	1,520	1,380	2,420	6,000	*4,000	1,540	363	468	750
13	5,160	3,290	1,700	*1,330	3,690	2,640	6,400	3,650	1,660	324	559	822
14	4,480	3,070	1,840	1,310	3,250	*2,610	8,400	3,150	2,270	309	503	795
15	3,900	2,940	2,130	1,270	3,000	2,180	14,700	2,800	2,600	293	468	759
16	4,060	2,660	3,070	1,260	2,750	2,260	22,200	2,550	2,530	341	538	750
17	11,200	2,560	2,890	1,250	2,560	2,290	22,100	*2,380	2,320	552	750	732
18	8,880	2,590	3,810	1,240	2,420	2,130	17,500	2,200	2,040	985	903	714
19	6,670	2,510	9,130	1,220	2,350	1,870	18,000	2,020	1,750	940	750	696
20	5,600	2,660	17,700	1,220	2,320	1,710	18,900	1,920	1,480	705	612	696
21	4,920	5,150	11,100	1,210	2,260	1,620	16,000	1,800	1,520	566	531	678
22	4,390	7,710	7,600	1,200	2,160	1,600	13,800	1,680	1,440	496	538	660
23	3,960	6,430	6,130	1,180	2,120	1,600	11,400	1,580	1,320	440	2,920	777
24	3,670	4,940	5,090	1,180	2,780	1,580	11,500	1,560	1,320	410	3,820	573
25	3,350	4,240	4,370	1,170	*3,180	1,580	10,400	1,630	1,230	392	2,570	482
26	3,090	3,790	3,730	1,160	3,240	1,570	9,400	2,600	1,180	392	1,830	552
27	3,200	3,430	3,410	1,140	3,050	1,560	8,500	2,470	1,000	369	1,560	628
28	5,020	3,270	3,140	1,120	2,960	1,570	7,600	1,940	723	346	1,320	580
29	*4,960	3,270	2,960	1,090	-	1,580	7,400	1,680	660	330	1,160	490
30	5,600	3,470	3,070	1,080	-----	1,600	7,500	2,280	620	314	1,050	678
31	5,910	-- -	2,920	1,070	-----	1,650	----- --	*4,210	-------	293	980	- - -
Total	150,750	138,720	121,020	47,960	53,780	62,240	274,460	128,050	65,543	15,061	27,387	21,766
Mean	4,863	4,624	3,904	1,547	1,921	2,008	9,149	4,131	2,185	486	883	726
Cfsm	4.19	3.98	3.36	1.33	1.65	1.73	7.88	3.56	1.88	0.419	0.761	0.625
In.	4.83	4.44	3.87	1.53	1.72	1.99	8.79	4.10	2.10	0.48	0.88	0.70

Calendar year 1954: Max 26,100 Min 585 Mean 4,061 Cfsm 3.50 In. 47.47
Water year 1954-55: Max 22,200 Min 236 Mean 3,032 Cfsm 2.61 In. 35.43

Peak discharge (base, 13,000 cfs).--Dec. 20 (7 to 8 a.m.) 19,400 cfs (8.90 ft); Apr. 16 (time unknown) 22,300 cfs (9.81 ft).
* Discharge measurement made on this day.
Note.--No gage-height record Mar. 31 to May 17; discharge estimated on basis of recorded range in stage and records of stations at Dover-Foxcroft and on tributary streams. Stage-discharge relation affected by ice Dec. 2-17, Dec. 24 to Mar. 30.

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 1955. 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.--53 years (1902-55), 11,610 cfs (unadjusted).

Extremes.--Maximum discharge during year, 70,000 cfs Apr. 17 (gage height, 14.84 ft); minimum, 2,970 cfs Sept. 6 (gage height, 1.97 ft).
1901-55: 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, which are good. Flow regulated by several reservoirs above station (see p. 40).

Cooperation.--Water-stage-recorder graph furnished by T. W. Clark, hydraulic engineer, of Old Town.

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17,000	27,100	15,700	14,100	9,410	17,000	15,400	39,700	*26,800	5,700	4,520	5,890
2	17,600	28,200	14,400	13,400	9,380	16,800	15,800	38,300	27,900	5,310	4,630	5,990
3	17,700	28,600	12,900	12,500	9,350	15,800	16,200	35,400	24,500	5,160	4,570	5,920
4	23,200	33,700	11,400	12,900	9,350	14,800	17,000	34,600	20,100	5,110	4,670	5,990
5	30,600	36,900	10,900	12,700	9,350	13,900	18,200	36,200	19,200	4,720	4,230	5,200
6	29,500	35,500	8,550	11,900	9,320	13,200	20,000	44,200	16,700	4,890	4,440	3,420
7	26,000	32,400	7,600	10,900	9,060	12,500	22,500	51,000	15,400	4,440	4,420	4,980
8	20,700	28,900	7,210	10,800	9,150	12,700	26,000	48,000	14,300	4,870	5,070	5,820
9	16,500	27,700	8,410	11,200	9,150	13,000	26,000	46,500	13,200	4,830	5,570	5,180
10	13,800	24,400	9,260	10,600	9,120	13,000	25,000	44,200	11,800	4,980	5,870	4,480
11	12,700	20,200	9,820	10,900	9,120	12,900	27,200	42,600	10,800	5,920	5,380	5,340
12	16,000	15,900	10,000	11,200	9,090	13,000	34,200	*40,700	10,200	5,160	6,060	5,590
13	19,600	15,400	8,980	*11,000	9,090	13,200	37,800	36,500	9,120	4,940	6,180	5,290
14	22,900	14,200	9,260	11,000	8,890	*12,700	39,800	30,000	10,800	4,830	6,300	5,940
15	24,200	12,400	9,850	11,000	9,030	12,900	49,600	25,900	11,900	4,810	5,640	5,250
16	23,000	12,400	11,200	10,300	9,260	13,200	63,800	26,800	10,500	4,920	5,730	4,940
17	32,600	12,000	13,400	9,560	9,560	12,700	69,200	26,700	9,840	5,800	5,990	5,250
18	37,400	11,400	16,600	9,500	10,000	12,200	61,900	25,600	8,990	8,740	6,500	5,200
19	36,000	11,300	32,300	10,000	10,600	11,700	61,400	24,200	7,850	10,900	6,380	4,940
20	34,300	11,400	42,900	10,000	11,500	11,200	65,400	18,400	7,270	8,870	6,460	4,870
21	33,200	15,300	37,600	9,970	13,900	10,800	65,200	14,800	8,680	7,350	5,940	5,200
22	29,900	21,000	31,900	9,910	15,200	11,900	60,500	13,100	9,610	6,530	6,380	5,360
23	27,400	23,200	25,400	9,700	15,000	12,400	55,800	11,100	9,980	5,680	8,080	5,340
24	25,000	20,600	22,500	9,180	*17,400	12,500	52,500	10,900	9,380	5,850	12,400	4,940
25	22,000	18,700	19,400	9,350	19,400	12,900	49,400	9,310	9,090	5,730	11,500	4,740
26	18,700	16,500	18,200	9,470	20,500	12,900	47,300	13,600	8,080	5,610	9,210	5,090
27	16,200	17,400	17,200	9,440	19,500	12,500	44,400	16,200	7,480	5,730	7,760	5,220
28	17,900	16,400	16,400	9,440	17,400	11,900	43,600	16,400	6,980	5,110	7,460	5,540
29	21,000	13,800	16,200	9,410	-	12,200	41,600	14,700	6,730	4,980	*6,660	4,890
30	25,600	15,500	16,000	9,260	-------	14,100	39,600	14,900	6,230	4,960	6,380	5,250
31	28,400	-------	15,000	8,690	-------	15,000	-------	21,600	-------	4,740	5,800	-------
Total	736,600	618,400	506,440	329,280	327,080	407,500	‡1,212.3	872,110	369,410	173,170	196,180	157,050
Mean	23,760	20,610	16,340	10,620	11,680	13,150	40,410	28,310	28,130	5,683	6,328	5,235
(†)	+417	-769	-693	-2,858	-2,244	-4,037	+8,655	+3,677	-1,015	-2,703	-3,388	-4,205
Adjusted for change in reservoir contents												
Mean	24,180	19,840	15,650	7,762	9,436	9,113	49,060	31,810	11,300	2,980	2,940	1,030
Cfsm	3.66	3.01	2.37	1.18	1.43	1.38	7.43	4.82	1.71	0.452	0.445	0.156
In.	4.22	3.36	2.73	1.36	1.49	1.59	8.29	5.56	1.91	0.52	0.51	0.17

	Observed			Adjusted		
Calendar year 1954:	Max 81,900	Min 5,290	Mean 18,490	Mean 18,880	Cfsm 2.86	In. 38.79
Water year 1954-55:	Max 69,200	Min 3,420	Mean 16,190	Mean 15,420	Cfsm 2.34	In. 31.71

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, of reservoirs on West and East Branches of Penobscot River, also Sebec Lake and Wilson Pond in Piscataquis River basin.
‡ Expressed in thousands.
Note.--Stage-discharge relation affected by ice Dec. 3-18, Dec. 24 to Apr. 10.

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 1955.

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 ard 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.--40 years, 495 cfs.

Extremes.--Maximum discharge during year, 2,530 cfs Apr. 19 (gage height, 5.72 ft); maximum gage height, 5.85 ft Feb. 14 (backwater from ice); minimum discharge, 92 cfs Sept. 28 (gage height, 0.98 ft).
1915-55: 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 or no gage-height record, which are fair.

Revisions.--WSP 821: Drainage area.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 20		Mar. 21 to Sept. 30			
2.0	354	0.9	78	3.0	780
2.5	538	1.1	114	4.0	1,340
3.0	750	1.5	205	5.0	1,980
4.0	1,270	2.0	365	5.7	2,510
4.2	1,390	2.5	560		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	480	880	648	810	540	1,110	685	1,470	840	358	136	138
2	495	900	632	785	535	1,120	735	1,390	840	310	130	134
3	515	960	807	765	535	1,110	765	1,330	810	287	122	128
4	657	1,060	550	750	530	1,060	805	1,240	820	271	116	122
5	786	1,170	500	730	530	1,050	870	1,180	825	252	112	116
6	950	1,210	460	705	525	1,040	966	1,150	810	244	112	116
7	1,050	1,200	435	690	540	1,070	1,090	1,130	785	235	112	112
8	1,040	1,120	420	670	550	1,090	1,210	1,120	721	224	118	110
9	920	1,000	405	660	575	1,000	1,230	1,100	672	216	120	108
10	840	920	400	640	590	890	1,240	1,080	620	208	118	106
11	820	860	405	625	625	850	1,340	1,040	576	202	120	106
12	840	800	425	615	715	840	1,500	984	536	195	134	112
13	860	740	450	*600	820	820	1,470	920	520	184	144	114
14	840	680	480	590	840	805	1,510	880	532	179	153	114
15	860	620	520	580	845	795	1,740	805	536	179	155	114
16	920	600	580	580	840	805	2,120	740	552	195	165	114
17	1,050	580	655	580	*845	840	2,260	721	604	252	189	114
18	1,120	570	804	575	880	865	2,320	712	616	373	216	114
19	1,140	580	1,110	570	920	835	2,370	*703	568	433	244	112
20	1,110	655	1,250	570	910	820	2,460	676	596	433	252	110
21	1,020	710	1,340	565	990	815	2,410	649	658	399	241	110
22	900	808	1,340	565	1,010	780	2,340	620	620	358	218	108
23	820	865	1,220	560	1,050	780	2,240	588	596	307	205	104
24	770	890	1,110	560	1,120	770	2,130	560	564	271	197	103
25	750	890	1,050	560	1,110	765	2,020	720	572	241	192	99
26	740	855	1,000	555	1,060	755	1,900	775	596	210	184	95
27	750	813	950	555	1,050	765	1,790	840	628	189	174	93
28	780	741	925	550	1,060	765	1,690	885	632	174	165	95
29	840	670	890	545	-	745	1,610	850	584	160	153	97
30	860	657	860	540	------	676	1,540	860	457	149	147	95
31	870	-- ---	840	540	-------	649	--------	845	--------	142	142	-- -
Total	26,393	25,004	23,261	19,185	22,140	27,080	48,356	28,543	19,286	7,830	4,986	3,313
Mean	851	833	750	619	791	874	1,612	921	643	253	161	110
Cfsm	2.85	2.79	2.51	2.07	2.65	2.92	5.39	3.08	2.15	0.846	0.538	0.368
In.	3.29	3.11	2.89	2.39	2.76	3.37	6.01	3.55	2.40	0.98	0.62	0.41

Calendar year 1954: Max 3,400 Min 157 Mean 786 Cfsm 2.63 In. 35.68
Water year 1954-55: Max 2,460 Min 93 Mean 700 Cfsm 2.34 In. 31.78

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 6 to Nov. 20; discharge estimated on basis of recorded range in stage and records for nearby streams. Stage-discharge relation affected by ice Dec. 4-17, Dec. 23 to Mar. 20.

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 1955. Prior to 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.--17 years, 12,420 cfs (unadjusted).

Extremes.--Maximum discharge during year, 71,600 cfs Apr. 17 (gage height, 10.35 ft); minimum, 3,520 cfs Sept. 6 (gage height, 2.77 ft).
1938-55: 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 periods of ice effect, which are good. Flow regulated by several reservoirs above station (see p. 40).

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17,700	28,700	16,400	15,100	10,400	18,400	16,300	40,800	*28,300	6,230	4,780	6,080
2	18,400	29,800	15,300	14,500	10,100	18,300	16,600	39,400	28,600	5,720	4,840	6,230
3	18,400	30,300	13,700	13,500	10,100	17,100	17,300	36,600	25,500	5,580	4,980	6,120
4	24,400	34,900	12,700	13,900	10,100	16,200	18,100	35,700	20,700	5,470	4,780	6,260
5	31,600	38,200	11,600	13,700	10,100	15,300	19,400	37,100	20,000	4,980	4,360	5,330
6	30,800	37,200	9,140	12,900	10,000	14,600	21,400	45,200	17,100	5,330	4,560	3,660
7	27,700	34,500	8,170	11,800	9,400	14,000	24,000	51,000	16,100	4,780	4,560	5,120
8	22,100	30,600	7,790	11,700	9,900	14,200	28,600	47,900	14,800	5,220	5,260	6,010
9	17,800	29,000	8,930	12,100	9,900	14,300	27,700	46,600	13,800	5,150	5,720	5,290
10	15,000	25,700	9,790	11,400	9,900	14,200	27,700	44,700	12,400	5,330	5,940	4,590
11	13,800	22,200	10,400	11,700	9,960	14,000	29,000	43,100	11,300	5,330	5,610	5,430
12	16,900	17,100	10,600	12,000	10,000	14,200	36,800	*41,500	10,900	5,580	6,300	5,830
13	20,700	16,300	9,570	12,100	9,790	14,300	39,800	37,200	9,680	5,220	6,410	5,510
14	23,900	15,300	9,900	11,800	9,400	13,800	42,100	31,000	11,600	5,120	6,480	6,080
15	25,200	13,300	10,500	11,800	10,200	14,000	52,700	26,900	12,400	5,010	5,900	5,400
16	24,200	13,300	11,800	11,100	10,400	14,300	66,700	27,600	11,000	5,220	5,940	5,120
17	33,300	12,600	14,300	10,300	10,700	13,800	70,400	27,500	10,400	6,150	6,230	5,360
18	37,800	12,100	17,600	10,300	11,200	13,300	63,100	26,400	9,460	9,250	6,700	5,360
19	36,800	12,000	33,300	10,700	11,800	12,800	63,400	25,100	8,400	11,300	6,820	5,040
20	35,700	12,000	47,000	10,700	12,700	12,300	67,600	19,200	7,870	9,250	6,700	5,010
21	34,600	15,500	41,200	10,700	15,200	12,600	66,400	15,600	9,250	7,910	6,190	5,330
22	31,300	21,100	33,600	10,600	16,700	12,900	68,500	14,000	10,100	7,010	6,590	5,510
23	28,600	24,400	27,000	11,300	16,400	13,500	56,400	12,100	10,400	6,150	8,880	5,400
24	26,300	21,700	26,000	9,400	18,900	13,500	53,200	11,700	9,790	6,330	12,600	4,910
25	23,400	19,700	20,900	9,790	20,900	13,900	50,500	10,500	9,520	6,150	11,400	4,840
26	19,900	17,600	19,500	10,200	21,900	13,900	48,800	15,300	8,690	6,050	9,300	5,180
27	17,400	18,200	18,400	10,200	20,900	13,500	45,900	17,400	8,040	6,050	7,950	5,260
28	19,200	17,300	17,600	10,200	18,800	12,900	44,900	17,200	7,620	5,430	7,660	5,610
29	22,100	14,600	17,400	10,100	-	13,200	43,200	15,500	7,310	5,220	*6,820	4,980
30	26,500	16,200	17,200	9,960	--------	15,000	41,200	16,300	6,780	5,180	6,630	5,360
31	29,400	--------	16,100	9,400	--------	15,900	--------	23,100	--------	4,910	6,050	--------
Total	770,900	651,400	543,390	354,950	355,750	444,200	‡1,267.7	899,200	387,810	187,610	202,940	161,210
Mean	24,870	21,710	17,530	11,450	12,710	14,330	42,260	29,010	12,930	6,052	6,546	5,374
(†)	+417	-769	-693	-2,858	-2,244	-4,037	+8,655	+3,677	-1,015	-2,703	-3,388	-4,205

Adjusted for change in reservoir contents

Mean	25,290	20,940	16,840	8,592	10,470	10,290	50,920	32,690	11,920	3,349	3,158	1,169
Cfsm	3.61	2.99	2.41	1.23	1.50	1.47	7.27	4.67	1.70	0.478	0.451	0.167
In.	4.16	3.34	2.78	1.42	1.56	1.70	8.11	5.38	1.90	0.55	0.52	0.19

	Observed						Adjusted					
Calendar year 1954:	Max	86,400	Min	6,330	Mean	19,520	Mean	19,910	Cfsm	2.84	In.	38.61
Water year 1954-55:	Max	70,400	Min	3,660	Mean	17,060	Mean	16,290	Cfsm	2.33	In.	31.61

* 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, also Sebec Lake and Wilson Pond in Piscataquis River basin.
‡ Expressed in thousands.
Note.--Stage-discharge relation affected by ice Dec. 3-18, Dec. 21 to Apr. 10.

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 1955.

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

Average discharge.--14 years, 314 cfs.

Extremes.--Maximum discharge during year, 3,050 cfs Dec. 20 (gage height, 9.20 ft); minimum, 2.3 cfs Sept. 26, 27 (gage height, 1.20 ft).
1941-55: 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 and no gage-height record, 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 12-30)

1.0	1.0	3.0	263
1.1	2.8	4.0	560
1.3	11	5.0	955
1.5	25	6.0	1,380
1.7	42	7.0	1,860
2.0	76	9.0	2,930
2.5	153		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	221	690	616	405	90	945	1,120	366	592	41	12	11
2	280	726	472	370	87	895	1,380	309	581	39	11	10
3	285	845	340	365	84	815	1,490	268	495	42	10	10
4	1,260	2,100	285	310	82	750	1,520	237	366	48	9.5	9.0
5	1,290	1,880	240	290	80	695	1,900	288	304	38	8.5	8.0
6	865	1,300	205	265	79	650	2,170	578	249	32	8.5	7.5
7	606	945	194	250	79	610	2,380	546	181	29	12	7.0
8	453	734	194	240	79	580	2,400	431	135	27	21	6.0
9	358	595	205	*230	77	560	1,740	395	107	24	27	5.7
10	301	492	215	215	86	555	1,440	361	90	23	21	5.7
11	296	410	290	205	152	560	1,600	296	83	22	19	6.0
12	479	369	315	194	430	590	1,700	241	80	21	23	6.0
13	512	322	265	180	*875	*635	1,490	*198	114	19	33	6.0
14	422	283	230	172	960	595	1,400	177	140	19	31	6.0
15	333	263	835	162	875	560	1,680	169	136	20	28	5.7
16	370	221	2,220	152	720	580	2,260	153	108	21	25	4.7
17	975	218	1,840	150	670	670	2,070	139	87	26	21	4.7
18	900	218	1,620	144	620	890	1,420	124	72	31	22	4.4
19	620	216	2,510	138	615	790	1,190	113	61	27	24	4.1
20	485	285	2,680	132	620	775	1,440	106	53	24	22	4.1
21	395	770	1,820	130	630	690	1,170	98	50	23	19	3.1
22	344	939	1,200	126	640	670	875	89	51	22	18	2.8
23	319	*730	915	124	695	670	722	77	56	21	19	2.4
24	283	536	710	118	710	720	710	80	56	20	37	2.4
25	249	422	580	112	1,080	790	642	149	50	18	35	2.6
26	230	358	490	110	1,120	780	574	244	53	17	27	2.3
27	275	309	430	104	1,040	760	578	293	66	15	22	2.3
28	525	298	400	100	960	755	581	192	62	15	18	2.4
29	466	392	430	98	-	750	495	133	55	14	16	3.4
30	560	630	475	96	------	750	425	171	47	14	12	4.1
31	790	----	460	93	------	835	------	345	---- ----	13	11	----
Total	15,747	18,496	23,681	5,780	14,235	21,870	40,562	7,366	4,580	765	622.5	159.4
Mean	508	617	764	186	508	705	1,352	238	153	24.7	20.1	5.31
Cfsm	2.85	3.47	4.29	1.04	2.85	3.96	7.60	1.34	0.860	0.139	0.113	0.030
In.	3.29	3.87	4.95	1.20	2.97	4.56	8.48	1.54	0.96	0.16	0.13	0.03

Calendar year 1954: Max 5,520 Min 46 Mean 563 Cfsm 3.16 In. 42.93
Water year 1954-55: Max 2,680 Min 2.3 Mean 422 Cfsm 2.37 In. 32.14

Peak discharge (base, 1,600 cfs).--Nov. 4 (6 p.m.) 2,280 cfs (7.80 ft); Dec. 16 (8 to 9 a.m.) 2,300 cfs (7.85 ft); Dec. 20 (1:30 a.m.) 3,050 cfs (9.20 ft); Apr. 8 (2 to 3 a.m.) 2,540 cfs (8.30 ft); Apr. 16 (8 p.m.) 2,420 cfs (8.08 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 3-14, Dec. 22 to Apr. 6 (no gage-height record Feb. 14-21; discharge estimated on basis of weather records).

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 gage heights 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 gage heights 91 and 100 ft. Gage-height 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.

Monthly change in contents, in millions of cubic feet, water year October 1954 to September 1955

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
October	+1,436	-122	-196
November	-1,723	-181	-89
December	-1,171	-460	-225
Calendar year 1954	+12,680	+114	-314
January	-5,786	-1,493	-395
February	-4,304	-1,228	+103
March	-8,746	-1,448	-616
April	+18,555	+2,247	+1,632
May	+7,539	+1,928	+379
June	-2,510	+322	-444
July	-7,108	-5	-125
August	-7,891	-1,216	+34
September	-8,610	-1,241	-1,048
Water year 1954-55	-20,299	-2,897	-990

† Includes change in 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, Rainbow, Ragged and Millinocket Lakes, Canada Falls Reservoirs, Dole and Poland Ponds.

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 1955.

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

Average discharge.--17 years, 235 cfs.

Extremes.--Maximum discharge during year, 2,100 cfs Dec. 19 (gage height, 6.88 ft); minimum, 13 cfs Sept. 23, 24 (gage height, 1.89 ft).
1938-55: 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 period 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 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.9	14	3.5	311
2.0	20	4.0	491
2.2	37	5.0	940
2.4	59	6.0	1,520
2.6	87	7.0	2,180
3.0	166		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	199	164	514	405	87	575	530	427	125	37	15	26
2	186	199	453	412	87	514	526	394	204	36	19	26
3	176	330	405	453	86	640	514	366	159	33	16	25
4	224	623	359	416	86	550	522	335	123	33	15	23
5	218	522	335	359	*84	499	538	352	119	32	17	22
6	191	503	298	348	84	468	563	370	112	31	30	22
7	171	483	278	328	86	438	592	338	102	30	36	21
8	152	457	259	294	92	387	584	308	94	28	49	19
9	137	423	241	278	114	342	546	288	87	26	32	18
10	131	380	314	256	116	325	530	275	84	26	26	17
11	129	338	352	241	192	430	530	253	84	24	89	17
12	133	308	291	220	1,410	605	510	230	115	22	127	18
13	127	275	269	200	825	503	480	210	186	21	81	18
14	119	241	238	188	769	446	457	196	230	21	67	17
15	112	227	805	178	663	427	483	204	161	21	58	16
16	148	204	780	168	584	563	495	178	137	26	58	15
17	224	194	649	160	522	632	449	161	123	32	76	15
18	186	184	780	154	472	538	423	143	112	29	66	15
19	161	176	1,960	146	431	472	423	135	104	26	58	15
20	148	270	1,490	140	387	427	480	131	94	25	54	15
21	139	453	1,360	130	352	384	423	125	82	23	48	15
22	133	461	1,170	120	328	356	391	119	71	23	45	14
23	125	398	980	114	308	560	380	115	62	22	*42	*14
24	106	373	882	112	580	563	370	114	55	23	42	15
25	108	359	727	110	563	526	*348	106	53	19	40	17
26	104	*338	610	108	522	498	370	114	51	18	35	16
27	106	318	555	100	491	571	398	108	47	17	35	15
28	106	318	487	97	503	518	366	96	44	19	32	15
29	102	470	476	94	-	457	499	92	41	19	29	16
30	125	*588	457	89	------	*442	483	99	39	16	27	16
31	148	---	457	89	------	491	------	101	------	15	26	---
Total	4,574	10,577	19,231	6,507	10,824	15,148	14,203	6,483	3,100	773	1,390	533
Mean	148	353	620	210	387	489	473	209	103	24.9	44.8	17.8
Cfsm	1.00	2.39	4.19	1.42	2.61	3.30	3.20	1.41	0.696	0.168	0.303	0.120
In.	1.15	2.67	4.83	1.64	2.72	3.80	3.57	1.63	0.78	0.19	0.35	0.13

Calendar year 1954: Max 3,470 Min 26 Mean 367 Cfsm 2.48 In. 33.70
Water year 1954-55: Max 1,960 Min 14 Mean 256 Cfsm 1.73 In. 23.46

Peak discharge (base, 1,100 cfs).--Dec. 19 (3 a.m.) 2,100 cfs (6.88 ft); Feb. 12 (6:30 a.m.) 1,690 cfs (6.27 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Jan. 12 to Feb. 10.

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 1955.

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 the year, 17.63 ft June 1; minimum observed, 12.63 ft Apr. 12, 13.
1895-1955: 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. 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 June, July, August 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).

Gage height, in feet, at 7 a.m., water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17.35	17.37	17.38	17.26	16.35	15.09	13.15	15.06	17.63	17.38	15.33	14.34
2	17.40	17.35	17.34	17.22	16.29	15.09	13.07	15.27	17.57	17.34	15.26	14.30
3	17.46	17.35	17.30	17.22	16.16	15.02	13.00	15.45	17.56	17.32	15.18	14.28
4	17.58	17.35	17.25	17.20	16.10	14.97	12.95	15.70	17.54	17.32	15.09	14.25
5	17.56	17.34	17.23	17.18	16.02	14.88	12.88	16.02	17.55	17.28	15.02	14.23
6	17.53	17.34	17.22	17.18	15.94	14.85	12.83	16.37	17.57	17.22	14.96	14.21
7	17.37	17.34	17.15	17.16	15.92	14.81	12.83	16.71	17.55	17.13	14.85	14.18
8	17.25	17.34	17.18	17.18	15.87	14.75	12.75	16.90	17.50	17.07	15.00	14.17
9	17.23	17.33	17.18	17.18	15.80	14.67	12.72	17.09	17.46	17.01	14.95	14.12
10	17.22	17.31	17.24	17.16	15.73	14.59	12.67	17.24	17.41	16.96	14.89	14.09
11	17.24	17.24	17.25	17.16	15.65	14.56	12.67	17.30	17.41	16.93	14.85	14.05
12	17.26	17.21	17.25	17.15	15.71	14.52	12.63	17.33	17.41	16.82	14.87	14.15
13	17.37	17.19	17.25	17.15	15.71	14.40	12.63	17.31	17.45	16.70	14.85	14.13
14	17.44	17.13	17.25	17.13	15.68	14.36	12.64	17.29	17.50	16.61	14.76	14.13
15	17.47	17.09	17.29	17.12	15.61	14.31	12.70	17.37	17.51	16.54	14.72	14.08
16	17.45	17.07	17.37	17.10	15.57	14.28	12.83	17.36	17.52	16.45	14.71	14.11
17	17.36	17.08	17.35	17.08	15.54	14.23	13.01	17.36	17.50	16.55	14.67	14.05
18	17.23	17.08	17.36	17.08	15.55	14.16	13.12	17.36	17.49	16.52	14.64	14.05
19	17.18	17.10	17.38	17.04	15.53	14.11	13.22	17.38	17.48	16.47	14.64	14.05
20	17.17	17.11	17.35	17.01	15.47	13.97	13.40	17.39	17.46	16.37	14.60	14.06
21	17.15	17.18	17.37	16.95	15.41	13.89	13.54	17.39	17.45	16.29	14.56	14.08
22	17.15	17.25	17.37	16.93	15.38	13.80	13.70	17.42	17.45	16.24	14.56	14.08
23	17.15	17.31	17.34	16.89	15.38	13.72	13.83	17.44	17.44	16.15	14.70	14.06
24	17.15	17.35	17.35	16.84	15.31	13.65	13.97	17.47	17.46	16.05	14.65	14.03
25	17.15	17.35	17.35	16.81	15.29	13.59	14.10	17.49	17.45	15.98	14.61	14.02
26	17.15	17.35	17.30	16.75	15.22	13.53	14.24	17.51	17.50	15.89	14.57	14.01
27	17.15	17.35	17.28	16.69	15.16	13.46	14.38	17.48	17.53	15.78	14.53	13.98
28	17.14	17.36	17.25	16.60	15.14	13.36	14.55	17.47	17.51	15.70	14.50	13.97
29	17.18	17.37	17.25	16.55	-	13.31	14.72	17.47	17.49	15.66	14.46	13.98
30	17.27	17.38	17.22	16.47	-------	13.25	14.87	17.60	17.44	15.53	14.41	13.95
31	17.30	-------	17.28	16.41	-------	13.19	-------	17.60	-------	15.45	14.36	-------
(†)	23,089	23,347	23,024	20,224	16,160	9,978	15,300	24,059	23,541	17,148	13,678	12,379
(‡)	+97	+258	-323	-2,800	-4,064	-6,182	+5,322	+8,759	-518	-6,393	-3,470	-1,299

Calendar year 1954: (‡) +1,450
Water year 1954-55: (‡) -10,613

† Contents, in millions of cubic feet, at end of month.
‡ Change in contents in millions of cubic feet.
Note.--Diversions through West Outlet: June, 80 cfs; July, 40 cfs; August, 195 cfs; September, 567 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 1955.

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.--36 years, 1,865 cfs.

Extremes.--Maximum discharge during year, 13,200 cfs Oct. 16 (gage height, 9.25 ft); minimum, 300 cfs Apr. 17 (gage height, 2.60 ft).
1919-55: Maximum discharge, 15,600 cfs May 8, 1947 (gage height, 9.94 ft); minimum, about 62 cfs Apr. 7-15, 1923.

Remarks.--Records excellent. 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. 53).

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

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.6	300	5.0	2,870
2.8	414	6.0	4,840
3.0	542	7.0	7,070
3.4	845	8.0	9,660
3.8	1,240	10.0	15,800
4.5	2,080		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	875	3,740	3,220	3,260	3,800	3,130	3,090	764	4,970	2,630	3,110	915
2	1,430	4,300	3,200	3,260	3,920	3,330	3,060	780	5,380	2,620	3,090	925
3	1,680	4,350	3,200	3,530	4,100	3,280	3,110	796	4,050	1,630	2,910	915
4	5,240	4,390	3,170	3,800	4,060	3,240	3,170	821	2,830	1,350	2,580	973
5	8,160	4,330	3,150	3,780	3,980	3,200	3,220	863	2,350	2,620	2,470	760
6	8,440	4,300	2,750	3,780	3,920	3,170	3,180	908	2,810	2,600	2,580	875
7	8,310	4,300	2,080	3,780	3,920	3,280	3,260	2,230	3,440	2,580	2,140	895
8	5,330	4,280	2,070	3,800	3,880	3,450	3,280	3,560	2,070	2,550	1,310	890
9	3,860	4,330	2,070	3,760	3,840	3,390	3,240	3,970	2,050	2,530	1,930	885
10	3,450	4,300	1,800	3,760	3,780	3,350	3,170	5,930	1,760	2,750	2,090	830
11	2,770	4,260	1,570	3,760	3,540	3,330	3,050	7,550	1,560	3,010	2,110	973
12	2,800	4,240	1,570	3,760	3,410	3,280	2,630	7,550	1,560	2,940	2,090	460
13	3,250	4,220	1,570	3,760	3,370	3,180	2,340	4,980	1,570	2,890	2,080	880
14	4,560	4,180	1,570	3,740	3,350	3,180	2,150	3,430	1,900	2,850	2,050	865
15	8,780	3,020	1,590	3,720	3,330	3,210	2,000	3,200	2,090	2,820	1,870	875
16	13,100	1,710	2,080	3,700	3,540	3,620	920	2,500	2,090	2,690	1,740	735
17	12,900	1,720	2,720	3,700	3,570	3,600	300	2,090	1,820	2,040	1,720	917
18	9,520	1,720	2,930	4,040	3,320	3,720	990	2,160	1,570	2,510	1,710	926
19	4,400	1,720	3,900	4,240	3,280	4,040	810	2,460	2,250	2,820	1,710	926
20	4,180	1,740	3,540	4,200	3,350	3,940	815	2,600	2,080	2,770	1,700	915
21	3,810	1,750	3,300	4,200	3,560	3,860	790	2,380	1,210	2,730	1,700	964
22	3,370	1,760	3,300	4,160	3,520	3,800	620	2,120	1,010	2,700	1,710	954
23	3,040	1,770	3,280	4,120	3,500	3,720	635	2,150	645	2,960	1,570	944
24	3,020	2,660	2,930	4,100	3,490	3,640	650	2,180	457	3,110	1,060	944
25	3,040	3,240	2,970	4,080	3,450	3,540	672	2,530	540	3,040	685	944
26	3,080	3,220	3,220	4,040	3,300	3,490	687	2,750	585	3,280	755	944
27	3,080	2,450	3,220	4,000	3,080	3,430	702	2,530	1,230	3,410	1,040	935
28	2,720	2,410	3,260	3,960	3,040	3,350	718	2,140	1,590	3,370	1,030	1,080
29	2,530	3,220	3,260	3,920	-	3,300	733	2,280	2,260	3,300	835	1,510
30	2,550	3,220	3,280	3,880	--------	3,240	749	4,420	2,650	3,220	*910	1,540
31	2,560	--------	3,240	3,840	--------	3,170	--------	5,290	--------	3,170	935	--------
Total	145,835	96,850	85,010	119,430	100,200	106,460	54,741	89,912	62,377	85,490	55,220	28,094
Mean	4,704	3,228	2,742	3,853	3,579	3,434	1,825	2,900	2,079	2,758	1,781	936
(†)	-128	-204	-575	-2,726	-2,377	-2,276	+4,701	+4,031	-163	-2,444	-1,104	-1,000
Adjusted for change in contents												
Mean	4,576	3,024	2,167	1,127	1,202	1,158	6,526	6,931	1,916	314	677	-64
Cfsm	3.69	2.44	1.75	0.909	0.969	0.934	5.26	5.59	1.55	0.253	0.546	-0.052
In.	4.25	2.72	2.02	1.05	1.01	1.08	5.87	6.44	1.73	0.29	0.63	-0.06

	Observed			Adjusted			
Calendar year 1954:	Max 13,100	Min 241	Mean 2,966	Mean 3,243	Cfsm 2.62	In. 35.49	
Water year 1954-55:	Max 13,100	Min 300	Mean 2,821	Mean 2,469	Cfsm 1.99	In. 27.03	

* 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.

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 1955.

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.--54 years, 2,549 cfs (unadjusted).

Extremes.--Maximum discharge during year, 17,000 cfs Oct. 15 (gage height, 9.72 ft); minimum, 257 cfs Sept. 14 (gage height, 1.46 ft).
1901-55: 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 or no gage-height record, which are fair. Flow regulated by Moosehead Lake (see p. 42), Brassua Lake, Moxie, Indian, Second, and First Roach Ponds (see p. 53).

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 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.9	503	4.0	3,170
2.0	571	5.0	5,380
2.5	985	7.0	10,600
3.0	1,550	9.0	15,600
3.5	2,270	10.0	17,600

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	725	3,410	4,450	3,500	4,460	3,700	3,380	1,760	5,950	2,700	3,720	1,660
2	1,840	5,120	3,890	4,010	4,230	3,680	2,760	3,660	6,630	2,700	4,080	1,470
3	2,640	6,120	3,890	3,800	4,320	3,700	3,020	3,240	5,650	1,610	2,900	1,520
4	6,240	6,850	4,150	3,990	4,500	3,560	4,170	3,270	4,210	2,010	2,870	1,510
5	11,000	7,070	4,040	4,100	4,820	3,600	3,790	4,540	2,980	2,640	2,670	1,500
6	11,000	7,020	3,500	4,300	4,100	3,060	4,120	4,680	3,810	2,840	3,120	1,540
7	10,700	6,430	3,200	4,280	4,300	3,800	4,750	2,670	3,880	2,880	2,850	1,490
8	10,100	5,480	2,900	4,210	4,210	3,990	4,630	5,730	3,400	3,280	1,960	1,530
9	6,320	5,800	3,080	4,410	4,100	4,010	4,530	6,080	2,590	3,340	2,180	1,330
10	4,630	5,280	3,120	4,340	4,190	3,930	3,740	7,440	2,510	2,870	2,540	1,440
11	2,240	5,300	2,730	4,410	4,100	3,790	4,980	9,940	1,950	3,670	2,920	1,640
12	2,400	5,300	2,500	4,340	3,400	2,630	4,790	9,570	1,420	3,160	2,430	1,550
13	3,240	5,310	2,330	4,300	3,280	3,140	4,360	6,940	3,020	3,250	2,690	*1,270
14	6,150	5,380	2,240	4,170	4,010	4,310	4,340	4,880	2,710	3,180	2,640	1,410
15	9,480	4,240	2,490	4,100	3,840	3,890	5,020	4,490	2,990	3,160	1,940	2,110
16	16,000	3,030	2,740	4,800	3,640	*3,760	5,160	3,960	2,880	3,200	2,460	2,220
17	16,000	2,530	3,460	4,150	4,010	4,040	4,040	3,000	2,510	2,660	2,100	2,100
18	14,200	2,310	4,080	4,100	3,800	4,140	4,290	2,880	1,480	3,000	2,150	1,800
19	8,460	2,240	4,760	4,590	2,870	4,460	4,640	3,030	1,560	3,280	2,150	1,860
20	4,560	2,410	4,800	4,500	3,400	4,660	4,160	3,160	1,660	3,210	1,940	1,690
21	4,390	2,770	4,370	4,500	3,950	4,440	4,020	2,820	1,870	2,980	1,920	1,800
22	4,090	3,250	3,860	4,500	4,060	4,210	3,690	2,340	1,390	3,220	2,400	1,820
23	4,100	2,970	4,010	4,390	3,860	4,200	3,160	3,130	1,030	3,240	2,050	1,850
24	3,820	3,120	3,740	4,410	3,780	4,300	2,400	3,360	560	2,820	2,010	1,650
25	4,090	4,720	3,600	4,410	3,500	4,410	4,350	2,970	909	3,210	1,150	1,770
26	4,280	4,280	3,700	4,320	3,250	3,520	3,560	3,740	837	3,200	1,640	1,620
27	4,290	3,370	4,010	4,300	3,460	4,030	3,160	3,180	2,750	3,260	1,760	1,640
28	4,470	3,250	3,800	4,300	3,700	4,430	2,800	3,150	2,560	4,030	1,940	1,740
29	4,590	3,680	3,780	4,320	~	4,170	2,760	3,260	2,680	3,700	1,620	2,260
30	4,790	3,680	3,660	4,100	--------	4,130	2,590	5,100	2,710	3,300	1,500	2,350
31	4,390	--------	3,660	4,410	--------	3,900	--------	6,160	--------	2,800	1,520	--------
Total	195,225	131,720	110,540	132,340	108,940	121,590	117,160	134,130	81,086	94,380	71,820	51,140
Mean	6,298	4,391	3,566	4,269	3,891	3,922	3,905	4,327	2,703	3,045	2,317	1,705
(†)	-201	-163	-658	-2,881	-2,391	-2,296	+4,982	+4,055	-229	-2,521	-1,306	-1,738

Adjusted for change in reservoir contents

Mean	6,097	4,228	2,908	1,388	1,500	1,626	8,887	8,382	2,474	524	1,011	-33
Cfsm	3.88	2.69	1.85	0.884	0.955	1.04	5.66	5.34	1.58	0.334	0.644	-0.021
In.	4.47	3.00	2.13	1.02	0.99	1.20	6.32	6.16	1.76	0.39	0.74	-0.02

	Observed			Adjusted				
Calendar year 1954:	Max 17,300	Min 186	Mean 3,957	Mean 4,270	Cfsm 2.72	In. 36.78
Water year 1954-55:	Max 16,000	Min 560	Mean 3,699	Mean 3,257	Cfsm 2.07	In. 28.16

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Brassua and Moosehead Lakes, and Second Roach, First Roach, Indian, and Moxie Ponds.
Note.--Stage-discharge relation affected by ice Dec. 19 to Mar. 10. No gage-height record Dec. 6-14, May 29 to June 2; discharge estimated on basis of records for Harris Station.

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 1955. Prior 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.--16 years, 812 cfs (unadjusted).

Extremes.--Maximum discharge during year, 8,270 cfs May 6 (gage height, 9.47 ft); minimum daily, 138 cfs June 19, July 14.
1939-55: Maximum discharge, 18,000 cfs Sept. 12, 1954 (gage height, 11.50 ft); no flow for part of July 31, 1949, when flow was completely shut off by cofferdam during construction of Flagstaff Lake dam.

Remarks.--Records good. Flow regulated by Flagstaff Lake (see p. 53).

Rating tables, water year 1954-55 (gage height in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 4				Nov. 5 to Sept. 30			
4.8	169	7.0	1,830	4.6	123	7.0	1,960
5.0	235	8.0	3,600	5.0	240	8.0	3,800
5.5	465	9.0	6,240	5.5	475	9.0	6,600
6.0	780			6.0	835	9.4	8,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,790	1,170	1,650	1,370	1,300	1,130	1,210	214	885	148	487	2,450
2	2,030	1,750	1,620	1,370	1,290	1,140	1,200	1,780	*1,100	151	430	2,530
3	2,000	2,000	1,600	1,370	1,290	1,140	1,190	2,960	1,080	151	481	2,380
4	815	4,400	1,590	890	1,600	1,130	1,190	3,930	870	151	481	1,970
5	221	5,180	1,640	610	1,890	1,130	1,180	4,990	780	151	481	1,460
6	224	4,920	1,850	617	1,660	1,120	1,210	7,090	1,030	151	481	2,040
7	220	2,420	2,730	610	1,500	1,110	1,330	7,930	1,200	151	455	1,950
8	225	855	2,900	617	1,250	1,100	1,330	5,030	1,100	151	590	1,820
9	230	722	3,000	610	1,250	1,090	1,330	3,810	1,060	151	360	1,720
10	230	722	1,750	610	1,240	1,080	1,330	2,740	470	151	487	1,620
11	1,360	395	1,800	610	1,230	1,070	1,010	1,640	1,210	148	400	1,520
12	3,240	204	3,000	610	1,230	1,060	*360	1,430	1,900	2,120	350	1,450
13	2,940	204	4,130	610	1,230	1,360	396	610	1,850	2,080	475	*1,660
14	1,000	925	3,960	610	1,220	1,340	407	705	1,120	138	475	1,920
15	198	1,840	3,070	1,100	1,200	1,320	360	1,390	2,070	140	695	1,860
16	745	3,320	1,770	1,370	1,200	1,300	195	1,360	2,050	140	894	1,820
17	2,330	3,490	1,320	1,360	1,200	1,300	185	1,570	2,180	140	894	1,780
18	1,820	3,340	1,310	1,360	1,190	1,300	188	1,510	2,610	140	903	1,550
19	1,020	1,660	620	1,340	1,180	1,290	201	1,090	138	140	903	1,010
20	1,020	840	146	1,360	1,180	1,280	198	386	2,580	174	894	2,010
21	1,020	2,280	146	1,340	1,170	1,280	186	665	143	148	886	2,430
22	655	930	148	1,330	1,160	1,260	148	245	2,610	146	886	1,140
23	532	214	148	1,330	1,160	1,260	151	465	2,430	143	886	720
24	755	220	148	1,330	1,160	1,250	156	425	2,320	140	894	1,340
25	1,270	224	148	1,330	1,160	1,250	162	750	170	140	886	2,060
26	1,460	224	148	1,320	1,150	1,070	168	1,060	2,840	140	886	1,330
27	1,470	227	148	1,320	1,150	965	170	1,010	146	140	886	1,270
28	1,490	455	148	1,310	1,140	956	176	815	148	140	1,280	1,170
29	1,470	1,400	148	1,310	-	956	185	725	148	140	1,640	1,160
30	630	1,660	151	1,300	--------	956	198	518	148	350	1,970	1,270
31	258	--------	535	1,300	--------	1,070	--------	510	--------	494	2,220	--------
Total	35,668	48,191	43,472	33,524	35,780	36,063	17,680	59,353	38,386	8,986	24,936	50,410
Mean	1,151	1,606	1,402	1,081	1,278	1,163	589	1,915	1,280	290	804	1,680
(†)	+365	-348	-574	-661	-912	-712	+2,980	+237	-480	-208	-394	-1,635

Adjusted for storage in Flagstaff Lake

Mean	1,516	1,258	828	420	366	451	3,569	2,152	800	82	410	45
Cfsm	2.92	2.42	1.59	0.808	0.704	0.867	6.86	4.14	1.54	0.158	0.788	0.087
In.	3.37	2.70	1.83	0.93	0.73	1.00	7.65	4.77	1.72	0.18	0.91	0.10

	Observed			Adjusted		
Calendar year 1954:	Max 12,400	Min 61	Mean 1,270	Mean 1,322	Cfsm 2.54	In. 34.53
Water year 1954-55:	Max 7,930	Min 138	Mean 1,185	Mean 992	Cfsm 1.91	In. 25.89

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Flagstaff Lake.
Note.--No gage-height record Oct. 7-16, Dec. 8-13; discharge estimated on basis of once-daily gage-height readings and record of gate openings in dam just upstream.

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 1955. 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.--50 years (1902-7, 1910-55), 1,421 cfs (unadjusted).

Extremes.--Maximum discharge during year, 13,400 cfs May 7 (gage height, 7.35 ft); minimum daily, 196 cfs July 26, 27.
1901-7, 1910-55: 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; 54 cfs Sept. 27, 1941 (gage height, 1.50 ft).

Remarks.--Records excellent except those for period of ice effect, which are fair. Flow partly regulated by Flagstaff and Spencer Lakes (see p. 53).

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 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	153	4.0	3,200
2.0	270	5.0	5,660
2.4	610	6.0	8,640
3.0	1,380	7.0	12,000
3.5	2,200	8.0	16,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,580	1,910	2,170	1,580	1,470	1,210	1,410	3,490	1,010	356	520	2,420
2	3,180	2,920	2,080	1,560	1,460	1,210	1,470	3,700	1,580	333	474	2,630
3	2,900	3,220	2,030	1,550	1,530	1,200	1,440	5,120	1,550	326	560	2,480
4	3,130	5,900	2,030	1,180	1,840	1,200	1,470	6,320	1,500	326	540	2,270
5	2,010	7,010	2,010	970	1,940	1,200	1,560	8,110	1,010	312	530	1,340
6	1,610	6,900	2,150	905	1,960	1,180	1,710	11,000	1,340	284	530	2,100
7	1,320	6,060	2,690	895	1,810	1,180	2,010	12,200	1,460	277	621	1,980
8	1,140	3,320	3,290	895	1,560	1,170	2,170	9,980	1,390	270	560	1,840
9	1,010	1,960	3,400	895	1,520	1,170	2,120	7,370	1,390	257	465	1,710
10	919	*1,670	3,200	895	1,500	1,160	2,100	6,550	875	251	621	1,640
11	1,300	1,460	2,290	905	1,470	1,160	2,250	3,790	1,270	245	712	1,550
12	3,600	1,060	2,340	905	1,440	1,250	1,790	3,240	2,210	2,040	678	1,500
13	4,860	969	3,090	*905	1,410	1,470	1,930	2,130	2,250	2,120	819	*1,580
14	3,810	1,050	4,040	945	1,400	1,670	2,460	1,860	1,710	412	712	1,960
15	1,780	2,030	4,110	1,350	*1,380	1,630	4,180	2,400	2,590	238	747	2,030
16	2,060	3,260	3,240	1,550	1,320	*1,590	6,260	2,400	2,630	257	1,100	2,220
17	4,400	4,330	2,170	1,580	1,300	1,550	4,420	2,460	2,890	291	1,130	2,170
18	4,330	4,400	1,960	1,550	1,270	1,550	3,510	2,240	2,910	277	1,140	2,050
19	2,960	3,960	1,940	1,530	1,250	1,520	4,040	1,940	510	251	1,230	1,380
20	2,420	1,770	1,180	1,530	1,240	1,500	3,810	1,110	2,570	270	1,180	1,940
21	2,240	3,070	520	1,530	1,240	1,480	3,220	1,070	520	251	1,110	2,790
22	1,890	3,280	420	1,530	1,230	1,480	2,710	1,260	2,850	220	1,140	1,800
23	1,470	1,780	390	1,530	1,230	1,500	2,650	1,140	2,820	207	1,180	2,510
24	1,480	1,350	370	1,520	1,230	1,480	2,670	1,080	2,700	207	1,160	1,340
25	1,830	1,180	365	1,520	1,210	1,480	2,480	1,790	560	207	1,090	2,050
26	2,250	1,090	365	1,520	1,210	1,400	2,400	1,810	3,080	196	1,030	1,650
27	2,380	995	365	1,500	1,210	1,180	2,420	1,340	655	196	1,010	1,530
28	2,810	919	365	1,500	1,210	1,160	2,290	1,320	570	202	1,160	1,450
29	2,770	1,550	370	1,500	-	1,170	2,060	855	474	213	1,690	1,380
30	2,380	2,170	430	1,500	--------	1,160	2,670	1,110	404	232	1,780	1,410
31	1,630	--------	635	1,480	--------	1,160	--------	1,020	--------	501	2,490	--------
Total	75,449	82,543	56,005	40,685	39,840	41,420	77,680	111,235	49,278	12,025	29,709	56,700
Mean	2,434	2,751	1,807	1,312	1,432	1,336	2,589	3,588	1,643	388	958	1,890
(†)	+308	-376	-651	-661	-912	-712	+3,227	+212	-454	-218	-385	-1,736

Adjusted for change in reservoir contents

Mean	2,742	2,375	1,156	651	511	624	5,816	3,800	1,189	170	573	154
Cfsm	3.14	2.72	1.33	0.747	0.586	0.716	6.67	4.36	1.36	0.195	0.657	0.177
In.	3.62	3.04	1.53	0.86	0.61	0.83	7.44	5.03	1.52	0.22	0.76	0.20

	Observed			Adjusted		
Calendar year 1954:	Max 11,800	Min 305	Mean 2,163	Mean 2,215	Cfsm 2.54	In. 34.49
Water year 1954-55:	Max 12,200	Min 196	Mean 1,843	Mean 1,649	Cfsm 1.89	In. 25.66

* 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. 21 to Mar. 12.

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 1955.

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

Average discharge.--24 years, 173 cfs.

Extremes.--Maximum discharge during year, 1,790 cfs Apr. 16 (gage height, 9.04 ft); minimum not determined, occurred during period of no gage-height record Sept. 10-30. 1931-55: 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 no gage-height record, which are fair.

Revisions.--WSP 1171: Drainage area.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 16				Apr. 17 to June 29				June 30 to Sept. 30			
5.6	43	7.5	655	5.6	58	7.0	540	5.2	5.0	6.2	84
5.8	70	8.0	950	5.8	92	7.5	860	5.4	10	6.4	126
6.0	105	8.5	1,320	6.0	140	8.0	1,280	5.6	19	6.7	220
6.5	228	9.0	1,750	6.5	305	8.5	1,770	5.8	34	7.0	355
7.0	410							6.0	54	7.2	479

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	153	350	142	110	62	128	138	618	*720	61	18	24
2	173	319	130	106	60	124	149	594	576	64	18	20
3	196	440	124	106	57	122	140	558	407	60	17	19
4	519	777	116	102	56	112	163	534	313	54	17	18
5	485	595	110	100	56	111	219	910	305	52	17	18
6	350	410	106	99	56	108	293	1,230	272	43	18	18
7	262	326	99	97	55	105	381	846	225	34	27	18
8	211	273	90	96	56	110	373	648	183	33	74	17
9	183	240	86	94	55	110	330	594	151	32	50	17
10	168	*211	83	90	56	105	315	564	132	27	33	17
11	168	189	80	88	73	103	414	465	117	25	26	15
12	262	176	76	*86	199	124	481	379	140	21	27	13
13	273	154	73	86	548	126	499	309	426	20	25	*11
14	*231	149	*70	86	315	128	622	279	366	19	22	11
15	189	138	92	86	*260	124	1,120	272	263	19	22	11
16	1,050	126	132	84	220	*107	1,710	239	201	31	134	11
17	1,190	122	199	84	190	111	1,720	208	162	57	*119	11
18	640	120	420	83	156	116	1,290	180	132	44	94	10
19	414	124	1,610	81	138	112	1,380	162	110	34	76	10
20	323	166	1,060	80	122	100	1,610	143	92	28	53	10
21	269	440	611	75	109	90	1,280	130	88	24	38	8.8
22	231	699	406	72	105	88	940	114	87	20	40	7.5
23	202	476	305	72	120	88	811	107	88	20	479	6.3
24	181	330	255	70	171	90	755	107	74	19	274	6.5
25	163	259	200	70	189	92	690	114	71	18	154	6.6
26	166	222	178	70	196	94	708	246	76	18	94	6.8
27	222	194	162	69	159	88	734	229	88	18	62	6.8
28	390	172	148	69	132	86	672	168	71	18	47	6.8
29	346	160	132	66	-	86	630	143	103	18	38	6.9
30	394	150	126	64	-----	86	*636	205	57	18	31	7.0
31	390	----	120	63	-------	105	-------	755	------	18	26	-----
Total	10,394	8,507	7,541	2,604	3,971	3,279	21,203	12,050	6,096	967	2,170	369.0
Mean	335	284	243	84.0	142	106	707	389	203	31.2	70.0	12.3
Cfsm	3.68	3.12	2.67	0.922	1.56	1.16	7.76	4.27	2.23	0.342	0.768	0.135
In.	4.24	3.48	3.08	1.06	1.62	1.34	8.66	4.92	2.49	0.39	0.89	0.15

Calendar year 1954: Max 2,540 Min 12 Mean 291 Cfsm 3.19 In. 43.41
Water year 1954-55: Max 1,720 Min 6.3 Mean 217 Cfsm 2.38 In. 32.32

Peak discharge (base 1,200 cfs).--Oct. 16 (5 p.m.) 1,600 cfs (8.83 ft); Dec. 19 (1 p.m.) 1,700 cfs (8.95 ft); Apr. 16 (6 p.m.) 1,790 cfs (9.04 ft); Apr. 19 (12 p.m.) 1,750 cfs (8.48 ft); May 6 (2 a.m.) 1,330 cfs (8.06 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Sept. 10-30; discharge estimated on basis of 2 discharge measurements, weather records, and records for nearby streams. Stage-discharge relation affected by ice Nov. 28 to Dec. 17, Dec. 23 to Feb. 17, Feb. 28, Mar. 4-10, 18-21, 28, 29 (no gage-height record Dec. 4-14, Jan. 28 to Feb. 14; discharge estimated on basis of 2 discharge measurements, weather records, and records for nearby streams).

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 $1\frac{3}{4}$ miles downstream from Wyman Dam.

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

Records available.--June 1907 to June 1910, October 1930 to September 1955.

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.--27 years (1907-9, 1930-55), 4,298 cfs (unadjusted).

Extremes.--Maximum discharge during year, 27,200 cfs Oct. 17 (gage height, 11.36 ft); minimum daily, 2,080 cfs July 4.
1907-10, 1930-55: Maximum discharge, 58,800 cfs Mar. 20, 1936 (gage height, 14.44 ft), from rating curve extended above 27,000 cfs on basis of computation of flow at Wyman Dam plus inflow; minimum daily, 110 cfs Dec. 25, 1947.

Remarks.--Records excellent. Flow regulated by Moosehead Lake (see p. 42), Brassua, Flagstaff, and Spencer Lakes, Second Roach, First Roach, Indian, Moxie and Wyman Ponds (see p. 53). Considerable diurnal fluctuation caused by powerplant above station.

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

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

6.0	1,910	8.5	10,000
6.5	2,980	9.0	12,200
7.0	4,310	10.0	17,600
7.5	5,930	11.0	24,400
8.0	7,790		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,620	7,830	6,510	4,550	6,390	5,750	5,320	5,280	8,030	3,500	3,350	3,850
2	4,140	7,590	6,570	4,710	5,930	5,350	4,670	8,240	*9,410	3,240	3,690	3,570
3	3,400	9,720	6,340	6,130	b5,900	6,040	4,100	9,420	7,950	2,200	3,350	3,760
4	8,810	14,200	5,320	5,960	b5,900	5,870	5,920	10,300	6,380	2,080	3,490	3,490
5	13,800	14,100	4,420	6,060	5,640	4,530	5,600	14,300	4,270	3,430	3,900	2,250
6	12,900	13,100	b6,000	6,000	4,560	4,730	5,710	17,800	5,590	3,470	3,580	3,680
7	11,900	12,100	b5,800	5,940	5,770	5,700	5,750	15,800	5,920	3,390	3,130	3,500
8	10,900	9,840	b6,100	4,790	b5,500	5,870	7,160	16,600	5,710	3,470	3,580	3,500
9	9,120	7,140	6,310	4,060	b5,400	5,580	7,150	13,700	4,280	3,470	3,340	3,480
10	5,210	7,490	6,220	6,260	5,260	5,290	6,320	15,000	4,250	3,220	3,460	3,490
11	7,100	6,600	3,830	5,800	4,960	5,080	8,340	14,000	3,890	3,330	3,220	3,550
12	7,510	7,160	4,230	5,700	5,780	4,450	7,860	13,200	3,160	3,550	3,340	3,440
13	7,660	5,950	5,940	5,940	b4,700	4,700	7,530	9,780	5,590	3,530	3,450	3,770
14	7,700	5,140	*6,430	6,510	b5,300	5,680	8,750	7,010	6,190	3,600	3,020	3,700
15	13,300	8,830	6,400	5,420	6,520	5,250	13,300	7,250	5,400	3,290	3,550	3,830
16	18,500	6,970	6,520	4,710	5,970	5,470	16,600	7,460	5,910	3,510	3,480	3,890
17	23,700	7,110	6,500	6,440	5,620	5,340	12,900	6,150	5,960	3,340	3,320	3,490
18	21,100	7,020	6,240	6,560	5,660	5,300	10,600	6,170	4,380	3,550	3,420	3,520
19	12,200	7,160	10,600	6,250	4,790	4,640	12,100	5,540	3,340	3,310	3,430	3,870
20	8,830	4,240	8,910	6,490	4,490	5,960	11,300	4,780	3,690	3,820	3,450	3,870
21	7,230	4,950	8,190	6,960	6,170	6,260	9,930	3,760	3,550	3,390	3,340	3,970
22	7,150	7,950	6,460	5,560	5,820	6,050	8,630	4,230	3,550	3,540	3,070	3,820
23	5,680	7,210	6,610	5,090	6,200	5,600	8,160	4,000	3,470	3,460	3,650	4,040
24	4,230	6,920	5,060	6,350	5,380	5,550	6,360	4,210	3,510	3,390	3,470	3,500
25	7,140	3,670	4,080	6,450	5,640	5,160	8,280	4,490	3,070	3,370	3,260	3,770
26	6,970	5,190	4,740	6,250	4,820	6,000	8,080	6,380	3,100	3,740	3,490	4,060
27	7,050	5,050	6,290	6,320	5,590	4,310	7,370	6,160	3,400	3,730	3,310	4,060
28	7,440	3,930	6,300	6,960	6,120	5,890	7,300	5,050	3,000	3,470	3,490	4,120
29	7,730	6,860	5,910	5,580	-	5,450	6,980	3,040	3,370	3,460	3,900	3,950
30	7,790	6,430	6,100	4,640	-------	5,480	6,120	3,530	3,320	3,460	3,810	3,890
31	7,080	-------	4,730	7,300	-------	5,380	-------	8,220	-------	3,530	3,800	-------
Total	288,890	227,450	189,660	181,740	155,780	167,710	244,190	260,850	142,640	104,640	107,140	110,680
Mean	9,319	7,582	6,118	5,863	5,564	5,410	8,140	8,415	4,755	3,375	3,456	3,689
(†)	+279	-635	-1,373	-3,568	-3,138	-3,045	+8,228	+4,319	-756	-2,750	-1,746	-3,509

Adjusted for change in reservoir contents

Mean	9,598	6,947	4,745	2,295	2,426	2,365	16,370	12,730	3,999	625	1,710	180
Cfsm	3.54	2.56	1.75	0.847	0.895	0.873	6.04	4.70	1.48	0.231	0.631	0.066
In.	4.08	2.86	2.02	0.98	0.93	1.01	6.74	5.42	1.65	0.27	0.73	0.07

	Observed			Adjusted		
Calendar year 1954:	Max 29,700	Min 2,080	Mean 6,820	Mean 7,188 Cfsm 2.65	In. 36.02	
Water year 1954-55:	Max 23,700	Min 2,080	Mean 5,976	Mean 5,339 Cfsm 1.97	In. 26.76	

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Brassua, Moosehead, Flagstaff, and Spencer Lakes, Second and First Roach, Indian, Moxie and Wyman Ponds.
b Stage-discharge relation affected by ice.

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 1955.

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.--34 years (1902-6, 1925-55), 697 cfs.

Extremes.--Maximum discharge during year, 17,100 cfs Oct. 16 (gage height, 15.06 ft); minimum, 49 cfs Sept. 23 (gage height, 2.49 ft).
1925-55: Maximum discharge, 30,800 cfs Mar. 19, 1936 (gage height, 21.17 ft); minimum, 18 cfs Oct. 29, 1929 (gage height, 2.02 ft).

Remarks.--Records excellent except those for periods 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.5	50	5.0	1,070
2.8	90	6.0	2,020
3.1	150	8.0	4,530
3.5	265	10.0	7,670
4.0	460	11.0	9,400

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	541	1,430	775	825	310	480	615	1,980	1,120	222	73	99
2	563	1,370	673	795	310	460	855	1,890	1,130	193	99	94
3	635	2,230	619	735	305	450	865	1,930	847	190	128	77
4	2,310	5,840	526	705	300	425	890	1,940	691	174	90	73
5	1,890	2,800	520	675	300	410	1,050	3,900	727	167	82	69
6	1,280	1,910	495	645	295	400	1,360	4,430	673	150	74	74
7	979	1,300	485	615	305	385	1,730	2,740	541	141	108	76
8	811	930	480	585	320	380	1,720	2,420	469	128	425	71
9	721	888	500	555	330	385	1,860	2,450	418	108	238	69
10	667	*817	505	540	325	390	2,170	1,950	378	103	148	59
11	750	757	470	515	350	450	2,940	1,390	406	106	130	57
12	1,170	739	450	500	505	530	3,050	1,040	480	97	143	68
13	958	673	*445	495	615	615	2,710	972	1,690	95	137	*76
14	823	637	410	475	*575	585	3,260	916	1,270	94	122	70
15	721	613	855	460	545	*525	7,800	881	944	95	164	70
16	8,170	552	1,860	450	500	480	7,960	823	709	108	205	71
17	6,230	552	1,150	445	470	480	4,920	787	568	231	294	62
18	3,220	541	2,710	*445	450	480	3,750	679	478	164	225	54
19	2,040	557	6,070	425	410	470	4,480	607	402	128	245	60
20	1,360	745	3,630	420	390	440	*4,780	574	362	116	201	61
21	1,130	1,890	2,200	410	380	420	3,580	521	351	104	162	60
22	817	3,000	1,250	395	400	385	2,760	478	378	94	152	58
23	763	1,900	1,130	385	460	380	2,570	478	378	77	177	59
24	715	1,330	980	380	530	370	2,120	526	335	73	331	53
25	667	909	890	370	585	355	1,710	635	297	76	228	53
26	691	823	825	360	555	355	2,260	2,080	320	76	177	68
27	980	757	780	355	530	350	2,520	1,150	394	80	141	69
28	1,970	721	780	345	505	345	2,110	799	331	84	128	64
29	1,410	787	810	340	-	320	1,910	679	290	87	120	70
30	1,720	888	835	330	------	345	2,020	860	251	70	108	73
31	1,630	--	845	320	------	420	--------	757	--------	61	101	-
Total	48,332	38,886	34,953	15,295	11,855	13,265	82,325	43,262	17,628	3,692	5,156	2,037
Mean	1,559	1,296	1,128	493	423	428	2,744	1,396	588	119	166	67.9
Cfsm	4.40	3.66	3.19	1.39	1.19	1.21	7.75	3.94	1.66	0.336	0.469	0.192
In.	5.07	4.08	3.68	1.60	1.24	1.40	8.65	4.54	1.85	0.39	0.54	0.21

Calendar year 1954: Max 13,300 Min 164 Mean 1,209 Cfsm 3.42 In. 46.35
Water year 1954-55: Max 8,170 Min 53 Mean 868 Cfsm 2.45 In. 33.25

Peak discharge (base, 6,000 cfs).--Oct. 16 (6 p.m.) 17,100 cfs (15.06 ft); Nov. 4 (3 a.m.) 8,740 cfs (10.63 ft); Dec. 19 (11:30 a.m.) 7,740 cfs (10.04 ft); Apr. 16 (3 a.m.) 9,490 cfs (11.05 ft); Apr. 19 (11:30 p.m.) 6,420 cfs (9.22 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 5-19, Dec. 24 to Apr. 9.

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 1955.

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

Average discharge.--27 years, 932 cfs.

Extremes.--Maximum discharge during year, 15,500 cfs Oct. 17 (gage height, 10.82 ft); minimum, 38 cfs Sept. 22 (gage height, 2.28 ft).
1928-55: 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. Some regulation at low flow by mills above station.

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

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.2	32	4.5	1,040
2.3	40	5.0	1,540
2.5	61	6.0	2,960
2.8	111	7.0	4,920
3.0	160	8.0	7,270
3.5	352	9.0	9,950
4.0	650	10.0	12,900

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	795	1,860	1,410	940	300	860	1,460	2,160	1,970	342	78	89
2	728	1,920	1,120	905	300	875	1,790	2,020	1,980	304	78	86
3	742	2,740	965	865	295	810	1,780	1,920	1,250	273	76	81
4	2,320	6,940	860	825	295	740	1,860	1,880	939	253	87	78
5	2,860	3,400	760	780	290	730	1,990	2,680	867	223	87	74
6	1,830	2,400	705	735	290	735	2,340	6,030	*867	203	86	62
7	1,300	1,980	665	705	305	740	3,100	3,210	713	193	96	60
8	1,080	1,660	645	665	340	720	2,720	2,330	603	172	166	59
9	989	1,500	650	635	375	690	2,850	2,830	526	172	291	61
10	931	1,300	665	610	405	685	3,060	2,260	479	160	197	78
11	891	1,180	715	570	500	730	4,340	1,740	545	144	157	67
12	1,350	1,130	665	560	650	820	5,340	1,430	625	134	203	61
13	1,310	1,060	635	*525	915	915	4,280	1,240	2,670	125	223	57
14	1,050	955	610	510	1,130	965	4,180	1,130	1,870	118	193	*54
15	939	923	*1,480	485	1,060	885	7,270	1,080	1,410	113	166	53
16	*5,960	867	2,660	460	*885	825	10,200	989	1,030	125	187	51
17	9,260	851	1,690	450	825	*845	6,150	899	827	150	203	50
18	3,520	851	1,670	420	780	885	4,320	819	685	213	260	50
19	2,520	875	9,350	410	760	890	4,450	742	577	166	216	49
20	2,020	1,140	3,910	400	750	845	5,990	685	502	134	234	49
21	1,660	3,130	2,600	390	715	795	4,060	637	479	113	193	44
22	1,390	4,110	1,920	375	720	790	3,180	570	502	107	152	40
23	1,220	2,450	1,560	365	790	805	2,800	533	558	96	132	39
24	1,100	1,880	1,360	355	875	875	2,780	514	514	92	127	40
25	972	1,540	1,210	345	965	925	2,300	640	422	89	152	41
26	972	1,360	1,080	340	955	915	2,990	2,420	473	79	157	41
27	1,180	1,230	1,000	335	900	915	3,800	1,310	583	76	132	40
28	2,440	1,150	965	320	860	955	3,130	867	508	78	111	43
29	1,780	1,280	1,020	315	-	1,020	2,400	755	479	78	98	46
30	2,260	1,700	1,030	310	------	1,090	2,230	1,340	389	87	90	47
31	2,140	--	990	305	------	1,220	------	1,110	-- --	87	87	-----
Total	59,509	55,362	46,565	16,210	18,230	26,495	109,140	48,770	25,842	4,699	4,715	1,690
Mean	1,920	1,845	1,502	523	651	855	3,638	1,573	861	152	152	56.3
Cfsm	3.74	3.59	2.92	1.02	1.27	1.66	7.08	3.06	1.68	0.296	0.296	0.110
In.	4.31	4.00	3.37	1.18	1.32	1.91	7.90	3.53	1.87	0.34	0.34	0.12

Calendar year 1954: Max 17,900 Min 169 Mean 1,636 Cfsm 3.18 In. 43.16
Water year 1954-55: Max 10,200 Min 39 Mean 1,143 Cfsm 2.22 In. 30.19

Peak discharge (base, 6,000 cfs).--Oct. 17 (1 a.m.) 15,500 cfs (10.82 ft); Nov. 4 (8 a.m.) 8,470 cfs (8.46 ft); Dec. 19 (9 a.m.) 11,700 cfs (9.60 ft); Apr. 16 (8 a.m.) 11,800 cfs (9.62 ft); Apr. 20 (9 a.m.) 7,100 cfs (7.93 ft); May 6 (7 a.m.) 6,970 cfs (7.88 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 3-15, Dec. 23 to Apr. 9.

Sebasticook River near Pittsfield, Maine

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

Drainage area.--579 sq mi.

Records available.--October 1928 to September 1955.

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

Average discharge.--26 years (1929-55), 943 cfs.

Extremes.--Maximum discharge during year, 5,760 cfs Apr. 19 (gage height, 7.89 ft); minimum daily, 10 cfs Sept. 14.
1928-55: 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, 4.8 cfs Dec. 13, 1941.

Remarks.--Records excellent except those for periods of ice effect, 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 table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.2	10	3.0	500
1.4	21	3.5	850
1.6	35	4.0	1,300
1.8	60	5.0	2,250
2.0	100	6.0	3,400
2.2	155	7.0	4,600
2.4	225	8.0	5,900
2.6	305		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,100	1,730	1,760	1,570	680	1,050	1,750	2,180	840	405	168	164
2	1,010	1,670	1,870	1,440	630	1,010	1,940	2,010	1,010	225	126	425
3	958	1,710	1,580	1,300	590	995	1,970	1,680	1,090	17	130	15
4	1,260	2,240	1,410	1,160	565	985	2,350	1,390	904	310	198	17
5	1,590	2,740	1,110	1,010	555	995	2,400	1,320	994	230	290	154
6	1,750	3,170	1,290	895	550	1,000	2,700	1,410	1,140	128	220	126
7	1,800	3,270	1,050	805	680	1,000	3,000	1,450	1,010	114	118	132
8	1,750	3,320	1,010	720	920	995	3,310	1,490	870	345	290	110
9	1,680	3,050	935	*660	915	965	3,570	1,520	745	16	160	435
10	1,550	2,750	925	620	850	960	3,630	1,520	675	20	200	14
11	1,450	2,470	915	675	770	1,010	3,720	1,420	665	184	225	15
12	1,510	2,160	667	675	760	1,030	3,780	1,400	635	79	375	435
13	1,420	1,840	955	650	805	895	4,040	1,290	700	122	128	76
14	1,360	1,490	780	630	1,030	1,080	4,170	1,130	740	36	19	10
15	1,330	1,280	955	605	1,310	1,130	4,360	1,080	715	300	210	12
16	1,510	1,110	1,430	615	1,450	1,120	4,730	*990	675	390	225	14
17	1,790	1,020	1,640	620	1,420	1,160	5,280	880	610	24	215	14
18	2,240	925	1,760	605	1,280	1,290	5,640	815	560	290	126	35
19	2,280	935	2,570	575	1,080	1,210	5,610	700	550	265	228	68
20	2,210	1,030	3,790	605	940	1,170	5,500	665	490	156	220	105
21	1,990	1,340	4,500	655	840	1,130	5,260	260	475	190	16	122
22	1,800	1,680	4,630	640	805	1,120	4,950	168	450	220	120	128
23	1,660	1,900	4,360	630	830	1,170	4,480	635	440	200	69	125
24	1,350	2,020	3,990	620	895	1,220	4,080	555	420	205	122	131
25	1,490	2,030	3,440	615	1,050	1,260	3,590	510	385	20	124	115
26	1,220	1,980	3,050	595	1,120	1,210	3,180	545	43	200	330	94
27	1,210	1,830	2,800	615	1,120	1,280	2,910	560	230	198	14	102
28	1,200	1,530	2,400	640	1,080	1,290	2,690	545	255	160	118	120
29	1,260	1,800	2,180	635	-	1,300	2,570	330	410	360	162	115
30	1,330	1,730	2,020	690	------	1,300	2,340	750	420	54	140	415
31	1,320	-	1,870	730	-----	1,490	-------	675	----	16	190	-
Total	47,358	57,750	63,422	23,500	25,500	34,820	109,500	31,873	19,126	5,479	5,276	3,843
Mean	1,528	1,925	2,046	758	911	1,123	3,650	1,028	638	177	170	128
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 9,470 Min 188 Mean 1,857 Cfsm 3.21 In. 43.51
Water year 1954-55: Max 5,640 Min 10 Mean 1,171 Cfsm 2.02 In. 27.45

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Jan. 1 to Mar. 12, Mar. 14-29.

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 1955.

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

Average discharge.--65 years, 330 cfs.

Extremes.--Maximum daily discharge during year, 1,850 cfs Dec. 20; minimum daily, 10 cfs July 3, 4.
1890-1955: 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	540	405	590	660	270	515	695	425	220	215	190	180
2	405	425	535	660	270	555	705	420	220	130	190	180
3	270	435	575	660	270	635	720	405	220	10	190	180
4	270	520	645	660	270	680	720	385	220	10	190	135
5	270	610	630	660	255	680	720	360	220	220	185	90
6	270	625	600	640	240	665	720	370	220	220	180	135
7	270	610	600	615	240	625	720	370	220	220	180	180
8	270	565	600	615	240	595	720	370	220	220	180	180
9	270	530	590	605	240	580	705	370	220	220	180	180
10	270	520	575	585	240	580	685	370	220	220	180	180
11	270	505	590	480	240	565	670	360	220	220	180	180
12	270	495	600	480	240	555	660	360	220	220	180	180
13	270	480	600	465	330	740	550	360	220	220	180	180
14	270	475	590	445	420	895	455	360	220	220	180	180
15	270	465	615	430	395	830	475	370	220	220	180	180
16	270	445	1,100	410	375	770	485	315	220	205	180	180
17	435	435	1,500	405	360	770	375	270	220	190	180	180
18	700	435	1,400	405	360	800	275	260	220	190	180	180
19	795	435	1,600	395	355	770	285	250	220	190	180	180
20	765	430	1,850	390	360	720	280	250	220	190	180	180
21	675	485	1,810	390	360	695	285	250	220	190	180	180
22	625	605	1,740	380	360	680	275	250	220	190	180	180
23	610	655	1,340	375	360	670	275	245	220	190	180	180
24	590	645	820	320	395	695	440	240	220	190	180	180
25	580	600	660	270	460	730	390	230	220	190	180	180
26	560	575	660	270	495	740	385	220	220	190	180	180
27	410	560	660	270	495	745	385	220	220	190	180	180
28	325	605	660	270	505	730	385	220	220	190	180	180
29	375	655	660	270	-	695	385	220	220	190	180	180
30	375	645	660	270	------	660	405	220	220	190	180	180
31	390	-- --	660	270	------	670	----- --	220	------ -	190	180	-- -
Total	12,935	15,875	26,715	14,020	9,400	21,235	15,230	9,535	6,600	5,840	5,625	5,220
Mean	417	529	862	452	336	685	508	308	220	188	181	174
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 2,540 Min 10 Mean 550 Cfsm - In. -
Water year 1954-55: Max 1,850 Min 10 Mean 406 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 gage height 43.0 and 73.0 ft. Gage-height 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.

Indian Pond on Kennebec River, 13 miles downstream from East Outlet of Moosehead Lake, completed in 1954, for power, has storage capacity of 830,000,000 cu ft in top 5 ft of pond (total capacity of pond, 3,150,000,000 cu ft). Gage-height 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 gage heights 1,110 and 1,146 ft. Gage-height 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 storage capacity of 2,630,000,000 cu ft in top 20 ft of pond (total capacity of pond, 9,080,000,000 cu ft). Gage-height record furnished by Central Maine Power Co.

Month-end gage height and contents, water year October 1954 to September 1955

Date	Brassua Lake†			Second Roach Pond†		
	Gage height (feet)	Contents (millions of cubic feet)	Change in contents (m.c.f.)	Gage height (feet)	Contents (millions of cubic feet)	Change in contents (m.c.f.)
Sept.30	72.45	8,338	-	7.6	150	-
Oct. 31	71.5	7,953	-385	8.2	166	+16
Nov. 30	70.0	7,349	-604	7.0	134	-32
Dec. 31	67.45	6,362	-987	-	0	-134
Calendar year 1954	-	-	+5,567	-	0	0
Jan. 31	53.2	1,849	-4,513	-	0	0
Feb. 28	45.65	406	-1,443	-	0	0
Mar. 31	44.65	252	-154	-	0	0
Apr. 30	69.4	7,113	+6,861	*4.5	69	+69
May 31	73.1	8,602	+1,489	*9.6	205	+136
June 30	73.0	8,560	-42	8.6	177	-28
July 31	72.8	8,479	-81	7.6	150	-27
Aug. 31	72.75	8,459	-20	*7.0	134	-16
Sept.30	65.95	5,805	-2,654	*6.0	107	-27
Water year 1954-55	-	-	-2,533	-	-	-43

Date	First Roach Pond†			Indian Pond†		
	Gage height (feet)	Contents (millions of cubic feet)	Change in contents (m.c.f.)	Gage height (feet)	Contents (millions of cubic feet)	Change in contents (m.c.f.)
Sept.30	8.5	1,008	-	955.0	3,510	-
Oct. 31	8.0	938	-70	953.9	2,953	-197
Nov. 30	6.9	787	-151	955.0	3,150	+197
Dec. 31	6.2	691	-96	955.0	3,150	0
Calendar year 1954	-	-	+94	-	-	+2,535
Jan. 31	6.3	705	+14	955.0	3,150	0
Feb. 28	4.5	463	-242	954.8	3,114	-36
Mar. 31	*6.3	705	+242	954.5	3,060	-54
Apr. 30	*5.8	637	-68	954.5	3,060	0
May 31	8.8	1,049	+412	955.1	3,168	+108
June 30	8.5	1,008	-41	955.3	3,204	+36
July 31	7.4	856	-152	955.2	3,186	-18
Aug. 31	*7.6	883	+27	955.0	3,150	-36
Sept.30	7.0	801	-82	955.0	3,150	0
Water year 1954-55	-	-	-207	-	-	0

* Approximate only
† Gage height and contents at 7 a.m. on first day of following month.

Smaller reservoirs in Kennebec River basin, Maine--Continued

Month-end gage height and contents, water year October 1954 to September 1955--Continued

Date	Moxie Pond†			Flagstaff Lake†		
	Gage height (feet)	Contents (millions of cubic feet)	Change in contents (m.c.f.)	Gage height (feet)	Contents (millions of cubic feet)	Change in contents (m.c.f.)
Sept.30	*15.0	730	-	44.7	11,032	-
Oct. 31	15.0	730	0	45.95	12,010	+978
Nov. 30	*14.0	640	-90	44.8	11,108	-902
Dec. 31	11.5	417	-223	42.7	9,570	-1,538
Calendar year 1954	-	-	+223	-	-	-1,646
Jan. 31	-	0	-417	40.0	7,800	-1,770
Feb. 28	-	0	0	36.0	5,595	-1,205
Mar. 31	-	0	0	31.65	3,689	-1,906
Apr. 30	*15.0	730	+730	45.2	11,414	+7,725
May 31	*14.5	685	-45	46.0	12,050	+636
June 30	*14.5	685	0	44.4	10,805	-1,245
July 31	*13.6	604	-81	43.65	10,248	-557
Aug. 31	*13.8	622	+18	42.15	9,192	-1,056
Sept.30	8.6	178	-444	34.65	4,954	-4,238
Water year 1954-55	-	-	-552	-	-	-6,078

Date	Spencer Lake†			Wymar Pond‡		
	Gage height (feet)	Contents (millions of cubic feet)	Change in contents (m.c.f.)	Gage height (feet)	Contents (millions of cubic feet)	Change in contents (m.c.f.)
Sept.30	*9.5	430	-	481.8	8,620	-
Oct. 31	*7.5	277	-153	485.0	9,080	+460
Nov. 30	*6.5	205	-72	483.3	8,830	-1,250
Dec. 31	-	0	-205	482.1	8,660	-170
Calendar year 1954	-	-	0	-	-	+90
Jan. 31	-	0	0	481.6	8,590	-70
Feb. 28	-	0	0	484.4	8,990	+400
Mar. 31	-	0	0	483.7	8,890	-100
Apr. 30	*12.0	639	+639	484.1	8,940	+50
May 31	11.2	570	-69	485.0	9,080	+140
June 30	12.0	639	+69	483.7	8,890	-190
July 31	*11.7	613	-26	483.5	8,860	-30
Aug. 31	12.0	639	+26	482.4	8,710	-150
Sept.30	8.8	378	-261	481.8	8,620	-90
Water year 1954-55	-	-	-52	-	-	0

* Approximate only
† Gage height and contents at 7 a.m. on first day of following month.
‡ Gage heights and contents at 12 p.m.

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 1955.

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

Average discharge.--14 years, 353 cfs.

Extremes.--Maximum discharge during year, 4,850 cfs Apr. 15 (gage height, 8.50 ft); minimum, 27 cfs Aug. 5 (gage height, 1.21 ft).
1941-55: 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 periods of ice effect, which are fair.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.2	26	4.0	705
1.4	40	5.0	1,270
1.7	67	6.0	2,010
2.0	105	7.0	3,000
2.5	190	7.9	4,050
3.0	320		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	550	382	244	320	89	152	158	2,120	1,040	122	36	72
2	610	326	211	275	85	152	180	2,020	990	126	43	65
3	775	375	*186	245	84	150	180	2,000	495	134	38	62
4	2,210	770	158	235	79	140	186	1,830	339	104	32	57
5	1,970	551	158	215	78	136	257	3,160	292	90	28	54
6	900	442	152	205	72	126	416	2,430	244	83	50	53
7	631	368	150	194	68	122	750	1,320	225	78	500	52
8	511	330	146	190	73	120	723	1,190	188	69	850	48
9	446	308	142	186	*80	120	503	1,170	166	66	203	46
10	442	266	138	176	85	*136	465	1,010	150	59	114	46
11	507	242	138	*170	91	148	870	741	150	55	118	46
12	640	252	152	170	108	527	1,110	601	255	50	250	61
13	601	198	176	162	170	1,010	1,090	543	1,200	48	139	73
14	499	211	210	152	186	539	1,640	480	1,580	46	500	56
15	396	184	272	150	146	330	4,000	420	1,470	44	289	50
16	955	175	266	142	120	255	3,850	372	589	65	750	50
17	800	194	200	136	118	260	2,380	355	385	120	446	49
18	519	198	182	132	116	310	1,970	311	286	77	487	46
19	424	216	580	126	104	260	2,420	283	227	62	413	42
20	372	360	450	122	100	200	1,970	286	192	51	234	40
21	336	890	320	118	98	172	1,640	239	211	46	166	40
22	301	1,520	295	118	102	170	1,610	209	301	41	134	39
23	274	710	290	114	110	160	2,290	196	355	39	244	37
24	252	484	265	108	136	158	2,210	205	255	34	298	37
25	232	402	260	106	188	154	1,760	234	326	32	*184	38
26	255	346	260	104	170	162	1,560	311	314	32	138	39
27	495	308	265	99	150	152	1,300	220	301	31	118	39
28	805	289	335	97	138	148	*1,120	179	200	45	99	39
29	*468	286	535	92	-	148	1,390	164	162	50	90	46
30	461	274	675	91	------	146	2,060	200	138	38	80	48
31	453	-	370	84	------	150	------	184	------	32	78	-
Total	19,090	11,857	8,181	4,834	3,144	6,913	42,058	24,983	13,026	1,969	7,149	1,470
Mean	616	395	264	156	112	222	1,402	806	434	63.5	231	49.0
Cfsm	4.03	2.58	1.73	1.02	0.732	1.45	9.16	5.27	2.84	0.415	1.51	0.320
In.	4.65	2.88	1.99	1.18	0.76	1.67	10.22	6.08	3.17	0.48	1.74	0.36

Calendar year 1954: Max 7,380 Min 58 Mean 520 Cfsm 3.40 In. 46.13
Water year 1954-55: Max 4,000 Min 28 Mean 396 Cfsm 2.59 In. 35.18

Peak discharge (base, 3,600 cfs).--Apr. 15 (8:30 p.m.) 4,850 cfs (8.50 ft); May 5 (8 a.m.) 3,690 cfs (7.60 ft).
* Discharge measurement made on this day.

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 1955. October 1922 to November 1943, monthly discharge only, published 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.--50 years, 1,884 cfs (adjusted).

Extremes.--Maximum discharge during year, 9,630 cfs May 9 (gage height, 7.08 ft); minimum daily, 1,300 cfs June 13.
1905-55: 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. Flow regulated by Kennebago, Rangeley, Mooselookmeguntic, Richardson, Umbagog and Aziscohos Lakes (see p. 65).

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

Revisions.--WSP 1001: Drainage area.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.0	1,200	5.0	5,390
2.5	1,760	6.0	7,330
3.0	2,420	8.0	11,800
4.0	3,860		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,810	1,760	2,830	2,620	2,760	2,240	2,380	2,730	1,620	2,180	1,920	2,180
2	2,810	1,900	2,880	2,590	2,670	2,240	2,460	3,150	1,980	2,150	1,900	2,200
3	2,840	1,790	2,880	2,560	2,600	2,250	2,670	3,610	2,900	2,030	1,930	2,240
4	3,770	1,580	2,970	2,260	2,530	2,340	2,640	3,580	3,080	1,840	1,940	2,240
5	5,470	1,790	2,990	2,600	2,460	2,390	2,530	3,910	2,790	1,800	1,930	2,240
6	6,450	2,070	2,980	2,600	2,430	2,480	2,570	6,870	2,190	1,810	1,790	2,280
7	6,500	2,270	3,010	2,640	2,390	2,490	2,730	7,920	2,050	1,810	1,890	2,270
8	5,840	2,340	3,040	2,730	2,380	2,530	2,700	9,190	2,020	1,810	1,770	2,250
9	5,440	2,320	3,020	2,760	2,380	2,580	2,570	9,580	2,100	1,860	1,860	2,250
10	5,000	2,380	2,870	2,770	2,360	2,590	2,420	9,050	2,190	1,920	1,890	2,270
11	4,500	2,490	2,830	2,760	2,310	2,500	2,190	7,650	2,140	1,900	1,820	2,250
12	4,430	2,500	2,840	2,780	2,180	2,450	2,370	5,560	2,020	1,900	1,760	2,200
13	4,360	2,530	2,900	2,780	2,340	2,360	2,920	3,980	1,300	1,900	1,810	2,230
14	3,890	2,560	2,900	2,800	2,420	2,410	2,870	3,670	2,680	1,890	1,610	2,220
15	4,090	2,550	2,780	2,810	2,320	2,530	2,910	3,280	4,300	1,890	1,610	2,160
16	4,680	2,550	2,710	2,800	2,280	2,480	3,760	3,180	4,590	1,890	1,630	2,150
17	4,970	2,570	2,740	2,780	2,270	2,420	4,380	2,440	3,850	1,850	1,610	2,140
18	5,670	2,570	2,700	2,870	2,250	2,360	4,610	2,240	2,700	1,890	1,620	2,160
19	5,830	2,550	2,410	2,870	2,250	2,340	5,050	2,180	2,180	1,900	1,670	2,150
20	5,440	2,450	2,410	2,840	2,290	2,320	4,030	2,180	2,160	1,890	1,850	2,140
21	4,540	2,060	2,590	2,840	2,230	2,340	2,570	2,190	2,230	1,890	1,980	2,140
22	3,930	1,850	2,780	2,840	2,080	2,390	1,750	2,180	2,070	1,890	2,060	2,190
23	3,340	2,270	3,010	2,830	1,980	2,420	1,810	2,150	2,030	1,930	2,080	2,200
24	2,670	2,490	2,970	2,770	2,070	2,420	2,300	2,140	2,080	1,930	1,930	2,120
25	2,290	2,640	2,920	2,730	2,080	2,420	3,240	2,040	2,180	1,930	1,990	2,100
26	2,130	2,770	2,940	2,730	2,110	2,420	3,410	1,500	2,230	1,930	1,980	*2,160
27	1,920	2,530	2,910	2,760	2,160	2,420	3,050	2,050	2,180	1,930	2,030	2,190
28	1,810	2,830	2,830	2,770	2,200	2,420	*2,590	2,100	2,190	1,920	2,050	2,180
29	*1,750	2,810	2,760	2,770	-	2,430	2,190	2,110	2,220	1,920	2,140	2,120
30	1,610	2,800	2,710	2,760	-------	2,430	2,350	2,110	2,220	1,920	2,190	2,120
31	1,640	------	2,690	2,760	-------	2,410	------	2,110	-------	1,920	2,200	-------
Total	122,420	70,570	87,800	84,780	64,740	74,830	85,820	118,630	72,470	59,220	58,420	65,740
Mean	3,949	2,352	2,832	2,735	2,312	2,414	2,861	3,827	2,416	1,910	1,885	2,191
(†)	-267	+174	-1,422	-1,926	-1,646	-1,752	+5,237	+1,809	+147	-1,747	-805	-2,247

Adjusted for change in reservoir contents

Mean	3,662	2,526	1,410	809	666	662	8,098	5,636	2,563	163	1,080	-56
Cfsm	3.52	2.42	1.35	0.774	0.637	0.633	7.75	5.39	2.45	0.156	1.03	-0.054
In.	4.06	2.70	1.56	0.89	0.66	0.73	8.65	6.21	2.73	0.18	1.19	-0.06

	Observed				Adjusted			
Calendar year 1954:	Max 10,900	Min 835	Mean 2,798		Mean 3,128	Cfsm 2.99	In. 40.62	
Water year 1954-55:	Max 9,580	Min 1,300	Mean 2,645		Mean 2,272	Cfsm 2.17	In. 29.50	

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

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 1955. 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 gages showing head and tailwater elevations at site 3 miles upstream at different datum.

Average discharge.--42 years, 2,448 cfs (adjusted).

Extremes.--Maximum discharge during year, 11,000 cfs May 9 (gage height, 7.97 ft); minimum daily, 1,920 cfs July 8, 9, 18.
1913-55: 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 except those for periods of backwater from paper mill waste, which are good. Flow regulated by powerplants above station and by Kennebago, Rangeley, Mooselookmeguntic, Richardson, Umbagog and Aziscohos Lakes (see p. 65).

Revisions.--WSP 1001: Drainage area.

Rating table, water year 1954-55, except periods of backwater from paper mill waste (gage height, in feet, and discharge, in cubic feet per second)

3.5	1,820	5.0	4,050
4.0	2,460	6.0	6,000
4.5	3,230	8.0	11,100

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,440	2,380	3,330	3,150	2,860	2,580	2,900	4,320	3,360	2,450	1,980	2,200
2	3,360	2,360	*3,290	3,050	2,820	2,660	2,850	4,910	3,490	2,390	1,960	2,160
3	3,450	3,100	3,310	3,010	2,700	2,580	2,740	5,190	3,440	2,320	1,940	2,180
4	4,860	4,230	3,170	2,660	2,620	2,580	2,850	5,360	3,580	2,100	1,940	2,200
5	6,810	3,330	3,290	2,910	2,610	2,680	3,010	4,520	3,550	1,950	1,960	2,200
6	7,420	*3,090	3,150	2,940	2,600	2,700	3,390	7,950	2,940	1,950	2,000	2,200
7	7,540	3,050	3,230	2,850	2,560	2,790	4,160	8,850	2,550	1,950	1,940	2,240
8	7,200	3,050	3,290	2,930	2,490	2,740	4,160	9,510	2,290	1,920	2,160	2,200
9	6,340	2,940	3,330	2,990	2,490	2,820	3,650	10,700	2,270	1,920	1,930	2,180
10	6,130	2,850	3,420	3,040	*2,540	*2,850	3,580	10,500	2,270	1,960	1,940	2,220
11	5,360	2,860	3,210	*3,040	2,620	2,970	4,340	9,380	2,400	1,960	2,010	2,230
12	5,280	2,960	3,150	3,010	2,680	3,150	4,680	7,800	2,400	1,940	2,120	2,270
13	5,180	2,900	3,150	3,040	2,330	3,260	4,700	5,540	3,370	1,950	1,990	2,190
14	4,960	2,910	3,130	2,990	2,550	2,990	5,660	4,520	3,170	1,980	2,640	2,230
15	4,230	2,910	3,250	3,040	2,640	3,020	8,560	4,140	5,580	1,940	2,330	2,190
16	6,980	2,840	3,170	3,050	2,580	3,130	9,430	3,880	5,770	1,980	2,400	2,150
17	6,620	2,850	3,210	2,990	2,550	3,010	8,270	3,500	5,000	2,020	2,600	2,140
18	6,400	2,910	3,680	2,960	2,560	2,930	7,470	2,800	3,860	1,920	2,490	2,160
19	6,550	2,940	3,230	3,120	2,560	2,790	8,100	2,680	2,840	1,980	2,270	2,150
20	6,500	3,020	3,130	3,040	2,600	2,740	8,600	2,580	2,460	1,960	2,070	2,150
21	5,710	3,420	2,990	2,930	2,910	2,700	6,360	2,490	2,640	1,950	2,100	2,110
22	4,860	3,810	3,020	3,040	2,860	2,730	4,310	2,400	2,990	1,950	2,150	2,120
23	4,140	3,420	3,490	2,990	2,840	2,780	4,410	2,390	2,790	1,940	2,350	2,140
24	3,520	3,370	3,290	2,990	*2,900	2,760	4,390	2,320	2,800	1,990	2,500	2,160
25	2,980	3,340	3,170	2,910	2,730	2,760	4,830	2,420	2,580	1,980	*2,270	2,090
26	2,610	3,340	3,290	2,880	2,620	2,740	5,700	2,860	2,720	1,960	2,190	2,070
27	2,670	3,420	3,310	2,910	2,580	2,780	5,660	*2,240	2,720	1,980	2,110	2,120
28	2,980	3,130	3,390	2,850	2,610	2,700	*5,220	2,430	2,520	1,980	2,140	2,160
29	*2,720	3,420	3,630	2,880	-	2,720	4,180	2,270	2,580	1,960	2,100	2,120
30	2,520	3,440	3,490	2,900	-------	2,760	4,030	2,400	2,580	1,950	2,200	2,110
31	2,420	-------	3,310	2,860	-------	2,780	-------	2,350	-------	1,960	2,220	-------
Total	151,700	93,590	101,500	91,950	74,010	87,180	152,170	145,160	93,270	62,140	66,940	65,040
Mean	4,894	3,120	3,274	2,966	2,643	2,812	5,072	4,683	3,109	2,005	2,159	2,168
(†)	-267	+174	-1,422	-1,926	-1,846	-1,752	+5,237	+1,809	+147	-1,747	-805	-2,247

Adjusted for change reservoir contents

Mean	4,267	3,294	1,852	1,040	997	1,060	10,310	6,492	3,256	258	1,334	-79
Cfsm	3.39	2.42	1.36	0.763	0.731	0.778	7.56	4.76	2.39	0.189	0.993	-0.058
In.	3.91	2.70	1.57	0.88	0.76	0.90	8.44	5.49	2.67	0.22	1.14	-0.06

	Observed						Adjusted					
Calendar year 1954:	Max	14,000	Min	1,530	Mean	3,713	Mean	4,043	Cfsm	2.97	In.	40.26
Water year 1954-55:	Max	10,700	Min	1,920	Mean	3,246	Mean	2,873	Cfsm	2.11	In.	28.62

* 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.--Backwater from paper mill waste Oct. 1 to Apr. 15, May 16 to June 15; discharge estimated on basis of 8 discharge measurements. Negative figures of adjusted discharge and runoff indicate that evaporation and seepage from reservoirs exceeded inflow.

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., at Rumford, Oxford County, 0.8 mile upstream from Swift River.

Drainage area.--2,067 sq mi.

Records available.--May 1892 to September 1955. October 1903 to September 1904 monthly discharge only, published in WSP 1301.

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

Average discharge.--63 years, 3,678 cfs (adjusted).

Extremes.--Maximum daily discharge during year, 21,400 cfs Apr. 16; minimum daily, 1,930 cfs Aug. 4.
1892-1955: 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, Mosselookmeguntic, Richardson, Umbagog and Aziscohos Lakes (see p. 65).

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

Revisions.--WSP 1001: Drainage area.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,190	4,060	4,740	4,520	3,010	3,190	5,250	8,390	4,500	2,940	2,090	2,340
2	3,820	3,810	4,420	4,350	2,980	3,320	5,270	8,790	5,670	2,730	2,040	2,190
3	3,900	7,870	4,190	4,230	2,930	3,270	5,290	9,370	4,490	2,810	1,950	2,180
4	5,550	11,900	3,570	4,080	2,850	3,090	5,680	9,610	4,510	2,700	1,930	2,240
5	7,150	7,110	3,680	3,320	2,900	3,010	6,700	9,640	4,690	2,610	2,010	2,210
6	7,550	5,410	2,940	3,590	2,930	3,160	7,730	11,000	4,120	2,200	2,110	2,570
7	7,680	4,760	3,600	3,340	2,920	2,180	9,570	12,400	3,590	2,290	2,120	2,200
8	7,410	4,500	4,000	3,350	2,830	3,150	8,350	13,300	3,260	2,270	2,470	2,280
9	6,700	4,300	4,210	3,810	2,820	3,250	6,660	15,300	2,760	2,090	2,250	2,150
10	6,310	4,070	4,630	3,840	2,840	3,450	7,180	14,700	2,750	2,160	2,110	2,290
11	6,070	3,870	4,280	3,850	3,020	3,790	11,600	13,100	2,990	2,180	2,220	2,210
12	5,930	3,910	3,950	3,640	4,330	5,310	11,400	11,200	3,830	2,140	2,670	2,300
13	5,780	3,740	3,910	3,570	3,870	5,440	9,680	8,860	7,690	2,080	2,470	2,260
14	5,390	3,680	3,630	3,420	3,150	4,640	11,900	6,970	6,000	2,080	7,550	2,200
15	4,870	3,720	5,760	3,690	3,350	3,940	20,000	6,180	6,650	2,170	4,470	2,270
16	19,200	3,500	6,780	3,920	3,270	4,370	21,400	5,680	7,050	2,120	3,120	2,240
17	14,400	3,600	4,890	3,580	3,010	4,460	17,000	5,240	6,260	2,330	3,160	2,160
18	9,260	3,750	6,490	3,330	3,040	3,770	14,400	3,700	5,160	2,170	3,150	2,160
19	7,960	3,990	11,600	3,280	2,930	3,640	15,400	3,530	4,030	2,110	3,190	2,140
20	7,560	5,360	7,150	3,350	2,900	3,360	16,600	3,440	3,160	2,100	2,720	2,150
21	6,870	8,650	5,310	3,230	2,910	3,360	13,100	3,510	3,040	2,100	2,400	2,110
22	5,940	9,090	3,910	3,300	3,070	3,890	10,100	3,380	3,800	2,080	2,350	2,050
23	5,170	6,280	3,900	3,580	3,190	3,370	9,830	3,240	3,790	1,960	2,490	2,100
24	4,500	5,320	4,270	3,520	3,470	3,480	9,110	3,180	3,400	1,980	3,280	2,160
25	4,080	4,980	3,890	3,640	4,180	3,450	9,090	3,110	3,720	2,040	2,950	2,190
26	3,440	4,800	3,600	3,240	4,030	4,450	11,200	5,040	3,510	2,050	2,540	2,160
27	3,520	4,770	4,540	3,260	3,490	3,560	12,000	3,800	3,390	2,070	2,360	2,020
28	4,300	4,500	4,690	3,060	3,300	3,210	10,600	3,310	3,100	2,090	2,210	2,200
29	4,090	5,020	4,900	3,180	-	3,260	9,220	3,360	3,070	2,110	2,280	2,170
30	4,150	5,130	4,710	3,100	-------	3,390	8,240	3,830	3,140	2,060	2,220	2,190
31	4,060	-------	4,800	3,100	-------	3,870	-------	3,540	-------	1,940	2,310	-------
Total	196,800	155,450	146,940	110,370	89,520	114,080	319,550	219,700	127,160	68,760	83,190	66,090
Mean	6,348	5,182	4,740	3,560	3,197	3,680	10,650	7,087	4,239	2,218	2,684	2,203
(†)	-267	+174	-1,422	-1,926	-1,646	-1,752	+5,237	+1,809	+147	-1,747	-805	-2,247

Adjusted for change in reservoir contents

Mean	6,081	5,356	3,318	1,634	1,551	1,928	15,887	8,896	4,386	471	1,879	-44
Cfsm	2.94	2.59	1.61	0.791	0.750	0.933	7.69	4.30	2.12	0.228	0.909	-0.021
In.	3.39	2.89	1.86	0.91	0.78	1.08	8.58	4.96	2.36	0.26	1.05	-0.02

	Observed			Adjusted			
Calendar year 1954:	Max 28,900	Min 1,590	Mean 5,798	Mean 6,128	C°sm 2.96	In. 40.25
Water year 1954-55:	Max 21,400	Min 1,930	Mean 4,651	Mean 4,278	C°sm 2.07	In. 28.10

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

Note.--Negative figures of adjusted discharge and runoff indicate that evaporation and seepage from reservoirs exceeded inflow.

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 1955.

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

Average discharge.--26 years, 197 cfs.

Extremes.--Maximum discharge during year, 6,250 cfs Oct. 16 (gage height, 8.26 ft); minimum, 9.4 cfs Sept. 22, 23 (gage height, 0.99 ft).
1929-55: 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 periods 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.99	9.4	2.5	255
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	6.0	2,890

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	154	375	193	146	55	122	126	802	255	56	11	14
2	137	345	178	138	53	118	124	789	217	53	13	13
3	320	665	166	126	48	93	128	809	*156	47	11	11
4	935	1,020	146	124	45	86	168	789	126	37	11	11
5	785	508	142	124	44	81	255	2,260	139	33	15	10
6	368	379	140	122	44	78	400	1,350	118	32	27	9.8
7	272	309	138	118	45	76	525	675	102	32	62	9.8
8	226	275	132	116	49	76	383	822	86	26	88	9.8
9	211	252	132	114	53	81	278	675	79	24	63	9.8
10	193	220	*134	*110	*58	84	375	517	71	23	28	9.8
11	305	211	132	106	72	*90	820	387	112	19	22	9.8
12	379	202	126	102	340	178	738	334	210	18	56	9.8
13	272	178	120	99	210	130	637	306	590	16	42	9.8
14	217	178	134	95	140	102	920	278	327	16	*33	9.8
15	193	166	435	93	104	97	2,220	242	220	16	47	9.8
16	2,460	156	420	91	83	104	1,770	223	147	24	72	9.8
17	905	161	335	88	71	116	1,060	208	112	56	86	9.8
18	480	163	460	86	66	104	1,060	178	91	29	66	9.8
19	368	186	961	83	65	95	1,390	166	76	21	43	9.8
20	302	330	375	78	63	86	1,100	159	66	18	34	9.8
21	265	703	249	76	63	79	891	141	72	15	26	9.8
22	236	757	172	74	69	76	764	130	122	14	22	9.4
23	211	394	154	71	130	74	863	*130	147	13	43	9.4
24	205	298	146	69	255	72	680	134	93	12	65	9.8
25	188	255	134	68	188	72	686	186	72	11	43	11
26	202	226	130	66	162	71	912	335	83	*9.8	27	13
27	450	211	124	63	140	79	884	168	86	13	21	10
28	605	199	124	62	124	124	616	130	63	28	18	10
29	364	223	138	61	-	81	703	114	162	18	14	12
30	*471	223	154	59	------	66	776	173	86	13	14	13
31	467	-- --	156	56	------	86	- -----	137	--------	11	13	- -
Total	13,146	9,768	6,680	2,884	2,839	2,877	22,252	13,747	4,286	753.8	1,136	313.4
Mean	424	326	215	93.0	101	92.8	742	443	143	24.3	36.6	10.4
Cfsm	4.43	3.40	2.24	0.971	1.05	0.969	7.75	4.62	1.49	0.254	0.382	0.109
In.	5.11	3.79	2.58	1.12	1.09	1.12	8.65	5.33	1.66	0.29	0.44	0.12

Calendar year 1954: Max 3,100 Min 29 Mean 323 Cfsm 3.37 In. 45.73
Water year 1954-55: Max 2,460 Min 9.4 Mean 221 Cfsm 2.31 In. 31.30

Peak discharge (base, 2,400 cfs).--Oct. 16 (9 a.m.) 6,250 cfs (8.26 ft); Apr. 15 (8 p.m.) 2,840 cfs (5.96 ft); May 5 (3:30 p.m.) 3,260 cfs (6.31 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4-18, Dec. 22 to Apr. 7.

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 1955.

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

Average discharge.--14 years, 305 cfs.

Extremes.--Maximum discharge during year, 2,720 cfs Dec. 19 (gage height, 5.25 ft); minimum, 17 cfs Sept. 22, 23 (gage height, 0.97 ft).
1941-55: Maximum discharge, 13,900 cfs Mar. 27, 1953 (gage height, 11.18 ft); minimum, 16 cfs Oct. 1, 2, 1941, Sept. 13, 14, 1949.

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

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	13	2.5	375
1.1	26	3.0	620
1.3	47	3.5	950
1.6	98	4.0	1,350
2.0	195	5.0	2,390

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	256	510	747	335	142	370	614	445	438	87	36	41
2	246	540	565	327	138	430	768	388	500	80	37	40
3	242	790	452	335	136	425	845	343	402	71	34	39
4	323	1,820	355	327	138	415	915	311	319	65	34	36
5	380	1,420	310	295	140	385	1,140	295	284	60	34	35
6	339	875	290	280	150	365	1,430	335	256	58	33	33
7	284	650	280	260	168	345	1,820	339	207	57	36	31
8	242	535	265	255	198	325	1,860	319	162	55	37	30
9	219	460	265	250	168	305	1,230	351	148	52	37	37
10	210	398	*270	*245	164	295	1,070	339	130	49	39	26
11	216	355	299	230	*164	*285	1,330	299	148	46	61	25
12	246	343	274	220	335	325	1,560	270	177	45	77	25
13	246	319	230	210	575	400	1,300	240	490	43	66	25
14	222	295	205	205	545	365	1,120	219	668	43	*65	24
15	201	284	335	200	505	335	1,240	219	450	43	71	23
16	870	264	680	198	460	335	1,480	210	319	43	73	22
17	1,680	253	555	196	420	345	1,230	195	256	45	71	22
18	1,150	253	620	192	380	340	922	174	204	45	65	22
19	740	270	2,350	190	350	310	789	160	160	45	60	22
20	555	425	2,000	182	325	295	866	*148	133	45	58	21
21	452	955	1,110	178	300	285	740	135	122	43	57	20
22	382	1,300	747	174	295	270	604	127	120	43	55	19
23	335	970	630	174	335	290	530	118	131	43	53	18
24	299	698	555	166	430	305	490	125	133	42	53	19
25	267	555	490	162	470	335	465	156	125	43	52	20
26	252	480	430	158	435	335	638	475	135	*42	49	20
27	274	424	400	156	405	315	929	440	140	42	47	20
28	339	411	375	152	375	295	894	284	124	42	46	21
29	339	580	371	150	-	285	674	219	110	40	45	22
30	*456	831	371	148	------	281	545	274	98	40	42	22
31	510	-- -	363	146	------	398	- - ----	303	---- -	39	41	-
Total	12,772	18,263	17,189	6,696	8,646	10,389	29,638	8,255	7,089	1,536	1,564	780
Mean	412	609	554	216	309	335	988	266	236	49.5	50.5	26.0
Cfsm	2.41	3.56	3.24	1.26	1.81	1.96	5.78	1.56	1.38	0.289	0.295	0.152
In.	2.78	3.97	3.74	1.45	1.88	2.26	6.45	1.80	1.54	0.33	0.34	0.17

Calendar year 1954: Max 5,430 Min 60 Mean 493 Cfsm 2.88 In. 39.15
Water year 1954-55: Max 2,350 Min 18 Mean 336 Cfsm 1.96 In. 26.71

Peak discharge (base, 1,700 cfs).--Oct. 17 (8 to 9 p.m.) 1,750 cfs (4.43 ft); Nov. 4 (12:30 p.m.) 1,940 cfs (4.61 ft); Dec. 19 (7 p.m.) 2,720 cfs (5.25 ft); Apr. 8 (4:30 a.m.) 1,760 cfs (4.44 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4-10, 13-17, 23-27, Jan. 1, Jan. 5 to Mar. 29.

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 1955.

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.--34 years (1913-23, 1931-55), 139 cfs.

Extremes.--Maximum discharge during year, 1,950 cfs Dec. 19 (gage height, 7.41 ft); minimum, 1.8 cfs Sept. 23 (gage height, 1.39 ft).
1913-24, 1931-55: 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 periods of ice effect or no gage-height record, which are good. Slight diurnal fluctuation at low and medium flow by sawmills and grist mills above station.

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

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.3	0.4	3.0	98
1.4	2.0	3.5	180
1.5	3.8	4.0	285
1.6	5.8	5.0	585
1.8	11	6.0	1,030
2.0	18	7.0	1,650
2.5	49		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	222	267	147	47	129	248	237	241	49	6.5	7.6
2	102	243	206	148	47	154	295	204	222	43	6.2	7.3
3	95	410	169	150	43	137	317	184	154	38	6.0	6.9
4	170	871	141	143	41	121	332	167	115	33	5.6	6.5
5	178	493	120	137	41	114	440	169	112	30	5.6	6.0
6	141	325	101	129	43	109	590	198	94	29	5.6	5.6
7	140	248	102	116	52	104	692	178	74	29	8.0	5.2
8	93	212	101	b110	63	94	763	188	66	26	20	4.4
9	84	182	101	102	60	86	540	222	58	24	13	4.2
10	83	157	116	97	58	89	457	190	54	21	8.8	4.2
11	94	143	121	89	63	120	670	154	92	18	11	4.2
12	124	137	104	86	237	163	845	135	176	16	38	4.4
13	108	137	94	81	274	159	632	121	578	15	27	4.2
14	93	116	81	78	235	140	560	109	451	14	22	4.2
15	77	112	280	76	200	129	700	102	283	13	18	4.0
16	525	99	322	74	156	135	930	98	165	14	20	4.2
17	540	99	b220	72	126	178	692	92	116	15	25	5.4
18	317	101	415	70	111	167	516	75	85	16	20	4.2
19	230	124	1,620	69	102	137	467	72	70	14	18	3.8
20	190	220	660	68	95	120	554	64	65	13	16	3.4
21	159	530	379	66	94	112	426	63	68	11	14	3.2
22	138	530	290	64	99	104	343	58	86	11	11	2.0
23	121	346	281	62	116	111	314	*54	126	10	11	1.8
24	109	250	241	62	200	111	285	56	81	6.5	18	2.5
25	99	210	b205	61	202	126	274	134	143	6.0	17	3.4
26	95	184	182	59	170	120	493	332	120	6.9	*13	3.8
27	130	167	182	59	143	116	599	202	95	6.9	11	3.8
28	170	167	176	57	129	115	464	129	76	8.3	9.4	3.8
29	148	260	176	56	-	95	*346	90	64	8.3	8.0	4.2
30	*216	285	165	52	------	99	283	237	55	7.6	7.8	5.2
31	235	----	167	49	------	163	-------	167	--- ----	6.9	7.8	-
Total	5,107	7,580	7,785	2,689	3,247	3,857	15,067	4,481	4,165	559.4	428.3	133.6
Mean	165	253	251	86.7	116	124	502	145	139	18.0	13.8	4.45
Cfsm	2.17	3.32	3.29	1.14	1.52	1.63	6.59	1.90	1.82	0.236	0.181	0.058
In.	2.50	3.70	3.79	1.31	1.58	1.88	7.35	2.19	2.05	0.27	0.21	0.06

Calendar year 1954: Max 2,320 Min 14 Mean 227 Cfsm 2.98 In. 40.38
Water year 1954-55: Max 1,620 Min 1.8 Mean 151 Cfsm 1.98 In. 26.87

Peak discharge (base, 1,000 cfs).--Nov. 4 (5 a.m.) 1,040 cfs (6.01 ft); Dec. 19 (3:30 a.m.) 1,950 cfs (7.41 ft); Apr. 16 (10:30 p.m.) 1,000 cfs (5.95 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Jan. 15-23; 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 1955.

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

Average discharge.--15 years, 562 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 2,900 cfs Dec. 20 (gage height, 6.23 ft); minimum, 44 cfs Aug. 10 (gage height, 1.33 ft).
1940-55: 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 or no gage-height record, which are fair. Flow regulated by Pennesseewassee and Thompson Lakes (see p. 65) and several powerplants above station.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.3	39	3.0	565
1.5	71	4.0	1,120
2.0	190	5.0	1,830
2.5	356	6.2	2,870

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	606	685	1,200	792	365	856	1,200	1,050	832	341	119	94
2	552	782	1,060	765	360	1,000	1,350	928	838	316	105	90
3	552	1,260	900	720	360	958	1,420	814	765	291	66	88
4	588	2,100	820	685	360	850	1,490	700	650	220	50	88
5	578	2,210	710	660	375	730	1,690	645	588	101	50	86
6	583	1,880	600	630	360	680	1,980	625	502	79	56	86
7	560	1,440	565	605	498	660	2,200	640	463	77	57	86
8	542	1,180	580	585	459	640	2,310	601	402	73	64	82
9	524	1,000	585	570	426	640	2,130	592	426	71	46	80
10	494	868	*650	550	418	650	1,830	630	418	73	45	84
11	476	770	675	535	476	690	1,800	606	430	110	132	88
12	494	726	620	520	1,080	868	2,010	552	463	129	210	94
13	498	650	596	505	856	874	2,080	520	610	124	144	86
14	485	625	578	490	800	804	1,890	516	804	134	165	82
15	468	592	1,120	480	760	809	1,810	476	792	134	165	84
16	980	610	1,180	470	730	934	1,940	459	695	136	157	86
17	1,400	592	1,130	455	700	1,040	1,970	463	560	139	204	84
18	1,410	578	1,210	450	680	964	1,720	489	480	188	182	84
19	1,150	583	2,200	440	665	885	1,480	455	459	326	162	84
20	1,000	690	2,780	430	660	787	1,420	422	434	271	146	84
21	892	1,250	2,430	426	645	748	1,360	398	459	248	131	82
22	748	1,580	1,790	420	630	700	1,220	398	430	225	122	77
23	650	1,530	1,720	410	695	765	1,080	371	414	204	124	75
24	588	1,300	1,280	405	826	782	976	367	410	190	139	86
25	601	1,180	1,130	400	850	814	922	379	410	176	119	97
26	574	1,140	980	390	874	820	1,080	468	418	170	*112	86
27	565	1,040	910	390	814	754	1,340	620	410	168	110	95
28	583	964	868	380	865	685	1,460	498	406	173	101	187
29	596	1,050	820	380	-	660	*1,370	489	394	154	94	190
30	*675	1,340	780	370	-------	735	1,210	645	367	146	92	187
31	705	-------	776	370	-------	950	-------	592	-------	144	92	-------
Total	21,117	32,195	33,243	15,678	17,587	24,732	47,738	17,408	15,729	5,331	3,561	2,882
Mean	681	1,073	1,072	506	628	798	1,591	562	524	172	115	96.1
(†)	-53	+87	+1.1	-91	+8.3	-80	+148	+5.2	+4.2	-64	-14	-77

Adjusted for change in reservoir contents

Mean	628	1,160	1,073	415	636	718	1,739	567	528	108	101	19.1
Cfsm	1.91	3.54	3.27	1.27	1.94	2.19	5.30	1.73	1.61	0.329	0.308	0.058
In.	2.20	3.95	3.77	1.46	2.02	2.52	5.91	1.99	1.80	0.38	0.36	0.06

	Observed			Adjusted		
Calendar year 1954:	Max 4,960	Min 122	Mean 914	Mean 928	Cfsm 2.83	In. 38.39
Water year 1954-55:	Max 2,780	Min 45	Mean 650	Mean 639	Cfsm 1.95	In. 26.42

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Pennesseewassee and Thompson Lakes.
Note.--No gage-height record Dec. 1-10; discharge estimated on basis of recorded range in stage, weather records, and records for nearby stations. Stage-discharge relation affected by ice Dec. 24-27, 29, 30, Jan. 3-16, 18-20, Jan. 22 to Feb. 4, Mar. 5-9.

Androscoggin River near Auburn, Maine

Location.--Lat 44°04'15", long 70°12'35", on left 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 1955. Monthly discharge only for some periods, published in WSP 1301.

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

Average discharge.--27 years, 6,009 cfs (adjusted).

Extremes.--Maximum discharge during year, 33,000 cfs Apr. 16 (gage height, 10.85 ft); minimum daily, 505 cfs Sept. 25.
1928-55: 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 excellent. 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. 65).

Revisions (water years).--WSP 781: 1930, 1933-34. WSP 1301: 1929-36, 1940-50 (adjusted monthly runoff in inches).

Rating table, water year 1954-55 (gage height in feet, and discharge, in cubic feet per second)

0.7	500	4.0	5,350
1.0	695	6.0	11,100
1.5	1,100	8.0	18,900
2.0	1,650	11.0	33,700
3.0	3,240		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,480	8,790	10,300	7,900	4,580	6,880	7,760	13,500	7,120	4,730	3,480	3,860
2	7,260	8,590	8,910	7,930	4,560	7,110	8,160	13,000	8,360	3,800	2,980	3,610
3	6,690	9,650	8,170	7,510	4,590	6,920	9,740	13,000	8,760	3,390	2,940	1,680
4	7,850	19,400	7,420	7,250	4,550	6,790	10,200	13,400	7,520	3,340	3,050	515
5	9,880	21,800	6,480	7,080	4,120	5,450	11,500	13,600	6,610	3,670	2,970	780
6	12,300	14,700	6,530	6,230	2,850	4,690	14,400	15,500	7,140	3,640	1,100	3,830
7	11,600	11,600	5,800	5,920	5,300	6,160	17,200	15,200	6,740	2,920	650	3,660
8	11,300	10,400	4,880	5,310	4,760	5,570	19,100	15,900	5,670	2,920	3,700	3,730
9	10,500	10,300	*8,030	4,590	4,600	6,020	15,700	17,000	5,300	3,010	3,180	3,610
10	9,910	8,760	7,200	5,640	4,500	5,720	13,500	18,700	5,250	2,490	3,250	1,800
11	9,460	6,880	7,300	5,670	4,800	6,590	15,300	17,400	4,460	3,870	3,340	565
12	9,520	7,180	6,400	5,770	7,370	6,860	20,500	15,600	4,080	3,370	4,520	3,280
13	9,460	7,180	6,150	5,880	5,420	6,010	19,400	13,900	7,790	3,300	2,900	3,620
14	8,650	6,980	6,180	5,980	7,210	7,210	17,000	11,200	12,500	3,280	1,660	3,580
15	8,250	7,410	8,590	5,870	6,570	7,260	21,300	10,700	9,640	3,260	7,340	3,100
16	11,400	6,260	10,100	5,480	6,220	7,180	30,700	8,040	9,490	1,150	6,080	3,070
17	30,200	5,720	9,450	5,490	6,240	7,230	29,800	8,040	9,150	1,020	4,760	1,430
18	23,400	6,370	9,220	5,800	5,960	7,100	24,100	8,000	8,300	3,820	4,860	730
19	15,900	6,340	20,200	5,740	5,150	6,450	21,200	6,770	7,040	3,460	4,680	3,300
20	14,100	6,630	21,500	5,980	4,810	6,840	23,200	5,480	6,100	3,470	3,620	3,150
21	13,100	11,300	14,300	6,170	6,000	6,880	26,400	6,140	5,460	3,300	2,230	3,070
22	11,600	17,100	9,980	5,110	5,600	6,740	18,800	3,720	4,970	3,400	4,180	3,040
23	10,200	15,600	8,770	3,990	5,850	6,680	15,700	5,380	5,460	1,130	3,450	2,990
24	8,880	11,500	8,100	5,280	6,540	6,800	15,100	5,480	5,750	755	3,820	1,430
25	8,000	9,810	8,200	5,490	6,790	6,770	14,400	5,340	5,200	3,800	3,870	505
26	7,830	9,210	7,400	5,330	6,380	6,430	15,300	6,340	4,920	3,120	*4,030	3,140
27	7,070	8,730	7,570	5,400	6,700	5,560	18,100	7,820	5,580	3,100	2,270	2,960
28	7,290	8,250	8,080	4,960	6,750	6,250	18,400	6,460	5,170	3,050	1,160	3,090
29	8,560	9,400	8,130	4,740	-	6,430	*16,600	5,300	4,940	2,940	3,450	3,010
30	8,530	10,600	7,910	2,980	--------	6,690	14,400	6,110	4,860	1,180	3,600	3,110
31	9,090	--------	8,240	4,800	--------	6,770	--------	7,080	--------	565	3,860	--------
Total	335,260	302,440	273,470	177,270	154,770	204,020	522,960	319,080	199,110	90,030	106,980	79,245
Mean	10,810	10,080	8,822	5,718	5,528	6,581	17,430	10,290	6,637	2,904	3,451	2,642
(†)	-329	+283	-1,432	-2,046	-1,637	-1,878	+5,468	+1,784	+126	-1,829	-932	-2,353

Adjusted for change in reservoir contents

Mean	10,480	10,360	7,390	3,672	3,891	4,703	22,900	12,070	6,763	1,075	2,519	289
Cfsm	3.22	3.18	2.27	1.13	1.19	1.44	7.05	3.71	2.08	0.330	0.773	0.089
In.	3.71	3.55	2.62	1.30	1.24	1.66	7.84	4.28	2.32	0.38	0.89	0.10

	Observed			Adjusted			
Calendar year 1954:	Max 46,000	Min 910	Mean 9,847	Mean 10,200 Cfsm 3.13	In. 42.47		
Water year 1954-55:	Max 30,700	Min 505	Mean 7,574	Mean 7,172 Cfsm 2.20	In. 29.89		

* 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.

Cathance River near Topsham, Maine

Location.--Lat 43°57'15", long 69°56'30", on right bank just upstream from falls, 0.9 mile upstream from highway bridge and lowest dam on the river, 1.6 miles downstream from bridge on U. S. Highway 201, and 2.3 miles northeast of Topsham, Sagadahoc County.

Drainage area.--36.4 sq mi.

Records available.--October 1952 to September 1955 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 25 ft (from topographic map).

Extremes.--Maximum discharge during year, 452 cfs Dec. 20 (gage height, 3.50 ft); minimum daily, 0.02 cfs Sept. 7-29.
1952-55: Maximum discharge, 2,040 cfs Sept. 12, 1954 (gage height, 7.26 ft); minimum daily, that of Sept. 7-29, 1955.

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

Rating table, water year 1954-55, except periods of ice effect and backwater from debris (gage height, in feet, and discharge, in cubic feet per second)

0.44	0.02	0.9	7.1	2.5	207
.5	.30	1.0	11	3.0	322
.6	1.2	1.3	34	4.0	603
.7	2.6	1.6	65		
.8	4.4	2.0	118		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	60	245	75	8.4	182	170	148	93	5.9	0.62	0.10
2	28	72	200	77	7.4	230	188	120	120	6.2	.80	.08
3	25	114	154	118	7.7	270	186	93	110	17	.80	.06
4	35	228	110	108	8.0	205	178	72	87	17	.55	.05
5	46	262	78	*87	8.8	152	176	61	63	13	.62	.04
6	44	226	58	73	11	120	176	60	48	9.6	.91	.03
7	37	178	47	63	*31	100	176	57	36	7.7	1.5	.02
8	30	138	39	53	104	*89	170	54	27	6.5	1.7	.02
9	26	108	*35	44	97	69	150	52	20	5.2	1.9	.02
10	23	82	49	40	85	61	128	47	16	4.5	2.2	.02
11	23	63	73	34	84	84	120	43	13	3.8	2.6	.02
12	28	54	66	31	104	132	110	37	16	3.2	5.2	.02
13	30	48	54	26	350	192	100	29	38	2.9	9.6	.02
14	28	42	46	24	270	170	91	27	70	2.3	12	.02
15	25	40	250	21	186	154	96	27	86	2.0	11	.02
16	76	36	390	18	118	172	110	25	82	1.9	9.6	*.02
17	160	34	337	17	94	225	106	22	62	1.9	8.4	.02
18	156	33	317	16	77	194	93	19	42	1.9	8.0	.02
19	132	32	421	16	65	172	84	16	27	*2.2	7.7	*.02
20	*105	72	441	16	64	126	108	14	18	2.0	7.1	.02
21	78	210	357	16	63	94	102	13	14	1.9	5.7	.02
22	58	292	259	16	64	76	89	12	12	1.7	4.5	.02
23	47	287	224	14	78	118	77	10	10	1.3	3.6	.02
24	39	232	154	14	96	188	72	9.6	9.1	1.2	3.6	.02
25	33	184	118	13	162	205	*70	*10	10	1.0	2.5	.02
26	29	*141	90	11	162	180	100	13	11	.70	4.7	.02
27	27	112	67	11	140	158	146	14	12	.62	.55	.02
28	27	40	61	11	140	126	150	13	10	1.2	.30	.02
29	29	148	61	11	-	110	152	12	8.8	1.2	.19	.02
30	39	245	63	10	------	*102	168	35	7.4	1.0	.16	.03
31	51	-	75	9.8	------	132	-------	56	- ---	.80	.13	-
Total	1,544	3,811	4,939	1,093.6	2,683.3	4,568	3,842	1,220.6	1,178.3	129.32	118.73	0.85
Mean	49.8	127	159	35.3	95.8	147	128	39.4	39.3	4.17	3.83	0.028
Cfsm	1.37	3.49	4.37	0.970	2.63	4.04	3.52	1.08	1.08	0.115	0.105	0.001
In.	1.58	3.89	5.04	1.12	2.74	4.66	3.93	1.24	1.20	0.13	0.12	0.00

Calendar year 1954: Max 1,920 Min 3.4 Mean 117 Cfsm 3.21 In. 43.65
Water year 1954-55: Max 441 Min 0.02 Mean 68.8 Cfsm 1.89 In. 25.65

* Discharge measurement made on this day.
Note.--No gage-height record Aug. 30 to Sept. 30; discharge based on 4 discharge measurements, recorded range in stage, weather records, and records for nearby streams. Stage-discharge relation affected by ice Dec. 1-14, Dec. 22 to Mar. 18. Debris on control Mar. 19 to Aug. 29; discharge estimated on basis of recorded gage heights and 4 discharge measurements.

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 record furnished by Union Water Power Co.

Mooselookmeguntic Lake at Upper Dam, in Richardson Township, used for power and log driving, has usable capacity of 8,370,000,000 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 gage heights 490.0 and 535.0 ft. Gage-height 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. Gage-height 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 gage heights 54.7 and 60.7 ft. Gage-height 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 gage height and contents, water year October 1954 to September 1955

Date	Kennebago Lake†			Rangeley Lake†		
	Gage height (feet)	Contents (millions of cubic feet)	Change in contents (m.c.f.)	Gage height (feet)	Contents (millions of cubic feet)	Change in contents (m.c.f.)
Sept.30	81.5	836	-	4.00	1,339	-
Oct. 31	81.4	825	-11	4.00	1,339	0
Nov. 30	81.0	779	-46	4.00	1,339	0
Dec. 31	79.8	643	-136	4.00	1,339	0
Calendar year 1954.	-	-	-90	-	-	+1,004
Jan. 31	79.4	599	-44	2.92	978	-361
Feb. 28	78.8	534	-65	1.67	559	-419
Mar. 31	78.3	480	-54	.79	265	-294
Apr. 30	79.0	555	+75	2.92	978	+713
May 31	81.3	813	+258	3.88	1,299	+321
June 30	79.4	599	-214	4.00	1,339	+40
July 31	78.1	459	-140	3.42	1,146	-193
Aug. 31	77.2	365	-94	3.67	1,229	+83
Sept.30	77.3	376	+11	2.50	837	-392
Water year 1954-55.	-	-	-460	-	-	-502

Date	Mooselookmeguntic Lake†			Upper and Lower Richardson Lake†		
Sept.30	19.5	7,652	-	19.25	5,218	-
Oct. 31	19.2	7,438	-214	18.9	5,087	-131
Nov. 30	19.8	7,867	+429	19.4	5,275	+188
Dec. 31	17.8	6,438	-1,429	18.7	5,012	-263
Calendar year 1954.	-	-	+4,906	-	-	+2,344
Jan. 31	15.15	4,574	-1,864	16.1	4,047	-965
Feb. 28	13.05	3,144	-1,430	14.7	3,529	-518
Mar. 31	8.55	155	-2,989	12.2	2,613	-916
Apr. 30	17.2	6,012	+5,857	15.7	3,899	+1,286
May 31	20.0	8,010	+1,998	20.0	5,500	+1,601
June 30	20.1	8,082	+72	20.1	5,538	+38
July 31	17.55	6,260	-1,822	18.6	4,975	-563
Aug. 31	14.95	4,436	-1,824	18.6	4,975	0
Sept.30	11.7	2,230	-2,206	14.45	3,436	-1,539
Water year 1954-55.	-	-	-5,422	-	-	-1,782

† Gage height and contents at 7 a.m. on first day of following month.

Reservoirs in Androscoggin River basin--Continued

Month-end gage height and contents, water year October 1954 to September 1955

Date	Umbagog Lake†			Aziscohos Lake†		
	Gage height (feet)	Contents (millions of cubic feet)	Change in contents (m.c.f.)	Gage height (feet)	Contents (millions of cubic feet)	Change in contents (m.c.f.)
Sept. 30	13.9	2,651	-	535.7	9,810	-
Oct. 31	13.5	2,495	-156	535.05	9,608	-202
Nov. 30	13.55	2,514	+19	534.6	9,469	-139
Dec. 31	13.0	2,300	-214	528.7	7,703	-1,766
Calendar year 1954	-	-	0	-	-	+2,247
Jan. 31	12.45	2,091	-209	522.6	5,988	-1,715
Feb. 28	11.65	1,794	-297	517.9	4,735	-1,253
Mar. 31	10.5	1,380	-414	517.8	4,710	-25
Apr. 30	14.7	2,963	+1,583	532.3	8,770	+4,060
May 31	13.9	2,651	-312	535.5	9,748	+978
June 30	14.8	3,002	+351	535.8	9,841	+93
July 31	12.55	2,129	-873	532.25	8,755	-1,086
Aug. 31	12.45	2,091	-38	531.3	8,470	-285
Sept. 30	11.5	1,740	-351	526.65	7,122	-1,348
Water year 1954-55	-	-	-911	-	-	-2,688

Date	Gulf Island Pond‡			Lake Auburn†		
Sept. 30	62.02	2,489	-	60.3	532	-
Oct. 31	62.04	2,492	+3	60.05	502	-30
Nov. 30	62.06	2,495	+3	60.5	556	+54
Dec. 31	61.94	2,478	-17	60.4	544	-12
Calendar year 1954	-	-	+108	-	-	+114
Jan. 31	61.94	2,478	0	59.75	468	-76
Feb. 28	61.74	2,451	-27	60.0	496	+28
Mar. 31	60.64	2,304	-147	60.2	520	+24
Apr. 30	61.99	2,484	+180	60.5	556	+36
May 31	61.88	2,469	-15	59.95	490	-66
June 30	61.72	2,448	-21	59.55	446	-44
July 31	62.02	2,489	+41	58.75	358	-88
Aug. 31	59.96	2,211	-278	58.55	336	-22
Sept. 30	59.77	2,187	-24	58.05	285	-51
Water year 1954-55	-	-	-302	-	-	-247

Date	Pennesseewassee Lake††			Thompson Lake‡‡		
Sept. 30	98.5	116	-	98.4	1,913	-
Oct. 31	98.55	118	+2	97.65	1,770	-143
Nov. 30	98.5	116	-2	98.85	1,998	+228
Dec. 31	98.35	109	-7	98.9	2,008	+10
Calendar year 1954	-	-	+11	-	-	+437
Jan. 31	97.7	82	-27	97.75	1,790	-218
Feb. 28	96.4	36	-46	98.1	1,856	+66
Mar. 31	95.1	2.4	-34	97.15	1,676	-180
Apr. 30	98.4	111	+109	98.6	1,951	+275
May 31	98.5	116	+5	98.65	1,960	+9
June 30	98.3	107	-9	98.75	1,980	+20
July 31	98.3	107	0	97.85	1,808	+172
Aug. 31	98.3	107	0	97.65	1,770	-38
Sept. 30	98.3	107	0	96.6	1,571	-199
Water year 1954-55	-	-	-9	-	-	-342

† Gage height and contents at 7 a.m. on first day of following month.
‡ Gage height and contents at 12 p.m.
†† Gage height and contents as of last day of each month determined by interpolation.
‡‡ Gage height and contents at 7 a.m.

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 1955.

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

Average discharge.--6 years, 320 cfs.

Extremes.--Maximum discharge during year, 2,250 cfs Dec. 15 (gage height, 3.97 ft); minimum, 31 cfs Sept. 23, 24 (gage height, 1.06 ft).
1949-55: 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 or debris on control, which are fair. Some diurnal fluctuation at low flow caused by mill above station.

Rating table, water year 1954-55, except periods of ice effect or backwater from debris (gage height, in feet, and discharge, in cubic feet per second)

1.0	31	2.0	385
1.1	47	2.5	705
1.3	92	3.0	1,140
1.6	196	4.0	2,290

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	171	285	772	290	140	705	852	461	448	90	36	39
2	159	343	486	285	140	1,160	844	343	531	92	37	39
3	155	810	285	410	138	905	742	295	359	275	34	37
4	167	1,510	240	385	138	635	656	262	244	168	33	36
5	188	932	215	*370	140	440	684	244	196	110	33	36
6	167	583	196	305	240	335	728	267	180	124	42	34
7	148	385	188	260	*430	285	677	254	148	140	58	34
8	138	319	192	250	310	*250	622	240	127	110	64	34
9	130	285	196	240	250	230	486	240	114	92	53	33
10	130	258	230	230	240	196	419	222	109	82	42	33
11	144	231	240	220	310	391	467	196	117	73	47	33
12	176	222	205	215	1,240	852	461	180	188	64	106	36
13	167	209	176	210	950	836	396	167	385	62	95	37
14	148	196	162	200	570	590	369	163	461	60	87	37
15	138	196	1,740	196	285	512	425	171	304	58	73	34
16	460	188	1,800	192	184	804	524	163	209	51	64	33
17	780	180	780	188	152	995	448	152	167	62	66	33
18	467	180	635	184	156	635	369	141	141	66	68	33
19	314	176	1,770	180	156	440	364	130	120	55	64	33
20	*249	360	1,210	180	160	335	550	120	112	51	60	33
21	222	1,090	600	170	168	295	431	114	124	49	51	33
22	196	1,230	385	162	196	275	349	109	120	45	49	33
23	180	725	335	160	285	649	314	106	117	45	*49	31
24	163	461	300	156	570	844	304	106	109	45	73	39
25	152	364	260	156	585	788	*314	112	109	44	70	55
26	152	323	240	152	440	656	649	171	124	42	55	51
27	152	299	235	148	395	455	878	144	130	41	47	41
28	163	304	240	144	410	385	684	117	120	41	44	41
29	167	690	260	140	-	335	609	109	109	55	42	44
30	240	*1,200	285	140	------	*360	677	214	98	44	39	44
31	272	--	310	140	------	570	------	231	------	39	39	-
Total	6,655	14,534	15,168	6,658	9,378	17,143	16,292	5,944	5,820	2,375	1,720	1,109
Mean	215	484	489	215	335	553	543	192	194	76.6	55.5	37.0
Cfsm	1.51	3.41	3.44	1.51	2.36	3.89	3.82	1.35	1.37	0.539	0.391	0.261
In.	1.74	3.80	3.97	1.74	2.46	4.48	4.26	1.56	1.53	0.62	0.45	0.29

Calendar year 1954: Max 7,160 Min 45 Mean 405 Cfsm 2.85 In. 38.73
Water year 1954-55: Max 1,800 Min 31 Mean 282 Cfsm 1.99 In. 26.90

Peak discharge (base, 1,500 cfs).--Nov 4 (4 to 6 a.m.) 1,620 cfs (3.43 ft); Dec. 15 (3 p.m.) 2,250 cfs (3.97 ft); Dec. 19 (6:30 a.m.) 1,830 cfs (3.62 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 3-14, 17, 18, Dec. 21 to Mar. 10, Mar. 18-22, 27-31 (no gage-height record Jan. 8 to Feb. 7; discharge computed on basis of 1 discharge measurement, weather records, and records for nearby streams). Stage-discharge relation affected by debris on control July 4 to Sept. 30; discharge computed on basis of gage heights and 2 discharge measurements.

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 1955.

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.--68 years, 666 cfs (unadjusted).

Remarks.--Discharge computed from Allen meter records for each of three pairs of water wheels and from records of openings of two 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,110	1,150	1,280	1,560	1,230	553	837	832	842	832	831	661
2	1,270	1,110	1,280	1,560	1,190	554	837	826	831	837	776	662
3	1,390	1,110	1,280	1,560	1,170	554	836	834	833	0	667	661
4	1,400	1,110	1,110	1,570	1,030	553	830	831	834	0	669	651
5	1,210	1,110	1,100	1,550	1,060	706	834	834	836	0	674	474
6	826	1,270	1,100	1,560	1,080	978	834	834	836	927	683	684
7	832	1,400	1,080	1,550	1,070	823	832	835	833	833	669	671
8	763	1,400	1,100	1,540	1,070	830	835	835	834	833	669	671
9	678	1,400	1,380	1,550	934	834	835	835	836	835	671	669
10	720	1,380	1,380	1,550	1,070	833	835	835	836	833	673	668
11	780	1,390	1,370	1,540	1,070	834	834	830	840	834	673	665
12	804	1,390	1,390	1,550	1,070	828	835	834	827	833	666	667
13	834	1,390	1,370	1,540	1,070	894	832	837	833	833	664	668
14	833	1,390	1,370	1,540	1,070	757	832	834	835	831	663	666
15	868	1,390	1,370	1,540	1,070	830	832	840	829	832	661	664
16	1,590	1,380	992	1,540	1,070	831	831	831	832	832	665	665
17	827	1,380	1,130	1,540	1,070	831	833	832	836	829	664	661
18	1,010	1,380	1,370	1,540	937	833	833	831	832	840	702	661
19	998	1,110	1,100	1,140	1,070	833	833	838	815	836	663	661
20	1,010	833	1,090	1,140	1,070	840	833	836	854	835	661	662
21	1,000	1,130	1,430	1,120	1,070	872	834	836	834	832	661	662
22	1,000	1,390	1,550	827	1,070	835	831	836	837	822	663	659
23	1,000	1,380	1,540	1,340	1,070	831	833	835	840	777	673	657
24	1,010	1,380	1,550	1,180	1,070	831	833	835	822	822	660	658
25	963	1,390	1,280	1,250	1,070	833	797	833	831	826	667	660
26	831	1,380	830	1,250	974	832	834	839	831	832	667	656
27	749	1,380	982	1,250	829	835	830	840	840	832	667	631
28	926	1,380	1,310	1,240	836	831	831	834	834	831	660	658
29	1,110	1,330	1,560	1,250	-	836	833	832	833	832	666	658
30	1,110	1,290	1,560	1,250	-------	827	833	835	836	830	661	656
31	1,110	-------	1,550	1,250	-------	834	-------	844	-------	662	662	-------
Total	30,562	38,903	39,784	43,367	29,460	24,726	24,962	25,873	25,022	23,327	20,971	19,667
Mean	986	1,297	1,283	1,399	1,052	798	832	835	834	752	676	656
(†)	-383	-116	-146	-1,132	-261	+235	+712	+532	-197	-811	-453	-772
Adjusted for change in reservoir contents and diversion												
Mean	803	1,181	1,137	267	791	1,033	1,544	1,367	637	-59	223	-116
Cfsm	1.38	2.71	2.61	0.612	1.81	2.37	3.54	3.14	1.46	-0.135	0.511	-0.266
In.	1.59	3.02	3.01	0.71	1.88	2.73	3.95	3.62	1.63	-0.16	0.59	-0.30

	Observed			Adjusted		
Calendar year 1954:	Max 2,730	Min 0	Mean 849	Mean 1,141	Cfsm 2.62	In. 35.52
Water year 1954-55:	Max 1,590	Min 0	Mean 950	Mean 716	Cfsm 1.64	In. 22.27

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

Note.--Negative figures of adjusted discharge and runoff indicate that 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 1955.

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.--32 years (1903-9, 1929-55), 935 cfs.

Extremes.--Maximum discharge during year, 14,800 cfs Oct. 16 (gage height, 9.96 ft); minimum, 128 cfs Aug. 5 (gage height, 2.15 ft).
1903-9, 1929-55: 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.1	115	4.0	1,050
2.3	165	5.0	2,200
2.5	228	6.0	3,840
3.0	420	7.0	5,950
3.5	685	8.0	8,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	685	898	1,190	755	255	565	778	2,990	1,920	481	152	269
2	631	834	*1,010	735	250	530	906	2,980	1,340	452	145	255
3	614	2,060	880	685	245	470	930	3,250	906	434	138	231
4	724	4,200	765	660	245	445	906	3,100	737	411	132	218
5	834	2,120	705	635	240	465	1,220	3,300	724	376	130	208
6	685	1,630	660	615	240	490	1,620	2,640	655	416	160	195
7	619	1,340	625	585	240	435	2,120	2,000	655	496	198	189
8	580	1,190	595	570	245	425	1,920	2,160	608	416	248	180
9	558	1,080	570	540	*260	445	1,520	2,270	553	372	215	171
10	553	970	555	515	295	*465	1,750	1,780	506	380	171	168
11	625	906	540	500	375	555	3,490	1,500	575	294	192	174
12	757	876	520	480	1,010	685	3,770	1,330	985	266	565	180
13	649	806	510	465	890	720	2,750	1,280	3,670	259	411	168
14	575	764	495	445	755	635	2,590	1,200	1,940	252	5,260	162
15	548	744	1,070	430	685	625	6,880	1,130	1,470	248	1,910	162
16	7,700	685	1,430	420	610	635	6,880	1,040	1,030	248	914	160
17	3,910	679	890	400	540	725	4,770	1,010	834	294	704	160
18	2,100	661	1,000	375	515	660	3,720	890	724	255	862	160
19	1,610	685	4,760	355	470	625	4,740	813	631	228	744	155
20	1,350	1,280	3,270	335	460	570	4,990	792	569	218	603	152
21	1,190	4,710	1,370	315	445	580	3,830	718	532	198	481	140
22	1,030	5,610	1,160	305	465	570	3,010	685	*603	195	402	132
23	946	2,620	1,050	300	520	570	3,610	698	643	192	416	132
24	862	1,900	970	295	955	560	3,150	685	597	189	649	148
25	806	1,560	890	290	820	540	2,850	673	1,920	177	*501	205
26	799	1,350	855	285	655	520	3,340	744	978	174	416	195
27	834	1,230	820	280	595	515	*3,410	643	778	168	360	165
28	*978	1,160	790	275	570	465	2,830	575	643	195	321	162
29	834	1,340	790	260	-	465	3,080	553	608	192	294	186
30	1,040	1,360	905	260	------	511	2,880	869	537	177	273	183
31	1,060	- -	820	260	---- --	507	--- ---	718	-- ----	158	269	-
Total	36,686	47,248	31,460	13,625	13,850	17,063	90,240	45,016	28,871	8,811	18,236	5,365
Mean	1,183	1,575	1,015	440	495	550	3,008	1,452	962	284	588	179
Cfsm	3.06	4.08	2.63	1.14	1.28	1.42	7.79	3.76	2.49	0.736	1.52	0.464
In.	3.53	4.55	3.03	1.31	1.33	1.64	8.69	4.34	2.78	0.85	1.75	0.52

Calendar year 1954: Max 12,400 Min 195 Mean 1,387 Cfsm 3.59 In. 48.78
Water year 1954-55: Max 7,700 Min 130 Mean 977 Cfsm 2.53 In. 34.32

Peak discharge (base, 8,700 cfs).--Oct. 16 (3 p.m.) 14,800 cfs (9.96 ft); Aug. 14 (10 a.m.) 9,790 cfs (8.45 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 3-15, Dec. 21 to Mar. 29.

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 1955.

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

Average discharge.--13 years, 744 cfs.

Extremes.--Maximum discharge during year, 2,690 cfs Apr. 17 (gage height, 6.78 ft); minimum, 68 cfs May 31; minimum daily, 117 cfs July 26, 27, Aug. 2-6.
1942-55: 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 except those for periods of no gage-height record, which are good. Flow regulated by Ossipee and Silver Lakes and Pine River Pond (combined capacity, 1,430,000,000 cu ft).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.7	109	4.0	840
2.0	160	5.0	1,340
2.5	266	7.0	2,900
3.0	420		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*885	467	1,340	950	a450	728	795	1,760	1,040	259	119	284
2	768	471	1,240	926	a430	764	849	1,620	1,200	403	117	327
3	759	721	940	916	*a410	777	955	1,050	1,140	523	117	324
4	633	1,200	768	903	a405	782	1,060	714	1,020	519	*117	324
5	531	1,860	772	880	a400	777	1,180	1,040	862	356	117	318
6	535	1,760	768	849	a400	777	1,340	1,120	759	254	117	318
7	535	1,580	764	840	a405	772	1,540	1,110	579	254	209	315
8	301	1,080	759	808	410	746	1,760	1,010	487	254	279	312
9	195	842	754	813	424	710	1,880	916	483	254	279	309
10	419	*527	*750	786	434	700	1,880	912	483	254	276	306
11	523	531	746	777	452	*696	1,960	777	479	254	279	304
12	523	531	746	759	531	718	2,190	782	575	254	501	304
13	527	535	759	*750	567	759	2,310	872	990	254	736	301
14	527	535	754	741	571	790	*2,290	710	1,290	254	754	298
15	877	531	736	732	575	804	2,310	559	1,560	254	985	298
16	1,110	531	867	723	575	826	2,570	559	1,570	254	926	295
17	1,160	531	1,000	795	579	894	2,670	*559	1,100	254	628	292
18	1,180	531	1,120	826	579	930	2,590	559	759	252	499	289
19	1,180	531	1,440	800	575	965	2,480	555	583	252	829	*261
20	1,160	768	1,910	777	543	955	2,510	551	487	249	1,080	249
21	1,140	1,100	1,960	750	519	935	2,510	406	487	249	990	292
22	1,120	1,530	1,830	723	499	921	2,400	304	*483	249	955	289
23	894	1,910	a1,700	696	511	930	2,210	301	487	247	772	287
24	746	1,860	a1,550	674	543	894	2,060	301	491	177	587	284
25	741	1,760	a1,400	642	599	872	1,920	252	646	119	331	284
26	736	1,490	a1,200	620	642	844	1,750	294	970	117	242	279
27	728	1,230	a1,050	611	664	849	1,760	459	579	117	242	279
28	555	1,220	960	545	696	831	1,880	459	615	119	238	218
29	452	1,520	945	a520	-	800	1,890	459	615	119	238	247
30	455	1,590	965	a500	------	782	1,850	455	433	119	238	254
31	459	----	960	a470	------	777	------	578	------	119	238	----
Total	22,354	31,073	33,453	23,102	14,388	23,305	57,349	22,003	23,252	7,612	14,035	8,741
Mean	721	1,036	1,079	745	514	816	1,912	710	775	246	453	291
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 6,600 Min 195 Mean 1,067 Cfsm 3.23 In. 43.89
Water year 1954-55: Max 2,670 Min 117 Mean 774 Cfsm 2.35 In. 31.86

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, and records for Ossipee River at Cornish, Maine.

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 1955.

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.--39 years, 882 cfs.

Extremes.--Maximum discharge during year, 3,000 cfs Apr. 20 (gage height, 5.90 ft); minimum, 41 cfs Aug. 4 (gage height, 0.71 ft); minimum daily, 136 cfs Aug. 3, 4.
1916-55: 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 periods 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.3	135	4.0	1,430
1.6	207	5.0	2,190
2.0	338	5.9	3,000
3.0	810		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,110	700	*1,770	1,150	620	870	1,220	2,100	1,170	395	148	283
2	909	674	1,600	1,120	615	910	1,300	1,950	1,580	325	152	366
3	887	1,140	1,340	1,090	600	970	1,420	1,770	1,430	560	136	370
4	892	2,070	974	1,070	580	1,000	1,460	965	1,230	560	136	358
5	755	2,160	956	1,040	580	1,030	1,670	1,060	1,150	555	148	358
6	711	2,160	926	980	575	1,020	1,880	1,300	938	380	148	358
7	700	1,960	920	1,020	600	1,000	2,060	1,290	865	350	164	346
8	640	1,740	914	980	*670	980	2,290	1,280	658	325	250	338
9	382	1,050	914	970	680	*970	2,290	1,150	623	293	304	325
10	400	799	926	960	685	905	2,300	1,090	608	304	308	330
11	690	733	926	950	700	920	2,450	1,050	584	304	327	342
12	722	733	904	940	730	950	2,580	848	618	297	390	350
13	695	711	892	920	780	970	2,690	974	1,050	280	705	327
14	664	706	887	910	795	1,000	2,660	974	1,520	293	898	334
15	735	711	1,310	900	800	1,050	2,660	772	1,550	288	876	334
16	1,490	700	1,320	885	800	1,100	2,790	711	1,720	288	1,090	319
17	1,580	700	1,280	950	800	1,180	2,890	700	1,510	288	804	311
18	1,460	695	1,430	970	805	1,200	2,840	695	904	293	598	319
19	1,360	695	2,310	950	800	1,200	2,760	664	799	283	579	319
20	1,320	875	2,430	920	770	1,170	2,950	706	603	273	1,100	280
21	1,280	1,600	2,430	870	720	1,150	2,810	618	584	273	980	305
22	1,240	1,790	2,300	840	720	1,130	2,660	453	*593	268	938	304
23	1,160	2,200	2,110	830	730	1,100	2,490	427	613	260	887	297
24	854	2,200	1,900	810	750	1,090	2,320	427	598	263	711	311
25	843	2,070	1,730	800	790	1,070	2,210	*427	643	200	*513	330
26	832	1,890	1,460	770	810	1,040	*2,280	448	944	162	308	323
27	*838	1,510	1,250	750	820	1,010	2,340	540	1,030	148	290	300
28	788	1,470	1,170	710	840	980	2,370	584	711	160	283	308
29	618	1,780	1,190	690	-	960	2,320	574	669	152	269	240
30	706	2,340	1,220	675	------	974	2,240	674	643	152	273	280
31	716	...	1,200	650	-----	1,050	...	648	- ----	138	266	.
Total	27,977	40,562	42,889	28,070	20,165	31,949	69,200	27,869	28,138	9,100	14,979	9,645
Mean	903	1,352	1,384	905	720	1,031	2,307	899	938	294	483	321
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 7,740 Min 338 Mean 1,343 Cfsm 2.96 In. 40.22
Water year 1954-55: Max 2,950 Min 136 Mean 960 Cfsm 2.12 In. 28.78

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 26, Jan. 1 to Mar. 29.

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 1955.

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.--39 years, 2,715 cfs.

Extremes.--Maximum discharge during year, 10,900 cfs Apr. 19, 20 (gage height, 8.65 ft); minimum, 155 cfs Aug. 7 (gage height, 1.26 ft).
1916-55: 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	292	4.0	1,800
1.9	324	5.0	3,230
2.1	399	7.0	7,000
2.5	578	8.7	11,000
3.0	860		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,340	2,740	*5,320	3,610	1,690	2,540	2,880	7,830	3,010	1,740	380	817
2	3,010	2,760	4,950	3,470	1,680	2,780	3,180	7,490	3,520	1,600	380	886
3	2,800	3,770	4,570	3,440	1,620	2,700	3,530	7,070	3,420	1,750	356	886
4	2,640	5,480	4,020	3,330	1,660	2,620	3,770	6,030	3,200	1,640	353	705
5	2,560	5,500	3,790	3,230	1,580	2,540	4,190	6,050	3,040	1,580	360	614
6	2,430	5,680	3,580	3,010	1,520	2,400	4,780	6,180	2,720	1,330	315	668
7	2,360	5,600	3,330	2,890	1,540	2,460	5,280	6,120	2,520	1,230	310	652
8	2,290	5,380	3,120	2,820	1,780	2,530	5,800	5,910	2,160	1,170	449	*641
9	1,900	4,680	3,060	2,710	1,820	2,560	5,890	5,500	1,960	1,130	496	594
10	1,630	4,210	3,000	2,530	1,780	2,410	6,120	5,260	1,910	1,060	501	533
11	1,910	4,020	2,960	2,470	2,200	2,480	6,520	5,060	1,800	1,100	610	630
12	2,060	3,820	2,880	2,460	2,620	2,760	6,790	4,590	1,920	1,060	962	718
13	2,050	3,570	2,780	2,120	2,500	2,920	7,180	4,500	2,890	932	1,670	695
14	2,050	3,370	2,660	2,230	2,600	2,820	7,460	4,260	3,990	880	1,920	553
15	2,000	3,180	3,180	2,130	2,580	2,780	7,850	3,820	4,110	848	2,610	620
16	2,320	3,070	3,650	2,120	2,500	2,950	8,320	3,630	4,280	757	3,180	538
17	3,690	2,980	3,660	2,200	2,400	3,210	9,040	3,210	3,890	679	3,800	599
18	4,070	2,830	3,710	2,120	2,300	3,020	10,100	3,170	3,150	657	2,330	506
19	4,460	2,780	5,480	2,020	2,200	2,980	10,600	3,090	2,900	583	2,320	630
20	4,660	3,130	5,840	1,900	2,300	2,390	10,900	2,840	2,360	690	2,770	588
21	4,860	4,190	6,140	1,820	2,200	2,840	10,700	2,660	2,270	641	2,500	514
22	4,780	4,760	6,240	1,800	2,010	2,760	10,400	2,340	2,120	620	2,270	519
23	4,480	5,560	5,930	1,780	2,010	2,770	10,000	2,200	2,160	614	2,090	506
24	4,210	5,970	5,700	1,880	2,150	2,680	9,430	2,110	2,090	538	*1,850	519
25	3,760	6,140	5,220	1,880	2,500	2,600	8,910	2,000	2,180	514	1,560	558
26	3,520	6,100	4,840	1,820	2,750	2,620	*8,860	1,950	2,680	488	1,290	519
27	*3,330	5,580	4,610	1,720	2,620	2,590	8,760	2,000	2,900	403	1,210	588
28	2,830	5,340	3,960	1,760	2,520	2,530	8,680	1,810	2,540	424	960	524
29	2,650	5,540	3,730	1,800	-	2,390	8,440	1,790	2,410	420	932	496
30	2,740	6,010	3,570	1,760	------	2,390	8,180	1,980	2,230	399	880	510
31	2,720		3,680	1,720	---- -	2,560	- - ----	1,960	- --- -	360	835	
Total	94,110	133,740	129,160	72,550	59,590	83,080	222,540	124,410	82,330	27,837	41,449	18,326
Mean	3,036	4,458	4,166	2,340	2,128	2,680	7,418	4,013	2,744	898	1,337	611
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 22,600 Min 635 Mean 4,211 Cfsm 3.24 In. 44.04
Water year 1954-55: Max 10,900 Min 310 Mean 2,984 Cfsm 2.30 In. 31.20

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 27 to Mar. 5.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 260 ft (from topographic map).

Average discharge.--15 years, 297 cfs.

Extremes.--Maximum discharge during year, 1,900 cfs Nov. 4 (gage height, 4.55 ft); minimum, 20 cfs May 29 (gage height, 1.50 ft).
1940-55: Maximum discharge, 5,300 cfs May 10, 1954; 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 or no gage-height record, which are fair. Flow regulated by Little Ossipee Lake, Ledgemere and Balch Ponds (combined capacity, 581,000,000 cu ft).

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 22				Dec. 23 to Sept. 30			
1.5	20	3.0	520	1.5	20	2.5	269
1.6	29	3.5	845	1.6	29	3.0	509
1.8	58	4.0	1,310	1.8	58	3.5	835
2.0	106	4.5	1,840	2.0	104	4.0	1,260
2.5	279						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	368	*882	675	213	482	693	634	490	75	77	153
2	70	373	845	660	b210	693	835	579	707	118	75	153
3	164	570	778	635	b210	820	872	538	555	118	77	153
4	228	1,580	530	330	206	b760	813	521	450	118	79	153
5	251	1,650	392	342	199	b630	791	395	419	115	99	153
6	247	1,040	392	346	192	b545	842	227	320	112	141	153
7	243	707	b390	b345	202	b495	828	231	246	112	144	153
8	232	687	b390	355	*224	b455	791	235	242	112	147	150
9	224	370	392	b345	227	*b420	700	235	239	112	147	150
10	220	350	392	346	235	413	622	235	220	112	150	150
11	220	416	392	342	242	439	648	235	195	112	150	150
12	251	402	392	b335	b405	610	667	224	445	112	153	150
13	263	250	392	346	b675	755	628	220	560	110	370	150
14	247	230	378	b340	b550	707	591	220	393	66	532	150
15	275	318	635	b340	439	641	591	220	384	44	526	150
16	402	327	904	b340	b380	700	604	216	379	37	509	150
17	570	313	922	346	365	872	567	213	180	37	493	147
18	606	305	904	350	389	828	509	199	141	33	250	141
19	515	305	1,030	350	429	667	477	195	141	33	44	141
20	462	525	930	b270	515	555	591	175	138	33	41	141
21	350	756	984	b215	281	509	567	132	135	33	38	141
22	*318	830	896	216	169	477	482	126	135	33	36	141
23	350	714	860	b215	342	482	445	126	135	33	37	141
24	340	535	835	b215	b470	460	419	126	100	33	37	141
25	327	436	860	b215	b530	455	424	126	48	32	37	141
26	327	436	805	b215	b545	460	*585	*118	47	32	37	141
27	292	436	785	b215	504	450	784	88	47	33	37	141
28	255	600	770	b215	455	384	828	23	47	39	37	141
29	255	756	735	b215	-	360	865	22	47	60	96	141
30	271	800	720	b215	------	379	813	36	47	89	153	141
31	336	--	695	216	------	498	--- ---	118	--------	82	153	-
Total	9,138	17,385	21,207	10,105	9,803	17,401	19,872	6,988	7,632	2,220	4,902	4,401
Mean	295	580	684	326	350	561	662	225	254	71.6	158	147
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 4,880 Min 27 Mean 528 Cfsm - In. -
Water year 1954-55: Max 1,650 Min 22 Mean 359 Cfsm - In. -

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Dec. 23 to Jan. 3; discharge estimated on basis of weather records and records for nearby streams.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 170 ft (from topographic map).

Average discharge.--16 years, 181 cfs (unadjusted).

Extremes.--Maximum discharge during year, 1,330 cfs Dec. 15 (gage height, 3.75 ft); minimum, 3.2 cfs Sept. 23 (gage height, 0.31 ft).
1939-55: 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 except those for period of no gage-height record, which are fair. Flow regulated by Square Pond and Mousam and Estes Lakes (combined capacity, about 700,000,000 cu ft) and by powerplants above station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.4	5.4	1.5	182
.5	10	2.0	356
.6	16	2.5	590
.7	24	3.0	874
.8	34	3.4	1,110
1.0	62		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	240	210	*445	343	116	355	343	309	132	84	146	10
2	196	190	378	365	106	490	350	305	154	25	150	9.1
3	193	520	326	436	108	445	343	253	142	25	152	17
4	200	755	249	378	108	374	343	219	110	28	152	19
5	176	515	273	334	59	249	339	202	62	21	128	25
6	170	391	293	309	94	249	352	202	116	21	17	110
7	176	343	266	301	270	263	339	160	110	26	16	90
8	152	325	263	259	242	213	322	174	110	28	152	9.5
9	71	280	259	256	196	202	236	215	106	23	152	85
10	95	250	285	285	174	198	253	184	99	27	148	49
11	194	213	256	236	205	236	301	168	24	93	43	17
12	190	245	270	219	468	374	256	158	52	83	11	10
13	180	220	289	219	322	436	233	150	158	81	18	9.5
14	170	193	260	207	263	414	222	77	150	86	20	9.1
15	170	220	1,030	143	204	339	230	77	136	95	9.5	9.5
16	235	205	925	182	165	409	188	150	122	23	9.5	9.5
17	285	196	550	224	182	458	196	140	114	25	9.5	25
18	265	200	440	185	171	365	224	132	47	91	10	17
19	220	200	679	196	117	256	227	124	56	108	11	10
20	205	265	590	179	154	249	273	118	120	102	33	11
21	192	454	515	165	199	273	249	54	*102	81	22	84
22	176	500	440	117	171	242	233	42	102	98	a160	100
23	138	382	404	117	220	259	185	104	100	19	*a12	61
24	143	325	387	168	297	263	204	110	99	23	11	19
25	176	249	339	162	317	281	263	110	23	102	9.5	19
26	140	300	317	160	249	253	309	*114	28	102	9.1	128
27	162	245	322	157	253	273	*365	104	98	102	18	9.5
28	182	230	313	174	297	273	334	22	100	58	17	10
29	146	415	343	85	-	233	352	29	102	45	146	9.5
30	103	540	400	88	--------	236	374	42	90	21	10	9.5
31	160	--------	396	127	--------	281	--------	106	--------	21	9.5	--------
Total	5,501	9,576	12,502	6,756	5,727	9,439	8,418	4,354	2,964	1,767	1,811.6	1,000.7
Mean	177	319	403	218	205	304	281	140	98.8	57.0	58.4	33.4
(†)	-28.8	+20.0	-13.3	-46.1	-18	+59.4	+46.2	-8.5	-3.2	-54.3	-25.2	+6.3
Adjusted for change in reservoir contents												
Mean	148	339	390	172	187	343	327	132	95.6	2.7	33.2	39.7
Cfsm	1.41	3.23	3.71	1.64	1.78	3.27	3.11	1.26	0.910	0.026	0.316	0.378
In.	1.63	3.60	4.28	1.89	1.85	3.77	3.47	1.45	1.02	0.03	0.36	0.42

	Observed			Adjusted		
Calendar year 1954:	Max 2,310	Min 28	Mean 293	Mean 296	Cfsm 2.82	In. 38.26
Water year 1954-55:	Max 1,030	Min 9.1	Mean 191	Mean 184	Cfsm 1.75	In. 23.77

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Square Pond and Mousam and Estes Lakes.
a No gage-height record; discharge estimated on basis of recorded range in stage.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 179.60 ft above mean sea level, datum of 1929.

Average discharge.--26 years (1929-55), 240 cfs (unadjusted).

Extremes.--Maximum discharge during year, 1,560 cfs Dec. 15 (gage height, 5.37 ft); minimum, 17 cfs Oct. 2 (gage height, 1.26 ft).
1928-55: Maximum discharge, 5,490 cfs Mar. 19, 1936 (gage height, 12.31 ft); minimum, 4.7 cfs Aug. 28, 1950.

Remarks.--Records good. Flow partly regulated by powerplants above station and by Great East and Lovell Lakes and Horn, Wilsons and Milton Ponds (also controls 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.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	230	280	760	510	373	542	583	350	155	92	106	116
2	27	270	*590	510	350	672	568	314	203	46	88	114
3	83	700	445	575	350	579	542	230	187	25	72	83
4	280	985	420	520	364	480	511	222	214	33	77	24
5	255	645	320	480	293	450	537	218	234	48	88	22
6	265	470	285	*470	310	432	547	218	214	44	63	124
7	275	355	300	440	386	418	531	230	180	30	59	138
8	245	320	290	425	342	418	531	214	151	50	88	*110
9	215	305	305	445	319	404	495	214	145	38	83	114
10	54	320	320	365	301	378	490	210	138	29	81	81
11	240	305	330	375	380	436	511	199	77	155	97	110
12	270	300	315	375	755	595	485	162	155	106	111	85
13	280	245	290	360	365	563	475	122	283	81	92	134
14	265	46	295	370	360	505	470	125	203	83	35	92
15	255	255	1,310	370	238	480	480	141	173	92	111	100
16	295	290	1,050	350	351	595	470	169	178	63	90	92
17	128	295	610	330	301	633	360	125	151	37	103	59
18	290	275	605	340	293	516	342	141	85	119	88	20
19	250	265	1,170	345	293	470	368	108	114	119	114	116
20	245	270	1,220	355	284	465	324	116	135	122	77	128
21	265	455	980	405	271	460	284	90	135	111	29	95
22	280	505	730	345	276	450	283	44	135	129	88	85
23	178	440	630	350	355	470	280	100	122	74	111	92
24	65	425	540	330	432	475	214	114	119	57	*108	50
25	215	385	475	350	440	485	242	108	72	103	83	20
26	245	390	475	325	409	490	319	*178	56	129	90	100
27	250	320	360	90	409	460	*364	135	108	100	68	97
28	*270	116	410	97	432	440	350	66	100	119	25	88
29	250	620	470	320	-	422	427	27	95	119	155	77
30	220	1,080	515	380	---------	455	418	32	116	77	141	95
31	77	---------	520	370	---------	528	---------	116	---------	58	116	---------
Total	6,698	11,942	17,315	11,672	10,032	15,184	12,761	4,836	4,411	2,486	2,737	2,659
Mean	216	398	559	377	358	489	425	156	147	80.2	88.3	88.6
(†)	-52.9	+52.0	+5.9	-175.4	-35.9	+27.4	+166.7	+19.8	+8.4	-76.1	-23.2	-97.5
Adjusted for change in reservoir contents												
Mean	163	450	565	202	322	516	592	176	153	4.1	65.1	-8.9
Cfsm	1.11	3.06	3.84	1.37	2.19	3.51	4.03	1.20	1.04	0.028	0.443	-0.061
In.	1.28	3.41	4.43	1.58	2.28	4.05	4.50	1.38	1.16	0.03	0.51	-0.07

	Observed			Adjusted		
Calendar year 1954:	Max 4,430	Min 27	Mean 396	Mean 408	Cfsm 2.78	In. 37.68
Water year 1954-55:	Max 1,310	Min 20	Mean 281	Mean 285	Cfsm 1.80	In. 24.54

* 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.
Note.--Negative figures of adjusted discharge and runoff indicate that evaporation and seepage from reservoirs exceeded inflow.

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 1955. Prior to 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.--21 years, 19.5 cfs.

Extremes.--Maximum discharge during year, 374 cfs Dec. 15 (gage height, 3.29 ft); minimum, 0.75 cfs Aug. 10.
1934-55: 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.07	0.83	0.7	18
.1	1.1	1.0	36
.2	2.35	1.5	76
.3	4.1	2.0	141
.5	9.5	3.0	315

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	16	*54	43	b4.8	98	53	39	23	2.8	1.1	2.05
2	12	13	42	50	b4.3	114	52	32	27	2.6	.97	1.8
3	11	*105	31	60	b4.0	68	48	*27	*19	2.6	.87	1.65
4	11	107	26	49	b4.0	40	43	23	14	2.2	.87	1.55
5	10	67	24	36	b4.0	36	41	21	12	2.05	.92	1.45
6	11	46	21	34	b5.0	32	40	21	11	2.2	.92	1.3
7	11	37	20	29	b25	30	39	20	9.5	2.8	.97	1.2
8	10	30	*20	26	16	27	36	20	8.9	2.4	.92	1.15
9	9.5	27	21	22	9.5	24	30	19	8.3	1.9	.83	1.15
10	9.6	23	27	21	10	25	29	17	7.4	1.75	.83	1.15
11	12	21	27	19	40	54	29	15	6.7	1.6	2.8	1.2
12	12	20	21	16	109	75	27	14	28	*1.45	4.7	1.3
13	11	19	19	16	41	63	25	14	34	1.45	5.0	1.1
14	10	18	21	14	19	55	25	18	24	1.35	3.0	1.1
15	9.2	17	286	12	14	48	27	17	16	1.3	*2.05	1.1
16	19	16	152	12	13	67	27	15	12	1.3	1.55	1.1
17	15	15	b78	11	12	b68	24	13	9.0	1.35	1.3	1.05
18	12	16	70	10	20	b50	22	12	7.6	1.2	1.55	1.0
19	11	17	104	10	22	b38	29	11	6.3	1.3	12	1.0
20	10	54	74	9.4	23	31	36	9.5	7.5	1.15	12	1.1
21	9.6	95	52	8.2	25	30	29	8.9	6.6	1.05	4.6	1.05
22	9.0	71	43	8.0	29	27	27	8.0	6.4	1.0	2.8	.97
23	8.6	50	46	7.8	70	42	27	7.4	5.6	.92	4.1	1.0
24	8.3	39	43	7.8	71	47	25	7.0	5.3	1.0	11	3.5
25	7.8	36	37	b7.7	54	46	36	7.8	5.3	1.0	5.0	4.6
26	7.7	34	30	b7.6	45	45	50	14	5.8	.92	3.2	2.5
27	8.2	32	29	b7.2	39	54	55	13	5.2	1.15	2.6	1.85
28	8.2	30	30	b6.2	52	b41	45	10	4.3	3.4	2.4	2.6
29	11	68	41	b6.0	-	b38	55	8.8	3.7	1.9	2.05	2.8
30	17	74	46	b5.5	------	41	51	8.2	3.2	1.35	1.85	*2.05
31	19	-- -	52	b5.0	-----	*48	-------	8.6	-- ---	1.15	1.9	-
Total	343.7	1,213	1,587	576.4	784.6	1,502	1,082	479.2	342.6	51.59	96.65	48.42
Mean	11.1	40.4	51.2	18.6	28.0	48.5	36.1	15.5	11.4	1.66	3.12	1.61
Cfsm	0.917	3.34	4.23	1.54	2.31	4.01	2.98	1.28	0.942	0.137	0.258	0.133
In.	1.06	3.73	4.88	1.77	2.41	4.62	3.33	1.47	1.05	0.16	0.30	0.15

Calendar year 1954: Max 516 Min 1.65 Mean 33.0 Cfsm 2.73 In. 37.00
Water year 1954-55: Max 286 Min 0.83 Mean 22.2 Cfsm 1.83 In. 24.93

Peak discharge (base, 170 cfs).--Dec. 15 (6 a.m.) 374 cfs (3.29 ft); Feb. 12 (1 a.m.) 247 cfs (2.64 ft); Mar. 1 (7 p.m.) 203 cfs (2.385 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

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 1955.

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

Average discharge.--21 years, 282 cfs.

Extremes.--Maximum discharge during year, 1,880 cfs Dec. 16 (gage height, 7.05 ft); minimum daily, 12 cfs Aug. 5-11, Sept. 17-19.
1934-55: 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.5	10	2.0	176
.7	16	3.0	382
.9	28	5.0	980
1.1	47	7.0	1,850
1.5	98		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	335	224	*772	640	130	620	634	560	194	59	15	28
2	317	221	694	634	135	892	691	473	274	51	15	26
3	309	678	552	694	130	882	697	*404	272	46	13	24
4	292	1,060	430	667	130	650	661	353	222	41	13	22
5	278	1,100	375	569	127	490	610	307	185	39	12	21
6	264	1,020	315	515	127	400	580	288	165	35	12	20
7	256	727	375	530	285	380	572	272	150	35	12	17
8	242	524	480	440	315	355	546	258	138	33	12	16
9	228	416	488	410	310	315	505	262	*125	30	12	15
10	217	356	394	440	270	285	467	248	111	28	12	14
11	211	313	331	410	295	380	436	230	103	32	12	14
12	213	*288	330	360	710	646	414	211	200	25	14	15
13	205	300	365	320	555	745	399	196	351	*22	28	14
14	194	305	330	320	521	742	387	211	317	21	35	13
15	180	296	1,540	355	396	631	387	202	274	21	*45	13
16	181	280	1,750	330	309	643	404	185	319	21	43	13
17	181	266	1,440	310	274	718	401	163	169	21	39	12
18	221	258	1,170	295	309	673	392	150	135	20	37	12
19	268	262	1,170	300	311	558	358	135	112	18	72	12
20	244	424	1,190	275	333	431	404	127	102	16	125	67
21	215	724	1,210	*255	358	370	404	118	101	16	114	16
22	192	808	920	240	380	372	401	110	99	15	97	24
23	174	808	790	220	540	462	382	102	94	15	86	39
24	160	694	710	210	694	494	370	95	86	14	78	82
25	150	558	630	200	694	521	408	106	86	13	63	102
26	139	483	540	185	616	532	558	242	85	13	53	85
27	133	431	485	170	491	613	661	205	84	13	46	81
28	130	406	465	140	499	555	670	176	81	21	42	76
29	135	569	521	155	-	507	715	150	77	22	34	39
30	185	742	560	135	------	494	670	128	69	19	30	*28
31	217	-- --	688	130	------	*546	-------	121	-- ----	16	28	-
Total	6,666	15,541	22,010	10,854	10,244	16,902	15,184	6,788	4,680	791	1,249	960
Mean	215	518	710	350	366	545	506	219	156	25.5	40.3	32.0
Cfsm	1.17	2.83	3.88	1.91	2.00	2.98	2.77	1.20	0.852	0.139	0.220	0.175
In.	1.35	3.16	4.47	2.21	2.08	3.43	3.09	1.38	0.95	0.16	0.25	0.20

Calendar year 1954: Max 3,990 Min 23 Mean 456 Cfsm 2.49 In. 33.73
Water year 1954-55: Max 1,750 Min 12 Mean 308 Cfsm 1.67 In. 22.73

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4-8, 12-14, 22-27, Jan. 1, Jan. 6 to Feb. 4, Feb. 7-12, 23, Mar. 4-11. 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 1955.

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

Average discharge.--16 years, 524 cfs.

Extremes.--Maximum discharge during year, 6,000 cfs Apr. 15 (gage height, 7.67 ft); minimum daily, 64 cfs Aug. 5.
1939-55: 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 doubtful gage-height record, which are good, and those for periods of ice effect, which are fair. Some diurnal fluctuation caused by powerplant above station.

Rating tables, water year 1954-55, 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			
2.9	234	5.0	1,710	2.2	61	4.0	825
3.2	349	6.0	2,850	2.4	97	5.0	1,710
3.5	498	7.0	4,550	2.7	175	6.0	2,850
4.0	815			3.0	279	7.0	4,550
				3.5	515	8.0	6,800

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	363	396	471	353	*135	291	429	2,090	1,990	218	d67	133
2	336	345	*400	371	130	311	466	2,200	1,030	201	d67	118
3	315	*744	336	349	125	265	510	2,380	677	249	*d67	108
4	460	1,200	283	*323	125	235	482	2,400	533	191	d66	99
5	540	724	345	287	125	238	675	2,740	482	175	d64	97
6	411	569	264	299	130	235	888	1,980	409	249	d89	95
7	354	488	307	260	200	221	1,170	1,460	362	232	96	89
8	324	446	303	240	190	*207	918	1,750	332	175	248	81
9	307	411	299	250	170	207	653	1,750	303	152	113	*81
10	307	368	307	260	160	232	978	1,200	272	141	87	83
11	462	349	275	240	220	311	2,290	978	279	128	278	85
12	525	341	246	230	380	638	*1,950	895	422	115	442	91
13	406	307	242	240	320	482	1,390	867	1,270	111	240	89
14	345	299	210	210	260	362	1,430	806	740	111	1,610	81
15	315	288	518	215	235	319	5,160	740	683	106	575	79
16	1,970	258	525	225	220	376	4,380	*695	488	120	323	81
17	1,010	266	340	210	210	460	2,600	677	390	146	387	77
18	616	277	628	190	200	367	2,160	563	340	123	970	d71
19	525	284	1,890	190	190	336	3,560	515	299	108	409	d69
20	462	1,280	825	185	180	297	3,100	476	272	95	287	d67
21	421	3,550	563	175	190	295	2,230	434	275	89	210	d67
22	377	2,340	420	185	200	279	1,900	404	319	87	188	d67
23	349	1,140	360	185	300	275	2,350	434	386	85	243	d67
24	324	818	390	175	620	264	2,020	440	322	79	460	d67
25	307	702	335	170	460	257	1,740	429	861	79	257	74
26	288	617	300	170	340	249	1,590	493	498	74	197	83
27	342	539	360	170	299	246	1,620	404	386	77	166	77
28	472	521	370	155	279	218	1,410	353	311	102	143	74
29	372	587	599	150	-	235	1,700	323	272	87	133	83
30	467	557	539	145	------	246	1,850	590	*246	77	123	95
31	472	---	434	140	------	303	------	451	---	d71	133	---
Total	14,544	21,011	13,684	6,947	6,593	9,257	53,599	31,917	15,449	4,053	8,738	2,528
Mean	469	700	441	224	235	299	1,787	1,030	515	131	282	84.3
Cfsm	2.43	3.63	2.28	1.16	1.22	1.55	9.26	5.34	2.67	0.679	1.46	0.437
In.	2.80	4.05	2.64	1.34	1.27	1.78	10.33	6.15	2.98	0.78	1.68	0.49

Calendar year 1954: Max 6,520 Min 85 Mean 718 Cfsm 3.72 In. 50.48
Water year 1954-55: Max 5,160 Min 64 Mean 516 Cfsm 2.67 In. 36.29

Peak discharge (base, 7,100 cfs).--No peak above base.
* Discharge measurement made on this day.
d Doubtful gage-height record; discharge computed from reconstructed gage-height graph based on recorded graph, weather records, and records for Pemigewasset River at Plymouth and Ammonoosuc River at Bethlehem Junction.
Note.--Stage-discharge relation affected by ice Dec. 22-28, Jan. 7 to Feb. 25, Mar. 3, 23.

Baker River near Rumney, N. H.

Location.--Lat 43°47'45", long 71°50'45", on right bank 0.3 mile upstream from Halls Brook and 1⅞ miles southwest of Rumney, Grafton County.

Drainage area.--143 sq mi.

Records available.--October 1928 to September 1955. Prior to November 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.--27 years, 260 cfs.

Extremes.--Maximum discharge during year, 3,310 cfs Apr. 15 (gage height, 6.54 ft); minimum, 20 cfs Aug. 5, Sept. 21.

1928-55: 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 floodmarks), 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.3	20	3.5	395
2.5	46	4.0	720
2.8	113	5.0	1,620
3.1	212	7.0	3,900

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	139	240	395	216	67	270	448	545	1,400	74	28	52
2	130	208	*320	228	*63	395	559	492	664	185	24	46
3	128	*483	240	220	60	287	671	474	395	353	*23	42
4	148	982	195	*201	60	216	559	434	287	155	21	40
5	320	552	224	172	60	215	798	417	244	108	21	38
6	208	400	145	182	63	201	1,130	390	197	212	34	34
7	186	325	175	145	88	175	1,450	320	162	201	36	*32
8	165	278	182	130	120	*155	1,060	364	142	125	44	29
9	155	252	182	135	125	150	741	380	128	95	36	29
10	162	220	194	152	110	172	1,120	310	110	80	28	29
11	224	197	179	136	115	280	2,070	265	103	67	134	28
12	270	194	158	130	210	485	*1,730	240	168	58	274	29
13	212	175	155	136	224	410	1,180	224	753	52	158	30
14	179	165	130	110	186	320	1,230	212	406	48	1,300	29
15	165	162	560	115	165	285	2,910	190	301	45	454	26
16	607	142	538	122	142	360	2,340	175	205	46	256	26
17	462	145	355	113	130	485	1,460	*172	158	54	252	25
18	320	149	479	108	128	355	1,070	155	128	48	854	25
19	256	152	1,180	105	122	280	1,800	142	108	86	385	24
20	228	368	622	92	116	250	1,730	136	95	54	252	23
21	201	1,520	450	83	119	236	1,130	122	97	42	175	21
22	182	1,440	385	93	139	215	854	113	136	36	130	21
23	168	678	315	94	235	200	968	110	209	33	110	21
24	155	474	325	94	474	197	769	110	152	32	108	29
25	145	390	230	90	400	186	762	113	275	32	95	52
26	139	339	200	90	296	182	918	194	201	32	78	39
27	145	306	236	85	232	175	926	142	155	29	69	32
28	201	296	228	79	212	155	713	122	125	45	65	34
29	186	468	274	80	-	150	657	113	100	46	58	44
30	296	510	275	75	-----	175	587	314	*83	36	52	40
31	283	----	270	70	-------	268	-------	246	---------	30	50	----
Total	6,765	12,210	9,796	3,881	4,461	7,885	34,340	7,736	7,687	2,539	5,604	969
Mean	218	407	316	125	159	254	1,145	250	256	81.9	181	32.3
Cfsm	1.52	2.85	2.21	0.874	1.11	1.78	8.01	1.75	1.79	0.573	1.27	0.226
In.	1.76	3.18	2.55	1.01	1.16	2.05	8.93	2.01	2.00	0.66	1.46	0.25

Calendar year 1954: Max 3,820 Min 25 Mean 376 Cfsm 2.63 In. 35.74
Water year 1954-55: Max 2,910 Min 21 Mean 285 Cfsm 1.99 In. 27.02

Peak discharge (base, 3,600 cfs).--No peak above base.
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4, 6, 7, 15, 17, 21, 22, 25, 26, 30, Jan. 7-9, 14, 15, Jan. 20 to Feb. 12, Mar. 5, 7-9, 12-20, 22, 23, 28, 29.

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 1955. 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.--52 years, 1,368 cfs.

Extremes.--Maximum discharge during year, 14,500 cfs Apr. 16; maximum gage height, 9.98 ft Apr. 16; minimum discharge, 143 cfs Aug. 5; minimum daily, 146 cfs Aug. 5.
1903-55: 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Rate of change in stage used as a factor Apr. 15, 16, 19)

Oct. 1 to May 31				June 1 to Sept. 30			
0.7	325	3.0	2,990	0.2	143	2.0	1,650
1.3	805	5.0	5,700	.6	307	5.0	5,700
2.0	1,590	9.0	12,400	1.0	580		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	920	*1,180	1,810	1,000	390	1,100	1,630	3,900	5,230	486	165	297
2	862	1,040	1,450	1,150	370	1,400	2,140	3,840	3,240	478	162	277
3	824	1,670	1,130	1,150	360	1,250	2,570	4,100	1,930	965	153	262
4	915	3,790	940	1,000	360	1,050	2,150	3,930	1,420	625	149	244
5	1,700	2,470	1,070	820	360	880	3,000	4,190	1,270	486	146	235
6	1,200	1,880	750	900	370	880	3,970	3,720	1,070	602	169	226
7	1,030	1,520	900	780	425	840	5,010	2,700	910	750	222	222
8	910	1,330	900	700	630	700	4,140	2,840	820	524	288	209
9	862	1,210	960	720	600	660	2,850	3,120	730	428	248	198
10	862	1,080	1,030	740	520	720	3,300	2,390	661	383	190	194
11	1,060	1,000	980	680	540	940	7,260	1,950	625	336	284	198
12	1,460	970	820	660	900	1,800	7,370	1,720	740	287	1,190	202
13	1,180	881	760	700	1,300	2,000	4,750	1,600	2,880	267	598	202
14	990	824	710	640	900	1,500	4,280	1,510	2,060	257	3,600	194
15	890	824	1,550	580	800	1,250	11,500	1,360	1,570	244	1,940	190
16	3,690	733	2,150	640	740	1,400	12,300	1,220	1,160	235	980	190
17	3,370	760	1,350	620	720	1,900	7,700	1,190	890	282	978	186
18	2,050	751	1,770	560	680	1,500	5,240	1,040	750	267	3,390	183
19	1,600	778	6,050	560	640	1,310	7,690	940	652	277	1,690	175
20	1,370	1,810	3,000	540	600	1,100	9,330	872	580	244	1,080	175
21	1,210	7,640	2,050	500	580	1,000	6,120	805	572	217	710	165
22	1,090	8,050	1,200	540	620	920	4,520	742	670	205	524	159
23	1,000	3,750	1,100	540	1,000	940	5,350	*742	820	194	471	159
24	930	2,640	1,300	520	1,500	860	4,660	751	760	198	660	190
25	862	2,140	1,250	500	1,800	800	4,160	733	1,750	190	540	272
26	814	1,860	900	500	1,200	740	4,450	872	1,190	183	415	244
27	834	1,620	1,150	500	1,000	720	*4,490	778	930	183	364	209
28	1,140	1,550	1,100	*465	910	*700	3,840	679	730	*222	336	209
29	1,010	2,040	*1,200	450	-	710	3,840	670	*616	226	302	*297
30	1,270	*2,330	1,500	425	-----	733	3,700	1,430	*540	194	*287	297
31	1,330		1,350	405	------	990	-------	1,130	--------	175	282	- --
Total	39,235	60,121	44,180	20,485	20,815	33,293	153,300	57,464	37,766	10,610	22,493	6,460
Mean	1,266	2,004	1,425	661	743	1,074	5,110	1,854	1,259	342	726	215
Cfsm	2.04	3.22	2.29	1.06	1.19	1.73	8.22	2.98	2.02	0.550	1.17	0.346
In.	2.35	3.59	2.64	1.22	1.24	1.99	9.17	3.44	2.26	0.63	1.34	0.39

Calendar year 1954: Max 18,100 Min 202 Mean 1,966 Cfsm 3.16 In. 42.90
Water year 1954-55: Max 12,300 Min 146 Mean 1,387 Cfsm 2.23 In. 30.26

Peak discharge (base, 12,600 cfs).--Apr. 16 (1:30 a.m.) 14,500 cfs; Apr. 19 (12 p.m.) 13,000 cfs.
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 3 to Mar. 29, Mar. 31.

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 1955.

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

Average discharge.--16 years, 93.6 cfs.

Extremes.--Maximum discharge during year, 159 cfs Jan. 14-17 (gage height, 10.84 ft); minimum daily, 71 cfs Oct. 30, May 5-11.
1939-55: 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

10.3	57
10.5	89
10.7	127
10.9	173

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	123	123	*127	125	*125	125	125	73	78	76	84	93
2	123	123	127	125	125	125	125	73	76	76	81	93
3	121	*119	125	125	125	123	125	73	76	76	79	91
4	119	119	125	*125	125	123	125	73	75	78	*79	91
5	119	119	123	125	125	123	127	71	75	78	79	91
6	119	119	123	127	125	123	127	71	73	78	79	91
7	121	119	123	127	127	123	127	71	73	78	79	89
8	119	119	123	125	125	123	129	71	73	78	79	89
9	119	125	123	125	125	123	129	71	73	78	79	89
10	119	127	123	125	125	125	129	71	73	78	79	91
11	119	125	123	125	125	127	129	71	73	79	79	91
12	119	125	123	125	125	127	127	73	73	79	79	91
13	119	123	123	125	125	127	129	73	75	79	79	89
14	119	123	123	145	125	127	*129	73	75	78	79	89
15	121	123	123	159	125	127	114	73	75	78	78	89
16	119	111	123	159	125	127	86	73	75	78	78	89
17	119	103	123	159	125	127	86	*73	75	78	79	89
18	119	103	125	156	125	127	86	73	75	78	79	89
19	123	103	129	156	125	125	87	73	75	78	79	89
20	125	103	127	156	125	123	89	73	75	78	78	89
21	123	105	127	156	125	125	89	73	75	78	78	89
22	123	103	127	156	123	123	79	73	76	78	78	89
23	123	103	125	156	125	121	73	73	76	78	84	89
24	123	103	125	156	125	121	73	73	76	78	92	89
25	123	103	125	156	123	121	73	73	76	79	93	87
26	123	103	125	156	123	121	73	73	76	79	93	87
27	123	103	125	156	123	121	73	73	76	79	93	87
28	123	103	125	138	123	121	73	73	76	79	93	86
29	104	103	127	125	-	121	73	73	76	79	93	86
30	71	115	127	125	-----	123	73	73	76	84	93	86
31	97		127	125	------	125	- -- -	75	-- -- -	84	93	-
Total	3,660	3,398	3,869	4,324	3,492	3,843	3,082	2,251	2,250	2,432	2,568	2,677
Mean	118	113	125	139	125	124	103	72.6	75.0	78.5	82.8	89.2
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 406 Min 68 Mean 126 Cfsm - In. -
Water year 1954-55: Max 159 Min 71 Mean 104 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 1955.

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.--37 years, 143 cfs.

Extremes.--Maximum discharge during year, 1,020 cfs Apr. 11 (gage height, 5.30 ft); minimum daily, 9.6 cfs Aug. 4, 5.
1918-55: 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.

Remarks.--Records excellent except those for periods of ice effect, 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.9	8.1	3.5	207
2.0	12	4.0	380
2.2	22	5.0	860
2.5	43	5.5	1,140
3.0	96		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	101	293	123	33	161	330	263	784	37	13	27
2	56	*91	227	123	*31	334	480	232	515	33	11	26
3	53	214	*171	119	30	342	546	210	269	32	*10	25
4	57	542	133	111	30	224	438	191	184	29	9.6	22
5	56	466	127	*91	31	164	538	181	154	27	9.6	20
6	53	286	98	103	31	131	675	171	129	46	11	18
7	51	213	92	88	54	111	755	156	106	57	17	16
8	50	168	90	80	66	*99	715	149	91	44	20	15
9	48	138	95	76	77	93	542	151	81	33	16	14
10	48	115	103	76	82	95	570	140	72	27	13	14
11	62	96	104	70	71	135	840	123	67	24	36	14
12	73	90	92	66	106	292	*882	111	142	22	81	14
13	70	83	92	67	125	367	745	101	315	20	106	14
14	62	79	81	57	123	300	615	99	286	18	468	13
15	56	78	425	58	93	257	745	92	197	17	635	14
16	109	87	560	59	76	342	820	*84	133	18	488	13
17	151	130	310	59	68	440	725	83	95	18	232	13
18	111	87	375	55	66	305	551	81	76	17	158	12
19	90	82	705	53	65	230	510	75	63	17	151	12
20	81	159	520	49	65	185	600	69	54	15	144	12
21	81	472	300	44	65	176	506	64	51	14	96	11
22	79	585	210	45	67	149	394	59	62	13	70	11
23	75	402	170	45	85	138	363	55	*111	12	63	10
24	67	269	176	47	174	131	334	53	96	12	59	22
25	55	224	140	47	269	127	376	58	96	11	49	29
26	50	197	115	46	227	121	615	91	92	11	41	25
27	52	178	119	45	161	113	605	90	76	12	37	21
28	57	171	121	42	127	95	484	69	62	25	34	22
29	62	241	142	40	-	93	380	80	53	25	31	25
30	80	327	161	38	-----	115	319	311	43	18	27	25
31	96	----	151	35	-----	175	----	366	-----	15	27	----
Total	2,150	6,371	6,498	2,057	2,498	6,040	16,998	4,058	4,555	719	3,163.2	529
Mean	69.4	212	210	66.4	89.2	195	567	131	152	23.2	102	17.6
Cfsm	0.809	2.47	2.45	0.774	1.04	2.27	6.61	1.53	1.77	0.270	1.19	0.205
In.	0.93	2.76	2.82	0.89	1.08	2.62	7.37	1.76	1.97	0.31	1.37	0.23

Calendar year 1954: Max 1,510 Min 10 Mean 192 Cfsm 2.24 In. 30.31
Water year 1954-55: Max 882 Min 9.6 Mean 152 Cfsm 1.77 In. 24.11

Peak discharge (base, 1,150 cfs).--No peak above base.
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 6, 7, 15-17, 23, 25, 26, Jan. 7, 8, 10, 11, 14, 15, Jan. 28 to Feb. 4, Mar. 17-20, 28, 29, Mar. 31 to Apr. 2.

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 1955. 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, 4.57 ft June 13; minimum daily, 1.81 ft Feb. 22.
1937-55: Maximum daily gage height, 5.86 ft May 22, 23, 1954; minimum daily, 0.63ft 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 elevation 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 betwen 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. 111),and other lakes. Contents given herein are computed from gage height at 12 p.m. on last day of month, eliminating the effect of seiche and wind action.

Mean gage height, in feet, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.01	3.76	4.08	3.82	2.26	1.98	2.87	4.30	4.54	4.41	3.95	3.85
2	4.00	3.75	4.10	3.80	2.22	2.04	2.92	4.32	4.54	4.41	3.92	3.81
3	4.00	3.85	4.08	3.76	2.17	2.07	2.97	4.34	4.51	4.42	3.89	3.77
4	4.01	3.87	4.06	3.72	2.11	2.11	3.01	4.37	4.47	4.40	3.88	3.72
5	3.98	3.90	4.04	3.68	2.07	2.13	3.06	4.41	4.45	4.38	3.86	3.66
6	3.97	3.90	4.01	3.64	2.04	2.16	3.12	4.41	4.44	4.42	3.88	3.62
7	3.93	3.90	3.98	3.53	2.07	2.18	3.17	4.41	4.44	4.42	3.88	3.56
8	3.91	3.89	3.97	3.49	2.04	2.18	3.22	4.41	4.44	4.41	3.89	3.49
9	3.89	3.87	3.96	3.46	g2.02	2.19	3.27	4.38	4.44	4.39	3.89	3.45
10	3.88	3.88	3.93	3.40	g1.97	2.20	3.31	4.38	4.40	4.38	3.86	3.39
11	3.89	3.86	3.89	3.37	g1.94	2.21	3.36	4.37	4.42	4.34	3.90	3.34
12	3.88	3.83	3.87	3.31	g1.94	2.25	3.42	4.36	4.49	4.33	3.97	3.28
13	3.87	3.81	3.85	3.25	g1.96	2.27	3.47	4.36	4.57	4.30	4.05	3.23
14	3.86	3.77	3.86	3.18	g1.96	2.30	3.51	4.37	4.55	4.27	4.09	3.19
15	3.87	3.75	3.93	3.13	g1.93	2.33	3.57	4.36	4.54	4.26	4.08	3.14
16	3.96	3.73	3.91	3.07	g1.90	2.40	3.62	4.35	4.52	4.24	4.06	3.09
17	3.95	3.72	3.92	3.01	g1.95	2.46	3.66	4.34	4.51	4.21	4.12	3.06
18	3.94	3.69	3.96	2.95	g1.95	2.51	3.70	4.33	4.49	4.16	4.26	3.03
19	3.94	3.67	4.06	2.91	g1.91	2.54	3.77	4.32	4.48	4.16	4.32	3.00
20	3.92	3.73	4.08	2.83	g1.87	2.57	3.84	4.32	4.46	4.13	4.31	2.98
21	3.90	3.81	4.05	2.78	g1.83	2.59	3.89	4.31	4.45	4.08	4.29	2.89
22	3.88	3.83	4.07	2.74	g1.81	2.64	3.92	4.30	4.45	4.07	4.26	2.87
23	3.85	3.87	4.08	2.69	g1.83	2.69	3.96	4.30	4.46	4.03	4.27	2.85
24	3.82	3.91	4.03	2.65	1.85	2.71	3.99	4.30	4.46	4.00	4.26	2.87
25	3.81	3.94	3.99	2.59	1.86	2.72	4.06	4.34	4.48	3.98	4.21	2.85
26	3.81	3.95	3.97	2.54	1.87	2.75	4.10	4.40	4.48	3.94	4.16	2.82
27	3.78	3.96	3.93	2.49	1.89	2.78	4.14	4.41	4.47	3.94	4.10	2.80
28	3.75	3.99	3.91	2.43	1.91	2.79	4.19	4.39	4.46	4.04	4.02	2.80
29	3.76	4.08	3.87	2.40	-	2.81	4.25	4.40	4.45	4.02	3.99	2.79
30	3.76	4.09	3.89	2.35	------	2.82	4.26	4.46	4.43	4.00	3.95	2.78
31	3.76	------	3.86	2.30	------	2.84	------	4.48	------	3.96	3.90	------
(†)	17,360	18,000	17,520	14,430	13,720	15,570	18,400	18,920	18,680	17,740	17,580	15,410
(‡)	-520	+640	-480	-3,090	-710	+1,850	+2,830	+520	-240	-940	-160	-2,170
(††)	-194	+247	-179	-1,154	-293	+691	+1,092	+194	-92.6	-351	-59.7	-837

Calendar year 1954: (‡) +2,310 (††) +73.3
Water year 1954-55: (‡) -2,470 (††) -78.3

† Contents, in millions of cubic feet, at end of month.
‡ Change in contents, in millions of cubic feet.
†† Change in contents, equivalent in cubic feet per second.
g Computed from once-daily tape-gage reading.

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 1955.

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.--22 years, 540 cfs (adjusted for storage).

Extremes.--Maximum daily discharge during year, 1,860 cfs Jan. 10; minimum daily, 175 cfs May 5.
1933-55: Maximum daily discharge, 2,890 cfs Mar. 31, 1936; minimum daily, 20 cfs Dec. 8-19, 1941, Dec. 22, 1941, to Jan. 19, 1942.

Remarks.--Records good except those for periods of no deflection record, which are fair. Flow completely regulated by Winnipesaukee (see preceding page), Wentworth, Merrymeeting (see p. 111), 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	455	550	1,060	1,830	*1,440	520	240	285	920	500	285	1,000
2	445	*520	1,060	1,790	1,400	650	250	285	1,310	375	295	985
3	470	475	1,060	*1,850	1,390	745	270	250	1,140	375	295	1,010
4	495	485	1,050	1,850	1,380	740	285	250	870	370	*285	1,030
5	465	495	1,060	1,820	1,340	650	240	175	950	360	270	1,030
6	465	495	1,110	1,810	1,300	555	240	440	595	360	320	1,050
7	*465	510	1,060	1,800	1,410	*645	230	555	275	360	290	1,130
8	465	540	1,050	*1,740	1,390	*625	240	550	285	360	320	1,170
9	470	500	1,060	1,720	1,360	725	230	580	275	360	280	1,040
10	*465	495	*1,060	1,860	1,370	715	285	525	275	370	280	975
11	475	490	1,030	1,820	1,370	630	305	535	295	385	290	990
12	425	500	1,050	1,810	1,320	520	260	540	400	350	290	990
13	425	875	1,120	1,790	1,300	540	255	390	855	340	315	970
14	450	905	1,090	1,770	1,360	570	260	275	1,120	320	325	970
15	440	970	1,080	1,650	1,360	420	245	335	1,120	320	325	960
16	440	*920	1,070	1,640	1,330	225	260	300	1,120	570	325	775
17	470	945	1,150	1,720	1,360	225	270	245	805	a540	325	735
18	490	1,020	1,290	1,680	1,360	225	280	240	520	a580	305	755
19	465	1,010	1,310	1,670	1,280	210	245	245	560	a545	680	765
20	455	1,010	1,350	1,650	1,220	260	240	250	510	a555	845	715
21	455	1,020	1,310	1,640	1,120	290	250	295	360	a540	840	625
22	460	615	1,370	1,590	820	240	250	320	*310	a550	895	560
23	420	275	1,480	1,540	820	240	280	290	330	a550	875	565
24	465	*270	1,420	1,580	740	240	290	240	340	a535	865	530
25	*545	190	1,440	1,500	515	245	290	215	330	a580	910	500
26	535	275	1,440	1,490	490	245	280	245	375	a545	1,050	580
27	515	190	1,480	1,490	495	270	240	245	390	a750	1,040	555
28	525	220	1,460	1,470	550	280	*240	275	500	a610	1,040	505
29	525	*630	*1,500	1,420	-	*235	275	335	585	a295	1,030	555
30	495	910	1,700	1,360	-------	240	285	535	580	355	1,010	*550
31	520	-------	1,810	*1,440	-------	240	-------	315	-------	370	980	-------
Total	14,655	18,305	38,580	51,790	32,590	13,170	7,810	10,360	18,300	13,975	17,480	24,570
Mean	473	610	1,245	1,671	1,164	425	260	334	610	451	564	819
(†)	-194	+247	-179	-1,154	-293	+691	+1,092	+194	-92.6	-351	-59.7	-837

Adjusted for change in reservoir contents

Mean	279	857	1,065	517	870	1,116	1,352	528	517	99.8	504	-18.2
Cfsm	0.769	2.36	2.33	1.42	2.40	3.07	3.72	1.45	1.42	0.275	1.39	-0.050
In.	0.88	2.63	3.38	1.64	2.50	3.54	4.16	1.68	1.59	0.32	1.60	-0.06

	Observed			Adjusted		
Calendar year 1954:	Max 2,520	Min 155	Mean 786	Mean 860	Cfsm 2.37	In. 32.13
Water year 1954-55:	Max 1,860	Min 175	Mean 717	Mean 638	Cfsm 1.78	In. 23.86

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Lake Winnipesaukee.
a No deflection record; discharge estimated on basis of gage-height and powerplant records and records of gate openings.
Note.--Negative figures of adjusted discharge and runoff indicate that evaporation and seepage from reservoir exceeded inflow.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 411.87 ft above mean sea level, unadjusted.

Average discharge.--18 years, 710 cfs.

Extremes.--Maximum discharge during year, 1,930 cfs Jan. 14 (gage height, 6.04 ft); minimum daily, 287 cfs July 5, 9.
1937-55: 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 excellent except those for periods of ice effect, which are good, and those for periods of no gage-height record, which are fair. Flow regulated by powerplants and by Winnipesaukee (see p. 83), Winnisquam, Merrymeeting (see p. 111), and other lakes above station.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.2	287	5.0	1,190
3.5	405	6.0	1,900
4.0	630		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	609	650	*a1,250	1,770	1,420	802	486	421	1,180	522	310	968
2	791	*655	1,240	1,800	a1,400	b870	512	405	1,510	530	306	962
3	562	715	1,210	*1,840	a1,390	b990	512	365	1,620	377	306	956
4	548	770	1,190	1,850	a1,370	1,060	463	357	1,470	295	306	950
5	544	740	1,180	1,840	1,350	1,020	490	361	1,250	287	306	950
6	544	695	1,170	1,840	1,320	998	522	397	1,170	291	310	950
7	535	685	1,160	1,840	b1,420	b860	517	494	862	310	302	950
8	544	675	998	1,830	1,440	760	486	610	695	295	306	950
9	544	670	862	b1,810	1,420	735	441	635	389	287	302	956
10	540	665	1,040	b1,830	1,390	735	437	645	345	291	302	962
11	540	665	1,110	1,840	1,450	813	632	635	341	291	321	962
12	548	655	1,130	1,830	b1,650	974	835	625	397	306	333	956
13	571	660	1,160	1,820	b1,560	1,030	862	625	670	302	345	950
14	548	665	1,190	b1,800	1,460	950	956	620	1,030	295	353	944
15	730	956	1,300	1,780	1,420	890	992	522	1,050	291	337	791
16	690	980	1,420	1,740	1,380	879	992	373	1,040	298	337	635
17	580	986	1,300	1,720	1,400	b755	920	357	1,030	465	337	381
18	600	992	1,220	b1,700	1,400	675	720	341	944	600	337	481
19	665	1,000	1,650	1,700	1,380	610	526	333	813	648	489	745
20	680	1,080	1,840	b1,650	1,340	590	508	333	760	642	938	813
21	680	1,440	1,780	b1,650	1,320	595	463	317	595	578	980	780
22	675	1,530	1,720	1,650	1,230	585	429	310	576	397	827	740
23	680	1,420	1,680	1,620	1,070	576	425	298	*580	321	558	408
24	675	1,050	1,680	1,600	*1,080	576	429	*314	558	493	846	314
25	660	472	1,650	1,590	1,060	b570	445	329	357	655	896	393
26	670	381	1,600	a1,570	1,050	b560	472	369	321	655	974	576
27	635	a375	1,530	a1,550	1,020	b550	*481	357	306	660	980	650
28	640	a370	1,530	a1,530	986	*b555	468	341	317	*576	974	655
29	655	a425	1,590	a1,500	-	553	468	333	512	353	968	*650
30	670	a990	1,750	a1,480	-----	512	454	560	530	325	*968	424
31	655	-- -	1,760	*a1,450	-----	441	-- ---	852	-- ----	310	968	- -
Total	19,208	24,012	42,890	53,020	37,176	23,069	17,343	13,834	23,218	12,946	17,122	22,802
Mean	620	800	1,384	1,710	1,328	744	578	446	774	418	552	760
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 3,610 Min 227 Mean 989 Cfsm - In. -
Water year 1954-55: Max 1,850 Min 287 Mean 840 Cfsm - In. -

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 2 discharge measurements, weather records, recorded range in stage when available, and records of gate operations at Lake Winnipesaukee Outlet at Lakeport.
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 1955.

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.--50 years (1905-55), 2,805 cfs.

Extremes.--Maximum discharge during year, 15,000 cfs Apr. 16 (gage height, 12.63 ft); minimum daily, 490 cfs July 23.

1903-55: 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, 225 cfs Oct 23, 1948.

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, Little Squam, Newfound, Winnipesaukee, Winnisquam, Wentworth, Merrymeeting, and other lakes. See pages 83, 111 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 28, Aug. 12-14, 16, 17, 21-26, Aug. 28 to Sept. 3, Sept. 6-9, 13)

3.5	489	7.0	4,270
4.0	800	10.0	10,000
4.5	1,180	13.0	15,700
5.0	1,680		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,200	2,370	*4,740	4,080	2,330	2,710	2,740	5,500	7,760	1,500	829	1,760
2	2,370	*2,320	4,190	3,530	2,270	3,370	3,310	5,290	8,020	1,180	876	1,690
3	2,070	2,580	3,780	*3,850	2,240	3,370	3,750	5,220	5,750	1,430	787	1,680
4	2,030	4,790	3,310	3,780	2,240	2,880	3,990	5,000	4,210	1,590	792	1,370
5	2,270	4,670	2,930	3,680	2,150	2,690	4,810	4,840	3,370	1,260	827	1,430
6	2,630	3,690	3,010	3,640	2,090	2,590	6,260	5,170	3,220	1,040	649	1,740
7	2,020	3,130	2,800	3,540	2,650	2,470	7,300	4,220	2,730	1,470	1,040	1,600
8	1,930	2,750	2,490	3,500	2,820	2,290	7,540	3,830	2,430	1,720	842	1,580
9	1,930	2,630	2,470	3,250	2,430	2,000	5,820	4,170	1,960	910	943	1,550
10	1,800	2,390	2,700	3,190	2,500	2,130	5,110	3,980	1,610	977	986	1,200
11	2,010	2,290	2,790	3,470	2,760	2,610	8,260	3,400	1,570	1,030	1,350	1,440
12	2,250	2,290	2,680	3,400	3,070	3,390	10,900	2,980	1,610	1,110	1,710	1,520
13	2,550	2,160	2,590	3,360	3,060	3,550	9,470	2,740	3,430	936	1,820	1,560
14	2,010	2,070	2,790	2,950	3,010	3,410	7,760	2,750	4,880	978	2,500	1,490
15	2,130	2,490	3,240	2,900	2,970	3,260	10,200	2,530	3,810	935	4,290	1,320
16	3,120	2,520	4,770	2,990	2,860	3,410	14,400	2,350	3,320	646	2,920	1,100
17	5,200	2,510	4,410	2,960	2,650	3,530	13,400	2,260	2,760	915	1,970	671
18	3,680	2,350	4,520	3,130	2,590	3,400	9,940	2,130	2,400	1,230	3,150	866
19	2,880	2,330	8,320	2,960	2,340	3,060	8,960	1,890	2,120	1,330	3,460	1,360
20	2,730	2,660	8,280	2,860	2,510	2,750	11,600	1,840	2,150	1,340	3,150	1,320
21	2,510	7,420	6,260	2,900	2,520	2,690	10,500	1,610	1,720	1,230	2,510	1,200
22	2,270	11,600	4,770	2,300	2,320	2,740	7,840	1,440	1,690	1,070	2,020	1,140
23	2,200	8,920	4,160	2,770	2,240	2,700	6,840	1,490	*1,780	490	1,670	874
24	2,130	5,490	3,830	2,660	3,050	2,640	7,060	*1,530	2,140	1,010	1,990	716
25	2,070	3,960	3,850	2,790	*3,200	2,620	6,420	1,510	1,920	1,270	2,000	902
26	2,030	3,300	3,500	2,710	3,230	2,240	6,940	1,750	2,470	1,230	2,080	1,100
27	1,990	3,190	3,280	2,650	3,130	2,220	6,780	1,600	1,870	1,240	1,480	1,150
28	2,030	2,780	3,650	2,480	2,750	2,130	*6,500	1,450	1,830	*1,570	1,640	1,330
29	2,130	3,410	3,790	2,230	-	*2,130	5,820	1,390	1,820	*830	1,790	*1,180
30	2,250	5,090	4,160	2,360	-----	2,130	5,690	2,230	1,710	526	*1,700	1,110
31	2,550	--	4,110	2,300	-------	2,140	-------	3,640	------	758	1,730	- -
Total	73,970	110,150	122,170	95,170	73,980	85,250	225,910	91,730	88,060	34,931	55,501	38,949
Mean	2,386	3,672	3,941	3,070	2,642	2,750	7,530	2,959	2,935	1,128	1,790	1,298
Cfsm	1.58	2.44	2.62	2.04	1.75	1.82	5.00	1.96	1.95	0.749	1.19	0.861
In.	1.83	2.72	3.01	2.35	1.83	2.10	5.58	2.26	2.17	0.86	1.37	0.96

Calendar year 1954: Max 19,200 Min 560 Mean 3,885 Cfsm 2.58 In. 34.98
Water year 1954-55: Max 14,400 Min 490 Mean 3,002 Cfsm 1.99 In. 27.04

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Jan. 15, 21, Jan. 28 to Feb. 5, Feb. 7, 14, Mar. 4, 7-9. 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 1955.

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

Average discharge.--10 years, 122 cfs.

Extremes.--Maximum discharge during year, 1,290 cfs Nov. 3 (gage height, 4.64 ft); minimum daily, 3.0 cfs July 7.
1945-55: 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 or no gage-height record, which are fair. Flow regulated by mill and reservoirs above station.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 14				Dec. 15 to Sept. 30			
1.3	27	2.5	258	0.7	2.1	1.7	71
1.4	36	3.0	440	.8	4.0	2.0	124
1.7	73	4.0	900	.9	6.3	2.5	257
2.0	129			1.0	9.5	3.0	440
				1.2	20	4.0	900
				1.4	36		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a95	110	274	160	90	290	309	319	354	80	13	40
2	a60	102	225	165	86	306	339	250	240	53	12	*82
3	a41	676	215	193	82	196	318	218	152	19	11	23
4	a95	591	172	173	80	138	245	194	77	57	11	19
5	a100	281	104	142	50	70	259	*173	48	17	13	18
6	*100	142	142	135	29	55	296	160	66	*8.8	7.7	30
7	95	116	135	125	115	110	328	128	94	3.0	8.8	55
8	91	144	135	80	105	130	255	137	98	4.4	23	47
9	63	128	*122	95	95	120	219	151	90	9.6	4.9	45
10	40	138	154	119	80	107	222	134	88	15	13	12
11	97	144	96	114	160	284	251	110	42	14	12	12
12	100	120	64	115	180	356	241	107	48	59	23	42
13	117	76	118	111	105	268	223	104	91	34	99	61
14	110	67	158	110	120	220	229	77	128	41	220	57
15	120	86	586	60	87	180	259	47	*99	20	124	38
16	163	117	419	32	101	293	219	92	95	13	50	64
17	104	116	288	99	92	300	193	114	102	14	32	19
18	122	134	356	115	*89	200	192	121	48	25	27	11
19	111	170	539	*95	41	144	187	77	33	*23	314	43
20	128	183	416	110	38	124	228	94	47	31	302	a56
21	116	426	315	100	89	134	210	32	105	30	125	a53
22	122	412	251	51	82	123	196	27	180	23	81	a38
23	59	311	235	54	195	146	186	47	152	6.8	80	a52
24	32	243	196	100	225	140	175	80	112	10	81	a58
25	42	199	170	94	157	146	324	88	58	26	73	a76
26	94	186	155	105	71	100	596	93	43	22	55	a65
27	95	176	155	80	76	106	555	86	70	16	51	a56
28	89	169	167	100	121	125	436	40	84	5.1	24	a80
29	95	291	263	50	-	134	430	26	88	5.1	45	a70
30	70	327	247	31	------	*164	380	44	80	6.8	62	a64
31	84	----	213	65	------	233	----	127	----	5.6	51	-
Total	2,850	6,381	7,085	3,178	2,839	5,442	8,500	3,497	3,012	697.2	2,048.4	1,386
Mean	91.9	213	229	103	101	176	283	113	100	22.5	66.1	46.2
Cfsm	1.35	3.13	3.36	1.51	1.48	2.58	4.16	1.66	1.47	0.330	0.971	0.678
In.	1.56	3.48	3.87	1.74	1.55	2.97	4.64	1.91	1.64	0.38	1.12	0.76

Calendar year 1954: Max 792 Min 11 Mean 158 Cfsm 2.32 In. 31.42
Water year 1954-55: Max 676 Min 3.0 Mean 129 Cfsm 1.89 In. 25.62

Peak discharge (base, 700 cfs).--Nov. 3 (1 p.m.) 1,290 cfs (4.64 ft); Dec. 15 (7:15 a.m.) 710 cfs (3.64 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 Nubanusit Brook near Peterboro and Otter Brook near Keene.

Note.--Stage-discharge relation affected by ice Dec. 8, 25, 26, Jan. 6-9, 12, 14, 15, 18, 20, 21, Jan. 23 to Feb. 14, Feb. 23, Mar. 1, 5, 7-9.

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 1955. 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.--21 years, 84.2 cfs.

Extremes.--Maximum discharge during year, 452 cfs Apr. 27 (gage height, 3.71 ft); minimum daily, 5.3 cfs Jan. 23.
1920-31, 1945-55: 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, which are fair. Flow regulated by mills, Nubanusit Lake, Edward MacDowell Reservoir since March 1950 (see p. 111), and other reservoirs above station.

Revisions (water years).--WSP 581: 1921(M). WSP 1051: Drainage area.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	5.9	2.0	105
.9	9.2	2.5	182
1.0	14	3.0	281
1.2	25	4.0	535
1.5	49		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	93	198	124	b70	126	128	223	103	6.8	15	31
2	32	85	179	116	b73	191	179	180	115	7.0	15	34
3	25	167	152	131	b53	193	191	174	95	7.4	16	*35
4	67	*237	116	120	b6.2	152	202	*155	63	7.0	26	39
5	68	268	99	108	b15	106	206	140	53	7.4	37	43
6	*67	229	98	98	24	96	221	125	66	8.1	26	38
7	71	193	84	91	81	108	239	105	63	8.1	17	34
8	57	210	79	71	70	87	239	104	63	8.4	15	31
9	6.8	200	*80	69	47	78	182	115	63	8.8	13	29
10	20	187	81	83	59	78	162	106	60	9.2	13	29
11	64	167	71	80	87	95	206	96	10	10	19	31
12	66	138	67	82	b130	172	258	88	13	10	47	34
13	68	102	89	81	597	177	321	82	59	*10	65	31
14	69	81	88	81	b76	187	191	53	60	10	82	29
15	69	87	174	49	76	177	168	62	65	10	157	28
16	31	79	217	b6.4	62	210	167	72	66	10	177	26
17	67	75	213	59	63	237	167	71	59	11	157	23
18	99	76	193	81	*58	211	168	72	24	11	120	20
19	89	76	180	*78	43	177	160	73	6.2	11	140	17
20	77	89	198	79	b18	148	157	36	59	11	172	24
21	74	147	239	b69	70	126	154	11	58	11	170	59
22	73	206	225	22	79	111	144	11	59	12	162	64
23	33	247	227	b5.9	104	104	151	57	61	12	160	58
24	24	237	211	62	106	93	126	57	46	12	151	67
25	67	198	b145	75	88	85	174	58	19	13	115	76
26	70	183	b140	79	61	66	247	57	29	13	74	73
27	71	189	175	79	59	71	346	53	48	13	45	68
28	71	183	174	b75	78	83	430	9.6	32	13	34	74
29	70	187	155	b21	-	79	410	10	*28	14	29	73
30	43	204	152	b6.0	------	*86	328	14	30	14	28	55
31	69	---	138	b61	-------	92	-------	67	---	15	29	----
Total	1,842.8	4,810	4,637	2,242.3	1,833.2	4,002	6,402	2,536.6	1,575.2	324.2	2,326	1,273
Mean	59.4	160	150	72.3	65.5	129	213	81.8	52.5	10.5	75.0	42.4
Cfsm	1.27	3.41	3.20	1.54	1.40	2.75	4.54	1.74	1.12	0.224	1.60	0.904
In.	1.46	3.81	3.68	1.78	1.45	3.17	5.08	2.01	1.25	0.26	1.84	1.01

Calendar year 1954: Max 468 Min 5.4 Mean 112 Cfsm 2.39 In. 32.50
Water year 1954-55: Max 450 Min 5.9 Mean 92.6 Cfsm 1.97 In. 26.80

* 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.

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 1955.

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.--31 years, 100 cfs.

Extremes.--Maximum discharge during year, 598 cfs Aug. 15 (gage height, 4.05 ft); minimum, 0.3 cfs Aug. 5, 6.

1924-55: 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 tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from debris Nov. 4, 5)

Oct. 1 to Nov. 4		Nov. 5 to Sept. 30			
0.8	21	-0.13	0.3	0.6	13
1.0	30	-.1	.4	1.0	32
1.5	67	0.0	.9	2.0	129
2.0	123	.1	1.8	3.0	304
3.0	304	.2	3.0	4.0	580
4.0	580	.4	6.9		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	65	182	145	23	154	156	297	113	43	0.7	22
2	39	60	162	134	22	218	214	251	129	37	.5	19
3	37	183	145	130	20	189	251	150	121	37	.5	17
4	35	462	115	122	19	143	216	111	105	32	.4	15
5	33	*497	100	120	19	128	230	127	88	27	.3	13
6	*30	419	89	110	19	122	284	130	73	24	.3	11
7	29	333	*79	100	*60	115	322	122	62	22	.8	9.3
8	27	265	74	105	66	100	300	115	53	17	1.0	8.0
9	25	203	72	130	59	94	265	105	46	14	.8	6.9
10	24	165	69	*120	56	92	284	96	40	12	*.6	6.2
11	24	137	67	105	57	115	356	88	32	9.3	.9	5.6
12	26	116	65	92	140	210	386	81	43	6.9	2.4	5.1
13	27	103	63	80	130	216	383	74	90	5.8	31	4.4
14	27	93	61	70	96	*177	373	70	102	4.9	408	4.0
15	25	83	150	62	80	156	*399	67	90	4.0	576	3.7
16	50	77	220	55	68	187	436	62	78	3.5	468	3.2
17	88	73	210	51	60	230	427	57	67	3.2	328	3.0
18	90	72	232	49	60	185	376	52	55	2.6	222	2.7
19	79	79	349	47	58	155	319	*48	43	2.3	212	2.4
20	71	168	356	44	55	140	291	43	35	2.1	267	2.3
21	64	269	308	42	54	136	269	39	31	2.0	247	2.1
22	58	302	250	39	56	127	249	35	40	1.7	165	2.4
23	53	284	225	37	70	120	232	31	58	1.5	118	2.7
24	47	265	200	34	130	115	207	24	64	1.4	93	4.4
25	43	243	160	32	140	113	212	14	71	1.2	73	6.4
26	40	214	145	31	117	111	378	13	77	1.2	58	4.7
27	37	187	125	30	101	105	421	12	*74	1.0	46	5.6
28	36	171	113	29	97	96	405	11	67	.9	40	6.9
29	37	175	127	28	-	90	378	10	60	1.0	33	7.7
30	53	190	140	25	-------	97	344	19	52	.9	28	8.5
31	65	---	150	24	-------	116	--------	41	--------	.8	25	----- --
Total	1,361	5,953	4,803	2,222	1,932	4,352	9,383	2,395	2,059	323.2	3,445.2	215.2
Mean	43.9	198	155	71.7	69.0	140	312	77.3	68.6	10.4	111	7.17
Cfsm	0.801	3.61	2.83	1.31	1.26	2.55	5.69	1.41	1.25	0.190	2.03	0.131
In.	0.92	4.04	3.26	1.51	1.31	2.95	6.35	1.63	1.40	0.22	2.34	0.15

Calendar year 1954: Max 562 Min 1.7 Mean 126 Cfsm 2.30 In. 31.33
Water year 1954-55: Max 576 Min 0.3 Mean 105 Cfsm 1.92 In. 26.08

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 3-17, 22-27, Dec. 30 to Jan. 1, Jan. 5 to Feb. 25, Mar. 7-12, 18-20, 23, 24, 27-29. 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 1955. Prior to November 1945 monthly discharge only, published in WSP 1301.

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

Average discharge.--10 years, 97.0 cfs.

Extremes.--Maximum discharge during year, 894 cfs Nov. 4 (gage height, 4.42 ft); maximum gage height, 6.17 ft Mar. 2 (ice jam); minimum, 1.6 cfs Aug. 5, 6.
1945-55: 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 2				Mar. 3 to Sept. 30			
1.6	14	2.5	137	1.0	1.2	1.8	26
1.7	19	3.0	308	1.1	2.0	2.0	44
1.9	34	4.0	705	1.2	3.4	2.3	89
2.2	72	5.0	1,180	1.3	5.4	2.6	167
				1.4	7.9	3.0	308
				1.6	14	4.0	705

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	57	228	105	19	150	282	221	193	29	2.8	25
2	27	47	177	91	18	240	382	184	132	24	2.7	24
3	25	316	125	91	17	250	397	152	80	23	2.2	22
4	22	710	110	86	16	170	290	129	57	19	1.7	19
5	23	*393	100	80	16	120	352	116	50	17	1.7	17
6	23	271	90	79	16	100	448	98	42	17	3.3	23
7	26	197	80	74	*52	90	484	91	35	21	4.3	29
8	24	146	76	70	68	80	390	86	31	16	4.2	25
9	22	116	72	64	60	74	286	86	30	14	3.3	22
10	22	96	68	60	57	70	323	79	27	13	*3.0	19
11	24	82	66	50	59	125	484	70	24	11	4.3	18
12	28	77	63	*47	150	210	456	64	54	11	13	16
13	27	69	62	45	130	240	338	68	152	9.8	79	15
14	24	64	60	43	100	220	290	66	111	9.1	639	16
15	23	62	200	41	84	*200	*330	62	72	8.5	378	15
16	54	57	220	41	72	220	409	62	50	7.9	214	13
17	82	54	200	40	62	250	319	50	36	7.9	118	8.8
18	61	56	236	37	64	190	249	42	29	7.4	72	6.6
19	47	66	500	35	62	145	232	*36	24	6.6	87	5.4
20	40	166	334	33	58	125	253	33	24	6.2	96	5.0
21	36	390	224	30	58	107	224	34	24	5.2	69	4.4
22	32	401	190	28	60	91	210	31	49	4.6	47	4.0
23	31	275	165	27	74	90	197	29	56	4.2	36	3.4
24	28	207	155	27	140	86	170	26	48	4.0	31	6.9
25	26	170	145	27	150	80	253	26	41	4.0	26	13
26	26	149	135	27	130	80	584	33	54	3.6	22	12
27	26	137	125	27	110	80	484	33	62	3.3	24	9.1
28	27	132	115	25	100	72	378	29	*43	4.0	24	9.4
29	32	197	125	24	-	69	323	26	34	4.2	18	11
30	57	267	127	21	-----	82	282	46	32	4.0	15	11
31	69	-- --	121	20	-------	161	-------	67	---------	3.3	17	--
Total	1,042	5,427	4,694	1,495	2,002	4,267	10,099	2,175	1,696	322.8	2,058.5	428.0
Mean	33.6	181	151	48.2	71.5	138	337	70.2	56.5	10.4	66.4	14.3
Cfsm	0.606	3.27	2.73	0.870	1.29	2.49	6.08	1.27	1.02	0.188	1.20	0.258
In.	0.70	3.64	3.15	1.00	1.34	2.86	6.78	1.46	1.14	0.22	1.38	0.29

Calendar year 1954: Max 1,050 Min 2.5 Mean 120 Cfsm 2.17 Ir. 29.28
Water year 1954-55: Max 710 Min 1.7 Mean 97.8 Cfsm 1.77 Ir. 23.96

Peak discharge (base, 910 cfs).--No peak above base.
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 3-16, 23-29, Jan. 1, Jan. 5 to Mar. 9, Mar. 11-20, 23, 24, 28, 29.

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 1955.

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.--16 years, 630 cfs.

Extremes.--Maximum discharge during year, 3,090 cfs Nov. 5 (gage height, 9.60 ft); maximum gage height, 10.74 ft Feb. 7 (backwater from ice); minimum daily discharge, 60 cfs Aug. 9.

1939-55: 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. 111), since March 1950, Highland Lake, Jackman Reservoir, and other reservoirs above station.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

4.4	57	7.0	750
4.5	67	8.0	1,350
5.0	135	9.0	2,270
5.5	234	10.0	3,690
6.0	371		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	547	296	1,710	1,010	285	1,210	1,410	2,020	982	435	66	290
2	543	498	1,460	944	270	1,700	1,820	1,600	1,140	312	71	287
3	371	1,100	1,150	944	260	1,550	1,810	1,340	916	212	69	203
4	338	2,700	970	955	260	1,270	1,620	1,210	582	110	66	172
5	368	*2,870	800	865	260	966	1,650	966	431	104	65	140
6	368	2,280	760	830	260	870	1,980	870	368	108	66	207
7	362	1,550	*732	805	300	790	2,080	790	365	107	67	304
8	350	1,220	714	735	*360	680	1,930	626	371	103	62	304
9	350	1,100	710	650	530	650	1,610	696	371	93	*60	300
10	258	1,040	714	656	500	650	1,280	678	344	88	64	203
11	209	885	692	645	600	800	1,620	656	318	79	67	188
12	335	845	526	*610	1,000	1,530	1,730	590	341	80	82	228
13	344	760	586	600	950	1,790	1,550	558	444	79	163	262
14	341	566	666	550	650	1,480	1,480	474	570	79	1,080	269
15	332	590	1,610	520	543	*1,340	*1,430	408	528	78	739	262
16	402	602	2,190	446	481	1,390	1,520	454	474	78	610	256
17	383	622	1,820	470	498	1,770	1,280	460	495	77	656	168
18	444	635	1,490	450	421	1,520	1,220	434	371	138	714	149
19	495	647	2,130	425	386	1,190	1,200	*405	324	274	790	198
20	434	902	2,170	400	325	860	1,290	450	275	265	1,290	249
21	408	1,490	1,730	370	335	820	1,270	332	420	262	1,290	249
22	380	2,020	1,410	360	371	800	1,210	276	484	220	955	246
23	350	1,760	1,220	330	560	880	1,150	318	502	122	682	200
24	234	1,470	1,200	360	1,000	760	1,030	329	495	90	614	170
25	216	1,290	1,070	350	1,050	741	1,210	309	390	150	594	176
26	335	1,180	890	340	900	755	2,250	324	368	182	521	190
27	365	1,130	906	340	700	555	2,910	312	319	180	476	253
28	377	1,100	928	340	660	606	2,800	284	*412	182	301	264
29	386	1,270	1,020	320	-	622	2,530	198	459	103	330	273
30	450	1,750	1,210	310	-------	700	2,280	182	446	76	328	229
31	341	----	1,150	300	-------	965	-------	260	--- ----	70	280	-- -
Total	11,416	36,148	36,334	17,230	14,715	32,210	50,150	18,809	14,305	4,536	13,218	6,889
Mean	368	1,205	1,172	556	526	1,039	1,672	607	477	146	426	230
Cfsm	1.00	3.27	3.18	1.51	1.43	2.82	4.54	1.65	1.30	0.397	1.16	0.625
In.	1.15	3.65	3.67	1.74	1.49	3.26	5.07	1.90	1.45	0.46	1.34	0.70

Calendar year 1954: Max 3,450 Min 112 Mean 862 Cfsm 2.34 In. 31.78
Water year 1954-55: Max 2,910 Min 60 Mean 701 Cfsm 1.90 In. 25.88

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 26, Jan. 8, 9, 11-15, Jan. 17 to Feb. 14, Feb. 20, 23-25, Mar. 2, 3, 8-11. Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

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 1955.

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.--16 years, 237 cfs.

Extremes.--Maximum discharge during year, 1,150 cfs Dec. 19 (gage height, 6.54 ft); minimum, 10 cfs Aug. 7, 8.

1939-55: 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 19	
4.0	83
4.5	178
5.0	333
6.0	780
6.5	1,090

Dec. 20 to Sept. 30

3.2	9.6	3.6	35
3.3	14	4.0	83

Note.--Same as preceding table above 4.0 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	132	147	671	307	59	310	527	644	504	95	15	53
2	121	134	581	286	56	630	720	563	540	79	13	47
3	113	272	491	282	53	640	808	496	415	72	12	44
4	110	*946	415	272	*49	465	671	436	314	64	13	39
5	108	802	365	*245	49	350	786	390	262	59	13	36
6	101	626	*310	245	49	310	949	353	223	65	12	33
7	101	518	280	230	114	280	1,010	318	193	66	11	29
8	95	436	270	220	149	235	988	296	169	59	11	28
9	92	373	253	205	130	*215	841	286	153	52	*13	25
10	100	314	250	200	125	209	796	259	136	47	13	26
11	106	276	250	169	130	275	1,010	237	119	42	15	25
12	115	250	235	160	325	554	1,060	217	164	37	39	24
13	110	228	217	155	290	635	*937	200	333	34	66	23
14	100	214	200	130	210	568	824	223	322	32	450	23
15	92	200	570	125	180	509	786	209	253	28	907	21
16	135	188	791	124	155	518	835	186	200	25	604	19
17	183	183	590	123	136	640	786	166	160	25	419	19
18	169	180	527	115	138	540	705	*155	130	23	293	18
19	147	188	1,010	106	134	444	644	138	113	21	231	17
20	136	280	847	100	126	365	705	128	100	19	203	16
21	123	563	676	84	126	341	666	115	*101	18	169	17
22	110	859	550	88	130	311	644	106	130	16	136	16
23	103	730	510	83	163	296	599	98	183	15	126	15
24	96	612	450	84	300	269	554	95	157	14	115	20
25	92	536	390	84	315	253	545	92	134	14	100	35
26	89	487	330	83	280	253	912	142	147	14	86	31
27	88	453	310	82	237	243	943	138	155	14	76	26
28	94	428	293	75	220	215	847	117	124	17	69	25
29	95	514	307	72	-	206	775	101	112	18	61	32
30	142	715	330	64	------	228	745	183	101	18	57	34
31	155	-	345	61	------	337	------	228	------	18	55	-
Total	3,553	12,652	13,614	4,659	4,428	11,644	23,618	7,315	6,147	1,120	4,403	816
Mean	115	422	439	150	158	376	787	236	205	36.1	142	27.2
Cfsm	0.788	2.89	3.01	1.03	1.08	2.58	5.39	1.62	1.40	0.247	0.973	0.186
In.	0.91	3.22	3.47	1.19	1.13	2.97	6.02	1.86	1.57	0.29	1.12	0.21

Calendar year 1954: Max 1,860 Min 16 Mean 329 Cfsm 2.25 In. 30.61
Water year 1954-55: Max 1,060 Min 11 Mean 257 Cfsm 1.76 In. 23.96

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

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 4, 6-8, 12, 14, 17, 22-27, 30, Jan. 5-10, 12, 14, 15, 18, 21, Feb. 9-14, 24-26, Mar. 1-9, 17, 18, 28.

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 1955. 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.--30 years (1918-20, 1927-55), 216 cfs (adjusted to present site).

Extremes.--Maximum discharge during year, 1,320 cfs Aug. 16 (gage height, 5.86 ft); minimum, 26 cfs Aug. 5; minimum daily, 27 cfs Aug. 5.
1918-20, 1927-55: 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 periods of ice effect, which are good. High flow regulated by Blackwater Reservoir since 1941 (see p. 111). 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.0	22	4.0	381
2.2	36	4.5	550
2.5	63	5.0	790
3.0	135	6.0	1,420
3.5	241		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	126	160	494	230	63	215	400	508	561	89	31	61
2	125	148	448	225	58	340	560	426	1,060	79	30	58
3	118	190	362	218	55	465	690	362	1,030	73	29	55
4	116	*442	275	207	*55	425	685	319	584	68	28	52
5	118	690	235	170	55	288	617	286	359	63	27	49
6	118	725	170	194	56	227	715	263	283	63	28	48
7	118	459	175	160	75	196	828	253	243	67	32	45
8	115	319	172	140	98	176	893	239	223	68	33	43
9	110	260	185	125	115	160	840	232	207	66	*34	41
10	108	225	187	140	110	160	762	225	192	60	32	40
11	109	198	185	130	120	190	779	209	172	55	33	40
12	120	181	172	125	190	350	971	192	176	51	56	39
13	126	168	170	125	240	520	*1,070	176	288	48	100	39
14	123	156	145	110	195	560	965	170	413	45	79	38
15	112	149	322	100	145	475	730	166	400	44	408	37
16	144	141	532	100	121	435	784	160	288	43	968	37
17	196	133	582	98	108	515	917	146	214	42	534	36
18	214	132	512	93	104	540	818	135	168	43	253	35
19	187	135	608	90	102	420	635	126	143	43	200	34
20	158	187	750	86	99	300	640	120	125	41	198	35
21	139	402	660	78	96	275	720	112	*115	40	194	34
22	135	645	450	77	100	250	665	106	121	39	162	32
23	128	784	320	77	115	230	558	100	168	38	130	32
24	121	640	305	77	170	220	508	97	172	36	123	40
25	115	445	241	78	240	205	498	95	170	34	116	52
26	110	355	209	81	245	200	594	103	172	32	100	63
27	109	316	225	85	210	196	790	132	150	32	89	60
28	112	297	230	78	180	181	840	133	125	35	80	55
29	116	343	240	74	-	176	715	115	110	37	73	55
30	132	442	240	70	------	189	586	186	103	35	67	56
31	154	--	260	65	------	251	------	419	----	33	63	-
Total	4,032	9,866	10,061	3,706	3,520	9,330	21,773	6,311	8,535	1,540	4,328	1,341
Mean	130	329	325	120	126	301	726	204	284	49.7	140	44.7
Cfsm	1.01	2.55	2.52	0.930	0.977	2.33	5.63	1.58	2.20	0.385	1.09	0.347
In.	1.16	2.84	2.90	1.07	1.01	2.69	6.28	1.82	2.46	0.44	1.25	0.39

Calendar year 1954: Max 2,030 Min 26 Mean 282 Cfsm 2.19 In. 29.69
Water year 1954-55: Max 1,070 Min 27 Mean 231 Cfsm 1.79 In. 24.31

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4-7, 14, 20-23, Dec. 27 to Jan. 1, Jan. 7 to Feb. 15, Feb. 23 to Mar. 4, Mar. 12-15, 19-22, 24, Apr. 1, 2.

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 1955. Prior to November 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.--27 years, 1,266 cfs.

Extremes.--Maximum discharge during year, 5,000 cfs Apr. 27-28 (gage height, 4.69 ft); minimum, 108 cfs July 19; minimum daily, 129 cfs Aug. 4, 8.
1928-55: 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. 111), and other reservoirs above station.

Revisions (water years).--WSP 756: 1933(M), drainage area. WSP 1231: 1929, 1931.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	122	2.5	840
1.6	159	3.0	1,540
1.8	252	4.0	3,400
2.1	450	5.0	5,820

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	974	780	3,470	1,850	490	1,800	2,740	3,750	2,210	732	137	466
2	912	816	3,000	1,810	460	3,300	3,640	3,190	3,110	660	137	458
3	888	1,380	*2,500	1,780	440	3,400	4,090	2,700	2,860	548	140	443
4	710	*4,070	2,090	1,760	440	2,800	3,580	2,370	2,210	466	129	357
5	700	4,710	1,860	*1,540	440	2,100	3,690	2,070	1,440	370	140	324
6	710	4,280	1,600	1,520	440	1,780	4,180	1,830	1,170	331	148	305
7	*700	3,270	1,500	1,450	550	*1,550	4,400	1,710	1,020	305	137	357
8	680	2,480	1,450	1,300	700	1,400	4,400	1,520	948	318	*129	428
9	640	2,090	1,420	1,200	850	1,320	3,960	1,410	888	318	133	435
10	650	1,880	1,410	1,200	950	1,350	3,400	1,410	852	252	140	406
11	593	1,640	1,350	1,150	980	1,480	*3,580	1,310	768	247	148	331
12	593	1,520	1,250	1,080	1,850	2,550	4,090	1,210	828	270	207	331
13	680	1,400	1,100	1,080	1,850	3,470	4,000	1,160	1,280	237	293	351
14	670	1,280	1,100	950	1,300	3,270	3,730	1,100	1,490	222	1,060	377
15	650	1,090	2,580	900	1,050	2,880	3,470	1,020	1,440	212	2,250	384
16	768	1,100	3,930	800	940	2,780	3,490	924	1,230	198	2,190	377
17	988	1,100	3,600	850	876	3,270	3,510	936	1,040	180	1,950	344
18	960	1,090	3,130	800	852	3,210	3,170	864	924	172	1,490	276
19	988	1,140	4,140	750	790	2,610	2,960	*816	768	217	1,300	276
20	912	1,350	4,320	700	730	1,960	3,040	756	680	364	1,540	311
21	828	2,590	3,820	640	670	1,760	3,110	756	*660	364	1,850	344
22	768	3,750	2,960	620	670	1,660	3,000	630	816	364	1,520	357
23	710	3,910	2,390	600	913	1,690	2,780	611	948	299	1,140	344
24	650	3,440	2,410	620	1,700	1,560	2,570	630	974	217	974	318
25	566	2,860	2,150	620	1,950	1,440	2,520	630	924	185	900	324
26	539	2,520	1,850	620	1,780	1,460	3,860	680	828	222	840	357
27	640	2,280	1,750	620	1,480	1,410	4,880	720	828	270	732	344
28	660	2,190	1,780	600	1,310	1,140	4,880	670	744	276	670	406
29	690	2,370	1,860	560	-	1,240	4,540	611	768	287	482	421
30	828	3,250	2,090	540	------	1,320	4,230	640	768	247	557	428
31	912	----	2,050	520	------	1,810	-------	1,090	------	155	506	-
Total	23,157	67,626	71,910	31,030	27,451	64,770	109,490	39,724	35,414	8,505	23,969	10,980
Mean	747	2,254	2,320	1,001	980	2,089	3,650	1,281	1,180	307	773	366
Cfsm	0.975	2.94	3.03	1.31	1.28	2.73	4.77	1.67	1.54	0.401	1.01	0.478
In.	1.12	3.28	3.49	1.51	1.33	3.14	5.32	1.93	1.72	0.46	1.16	0.53

Calendar year 1954: Max 6,740 Min 242 Mean 1,739 Cfsm 2.27 In. 30.80
Water year 1954-55: Max 4,880 Min 129 Mean 1,411 Cfsm 1.84 In. 24.99

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 6-9, 11-14, 23, 25-27, 31, Jan. 1, Jan. 7 to Feb. 16, Feb. 19, 20, 24-26, Mar. 1-5, 7-9.

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 1955.

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

Extremes.--Maximum discharge during year, 641 cfs Dec. 19 (gage height, 8.42 ft); minimum, 3.3 cfs Sept. 22-24.
1951-55: Maximum discharge, 2,380 cfs Apr. 6, 1952 (gage height, 12.35 ft); minimum, that of 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 table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

4.08	3.3	6.0	158
4.2	6.5	7.0	317
4.6	24	8.0	535
5.0	52	8.5	665
5.5	99		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	89	289	150	a29	245	341	201	398	21	7.2	6.2
2	56	77	225	161	a28	520	409	172	282	20	*6.9	5.9
3	52	196	185	214	a26	431	409	152	188	22	5.9	5.3
4	50	429	155	189	a25	304	321	137	132	21	5.3	5.0
5	*48	275	135	165	a25	227	364	127	114	19	5.0	4.8
6	47	202	119	146	a26	192	409	119	98	19	7.6	4.3
7	48	161	108	125	*a60	159	373	119	86	21	8.7	4.0
8	47	135	101	110	80	138	354	114	77	22	9.4	3.8
9	44	*121	*110	99	57	*126	289	113	69	18	7.6	3.8
10	44	108	120	100	52	127	272	101	64	16	6.2	3.8
11	51	97	123	*88	80	180	315	93	56	14	6.9	4.0
12	59	93	115	78	270	370	303	86	83	13	13	5.3
13	56	88	101	78	150	390	*258	81	204	12	21	4.8
14	50	83	94	67	115	315	240	83	157	12	32	4.3
15	46	81	300	65	100	255	256	81	110	11	29	4.0
16	111	75	304	65	85	315	263	74	82	11	20	4.0
17	140	74	213	63	76	405	229	67	65	11	15	4.0
18	100	74	218	57	81	310	204	*62	53	11	13	3.8
19	83	77	580	54	81	225	204	58	46	10	16	3.5
20	74	138	406	48	79	190	299	53	*40	9.4	16	3.5
21	66	384	281	41	78	180	246	49	36	8.7	12	3.5
22	60	426	222	44	76	157	219	46	36	8.3	10	3.3
23	55	294	213	43	100	172	204	42	38	7.2	10	3.3
24	51	227	206	45	190	165	208	40	36	8.7	11	5.7
25	47	195	173	a45	205	172	229	39	34	9.0	9.7	11
26	46	178	137	a43	190	180	277	69	43	6.9	8.3	8.3
27	51	164	149	a41	168	160	319	73	39	6.5	7.6	6.5
28	55	157	146	a38	164	148	282	58	32	14	7.9	7.2
29	53	254	161	a36	-	135	256	48	28	14	7.2	9.0
30	96	394	178	a32	------	169	240	78	24	11	6.2	8.3
31	101	------	172	a31	------	255	------	88	------	8.7	6.2	------
Total	1,946	5,346	6,039	2,561	2,696	7,317	8,592	2,723	2,750	416.4	348.7	154.2
Mean	62.8	178	195	82.6	96.3	236	286	87.8	91.7	13.4	11.2	5.14
Cfsm	0.818	2.32	2.54	1.08	1.25	3.07	3.72	1.14	1.19	0.174	0.146	0.067
In.	0.94	2.59	2.92	1.24	1.31	3.54	4.16	1.32	1.33	0.20	0.17	0.07

Calendar year 1954: Max 1,890 Min 7.2 Mean 161 Cfsm 2.10 In. 28.53
Water year 1954-55: Max 580 Min 3.3 Mean 112 Cfsm 1.46 In. 19.79

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, recorded range in stage, and records for Suncook River at North Chichester and Warner River at Davisville.

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 November 1927, November 1928 to September 1955.

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.--34 years (1918-20, 1921-27, 1929-55), 243 cfs.

Extremes.--Maximum discharge during year, 1,590 cfs Nov. 4 (gage height, 8.05 ft); minimum, 7.1 cfs Sept. 22, 23, 27; minimum daily, 7.4 cfs Sept. 22, 23, 27.
1918-55: 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), 1941-42(M), 1946-48(M).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.4	5.0	4.0	310
2.5	8.2	4.5	540
2.6	13	5.0	700
2.8	26	6.0	950
3.1	60	7.0	1,210
3.4	114	8.0	1,570
3.7	197		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	218	790	465	64	600	745	522	290	68	12	18
2	112	188	633	477	59	1,050	810	420	259	75	14	18
3	106	746	518	572	55	790	805	364	208	82	14	16
4	97	1,430	430	531	55	600	685	391	166	72	14	11
5	*97	900	386	500	55	500	690	435	163	66	*17	9.4
6	95	644	350	460	59	410	740	440	155	68	19	9.4
7	104	518	330	430	140	360	730	396	136	79	17	15
8	106	425	325	400	170	330	705	290	124	93	39	18
9	121	*368	325	380	135	*315	624	243	116	75	34	*17
10	175	332	337	370	115	315	580	200	106	63	33	16
11	240	290	350	*355	260	460	612	172	99	58	57	10
12	262	270	337	330	600	628	624	155	149	54	77	9.9
13	255	247	324	280	350	758	*576	144	282	52	79	10
14	228	232	295	250	250	633	522	191	278	51	86	12
15	211	232	946	235	200	536	560	182	225	51	75	9.9
16	468	294	1,110	225	180	642	594	160	172	60	50	9.0
17	477	294	762	215	170	642	548	141	141	63	37	9.0
18	332	290	696	180	180	405	488	*126	126	55	30	8.6
19	243	294	1,320	160	175	260	480	116	110	51	39	7.8
20	200	440	1,020	125	165	215	615	110	*104	42	48	7.8
21	182	862	788	105	160	205	495	104	95	25	44	7.8
22	166	910	680	110	155	194	391	99	89	21	36	7.4
23	155	732	640	96	240	232	350	99	89	20	36	7.4
24	152	594	604	96	450	262	342	95	86	17	51	14
25	149	513	520	100	430	286	373	101	101	18	34	10
26	138	472	430	96	400	306	531	175	126	20	24	7.8
27	138	454	460	94	340	310	695	160	95	21	21	7.4
28	138	459	445	84	340	280	654	128	82	29	15	10
29	155	693	488	80	-	300	615	114	77	22	17	9.4
30	211	945	548	72	------	464	601	160	70	18	20	9.0
31	236	----	526	68	-------	627	--------	158	-------	12	19	----
Total	5,861	15,286	17,711	7,941	5,952	14,095	17,760	6,591	4,319	1,502	1,108	332.0
Mean	189	510	571	256	213	455	592	213	144	48.5	35.7	11.1
Cfsm	1.20	3.25	3.64	1.63	1.36	2.90	3.77	1.36	0.917	0.309	0.227	0.071
In.	1.39	3.62	4.20	1.88	1.41	3.34	4.21	1.56	1.02	0.36	0.26	0.08

Calendar year 1954: Max 3,930 Min 24 Mean 398 Cfsm 2.52 In. 34.22
Water year 1954-55: Max 1,430 Min 7.4 Mean 270 Cfsm 1.72 In. 23.33

Peak discharge (base, 1,500 cfs).--Nov. 4 (6 a.m.) 1,590 cfs (8.05 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4, 6-9, 14, 22, 23, 25-27, Jan. 1, Jan. 5 to Feb. 4, Feb. 7 to Mar. 11, Mar. 18-21, 27-29.

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 1955.

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

Average discharge.--15 years, 166 cfs.

Extremes.--Maximum discharge during year, about 1,800 cfs Dec. 15; maximum gage height, 9.82 ft Feb. 12 (ice jam); minimum discharge, 4.3 cfs Aug. 10, 11.
1940-55: 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 by mill above station.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 11				Feb. 12 to Sept. 30			
3.5	44	5.0	425	2.82	4.3	3.7	72
3.7	68	6.0	950	2.9	6.8	4.0	120
4.0	119	7.0	1,640	3.0	11	4.5	247
4.5	247			3.2	22	5.0	425
				3.4	38	6.0	950

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	163	500	300	50	370	615	344	410	37	7.1	25
2	102	140	380	310	46	800	685	282	258	35	6.8	22
3	125	846	310	360	45	455	605	244	158	34	6.4	20
4	111	1,280	250	330	45	275	421	217	116	31	6.1	19
5	102	640	220	270	47	230	492	300	104	29	5.8	18
6	*95	425	205	250	58	190	530	184	92	30	5.8	16
7	93	327	195	240	130	165	510	173	80	31	5.8	15
8	86	*266	*185	220	*150	150	413	163	78	35	5.5	13
9	83	247	195	180	120	140	316	166	72	34	4.9	12
10	83	217	220	*165	110	140	316	147	66	30	*4.3	11
11	108	195	220	150	130	260	370	132	58	26	5.2	11
12	117	184	185	135	500	620	344	120	119	22	6.4	8.2
13	104	171	145	145	300	510	289	115	197	20	28	5.2
14	92	158	180	115	170	*385	269	113	134	19	197	6.1
15	83	156	1,200	110	135	310	293	107	100	17	104	6.8
16	362	149	1,150	110	110	450	316	99	78	16	59	7.1
17	310	147	550	115	100	530	276	89	63	16	51	7.5
18	186	152	455	120	125	310	241	83	54	14	38	7.9
19	149	173	1,150	110	150	230	*247	85	46	14	146	7.9
20	132	403	770	90	135	190	310	*72	44	13	264	8.2
21	119	880	500	72	115	180	269	66	52	11	131	8.2
22	108	600	400	85	135	171	253	63	71	11	78	7.9
23	98	425	370	79	250	235	247	59	66	8.2	55	7.9
24	93	350	350	83	580	225	229	56	*62	8.6	50	15
25	86	310	300	90	335	215	407	92	72	9.0	41	54
26	83	285	225	84	260	238	782	181	66	8.6	33	34
27	85	270	250	73	215	255	655	115	59	8.6	34	25
28	88	260	270	65	195	200	461	86	51	8.6	34	25
29	102	600	360	60	-	180	506	73	46	9.0	32	28
30	186	800	450	57	------	250	457	97	39	10	29	25
31	197		380	53	------	433	------	130	------	5.5	26	------
Total	3,868	11,219	12,520	4,626	4,741	9,292	12,124	4,153	2,911	601.1	1,500.1	476.9
Mean	125	374	404	149	169	300	404	134	97.0	19.4	48.4	15.9
Cfsm	1.20	3.60	3.88	1.43	1.62	2.88	3.88	1.29	0.933	0.187	0.465	0.153
In.	1.38	4.01	4.48	1.65	1.70	3.32	4.34	1.49	1.04	0.21	0.54	0.17

Calendar year 1954: Max 2,030 Min 14 Mean 255 Cfsm 2.45 In. 33.28
Water year 1954-55: Max 1,280 Min 4.3 Mean 186 Cfsm 1.79 In. 24.33

Peak discharge (base, 1,000 cfs).--Nov. 4 (12 to 1 a.m.) 1,690 cfs (7.06 ft); Dec. 15 (time unknown) about 1,800 cfs; Dec. 19 (time unknown) about 1,300 cfs.
* Discharge measurement made on this day.
Note.--No gage-height record Nov. 21 to Jan. 10; discharge estimated on basis of 2 discharge measurements, weather records, recorded range in stage, and records for Souhegan River at Merrimack. Stage-discharge relation affected by ice Jan. 11-29, Feb. 2 to Mar. 12, Mar. 14, 15, 17-21, 24, 25, 27-29, and during much of period of no gage-height record in December and January.

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 1955.

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.--16 years, 311 cfs.

Extremes.--Maximum discharge during year, 2,350 cfs Dec. 15 (gage height, 7.42 ft); minimum daily, 4.8 cfs July 26.

1939-55: 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 26, 1955.

Maximum discharge known, 21,900 cfs Sept. 21, 1938 (gage height, 17.52 ft, from floodmarks), by computation of flow over dam.

Remarks.--Records excellent except those below 100 cfs and those for periods of ice effect, which are good. Flow regulated by powerplant above station.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 3		Nov. 4 to Sept. 30			
2.9	8.7	2.7	4.1	4.5	296
3.2	26	2.8	6.8	5.0	496
3.5	56	2.9	11	5.5	745
4.0	149	3.1	21	6.0	1,090
4.5	296	3.3	38	7.0	1,940
Note.--Same as following table above 4.5 ft.		3.6	76	8.0	2,940
		4.0	153		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	178	247	864	464	85	587	690	706	669	35	21	36
2	9.8	230	740	489	90	1,470	1,060	680	716	33	5.6	38
3	87	867	673	521	92	898	1,120	512	479	36	16	8.6
4	235	1,980	276	527	65	701	812	339	255	38	21	7.6
5	211	1,230	323	468	33	488	884	370	11	41	*5.4	9.4
6	190	812	397	419	52	415	970	449	225	44	5.1	34
7	250	730	311	320	419	380	940	250	200	42	7.3	31
8	99	452	*250	295	255	340	790	166	174	22	22	9.0
9	65	468	272	165	*177	321	675	435	133	63	21	9.4
10	*41	429	314	395	207	421	648	349	112	38	6.6	9.8
11	207	376	464	315	325	497	701	311	13	23	56	7.6
12	155	386	252	215	992	670	701	181	296	35	183	8.6
13	155	338	319	172	699	706	696	156	410	35	90	9.0
14	156	343	386	195	313	751	681	205	226	35	48	9.0
15	305	346	1,630	56	258	687	434	84	212	35	227	9.4
16	619	358	1,600	108	218	670	427	280	218	5.4	109	9.4
17	384	296	891	230	210	926	690	196	108	5.1	50	9.0
18	402	287	850	185	147	712	366	193	13	55	76	7.9
19	157	212	1,720	115	180	690	467	154	11	36	442	8.6
20	117	468	1,180	225	107	437	479	*135	112	36	133	9.0
21	209	1,350	844	50	204	512	528	11	97	31	146	38
22	184	1,250	656	65	218	622	375	37	121	13	101	36
23	136	857	622	76	450	454	376	196	173	5.4	120	8.6
24	120	704	544	134	626	430	341	137	161	5.1	85	53
25	216	665	589	103	512	425	566	180	70	5.1	86	6.8
26	225	614	365	121	461	438	1,080	278	58	4.8	8.6	43
27	215	566	565	151	332	452	1,170	204	171	5.4	46	48
28	215	484	520	92	418	420	891	126	162	15	6.8	39
29	230	794	701	58	-	461	870	116	186	19	67	32
30	280	1,200	701	40	------	253	870	213	41	14	37	7.6
31	187	- -	696	88	-------	473	--------	319	--- ----	6.0	36	-
Total	6,239.8	19,339	20,515	6,857	8,145	17,707	21,298	7,968	5,833	816.3	2,284.4	592.3
Mean	201	645	662	221	291	571	710	257	194	26.3	73.7	19.7
Cfsm	0.995	3.19	3.28	1.09	1.44	2.83	3.51	1.27	0.960	0.130	0.365	0.098
In.	1.15	3.56	3.78	1.26	1.50	3.26	3.92	1.47	1.07	0.15	0.42	0.11

Calendar year 1954: Max 3,510 Min 7.0 Mean 461 Cfsm 2.28 In. 31.01
Water year 1954-55: Max 1,980 Min 4.8 Mean 322 Cfsm 1.59 In. 21.65

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 26, Jan. 7-12, 14, 15, 17-22, Jan. 28 to Feb. 6, Feb. 8, 17, 19, Mar. 7, 8, 28.

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 1955. Prior to November 1936 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Altitude of gage is 105 ft (from topographic map).

Average discharge.--19 years, 5,402 cfs.

Extremes.--Maximum discharge during year, 20,200 cfs Apr. 17 (gage height, 8.62 ft); minimum daily, 397 cfs July 17.
1936-55: 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, 154 cfs Sept. 5, 1949.
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 83, 111 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	367	4.0	2,360
2.0	454	5.0	4,780
2.5	725	6.0	8,200
3.0	1,110	9.0	22,000
3.5	1,630		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,420	4,680	11,900	8,240	3,000	6,800	7,820	12,300	9,180	2,450	1,190	2,370
2	3,640	4,030	10,800	7,820	2,950	11,200	10,100	11,500	13,100	2,450	1,130	2,270
3	3,790	5,470	9,250	7,820	2,900	11,200	11,600	10,200	11,600	1,500	1,150	2,290
4	3,650	11,500	7,740	7,900	2,700	9,080	11,000	9,380	9,130	2,430	964	1,920
5	3,480	13,700	6,830	7,120	2,750	7,020	11,200	8,880	6,720	2,010	955	1,470
6	*3,820	11,600	5,850	7,080	2,790	6,580	13,100	8,560	5,560	1,850	723	2,150
7	3,840	9,710	4,890	6,820	4,180	5,590	14,300	8,480	5,250	1,800	831	2,100
8	3,380	*7,480	5,330	6,200	4,490	5,330	15,000	7,040	4,420	2,220	1,620	2,090
9	2,920	6,520	5,160	6,100	4,330	5,000	13,700	6,180	3,600	1,990	1,140	1,910
10	2,570	6,110	5,150	*6,300	3,930	4,860	11,600	6,860	3,220	728	1,050	2,040
11	3,570	5,460	5,750	5,700	4,160	5,620	12,000	6,450	2,360	1,430	1,430	1,160
12	3,350	5,190	5,170	5,500	8,360	8,440	15,900	5,490	3,860	1,430	2,730	1,810
13	3,540	4,710	5,220	5,500	8,000	10,300	16,900	5,160	4,240	1,290	2,390	2,060
14	3,740	4,650	5,020	4,700	6,320	*10,200	14,800	4,770	6,500	1,380	2,850	1,830
15	3,850	4,610	8,640	4,100	5,370	9,040	13,500	4,390	6,880	1,240	4,810	1,830
16	4,240	4,310	12,400	4,600	5,000	8,960	17,600	4,590	5,830	1,000	6,180	1,630
17	6,270	4,560	12,100	4,650	4,790	10,300	19,900	4,330	5,150	397	4,920	1,240
18	7,020	4,940	10,500	4,500	4,330	9,590	*17,400	3,830	3,790	1,700	4,040	644
19	5,440	4,090	15,500	4,400	4,080	8,520	13,900	3,370	3,470	1,890	5,970	1,640
20	4,920	5,430	18,000	4,300	3,770	7,010	15,300	3,450	3,540	1,720	4,600	1,560
21	4,510	10,100	15,100	3,800	3,960	6,150	16,700	2,910	3,250	1,550	4,930	1,610
22	4,220	16,800	11,600	3,870	3,950	5,980	14,600	2,050	2,740	1,610	4,250	1,560
23	3,790	17,900	9,800	3,380	4,930	6,010	12,000	2,860	3,080	1,240	3,980	1,490
24	3,170	13,600	8,880	3,750	5,820	5,980	11,600	2,480	3,320	553	3,240	754
25	3,810	10,400	8,680	3,800	7,010	5,780	11,400	2,860	3,490	1,440	2,690	945
26	3,270	8,400	7,440	3,760	7,080	5,880	12,800	2,760	3,310	1,790	2,950	1,600
27	3,190	7,630	7,190	3,600	6,590	5,910	14,900	3,060	*3,500	1,520	2,980	1,530
28	3,280	6,830	7,370	3,400	6,180	5,150	15,100	2,370	3,140	1,610	2,560	1,580
29	3,600	7,900	7,710	3,250	-	4,990	14,000	2,560	2,880	1,840	2,300	1,820
30	3,960	11,200	8,680	3,100	-----	4,630	13,400	3,080	2,720	550	2,380	1,990
31	3,510	-- --	8,640	3,050	-------	5,720	-------	4,290	-- ----	798	2,270	- -
Total	121,760	239,510	272,290	158,110	133,720	222,820	413,120	166,490	148,830	47,404	85,203	50,893
Mean	3,928	7,984	8,784	5,100	4,776	7,188	13,770	5,371	4,961	1,529	2,748	1,696
Cfsm	1.27	2.58	2.84	1.65	1.54	2.32	4.45	1.74	1.60	0.495	0.889	0.549
In.	1.46	2.88	3.28	1.90	1.61	2.68	4.97	2.00	1.79	0.57	1.02	0.61

Calendar year 1954: Max 38,100 Min 630 Mean 7,352 Cfsm 2.38 In. 32.28
Water year 1954-55: Max 19,900 Min 397 Mean 5,644 Cfsm 1.83 In. 24.77

Peak discharge (base, 22,000 cfs).--No peak above base.
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Jan. 8-21, 24, 27-30, Feb. 1-4, 13. 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 1955.

Gage.--Water-stage recorder and concrete control. Datum of gage is 252.60 ft above mean sea level (city of Manchester benchmark).

Average discharge.--17 years, 40.7 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 189 cfs Dec. 19 (gage height, 1.68 ft); no flow for part of Aug. 12, caused by unusual regulation.
1938-55: 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. Flow regulated by Tower Hill Pond (see p. 111). 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.1	0.3	0.7	21
.2	1.0	.9	40
.3	2.4	1.2	79
.4	4.9	1.5	139
.5	8.7	2.0	305

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	78	78	98	37	86	66	96	41	11	0.7	8.4
2	35	72	61	96	a36	121	72	82	49	7.3	.7	27
3	33	104	50	104	a35	106	70	70	44	7.1	1.0	40
4	*31	160	41	102	a34	86	66	60	39	5.5	.8	32
5	28	144	35	94	32	73	63	52	36	4.3	.7	31
6	26	123	31	89	31	67	61	49	33	4.0	.5	32
7	25	102	28	84	45	63	59	46	30	3.5	3.4	11
8	25	88	27	79	50	61	58	45	27	3.2	*a6.9	3.7
9	23	82	*26	74	*45	59	56	52	25	3.0	a1.8	1.6
10	22	78	28	72	39	56	58	51	23	2.6	a1.2	.9
11	21	73	32	*67	42	66	61	45	21	2.2	a29	.7
12	29	*72	30	64	76	100	63	40	27	3.4	a12	.7
13	31	67	33	63	73	102	61	36	41	3.5	2.2	.7
14	31	64	54	60	55	91	59	35	43	2.4	2.8	.6
15	30	63	130	58	45	*70	60	35	37	1.8	6.2	5.7
16	43	60	177	56	39	67	59	34	30	1.7	18	9.2
17	54	58	147	55	39	74	60	35	25	1.5	14	10
18	51	58	134	54	40	68	*58	32	22	1.5	20	10
19	45	58	177	52	40	56	58	29	19	1.4	27	13
20	40	72	162	50	42	49	63	*26	17	1.2	35	59
21	37	110	142	49	44	44	52	24	16	1.0	35	68
22	42	123	125	48	48	43	49	22	19	1.0	30	51
23	60	110	116	46	64	43	60	21	19	.9	30	46
24	68	96	108	45	102	45	63	20	*18	.9	32	45
25	68	89	98	45	91	49	72	22	17	.8	26	42
26	68	86	89	45	74	54	96	38	17	.8	22	35
27	68	82	86	44	66	60	114	44	16	.8	22	30
28	66	79	84	43	68	59	112	40	14	.9	20	26
29	67	89	88	41	-	59	108	33	12	.9	15	22
30	72	91	96	40	-------	55	108	33	12	.8	10	19
31	78	-------	102	38	-------	61	-------	32	-------	.8	7.5	-------
Total	1,355	2,631	2,615	1,955	1,432	2,093	2,065	1,279	789	82.7	433.4	681.2
Mean	43.7	87.7	84.4	63.1	51.1	67.5	68.8	41.3	26.3	2.67	14.0	22.7
(†)	-20.9	+0.62	+14.4	-25.2	-3.92	+22.9	+13.9	-1.35	-1.39	-1.65	-9.13	-20.8
Adjusted for change in reservoir contents												
Mean	22.8	88.3	98.7	37.9	47.2	90.4	82.8	39.9	24.9	1.02	4.85	1.87
Cfsm	0.820	3.18	3.55	1.36	1.70	3.25	2.98	1.44	0.896	0.037	0.174	0.067
In.	0.95	3.55	4.10	1.57	1.77	3.75	3.32	1.65	1.00	0.04	0.20	0.08

	Observed			Adjusted		
Calendar year 1954:	Max 558	Min 0.8	Mean 64.6	Mean 67.4	Cfsm 2.42	In. 32.90
Water year 1954-55:	Max 177	Min 0.5	Mean 47.7	Mean 45.0	Cfsm 1.62	In. 21.98

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Tower Hill Pond.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage when available, and records of gate openings at Tower Hill Pond.

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 1955.

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.--46 years, 285 cfs.

Extremes.--Maximum discharge during year, 2,710 cfs Dec. 15 (gage height, 7.06 ft); minimum, 18 cfs Aug. 9, 10.
1909-55: 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 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 15

2.8	120	5.0	1,080
3.0	167	6.0	1,810
3.5	325	7.0	2,650
4.0	535		

Dec. 16 to Sept. 30

2.0	18	2.6	90
2.1	22	3.0	176
2.2	30	3.5	330
2.4	57	4.0	535

Note.--Same as preceding table above 4.0 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	170	236	840	508	80	600	867	655	313	87	22	96
2	174	262	645	476	78	1,150	978	548	344	78	22	92
3	153	748	535	590	72	680	918	*476	255	76	20	87
4	162	*2,230	441	540	73	440	665	421	205	56	19	63
5	*180	1,100	361	441	75	370	691	385	148	50	19	51
6	*162	691	350	421	85	312	724	358	134	60	19	*44
7	155	508	335	385	200	280	740	330	145	45	19	44
8	153	454	329	360	300	265	625	252	124	48	19	40
9	145	429	302	300	200	250	499	255	122	57	18	36
10	155	389	353	258	180	250	445	268	117	50	18	35
11	136	345	365	240	200	450	481	261	132	42	19	33
12	136	298	302	220	800	1,000	499	246	124	40	25	32
13	150	309	245	220	430	920	437	230	216	*41	44	30
14	141	242	294	175	200	640	413	233	252	48	344	30
15	134	226	1,840	181	220	540	429	186	186	40	270	30
16	486	220	1,860	176	186	700	441	169	157	42	169	29
17	544	220	894	186	168	920	337	194	139	38	120	29
18	325	226	755	195	181	560	373	186	130	35	107	29
19	265	286	1,840	166	224	400	362	179	100	32	325	27
20	217	534	1,270	145	213	350	437	169	73	32	964	27
21	198	1,360	828	120	197	320	405	145	88	32	421	37
22	182	1,420	640	135	213	300	385	117	162	33	258	40
23	187	840	630	120	386	420	377	107	192	34	189	33
24	172	630	571	125	950	385	302	122	150	35	169	40
25	138	562	460	150	510	360	455	132	152	32	141	53
26	155	512	370	130	400	400	1,230	176	132	30	126	62
27	148	535	420	120	315	450	1,140	216	100	28	122	56
28	148	476	445	105	360	360	850	194	111	26	83	53
29	155	786	566	100	-	330	884	134	115	25	73	50
30	258	1,290	691	95	------	*390	936	128	*100	25	98	75
31	290	------	650	86	------	650	------	157	------	23	101	-
Total	6,174	18,364	20,427	7,469	7,496	15,442	18,325	7,629	4,718	1,320	4,363	1,383
Mean	199	612	659	241	268	493	611	246	157	42.6	141	46.1
Cfsm	1.16	3.58	3.85	1.41	1.57	2.91	3.57	1.44	0.918	0.249	0.825	0.270
In.	1.34	3.99	4.44	1.62	1.63	3.33	3.99	1.66	1.03	0.29	0.95	0.30

Calendar year 1954: Max 3,710 Min 39 Mean 408 Cfsm 2.39 In. 32.38
Water year 1954-55: Max 2,230 Min 18 Mean 310 Cfsm 1.81 In. 24.60

Peak discharge (base, 2,250 cfs).--Nov. 4 (9 a.m.) 2,550 cfs (6.90 ft); Dec. 15 (9 to 10 p.m.) 2,710 cfs (7.06 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Mar. 11-30; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage, and records for Warner River at Davisville and South Branch Piscataquog River near Goffstown. Stage-discharge relation affected by ice Dec. 6, 7, 22, 23, 25-27, Jan. 7-9, 11-14, 18, Jan. 20 to Feb. 12, Feb 14, 15, Feb. 24 to Mar. 2, Mar. 4, 5, 7-10.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 270.04 ft above mean sea level, datum of 1929.

Average discharge.--20 years, 193 cfs.

Extremes.--Maximum discharge during year, 2,510 cfs Dec. 15 (gage height, 6.72 ft); minimum, 18 cfs July 30; minimum daily, 37 cfs Aug. 7.
1935-55: Maximum discharge, 16,300 cfs Mar. 18, 1936 (gage height, 20.53 ft, from floodmarks) by computation of flow over dam; minimum, 11 cfs Aug. 29, 1948; minimum daily, 22 cfs Sept. 27, 1936.

Remarks.--Records excellent except those for periods of no gage-height record, shifting control, and backwater from aquatic vegetation, which are fair. 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 table, water year 1954-55, except periods of shifting-control (gage height, in feet, and discharge, in cubic feet per second)

1.4	31	4.0	470
2.0	90	5.0	1,010
2.5	150	6.0	1,780
3.0	221	7.0	2,830
3.5	319		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	138	176	462	374	98	600	371	377	223	74	43	86
2	150	147	365	398	90	680	353	332	147	73	54	81
3	162	1,160	311	420	87	330	332	281	117	103	46	71
4	156	941	257	348	97	230	348	248	94	71	48	62
5	173	530	231	261	84	200	339	233	89	66	50	59
6	164	380	218	242	88	210	330	*255	90	68	44	68
7	136	296	200	230	700	230	363	204	87	75	37	67
8	125	*269	193	200	210	190	308	183	*86	64	44	63
9	92	236	193	185	140	170	240	192	83	54	49	64
10	93	213	244	205	132	170	211	155	89	42	53	50
11	113	194	219	185	199	300	218	144	63	50	64	59
12	*113	193	194	*171	378	600	199	129	180	49	90	66
13	123	170	*192	166	198	450	196	129	175	49	215	62
14	96	170	336	150	193	350	193	131	117	50	178	58
15	111	171	1,840	130	135	280	200	124	97	*51	91	69
16	389	159	820	133	120	370	193	126	83	57	76	54
17	186	160	500	144	*150	380	187	113	77	56	70	58
18	156	164	731	133	160	270	190	109	66	54	190	57
19	153	180	1,080	127	135	220	187	101	57	52	*854	69
20	137	559	640	115	130	200	190	96	69	55	*470	100
21	132	818	485	109	145	210	183	84	172	44	193	62
22	124	618	412	102	150	210	183	77	396	61	166	61
23	106	406	358	105	650	*400	200	84	224	45	275	65
24	106	346	330	119	500	343	180	83	221	49	236	173
25	112	420	292	105	250	339	547	84	261	49	136	119
26	112	358	250	108	180	346	710	119	140	56	120	97
27	117	323	257	107	210	353	658	132	121	57	123	77
28	107	313	248	103	300	279	485	99	94	57	108	93
29	168	785	403	91	-	231	619	81	83	57	97	87
30	210	682	510	84	------	265	505	89	76	46	86	84
31	193	-- ---	480	98	------	348	--------	122	--- ---	40	88	- -
Total	4,453	11,537	13,251	5,448	5,909	9,754	9,418	4,716	3,877	1,774	4,394	2,241
Mean	144	385	427	176	211	315	314	152	129	57.2	142	74.7
Cfsm	1.35	3.60	3.99	1.64	1.97	2.94	2.93	1.42	1.21	0.535	1.33	0.698
In.	1.55	4.01	4.61	1.89	2.05	3.39	3.27	1.64	1.35	0.62	1.53	0.78

Calendar year 1954: Max 2,300 Min 41 Mean 253 Cfsm 2.36 In. 32.12
Water year 1954-55: Max 1,840 Min 37 Mean 210 Cfsm 1.96 In. 26.69

Peak discharge (base, 1,000 cfs).--Nov. 3 (5:30 p.m.) 1,760 cfs (5.98 ft); Nov. 29 (3:30 p.m.) 1,050 cfs (5.02 ft); Dec. 15 (5 a.m.) 2,510 cfs (6.72 ft); Dec. 18 (12 p.m.) 1,520 cfs (5.70 ft); Aug. 19 (3:30 p.m.) 1,240 cfs (5.16 ft).
* Discharge measurement made on this day.

Note.--No gage-height record Jan. 8-11, Feb. 20 to Mar. 23; discharge estimated on basis of 1 discharge measurement, weather records and records for Ware River near Barre and Squannacook River near West Groton. Backwater from aquatic vegetation June 15 to Aug. 18. Shifting-control method used Oct. 16, 29, 30, Nov. 3-10, Nov. 20 to Dec. 6, Dec. 10, 11, 14, Dec. 16 to Jan. 7, Feb. 7, 8, 11, 12, 14, Mar. 24 to Apr. 11, Apr. 25 to May 11, May 26, Mar 31 to June 2, June 12, 13, 21-26, Aug. 13, 14, 18-24, Sept. 24, 27.

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 mile upstream from mouth, and 2¼ miles west of Sterling, Worcester County.

Drainage area.--2.28 sq mi.

Records available.--October 1946 to September 1955.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 505 ft (from topographic map).

Average discharge.--9 years, 3.71 cfs.

Extremes.--Maximum discharge during year, 89 cfs Dec. 15 (gage height, 3.57 ft); minimum, 0.02 cfs all or part of each day Aug. 2-11.
1946-55: Maximum discharge, 395 cfs Sept. 11, 1954 (gage height, 4.58 ft), from rating curve extended above 56 cfs; minimum, 0.01 cfs several days in August and September 1949, Aug. 16-19, Sept. 10, Oct. 1-10, 1950.

Remarks.--Records good except those for periods of ice effect or no gage-height record and those below 1.0 cfs, which are fair. Flow regulated by reservoir since 1949.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7	11.8	9.2	10.6	b0.75	6.1	3.4	4.2	1.65	0.49	0.04	2.25
2	3.0	11.1	7.6	12.8	b.73	5.0	3.4	3.6	1.15	.92	.02	1.8
3	3.4	36	6.6	12.5	.72	2.8	3.3	3.4	.86	1.75	.02	1.65
4	2.8	17.6	5.7	10.0	.70	2.05	4.6	3.2	.68	.86	.02	1.45
5	2.7	13.4	5.3	8.4	.72	2.05	4.0	3.0	.68	.53	.02	1.3
6	2.4	11.8	4.7	6.3	.90	2.9	3.7	*3.9	.63	.72	.02	1.16
7	2.3	10.7	4.4	5.4	4.8	b3.4	4.4	3.2	.53	1.65	.04	1.04
8	*9.1	*10.1	4.1	4.0	4.5	b2.25	3.3	3.1	*.53	1.00	.05	.88
9	10.1	9.8	4.4	3.4	3.0	1.9	2.8	3.0	.53	.58	.02	.83
10	10.4	9.5	6.1	3.6	2.8	3.5	2.7	2.5	.49	.36	.03	.78
11	10.1	9.2	5.1	3.0	5.0	10.3	2.6	2.25	.40	.33	.04	.74
12	9.8	8.9	4.2	*2.7	7.0	7.8	2.45	2.15	7.4	.26	.24	.74
13	9.5	7.6	*4.0	2.8	5.5	5.4	2.35	2.05	3.7	.18	4.6	.60
14	9.5	9.8	8.8	2.25	3.5	3.8	2.6	3.0	1.95	.16	6.4	.64
15	9.5	8.0	39	2.05	2.9	3.3	2.6	2.35	1.22	.12	1.75	.60
16	24	6.8	14.3	2.15	2.5	5.4	2.45	2.05	.80	.31	.74	.56
17	11.8	6.3	10.9	2.25	2.7	4.6	2.35	1.75	.58	1.00	.36	.52
18	10.4	6.3	22	1.9	3.4	3.2	2.4	1.65	.40	.53	8.2	.48
19	9.8	6.8	23	1.8	3.7	2.8	2.35	1.45	.30	.30	*44	1.95
20	9.5	18.8	13.9	b1.55	3.6	2.6	2.45	1.22	.44	.21	8.9	10.9
21	9.2	20	11.6	1.3	3.3	2.6	2.35	1.15	3.6	.14	3.8	10.6
22	8.9	13.4	11.6	1.45	3.3	4.0	2.6	.93	7.0	.10	2.6	10.6
23	8.6	9.5	10.0	1.55	8.1	*9.1	3.4	.86	2.35	.08	5.6	10.6
24	8.6	9.0	10.0	1.7	4.8	5.6	2.7	.80	1.85	.08	6.9	15.0
25	8.3	13.0	9.2	b1.55	b3.3	5.6	10.8	.74	2.25	.08	3.3	12.2
26	8.3	10.4	8.4	b1.6	2.8	4.8	9.6	1.07	1.35	.08	2.6	10.6
27	8.6	9.2	8.2	b1.4	3.2	5.9	7.9	1.65	1.00	.07	3.4	10.3
28	8.3	8.9	8.4	b.90	4.6	3.7	5.2	1.22	.80	.08	3.4	10.9
29	13.5	21	13.9	b.80	-	3.2	9.4	.86	.63	.08	2.25	10.0
30	15.7	12.2	15.8	.83	-------	3.4	5.6	.63	.58	.06	1.9	10.0
31	13.4	-- ---	13.5	.78	-------	3.6	-------	.81	-------	.05	2.15	-------
Total	274.2	356.9	323.9	113.31	92.82	132.65	119.75	63.74	46.33	13.16	113.41	141.67
Mean	8.85	11.9	10.4	3.66	3.32	4.28	3.99	2.06	1.54	0.425	3.66	4.72
Cfsm	3.88	5.22	4.56	1.61	1.46	1.88	1.75	0.904	0.675	0.186	1.61	2.07
In.	4.47	5.82	5.28	1.85	1.51	2.16	1.95	1.04	0.76	0.21	1.85	2.31

Calendar year 1954: Max 71 Min 0.04 Mean 5.32 Cfsm 2.33 In. 31.67
Water year 1954-55: Max 44 Min 0.02 Mean 4.91 Cfsm 2.15 In. 29.21

Peak discharge (base, 45 cfs).--Oct. 16 (5:30 a.m.) 45 cfs (3.28 ft); Nov. 3 (12:30 p.m.) 48 cfs (3.31 ft); Dec. 15 (2 a.m.) 89 cfs (3.57 ft); Dec. 18 (8 p.m.) 57 cfs (3.38 ft); Aug. 19 (11:30 a.m. to 12 m.) 87 cfs (3.56 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Feb. 3-17; discharge estimated on basis of weather records, recorded range in stage, and records for 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.

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 1955.

Average discharge.--59 years, 187 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 1954 to September 1955

Month	Runoff (millions of gallons)	Discharge per square mile		Runoff (inches)	Rainfall (inches)
		Millions of gallons per day	Cubic feet per second		
October	5,673.6	1.100	1.70	1.96	3.26
November	7,983.1	2.471	3.82	4.27	6.12
December	12,378.2	3.708	5.74	6.61	5.66
Calendar year 1954	67,483.7	1.717	2.66	36.06	56.66
January	5,261.7	1.576	2.44	2.81	.75
February	3,947.7	1.309	2.03	2.11	3.41
March	7,418.5	2.222	3.44	3.96	4.07
April	6,584.7	2.038	3.15	3.52	4.00
May	4,120.0	1.234	1.91	2.20	2.16
June	2,683.2	.831	1.28	1.43	3.74
July	1,161.9	.348	.538	.62	2.80
August	8,203.9	2.457	3.80	4.38	13.30
September	2,149.7	.665	1.03	1.15	2.77
Water year 1954-55	65,566.2	1.668	2.58	35.02	52.04

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 1955.

Gage.--Water-stage recorder. Datum of gage is 244.27 ft above mean sea level, datum of 1929.

Average discharge.--6 years, 119 cfs.

Extremes.--Maximum discharge during year, 1,160 cfs Dec. 15 (gage height, 5.64 ft); minimum daily, 5.1 cfs Aug. 10.
1949-55: Maximum discharge, 2,470 cfs Sept. 12, 1954 (gage height, 6.99 ft); minimum daily, 4.3 cfs Aug. 14, 1950.

Remarks.--Records excellent except those for periods of ice effect, which are good, and those for periods of no gage-height record, which are fair. 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.4	3.3	2.5	68
1.5	5.3	3.0	138
1.7	11	3.5	234
1.9	20	4.0	362
2.1	32	5.0	760

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	*120	325	216	43	214	322	257	87	25	8.0	30
2	69	99	259	204	b39	393	317	210	93	16	11	27
3	54	240	192	252	b37	230	294	171	82	20	11	24
4	76	678	155	216	37	146	267	153	57	21	15	22
5	55	364	b140	177	35	113	257	141	34	20	13	21
6	61	a215	b140	162	42	124	236	143	58	21	9.5	28
7	57	a170	*127	b155	167	136	248	132	58	21	5.6	29
8	53	a155	122	127	184	113	216	114	49	22	5.6	29
9	53	132	122	b115	94	b100	171	128	42	22	5.3	26
10	47	120	140	125	73	101	160	110	*39	17	5.1	23
11	65	112	135	*112	92	162	164	101	34	22	5.3	16
12	55	107	124	100	239	396	148	96	33	22	7.5	9.9
13	55	99	124	96	b145	298	140	84	102	27	18	14
14	51	100	114	b88	b95	252	136	94	87	25	110	17
15	51	104	697	76	*b69	184	140	89	67	*15	78	15
16	133	88	753	b78	b64	188	135	99	48	7.2	49	12
17	269	87	368	90	72	248	133	78	38	6.9	24	15
18	160	99	277	67	65	177	133	70	35	6.6	38	11
19	a120	100	638	69	66	135	124	69	18	6.6	192	21
20	a96	191	502	68	82	124	140	62	29	*6.6	428	24
21	82	507	322	b62	96	132	133	61	33	6.4	192	17
22	a80	535	250	55	94	125	127	35	40	6.4	100	14
23	a75	325	b220	59	169	169	132	61	71	9.3	77	13
24	a82	232	210	65	342	*204	116	62	42	11	74	23
25	a85	225	182	59	176	202	200	48	76	13	58	26
26	a80	234	b150	58	122	206	449	56	40	18	47	41
27	a58	200	164	59	112	241	449	60	44	21	43	21
28	a58	192	155	b53	168	202	*333	78	33	19	41	31
29	a70	297	204	39	-	157	330	41	26	20	46	23
30	a100	499	269	43	-----	177	381	50	29	19	*32	28
31	a125	----	291	45	------	274	----- --	79	-- ----	12	32	----
Total	2,484	6,626	7,851	3,190	3,019	5,923	6,527	3,032	1,524	505.0	1,778.9	650.9
Mean	80.1	221	253	103	108	191	218	97.8	50.8	16.3	57.4	21.7
Cfsm	1.28	3.52	4.03	1.64	1.72	3.04	2.47	1.56	0.809	0.260	0.914	0.346
In.	1.47	3.92	4.65	1.89	1.79	3.51	3.87	1.80	0.90	0.30	1.05	0.39

Calendar year 1954: Max 1,870 Min 12 Mean 153 Cfsm 2.44 In. 32.97
Water year 1954-55: Max 753 Min 5.1 Mean 118 Cfsm 1.88 In. 25.54

Peak discharge (base, 700 cfs).--Nov. 4 (10 a.m.) 776 cfs (5.03 ft); Dec. 15 (9:30 to 11 p.m.) 1,160 cfs (5.64 ft); Dec. 19 (4 to 5:30 p.m.) 755 cfs (4.99 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 Souhegan River at Merrimack, N. H.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 169.04 ft above mean sea level, datum of 1929.

Average discharge.--20 years, 530 cfs (adjusted for wastage into Nashua River).

Extremes.--Maximum discharge during year, 3,270 cfs Dec. 20 (gage height, 7.43 ft); minimum daily, 11 cfs May 30.
1935-55: 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 excellent above 1,800 cfs and fair below. 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.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	570	778	2,020	1,400	279	955	1,170	1,290	534	350	283	530
2	182	741	1,740	1,320	279	1,100	1,190	1,400	660	111	239	384
3	254	835	1,520	1,690	250	1,230	817	1,170	602	118	232	358
4	*861	1,640	1,060	1,530	239	1,000	1,220	1,040	373	202	218	*103
5	772	2,160	975	1,300	236	940	1,120	970	102	346	218	12
6	517	1,310	1,170	1,120	85	391	1,040	940	260	309	221	296
7	481	945	*1,020	1,040	610	977	1,020	940	343	272	77	365
8	309	1,130	990	855	1,060	950	1,000	443	298	250	228	358
9	294	990	975	605	810	925	980	934	294	254	287	350
10	107	975	960	936	513	714	431	935	287	104	283	335
11	269	960	333	*920	328	754	903	700	186	208	287	81
12	*362	930	579	723	827	1,060	950	620	217	257	396	206
13	505	258	955	615	366	1,180	759	615	704	254	870	265
14	651	300	985	610	803	1,380	660	574	705	254	270	261
15	561	907	1,390	602	*606	1,090	660	133	*561	250	660	324
16	687	960	2,880	185	501	985	610	360	299	211	411	369
17	516	736	2,700	337	369	1,100	325	477	100	57	324	365
18	1,060	642	1,910	477	465	1,080	782	473	186	133	548	107
19	960	642	2,200	477	505	960	815	473	163	171	1,120	550
20	795	810	2,910	538	171	415	552	469	403	*171	2,060	434
21	633	825	2,600	620	729	803	552	461	335	203	1,920	362
22	509	2,050	2,190	525	696	930	597	104	476	218	1,520	272
23	505	1,770	1,900	155	692	930	620	259	714	100	1,140	196
24	122	1,380	1,450	237	845	975	210	335	705	*130	1,120	261
25	261	1,020	1,300	335	1,050	1,100	764	339	211	279	1,090	384
26	346	1,500	1,110	481	940	1,150	1,360	343	353	239	850	640
27	438	1,340	1,320	538	222	1,000	1,820	343	646	221	584	556
28	521	918	1,140	501	834	*1,380	*1,800	687	411	229	162	548
29	552	1,480	1,180	396	-	1,110	1,740	232	276	229	620	411
30	759	1,920	1,520	118	-------	995	1,820	11	309	95	754	365
31	289	-------	1,650	232	-------	1,050	-------	264	-------	127	579	-------
Total	15,648	32,852	46,632	21,418	15,310	30,609	28,287	18,334	11,713	6,352	19,571	10,048
Mean	505	1,095	1,504	691	547	987	943	591	390	205	631	335
(†)	45.4	107	442	161	39.3	138	123	115	50.4	57.7	80.9	74.6

Adjusted for wastage (figures represent net discharge from net drainage area)

Mean	459	988	1,062	530	508	849	820	476	340	147	550	260
Cfsm	1.45	3.13	3.36	1.68	1.61	2.69	2.59	1.51	1.08	0.465	1.74	0.823
In.	1.68	3.49	3.88	1.93	1.67	3.10	2.90	1.74	1.20	0.54	2.01	0.92

	Observed			Adjusted		
Calendar year 1954:	Max 4,760	Min 6.1	Mean 755	Mean 697	Cfsm 2.21	In. 29.95
Water year 1954-55:	Max 2,910	Min 11	Mean 703	Mean 583	Cfsm 1.84	In. 25.06

* 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 Metropolitan District Commission.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 145 ft (from topographic map).

Average discharge.--14 years, 173 cfs.

Extremes.--Maximum discharge during year, 4,250 cfs Aug. 20 (gage height, 8.94 ft); maximum gage height, 8.96 ft Aug. 20 (backwater from debris); minimum daily discharge, 2.9 cfs July 24, 30.
1941-55: Maximum discharge, that of Aug. 20, 1955; minimum daily, 0.8 cfs Oct. 4, 1953.

Remarks.--Records good except those for period of doubtful gage-height record, which are fair. Low flow regulated by mills above station; greater regulation prior to 1953.

Revisions (water years).--WSP 1231: 1945-46.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from aquatic vegetation June 1 to July 27)

Oct. 1 to Aug. 19				Aug. 20 to Sept. 30			
1.4	1.4	2.5	133	2.3	80	5.0	1,040
1.5	4.2	3.0	260	2.5	113	6.0	1,680
1.6	8.9	4.0	610	3.0	222	7.0	2,460
1.7	16	5.0	1,090	3.5	365	8.0	3,320
1.9	35	5.5	1,380	4.0	555	8.5	3,810
2.2	78						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	209	*248	476	655	100	284	374	458	88	70	22	323
2	199	231	440	598	95	335	351	377	104	65	21	311
3	194	310	398	582	92	354	338	300	102	62	22	285
4	192	436	351	550	93	325	341	248	92	72	25	*251
5	179	483	322	505	93	278	341	228	81	80	32	222
6	177	436	300	454	95	278	341	226	90	68	13	200
7	167	377	275	418	205	300	338	228	85	81	4.2	178
8	157	332	263	374	275	296	335	223	*80	102	45	162
9	146	293	263	348	269	300	319	209	80	95	29	145
10	148	272	300	335	212	290	303	194	78	80	26	131
11	160	251	325	303	196	325	290	177	72	70	42	131
12	148	237	309	272	293	422	275	157	95	65	54	133
13	146	226	290	260	306	501	260	144	196	64	41	122
14	144	220	281	*225	284	480	254	137	215	64	16	117
15	140	209	550	220	218	426	248	133	172	64	60	113
16	248	204	795	207	169	398	234	131	123	36	*88	108
17	357	194	*736	204	192	408	231	117	95	4.2	73	101
18	351	196	619	184	240	415	226	111	78	45	140	101
19	296	204	686	179	263	384	218	100	68	58	1,110	110
20	251	240	750	169	260	348	228	93	68	*59	*3,650	127
21	218	348	686	148	246	328	223	85	73	58	3,360	106
22	194	462	558	148	234	354	223	80	121	51	*2,120	103
23	174	462	483	140	*243	498	251	78	148	17	*1,360	94
24	162	412	483	148	284	*646	260	70	135	*2.9	1,060	108
25	157	422	462	142	284	*598	300	65	133	40	890	180
26	146	454	415	140	257	516	370	64	129	22	*701	210
27	146	436	401	137	237	512	429	62	115	34	597	185
28	144	401	380	121	251	498	*436	59	92	39	543	160
29	151	433	412	121	-	458	458	56	80	20	*491	*147
30	202	487	539	106	------	426	483	56	70	2.9	414	145
31	240	-- ---	655	104	------	394	-------	65	- ----	3.2	353	- -
Total	5,943	9,916	14,203	8,497	5,986	12,375	9,278	4,731	3,158	1,598.2	17,402.2	4,807
Mean	192	331	458	274	214	399	309	153	105	51.6	561	160
Cfsm	1.66	2.85	3.95	2.36	1.84	3.44	2.66	1.32	0.905	0.445	4.84	1.38
In.	1.91	3.18	4.55	2.72	1.92	3.97	2.97	1.52	1.01	0.51	5.58	1.54

Calendar year 1954: Max 1,970 Min 8.2 Mean 264 Cfsm 2.28 In. 30.96
Water year 1954-55: Max 3,650 Min 2.9 Mean 268 Cfsm 2.31 In. 31.38

* Discharge measurement made on this day.
Note.--Doubtful gage-height record Feb. 24 to Apr. 27; discharge computed from gage-height graph adjusted on basis of 4 discharge measurements and change in stage when intake draw-down was eliminated.

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 1955.

Average discharge.--80 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 1954 to September 1955

Month	Runoff (millions of gallons)	Discharge per square mile		Runoff (inches)	Rainfall (inches)
		Millions of gallons per day	Cubic feet per second		
October	1,852.1	0.794	1.23	1.42	2.69
November	4,720.5	2.092	3.24	3.61	5.39
December	6,589.0	2.826	4.37	5.04	5.61
Calendar year 1954	40,793.2	1.486	2.30	31.21	56.86
January	3,310.3	1.420	2.20	2.53	.83
February	3,300.5	1.567	2.42	2.53	4.11
March	5,773.7	2.477	3.83	4.42	4.57
April	2,978.6	1.320	2.04	2.28	3.18
May	1,487.7	.638	.987	1.14	2.45
June	360.7	.160	.247	.28	3.20
July	-581.6	-.249	-.386	-.44	2.67
August	10,652.7	4.570	7.07	8.15	18.51
September	1,827.6	.810	1.25	1.40	2.30
Water year 1954-55	42,271.8	1.540	2.38	32.36	55.51

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 of three-eights 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 1955.

Average discharge.--92 years, 25.9 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 1954 to September 1955

Month	Runoff (millions of gallons)	Discharge per square mile		Runoff (inches)	Rainfall (inches)
		Millions of gallons per day	Cubic feet per second		
October	569.4	1.056	1.63	1.88	2.99
November	1,377.1	2.638	4.08	4.55	7.04
December	1,979.2	3.669	5.68	6.54	6.93
Calendar year 1954	14,872.5	2.342	3.62	49.18	66.90
January	1,086.0	2.013	3.12	3.59	.89
February	1,186.0	2.434	3.77	3.92	4.49
March	1,777.4	3.295	5.10	5.88	4.85
April	1,103.6	2.114	3.27	3.65	4.14
May	682.8	1.266	1.96	2.26	1.42
June	597.1	1.144	1.77	1.98	4.20
July	232.1	.430	.67	.77	2.99
August	2,323.6	4.308	6.66	7.68	15.71
September	671.7	1.287	1.99	2.22	2.72
Water year 1954-55	13,586.0	2.139	3.31	44.92	58.37

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 1955 (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.--19 years, 455 cfs (adjusted to net drainage area).

Extremes.--Maximum discharge during year, 4,540 cfs Aug. 23 (gage height, 8.97 ft); minimum, 50 cfs Aug. 6, 9; minimum daily, 80 cfs Aug. 10.
1936-55: Maximum discharge, that of Aug. 23, 1955; minimum, 7.0 cfs July 12, Dec. 10, 1949; minimum daily, 13 cfs Aug. 28, 1949.

Remarks.--Records excellent except those for periods of ice effect or backwater from aquatic vegetation, which are good. Daily discharge includes water wasted from 92.6 sq mi in basin of Sudbury River and Lake Cochituate. Water diverted above station for use of city of Lowell. Flow regulated by mills above station.

Rating table, water year 1954-55, except periods of ice effect or backwater from aquatic vegetation (gage height, in feet, and discharge, in cubic feet per second)

4.0	79	6.0	1,100
4.2	120	7.0	2,040
4.5	204	9.0	4,580
5.0	430		

Discharge in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,190	728	1,420	1,670	509	950	*1,350	1,170	255	263	165	2,440
2	1,120	735	1,420	1,760	b475	995	1,260	1,200	258	239	140	2,200
3	1,070	861	1,400	1,770	b435	1,020	1,190	1,160	325	263	135	2,020
4	1,020	972	1,320	1,760	b430	1,020	1,130	*1,100	320	267	102	1,850
5	980	1,060	1,280	1,720	419	1,020	1,110	1,020	335	263	110	1,720
6	935	1,090	1,220	1,670	414	1,020	1,090	972	380	243	92	1,590
7	898	1,130	1,160	1,590	521	1,030	1,070	920	350	251	88	1,460
8	861	1,140	1,120	b1,370	593	1,020	1,020	905	325	251	115	1,320
9	826	1,110	1,080	1,480	670	1,020	988	890	307	251	91	1,220
10	798	1,080	1,090	1,410	702	1,020	958	847	302	279	80	1,110
11	784	1,040	1,070	1,310	735	1,050	920	798	287	345	86	1,040
12	749	995	1,080	1,240	833	1,080	868	756	293	293	166	988
13	716	935	1,080	1,160	b855	1,170	847	709	365	279	114	920
14	690	912	1,080	b1,040	905	1,250	826	664	402	267	208	861
15	664	890	1,300	b1,070	905	1,290	798	624	408	251	225	805
16	690	854	1,470	b995	868	1,310	735	624	414	222	198	742
17	722	819	1,620	958	861	1,340	722	581	375	239	185	709
18	791	791	1,750	b890	882	1,340	716	545	311	255	232	644
19	812	784	1,870	868	912	1,300	696	509	297	218	605	644
20	812	819	*1,920	819	942	1,280	664	468	302	188	1,200	618
21	805	920	1,970	b735	950	1,240	644	402	284	188	*2,240	587
22	777	1,020	1,970	749	942	1,210	638	392	284	*185	*3,800	575
23	735	1,100	1,880	728	942	1,300	605	402	293	167	*4,490	569
24	696	1,140	1,810	*709	950	1,410	612	365	297	176	4,430	557
25	683	1,180	1,720	683	*958	1,510	683	330	284	188	4,230	581
26	650	1,240	1,640	657	950	1,540	735	297	302	159	3,970	612
27	638	1,270	1,580	638	935	1,600	826	288	335	148	3,720	631
28	618	1,300	1,520	b540	935	1,590	920	251	316	142	3,480	631
29	618	1,360	1,480	569	-	1,530	1,030	247	302	135	*3,190	599
30	624	1,400	1,510	557	-------	1,470	1,110	228	284	135	2,940	581
31	670	-------	1,590	545	-------	1,420	-------	251	-------	148	2,680	-------
Total	24,642	30,675	45,420	33,660	21,428	38,345	26,761	19,915	9,582	6,898	43,507	30,824
Mean	795	1,022	1,465	1,086	765	1,237	892	642	319	223	1,403	1,027
(†)	221	342	452	332	272	394	241	173	131	85.0	657	26.6

Adjusted for wastage and diversion (figures represent net discharge from net drainage area)

Mean	574	680	1,013	754	493	843	651	469	188	138	747	1,001
Cfsm	1.84	2.18	3.25	2.42	1.58	2.70	2.09	1.50	0.603	0.442	2.39	3.21
In.	2.12	2.43	3.74	2.79	1.65	3.12	2.33	1.73	0.67	0.51	2.76	3.58

	Observed			Adjusted				
Calendar year 1954:	Max 3,270	Min 146	Mean 933	Mean 639	Cfsm 2.05	In. 27.81		
Water year 1954-55:	Max 4,490	Min 80	Mean 909	Mean 630	Cfsm 2.02	In. 27.43		

* 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.--Backwater from aquatic vegetation May 5 to Aug. 23.

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 1955.

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.--32 years, 7,240 cfs (adjusted for wastage into Merrimack River).

Extremes.--Maximum discharge during year, 27,900 cfs Dec. 20 (gage height, 48.27 ft); minimum daily, 270 cfs Aug. 7.
1923-55: 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 83 and 111 for description and month-end usable contents of many of these reservoirs.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

41.0	234	43.0	4,270
41.2	383	44.0	7,820
41.5	698	46.0	16,400
42.0	1,520	49.0	31,900
42.5	2,740		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,340	7,230	18,400	14,300	4,740	10,600	12,100	17,600	9,320	3,760	2,030	5,940
2	6,410	7,190	16,700	13,800	4,680	14,900	14,300	16,300	14,700	2,340	1,950	5,740
3	5,940	8,280	14,900	14,100	4,590	16,300	15,900	14,700	14,200	2,390	1,660	4,210
4	6,660	15,900	12,800	14,100	4,410	14,300	15,900	*13,500	11,600	2,770	1,600	4,370
5	6,500	20,000	11,500	13,100	3,210	11,100	15,400	12,800	8,960	3,180	1,530	4,010
6	6,150	17,500	10,600	12,300	3,580	10,700	16,600	12,100	7,660	2,800	1,180	5,120
7	6,130	14,600	8,830	11,500	5,910	9,460	18,200	11,900	6,550	2,740	270	4,820
8	5,770	12,600	9,250	9,250	7,270	9,120	19,000	10,600	6,440	2,770	1,480	4,460
9	4,760	10,700	9,000	10,200	7,540	9,000	18,000	9,800	5,530	2,970	1,640	4,400
10	4,460	10,000	9,040	10,600	6,620	8,300	15,600	9,670	5,060	2,210	1,650	3,170
11	5,890	9,210	9,170	10,000	6,230	8,790	15,000	9,800	3,580	3,360	1,700	1,510
12	5,240	8,700	8,460	9,670	9,530	12,300	18,100	8,660	4,220	2,950	2,350	4,220
13	5,530	7,740	8,750	9,170	12,200	14,900	20,400	7,780	6,700	2,190	2,460	4,060
14	5,740	6,890	8,790	8,580	7,750	15,700	18,400	7,040	8,380	2,000	3,340	3,760
15	5,900	*7,460	13,300	6,810	8,500	14,300	16,500	6,590	9,630	1,910	5,310	3,440
16	6,550	7,310	21,000	6,930	7,660	13,600	18,600	6,810	8,220	1,480	7,270	2,960
17	9,080	7,460	21,000	7,500	7,380	14,900	22,400	6,260	7,000	614	6,300	2,100
18	10,900	7,380	18,200	b7,100	7,120	14,600	20,800	6,190	5,230	2,130	5,500	843
19	9,330	7,080	22,200	6,960	6,590	13,100	17,600	5,840	4,690	2,150	8,000	2,530
20	7,940	7,900	27,100	7,150	6,480	11,400	17,000	5,290	5,430	2,200	9,880	2,630
21	7,190	13,300	24,400	b7,200	7,000	10,300	19,200	4,210	4,760	2,490	10,600	3,140
22	6,620	21,400	19,500	5,840	7,080	9,800	17,900	3,920	4,460	2,490	11,300	3,370
23	5,870	24,000	16,400	5,670	8,100	10,700	15,100	4,990	4,300	1,580	10,700	3,250
24	5,460	20,100	15,300	5,940	10,400	10,600	13,800	4,530	4,530	487	9,880	2,440
25	5,740	15,900	13,900	5,840	*11,100	10,800	14,200	4,170	4,370	2,210	9,000	812
26	5,500	13,900	12,200	5,600	11,100	10,900	16,200	3,860	4,430	2,110	8,540	3,030
27	5,160	12,600	12,400	5,870	10,200	11,200	19,600	4,110	5,460	2,140	7,860	2,590
28	5,160	11,800	12,400	b5,900	9,800	10,600	20,400	4,140	4,990	2,180	7,230	3,000
29	5,570	12,400	12,500	4,920	-	10,400	19,400	4,110	4,590	2,140	7,380	3,180
30	5,700	16,600	14,100	4,820	--------	9,420	19,000	4,490	4,140	1,480	6,370	3,390
31	6,190	--------	14,900	4,990	--------	10,200	--------	5,400	--------	443	5,980	--------
Total	196,380	363,130	446,990	265,710	208,770	362,290	520,600	247,160	199,130	68,664	161,940	102,495
Mean	6,335	12,100	14,420	8,571	7,456	11,690	17,350	7,973	6,638	2,215	5,224	3,416
(†)	268	451	896	494	313	533	366	290	183	144	739	102
Adjusted for wastage (figures represent net discharge from net drainage area)												
Mean	6,067	11,650	13,520	8,077	7,143	11,160	16,980	7,683	6,455	2,071	4,485	3,314
Cfsm	1.37	2.63	3.06	1.83	1.61	2.52	3.84	1.74	1.46	0.468	1.01	0.749
In.	1.58	2.94	3.52	2.10	1.68	2.91	4.28	2.00	1.63	0.54	1.17	0.84

	Observed			Adjusted					
Calendar year 1954:	Max 47,400	Min 570	Mean 10,710	Mean 10,350	Cfsm 2.34	In. 31.78
Water year 1954-55:	Max 27,100	Min 270	Mean 8,612	Mean 8,211	Cfsm 1.86	In. 25.19

* 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. 83).

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, 2½ 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 1954 to September 1955

Date	Newfound Lake	Franklin Falls Reservoir	Merrymeeting Lake	Lake Wentworth	Edward MacDowell Reservoir	Blackwater Reservoir	Tower Hill Pond	Massabesic Lake
Sept. 30, 1954.	1,528	162	322	905	14.4	1.0	178.9	513
Oct. 31.....	1,415	158	292	880	20.4	1.0	122.9	404
Nov. 30.....	1,674	194	284	1,000	30.7	8.1	124.5	527
Dec. 31.....	1,472	159	287	908	25.2	2.0	163.0	635
Jan. 31, 1955.	907	132	210	677	14.0	.5	95.4	467
Feb. 28.....	802	155	167	559	16.9	1.3	86.0	564
Mar. 31.....	991	149	196	585	17.1	1.3	147.3	581
Apr. 30.....	1,598	242	275	880	27.8	20.4	183.4	683
May 31.....	1,600	230	298	904	17.1	1.2	179.8	719
June 30.....	1,614	136	289	873	9.4	.8	176.2	665
July 31.....	1,354	133	239	758	13.5	.2	171.8	526
Aug. 31.....	1,333	135	205	758	16.0	.5	147.3	544
Sept. 30.....	969	136	149	618	16.7	.4	93.3	535

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 1955.

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.--10 years, 34.3 cfs.

Extremes.--Maximum discharge during year, 147 cfs Dec. 20 (gage height, 3.36 ft); minimum daily, 0.47 cfs Aug. 10.
1945-55: Maximum discharge, 352 cfs Mar. 23, 1948 (gage height, 4.81 ft); minimum daily, 0.12 cfs July 30, 1952.

Remarks.--Records excellent except those below 2.5 cfs, which are good. Diurnal fluctuation caused by mill above station. Some regulation at low flow by ponds above station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.2	0.41	1.8	15
1.3	1.25	2.1	32
1.4	2.45	2.5	61
1.5	4.4	3.0	107
1.6	7.3	3.5	163

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	25	75	109	14	62	63	79	14	10	1.25	21
2	33	*31	70	107	13	67	58	74	15	9.3	1.25	19
3	31	49	63	107	12	68	54	67	15	8.7	1.15	17
4	29	63	56	105	12	61	52	61	15	7.6	1.15	16
5	29	70	52	96	12	54	50	56	15	7.0	1.05	14
6	28	66	48	88	12	53	48	55	14	6.9	1.05	13
7	26	60	44	76	21	54	47	52	13	6.6	.77	12
8	23	59	*42	73	25	53	46	51	13	6.3	.75	10
9	21	55	42	66	27	52	43	50	11	6.0	.54	9.3
10	19	50	47	60	27	52	42	49	11	5.7	.47	8.7
11	19	44	50	55	33	56	39	46	10	5.2	.54	8.0
12	21	40	50	50	50	69	37	43	14	*4.8	.77	7.3
13	22	38	46	47	58	80	36	41	15	4.3	.94	6.6
14	22	37	50	42	*50	76	34	39	17	3.9	.69	6.0
15	20	36	92	39	42	73	33	36	18	3.7	.69	5.7
16	23	33	130	36	38	71	31	35	17	3.5	.77	5.2
17	22	31	127	*34	39	70	30	33	15	3.3	.77	4.6
18	25	30	124	32	44	62	28	31	14	3.2	1.9	4.4
19	26	31	139	30	48	56	29	29	13	3.1	7.2	3.9
20	25	36	144	28	55	58	29	27	12	2.8	11	4.2
21	24	42	136	25	63	*56	30	25	10	2.35	21	3.^
22	22	48	120	24	61	59	31	24	12	2.2	25	3.5
23	21	50	110	22	62	70	31	22	14	2.2	27	3.3
24	19	47	109	22	64	80	31	21	16	1.95	28	5.0
25	18	48	99	21	63	87	*37	19	17	1.09	27	5.4
26	17	49	87	20	57	83	48	18	16	1.21	27	5.4
27	17	50	80	19	54	83	65	17	*15	1.4	27	5.4
28	16	50	74	18	56	78	71	15	14	1.35	25	6.0
29	17	60	78	17	-	67	76	14	12	1.25	25	*5.7
30	19	69	94	15	-----	69	81	14	11	1.25	24	5.7
31	21	----	108	15	------	67	-------	13	--------	1.25	22	----
Total	710	1,397	2,586	1,498	1,112	2,046	1,330	1,156	418	129.40	312.70	245.2
Mean	22.9	46.6	83.4	48.3	39.7	66.0	44.3	37.3	13.9	4.17	10.1	8.17
Cfsm	1.06	2.16	3.86	2.24	1.84	3.06	2.05	1.73	0.644	0.193	0.468	0.378
In.	1.22	2.41	4.45	2.58	1.91	3.52	2.29	1.99	0.72	0.22	0.54	0.42

Calendar year 1954: Max 242 Min 2.6 Mean 50.3 Cfsm 2.33 In. 31.61
Water year 1954-55: Max 144 Min 0.47 Mean 35.5 Cfsm 1.64 In. 22.27

* Discharge measurement made on this day.

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 1955.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 45 ft (from topographic map).

Average discharge.--17 years, 67.2 cfs (adjusted for diversions).

Extremes.--Maximum discharge during year, 302 cfs Dec. 19 (gage height, 4.415 ft); minimum, 0.7 cfs Aug. 5, 8-11.
1938-55: Maximum discharge, 646 cfs Mar. 21, 1948 (gage height, 5.895 ft); minimum, 0.25 cfs Sept. 19, 1953.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Water diverted above station for municipal supplies of Reading, Lynn, and Peabody. Regulation at low flow by mill above station.

Revisions (water years).--WSP 1301: 1942(M).

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 19				Dec. 20 to Sept. 30			
0.8	25	3.0	167	0.1	0.4	1.0	58
1.0	40	4.0	257	.2	1.5	1.4	90
1.5	79	5.0	372	.3	3.6	2.0	111
2.0	103			.4	7.3	3.0	174
				.5	12	4.0	260
				.7	27	5.0	372

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*85	63	164	215	27	*123	*134	156	*34	18	0.95	105
2	78	*60	153	229	25	146	125	*138	35	15	.9	95
3	75	116	143	*246	25	140	117	111	34	15	.85	91
4	62	153	130	228	25	135	114	104	34	12	.85	86
5	68	159	121	200	24	119	110	97	34	*12	.7	78
6	63	158	*110	187	25	125	108	95	33	13	.8	*63
7	60	158	103	167	*52	137	108	83	31	13	.8	59
8	53	151	98	153	56	b134	105	85	29	11	.7	52
9	45	139	94	138	*54	128	101	81	27	10	.7	42
10	41	126	102	128	56	123	97	71	25	9.0	.7	39
11	40	114	106	111	73	138	94	62	24	8.2	.7	34
12	38	108	101	b109	b141	163	91	56	43	7.1	.95	31
13	37	96	98	103	b120	178	74	52	76	6.0	1.5	26
14	35	92	98	b94	99	182	82	51	62	5.6	2.6	24
15	29	84	202	91	97	171	79	40	51	5.5	2.6	21
16	46	74	225	86	94	170	74	39	47	5.0	a2.6	19
17	63	62	216	69	101	176	69	38	43	5.0	2.45	18
18	58	60	229	67	112	163	65	34	37	4.2	a 11	17
19	56	61	292	61	109	149	62	30	31	4.2	a152	12
20	58	75	283	56	109	138	60	40	26	4.2	a193	15
21	57	98	253	49	113	131	58	38	24	4.6	*200	17
22	54	106	222	48	117	134	38	34	26	4.0	203	18
23	47	111	235	44	120	186	40	32	24	2.25	203	16
24	40	120	210	43	124	188	40	29	27	1.6	216	20
25	36	145	b197	40	116	185	58	10	32	1.65	201	29
26	33	159	b178	38	112	188	99	25	29	1.5	174	31
27	31	144	154	36	109	204	110	43	27	1.35	143	31
28	31	135	145	35	116	187	123	42	25	1.2	131	34
29	32	152	162	33	-	169	140	39	22	1.1	103	34
30	54	175	196	31	--------	158	166	36	20	1.0	99	34
31	69	--------	228	29	--------	145	--------	34	--------	.95	94	--------
Total	1,574	3,454	5,248	3,164	2,351	4,813	2,741	1,825	1,012	204.20	2,161.35	1,191
Mean	50.8	115	169	102	84.0	155	91.4	58.9	33.7	6.59	69.7	39.7
(†)	1.45	1.43	1.44	1.48	1.42	1.49	4.69	14.1	1.83	2.45	8.73	1.70
Adjusted for diversions												
Mean	52.2	117	171	104	85.4	157	96.1	73.0	35.6	9.04	78.4	41.4
Cfsm	1.20	2.70	3.94	2.40	1.97	3.62	2.21	1.68	0.820	0.208	1.81	0.954
In.	1.39	3.00	4.54	2.75	2.05	4.16	2.47	1.94	0.91	0.24	2.08	1.06

	Observed			Adjusted			
Calendar year 1954:	Max 510	Min 4.0	Mean 105	Mean 110	Cfsm 2.53	In. 34.41
Water year 1954-55:	Max 292	Min 0.7	Mean 81.5	Mean 85.0	Cfsm 1.96	In. 26.59

* 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.
a No gage-height record; discharge estimated on basis of weather records, high-water mark in gage well for Aug. 19 rise, and records for station near Ipswich.
b Stage-discharge relation affected by ice.

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 1955. 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.--25 years, 196 cfs (adjusted for diversions).

Extremes.--Maximum discharge during year, 682 cfs Dec. 23, 25 (gage height, 4.85 ft); maximum gage height, 5.15 ft Jan. 8 (ice jam); minimum discharge, 3.8 cfs Aug. 11, 12. 1930-55: Maximum discharge, 2,610 cfs Mar. 15, 1936 (gage height, 7.70 ft); minimum, 1.4 cfs Aug. 9, 1934.

Remarks.--Records excellent. Diversions above station for minicipal supplies of Reading, Lynn, Peabody, Salem, and Beverly.

Revisions.--WSP 781: Drainage area.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.4	3.2	3.3	67
2.5	5.5	3.6	122
2.6	8.5	4.0	240
2.8	18	4.5	470
3.0	31	5.0	780

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*252	154	400	590	101	316	342	454	97	59	6.9	284
2	240	*160	405	602	94	338	324	437	99	51	6.9	260
3	222	205	390	614	92	347	304	400	99	51	6.6	236
4	208	252	356	596	87	347	288	365	97	51	6.3	216
5	199	300	338	560	83	320	280	329	94	45	6.0	202
6	186	342	*312	530	81	316	272	316	92	47	5.2	186
7	177	356	268	b415	109	b310	264	300	88	54	5.0	174
8	168	352	260	b460	122	b315	256	288	83	52	4.5	163
9	163	334	260	b425	129	324	252	276	81	45	4.5	149
10	157	320	280	b380	144	320	240	260	78	39	4.2	139
11	152	304	288	b355	180	320	230	244	75	38	4.0	129
12	149	288	292	b320	244	338	219	226	90	*27	4.0	118
13	146	272	288	292	b260	385	208	219	112	24	7.3	107
14	141	256	288	b250	*296	420	196	205	122	25	22	94
15	136	240	395	240	292	426	186	193	129	25	23	83
16	144	226	512	233	268	410	177	180	136	22	*14	72
17	146	216	602	*219	260	410	166	171	139	22	12	61
18	146	205	626	202	292	395	160	160	132	20	37	53
19	149	199	650	199	312	375	157	152	122	18	147	47
20	149	205	650	180	320	352	152	144	112	16	256	46
21	152	226	638	b155	320	*329	149	136	105	14	365	46
22	152	244	590	168	320	316	144	129	99	14	454	45
23	152	260	b590	152	320	365	146	124	94	12	500	41
24	149	272	554	152	320	415	154	122	92	13	512	48
25	144	296	b525	146	320	448	*174	118	92	12	488	63
26	141	316	b480	136	312	448	216	114	92	11	459	69
27	136	329	437	134	304	454	272	107	*90	9.7	432	70
28	132	338	415	103	308	448	329	101	85	8.5	400	73
29	136	365	437	122	-	432	400	97	78	7.8	370	*73
30	144	390	470	114	--------	400	448	96	69	7.2	338	75
31	149	--------	554	109	--------	370	--------	96	--------	6.9	308	--------
Total	5,017	8,222	13,550	9,153	6,290	11,509	7,105	6,559	2,973	840.1	5,208.4	3,422
Mean	162	274	437	295	225	371	237	212	99.1	27.1	168	114
(†)	3.85	3.66	3.69	3.73	3.73	43.5	37.4	16.9	4.69	6.07	12.2	4.40
Adjusted for diversions												
Mean	166	278	441	299	228	415	274	229	104	33.2	180	118
Cfsm	1.34	2.24	3.56	2.41	1.84	3.35	2.21	1.85	0.839	0.268	1.45	0.952
In.	1.54	2.50	4.10	2.78	1.92	3.86	2.47	2.12	0.93	0.31	1.68	1.07

	Observed			Adjusted		
Calendar year 1954 :	Max 1,380	Min 15	Mean 291	Mean 299	Cfsm 2.41	In. 32.75
Water year 1954-55 :	Max 650	Min 4.0	Mean 219	Mean 231	Cfsm 1.86	In. 25.28

* 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.

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 1955.

Gage.--Water-stage recorder and concrete control. Datum of gage is at mean sea level, datum of 1929.

Average discharge.--16 years, 26.3 cfs.

Extremes.--Maximum discharge during year, 835 cfs Aug. 19 (gage height, 13.64 ft), from rating curve extended above 330 cfs by logarithmic plotting; maximum gage height, 13.72 ft Aug. 20 (backwater from Mystic Lake); minimum discharge, 0.65 cfs Aug. 3; minimum daily, 0.75 cfs Aug. 1-3.

1939-55: Maximum discharge, that of Aug. 19, 1955; 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 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 by mills above station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

10.25	0.65	11.2	45
10.3	1.05	11.5	83
10.4	2.3	12.0	184
10.5	4.1	12.5	326
10.6	6.8	13.0	522
10.7	10	13.2	617
10.9	20		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*26	29	61	89	12	55	51	77	20	6.3	0.75	50
2	23	25	50	80	11	60	28	*51	19	7.2	.75	43
3	23	71	43	83	10	52	25	40	16	6.4	.75	33
4	22	82	38	79	10	44	29	54	13	5.5	.9	36
5	21	70	33	69	11	40	31	44	12	5.1	.9	32
6	20	54	31	63	13	45	35	26	11	5.2	.9	29
7	20	40	29	61	46	55	36	23	10	5.0	.95	.25
8	18	38	26	57	37	53	26	24	8.8	4.4	.9	21
9	16	34	26	50	29	49	19	23	8.2	4.1	.9	18
10	19	*29	36	46	23	48	33	30	7.5	29	.9	17
11	20	25	40	38	46	57	31	33	7.0	22	.8	16
12	20	22	38	42	84	69	28	17	48	16	2.0	16
13	18	21	32	38	69	76	25	14	40	14	5.7	14
14	16	19	32	34	48	79	25	13	35	12	1.8	14
15	17	18	96	32	37	63	25	10	25	10	1.35	12
16	29	17	110	31	30	65	22	14	17	a10	1.3	12
17	20	17	*89	*30	65	69	16	13	13	a9.0	*1.0	11
18	22	17	77	28	61	62	20	13	10	a7.0	46	a10
19	20	22	101	26	56	54	21	12	7.9	a5.5	494	a9.0
20	17	30	103	23	47	48	22	12	*7.5	a4.5	612	a16
21	15	44	89	19	40	45	21	11	7.9	*4.1	315	a14
22	14	48	77	21	36	65	23	9.4	8.8	3.9	197	a8.0
23	13	40	68	20	39	114	19	9.4	8.2	3.6	*173	a7.0
24	12	34	66	19	41	105	18	9.4	13	3.6	141	a22
25	13	53	63	19	38	*93	34	8.8	11	3.3	105	a38
26	12	56	54	19	33	112	41	14	13	2.9	74	a30
27	11	50	49	18	34	107	47	16	9.4	2.7	64	a20
28	12	43	46	15	*41	93	42	17	9.4	2.4	62	a25
29	19	58	52	15	-	77	100	17	8.6	1.85	55	a22
30	28	66	75	13	-------	56	107	8.6	6.9	.9	49	a23
31	31	---	96	12	-------	61	-------	15	-------	.8	52	---
Total	585	1,172	1,826	1,189	1,047	2,071	1,000	678.6	432.1	218.25	2,461.55	643.0
Mean	18.9	39.1	58.9	38.4	37.4	66.8	33.3	21.9	14.4	7.04	79.4	21.4
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954 : Max 456 Min 1.0 Mean 44.4 Cfsm - In. -
Water year 1954-55 : Max 612 Min 0.75 Mean 36.5 Cfsm - In. -

Peak discharge (base, 170 cfs).-- Aug. 19 (12:30 p.m.) 835 cfs (13.64 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 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 1955.

Gage.--Water-stage recorder and concrete control. Datum of gage is 89.76 ft above mean sea level, datum of 1929.

Average discharge.--18 years, 292 cfs (adjusted for diversions).

Extremes.--Maximum discharge during year, 3,220 cfs Aug. 23 (gage height, 9.24 ft); minimum, 26 cfs Aug. 7, 8.
1937-55: Maximum discharge, that of Aug. 23, 1955; 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 19)

Oct. 1 to Aug. 18				Aug. 19 to Sept. 9				Sept. 10-30	
0.6	24	1.5	273	2.5	514	7.0	2,000	1.2	192
.7	40	2.0	394	3.0	644	9.2	3,180	1.5	282
.8	63	3.0	635	5.0	1,230			2.0	414
1.0	124	5.0	1,140					2.5	534

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	372	*308	612	778	153	478	588	533	135	92	*47	1,150
2	334	315	610	822	138	490	550	536	131	83	42	1,020
3	300	420	596	850	b130	488	514	524	138	77	42	916
4	273	452	569	838	b130	495	495	495	138	69	42	829
5	245	476	538	810	135	497	473	459	135	69	42	750
6	232	500	490	785	142	504	461	437	124	71	31	680
7	218	512	b390	745	b230	516	444	394	121	83	30	621
8	221	509	408	b635	312	507	423	372	121	107	30	563
9	221	486	420	b720	341	512	408	356	131	121	31	514
10	218	452	447	630	356	524	396	339	124	164	34	486
11	224	416	440	581	389	562	372	320	114	185	38	443
12	221	370	437	538	519	581	348	300	179	138	54	395
13	215	322	432	504	b490	610	322	268	234	117	69	348
14	206	298	440	b440	b535	615	303	248	263	98	63	300
15	204	268	615	416	579	625	290	229	258	91	74	270
16	253	245	630	b390	562	630	278	215	226	88	77	240
17	243	234	688	375	*584	615	270	198	186	88	94	225
18	248	229	782	324	569	598	260	186	153	77	322	210
19	243	237	932	300	557	576	248	179	114	71	1,450	198
20	234	276	942	b275	560	552	243	166	98	66	*2,200	201
21	224	365	972	b235	560	531	245	163	88	61	2,430	201
22	209	418	980	250	555	560	250	146	83	54	*2,800	204
23	204	459	958	229	548	645	263	131	80	47	*3,130	210
24	195	497	910	229	531	660	266	124	91	52	3,020	234
25	189	588	b845	221	512	712	315	117	101	47	*2,660	279
26	179	581	b780	b210	492	755	358	114	111	42	*2,370	303
27	173	579	738	b205	480	775	*399	108	108	40	2,140	315
28	170	574	692	182	*473	738	425	104	114	40	1,900	329
29	189	620	688	192	-	700	492	98	117	40	*1,650	320
30	240	*618	*735	176	-------	672	519	98	*101	40	*1,440	*312
31	283	-------	760	*163	-------	*630	-------	*111	-------	49	1,280	-------
Total	7,180	12,626	20,476	14,048	11,562	18,353	11,218	8,068	4,117	2,467	29,632	13,066
Mean	232	421	661	453	413	592	374	260	137	79.6	956	436
(†)	4.46	4.21	4.38	4.14	4.56	4.47	4.73	5.20	4.82	4.23	0.45	5.37

Adjusted for diversions

Mean	236	425	665	457	418	597	379	265	142	83.8	956	441
Cfsm	1.28	2.31	3.61	2.48	2.27	3.24	2.06	1.44	0.772	0.455	5.20	2.40
In.	1.48	2.58	4.17	2.87	2.36	3.74	2.30	1.66	0.86	0.53	5.99	2.67

	Observed			Adjusted			
Calendar year 1954:	Max 1,220	Min 36	Mean 397	Mean 401	Cfsm 2.18	In. 29.62	
Water year 1954-55:	Max 3,130	Min 30	Mean 419	Mean 423	Cfsm 2.30	In. 31.21	

* Discharge measurement made on this day.
† Diversions for municipal supply of Wellesley and Needham and diversion from Sudbury River basin to Charles River, 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 1955.

Gage.--Float gage read twice daily. Datum of gage is 0.03 ft below mean sea level, datum of 1929. Prior to Dec. 9, 1931, water-stage recorder at same site and datum.

Average discharge.--24 years, 85.1 cfs.

Extremes.--Maximum discharge during year, 970 cfs Aug. 24 (gage height, 92.90 ft, from graph based on gage readings); no flow June 1 to July 20.
1931-55: Maximum discharge, that of Aug. 24, 1955; no flow at times.

Remarks.--Records good except those for periods of ice effect or shifting control, which are fair. Mother Brook is a diversion from Charles River to Neponset River through Dedham and Hyde Park.

Revisions (water years).--WSP 1301: 1932(M).

Rating tables, water year 1954-55, except periods of ice effect or shifting control (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to July 25				July 25 to Sept. 30			
85.2	8.4	87.0	76	85.2	3.4	87.5	106
85.5	14	88.0	162	85.5	6.4	88.0	164
86.0	27	89.0	264	86.0	14	90.0	448
86.5	45			86.5	30	92.9	970
				87.0	59		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	138	61	183	172	b7.5	106	*158	104		0	*5.3	*486
2	125	64	182	184	b6.0	112	144	102		0	5.3	439
3	111	90	*180	*197	b5.0	111	133	102		0	5.1	396
4	96	106	174	198	b5.0	113	130	101		0	4.7	354
5	85	*117	168	196	b5.5	114	128	*100		0	4.7	320
6	75	125	160	187	b6.5	118	123	97		0	4.3	*291
7	67	131	142	188	b10	127	117	86		0	3.8	263
8	59	135	129	158	b15	127	110	77		0	3.9	235
9	54	137	124	160	b20	124	100	69		0	3.4	204
10	52	134	131	150	28	127	94	57		0	3.4	185
11	52	128	129	130	33	135	84	47		0	3.4	164
12	51	121	124	106	61	147	69	41		0	4.7	147
13	50	112	112	89	86	156	60	35		0	7.6	126
14	47	98	77	74	*87	147	52	29		0	7.7	106
15	45	90	70	57	100	148	46	25		0	7.1	88
16	50	79	94	50	108	156	41	22		0	7.2	74
17	54	70	26	45	125	163	39	20		0	8.3	62
18	54	64	46	*42	136	155	35	18		0	33	53
19	54	61	58	36	130	148	33	16		0	237	47
20	54	64	138	32	117	142	31	16		0	596	41
21	52	78	162	30	122	*133	28	15		*11	710	40
22	50	89	190	28	121	138	26	14		17	*737	37
23	48	100	201	26	*121	157	28	13		15	*893	35
24	46	112	234	26	120	159	28	12		15	930	38
25	43	135	224	25	113	168	30	11		8.9	*938	48
26	40	150	206	24	109	180	35	10		6.0	*877	53
27	37	157	188	b22	102	203	42	9.0		5.5	827	55
28	36	162	172	b18	104	208	53	8.0		5.5	753	61
29	37	178	164	b14	-	196	88	7.0		5.3	*656	65
30	45	183	168	b11	------	183	102	5.0		5.1	580	64
31	52	----	172	b9.0	------	171	------	2.5	----	5.2	543	----
Total	1,859	3,331	4,530	2,684.0	2,003.5	4,574	2,189	1,270.5	0	99.5	9,489.9	4,577
Mean	60.0	111	146	86.6	71.6	148	73.0	41.0	0	3.21	306	153
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 354 Min 3.3 Mean 116 Cfsm - In. -
Water year 1954-55: Max 960 Min 0 Mean 100 Cfsm - In. -

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Shifting-control method used Feb. 24 to Apr. 17, Apr. 19 to July 25.

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 1955.
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.--24 years (1931-55), 367 cfs (adjusted for diversions, wastage, and leakage).
Extremes.--Maximum discharge during year, 2,490 cfs Aug. 19 (gage height, 5.35 ft); minimum, 12 cfs July 22, 23; minimum daily, 14 cfs July 23.
1931-55: 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 excellent except those for periods of shifting-control or backwater from aquatic vegetation and/or debris, which are good. 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 Lake Cochituate. 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.

Rating table, water year 1954-55, except periods of shifting control or backwater from aquatic vegetation and/or debris (gage height, in feet, and discharge, in cubic feet per second)

0.55	11	1.5	191
.6	15	2.0	367
.8	37	3.0	895
1.1	89	5.0	2,460

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	414	210	650	869	235	525	*677	570	203	109	52	*1,290
2	376	238	616	869	216	535	650	*562	185	128	48	1,150
3	347	359	600	888	197	525	606	540	176	143	48	1,020
4	249	388	585	882	194	525	595	530	182	118	48	902
5	276	410	633	862	191	515	570	515	182	113	48	806
6	276	414	565	843	194	535	550	515	185	107	44	*758
7	252	414	505	818	266	570	525	486	188	109	52	672
8	229	419	468	690	280	555	500	473	179	104	54	491
9	213	419	450	788	301	550	500	442	182	107	43	540
10	206	*412	478	734	320	550	468	419	176	125	40	525
11	206	397	473	694	371	575	473	397	171	197	48	482
12	206	466	464	655	464	600	442	376	219	200	122	446
13	200	393	455	616	428	628	410	355	229	191	129	401
14	197	351	486	*545	464	633	388	343	238	176	62	376
15	206	320	699	535	482	638	384	320	252	157	46	351
16	245	301	764	500	500	655	363	305	255	143	64	312
17	206	283	*758	478	580	655	355	286	255	140	*71	276
18	203	266	856	455	600	655	276	269	266	128	302	252
19	222	266	1,020	428	565	633	290	248	238	111	1,720	368
20	235	286	1,090	393	560	616	316	242	219	123	2,280	141
21	213	331	1,090	343	555	595	305	232	197	*111	*2,200	138
22	194	359	1,060	351	550	655	316	216	179	40	2,050	168
23	188	363	1,040	335	550	740	316	210	159	14	*2,210	131
24	176	388	1,010	323	545	746	312	200	157	32	2,330	162
25	174	491	967	308	535	*740	343	191	146	55	2,270	210
26	165	525	908	301	510	746	367	188	140	57	*2,130	222
27	130	540	862	286	496	776	393	182	*133	55	2,050	229
28	140	540	824	266	*505	764	424	168	130	55	1,880	255
29	159	628	776	269	-	752	515	159	130	55	1,700	262
30	185	672	862	255	-------	728	570	151	104	54	1,520	266
31	197	-------	882	245	-------	710	-------	179	-------	52	1,410	-------
Total	6,885	11,849	22,896	16,824	11,654	19,625	13,199	10,269	5,655	3,309	27,071	13,602
Mean	222	395	739	543	416	633	440	331	188	107	873	453
(†)	54.0	36.1	29.2	81.3	68.0	80.6	37.5	22.0	10.2	14.4	278	142

Adjusted for diversions, wastage, and leakage

Mean	276	359	709	624	484	714	477	353	199	121	1,151	595
Cfsm	1.22	1.58	3.12	2.75	2.13	3.15	2.10	1.56	0.877	0.533	5.07	2.62
In.	1.40	1.76	3.60	3.17	2.22	3.62	2.35	1.79	0.98	0.62	5.85	2.93

	Observed			Adjusted				
Calendar year 1954:	Max 1,160	Min 37	Mean 391	Mean 475	Cfsm 2.09	In. 28.37
Water year 1954-55:	Max 2,330	Min 14	Mean 446	Mean 506	Cfsm 2.23	In. 30.29

* Discharge measurement made on this day.
† Diversion to Mother Brook, diversions for municipal supply of Wellesley, Needham, and Dedham, wastage from Stony Brook Reservoir, wastage and leakage from Norumbega Reservoir, and diversion from Sudbury River basin to Charles River, equivalent in cubic feet per second. Records furnished by Water Division of Metropolitan District Commission and by municipalities.
Note.--Backwater from aquatic vegetation and/or debris Oct. 1 to Nov. 24, Jan. 19, 20, 22-27, Feb. 7-28, Apr. 2 to Sept. 30. Shifting-control method used Mar. 2 to Sept. 30.

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 1955. 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.--16 years, 48.0 cfs.

Extremes.--Maximum discharge during year, 1,490 cfs Aug. 19 (gage height, 14.65 ft, from floodmarks); minimum daily, 8.3 cfs May 30, July 31.
1939-55: Maximum discharge, that of Aug. 19, 1955; minimum daily, 2.3 cfs Oct. 23, 1949.
Flood of July 24, 1938, reached a stage of 11.05 ft, from floodmarks.

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. Several diversions above station for municipal and industrial use.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from debris Aug. 29 to Sept. 30)

6.75	6.8	10.0	289
6.8	8.7	11.0	432
7.1	21	12.0	630
7.5	51	14.0	1,230
8.0	105	14.5	1,430
9.0	188		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	65	102	157	24	102	86	112	18	15	12	150
2	37	61	88	152	23	109	76	94	*18	19	13	140
3	37	109	76	*154	21	106	78	80	18	31	13	a134
4	33	102	66	142	19	102	94	72	15	22	12	a130
5	30	87	63	127	19	90	92	*67	16	22	11	a126
6	33	73	61	120	21	96	89	89	18	18	12	104
7	*34	65	56	120	62	118	90	71	19	20	14	92
8	*32	61	53	108	74	113	80	46	17	17	15	87
9	31	44	a55	98	63	108	70	*67	16	18	18	79
10	38	48	a80	93	52	d110	64	63	16	19	28	a74
11	44	46	a76	71	71	d125	57	58	15	27	15	a70
12	41	42	a72	75	190	d130	56	48	61	20	50	67
13	35	57	a70	67	162	d120	54	46	54	19	21	54
14	40	48	*80	61	*117	d105	51	34	46	18	26	50
15	53	42	174	52	*92	d95	46	34	38	18	21	46
16	47	43	177	55	79	d100	42	36	28	16	17	46
17	41	35	141	54	110	d105	45	38	16	18	19	45
18	46	34	151	49	131	d95	40	30	29	*16	216	a44
19	38	38	196	47	120	d85	52	27	15	16	1,160	40
20	41	72	186	46	110	d80	53	24	23	16	*1,260	35
21	39	63	166	a45	97	*82	40	27	16	17	a884	35
22	37	80	150	a43	93	114	52	23	18	16	*576	43
23	36	73	132	a42	94	173	48	17	14	14	536	42
24	35	70	127	a50	96	167	60	19	19	13	a424	70
25	35	89	126	a48	83	148	74	25	17	17	a339	a88
26	30	98	115	a45	74	129	84	16	18	16	285	74
27	*30	78	94	a42	75	138	93	22	*13	16	259	72
28	29	56	100	a40	86	129	89	19	14	16	a229	74
29	52	107	122	a35	-	113	112	25	14	15	183	65
30	59	112	160	a30	-------	100	122	8.3	14	12	164	57
31	65	--	175	25	-------	92	-------	16	---	8.3	160	---
Total	1,212	1,998	3,490	2,293	2,258	3,479	2,089	1,353.3	653	545.3	6,992	2,233
Mean	39.1	66.6	113	74.0	80.6	112	69.6	43.7	21.8	17.6	226	74.4
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1954: Max 336 Min 5.0 Mean 70.6 Cfsm - In. -
Water year 1954-55: Max 1,260 Min 8.3 Mean 78.3 Cfsm - In. -

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage when available, appearance of recorder graph for adjacent days, engineer's notes, and records for East Branch Neponset River at Canton and Wading River near Norton.
d Doubtful gage-height record; discharge computed on basis of reconstructed gage-height graph based on recorded graph, weather records, and records for stations mentioned above.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 85 ft (from topographic map).

Extremes.--Maximum discharge during year, 1,790 cfs Aug. 19 (gage height, 8.18 ft), from rating curve extended above 690 cfs by logarithmic plotting; minimum daily, 2.1 cfs Aug. 7.
1952-55: Maximum discharge, that of Aug. 19, 1955; minimum daily, that of Aug. 7, 1955.

Remarks.--Records good. Flow regulated by ponds above station.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19				Aug. 20 to Sept. 30	
0.65	2.1	2.5	135	1.4	36
.9	3.1	3.0	212	2.0	93
1.0	6.1	4.0	410	3.0	226
1.2	14	6.0	965	4.0	410
1.5	33	8.0	1,720	6.0	965
2.0	77			7.0	1,320

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	36	76	123	30	90	75	85	19	12	7.0	160
2	40	24	67	114	29	99	71	74	*18	4.8	8.0	151
3	39	131	*63	*96	28	87	68	68	18	7.8	7.8	135
4	38	72	58	106	28	80	83	64	17	8.3	8.0	124
5	37	73	29	98	28	75	83	63	17	7.2	8.0	112
6	36	69	37	92	28	80	73	67	17	8.7	3.8	103
7	35	63	47	95	76	104	69	63	18	8.3	2.1	78
8	34	59	47	84	82	95	64	63	17	9.8	7.7	63
9	30	56	47	82	53	83	58	64	16	9.8	9.8	62
10	30	53	72	77	44	87	53	58	*16	9.1	9.8	61
11	30	50	77	73	59	100	51	52	15	9.4	10	59
12	32	48	63	68	221	100	49	49	38	6.1	9.3	56
13	32	47	57	66	141	92	48	47	56	5.5	6.8	71
14	31	45	57	62	81	85	47	46	39	5.5	8.8	63
15	50	44	40	58	*73	80	47	44	30	5.2	11	58
16	37	41	148	53	69	82	47	42	23	4.3	9.9	54
17	38	27	110	51	100	87	44	39	17	3.7	28	49
18	38	23	77	47	123	80	43	37	15	*3.4	207	47
19	36	39	172	45	111	75	41	34	14	7.5	1,360	55
20	34	44	150	44	97	72	42	32	15	8.3	*973	71
21	34	75	123	31	79	69	41	30	18	8.0	487	67
22	30	69	71	22	98	89	43	29	18	7.0	434	44
23	17	59	104	32	96	156	44	25	16	4.0	*460	36
24	14	44	105	42	94	123	44	26	16	3.8	463	42
25	16	58	105	44	86	102	62	24	17	7.2	343	91
26	20	41	95	40	79	96	86	24	16	8.7	284	66
27	*22	48	89	39	78	102	*84	24	15	8.7	282	49
28	23	58	94	37	85	92	75	23	14	8.3	273	52
29	31	66	115	35	-	87	103	22	13	8.0	224	55
30	83	89	150	32	------	82	104	23	12	4.4	192	45
31	84	---	150	32	------	78	------	20	------	2.7	165	---
Total	1,094	1,651	2,695	1,920	2,196	2,809	1,842	1,361	590	215.5	6,302.8	2,179
Mean	35.3	55.0	86.9	61.9	78.4	90.6	61.4	43.9	19.7	6.95	203	72.6
Cfsm	1.32	2.06	3.25	2.32	2.94	3.39	2.30	1.64	0.738	0.260	7.60	2.72
In.	1.52	2.30	3.75	2.67	3.06	3.91	2.57	1.90	0.82	0.30	8.78	3.04

Calendar year 1954: Max 290 Min 7.0 Mean 61.2 Cfsm 2.29 Ir. 31.07
Water year 1954-55: Max 1,360 Min 2.1 Mean 68.1 Cfsm 2.55 Ir. 34.62

* 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 1955.

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

Average discharge.--15 years, 13.3 cfs.

Extremes.--Maximum discharge during year, 97 cfs Aug. 20 (gage height, 4.46 ft); minimum, 0.26 cfs Aug. 6, 7.
1940-55: 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

3.06	0.24	3.4	7.7
3.10	.47	3.5	12
3.15	.98	3.7	25
3.2	1.75	4.0	48
3.3	4.1	4.5	101

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.7	22	33	48	4.2	23	13	28	4.2	2.35	0.69	12
2	8.5	18	23	37	4.6	30	12	20	3.8	2.05	.55	16
3	8.1	42	18	39	4.9	26	12	16	3.6	1.75	.47	15
4	8.1	55	*15	34	5.2	29	17	13	3.6	1.5	.37	11
5	7.9	42	*13	27	4.7	38	21	12	*3.4	1.35	.32	8.1
6	7.7	*30	12	24	5.4	38	21	12	3.2	6.2	.26	7.1
7	7.5	21	11	*27	27	54	21	11	3.1	42	.26	5.9
8	7.3	17	10	24	35	42	18	12	3.0	44	4.0	4.9
9	6.9	15	13	20	26	30	16	14	3.0	22	4.4	4.2
10	6.9	13	36	18	18	25	14	14	2.9	9.9	3.6	4.0
11	6.9	11	42	16	23	21	12	12	2.6	6.3	3.5	3.6
12	6.7	11	31	15	55	18	11	10	3.0	4.2	45	3.5
13	6.7	10	22	14	44	18	11	9.1	2.9	3.1	76	3.1
14	6.5	9.6	21	13	27	18	11	8.7	2.6	2.6	43	3.0
15	6.1	9.3	70	11	17	17	13	8.1	2.45	2.25	21	2.8
16	12	8.9	70	11	14	17	12	7.7	2.25	2.15	11	2.6
17	14	8.9	43	9.8	23	17	12	8.1	2.25	2.05	7.5	2.45
18	13	8.7	35	9.6	44	16	11	8.1	2.05	1.85	14	2.25
19	11	10	73	8.9	41	15	11	7.7	1.85	1.6	61	2.05
20	9.8	15	62	7.9	30	14	11	7.1	2.6	1.35	88	3.0
21	8.9	20	42	7.7	*25	13	11	6.5	2.9	1.20	48	2.8
22	8.1	20	31	7.3	22	22	10	5.8	2.6	.98	24	2.6
23	7.5	18	27	7.7	21	53	10	5.4	2.45	.85	15	2.35
24	7.3	15	30	7.5	20	46	10	5.2	*2.9	.85	15	4.2
25	6.9	20	31	7.5	18	31	15	5.0	4.2	.85	*14	16
26	6.7	23	25	7.5	16	24	*21	4.7	6.1	.74	10	26
27	6.7	22	23	7.3	16	24	25	4.4	6.3	.64	8.7	16
28	8.1	21	23	6.9	18	*21	23	4.0	4.9	1.25	8.1	16
29	11	34	30	5.8	-	18	39	3.8	3.6	1.25	6.7	18
30	22	41	52	5.2	------	16	40	3.6	2.8	.98	5.9	15
31	25	-- --	70	4.6	-------	14	--------	4.2	------	*.80	5.4	-----
Total	288.5	611.4	1,037	489.3	609.0	788	484	291.2	97.10	170.94	545.72	235.50
Mean	9.31	20.4	33.5	15.8	21.8	25.4	16.1	9.39	3.24	5.51	17.6	7.85
Cfsm	1.08	2.37	3.90	1.84	2.53	2.95	1.87	1.09	0.377	0.641	2.05	0.913
In.	1.25	2.64	4.48	2.12	2.63	3.41	2.09	1.26	0.42	0.74	2.36	1.02

Calendar year 1954: Max 224 Min 0.24 Mean 17.5 Cfsm 2.03 In. 27.56
Water year 1954-55: Max 88 Min 0.26 Mean 15.5 Cfsm 1.80 In. 24.42

Peak discharge (base, 120 cfs).--No peak above base.
* 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 1955.

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.--26 years, 462 cfs (adjusted for diversions).

Extremes.--Maximum discharge during year, 4,010 cfs Aug. 21 (gage height, 13.02 ft); minimum, 32 cfs July 19; minimum daily, 35 cfs July 19.
1929-55: Maximum discharge, that of Aug. 21, 1955; 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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 22				Aug. 23 to Sept. 30	
3.2	31	4.0	216	3.7	144
3.4	58	8.0	2,060	4.0	238
3.6	97	13.0	4,000	8.0	2,060
				12.0	3,660

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	255	528	750	1,640	270	865	645	1,430	230	164	49	810
2	285	518	705	1,500	244	970	600	1,200	203	206	44	730
3	281	955	625	1,420	240	950	595	955	*200	91	38	680
4	281	1,480	*550	1,320	240	880	780	745	186	89	54	605
5	274	*1,510	505	1,170	259	840	960	625	174	196	69	530
6	289	1,310	474	1,040	266	825	930	610	168	226	71	473
7	266	1,050	420	*985	482	1,060	880	585	164	164	65	414
8	220	855	415	810	730	1,120	810	546	164	132	93	347
9	193	725	424	795	670	1,010	720	615	177	113	97	321
10	203	630	665	780	585	980	650	625	158	100	86	287
11	213	555	810	710	610	1,040	615	575	140	145	67	266
12	216	510	750	655	1,140	1,070	590	523	186	155	97	254
13	213	456	680	615	1,280	1,030	541	482	*314	143	206	250
14	216	428	655	532	1,080	965	505	460	297	113	180	209
15	251	415	1,270	570	895	870	492	438	255	89	143	171
16	262	385	1,590	541	*765	825	487	406	216	50	126	177
17	270	368	1,560	496	800	840	460	394	200	39	105	168
18	314	359	1,420	469	1,160	785	442	381	161	36	250	163
19	326	359	1,690	456	1,160	735	394	355	138	35	1,650	177
20	326	411	1,800	411	1,070	695	411	347	138	*36	3,360	216
21	274	514	1,680	330	995	655	415	318	140	41	3,970	216
22	230	570	1,470	326	950	730	420	355	138	49	*3,820	196
23	226	550	1,220	301	925	1,220	411	326	138	46	3,480	183
24	226	518	1,140	301	910	1,390	394	314	129	49	3,070	186
25	206	555	1,080	330	865	*1,310	469	301	123	84	2,630	396
26	177	595	960	359	790	1,160	720	285	129	76	2,200	401
27	180	565	870	351	740	1,060	830	270	146	67	1,720	370
28	247	546	820	301	805	965	860	248	174	65	1,440	401
29	347	635	920	305	-	850	*1,090	237	146	65	1,290	432
30	398	780	1,260	293	-------	770	1,440	223	129	60	1,100	396
31	500	-------	1,630	285	-------	700	-------	226	-------	48	936	-------
Total	8,165	19,635	30,808	20,397	20,926	29,165	19,556	15,400	5,261	2,972	32,506	10,425
Mean	263	654	994	658	747	941	652	497	175	95.9	1,049	348
(†)	26.2	24.1	24.9	25.4	26.5	26.8	26.9	27.3	30.1	28.2	33.4	30.5
Adjusted for diversions												
Mean	290	679	1,019	683	774	968	679	524	205	124	1,082	378
Cfsm	1.12	2.61	3.92	2.63	2.98	3.72	2.61	2.02	0.788	0.477	4.16	1.45
In.	1.28	2.91	4.52	3.03	3.10	4.29	2.91	2.32	0.88	0.55	4.80	1.62

	Observed			Adjusted			
Calendar year 1954:	Max 2,970	Min 56	Mean 590	Mean 615	Cfsm 2.37	In. 32.11	
Water year 1954-55:	Max 3,970	Min 35	Mean 590	Mean 617	Cfsm 2.37	In. 32.21	

* 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.

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 1955.

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, 519 cfs Aug. 20 (gage height, 6.22 ft); minimum daily, 2.6 cfs Aug. 4.
1953-55: Maximum discharge, that of Aug. 20, 1955; minimum daily, 2.3 cfs Oct. 16, 17, 1953

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by Lake Mirimichi. Diversion above station for municipal supply of Attleboro.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 21, Feb. 13, 14)

Oct. 1 to Dec. 15		Dec. 16 to Aug. 20				Aug. 21 to Sept. 30	
3.1	14	2.5	1.9	4.0	60	3.1	17
3.5	26	2.6	3.0	4.5	92	3.5	38
4.0	45	2.7	4.5	5.0	156	4.0	73
4.5	75	2.8	6.7	5.5	263	4.5	118
		3.0	13	6.2	510	5.0	191
		3.5	36			5.5	292
						6.1	470

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	37	52	88	20	54	52	62	14	8.1	3.1	63
2	23	36	50	86	20	56	50	52	*15	7.3	3.1	59
3	22	50	48	88	20	54	49	46	14	8.1	2.8	54
4	22	60	43	83	19	53	50	45	13	7.3	2.6	48
5	22	58	40	78	18	54	50	37	13	8.6	2.8	45
6	21	54	39	74	18	57	47	38	13	14	2.8	44
7	21	48	*38	72	37	66	46	38	14	28	3.0	42
8	18	45	38	65	44	66	46	37	13	33	3.5	40
9	17	45	37	60	40	62	43	37	12	26	3.1	36
10	18	42	47	58	36	62	40	36	11	24	2.8	33
11	18	39	50	54	45	65	38	35	11	23	2.8	31
12	18	35	48	50	82	66	36	36	16	21	5.7	30
13	18	31	45	48	80	64	35	32	23	17	8.9	28
14	17	28	46	*45	70	66	34	30	26	14	7.5	26
15	16	25	75	44	66	64	34	28	24	12	5.7	24
16	20	22	*86	41	*63	64	34	26	22	9.8	4.7	24
17	28	23	83	37	70	66	32	25	21	7.1	4.4	22
18	28	26	86	36	82	66	32	24	18	4.0	16	22
19	24	29	100	33	76	64	32	23	16	3.5	182	22
20	22	35	102	32	73	58	28	22	15	4.2	*475	24
21	20	40	98	31	68	53	24	20	13	*3.8	450	29
22	19	50	99	29	63	62	23	19	13	3.6	*335	26
23	18	47	90	28	60	88	24	17	12	3.4	244	21
24	18	45	83	28	58	92	25	17	12	3.8	*200	26
25	17	50	78	28	56	*91	30	16	11	4.5	166	40
26	18	50	72	28	52	87	*37	15	11	4.0	135	41
27	*17	45	67	29	50	82	42	15	*11	3.8	111	36
28	16	43	65	26	52	70	45	15	11	4.0	95	37
29	21	50	67	24	-	62	58	14	9.8	4.3	83	40
30	31	54	80	22	--------	60	64	14	9.5	3.8	72	39
31	38	--------	90	21	--------	59	--------	14	--------	3.2	65	--------
Total	649	1,242	2,042	1,466	1,438	2,033	1,180	885	437.3	322.2	2,698.3	1,052
Mean	20.9	41.4	65.9	47.3	51.4	65.6	39.3	28.5	14.6	10.4	87.0	35.1
(†)	1.45	1.02	1.01	1.00	1.03	1.03	1.03	1.03	1.02	1.06	1.38	1.38
Adjusted for diversion												
Mean	22.4	42.4	66.9	48.3	52.4	66.6	40.4	29.6	15.6	11.5	88.4	36.4
Cfsm	1.17	2.21	3.48	2.52	2.73	3.47	2.10	1.54	0.812	0.599	4.60	1.90
In.	1.34	2.47	4.02	2.90	2.84	4.00	2.35	1.78	0.91	0.69	5.31	2.12

	Observed			Adjusted		
Calendar year 1954:	Max 186	Min 3.7	Mean 43.0	Mean 44.1	Cfsm 2.30	In. 31.20
Water year 1954-55:	Max 475	Min 2.6	Mean 42.3	Mean 43.4	Cfsm 2.26	In. 30.73

* Discharge measurement made on this day.
† Diversion for municipal supply of Attleboro, equivalent in cubic feet per second. Records furnished by city of Attleboro.
Note.--No gage-height record Nov. 1 to Dec. 6, Feb. 14-16; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage, and records for station near Norton.

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.

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.

Records available.--June 1925 to September 1955.

Average discharge.--30 years, 71.1 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 1,170 cfs Aug. 20 (gage height, 10.98 ft); minimum, 5.6 cfs Aug. 9; minimum daily, 6.0 cfs Aug. 10, 11.
1925-55: Maximum discharge, that of Aug. 20, 1955; minimum, 0.3 cfs Sept. 10, 1926.

Remarks.--Records excellent. 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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 20				Aug. 21 to Sept. 30			
4.7	4.7	7.0	197	5.2	20	6.0	82
4.9	9.6	8.0	344	5.5	39	7.0	197
5.2	22	9.0	554	Note.--Same as preceding table above 7.0 ft.			
5.5	41	11.0	1,180				
6.0	85						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	*81	123	202	40	125	109	146	26	18	*12	120
2	42	78	105	183	37	138	101	129	29	19	8.2	115
3	40	116	96	190	37	128	91	104	28	16	8.5	100
4	58	138	85	180	36	120	108	99	24	14	8.2	92
5	40	134	81	162	34	118	109	90	24	14	9.1	84
6	50	109	72	150	31	122	108	97	22	16	13	87
7	42	95	72	140	84	177	102	89	24	44	12	82
8	48	88	75	120	90	167	91	90	28	51	8.8	74
9	40	88	73	110	92	154	84	103	26	51	6.2	65
10	35	85	108	125	80	149	80	90	26	37	6.0	52
11	35	78	100	99	93	151	80	83	22	49	6.0	51
12	46	67	92	94	241	155	73	76	38	30	9.6	54
13	40	65	95	100	200	142	72	78	70	14	19	53
14	38	55	88	78	155	131	71	68	49	20	23	47
15	51	54	196	80	131	134	72	51	41	19	19	44
16	54	58	220	77	119	132	65	61	45	17	15	42
17	33	54	185	74	146	136	60	62	37	14	14	36
18	31	55	174	68	198	125	62	59	31	15	22	33
19	48	58	259	69	193	114	61	55	28	15	422	31
20	45	72	283	65	160	103	66	44	25	20	*1,070	41
21	43	95	247	55	153	106	58	37	37	15	839	58
22	45	112	210	58	142	132	54	32	33	14	*616	38
23	35	105	200	50	135	255	54	37	21	13	498	40
24	31	95	184	57	129	238	51	37	27	12	429	46
25	42	106	175	54	123	207	79	35	22	13	327	90
26	41	107	150	51	110	178	99	27	23	13	248	107
27	38	100	146	54	101	180	*107	29	22	13	187	82
28	51	92	139	46	*114	166	102	27	24	13	171	82
29	63	107	150	47	-	137	155	23	26	13	141	85
30	72	*128	*197	38	-------	123	167	21	*21	13	*132	*81
31	82	-------	224	*40	-------	*125	-------	*24	-------	12	120	-------
Total	1,418	2,675	4,604	2,916	3,204	4,568	2,591	2,003	899	637	5,419.6	2,012
Mean	45.7	89.2	149	94.1	114	147	86.4	64.6	30.0	20.5	175	67.1
(†)	1.45	1.02	1.01	1.00	1.03	1.03	1.03	1.03	1.02	1.06	1.38	1.38
Adjusted for diversion												
Mean	47.2	90.2	150	95.1	115	148	87.4	65.6	31.0	21.6	176	68.4
Cfsm	1.11	2.13	3.54	2.24	2.71	3.49	2.06	1.55	0.731	0.509	4.15	1.61
In.	1.28	2.37	4.07	2.58	2.84	4.03	2.30	1.78	0.82	0.59	4.79	1.80

	Observed			Adjusted			
Calendar year 1954:	Max 672	Min 7.7	Mean 93.3	Mean 94.5	Cfsm 2.23	In. 30.23	
Water year 1954-55:	Max 1,070	Min 6.0	Mean 90.3	Mean 91.4	Cfsm 2.16	In. 29.25	

Peak discharge (base, 280 cfs).--Dec. 20 (3 to 4 p.m.) 309 cfs (7.79 ft); Feb. 12 (3 to 4 p.m.) 286 cfs (7.64 ft); Mar. 23 (5 to 6 p.m.) 292 cfs (7.68 ft); Aug. 20 (6 to 8 a.m.) 1,170 cfs (10.98 ft).

* Discharge measurement made on this day.

† Diversion for municipal supply of Attleboro, equivalent in cubic feet per second. Records furnished by city of Attleboro.

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 County, 1 mile upstream from Beaver Brook.

Drainage area.--31.3 sq mi.

Records available.--August 1923 to September 1955. 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.--32 years, 52.7 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 3,970 cfs Aug. 19 (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, 5.2 cfs Oct. 13.
1923-55: Maximum discharge, that of Aug. 19, 1955; minimum, 0.2 cfs May 17, 1940.

Remarks.--Records excellent except those for period of no gage-height record, which are fair. 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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19				Aug. 20 to Sept. 30			
2.2	6.8	3.5	155	3.0	12	4.5	330
2.3	9.4	4.0	305	3.1	20	5.0	530
2.5	16	5.0	695	3.3	43	6.0	1,040
2.7	26	6.0	1,140	3.6	85	8.0	2,000
2.9	42	8.0	2,000	4.0	170		
3.2	86	10.0	2,860				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	64	145	148	17	74	86	152	21	9.4	7.3	91
2	42	58	118	135	17	96	83	123	19	12	7.3	92
3	34	130	101	168	17	76	76	101	18	17	7.3	52
4	32	210	83	148	16	66	81	84	19	13	7.8	36
5	38	145	83	128	16	60	86	71	19	12	8.4	36
6	39	116	83	118	18	66	81	90	17	13	9.4	*44
7	38	128	83	116	101	84	84	76	15	15	12	52
8	38	123	81	101	67	71	81	62	14	13	17	44
9	27	79	60	84	38	64	71	56	14	11	14	39
10	24	66	*49	60	31	69	54	49	14	8.9	11	56
11	45	63	51	*52	43	109	48	40	13	8.1	12	47
12	63	49	52	51	107	168	45	38	22	7.8	15	24
13	25	23	52	51	69	148	42	34	25	7.6	63	26
14	8.1	34	64	49	47	118	40	31	*21	7.3	72	26
15	42	45	280	48	42	99	34	29	17	7.1	38	26
16	119	45	228	46	38	101	40	26	15	8.6	23	26
17	107	46	148	45	50	125	38	26	13	16	48	24
18	66	45	155	23	58	103	36	24	11	17	256	24
19	64	44	395	12	52	81	34	25	11	16	*2,720	42
20	57	54	261	12	40	74	34	22	13	15	*1680	40
21	46	131	183	14	36	71	31	20	14	14	842	32
22	27	152	140	15	*34	108	*36	19	16	10	463	20
23	17	118	121	16	45	198	42	19	14	8.4	a380	16
24	21	107	132	17	62	*168	42	*18	18	7.8	a295	31
25	*25	135	123	19	52	142	77	18	23	8.9	233	51
26	30	145	105	21	46	130	125	17	18	*12	*129	41
27	30	128	76	21	46	135	204	16	15	14	122	30
28	28	116	71	19	58	118	172	15	12	14	123	39
29	41	145	96	18	-	105	178	13	11	12	110	39
30	84	180	150	17	--------	96	186	14	10	8.9	106	33
31	79	--------	186	16	--------	92	--------	18	--------	7.6	122	--------
Total	1,388.1	2,924	3,955	1,788	1,263	3,215	2,267	1,346	482	352.4	7,967.5	1,179
Mean	44.8	97.5	128	57.7	45.1	104	75.6	43.4	16.1	11.4	257	39.3
(†)	7.27	9.46	10.0	9.77	7.57	5.99	5.60	9.34	7.69	6.97	7.07	6.56

Adjusted for diversion

Mean	52.0	107	138	67.4	52.7	110	81.2	52.8	23.8	18.3	264	45.9
Cfsm	1.66	3.42	4.41	2.15	1.68	3.51	2.59	1.69	0.760	0.585	8.43	1.47
In.	1.92	3.81	5.07	2.48	1.75	4.04	2.89	1.94	0.85	0.68	9.73	1.63

	Observed			Adjusted			
Calendar year 1954:	Max 1,100	Min 5.6	Mean 66.0	Mean 74.1	Cfsm 2.37	In. 32.12	
Water year 1954-55:	Max 2,720	Min 7.1	Mean 77.1	Mean 84.8	Cfsm 2.71	In. 36.79	

Peak discharge (base, 250 cfs).--Dec. 15 (3 to 4 p.m.) 344 cfs (4.11 ft); Dec. 19 (10 to 11 a.m.) 439 cfs (4.36 ft); Aug. 19 (12 m.) 3,970 cfs (12.78 ft).

* Discharge measurement made on this day.

† Diversion 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 weather records, recorded range in stage, and records for Blackstone River at Northbridge.

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 Bummet Brook.

Drainage area.--25.5 sq mi.

Records available.--October 1939 to September 1955.

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.--16 years, 40.6 cfs.

Extremes.--Maximum discharge during year, 820 cfs Aug. 20 (gage height, 5.15 ft); minimum daily, 3.4 cfs Aug. 6.
1939-55: Maximum discharge, that of Aug. 20, 1955; minimum daily, 0.3 cfs Oct. 14-17, 1942.

Remarks.--Records excellent except those for periods of shifting control, which are good, and those for periods of no gage-height record, which are fair. Some regulation by Lake Quinsigamond and ponds above station.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.7	2.5	2.5	150
.9	6.0	3.0	240
1.1	12	3.5	334
1.4	26	4.0	444
1.7	48	5.0	760
2.0	79	5.1	800

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	35	78	104	32	61	86	104	36	18	5.6	20
2	114	46	149	110	31	135	80	95	36	18	5.0	36
3	88	84	182	112	31	124	73	*86	36	23	4.6	50
4	48	91	143	118	30	44	71	79	33	20	4.0	51
5	15	103	130	111	29	47	52	75	33	20	3.7	53
6	13	100	*96	104	31	63	56	81	31	23	3.4	61
7	15	91	13	92	54	72	77	77	29	23	4.5	*55
8	15	158	17	80	48	64	77	77	27	23	7.0	53
9	14	179	27	77	44	62	62	73	26	23	6.2	50
10	16	142	38	71	43	63	56	68	26	21	5.0	49
11	5.5	117	43	*81	48	68	48	62	24	19	5.2	46
12	20	95	42	90	67	71	41	59	32	17	9.0	44
13	56	74	38	86	57	71	38	57	37	15	17	41
14	50	64	43	81	52	63	39	54	34	14	30	36
15	44	54	80	69	71	83	59	51	*32	12	28	34
16	70	43	79	64	74	98	65	49	29	13	22	33
17	64	44	71	60	*79	96	58	46	28	17	17	32
18	58	9.8	84	59	79	71	53	43	25	16	100	32
19	52	4.6	157	56	73	63	52	40	24	15	700	70
20	47	12	159	54	67	59	55	36	24	13	*790	128
21	43	28	157	49	62	57	51	34	24	12	*680	67
22	38	30	131	46	59	*71	52	33	25	11	*529	9.2
23	35	46	147	46	61	110	53	32	25	9.8	434	9.8
24	31	59	120	43	62	101	50	31	27	10	375	15
25	28	77	107	43	59	115	58	*30	29	*8.5	317	26
26	25	68	98	42	56	118	71	29	28	7.6	273	25
27	23	77	92	42	55	121	89	29	24	7.3	233	25
28	40	79	110	36	56	103	80	29	23	7.3	199	28
29	*39	89	142	34	-	79	91	29	20	7.3	172	30
30	42	74	83	33	-------	74	28	19	6.8	6.8	150	28
31	39	-------	101	32	-------	85	-------	30	-------	6.0	117	-------
Total	1,293.5	2,173.4	2,957	2,125	1,510	2,512	1,884	1,646	846	463.6	5,246.2	1,237.0
Mean	41.7	72.4	95.4	68.5	53.9	81.0	62.8	53.1	28.2	15.0	169	41.2
Cfsm	1.64	2.84	3.74	2.69	2.11	3.18	2.46	2.08	1.11	0.588	6.63	1.62
In.	1.89	3.17	4.31	3.10	2.20	3.66	2.75	2.40	1.23	0.68	7.65	1.80

Calendar year 1954: Max 300 Min 4.6 Mean 59.9 Cfsm 2.35 In. 31.90
Water year 1954-55: Max 790 Min 3.4 Mean 65.5 Cfsm 2.57 In. 34.84

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 3-28, Aug. 1-20; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage, records of gate and sluiceway operations upstream, and records for stations on nearby streams. Shifting-control method used Aug. 31 to Sept. 19, Sept. 21-30. 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 1955. 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.--16 years, 231 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 16,900 cfs Aug. 20 (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 (backwater from debris); minimum daily discharge, 74 cfs July 15.

1939-55: Maximum discharge, that of Aug. 20, 1955; maximum gage height, that of Aug. 20, 1955; minimum daily discharge, 2 cfs Aug. 29, 1941, Sept. 5, 1942.

Flood of Mar. 19, 1936, reached a stage of 13.7 ft, from floodmarks (discharge, 7,510 cfs, by computation of flow over dam 800 ft above station).

Remarks.--Records good except those for period of no gage height record, which are fair. Flow regulated by mills and reservoirs above station. August flood flow affected by dam failures and by 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	394	310	644	678	120	428	418	612	330	98	113	510
2	376	281	540	682	120	497	416	526	192	96	77	281
3	353	784	508	706	120	465	376	*463	192	162	96	295
4	315	826	505	661	115	402	416	407	164	126	96	290
5	267	633	491	589	110	335	358	379	170	138	91	379
6	258	505	471	586	120	335	328	474	154	176	91	471
7	238	457	389	549	450	381	381	421	161	229	93	373
8	227	449	332	449	350	310	366	371	148	154	168	286
9	222	511	315	402	235	332	335	348	*170	154	105	264
10	213	440	355	389	210	394	308	318	120	154	107	274
11	227	397	315	342	260	573	288	293	138	138	75	293
12	242	363	288	*312	500	658	264	267	236	124	129	269
13	233	308	*278	298	380	622	231	244	246	94	398	244
14	203	274	344	302	320	528	235	222	207	101	324	216
15	238	262	1,160	286	300	449	238	220	*164	74	213	216
16	710	229	911	271	280	502	253	220	150	104	184	203
17	497	238	602	262	*360	537	253	211	150	158	192	249
18	394	251	724	255	429	479	235	194	122	132	917	201
19	335	246	1,370	227	363	410	224	186	115	121	8,500	302
20	293	434	1,070	209	298	371	227	172	137	113	*8,850	386
21	260	678	832	190	274	360	218	168	135	100	*3,620	214
22	253	630	728	185	260	*562	258	160	183	98	2,310	216
23	242	497	664	180	318	911	260	106	152	86	2,070	111
24	170	457	622	175	350	794	235	142	193	98	1,780	251
25	172	650	552	170	312	664	384	*152	201	*114	1,370	258
26	192	599	485	165	274	640	567	152	164	84	1,080	229
27	216	523	446	160	262	672	895	160	146	103	974	222
28	224	514	432	140	310	579	689	130	146	89	918	253
29	*321	742	612	130	-	508	804	120	122	79	804	218
30	394	759	851	125	-------	460	745	115	119	102	644	216
31	384	-------	843	120	-------	426	-------	210	-------	96	*654	-------
Total	9,063	14,247	18,679	10,195	7,800	15,584	11,205	8,163	5,027	3,695	37,043	8,190
Mean	292	475	603	329	279	503	374	263	168	119	1,195	273
(†)	20.7	7.60	0	13.1	29.9	38.0	23.3	20.8	13.9	31.3	13.9	27.0
Adjusted for diversion												
Mean	272	467	603	316	249	465	350	242	154	87.9	1,181	246
Cfsm	1.96	3.36	4.34	2.27	1.79	3.35	2.52	1.74	1.11	0.632	8.50	1.77
In.	2.25	3.75	5.00	2.62	1.86	3.85	2.81	2.01	1.23	0.73	9.80	1.97

	Observed			Adjusted			
Calendar year 1954:	Max 3,680	Min 63	Mean 380	Mean 365	Cfsm 2.63	In. 35.61
Water year 1954-55:	Max 8,850	Min 74	Mean 408	Mean 388	Cfsm 2.79	In. 37.88

* 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.

Note.--No gage-height record Jan. 21 to Feb. 17; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage, and records for Blackstone River at Woonsocket and Kettle Brook at Worcester. 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, 600 ft downstream from milldam 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 1955. 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.--15 years, 158 cfs.

Extremes.--Maximum discharge during year, 4,240 cfs Aug. 19 (gage height, 10.52 ft), from rating curve extended above 2,100 cfs on basis of computation of peak flow over dam 600 ft above station; minimum daily, 10 cfs Apr. 23.

1940-55: Maximum discharge, that of Aug. 19, 1955; minimum daily, 5.2 cfs Oct. 7, 1948.

Discharge of flood in March 1936 was about 5,800 cfs, by computation of flow over dam 1 mile above station.

Remarks.--Records excellent. Flow regulated by mills and reservoirs above station.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19				Aug. 20 to Sept. 30			
1.7	8.0	3.5	328	1.8	21	2.6	120
1.9	18	4.0	490	1.9	30	3.0	198
2.0	26	5.0	870	2.0	39	3.5	329
2.3	55	7.0	1,800	2.3	75	4.0	490
2.6	100	9.0	3,000				
3.0	189						

Note.--Same as preceding table above 4.0 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	182	248	328	494	160	258	228	362	29	32	33	212
2	84	*212	284	456	102	313	180	326	20	45	32	210
3	19	411	261	546	95	272	169	249	21	58	31	99
4	135	574	247	433	93	244	287	*230	44	56	32	122
5	184	466	199	375	89	162	272	212	58	52	32	137
6	179	365	289	359	23	230	238	209	167	*58	31	203
7	179	356	244	375	204	381	222	145	156	76	34	*201
8	154	359	236	272	280	307	212	192	22	93	31	188
9	24	284	238	298	202	261	186	264	21	50	25	139
10	22	249	298	331	192	284	142	212	20	47	25	25
11	40	178	247	275	202	407	204	204	17	39	26	23
12	11	238	249	*252	656	401	168	202	70	34	33	150
13	143	206	*289	247	423	372	173	89	234	33	156	156
14	194	199	294	236	347	375	175	56	189	54	222	94
15	187	236	1,010	162	247	301	147	120	175	33	112	106
16	104	214	763	209	214	289	52	203	19	30	121	141
17	236	206	518	266	269	337	90	196	19	27	130	114
18	274	204	454	217	*369	301	194	196	19	37	73	156
19	212	202	983	204	261	228	184	187	30	33	*2,360	215
20	202	206	742	199	258	252	179	68	110	30	2,950	206
21	192	366	560	189	289	298	175	160	96	31	1,170	163
22	192	539	480	184	241	323	140	165	99	32	642	104
23	86	356	433	34	249	686	10	120	126	32	489	109
24	30	301	350	182	281	*528	14	74	142	46	567	46
25	127	310	365	194	255	426	187	96	23	41	483	312
26	187	344	325	156	167	340	269	89	24	36	420	302
27	184	292	362	96	196	388	426	*87	24	*34	290	224
28	192	275	316	95	284	388	313	23	24	34	268	221
29	202	397	433	92	-	310	453	22	25	35	270	248
30	107	407	620	27	-------	266	487	21	25	33	216	231
31	45	---	650	125	-------	241	-------	94	---------	33	213	---------
Total	4,309	9,200	13,067	7,580	6,648	10,169	6,176	4,873	2,048	1,304	11,517	4,857
Mean	139	307	422	245	237	328	206	157	68.3	42.1	372	162
Cfsm	1.49	3.29	4.52	2.63	2.54	3.52	2.21	1.68	0.732	0.451	3.99	1.74
In.	1.72	3.67	5.21	3.02	2.65	4.05	2.46	1.94	0.82	0.52	4.59	1.94

Calendar year 1954: Max 2,450 Min 11 Mean 221 Cfsm 2.37 In. 32.11
Water year 1954-55: Max 2,950 Min 10 Mean 224 Cfsm 2.40 In. 32.59

Peak discharge (base, 880 cfs).--Dec. 15 (2 p.m.) 1,210 cfs (5.79 ft); Dec. 19 (10:30 a.m.) 1,090 cfs (5.54 ft); Aug. 19 (10:30 p.m.) 4,240 cfs (10.52 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 1955.
Gage.--Water-stage recorder. Datum of gage is 107.42 ft above mean sea level, datum of 1929.
Average discharge.--26 years, 705 cfs (adjusted for diversion).
Extremes.--Maximum discharge during year, 32,900 cfs Aug. 19 (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 Horeshoe Dam on Mill River; minimum daily, 125 cfs Aug. 4.
1929-55: Maximum discharge, that of Aug. 19, 1955; minimum daily, 21 cfs Aug. 11, 1934, flow diverted around station in Hamlet Trench not included.
Remarks.--Records good except those for periods of no gage-height record, which are fair. August flood flow affected by reservoirs and by dam failures above station. 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 table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from aquatic vegetation June 16 to Aug. 18; shifting-control method used Sept. 2-30)

1.4	109	5.0	2,300
2.0	252	10.0	8,540
2.5	418	15.0	16,000
3.0	660	20.0	27,100
4.0	1,350		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	873	1,050	1,860	2,490	523	1,000	1,100	1,780	528	218	142	1,480
2	754	*964	1,460	2,220	417	1,280	982	1,480	501	210	162	1,280
3	698	1,530	1,230	2,420	379	1,240	968	1,160	403	231	135	1,050
4	780	2,390	1,100	2,140	402	1,160	1,110	*1,040	370	247	125	1,000
5	800	2,170	1,090	1,930	367	932	1,130	960	335	*253	139	937
6	716	1,660	1,150	1,790	304	1,000	1,010	974	427	311	127	1,280
7	651	1,420	1,070	1,750	938	1,280	1,060	918	492	378	128	1,240
8	579	1,360	971	1,500	1,330	1,160	989	918	338	353	150	1,000
9	424	1,200	943	1,330	945	1,080	863	967	330	258	185	807
10	480	1,230	1,120	1,340	744	1,140	810	816	327	231	150	619
11	445	1,030	1,000	1,240	876	1,440	830	790	268	244	155	583
12	441	1,010	a940	*1,140	2,040	1,620	731	764	459	198	211	699
13	553	887	*915	a1,070	1,640	1,660	701	590	757	198	357	727
14	582	820	1,010	a895	1,240	1,600	677	479	643	231	595	588
15	570	859	2,920	735	959	1,340	665	595	550	210	403	573
16	839	728	3,280	761	789	1,320	550	615	345	169	348	583
17	1,260	668	2,390	806	1,000	1,460	621	610	332	168	318	573
18	1,160	662	2,130	748	*1,400	1,380	719	580	304	209	686	603
19	950	716	3,560	698	1,140	1,110	654	550	223	187	*11,200	675
20	894	894	3,380	668	1,040	1,100	637	466	329	197	a25,900	1,080
21	735	1,710	2,690	602	994	1,100	627	355	379	185	a12,200	1,020
22	716	2,180	2,280	583	889	1,320	637	282	381	187	*a6,430	687
23	558	1,610	2,010	459	896	2,570	525	380	371	168	4,410	549
24	381	1,320	1,830	543	1,050	*2,570	575	322	412	181	a4,260	488
25	441	1,410	1,810	583	1,020	2,150	855	377	326	192	a3,500	1,210
26	582	1,640	1,580	508	823	1,810	1,220	359	301	192	2,750	1,020
27	552	1,380	1,570	475	816	1,810	1,800	*377	266	*175	2,190	781
28	562	1,300	1,450	485	925	1,790	1,880	290	286	178	1,910	840
29	629	1,700	1,770	397	-	1,560	2,040	254	269	171	1,710	930
30	901	2,020	2,580	320	-------	1,340	2,040	246	234	153	1,460	821
31	936	-------	3,050	409	-------	1,170	-------	354	-------	135	1,380	-------
Total	21,442	39,518	56,119	33,035	25,886	44,492	29,016	20,648	11,486	6,618	83,816	25,723
Mean	692	1,317	1,810	1,066	924	1,435	967	666	383	213	2,704	857
(†)	20.7	7.60	0	13.1	29.9	38.0	23.3	20.8	13.9	31.3	13.9	27.0

Adjusted for diversion

Mean	671	1,310	1,810	1,053	895	1,397	944	645	369	182	2,690	830
Cfsm	1.61	3.15	4.35	2.53	2.15	3.36	2.27	1.55	0.887	0.438	6.47	2.00
In.	1.86	3.51	5.02	2.92	2.24	3.87	2.53	1.79	0.99	0.51	7.45	2.23

	Observed					Adjusted				
Calendar year 1954:	Max	8,530	Min	142	Mean	989	Mean	974	Cfsm	2.34	In.	31.77
Water year 1954-55:	Max	25,900	Min	125	Mean	1,090	Mean	1,070	Cfsm	2.57	In.	34.92

Peak discharge (base, 3,400 cfs).--Dec. 15 (9:15 p.m.) 3,830 cfs (6.36 ft); Dec. 19 (3:30 to 5:30 p.m.) 3,950 cfs (6.46 ft); Aug. 19 (10 p.m.) 32,900 cfs (21.8 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.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, 1 measurement of stage, weather records, recorded range in stage when available, appearance of recorder chart, floodmarks, and records for station at Northbridge, Mass.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 95 ft (from topographic map).

Average discharge.--14 years, 67.2 cfs.

Extremes.--Maximum discharge during year, 605 cfs Dec. 18 (gage height, 5.13 ft); minimum daily, 8.9 cfs Aug. 6.
1941-55: 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. Flow regulated by mills and reservoirs above station. Discharge includes leakage through bypass canal.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	79	157	247	62	111	104	181	43	42	34	69
2	58	64	137	237	62	118	93	152	40	36	39	66
3	59	*132	120	230	63	109	92	123	39	*19	36	57
4	68	*160	106	203	50	111	112	*108	37	17	17	54
5	60	154	102	178	58	97	99	101	22	41	9.4	59
6	62	124	109	171	60	123	97	*101	36	49	8.9	73
7	63	109	99	169	145	165	96	85	42	50	11	59
8	59	107	95	146	86	144	91	87	40	44	35	56
9	50	91	96	133	74	137	81	103	43	39	41	55
10	53	86	116	130	66	143	74	87	37	20	41	51
11	67	67	110	116	113	161	87	82	35	41	41	33
12	45	89	107	109	201	154	74	75	34	39	50	56
13	62	67	108	102	106	146	75	76	72	39	43	54
14	55	65	126	97	111	146	74	45	48	38	22	54
15	55	84	383	79	118	130	76	46	41	41	18	53
16	58	70	339	85	109	132	65	61	38	37	37	52
17	53	63	280	*83	163	128	66	56	37	18	44	47
18	67	72	327	86	168	118	82	53	34	35	56	30
19	57	76	479	77	154	107	71	48	17	36	291	48
20	57	75	382	75	*139	99	58	46	48	*36	206	54
21	62	*188	327	74	137	112	54	41	62	36	203	52
22	53	202	278	61	121	155	58	40	66	36	210	50
23	45	*182	235	70	118	259	51	*54	49	31	205	49
24	37	151	213	83	114	227	47	44	48	17	191	61
25	68	170	192	71	106	204	95	44	45	34	*147	51
26	60	163	172	70	93	177	84	45	26	37	133	68
27	53	130	159	70	96	169	89	*45	50	38	103	57
28	52	120	149	58	114	151	117	37	48	39	91	66
29	68	*179	178	58	-	129	216	32	*43	38	86	63
30	60	172	261	62	-------	*118	208	38	42	36	74	60
31	67	-- ---	278	73	-------	110	--------	48	--------	18	68	--------
Total	1,799	3,491	6,220	3,503	3,007	4,390	2,686	2,184	1,262	1,077	2,591.3	1,657
Mean	58.0	116	201	113	107	142	89.5	70.5	42.1	34.7	83.6	55.2
Cfsm	1.51	3.03	5.25	2.95	2.79	3.71	2.34	1.84	1.10	0.906	2.18	1.44
In.	1.75	3.39	6.04	3.40	2.92	4.26	2.61	2.12	1.23	1.05	2.52	1.61

Calendar year 1954: Max 479 Min 12 Mean 97.6 Cfsm 2.55 In. 34.59
Water year 1954-55: Max 479 Min 8.9 Mean 92.8 Cfsm 2.42 In. 32.90

* 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.

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 1955.

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

Average discharge.--15 years, 124 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 658 cfs Dec. 19 (gage height, 2.72 ft); minimum daily, 19 cfs July 31, Aug. 7.
1940-55: 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 except those for periods of no gage-height record which are fair. 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.3	12	1.9	131
1.4	20	2.1	224
1.5	33	2.6	590
1.7	69		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	205	*270	380	235	270	257	183	77	80	65	193
2	96	237	257	342	235	264	178	217	72	57	70	188
3	96	277	257	365	230	264	165	196	69	57	56	188
4	129	277	65	328	225	264	244	169	53	53	55	178
5	118	264	72	290	35	67	257	160	59	55	59	178
6	113	114	242	277	25	97	250	209	68	74	27	173
7	101	137	257	298	200	335	250	173	69	*100	19	165
8	127	277	250	257	210	328	244	183	65	120	74	165
9	38	264	257	244	210	290	178	214	61	117	67	165
10	47	257	250	*290	220	275	169	204	62	91	62	160
11	131	98	65	277	230	285	224	173	47	80	75	152
12	44	205	31	277	70	95	237	161	89	63	162	152
13	132	79	220	264	120	115	237	150	160	53	117	152
14	154	30	277	257	300	275	231	100	160	55	110	148
15	188	216	410	52	240	270	215	114	149	47	75	148
16	140	250	515	74	210	270	73	141	113	35	87	144
17	30	257	410	250	310	265	70	124	72	36	119	135
18	168	264	287	260	340	255	209	131	72	47	128	131
19	172	257	582	260	250	55	224	139	67	82	244	128
20	158	65	575	255	*235	50	224	110	85	135	193	128
21	158	51	455	250	342	255	214	74	96	139	290	124
22	153	246	402	50	290	255	176	86	74	*116	237	117
23	27	290	342	35	264	260	28	118	82	29	193	114
24	21	267	335	230	257	270	25	65	65	23	193	114
25	192	86	320	250	250	280	*47	138	72	32	178	117
26	*231	265	290	250	53	290	47	*91	74	32	*219	120
27	237	137	270	245	66	280	54	73	80	56	209	124
28	237	148	264	240	257	270	53	65	100	100	204	128
29	191	291	290	40	-	260	96	69	96	81	204	124
30	41	298	350	30	--------	257	96	74	77	22	193	124
31	34	--------	418	220	--------	257	--------	88	--------	19	193	--------
Total	3,824	6,109	9,285	7,137	5,909	7,323	4,972	4,192	2,485	2,086	4,177	4,377
Mean	123	204	300	230	211	236	166	135	82.8	67.3	135	146
(†)	-12.5	+11.5	+11.9	-43.0	+33.6	-9.45	+22.1	-7.09	+2.47	-15.6	-6.91	-68.6

Adjusted for diversion and change in reservoir contents

Mean	111	215	311	187	245	227	188	128	85.3	51.7	128	77.3
Cfsm	1.74	3.37	4.87	2.93	3.84	3.56	2.95	2.01	1.34	0.810	2.01	1.21
In.	2.00	3.76	5.63	3.38	3.99	4.10	3.28	2.32	1.49	0.93	2.31	1.35

	Observed			Adjusted			
Calendar year 1954:	Max 1,180	Min 13	Mean 170	Mean 172	Cfsm 2.70	In. 36.57	
Water year 1954-55:	Max 582	Min 19	Mean 170	Mean 162	Cfsm 2.54	In. 34.54	

* 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.
Note.--No gage-height record Jan. 17 to Feb. 20, Mar. 9-29; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage, records of elevations and gate operation of Flat River Reservoir, and records for Pawtuxet River at Cranston.

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 1955.

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

Average discharge.--15 years (1940-55), 386 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 1,490 cfs Aug. 19 (gage height, 7.59 ft), from rating curve extended above 1,100 cfs; minimum daily, 64 cfs July 31, Aug. 7.
1939-55: Maximum discharge, 2,010 cfs Sept. 13, 1954 (gage height, 8.85 ft), from rating curve extended above 740 cfs; minimum daily, 22 cfs Sept. 4, 1944.
Revisions.--Figures of maximum discharge for the water years 1940 and 1941 have been revised to 1,960 cfs Jan. 15, 1940, Feb. 8, 1941, superseding those published in WSP 921.

Remarks.--Records excellent except those for periods of no gage-height record or backwater from aquatic vegetation, which are good. 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.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	383	362	793	1,010	521	784	576	294	188	205	94	643
2	233	489	715	998	528	790	472	400	171	139	*165	*624
3	214	747	704	1,080	a515	730	383	382	*173	92	158	535
4	368	*728	547	950	a510	759	507	358	126	85	165	388
5	357	602	456	873	315	590	582	343	80	169	155	275
6	*333	409	650	851	110	572	578	*408	154	270	102	430
7	328	277	686	887	648	929	525	318	172	371	64	475
8	333	495	677	736	496	905	549	310	165	323	90	449
9	180	554	685	749	422	820	415	422	158	235	168	448
10	104	522	819	865	391	804	279	393	148	172	162	287
11	331	376	567	784	525	798	432	364	112	237	196	246
12	172	423	456	762	957	587	436	338	168	252	380	383
13	282	342	616	751	342	535	396	319	302	237	371	428
14	321	193	691	735	575	721	339	232	275	220	257	419
15	396	340	1,330	543	646	747	376	210	257	232	186	419
16	264	481	1,240	456	605	749	252	291	224	132	210	415
17	162	486	1,130	*691	761	756	165	302	186	82	224	269
18	317	489	966	718	818	709	275	289	116	200	362	207
19	394	500	1,360	703	728	599	376	293	95	246	1,040	370
20	353	396	1,350	696	*717	420	367	274	176	291	1,200	463
21	352	456	1,190	672	869	475	367	176	204	283	926	436
22	351	533	1,080	535	830	713	371	162	221	246	876	378
23	193	663	977	424	776	1,060	212	238	193	125	800	372
24	80	638	946	591	745	779	132	190	200	70	745	289
25	259	590	871	679	722	707	231	220	135	98	685	272
26	422	632	868	680	559	576	293	217	122	142	653	345
27	435	508	910	670	465	526	328	193	182	142	573	398
28	4'4	456	790	656	690	576	280	131	204	165	629	435
29	527	*759	862	510	-	618	477	113	*207	217	703	438
30	347	902	1,080	185	-------	*587	322	122	193	121	624	410
31	168	-------	1,160	351	-------	576	-------	182	-------	64	610	-------
Total	9,403	15,346	27,172	21,801	16,786	21,497	11,293	8,484	5,307	5,863	13,573	11,946
Mean	303	512	877	703	600	693	376	274	177	189	438	398
(†)	-1.67	+141	+160	-149	+145	+69.3	+158	+76.5	+35.7	-73.7	+146	-135

Adjusted for diversion and change in reservoir contents

Mean	302	653	1,037	555	745	763	534	350	213	115	583	263
Cfsm	1.51	3.26	5.18	2.78	3.72	3.82	2.67	1.75	1.06	0.575	2.92	1.32
In.	1.74	3.64	5.98	3.20	3.88	4.40	2.98	2.02	1.19	0.67	3.36	1.47

	Observed			Adjusted				
Calendar year 1954:	Max 1,910	Min 60	Mean 458	Mean 543	Cfsm 2.72	In. 36.85
Water year 1954-55:	Max 1,360	Min 64	Mean 462	Mean 508	Cfsm 2.54	In. 34.53

* 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 a basis of weather records, recorded range in stage, and records for adjacent days.
Note.--Backwater from aquatic vegetation Oct. 1 to Feb. 2, Feb. 5-17, May 10 to Sept. 30.

Potowomut River near East Greenwich, R. I.

Location.--Lat 41°38'28", long 71°26'45", on right bank 45 ft 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 1955.

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

Average discharge.--15 years, 41.8 cfs (unadjusted).

Extremes.--Maximum discharge during year, 269 cfs Feb. 12 (gage height, 2.12 ft); maximum gage height, 2.12 ft Feb. 12, Aug. 19; minimum discharge, 3.4 cfs Aug. 7.
1940-55: 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 United States Naval establishments.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 15				Dec. 16 to Sept. 30			
1.2	13	1.7	119	1.1	3.4	1.5	70
1.3	28	1.9	188	1.2	13	1.9	190
1.5	67			1.3	29	2.1	262

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	62	*79	137	38	85	70	82	27	16	5.6	15
2	38	a49	67	118	38	98	69	68	25	16	4.8	*18
3	37	a90	62	124	36	80	69	60	24	15	4.5	16
4	36	a105	58	107	38	90	85	57	27	14	4.1	14
5	35	a83	56	95	38	101	85	58	26	13	4.1	13
6	34	a66	53	95	40	104	75	68	24	17	3.8	17
7	31	a56	51	104	160	137	72	61	25	*46	4.3	26
8	31	50	49	92	128	107	68	62	29	39	5.6	20
9	29	46	54	85	75	90	63	75	27	23	4.8	17
10	30	42	107	80	61	90	60	63	26	15	4.1	15
11	29	40	91	75	83	85	58	55	24	14	4.5	16
12	29	40	72	72	240	80	57	50	33	12	30	15
13	28	38	63	*70	150	80	55	47	66	11	75	14
14	27	37	68	67	95	78	55	45	49	11	48	14
15	26	36	186	62	80	72	56	44	36	8.5	26	15
16	32	36	156	62	75	85	55	40	28	9.6	13	14
17	34	36	112	60	113	92	51	42	24	10	9.0	14
18	30	36	109	57	143	80	50	42	22	10	19	14
19	28	40	208	56	107	75	48	38	20	8.5	150	14
20	27	56	156	54	90	70	49	36	25	7.0	181	26
21	26	114	124	50	*82	69	46	35	31	7.0	82	22
22	24	102	107	50	80	96	50	33	26	*8.6	48	16
23	23	77	101	50	80	204	52	32	22	6.1	38	11
24	23	65	104	50	80	142	49	32	20	7.5	36	19
25	22	91	101	50	75	107	*67	29	24	7.0	25	60
26	*22	86	90	49	69	101	90	*30	26	7.0	20	46
27	24	72	85	48	68	104	92	36	25	6.6	18	31
28	26	69	85	45	75	*90	78	34	22	7.0	17	31
29	47	94	101	42	-	80	134	32	20	6.1	15	36
30	99	99	158	39	------	78	112	30	17	6.1	12	31
31	81	------	183	38	------	75	------	28	------	6.1	11	------
Total	1,050	1,913	3,096	2,183	2,437	2,928	2,020	1,444	820	390.7	923.2	630
Mean	33.9	63.8	99.9	70.4	87.0	94.5	67.3	46.6	27.3	12.6	29.8	21.0
(†)	4.82	4.61	5.09	4.64	4.48	4.27	4.27	5.12	5.38	6.40	6.15	4.65

Calendar year 1954: Max 378 Min 9.0 Mean 58.4
Water year 1954-55: Max 240 Min 3.8 Mean 54.3

Peak discharge (base, 190 cfs).--Dec. 15 (12:30 to 3 p.m.) 210 cfs (1.955 ft); Dec. 19 (7:30 to 9 a.m.) 222 cfs (1.99 ft); Dec. 30 (9:30 to 12 p.m.) 208 cfs (1.95 ft); Feb. 7 (4 to 6 p.m.) 204 cfs (1.935 ft); Feb. 12 (6:30 to 8 a.m.) 269 cfs (2.12 ft); Mar. 23 (7:30 to 8:30 a.m.) 223 cfs (1.995 ft); Aug. 19 (8:30 to 10:30 p.m.) 251 cfs (2.12 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; for calendar year 1954, 5.05 cfs; for water year 1955, 5.00 cfs. Records furnished by U. S. Navy and Kent County Water Authority.

a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for Wood River at Hope Valley and Adamsville Brook at Adamsville.

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 1955. October and November 1940 monthly discharge only, published in WSP 1301. Prior to October 1943, published as Charles River at Wood River Junction.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 40 ft (from topographic map).

Average discharge.--15 years, 180 cfs.

Extremes.--Maximum discharge during year, 580 cfs Jan. 8 (gage height, 4.63 ft); maximum gage height, 4.78 ft Dec. 20; minimum discharge, 18 cfs Aug. 7; minimum daily, 50 cfs Aug. 7.
1940-55: 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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 3-8, Nov. 22 to Dec. 3, Dec. 10 to Jan. 8)

Oct. 1 to Jan. 8		Jan. 9 to Sept. 30	
2.5	139	1.9	40
3.0	265	2.1	66
4.0	506	2.5	138
5.0	765	3.0	248
		4.0	449

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	236	260	338	540	162	297	273	293	*146	92	92	*152
2	221	255	328	528	162	314	264	*275	136	84	70	158
3	213	301	304	513	156	312	257	255	132	85	64	146
4	208	324	281	*477	156	340	264	234	120	84	60	148
5	*198	348	273	444	156	357	264	222	126	84	61	140
6	190	348	265	420	160	366	264	217	128	74	62	142
7	183	321	249	413	289	398	266	208	120	136	50	132
8	178	*294	244	402	314	390	257	208	118	130	66	118
9	170	273	*249	396	334	382	243	212	118	122	65	116
10	173	257	314	*380	308	364	236	206	118	107	66	97
11	180	239	321	355	301	342	226	203	107	92	65	124
12	158	236	326	332	445	324	219	201	128	85	228	110
13	176	213	311	320	427	316	212	190	154	85	371	105
14	163	210	308	291	449	306	208	181	156	67	351	108
15	153	208	427	280	409	295	212	181	158	71	295	97
16	168	198	496	271	358	299	210	181	144	72	236	99
17	178	193	520	255	367	297	206	179	126	72	190	89
18	180	190	511	241	401	289	201	173	110	74	168	71
19	176	193	552	236	*427	289	194	168	112	74	283	109
20	168	206	565	226	415	278	192	164	118	61	405	120
21	163	278	562	212	379	269	190	152	108	68	435	118
22	151	308	516	210	353	299	190	152	*112	58	419	112
23	141	318	468	206	340	367	183	154	107	51	345	107
24	146	308	444	203	334	400	186	146	103	60	273	123
25	153	328	429	203	318	415	199	146	101	74	243	183
26	139	321	395	201	304	388	236	148	118	63	215	206
27	139	308	376	199	291	364	278	188	126	64	192	203
28	139	301	363	186	289	338	273	190	114	101	179	199
29	158	331	383	183	-	*322	297	186	107	130	166	188
30	216	341	446	171	------	308	297	171	101	105	160	173
31	252	-- ---	523	166	-------	291	-------	162	-------	94	152	---- -
Total	5,467	8,209	12,087	9,460	8,802	10,316	6,997	5,946	3,672	2,619	6,027	3,993
Mean	176	274	390	305	314	333	233	192	122	84.5	194	133
Cfsm	1.76	2.74	3.90	3.05	3.14	3.33	2.33	1.92	1.22	0.845	1.94	1.33
In.	2.03	3.05	4.50	3.52	3.27	3.84	2.60	2.21	1.37	0.97	2.24	1.48

Calendar year 1954: Max 864 Min 62 Mean 243 Cfsm 2.43 In. 33.06
Water year 1954-55: Max 565 Min 50 Mean 229 Cfsm 2.29 In. 31.08

* 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 1955. Records of daily mean 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.--14 years, 145 cfs.

Extremes.--Maximum discharge during year, 748 cfs Dec. 19 (gage height, 5.20 ft); minimum, 34 cfs Aug. 7; minimum daily, 36 cfs Aug. 6, 7.
1941-55: 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.
Flood in March 1936 reached a discharge of 1,540 cfs, by computation of peak flow over dam a quarter of a mile upstream from station.

Remarks.--Records excellent. Some regulation at low flow by mills and ponds above station; regulation greater prior to 1948.

Revisions (water years).--WSP 1201: 1948(P). See also Records available.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.9	32	3.0	260
2.2	70	4.0	488
2.5	128	5.0	698

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	178	192	250	424	116	239	216	247	114	69	52	116
2	173	173	226	413	116	257	205	218	90	63	51	126
3	168	298	211	413	110	239	200	194	97	62	47	114
4	157	382	197	*368	112	255	221	181	94	60	42	101
5	*149	308	189	327	112	270	218	173	92	57	38	94
6	144	265	186	317	119	280	211	184	88	56	36	92
7	136	237	181	324	368	348	211	173	84	78	36	92
8	126	218	176	285	337	317	189	170	81	94	39	83
9	119	237	*184	280	250	290	176	192	81	73	40	78
10	110	216	262	*257	216	275	165	181	78	64	40	73
11	110	192	252	244	250	262	159	168	76	62	39	70
12	110	178	218	229	586	247	157	151	103	59	108	69
13	107	181	200	218	500	244	151	144	218	53	346	67
14	103	173	229	213	440	237	154	141	184	50	247	64
15	103	159	515	208	320	224	165	144	136	47	154	63
16	166	151	505	200	272	242	159	133	110	44	112	63
17	208	173	411	194	317	255	149	133	96	44	92	62
18	170	173	424	189	366	237	146	128	84	44	114	59
19	154	157	696	184	*324	226	144	119	78	44	436	60
20	144	173	592	178	290	216	141	114	78	44	545	72
21	133	282	505	161	268	211	136	107	92	43	357	80
22	126	322	448	168	252	257	138	103	84	41	255	78
23	119	270	380	159	252	417	141	101	*76	40	221	70
24	114	237	368	157	255	378	136	97	78	38	237	99
25	112	288	355	154	239	334	*159	101	86	39	208	218
26	107	275	317	149	226	308	208	*107	96	41	*168	184
27	105	237	298	146	221	298	262	162	92	40	146	133
28	105	226	288	136	224	272	237	157	90	51	138	141
29	141	268	324	131	-	*244	282	144	84	86	123	162
30	242	282	435	119	------	237	285	131	75	72	112	136
31	218	-----	498	121	------	224	------	119	------	59	107	----
Total	4,357	6,923	10,320	7,066	7,458	8,340	5,521	4,617	2,915	1,717	4,686	2,919
Mean	141	231	333	228	266	269	184	149	97.2	55.4	151	97.3
Cfsm	1.95	3.19	4.60	3.15	3.67	3.72	2.54	2.06	1.34	0.765	2.09	1.34
In.	2.24	3.56	5.30	3.63	3.83	4.28	2.84	2.37	1.50	0.88	2.41	1.50

Calendar year 1954: Max 1,260 Min 41 Mean 195 Cfsm 2.69 In. 36.56
Water year 1954-55: Max 696 Min 36 Mean 183 Cfsm 2.53 In. 34.34

Peak discharge (base, 550 cfs).--Dec. 15 (8 p.m.) 574 cfs (4.43 ft); Dec. 19 (2 to 4 p.m.) 748 cfs (5.20 ft); Feb. 12 (5 to 6 p.m.) 649 cfs (4.79 ft); Aug. 20 (5 to 7 a.m.) 600 cfs (4.56 ft).
* Discharge measurement made on this day.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is at mean sea level (from topographic map).

Average discharge.--15 years, 539 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 2,060 cfs Dec. 20 (gage height, 6.94 ft); minimum daily, 110 cfs July 23, 24.
1940-55: 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, which occurred in November 1927, was possibly more than twice that of March 1936. Maximum stage known, 15.0 ft Sept. 21, 1938 (due to hurricane tidal wave), from information by local residents.

Remarks.--Records good. Regulation at low flow 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	665	788	1,100	1,730	439	913	825	934	*406	221	203	*498
2	637	707	997	1,680	432	976	788	*855	370	208	181	517
3	630	955	920	1,690	426	969	758	772	352	198	124	504
4	623	1,210	840	*1,610	413	1,000	818	700	322	185	117	452
5	*582	1,200	788	1,470	394	1,100	840	637	304	185	120	413
6	556	1,130	772	1,380	406	1,140	802	630	310	190	128	420
7	530	1,030	721	1,340	904	1,300	795	609	298	406	131	394
8	504	*948	686	1,280	1,150	1,280	772	602	240	439	138	358
9	465	855	*679	1,190	1,060	1,210	714	623	298	312	149	328
10	465	810	906	1,140	920	1,150	672	609	270	304	145	298
11	458	742	997	1,070	892	1,100	651	588	245	250	114	270
12	452	700	962	997	1,440	1,000	623	556	298	221	960	310
13	452	665	913	948	1,530	990	595	478	426	206	1,770	292
14	439	623	920	878	1,410	976	582	472	536	177	1,580	275
15	426	616	1,490	825	1,300	920	582	472	491	149	1,240	250
16	543	582	1,650	795	1,170	920	576	478	426	161	934	221
17	630	543	1,620	772	1,160	948	562	458	364	157	707	235
18	651	536	1,600	721	1,270	927	562	452	322	157	651	198
19	582	582	1,980	700	*1,260	885	543	432	270	153	1,180	216
20	530	630	2,040	672	1,210	855	530	406	265	161	1,620	358
21	504	810	1,940	630	1,150	832	517	364	*265	134	1,560	382
22	478	997	1,780	609	1,070	948	510	358	280	145	1,360	328
23	432	990	1,620	602	1,020	1,260	510	370	275	110	1,180	239
24	426	934	1,490	609	1,010	1,340	510	364	255	110	1,070	280
25	432	1,000	1,410	588	983	1,270	562	352	280	131	955	700
26	420	1,050	1,320	582	906	1,220	651	370	328	131	818	765
27	406	990	1,240	562	870	1,180	870	439	334	131	686	665
28	376	920	1,170	543	892	1,110	906	478	310	221	616	637
29	439	1,030	1,200	498	-	*1,020	955	491	310	*364	556	665
30	616	1,150	1,480	465	-------	941	969	465	275	288	478	616
31	795	-------	1,760	472	-------	885	-------	458	-------	235	426	-------
Total	16,144	25,703	38,991	29,048	27,087	32,565	20,550	16,272	9,725	6,462	21,897	12,084
Mean	521	857	1,258	937	967	1,050	685	525	324	208	706	403
(†)	2.45	2.40	2.37	2.36	2.46	2.46	2.28	2.76	3.03	3.60	3.22	2.66
Adjusted for diversion												
Mean	523	859	1,260	939	970	1,053	687	528	327	212	710	405
Cfsm	1.77	2.91	4.27	3.18	3.29	3.57	2.33	1.79	1.11	0.719	2.41	1.37
In.	2.04	3.25	4.92	3.67	3.42	4.12	2.60	2.06	1.24	0.83	2.77	1.53

	observed			Adjusted		
Calendar year 1954:	Max 3,150	Min 128	Mean 742	Mean 744	Cfsm 2.52	In. 34.22
Water year 1954-55:	Max 2,040	Min 110	Mean 703	Mean 706	Cfsm 2.39	In. 32.45

* Discharge measurement made on this day.
† Diversion for municipal supply of Westerly, equivalent in cubic feet per second. 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 1955.

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.--9 years, 25.7 cfs.

Extremes.--1946-55: Maximum discharge, 464 cfs (300 mgd) 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 1954 to September 1955

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	455.7	14.7	22.7	1.03	1.59	1.83
November	828.6	27.6	42.7	1.93	2.99	3.34
December	1,241.2	40.0	61.9	2.80	4.33	4.99
Calendar year 1954	7,957.3	21.8	33.7	1.52	2.35	31.98
January	758.0	24.5	37.9	1.71	2.65	3.06
February	677.3	24.2	37.4	1.69	2.61	2.72
March	965.1	31.1	48.1	2.17	3.36	3.87
April	552.6	18.4	28.5	1.29	2.00	2.23
May	328.0	10.6	16.4	.741	1.15	1.33
June	182.0	6.07	9.39	.424	.656	.73
July	86.0	2.77	4.29	.194	.300	.35
August	341.0	11.0	17.0	.769	1.19	1.37
September	184.9	6.16	9.53	.431	.667	.74
Water year 1954-55	6,600.4	18.1	28.0	1.27	1.96	26.56

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 1955.

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.--24 years, 212 cfs.

Extremes.--Maximum discharge during year, 24,200 cfs Aug. 19 (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, 20 cfs Aug. 2 (gage height, 2.13 ft); minimum daily, 24 cfs Aug. 1.
1931-55: Maximum discharge, that of Aug. 19, 1955; 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, which are good. Flow regulated by mills and reservoirs upstream.

Revisions (water years).--WSP 781: 1934(m), drainage area. WSP 851: 1935-36. WSP 1201: 1932(M,m), 1933-34, 1937, 1939-42.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19

2.2	23	8.0	1,940
2.5	46	10.0	3,800
3.0	115	12.0	7,460
4.0	335	14.0	12,200
6.0	1,010		

Aug. 20 to Sept. 30

4.1	95	6.0	770
4.5	185	8.0	1,940
5.0	340		

Note.--Same as preceding table above 8.0 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	156	187	348	450	90	362	295	405	253	66	24	298
2	150	164	298	450	99	495	292	335	193	54	25	261
3	130	516	262	495	90	348	288	298	154	100	27	180
4	124	525	227	420	98	290	465	272	113	98	29	155
5	136	390	224	360	99	246	465	317	96	62	30	145
6	125	290	211	360	90	326	420	348	101	59	*31	222
7	120	222	200	405	465	450	435	295	99	99	36	213
8	115	209	183	303	355	335	360	280	93	66	73	170
9	105	202	193	288	224	318	302	290	87	53	60	142
10	99	178	292	280	198	360	278	253	84	44	53	135
11	113	172	272	255	240	480	272	224	76	43	42	145
12	115	162	204	231	405	480	258	206	98	48	147	213
13	112	148	204	222	235	435	248	189	143	45	735	182
14	105	136	298	190	193	*390	248	174	127	45	1,230	168
15	113	146	930	170	189	335	255	152	98	40	628	127
16	243	164	675	162	166	405	236	160	84	37	310	142
17	178	156	465	183	270	480	209	176	74	32	186	*119
18	145	152	642	160	292	375	224	164	58	35	337	113
19	129	152	1,130	154	236	312	218	148	45	45	*12,100	99
20	124	397	745	143	209	290	206	130	53	40	6,650	115
21	118	555	540	136	213	305	204	120	*185	35	1,850	160
22	113	465	465	132	206	488	250	101	170	32	1,030	142
23	102	335	405	120	298	950	272	96	118	28	924	119
24	90	290	405	127	405	675	227	113	107	31	830	158
25	90	405	360	130	298	540	*390	152	113	34	580	260
26	99	390	312	136	236	465	495	148	96	39	468	252
27	107	312	318	132	222	465	605	132	83	33	408	202
28	125	282	308	117	278	405	480	109	86	61	392	198
29	168	420	*405	107	-	348	570	90	76	49	336	208
30	253	435	638	87	------	325	510	84	73	37	288	195
31	218	-- --	605	81	-------	310	--------	106	--------	25	284	- - - -
Total	4,118	8,557	12,764	6,986	6,399	12,788	9,977	6,067	3,236	1,515	30,143	5,258
Mean	133	285	412	225	229	413	333	196	108	48.9	972	175
Cfsm	1.10	2.36	3.40	1.86	1.89	3.41	2.75	1.62	0.893	0.404	8.03	1.45
In.	1.27	2.63	3.92	2.14	1.97	3.93	3.07	1.87	1.00	0.47	9.26	1.62

Calendar year 1954: Max 2,280 Min 24 Mean 235 Cfsm 1.94 In. 26.41
Water year 1954-55: Max 12,100 Min 24 Mean 295 Cfsm 2.44 In. 33.15

Peak discharge (base, 1,100 cfs).--Dec. 19 (3 a.m.) 1,210 cfs (6.46 ft); Aug. 14 (2:30 a.m.) 1,600 cfs (7.40 ft); Aug. 19 (4 p.m.) 24,200 cfs (18.66 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Jan. 14, 18, 21, 28, 30, 31, Feb. 2-5, 13, 16.

Hop River near Columbia, Conn.

Location.--Lat 41°43'39", long 72°18'10", on right bank 1,500 ft downstream from abandoned mill and 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 1955.

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.--23 years, 128 cfs.

Extremes.--Maximum discharge during year, 5,570 cfs Aug. 19 (gage height, 15.10 ft, from floodmark); minimum, 6.0 cfs Aug. 5 (gage height, 2.63 ft).
1932-55: 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, 2.4 cfs Aug. 19, 1939 (gage height, 2.55 ft); minimum daily, 2.6 cfs Aug. 28, 1949; 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 flow.

Revisions (water years).--WSP 781: 1933(M), drainage area. WSP 1111: 1947(m). WSP 1301: 1935-36(M).

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19

2.6	4.7	7.0	800
2.8	16	9.0	1,510
3.4	63	11.0	2,570
4.0	137	13.0	3,890
5.0	314		

Aug. 20 to Sept. 30

3.1	33	5.0	286
3.5	67	6.0	500
4.0	126	8.0	1,120

Note.--Same as preceding table above 8.0 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	119	198	304	40	238	158	284	71	30	12	104
2	64	102	171	304	39	294	152	227	57	26	10	88
3	55	785	148	314	*38	210	155	189	49	28	9.0	78
4	54	549	123	255	34	194	304	166	42	25	9.0	70
5	56	335	122	218	30	173	314	186	41	21	9.5	*63
6	71	264	106	227	30	277	255	324	37	19	13	77
7	70	213	99	264	290	400	264	218	33	40	12	64
8	666	181	94	187	192	246	213	198	32	30	73	55
9	65	162	97	160	149	218	176	194	30	22	33	49
10	65	134	163	150	122	284	160	158	30	19	18	46
11	66	113	143	133	152	294	148	140	28	18	15	43
12	66	108	119	119	304	264	133	124	46	15	116	58
13	65	100	109	112	160	236	129	113	58	13	514	52
14	63	94	2[illegible]0	102	131	208	134	108	43	13	741	48
15	65	91	1,1[illegible]0	108	109	*182	138	97	35	12	348	46
16	110	86	565	97	90	227	131	89	30	12	222	51
17	106	89	378	90	178	246	120	102	26	12	142	51
18	89	89	492	86	204	186	117	91	23	11	226	54
19	82	91	935	84	163	170	112	78	20	11	3,570	51
20	76	326	493	76	143	157	108	69	24	11	2,350	63
21	73	400	356	82	131	158	104	59	*62	10	899	44
22	70	294	294	75	122	346	*137	53	136	9.0	472	38
23	66	227	255	70	198	796	148	50	66	8.4	376	34
24	66	204	246	69	236	434	129	49	53	10	297	105
25	73	335	218	64	174	356	227	47	77	8.8	230	238
26	69	255	184	63	148	304	291	49	62	15	187	125
27	69	208	174	53	137	304	434	58	50	13	162	95
28	85	196	168	45	158	236	304	50	53	23	144	153
29	111	309	*236	55	-	201	505	45	44	27	109	144
30	178	274	474	50	-------	184	400	41	35	17	85	103
31	144	---	423	45	-------	170	-------	45	---	13	98	---
Total	2,426	6,733	8,913	4,061	3,902	8,193	6,100	3,701	1,393	551.4	11,511.5	2,290
Mean	78.3	224	288	131	139	264	203	119	46.4	17.8	371	76.3
Cfsm	1.03	2.94	3.78	1.72	1.82	3.46	2.66	1.56	0.609	0.234	4.87	1.00
In.	1.19	3.28	4.36	1.98	1.90	3.99	2.97	1.80	0.68	0.27	5.62	1.12

Calendar year 1954: Max 1,460 Min 7.9 Mean 141 Cfsm 1.85 In. 25.16
Water year 1954-55: Max 3,570 Min 8.4 Mean 164 Cfsm 2.15 In. 29.16

Peak discharge (base, 900 cfs).--Nov. 3 (2:30 p.m.) 1,050 cfs (7.82 ft); Dec. 15 (8:30 a.m.) 1,560 cfs (9.13 ft); Dec. 19 (4 a.m.) 1,270 cfs (8.41 ft); Mar. 23 (8 a.m.) 980 cfs (7.65 ft); Aug. 14 (5 a.m.) 950 cfs (7.50 ft); Aug. 19 (2 p.m.) 5,570 cfs (15.10 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4, 7, 8, 23, 26, Jan. 8, 9, 11-23, 25-31, Feb. 1-9, 13, 14.

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 miles 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 1955.

Gage.--Water-stage recorder. Datum of gage is 522.92 ft above mean sea level, datum of 1929.

Average discharge.--5 years, 9.73 cfs.

Extremes.--Maximum discharge during year, 1,000 cfs Aug. 19 (gage height, 6.68 ft); minimum, 0.35 cfs Aug. 5 (gage height, 1.31 ft).
1950-55: Maximum discharge, that of Aug. 19, 1955; minimum, 0.01 cfs Aug. 30 to Sept. 12, Sept. 18-21, 1953; minimum gage height, 1.17 ft Sept. 4-12, 1953.

Remarks.--Records good.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-5		Oct. 5 to Sept. 30			
1.5	1.4	1.3	0.3	2.5	31
1.6	2.3	1.4	.8	3.0	61
1.7	3.5	1.5	1.6	3.5	103
		1.6	2.6	4.0	160
		1.8	5.8	5.0	330
		2.0	11	6.0	610

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.9	*6.3	12	15	*b0.9	*24	7.7	12	5.8	1.5	0.5	3.6
2	2.8	4.9	*9.6	21	b.9	19	7.5	8.8	3.3	9.7	.45	2.7
3	2.5	60	b6.3	*19	b.9	11	8.0	*7.0	2.6	19	.4	2.2
4	2.3	30	b6.0	13	b.9	7.7	15	6.5	2.3	4.5	.4	1.9
5	2.2	16	5.8	b9.9	b.9	7.7	13	6.3	2.3	2.4	.45	1.9
6	2.2	12	5.1	14	b1.3	13	11	8.8	2.1	1.9	.7	3.0
7	2.1	9.0	4.5	b14	46	21	12	6.5	2.1	1.8	.75	2.1
8	2.0	7.5	b4.4	b8.5	b8.8	b13	9.0	7.0	2.1	1.6	1.0	1.5
9	1.9	6.5	6.3	b6.5	b4.9	b10	7.0	7.2	2.1	1.4	.75	1.3
10	1.9	5.4	15	b5.8	4.5	b24	6.5	5.4	2.0	1.3	.6	1.1
11	2.1	4.9	8.8	b5.3	20	43	6.0	4.9	1.8	1.4	.6	1.0
12	2.1	4.9	b6.5	b4.7	34	27	5.4	4.2	5.5	1.3	3.3	1.0
13	2.0	4.5	5.6	b4.4	b17	20	5.4	3.9	4.9	1.0	32	.9
14	1.9	4.4	33	b3.9	b6.5	13	5.4	3.7	2.7	.95	19	.8
15	1.9	4.2	79	3.4	4.5	11	6.0	3.6	2.1	.8	6.3	*.75
16	21	3.9	26	3.3	4.2	*22	5.4	3.3	1.9	.8	3.0	.7
17	7.5	3.7	*16	*3.3	b21	18	4.9	3.3	1.6	.8	*2.4	.65
18	4.5	3.7	94	3.0	20	11	4.7	3.2	1.4	.8	17	.6
19	3.7	4.4	70	2.9	b10	b9.6	4.5	2.7	1.4	.8	*445	.55
20	3.3	30	27	2.6	b8.2	b8.2	4.7	2.6	*2.0	.7	81	1.1
21	3.0	41	16	b2.2	7.2	8.2	4.4	2.4	1.9	.65	28	1.0
22	2.7	21	b13	b2.2	6.8	37	9.5	2.2	1.7	.55	11	.65
23	2.5	*13	b12	b2.2	22	54	7.7	2.1	1.5	.55	13	.6
24	2.4	13	b10	b2.2	18	22	6.2	2.1	1.5	.8	10	7.9
25	2.3	32	b9.0	b2.2	b9.6	17	18	2.4	1.8	.9	5.8	11
26	2.3	17	b8.0	b2.1	b7.0	15	20	2.3	1.8	.9	4.4	3.4
27	2.5	12	7.7	b2.0	7.5	16	21	2.6	1.9	.75	4.0	2.2
28	3.3	12	9.6	b1.6	11	11	14	2.3	2.4	.7	4.0	8.0
29	10	29	26	b1.3	-	b8.8	36	2.0	3.0	.8	3.0	5.4
30	15	18	46	b1.1	-------	8.2	20	1.8	1.9	.7	2.4	3.3
31	11	-------	25	b.9	-------	8.0	-------	5.0	-------	.6	3.2	-------
Total	129.8	434.2	623.2	183.5	304.5	538.4	305.9	138.1	71.4	62.35	704.40	72.80
Mean	4.19	14.5	20.1	5.92	10.9	17.4	10.2	4.45	2.38	2.01	22.7	2.43
Cfsm	1.03	3.55	4.93	1.45	2.67	4.26	2.50	1.09	0.583	0.493	5.56	0.596
In.	1.19	3.96	5.68	1.67	2.78	4.91	2.79	1.26	0.65	0.57	6.41	0.66

Calendar year 1954: Max 189 Min 0.2 Mean 9.94 Cfsm 2.44 In. 33.09
Water year 1954-55: Max 445 Min 0.4 Mean 9.78 Cfsm 2.40 In. 32.53

Peak discharge (base, 120 cfs).--Dec. 15 (1 a.m.) 154 cfs (3.95 ft); Dec. 18 (7 p.m.) 270 cfs (4.71 ft); Aug. 19 (6:45 a.m.) 1,000 cfs (6.68 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, 1⅝ miles south of Warrenville, Windham County, and 3¼ miles southwest of Ashford.

Drainage area.--29.1 sq mi.

Records available.--July 1940 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 335.57 ft above mean sea level, datum of 1929.

Average discharge.--15 years, 49.5 cfs.

Extremes.--Maximum discharge during year, 5,590 cfs Aug. 19 (gage height, 10.41 ft), from rating curve extended above 890 cfs on basis of contracted-opening determination of peak flow; minimum, 0.35 cfs Aug. 5 (gage height, 1.26 ft).
1940-1955: Maximum discharge, that of Aug. 19, 1955; minimum, that of Aug. 5, 1955; minimum gage height, 0.99 ft Aug. 26-29, 1949.
Flood in September 1938 reached a stage of about 14.5 ft, from floodmarks.

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

Revisions (water years).--WSP 1331: 1941(M), 1951-53(M).

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 4				Jan. 4 to Feb. 7, Aug. 20 to Sept. 30				Feb. 7 to Aug. 19			
1.6	6.4	2.5	69	1.6	8.5	3.0	143	1.29	0.7	2.5	88
1.7	10	3.0	125	1.7	13	4.0	298	1.3	.8	3.0	151
1.8	15	4.0	273	1.8	18	5.0	474	1.4	2.7	4.0	299
2.0	27	5.0	441	2.0	32	6.0	690	1.5	5.5	5.0	474
				2.5	78			1.7	14	7.0	1,090
								2.0	35	9.0	2,950

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	43	77	94	b16	118	64	78	35	7.5	1.1	37
2	41	37	65	111	b16	118	62	64	25	14	1.4	30
3	38	176	b57	107	b16	86	68	58	19	61	1.1	25
4	38	117	b51	87	b16	70	120	52	16	21	.7	22
5	36	81	49	b74	b16	b62	101	57	17	12	.8	20
6	34	64	b44	89	b17	97	88	66	14	9.5	2.7	33
7	29	53	b42	b92	b276	129	92	54	14	14	2.3	24
8	25	47	b40	b69	76	b98	72	56	14	9.5	5.2	17
9	25	44	48	b62	51	b83	61	57	14	6.7	3.2	14
10	25	40	83	57	46	111	57	49	12	5.5	2.0	13
11	25	37	64	b52	104	141	54	42	11	4.9	1.8	13
12	25	41	b50	b46	184	117	49	37	31	4.0	11	14
13	*24	37	b46	b43	b92	106	49	33	53	3.2	117	12
14	23	34	134	*b41	b57	87	49	33	20	2.7	187	11
15	25	33	405	38	47	76	52	31	15	2.3	57	11
16	84	32	185	b36	44	*113	47	28	12	2.3	25	18
17	59	33	*117	36	100	106	42	29	9.1	2.5	*17	*14
18	44	34	303	34	98	80	40	26	7.5	2.3	75	12
19	38	34	370	32	b72	b70	39	24	6.7	1.8	*2,640	13
20	34	214	175	31	b61	63	40	21	*13	1.4	591	15
21	32	217	125	26	57	64	37	19	17	1.3	219	13
22	27	126	b105	28	53	162	57	18	18	.95	116	11
23	24	*87	b96	28	105	282	55	17	14	.8	121	9.8
24	23	76	87	30	b106	141	46	17	14	4.9	95	57
25	22	126	b76	29	*b76	118	94	23	21	4.0	66	85
26	22	88	b69	28	b60	106	*112	21	20	3.2	52	42
27	27	71	b64	28	59	108	122	24	12	2.7	44	28
28	36	69	66	b24	76	b86	888	19	16	3.4	41	64
29	58	123	111	22	-	76	142	16	16	3.0	31	50
30	75	100	194	19	-------	71	104	15	10	2.0	27	35
31	56	-------	135	17	-------	68	-------	24	-------	1.4	33	-------
Total	1,118	2,314	3,537	1,510	1,997	3,213	2,103	1,108	496.3	215.75	4,597.3	762.8
Mean	36.1	77.1	114	48.7	71.3	104	70.1	35.7	16.5	6.96	148	25.4
Cfsm	1.24	2.65	3.92	1.67	2.45	3.57	2.41	1.23	0.567	0.239	5.09	0.873
In.	1.43	2.96	4.52	1.92	2.55	4.12	2.69	1.42	0.63	0.28	5.87	0.97

Calendar year 1954: Max 1,040 Min 2.0 Mean 61.0 Cfsm 2.10 In. 28.45
Water year 1954-55: Max 2,640 Min 0.7 Mean 62.9 Cfsm 2.16 In. 29.36

Peak discharge (base, 400 cfs).--Dec. 15 (1 a.m.) 660 cfs (5.93 ft); Dec. 18 (8:30 p.m.) 780 cfs (6.29 ft); Feb. 7 (6 a.m.) 483 cfs (5.03 ft); Aug. 19 (8:30 a.m.) 5,590 cfs (10.41 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Backwater from leaves on control Aug. 21 to Sept. 24.

Mansfield Hollow Reservoir at Mansfield Hollow, Conn.

Location.--Lat 41°45'22", long 72°10'57", on Natchaug River at Mansfield Hollow, 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 1955.

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 1954 to September 1955

Date	Elevation (feet)†	Contents (millions of cubic feet)	Change in contents (millions of cubic feet)
Sept.30	200.1	1.0	-
Oct. 31	204.7	22.9	+21.9
Nov. 30	202.1	6.4	-16.5
Dec. 31	204.3	19.8	+13.4
Calendar year 1954	-	-	+18.6
Jan. 31	199.7	.6	-19.2
Feb. 28	201.0	2.4	+1.8
Mar. 31	201.0	2.4	0
Apr. 30	202.2	6.9	+4.5
May 31	200.1	1.0	-5.9
June 30	199.7	.6	-.4
July 31	199.3	.3	-.3
Aug. 31	207.2	48.8	+48.5
Sept.30	201.9	5.5	-43.3
Water year 1955	-	-	+4.5

† 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 & 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 1955.

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.--25 years, 302 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 3,250 cfs Aug. 27 (gage height, 8.58 ft); minimum, 6.2 cfs Aug. 7 (gage height, 2.04 ft); minimum daily, 6.9 cfs Aug. 3, 4.
1930-55: 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 from station; minimum, about 0.3 cfs Aug. 6, 1937; minimum daily, 2.3 cfs Sept. 11, 12, 1943.

Remarks.--Records excellent. 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.0	4.0	3.0	212
2.1	10	5.0	1,130
2.2	19	7.0	2,210
2.6	91	9.0	3,590

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	199	53	570	830	101	479	384	538	250	95	29	873
2	191	570	464	718	99	718	371	407	202	84	26	515
3	177	712	384	808	b96	574	362	348	151	90	6.9	294
4	174	1,010	312	672	b94	461	551	304	125	112	6.9	242
5	164	808	336	542	b91	380	646	312	123	98	55	208
6	154	560	265	506	107	456	533	502	114	112	8.1	242
7	145	426	245	605	532	740	528	380	104	119	22	231
8	130	355	248	b490	695	592	470	330	104	110	112	188
9	127	312	269	420	344	484	389	389	100	111	65	161
10	124	61	418	402	282	528	348	312	96	109	42	145
11	132	267	441	335	308	695	326	270	94	104	34	139
12	136	462	326	299	808	740	299	239	146	83	161	139
13	130	245	265	312	b530	672	286	212	262	89	247	131
14	124	225	350	b260	317	*574	290	202	177	85	121	117
15	132	217	516	239	270	488	294	194	131	85	35	112
16	320	206	1,730	239	b220	502	290	177	107	85	59	123
17	407	202	1,430	231	348	650	262	194	92	86	246	*123
18	265	199	1,030	b200	569	538	250	174	80	85	355	112
19	210	202	1,380	202	466	438	239	155	82	84	782	104
20	181	460	2,010	188	384	394	239	142	85	47	388	176
21	167	1,010	1,640	b150	348	389	227	131	86	38	48	220
22	154	986	785	174	308	538	270	120	*123	67	551	167
23	142	689	b650	161	380	1,200	358	112	82	8.8	1,740	151
24	132	513	641	171	636	1,130	290	112	115	37	2,660	268
25	130	651	564	161	492	855	*412	123	132	71	2,850	509
26	127	666	452	164	394	695	528	125	124	27	2,900	716
27	127	522	456	b155	348	650	718	171	111	47	3,010	317
28	171	450	*438	b140	394	569	582	137	117	36	3,030	331
29	151	570	578	137	-	484	672	117	142	52	2,650	448
30	513	737	830	114	--------	438	718	104	118	17	2,300	232
31	190	--------	1,080	109	--------	412	--------	109	--------	41	1,080	--------
Total	5,626	14,346	21,103	10,134	9,961	18,463	12,132	7,142	3,775	2,314.8	25,919.9	7,734
Mean	181	478	681	327	356	596	404	230	126	74.7	836	258
(†)	+8.2	-6.4	+5.0	-7.2	+0.7	0	+1.7	-2.2	-0.2	-0.1	+18.1	-16.7
Adjusted for change in contents in Mansfield Hollow Reservoir												
Mean	189	472	686	320	357	596	406	228	126	74.6	854	241
Cfsm	1.12	2.79	4.06	1.89	2.11	3.53	2.40	1.35	0.746	0.441	5.05	1.43
In.	1.29	3.11	4.68	2.18	2.20	4.07	2.68	1.56	0.83	0.51	5.82	1.60

	Observed			Adjusted			
Calendar year 1954:	Max 2,010	Min 5.9	Mean 356	Mean 357	Cfsm 2.11	In. 28.67
Water year 1954-55:	Max 3,030	Min 6.9	Mean 380	Mean 380	Cfsm 2.25	In. 30.53

* 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, and 1½ miles southeast of Willimantic, Windham County.

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 1955.

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 about 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.--30 years (1904-5, 1919-21, 1928-55), 702 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 21,300 cfs Aug. 19 (gage height, 17.36 ft); minimum, 68 cfs Aug. 3 (gage height, 1.58 ft); minimum daily, 71 cfs Aug. 3, 4. 1904-5; 1919-21; 1928-55: 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, 1.22 ft Oct. 20, 1935.

Remarks.--Records excellent except those for periods of no gage-height record, which are good. Flow regulated by mills on Willimantic River, on Natchaug River by pumping for municipal supply of city of Willimantic, and by Mansfield Hollow Reservoir (see p. 142).

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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.6	71	6.0	2,490
1.8	111	8.0	4,550
2.0	159	10.0	7,150
2.5	318	12.0	10,200
3.0	520	14.0	14,000
4.0	1,060		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	453	384	1,150	1,680	268	1,060	880	1,370	578	219	99	1,340
2	440	820	940	1,480	268	1,580	850	1,090	496	198	94	952
3	400	1,820	820	1,680	262	1,240	820	910	392	219	71	635
4	380	2,250	685	1,400	268	1,030	a1,300	880	324	269	71	535
5	381	1,650	705	1,150	279	880	a1,510	849	300	222	126	488
6	370	1,180	620	1,090	279	1,060	a1,180	1,340	282	224	88	610
7	366	910	545	1,300	1,250	1,760	a1,370	1,030	281	290	79	595
8	347	770	530	1,030	1,340	1,270	a1,120	910	259	248	289	488
9	330	710	565	910	765	1,090	a910	1,000	252	210	213	424
10	325	331	850	880	605	1,210	820	8.0	244	201	152	340
11	343	a560	850	760	725	1,510	795	720	236	195	127	381
12	350	a800	670	685	1,650	1,540	740	645	324	172	360	461
13	344	a600	620	685	1,030	1,370	705	565	515	178	1,290	436
14	332	a550	842	550	760	1,240	720	545	394	174	2,410	400
15	327	a510	2,640	535	645	*1,060	740	506	316	167	1,300	358
16	635	a490	*3,230	520	525	1,120	720	490	259	169	695	369
17	720	a474	2,330	520	838	1,440	635	530	232	166	640	347
18	535	474	2,050	466	1,150	1,150	620	489	201	165	894	336
19	446	474	3,640	474	940	970	605	431	183	173	9,150	318
20	412	1,083	3,430	449	795	880	590	403	194	144	*13,000	412
21	387	1,970	2,580	390	740	880	570	361	261	115	3,890	525
22	364	1,790	1,620	413	705	1,290	660	329	*502	138	2,240	424
23	339	1,270	1,370	392	858	2,940	820	312	310	79	2,970	358
24	325	1,030	1,340	406	1,340	2,410	695	316	302	106	3,730	548
25	317	1,400	1,210	396	1,030	1,820	a1,000	354	366	178	3,610	1,180
26	323	1,340	1,000	402	820	1,510	a1,340	370	340	120	3,460	1,230
27	324	1,060	1,000	385	755	1,510	a1,860	407	290	128	3,450	705
28	406	940	970	325	880	1,270	*1,150	357	327	126	3,480	760
29	414	1,270	1,210	340	-	1,090	1,860	307	322	186	3,290	946
30	970	1,480	1,900	311	--------	1,000	1,860	282	266	110	2,760	620
31	631	--------	2,250	286	--------	940	--------	295	--------	118	1,500	--------
Total	13,036	30,390	44,162	22,290	21,770	41,120	29,445	19,233	9,548	5,407	65,528	17,521
Mean	421	1,013	1,425	719	778	1,326	982	620	318	174	2,114	584
(†)	+8.2	-6.4	+5.0	-7.2	+0.7	0	+1.7	-2.2	-0.2	-0.1	+18.1	-16.7

Adjusted for change in contents in Mansfield Hollow Reservoir

Mean	429	1,007	1,430	712	779	1,326	984	618	318	174	2,132	567
Cfsm	1.07	2.51	3.57	1.78	1.94	3.31	2.45	1.54	0.793	0.434	5.32	1.41
In.	1.23	2.80	4.12	2.05	2.02	3.82	2.73	1.76	0.88	0.50	6.13	1.57

	Observed			Adjusted		
Calendar year 1954:	Max 4,550	Min 68	Mean 787	Mean 788	Cfsm 1.97	In. 26.69
Water year 1954-55:	Max 13,000	Min 71	Mean 875	Mean 875	Cfsm 2.18	In. 29.63

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Mansfield Hollow Reservoir, furnished by Corps of Engineers.

a No gage-height record; discharge estimated on basis of weather records, engineers' notes, recorded range in stage and summation of records from three headwater streams.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 221.19 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 1,400 cfs Aug. 19 (gage height, 6.48 ft), from rating curve extended above 820 cfs by logarithmic plotting; minimum, 9.4 cfs July 23, 24 (gage height, 1.21 ft).
1951-55: Maximum discharge, that of Aug. 19, 1955; minimum, 6.6 cfs Sept. 10, 11, 1953 (gage height, 1.03 ft).

Remarks.--Records good.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 18, June 13 to Sept. 30

1.2	9.0	2.0	72
1.4	18	2.5	156
1.7	39		

Note.--Same as following table above 2.5 ft.

Dec. 19 to June 12

1.4	23	3.0	255
1.7	46	4.0	515
2.0	78	5.0	830
2.5	156		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	58	79	129	b28	106	69	96	88	23	28	76
2	25	46	66	134	b28	127	67	80	64	22	19	57
3	24	187	55	149	b29	90	68	*70	54	30	14	46
4	23	171	b48	114	b29	86	118	64	46	24	11	41
5	23	106	48	93	b29	79	104	70	47	22	10	36
6	22	83	44	96	29	125	86	133	42	21	11	41
7	22	66	b41	112	190	b195	89	90	38	101	11	34
8	21	56	b42	85	b84	b112	77	84	38	49	24	29
9	20	50	42	75	b80	96	68	112	37	31	19	27
10	20	44	71	71	51	110	64	83	37	25	13	25
11	20	42	59	65	97	122	60	71	34	22	11	25
12	20	40	48	b59	292	107	57	64	74	25	39	26
13	*19	38	44	59	b122	97	56	58	148	22	203	24
14	19	37	87	b52	b85	85	57	54	55	16	116	22
15	19	36	405	b52	64	77	60	52	42	15	50	22
16	86	34	201	b48	b56	*96	58	48	34	14	30	*23
17	59	33	125	b46	122	103	54	59	30	14	22	22
18	41	33	202	*b45	122	80	52	52	27	14	74	20
19	33	33	470	b42	90	74	50	46	24	14	819	20
20	30	112	203	b40	77	69	50	42	43	13	770	34
21	28	193	149	b36	*71	70	48	40	*37	12	247	30
22	26	134	124	37	67	159	63	37	52	11	124	22
23	24	86	b104	b36	90	300	65	36	36	9.8	209	20
24	23	73	106	37	103	156	57	36	33	12	188	83
25	23	140	96	36	79	127	83	44	49	18	104	222
26	22	99	b78	36	69	114	103	45	41	14	75	84
27	22	76	78	36	67	125	125	98	33	12	69	51
28	33	68	*79	b32	79	97	94	60	30	14	106	118
29	54	118	124	b34	-	84	187	49	33	14	66	106
30	102	*107	208	b34	-------	78	134	44	27	12	50	66
31	86	---	192	b29	-------	72	-------	56	-------	33	64	-----
Total	1,015	2,399	3,718	1,949	2,309	3,418	2,323	1,973	1,373	678.8	3,596	1,452
Mean	32.7	80.0	120	62.9	82.5	110	77.4	63.6	45.8	21.9	116	48.4
Cfsm	1.10	2.68	4.03	2.11	2.77	3.69	2.60	2.13	1.54	0.735	3.89	1.62
In.	1.27	2.99	4.85	2.43	2.88	4.25	2.90	2.46	1.72	0.85	4.48	1.81

Calendar year 1954: Max 680 Min 7.5 Mean 63.7 Cfsm 2.14 In. 29.02
Water year 1954-55: Max 819 Min 9.8 Mean 71.8 Cfsm 2.41 In. 32.68

Peak discharge (base, 400 cfs).--Dec. 15 (10 a.m. to 12 m.) 470 cfs (3.83 ft); Dec. 19 (6 to 7 a.m.) 575 cfs (4.21 ft); Aug. 19 (8 to 9 p.m.) 1,400 cfs (6.48 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 1⅝ miles west of Southbridge.

Drainage area.--93.8 sq mi.

Records available.--July 1939 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 537.66 ft above mean sea level, unadjusted (levels by Corps of Engineers).

Average discharge.--16 years, 162 cfs.

Extremes.--Maximum discharge during year, 17,500 cfs Aug. 19 (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, 26 cfs July 25, 26, 31.

1939-55: Maximum discharge, that of Aug. 19, 1955; 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 doubtful or no gage-height record, which are fair. Medium and low flows regulated by mills and reservoirs above station. August flood flow affected by dam failures and by reservoirs.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19				Aug. 20 to Sept. 30			
2.2	23	6.0	950	2.7	80	6.0	1,060
2.5	47	7.0	1,490	3.1	138	7.0	1,620
3.0	100	9.0	3,140	3.5	211	9.0	3,260
3.5	170	11.0	5,640	4.0	321	11.0	5,640
4.0	266	13.0	9,000	5.0	625	13.0	9,000
5.0	560	15.0	13,800				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	154	192	368	449	92	228	246	365	131	43	34	330
2	157	185	319	427	88	300	238	321	165	55	43	310
3	146	335	246	424	84	278	232	278	113	100	45	285
4	145	430	211	391	80	230	257	248	88	96	45	265
5	177	409	205	*349	76	189	280	234	98	74	41	230
6	167	363	200	324	80	201	285	234	104	56	33	320
7	187	313	184	310	190	225	295	234	*101	47	47	280
8	142	288	*175	260	180	215	280	226	98	42	65	220
9	120	271	178	245	170	211	257	222	94	38	63	155
10	120	224	226	245	160	228	236	205	73	36	54	110
11	121	203	220	230	145	300	218	187	58	35	48	110
12	122	170	205	210	200	363	205	170	63	43	99	115
13	152	150	192	184	195	365	196	146	98	60	252	110
14	161	157	203	165	190	340	194	140	120	50	374	105
15	168	156	436	160	160	306	180	136	118	44	433	95
16	184	144	503	157	142	311	165	136	105	41	330	93
17	196	145	464	152	157	335	165	151	78	38	228	90
18	177	148	493	140	151	338	177	170	56	40	605	100
19	154	151	732	135	145	303	178	132	54	*42	*11,400	125
20	139	262	744	125	152	276	172	108	66	42	8,830	105
21	150	380	640	115	156	259	170	86	73	40	3,800	130
22	142	403	533	115	*152	293	200	107	77	38	1,870	125
23	87	354	474	115	187	*480	216	*118	70	34	*1,230	105
24	90	313	406	115	228	510	189	118	60	31	999	104
25	116	319	313	115	196	471	244	133	51	26	774	146
26	104	319	280	110	162	421	300	135	47	26	611	141
27	108	283	264	105	167	394	403	101	47	36	499	125
28	*116	259	257	95	184	346	*388	80	51	41	436	124
29	136	332	313	100	-	308	380	72	69	30	390	122
30	171	386	418	94	------	283	386	82	27	28	365	116
31	201	---	474	96	------	264	------	100	------	26	344	-----
Total	4,510	8,044	10,876	6,257	4,269	9,571	7,332	5,175	2,453	1,378	34,387	4,791
Mean	145	268	351	202	152	309	244	167	81.8	44.5	1,109	160
Cfsm	1.55	2.86	3.74	2.15	1.62	3.29	2.60	1.78	0.872	0.474	11.8	1.71
In.	1.79	3.19	4.31	2.48	1.69	3.79	2.91	2.05	0.97	0.55	13.63	1.90

Calendar year 1954: Max 1,080 Min 9.0 Mean 207 Cfsm 2.21 In. 29.95
Water year 1954-55: Max 11,400 Min 26 Mean 271 Cfsm 2.89 In. 39.26

* Discharge measurement made on this day.

Note.--Doubtful or no gage-height record Aug. 25 to Sept. 23; discharge estimated on basis of 1 discharge measurement, weather records, appearance of recorder graph, water-surface determination by levels on Sept. 2, and records for station at Quinebaug, Conn. Stage-discharge relation affected by ice Dec. 26, Jan. 7-12, 14, 15, Jan. 18 to Feb. 14, Mar. 7, 8. 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 highway 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 1955.

Gage.--Water-stage recorder. Datum of gage is 341.52 ft above mean sea level, datum of 1929.

Average discharge.--24 years, 278 cfs.

Extremes.--Maximum discharge during year, 49,300 cfs Aug. 19 (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 8 cfs July 24; *minimum daily*, 10 cfs July 31.
1931-55: Maximum discharge, that of Aug. 19, 1955; minimum, about 1 cfs Sept. 9, 1943, July 12, 1949, Sept. 17, 18, 1950, July 9, 1951; minimum daily, 2 cfs Aug. 21, 28, Sept. 4, 1932; minimum gage height, 1.74 ft Aug. 20, 1940.
Revisions.--The maximum discharge for the water year 1938 has been revised to 19,000 cfs Sept. 21 (gage height, 16.21 ft, from floodmark), superseding figure published in WSP 851.

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.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	244	280	*617	755	*b130	*425	*401	548	*153	71	36	470
2	242	*309	532	725	b140	536	387	498	206	58	49	435
3	245	685	397	*725	b150	465	382	430	188	149	49	410
4	293	815	359	647	b140	392	455	*382	116	144	49	415
5	246	707	355	581	b125	333	455	364	139	118	71	322
6	273	605	350	553	b135	355	455	396	196	98	43	510
7	252	531	323	531	b500	425	465	368	143	86	54	410
8	249	476	308	436	395	382	440	364	143	90	114	330
9	271	440	322	410	334	364	387	359	154	69	86	236
10	220	377	404	426	270	420	368	327	134	26	90	174
11	265	337	392	385	315	587	355	307	98	115	80	178
12	210	316	350	368	409	665	332	279	85	53	115	181
13	214	283	340	298	323	641	308	251	198	54	334	178
14	246	279	375	247	355	581	309	197	162	78	504	163
15	284	304	860	290	260	509	307	220	186	*56	520	*149
16	375	256	848	256	*232	564	244	275	161	41	*406	146
17	359	237	*755	267	294	575	272	208	139	43	299	132
18	*337	263	930	251	291	536	306	228	103	78	1,260	146
19	309	248	1,360	b205	255	465	276	232	34	54	*26,500	200
20	268	507	1,170	b210	272	440	276	192	*142	57	14,800	132
21	251	785	978	b200	288	425	268	118	102	49	*5,050	204
22	245	761	b800	169	264	*561	292	117	105	64	2,650	204
23	153	*635	743	194	326	880	330	216	105	60	1,890	146
24	171	531	671	231	399	834	304	180	108	14	1,490	135
25	244	617	553	205	327	767	430	*163	71	56	1,100	256
26	183	587	482	183	274	683	504	187	36	39	869	224
27	183	504	450	186	279	659	623	169	93	35	713	181
28	204	465	435	225	327	570	587	106	77	40	602	208
29	241	629	575	b140	-	504	623	112	71	72	525	200
30	425	665	791	b210	------	465	587	123	*70	69	485	178
31	241	-- ---	841	b190	------	430	-- -----	204	------	10	470	- ---
Total	7,943	14,434	18,666	10,699	7,809	16,438	11,728	8,120	3,718	2,046	61,103	7,253
Mean	256	481	602	345	279	530	391	262	124	66.0	1,971	242
Cfsm	1.63	3.06	3.83	2.20	1.78	3.38	2.49	1.67	0.790	0.420	12.6	1.54
In.	1.88	3.41	4.42	2.54	1.85	3.90	2.78	1.92	0.88	0.48	14.53	1.72

Calendar year 1954: Max 2,800 Min 4 Mean 361 Cfsm 2.30 In. 31.19
Water year 1954-55: Max 26,500 Min 10 Mean 466 Cfsm 2.97 In. 40.31

Peak discharge (base, 1,000 cfs).--Dec. 18 (8 p.m.) 1,500 cfs (4.95 ft); Aug. 19 (3 p.m.) 49,300 cfs (18.96 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Backwater from aquatic vegetation June 16 to Aug. 18.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 457.00 ft above mean sea level, unadjusted (levels by Corps of Engineers).

Average discharge.--16 years, 47.2 cfs.

Extremes.--Maximum discharge during year, 8,340 cfs Aug. 19 (gage height, 15.53 ft), from rating curve extended above 1,200 cfs on basis of computation of peak flow over dam; minimum, 0.5 cfs Aug. 1; minimum daily, 1.0 cfs Aug. 6, 9.
1939-55: Maximum discharge, that of Aug. 19, 1955; minimum, 0.5 cfs Nov. 28, 29, 1949, July 30, 1950, Aug. 1, 1955; minimum daily, 0.5 cfs Nov. 28, 1949.

Remarks.--Records good. Flow regulated by reservoirs and mill above station.

Revisions (water years).--WSP 1201: 1940, 1948.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.0	1.0	2.8	23	5.0	419
2.1	2.0	3.0	38	6.0	685
2.2	3.4	3.2	61	8.0	1,530
2.4	7.3	3.5	108	10.0	2,750
2.6	14	4.0	197	13.0	5,300

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	81	114	158	3.2	61	71	99	39	1.4	1.2	97
2	57	63	96	138	8.1	108	67	79	54	2.7	1.4	79
3	20	132	80	133	19	105	59	*63	24	2.6	28	51
4	44	223	67	122	45	88	85	58	2.1	1.8	17	25
5	54	177	53	*105	11	71	82	58	1.9	39	1.1	27
6	57	128	60	96	14	67	82	58	33	58	1.0	*57
7	43	96	53	96	39	75	85	63	53	21	1.7	82
8	36	93	52	82	48	74	80	64	16	1.8	1.7	67
9	30	74	52	72	56	66	67	61	2.2	1.3	1.0	56
10	2.7	64	*56	64	60	67	48	61	1.5	35	1.1	62
11	39	60	72	61	60	102	64	60	1.5	20	1.1	75
12	56	58	64	60	74	140	58	57	2.3	1.3	31	58
13	29	58	58	58	91	140	57	56	39	1.5	32	46
14	17	30	65	57	64	122	57	18	38	1.5	2.3	42
15	57	46	197	56	60	102	57	2.7	2.1	1.4	42	41
16	31	51	213	53	57	100	57	30	*2.0	1.6	61	40
17	88	49	149	49	57	112	54	53	36	1.6	58	22
18	76	49	161	45	56	102	54	51	20	18	99	13
19	60	49	357	37	56	87	26	24	1.3	1.3	*5,180	39
20	58	51	275	21	56	74	30	2.1	2.1	1.6	2,360	48
21	58	144	191	14	56	67	54	15	22	1.2	*647	20
22	56	191	144	15	56	93	29	18	11	1.1	353	31
23	29	140	120	15	57	*179	32	37	17	1.3	262	53
24	3.2	110	106	32	58	177	57	*19	15	1.2	236	28
25	*36	108	100	42	58	151	58	2.9	36	28	197	58
26	56	111	90	39	60	133	98	2.4	1.4	*27	156	58
27	22	99	87	25	60	128	122	37	1.5	1.1	130	35
28	3.6	80	79	29	60	106	111	56	1.5	1.5	80	62
29	28	114	98	32	-	91	117	20	33	1.3	61	57
30	64	126	154	17	-------	82	114	1.7	19	1.3	54	56
31	75	-- --	185	12	-------	74	-------	3.6	--- ----	1.1	105	-- -
Total	1,346.5	2,855	3,648	1,835	1,399.3	3,144	2,032	1,230.4	528.4	280.5	10,202.6	1,485
Mean	43.4	95.2	118	59.2	50.0	101	67.7	39.7	17.6	9.05	329	49.5
Cfsm	1.57	3.44	4.26	2.14	1.81	3.65	2.44	1.43	0.635	0.327	11.9	1.79
In.	1.81	3.83	4.90	2.46	1.88	4.22	2.73	1.65	0.71	0.38	13.70	1.99

Calendar year 1954: Max 1,030 Min 1.0 Mean 68.4 Cfsm 2.47 In. 33.53
Water year 1954-55: Max 5,180 Min 1.0 Mean 82.2 Cfsm 2.97 In. 40.26

* Discharge measurement made on this day.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 406.74 ft above mean sea level, datum of 1929.

Average discharge.--6 years (1949-55), 171 cfs.

Extremes.--Maximum discharge during year, 14,400 cfs Aug. 19 (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, 7.2 cfs July 31.

1948-55: Maximum discharge, that of Aug. 19, 1955; 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 except those for periods of no gage-height record, which are fair. 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 19; backwater from debris Aug. 21 to Sept. 30)

Oct. 1 to Dec. 19		Dec. 20 to Sept. 30			
4.8	80	3.98	7.2	6.0	341
5.0	107	4.0	8.2	7.0	621
6.0	315	4.2	20	8.0	915
7.0	571	4.5	46	10.0	1,630
8.0	870	5.0	107	14.0	3,500
		5.5	204	18.0	6,200

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	214	178	339	489	87	209	231	307	78	39	39	517
2	195	174	313	447	81	269	218	258	95	18	42	a450
3	159	266	269	422	79	299	209	212	96	12	29	a320
4	142	449	225	397	93	266	253	185	39	21	24	a210
5	121	456	207	*358	78	218	258	172	45	48	44	a190
6	108	374	200	330	69	204	253	176	79	90	9.6	*a260
7	131	306	184	313	*194	228	261	180	85	83	14	288
8	112	273	*165	280	171	218	247	197	*90	47	50	228
9	118	234	155	250	146	199	204	180	70	45	44	178
10	81	202	191	218	143	202	180	165	66	47	49	151
11	101	189	214	*207	166	258	178	157	12	90	36	140
12	119	187	202	202	242	352	178	155	18	64	43	138
13	122	178	182	197	197	397	170	153	76	62	48	126
14	97	165	191	187	156	375	165	121	88	46	96	120
15	139	155	396	172	150	319	163	96	76	41	97	101
16	248	159	597	167	143	299	155	100	66	13	131	94
17	264	148	500	167	181	321	155	110	62	9.6	125	88
18	220	163	423	162	187	310	165	117	14	28	222	56
19	184	167	742	156	167	272	161	117	19	*48	*6,170	62
20	138	218	831	147	159	231	136	96	69	43	a5,640	100
21	120	317	657	127	167	215	141	27	65	33	2,180	128
22	134	438	503	99	163	247	150	33	64	26	*1,290	109
23	117	394	391	104	176	*405	121	*82	63	8.6	937	107
24	84	324	366	108	209	487	155	103	62	7.6	782	103
25	102	293	333	119	202	459	192	80	13	58	730	115
26	115	308	305	129	176	414	239	70	14	61	720	138
27	124	291	296	124	172	391	321	65	66	45	618	125
28	*107	278	277	110	180	358	*344	80	58	41	540	123
29	103	317	288	113	-	307	352	86	56	41	454	126
30	135	330	369	94	------	274	347	53	57	*8.6	436	132
31	172	- -	481	103	-------	250	-------	84	--------	7.2	422	---- --
Total	4,326	7,931	10,792	6,498	4,334	9,253	6,302	4,017	1,761	1,231.6	22,071.6	5,023
Mean	140	264	348	210	155	298	210	130	58.7	39.7	712	167
Cfsm	1.64	3.09	4.08	2.46	1.82	3.49	2.46	1.52	0.688	0.465	8.35	1.96
In.	1.89	3.46	4.71	2.83	1.89	4.03	2.75	1.75	0.77	0.54	9.62	2.19

Calendar year 1954: Max 2,000 Min 22 Mean 208 Cfsm 2.44 In. 33.16
Water year 1954-55: Max 6,170 Min 7.2 Mean 229 Cfsm 2.68 In. 36.43

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, and records for Quinebaug River at Westville and Little River at Buffumville.
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.--October 1929 to September 1955. Prior to December 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.--26 years, 570 cfs.

Extremes.--Maximum discharge during year, 48,000 cfs Aug. 19 (gage height, 26.5 ft, from floodmarks) on basis of slope-area determination of peak flow; minimum, 13 cfs July 20 (gage height, 1.61 ft); minimum daily, 37 cfs July 17.
1929-55: Maximum discharge that of Aug. 19, 1955; 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 period of no gage-height record, which are poor. City of Putnam diverts an average of less than 1 mgd from Little River for municipal supply. Large diurnal fluctuation, particularly during low flow, caused by many dams and reservoirs above station, 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19				Aug. 20 to Sept. 30			
1.8	30	7.0	2,560	3.4	288	10.0	4,780
2.1	72	10.0	5,400	4.0	465	14.0	10,100
2.5	155	14.0	10,800	5.0	870	18.0	18,000
3.0	296	18.0	18,000	7.0	2,080	22.0	28,000
4.0	690	22.0	28,000				
5.0	1,230						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	636	618	1,260	1,650	320	840	870	1,140	369	157	40	1,100
2	534	665	1,140	1,530	323	*1,110	795	990	329	120	55	1,000
3	448	1,210	940	1,530	310	1,030	799	865	367	240	55	850
4	592	1,780	790	1,380	252	933	948	*740	275	243	55	750
5	472	1,650	740	1,260	298	762	959	694	164	250	80	650
6	481	1,380	715	1,170	254	770	943	734	269	224	55	850
7	438	1,140	675	1,170	1,010	948	965	680	304	169	65	800
8	482	1,020	640	990	915	871	910	709	260	179	190	650
9	356	915	626	915	715	815	798	721	258	128	160	550
10	310	765	800	865	604	840	738	636	232	57	170	420
11	432	715	815	790	681	1,170	708	585	195	154	140	400
12	311	665	745	740	1,110	1,380	669	536	186	212	200	420
13	405	640	715	690	815	1,380	627	504	389	148	500	400
14	404	560	721	591	740	1,300	617	444	285	161	750	390
15	450	595	1,650	536	604	1,140	613	419	333	122	800	370
16	891	557	1,960	544	511	1,130	553	437	289	108	*700	340
17	848	552	1,710	552	710	1,230	544	414	242	37	600	320
18	*754	540	1,700	522	813	1,110	578	396	197	71	1,340	300
19	628	544	3,040	478	680	990	561	411	84	122	*26,300	350
20	545	898	2,880	453	640	915	534	372	*181	91	26,400	330
21	413	1,470	*2,270	446	659	890	512	299	208	83	10,500	400
22	452	1,650	1,780	388	620	1,080	564	185	204	90	5,540	400
23	365	1,440	1,470	378	694	1,850	618	251	205	114	3,500	360
24	328	1,170	1,380	409	870	1,780	571	318	215	42	2,800	330
25	389	1,230	1,200	418	797	1,650	796	313	208	73	2,200	650
26	376	1,230	1,050	395	657	1,470	940	303	90	95	1,800	600
27	350	1,080	1,020	398	628	1,410	1,200	287	153	67	1,500	500
28	395	1,000	915	387	724	1,260	1,230	220	178	76	1,300	540
29	469	1,230	1,170	339	-	1,100	1,320	164	193	110	1,150	520
30	726	1,380	1,560	313	-------	1,010	1,260	240	167	110	1,050	500
31	715	---	1,780	357	-------	929	-------	293	---	55	1,000	---
Total	15,395	30,289	39,857	22,584	17,954	35,093	23,740	15,300	7,029	3,908	90,995	16,040
Mean	497	1,010	1,286	729	641	1,132	791	494	234	126	2,935	535
Cfsm	1.50	3.05	3.89	2.20	1.94	3.42	2.39	1.49	0.707	0.381	8.87	1.62
In.	1.73	3.40	4.48	2.54	2.02	3.94	2.67	1.72	0.79	0.44	10.23	1.81

Calendar year 1954: Max 8,010 Min 31 Mean 758 Cfsm 2.29 In. 31.06
Water year 1954-55: Max 26,400 Min 37 Mean 872 Cfsm 2.63 In. 35.77

Peak discharge (base, 2,000 cfs).--Dec. 16 (4:30 p.m.) 2,130 cfs (6.35 ft); Dec. 19 (7 p.m.) 3,120 cfs (7.70 ft); Aug. 19 (5 p.m. and 9 p.m.) 48,000 cfs (26.5 ft).
* Discharge measurement made on this day.
Note.--No gage-height record Aug. 1 to Sept. 30; discharge estimated on basis of 2 discharge measurements, weather records, engineer's notes, and records for Quinebaug River at Quinebaug, Conn., French River at Webster, Mass., and Quinebaug River at Jewett City, Conn.

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, and 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 1955. 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.--18 years, 104 cfs.

Extremes.--Maximum discharge during year, 1,190 cfs Aug. 20 (gage height, 5.76 ft); minimum, 6.8 cfs Aug. 11 (gage height, 0.77 ft); minimum daily, 7.6 cfs July 23.
1937-55: 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, 5.6 cfs Aug. 13, 1939, Aug. 24, 1941, Nov. 24, 1949, Nov. 15, 1952.
Peak discharge of Mar. 12, 1936, 1,600 cfs, by computation of flow over dam at Danielson.

Remarks.--Records excellent. Flow regulated by dams and reservoirs upstream.

Revisions (water years).--WSP 921: 1938-40. WSP 951: 1938-41.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

0.8	7.6	3.0	397
1.0	17	4.0	635
1.3	41	5.0	925
1.7	98	6.0	1,280
2.3	237		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	128	192	342	55	158	174	179	65	40	36	170
2	86	115	177	331	57	208	134	132	68	20	38	150
3	84	202	160	331	54	219	106	103	63	45	26	136
4	83	286	149	298	57	203	130	94	56	36	35	102
5	75	264	142	272	60	192	126	*94	60	52	26	80
6	74	232	136	260	66	207	115	98	65	44	*68	83
7	73	205	130	262	193	244	115	93	52	49	91	79
8	71	182	125	240	142	216	134	97	47	49	44	80
9	69	165	123	207	97	197	142	106	49	19	29	78
10	74	151	140	194	89	193	138	102	48	31	31	66
11	72	138	138	179	122	218	134	100	29	43	30	68
12	*66	128	130	172	320	229	133	96	58	39	42	67
13	69	123	121	170	229	218	133	89	80	26	104	64
14	66	117	132	160	172	205	133	88	77	27	104	58
15	69	115	320	156	149	189	133	86	70	28	67	*57
16	149	113	331	153	135	195	102	84	66	10	48	57
17	184	109	272	140	182	200	84	82	60	23	44	42
18	161	108	281	125	200	186	80	79	39	44	60	51
19	117	104	408	95	177	174	80	77	45	28	522	63
20	79	130	386	87	158	167	77	71	62	22	1,150	80
21	72	184	331	75	150	*162	80	63	44	25	*996	123
22	70	207	309	80	145	198	86	63	54	27	670	105
23	66	200	274	76	158	286	88	66	*47	7.6	516	56
24	66	184	254	76	170	279	83	59	46	8.7	448	87
25	57	184	237	75	160	252	111	69	43	31	368	174
26	75	177	213	69	142	242	134	61	52	27	318	108
27	68	165	*200	71	136	244	154	70	60	42	272	79
28	80	134	192	73	140	222	147	63	46	42	237	97
29	88	174	247	65	-	206	198	62	46	41	198	115
30	128	194	353	63	------	195	205	53	43	9.5	172	95
31	138	--	--	397	63	-----	184	-------	55	-------	13	164	----	--
Total	2,739	4,918	7,000	4,960	3,915	6,488	3,689	2,634	1,640	948.8	6,954	2,670
Mean	88.4	164	227	160	140	209	123	85.0	54.7	30.6	224	89.0
Cfsm	1.52	2.82	3.90	2.75	2.41	3.59	2.11	1.46	0.940	0.526	3.85	1.53
In.	1.75	3.15	4.50	3.17	2.51	4.14	2.35	1.68	1.05	0.61	4.44	1.71

Calendar year 1954: Max 795 Min 9.3 Mean 130 Cfsm 2.23 In. 30.30
Water year 1954-55: Max 1,150 Min 7.6 Mean 133 Cfsm 2.29 In. 31.06

* Discharge measurement made on this day.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 196.64 ft above mean sea level, datum of 1929.

Average discharge.--23 years, 162 cfs.

Extremes.--Maximum discharge during year, 1,520 cfs Aug. 20 (gage height, 5.17 ft); minimum, 1.8 cfs July 24 (gage height, 0.57 ft); minimum daily, 4.7 cfs July 24.
1932-55: 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 table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.7	3.6	2.0	137
.8	5.8	2.5	262
.9	9.0	3.0	435
1.1	18	4.0	875
1.3	32	5.0	1,410
1.5	54		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	239	284	495	b72	262	186	360	132	54	30	130
2	98	198	242	443	b72	287	170	268	114	20	38	145
3	48	508	204	439	b65	248	181	228	130	57	32	81
4	109	600	181	388	b55	242	211	184	88	48	16	102
5	81	487	172	319	b80	236	245	149	42	135	29	98
6	75	353	163	310	b40	340	214	303	110	49	*5.6	150
7	75	268	154	336	410	491	211	262	100	118	4.9	95
8	76	248	150	287	360	395	198	248	86	116	40	75
9	41	201	150	256	242	336	188	256	76	63	38	88
10	62	176	256	233	188	310	149	242	68	49	30	25
11	88	176	248	198	349	306	138	*199	68	138	24	33
12	*78	176	209	188	898	287	139	181	137	40	34	85
13	71	172	186	186	628	262	124	178	281	40	161	82
14	70	118	274	167	411	242	135	97	201	30	209	69
15	36	148	898	165	281	225	148	131	96	21	182	54
16	235	134	852	167	217	274	86	155	117	27	76	*46
17	285	136	542	142	343	284	114	147	95	17	79	9.4
18	220	112	595	123	415	248	156	140	82	16	132	31
19	158	130	945	115	353	222	149	123	16	29	996	94
20	129	249	785	101	287	220	91	119	88	36	1,370	68
21	118	483	564	134	242	181	116	136	102	27	813	67
22	106	483	419	118	228	326	150	54	105	38	440	66
23	109	378	364	87	253	695	95	85	*83	10	490	80
24	40	290	357	124	271	*618	131	106	115	4.7	573	109
25	89	333	329	106	242	431	195	139	96	58	460	316
26	99	326	274	b125	198	343	236	333	65	40	319	293
27	93	268	*259	b135	194	319	306	542	107	35	236	202
28	85	245	256	66	217	278	278	259	101	30	209	213
29	148	319	384	83	-	236	483	176	74	41	137	253
30	265	336	592	b83	------	225	475	129	79	41	142	204
31	287	--	628	b110	------	214	------	118	-------	7.7	122	------
Total	3,530	8,290	11,916	6,209	7,611	9,583	5,698	6,047	3,054	1,435.4	7,467.5	3,363.4
Mean	114	276	384	200	272	309	190	195	102	46.3	241	112
Cfsm	1.37	3.31	4.60	2.40	3.26	3.70	2.28	2.34	1.22	0.554	2.89	1.34
In.	1.58	3.69	5.30	2.77	3.40	4.27	2.54	2.70	1.36	0.64	3.33	1.50

Calendar year 1954: Max 1,470 Min 10 Mean 197 Cfsm 2.36 In. 32.05
Water year 1954-55: Max 1,370 Min 4.7 Mean 203 Cfsm 2.43 In. 32.88

Peak discharge (base, 800 cfs).--Dec. 16 (7 a.m.) 945 cfs (4.15 ft); Dec. 18 (12 p.m.) 995 cfs (4.27 ft); Feb. 12 (2 a.m.) 1,020 cfs (4.31 ft); May 27 (1 a.m.) 808 cfs (3.87 ft); Aug. 20 (7 a.m.) 1,520 cfs (5.17 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 or 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 1955.

Gage.--Water-stage recorder. Datum of gage is 63.07 ft above mean sea level, datum of 1929.

Average discharge.--37 years, 1,244 cfs.

Extremes.--Maximum discharge during year, 40,700 cfs Aug. 20 (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, 36 cfs July 22, 23 (gage height, 3.67 ft); minimum daily, 42 cfs Aug. 6.
1918-55: Maximum discharge, that of Aug. 20, 1955; minimum daily, 18 cfs Aug. 28, Dec. 11, 1949.

Remarks.--Records excellent except those for period of no gage-height record, which are good. Flow regulated by many ponds and reservoirs above station, the largest of which are Lake Chaubunagungamaug and Pauchaug Pond.

Revisions (water years).--WSP 781: Drainage area. WSP 1301: 1919-26(M).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

3.7	39	8.0	2,200
3.9	67	12.0	6,330
4.2	124	16.0	11,900
4.6	230	20.0	18,800
5.0	370	24.0	27,500
6.0	860	28.0	37,800

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,190	1,610	2,520	3,860	750	1,860	1,820	2,440	890	240	337	1,820
2	1,100	1,500	2,360	3,460	695	2,360	1,640	2,200	860	258	291	1,770
3	795	2,340	2,000	3,660	668	2,280	1,610	1,820	778	358	272	1,590
4	1,070	3,760	1,640	3,160	548	2,200	1,890	1,610	654	464	267	1,460
5	1,040	3,560	1,580	2,790	398	1,960	2,040	1,400	459	508	126	*1,360
6	890	2,970	1,580	2,520	494	2,040	1,890	*1,640	700	495	*42	1,340
7	890	2,440	1,440	2,700	2,000	2,880	1,890	1,470	678	832	106	1,340
8	778	2,200	1,310	2,360	2,520	2,520	1,750	1,470	662	722	348	1,230
9	778	1,920	1,400	2,120	1,820	2,200	1,680	1,820	651	495	289	1,060
10	615	1,750	1,640	2,000	1,440	2,160	1,540	1,540	495	378	299	838
11	778	1,500	1,780	1,820	1,550	2,360	1,470	1,340	346	429	375	778
12	*860	1,440	1,640	1,680	3,860	2,700	1,400	1,190	668	342	360	914
13	778	1,400	1,610	1,640	2,970	2,700	1,340	1,070	1,100	354	1,210	816
14	750	1,250	1,640	1,370	2,280	2,610	1,310	1,010	*1,100	323	1,610	827
15	778	1,280	4,060	1,310	1,890	2,360	1,310	950	890	317	1,600	878
16	1,540	1,220	4,720	1,310	1,470	2,280	1,280	1,100	722	202	1,260	773
17	1,890	1,160	3,960	1,340	1,890	*2,440	1,100	1,070	668	248	998	524
18	1,780	1,130	3,560	*1,200	2,440	2,280	1,220	980	580	270	1,060	84
19	1,440	1,160	6,210	1,160	2,120	2,040	1,250	950	320	339	7,020	640
20	1,220	1,530	6,210	1,070	1,860	1,920	1,190	890	690	260	*35,300	684
21	1,070	2,790	4,940	832	1,780	1,890	1,130	832	635	264	25,100	766
22	920	3,260	3,960	950	1,640	2,120	1,070	611	560	204	11,200	810
23	890	2,970	3,760	778	1,720	4,060	1,160	670	565	61	6,770	766
24	778	2,520	2,970	1,010	2,040	4,060	1,160	751	575	211	5,750	823
25	890	2,440	2,700	980	1,920	3,560	1,540	792	482	439	4,560	1,930
26	860	2,520	2,360	980	1,680	3,060	1,780	920	545	289	3,590	1,690
27	832	2,280	2,280	920	1,500	2,880	2,280	1,470	695	260	2,930	1,310
28	860	2,040	2,160	778	1,720	2,700	2,280	1,040	610	338	2,560	1,360
29	1,010	2,360	2,440	722		2,560	2,700	668	514	349	2,210	1,610
30	1,580	2,700	3,360	615	------	2,120	2,880	778	463	90	1,880	1,320
31	1,860	------	4,280	750	------	1,960	------	860	------	230	1,750	------
Total	32,510	63,000	87,570	51,845	47,663	76,920	48,600	37,352	19,555	10,569	21,470	33,111
Mean	1,049	2,100	2,825	1,672	1,702	2,481	1,620	1,205	652	341	3,918	1,104
Cfsm	1.48	2.95	3.97	2.35	2.39	3.49	2.28	1.69	0.917	0.480	5.51	1.55
In.	1.71	3.29	4.58	2.71	2.49	4.02	2.54	1.95	1.02	0.55	6.35	1.73

Calendar year 1954: Max 10,700 Min 121 Mean 1,613 Cfsm 2.27 In. 30.80
Water year 1954-55: Max 35,300 Min 42 Mean 1,726 Cfsm 2.43 In. 32.94

Peak discharge (base, 4,500 cfs).--Dec. 15 (10:30 p.m.) 4,940 cfs (10.75 ft); Dec. 19 (6 p.m.) 6,690 cfs (12.31 ft); Dec. 31 (9 a.m.) 4,500 cfs (10.38 ft); Aug. 20 (5 to 6 p.m.) 40,700 cfs (29.0 ft).
* Discharge measurement made on this day.
Note.--No gage-height record Aug. 19-22; discharge computed from reconstructed gage-height graph based on stage of high-water mark and forebay readings at the Tunnel Plant of the Connecticut Light & Power Co. on the Quinebaug River at Taftville, Conn.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 94.46 ft above mean sea level, datum of 1929.

Average discharge.--25 years, 159 cfs.

Extremes.--Maximum discharge during year, 2,110 cfs Dec. 18 (gage height, 7.85 ft); minimum, 9.2 cfs July 18 (gage height, 0.93 ft); minimum daily, 10 cfs Aug. 7.
1930-55: Maximum discharge, 13,500 cfs Sept. 21, 1938 (gage height, 14.66 ft, from floodmark), by computation of flow over two 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 excellent except those for periods of ice effect or no gage-height record, which are good. Low flow completely regulated by mills upstream.

Revisions (water years).--WSP 781: Drainage area. WSP 1051: 1931-36. WSP 1301: 1934(M).

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 18		Dec. 18 to Sept. 30			
1.6	55	0.9	8.0	3.0	245
2.0	98	1.1	17	5.0	740
2.5	169	1.5	44	7.0	1,600
3.0	263	2.0	93	8.0	2,250
5.0	795	2.5	160		
7.0	1,710				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	167	274	416	71	274	188	314	56	28	13	175
2	92	124	223	404	b46	336	174	230	46	22	12	145
3	91	596	183	392	b42	264	180	188	48	19	12	105
4	93	620	150	336	b44	294	358	166	38	17	12	113
5	88	420	152	274	b44	304	369	168	38	16	11	99
6	88	316	138	274	56	418	304	254	36	19	11	95
7	86	237	125	304	578	540	274	232	35	66	10	74
8	85	191	153	232	367	380	236	200	37	32	14	67
9	86	166	156	221	221	294	194	205	37	23	12	57
10	86	141	263	201	163	274	172	172	34	19	12	63
11	87	134	229	177	290	264	160	145	31	35	11	57
12	88	135	164	163	660	245	146	130	46	60	43	70
13	66	132	148	154	369	245	148	115	91	61	448	58
14	62	125	252	b130	230	226	*156	100	61	30	532	69
15	73	120	1,710	123	175	201	169	90	44	14	345	58
16	219	111	914	130	152	274	163	85	38	16	162	35
17	164	106	520	130	308	314	145	100	29	14	71	35
18	125	107	866	b122	358	254	137	110	27	12	122	63
19	104	120	1,630	114	274	212	130	100	25	12	1,280	*68
20	92	353	*792	104	221	200	127	90	32	12	1,430	97
21	83	560	502	b92	200	205	119	75	61	12	598	98
22	86	445	392	99	185	467	156	65	*55	12	327	64
23	93	316	336	99	226	*960	178	55	31	12	419	52
24	93	247	336	101	254	552	152	50	32	12	495	286
25	79	445	314	100	226	392	189	47	35	16	323	565
26	70	360	254	99	185	347	217	47	40	25	210	332
27	62	274	241	95	180	358	245	66	36	19	156	191
28	66	237	241	b91	203	294	217	54	42	17	146	262
29	134	360	347	b88	-	245	478	46	53	17	119	292
30	263	349	644	b80	------	222	452	44	40	15	105	206
31	227	----	620	b74	------	203	------	49	------	14	138	----
Total	3,217	8,014	13,269	5,419	6,328	10,058	6,333	3,792	1,254	698	7,599	3,951
Mean	104	267	428	175	226	324	211	122	41.8	22.5	245	132
Cfsm	1.17	3.01	4.83	1.98	2.55	3.66	2.38	1.38	0.472	0.254	2.77	1.49
In.	1.35	3.36	5.57	2.28	2.66	4.22	2.66	1.59	0.53	0.29	3.19	1.66

Calendar year 1954: Max 1,900 Min 11 Mean 190 Cfsm 2.14 In. 29.07
Water year 1954-55: Max 1,710 Min 10 Mean 192 Cfsm 2.17 In. 29.36

Peak discharge (base, 1,000 cfs).--Dec. 15 (4 a.m.) 1,950 cfs (7.36 ft); Dec. 18 (11 p.m.) 2,110 cfs (7.85 ft); Feb. 12 (1 a.m.) 1,000 cfs (5.69 ft); Mar. 23 (2 a.m.) 1,120 cfs (5.96 ft); Aug. 19 (12 p.m.) 1,920 cfs (7.53 ft).
* Discharge measurement made on this day
b Stage-discharge relation affected by ice.
Note.--No gage-height record May 11-24; discharge estimated on basis of recorded range in stage, weather records, engineer's notes, and records for nearby streams.

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 1955.

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.--38 years, 196 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 1,000 cfs Oct. 4 (gage height, 3.68 ft); minimum daily, 8.4 cfs Apr. 3-6.
1917-55: Maximum discharge, 7,200 cfs June 16, 1943 (gage height, 6.35 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. 232).

Revisions (water years).--WSP 756: Drainage area. WSP 1001: 1931-39. WSP 1231: 1921-23(M), 1925-26.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.4	8.4	2.5	221
1.5	16	3.0	440
1.7	38	3.5	830
2.0	87		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	196	238	20	17	299	299	37	14	20	134	173	*193
2	466	*238	183	140	299	299	9.0	15	24	134	18	193
3	543	91	507	387	299	299	8.4	15	21	134	16	221
4	424	18	586	569	299	299	8.4	15	18	134	18	246
5	732	18	695	722	29[illegible]	299	8.4	16	18	134	18	242
6	594	18	749	722	299	299	8.4	16	18	109	18	238
7	686	18	803	722	295	299	9.0	16	18	78	18	238
8	695	141	*794	722	295	299	9.0	17	18	33	18	238
9	677	321	662	722	299	299	9.0	17	18	18	*18	238
10	650	452	331	722	299	299	9.6	17	18	*18	18	238
11	443	446	199	713	299	299	10	17	18	18	18	238
12	339	446	520	713	252	299	10	17	18	18	18	238
13	384	446	749	704	202	299	10	17	19	18	18	242
14	339	446	794	704	202	299	12	17	21	18	18	246
15	339	446	578	704	199	299	13	17	22	18	19	246
16	339	440	408	695	199	295	12	17	19	18	19	246
17	339	440	403	686	232	254	12	18	18	18	19	246
18	268	440	403	695	299	302	12	18	160	18	20	242
19	242	440	403	704	299	387	13	18	184	18	251	242
20	242	226	403	487	299	377	13	18	184	19	500	246
21	242	18	403	304	295	326	13	17	287	19	500	252
22	218	18	578	299	291	264	*13	17	387	19	344	256
23	235	18	740	299	275	218	14	17	387	19	148	184
24	235	18	731	299	295	184	14	17	387	20	48	148
25	235	18	731	299	299	158	14	17	208	20	18	148
26	235	18	722	299	299	139	14	*18	134	20	18	148
27	235	18	722	299	299	120	14	18	134	20	18	148
28	105	74	731	299	299	110	14	18	134	20	123	148
29	19	105	286	299	-	100	14	18	134	352	310	148
30	19	20	17	299	-------	89	14	18	134	488	398	148
31	78	-------	17	299	-------	81	-------	18	-------	488	273	-------
Total	10,793	6,094	15,868	15,544	7,816	7,889	371.2	525	3,180	2,592	3,433	6,445
Mean	348	203	512	501	279	254	12.4	16.9	106	83.6	111	215
(†)	-12.6	-36.0	-425	-461	-241	-164	+754	+461	+120	-67.9	-10.5	-215

Adjusted for change in reservoir contents

Mean	336	167	86.6	40.5	38.1	90.6	766	478	226	15.7	100	-0.133
Cfsm	4.05	2.01	1.04	0.488	0.459	1.09	9.23	5.76	2.72	0.189	1.20	-0.0016
In.	4.66	2.25	1.20	0.56	0.48	1.26	10.30	6.64	3.03	0.22	1.39	-0.002

	Observed			Adjusted			
Calendar year 1954:	Max 866	Min 11	Mean 247	Mean 251	Cfsm 3.02	In. 41.09	
Water year 1954-55:	Max 803	Min 8.4	Mean 221	Mean 196	Cfsm 2.36	In. 31.99	

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

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 1955.

Gage.--Water-stage recorder. Datum of gage is 880.17 ft above mean sea level, datum of 1929.

Average discharge.--25 years, 1,573 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 18,700 cfs Apr. 15 (gage height, 11.74 ft); minimum daily, 114 cfs July 24.
1930-55: 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 Connecituct Lakes and Lake Francis (see p. 232).

Revisions (water years).--WSP 781: 1934(M). WSP 891: Drainage area.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.7	109	5.0	2,270
3.1	242	7.0	5,850
3.5	467	9.0	10,600
4.0	910	11.0	16,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,580	1,460	1,090	1,740	880	1,350	1,140	3,530	4,120	371	572	*998
2	3,430	*1,480	921	1,590	860	1,350	1,120	3,160	3,760	330	355	976
3	3,800	1,430	1,400	1,760	860	1,300	1,020	2,890	2,180	395	148	750
4	7,420	1,660	1,780	1,820	870	1,250	1,180	2,620	1,430	325	125	701
5	7,320	1,410	1,970	2,290	900	1,200	1,820	3,960	1,120	309	126	683
6	4,820	1,240	1,800	2,250	910	1,200	880	4,370	932	299	202	665
7	*4,100	1,090	2,000	2,200	920	1,150	4,880	2,970	810	288	781	674
8	3,550	987	*2,080	2,150	930	1,150	3,780	2,490	692	260	1,880	647
9	3,240	1,230	2,100	2,050	920	1,250	2,700	2,720	548	204	655	638
10	3,070	1,490	1,610	2,000	880	1,300	2,850	2,690	525	*200	*365	620
11	2,700	1,530	1,170	1,950	950	1,550	5,220	2,120	564	192	908	638
12	2,450	1,540	1,140	1,950	1,050	2,000	5,950	1,680	665	167	1,350	770
13	2,750	1,450	2,100	2,000	900	3,000	5,630	1,450	1,350	165	740	720
14	2,890	1,440	2,100	1,900	840	2,900	7,410	1,300	3,610	206	750	665
15	2,270	1,440	2,150	1,900	800	2,620	16,200	1,150	4,500	121	1,230	656
16	2,090	1,360	1,670	1,900	780	2,720	15,600	1,030	2,220	241	2,620	656
17	2,000	1,410	1,480	2,000	770	3,070	9,560	998	1,390	360	1,910	638
18	1,760	1,430	1,800	2,000	950	1,900	6,850	870	1,020	287	1,970	629
19	1,530	1,500	3,050	1,950	1,000	1,900	8,080	860	810	236	1,320	620
20	1,400	1,840	2,410	1,900	950	1,750	9,220	880	665	213	1,080	620
21	1,360	3,440	1,900	1,150	900	1,700	6,550	790	629	162	932	620
22	1,300	5,150	1,650	1,100	1,000	1,460	*5,200	900	870	165	900	596
23	1,240	2,900	2,400	1,050	1,300	1,310	6,170	656	870	134	1,220	588
24	1,190	2,000	2,450	1,000	1,800	1,220	6,730	612	656	114	1,430	604
25	1,130	1,610	2,550	1,000	1,700	1,200	5,430	620	685	151	740	604
26	1,150	1,400	2,500	980	1,550	1,070	4,450	800	665	269	482	604
27	1,720	1,260	2,450	960	1,450	976	4,000	*733	683	556	564	596
28	2,260	1,170	2,400	940	1,400	760	3,820	588	556	604	612	604
29	1,390	1,440	3,000	920	-	965	3,580	525	460	580	770	638
30	1,230	1,300	2,300	910	--------	943	3,740	800	414	596	985	620
31	1,320	--------	2,020	900	--------	965	--------	820	--------	564	998	--------
Total	80,460	50,087	61,441	50,210	29,020	48,479	162,560	51,582	39,397	9,064	28,700	20,038
Mean	2,595	1,670	1,982	1,620	1,036	1,564	5,419	1,664	1,313	292	926	668
(†)	-10.4	-39.4	-817	-940	-507	-391	+1,622	+703	+431	-99.4	-81.8	-485
Adjusted for change in reservoir contents												
Mean	2,585	1,630	1,165	680	530	1,173	7,041	2,367	1,744	193	844	183
Cfsm	3.24	2.04	1.46	0.851	0.663	1.47	8.81	2.96	2.18	0.242	1.06	0.229
In.	3.73	2.28	1.68	0.98	0.69	1.69	9.83	3.42	2.43	0.28	1.22	0.26

	Observed			Adjusted			
Calendar year 1954:	Max 18,200	Min 454	Mean 2,150	Mean 2,163	Cfsm 2.71	In. 36.75
Water year 1954-55:	Max 16,200	Min 114	Mean 1,729	Mean 1,677	Cfsm 2.10	In. 28.49

Peak discharge (base, 10,000 cfs).--Apr. 15 (10 to 11 p.m.) 18,700 cfs (11.74 ft).

* 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.

Note.--Stage-discharge relation affected by ice Dec. 13-15, 17-19, 21-30, Jan. 6 to Mar. 14, Mar. 18, 20, 21.

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 1955.

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

Average discharge.--15 years, 483 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 6,240 cfs Apr. 15 (gage height, 7.93 ft); minimum, 68 cfs Sept. 10, 11.

1940-55: 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 table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.7	55	5.0	1,400
3.0	132	6.0	2,580
3.5	325	7.0	4,250
4.0	600	8.0	6,400
4.5	950		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	492	560	486	480	135	280	350	1,720	*2,130	247	92	117
2	498	500	420	430	135	290	370	1,690	1,870	223	86	108
3	640	645	350	390	135	250	360	1,830	1,090	208	84	102
4	1,750	1,620	300	350	*130	240	380	1,760	751	190	74	94
5	1,780	1,310	340	310	130	240	500	2,160	678	176	99	*86
6	1,110	935	280	310	135	230	800	2,430	588	190	123	92
7	*815	751	*315	280	150	210	1,250	1,480	498	182	174	117
8	684	658	320	250	160	210	1,350	1,550	436	162	276	117
9	639	594	310	230	165	205	950	1,980	390	145	162	114
10	639	530	300	240	175	210	982	1,640	355	*135	*102	72
11	570	470	280	230	210	350	1,660	1,100	400	139	134	74
12	665	450	260	210	250	740	2,050	890	447	165	260	117
13	632	425	250	220	280	800	1,880	786	1,180	114	190	126
14	620	405	400	210	270	640	2,110	779	1,860	111	552	105
15	600	380	360	200	250	500	4,900	652	1,940	108	468	97
16	808	*355	340	210	230	450	5,440	639	1,150	132	745	97
17	1,010	355	330	200	210	490	3,560	546	710	172	613	114
18	710	360	360	190	200	450	2,680	492	558	155	540	108
19	600	380	450	180	190	380	2,880	510	464	145	390	102
20	564	469	480	175	180	340	*3,180	528	405	123	284	99
21	546	939	440	170	190	300	2,640	410	390	108	212	97
22	498	1,520	400	175	200	270	2,160	370	528	97	201	89
23	458	998	380	175	300	280	2,220	350	600	94	350	99
24	415	758	400	170	450	270	2,210	350	474	99	492	123
25	380	652	380	170	420	250	2,020	415	415	125	370	117
26	365	588	360	160	380	230	1,930	982	420	114	251	111
27	485	546	370	160	*350	230	1,900	704	395	74	196	102
28	898	522	400	155	310	220	1,750	492	320	102	162	105
29	658	540	580	150	-	230	1,540	425	330	108	135	111
30	606	540	800	145	--------	220	1,710	480	289	99	123	102
31	600	--------	620	140	--------	260	--------	547	--------	89	120	--------
Total	21,735	19,755	12,061	7,065	6,320	10,265	57,712	30,687	22,081	4,331	8,060	3,114
Mean	701	658	389	228	226	331	1,924	990	735	140	260	104
(†)	2.44	2.16	2.19	2.44	2.70	2.60	2.62	2.54	1.79	2.49	2.35	3.18
Adjusted for diversion												
Mean	704	661	391	230	228	334	1,926	992	737	142	262	107
Cfsm	3.03	2.85	1.69	0.991	0.983	1.44	8.30	4.28	3.18	0.612	1.13	0.461
In.	3.50	3.18	1.94	1.14	1.03	1.66	9.26	4.93	3.55	0.71	1.30	0.51

	Observed			Adjusted		
Calendar year 1954:	Max 8,350	Min 120	Mean 784	Mean 786	Cfsm 3.39	In. 45.99
Water year 1954-55:	Max 5,440	Min 72	Mean 557	Mean 559	Cfsm 2.41	In. 32.71

Peak discharge (base, 2,900 cfs).--Apr. 15 (10 to 11 p.m.) 6,240 cfs (7.93 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. 10-16, Dec. 2 to Apr. 8.

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 1955. 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.--28 years, 2,916 cfs (adjusted to drainage area at present site and for storage).
Extremes.--Maximum discharge during year, 27,100 cfs Apr. 17 (gage height, 20.19 ft); minimum daily, 140 cfs Aug. 7.
1927-55: 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 based on chain-gage readings and those for periods of ice effect, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis (see p. 232), 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).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

6.4	121	12.0	6,300
6.7	265	14.0	10,300
7.0	440	16.0	15,100
8.0	1,190	18.0	20,500
10.0	3,230	20.0	26,500

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,880	2,930	2,990	3,630	1,200	2,500	*2,200	7,700	*6,260	1,240	422	1,410
2	4,040	2,860	2,520	3,100	1,150	2,500	2,700	7,180	9,870	1,140	906	1,410
3	4,550	2,850	2,050	2,870	1,150	2,500	2,850	6,920	7,320	535	700	1,510
4	7,360	4,300	2,000	2,800	1,150	2,300	2,900	6,680	4,760	570	500	950
5	10,600	4,500	2,130	2,750	1,200	*2,100	3,900	6,530	3,610	744	422	*724
6	10,800	3,700	2,460	3,050	1,250	2,050	5,950	8,850	3,030	*878	368	730
7	8,050	3,100	*2,450	3,150	1,300	2,100	9,400	8,270	2,520	878	140	1,340
8	6,300	2,740	2,720	2,900	1,350	2,000	9,760	6,500	2,010	870	1,240	1,160
9	5,370	2,540	2,930	2,700	1,300	1,850	7,410	7,890	1,820	870	2,030	1,100
10	4,900	2,510	3,100	2,650	1,200	2,000	6,370	7,700	1,630	467	1,410	1,090
11	4,740	2,610	2,820	2,600	1,350	2,300	8,750	6,160	1,800	605	1,190	579
12	*4,440	2,680	2,080	2,600	1,550	3,500	11,500	4,740	1,520	715	1,110	800
13	4,280	2,640	1,880	2,550	1,500	5,600	11,500	3,970	2,880	619	1,540	1,260
14	4,460	2,510	2,420	2,550	1,450	5,800	11,500	3,570	5,900	542	1,500	1,230
15	4,200	2,520	2,700	2,500	1,400	4,900	16,800	3,220	9,290	452	1,860	1,130
16	3,910	*2,490	3,500	2,500	1,350	4,500	24,000	2,860	7,620	380	2,690	958
17	4,080	2,380	2,940	2,500	1,300	4,700	25,600	2,640	4,610	186	4,130	950
18	3,830	2,210	2,380	2,450	1,300	4,850	20,000	2,420	3,200	658	4,060	855
19	3,260	2,260	3,740	2,400	1,350	3,700	15,900	2,220	2,440	1,020	3,280	772
20	2,910	2,610	5,140	2,400	1,450	3,250	*16,300	2,260	2,090	640	2,410	908
21	2,730	4,210	3,910	2,350	1,500	3,000	16,100	2,020	1,760	528	1,920	1,120
22	2,610	8,500	2,850	1,750	1,550	2,900	13,400	1,830	2,090	500	1,680	902
23	2,440	8,270	2,550	*1,500	1,900	2,600	11,300	1,860	2,580	440	1,840	910
24	2,280	5,430	2,900	1,550	2,500	2,500	11,800	1,770	2,360	178	2,540	838
25	2,270	4,000	3,440	1,550	3,100	2,350	11,800	1,530	2,210	246	2,640	547
26	2,210	3,480	3,250	1,500	3,300	2,200	10,800	2,340	2,170	476	2,030	631
27	2,070	3,090	3,200	1,500	2,800	2,050	9,810	2,940	2,120	626	1,630	1,070
28	3,280	2,700	3,390	1,500	2,600	1,900	9,190	2,270	1,900	633	836	814
29	3,880	2,840	4,080	1,350	-	1,700	8,070	1,820	1,700	990	1,100	838
30	3,060	3,360	5,460	1,300	--------	1,750	7,490	1,800	1,370	1,100	1,500	894
31	2,880	--------	4,460	1,250	--------	1,850	--------	2,180	--------	546	1,420	--------
Total	134,630	102,820	94,440	71,750	45,500	89,400	325,050	130,640	104,440	20,272	51,044	29,230
Mean	4,343	3,427	3,046	2,315	1,625	2,884	10,840	4,214	3,481	654	1,647	974
(†)	-10.4	-39.4	-817	-940	-507	-391	+1,622	+703	+431	-99.4	-81.8	-485
Adjusted for change in reservoir contents												
Mean	4,333	3,388	2,229	1,375	1,118	2,493	12,460	4,918	3,912	555	1,565	490
Cfsm	2.86	2.24	1.47	0.908	0.738	1.65	8.23	3.25	2.58	0.367	1.03	0.324
In.	3.30	2.50	1.70	1.05	0.77	1.90	9.18	3.74	2.88	0.42	1.19	0.36

	Observed			Adjusted			
Calendar year 1954:	Max 33,100	Min 632	Mean 4,291	Mean 4,303	Cfsm 2.84	In. 38.59	
Water year 1954-55:	Max 25,600	Min 140	Mean 3,286	Mean 3,233	Cfsm 2.14	In. 28.99	

Peak discharge (base, 16,500 cfs).--Apr. 17 (3 a.m.) 27,100 cfs (20.19 ft).
* 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.
Note.--Stage-discharge relation affected by ice Dec. 22-24, 26-28, Jan. 4 to Apr. 6. Discharge for periods Feb. 3-27, Aug. 11, 12 computed from twice-daily chain-gage readings.

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 1955. 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.--13 years, 102 cfs.

Extremes.--Maximum discharge during year, 1,440 cfs Apr. 15 (gage height, 5.25 ft); minimum, 14 cfs Aug. 3-5.
1939-45, 1948-55: 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 or no gage-height record, which are fair.

Revisions.--WSP 1141: Drainage area.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 15)

Oct. 1 to Apr. 15				Apr. 16 to Sept. 30			
1.0	30	3.0	470	0.7	14	2.0	163
1.2	45	3.5	660	.9	24	3.0	415
1.5	81	4.0	900	1.2	49	4.0	780
2.0	174	5.0	1,430	1.5	83	4.5	1,010
2.5	300						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	109	111	100	36	55	92	328	a400	39	17	35
2	132	99	99	105	35	68	92	295	a300	37	17	32
3	294	97	86	80	34	56	87	270	*139	35	15	33
4	660	125	78	76	34	49	106	242	114	32	14	30
5	419	125	*82	74	34	49	154	344	101	50	15	29
6	243	109	68	75	35	46	234	320	91	58	*26	32
7	189	99	70	70	37	43	315	240	83	*45	127	29
8	161	92	68	65	40	41	223	258	73	38	120	27
9	148	89	66	60	38	41	167	268	67	34	54	26
10	*142	78	66	62	37	43	222	212	64	32	36	24
11	159	74	62	60	44	90	421	181	68	30	48	25
12	167	77	58	56	68	130	438	159	73	28	52	55
13	167	68	52	58	62	110	404	149	112	28	42	37
14	146	70	66	57	a54	92	595	138	208	27	119	31
15	128	66	70	56	a48	80	1,280	129	132	27	116	30
16	134	60	68	58	a45	90	870	122	96	52	324	32
17	125	85	58	56	a41	88	570	117	79	57	145	28
18	112	74	125	53	a39	82	527	111	67	43	117	27
19	106	83	245	50	a38	76	*842	109	60	33	81	25
20	102	140	140	49	a37	74	673	108	54	28	*61	24
21	97	382	115	48	a45	70	*506	99	59	26	47	24
22	92	351	100	*52	a56	64	475	94	108	24	*162	23
23	89	192	94	51	74	66	570	90	68	22	230	22
24	86	150	98	48	100	63	489	89	58	23	155	24
25	81	132	84	45	76	63	451	98	72	21	85	27
26	83	121	74	45	a62	62	448	111	72	20	64	27
27	144	114	80	43	*55	61	433	91	60	20	53	24
28	164	111	90	41	50	59	367	83	52	22	44	40
29	119	134	210	40	-	*59	364	90	45	19	39	37
30	119	130	150	39	-----	61	361	102	41	17	37	32
31	121	--	115	37	-----	68	--	99	-----	17	37	-----
Total	5,047	3,616	2,948	1,809	1,354	2,099	12,776	5,146	3,016	984	2,499	891
Mean	163	121	95.1	58.4	48.4	67.7	426	166	101	31.7	80.6	29.7
Cfsm	3.03	2.25	1.77	1.09	0.900	1.26	7.92	3.09	1.88	0.589	1.50	0.552
In.	3.49	2.50	2.04	1.25	0.94	1.45	8.83	3.56	2.08	0.68	1.73	0.62

Calendar year 1954: Max 1,300 Min 23 Mean 145 Cfsm 2.70 In. 36.54
Water year 1954-55: Max 1,280 Min 14 Mean 116 Cfsm 2.16 In. 29.17

Peak discharge (base, 600 cfs).--Oct. 3 (12 p.m.) 865 cfs (3.93 ft); Apr. 15 (6 a.m.) 1,440 cfs (5.25 ft); Apr. 19 (6:30 p.m.) 1,310 cfs (5.05 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage when available, and records for Passumpsic River at Passumpsic, Moose River at Victory, and other stations on nearby streams.
Note.--Stage-discharge relation affected by ice Nov. 11, 13, 14, 16, Dec. 3 to Mar. 31.

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 (revised).

Records available.--January 1947 to September 1955.

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.--8 years, 143 cfs.

Extremes.--Maximum discharge during year, 2,620 cfs Apr. 15 (gage height, 10.22 ft), from rating curve extended above 1,600 cfs by logarithmic plotting; minimum, 4.6 cfs Aug. 4, 5.

1947-55: 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, which are fair.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.45	4.6	4.5	150
2.5	5.5	5.0	225
2.7	10	6.0	443
3.0	20	7.0	765
3.5	50	9.0	1,750
4.0	92	10.0	2,460

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	127	147	132	37	86	123	503	569	29	6.3	16
2	110	109	120	111	36	87	144	403	663	26	5.9	13
3	148	101	105	114	35	85	156	353	*282	25	5.3	12
4	513	144	80	100	35	78	167	300	160	22	4.8	12
5	650	154	86	91	35	73	225	312	130	20	4.8	11
6	382	130	74	88	36	70	337	430	102	32	*8.8	*10
7	225	109	*72	82	40	66	551	283	79	*29	16	10
8	177	98	72	74	45	62	622	316	67	22	88	9.8
9	*153	93	73	67	40	59	465	572	59	18	28	9.0
10	144	80	74	68	38	56	386	550	56	16	16	8.6
11	158	73	72	64	41	69	644	314	180	15	16	8.6
12	190	78	68	61	60	165	935	227	133	12	41	18
13	169	68	64	63	74	210	833	190	346	11	29	24
14	150	67	58	60	80	170	767	171	470	11	66	16
15	126	66	68	56	60	145	2,080	150	436	11	87	14
16	120	57	88	58	56	130	2,120	133	196	13	194	15
17	117	64	76	54	50	145	1,300	121	125	19	137	14
18	100	66	90	52	46	130	837	110	92	19	190	12
19	91	72	340	49	45	120	*1,090	104	73	18	94	11
20	87	136	296	47	44	105	1,540	108	62	13	54	9.5
21	83	470	176	46	47	99	1,010	91	54	11	34	8.8
22	78	962	130	47	58	92	730	81	114	9.3	25	8.8
23	74	576	110	47	92	92	785	73	88	10	146	9.0
24	71	292	115	46	140	89	751	71	62	18	153	8.8
25	67	220	100	45	170	84	660	76	56	15	76	9.5
26	66	184	91	45	130	77	636	114	67	11	43	10
27	113	164	88	43	110	75	572	87	60	9.3	31	10
28	275	155	93	41	95	73	584	68	46	9.3	23	12
29	163	162	245	40	-	74	524	63	38	9.0	19	20
30	149	178	228	39	------	71	548	88	33	7.6	17	17
31	149	-- ---	174	38	------	88	--------	102	------ -	6.8	16	- - -
Total	5,206	5,255	3,673	1,968	1,775	3,025	22,122	6,564	4,898	497.3	1,674.9	367.4
Mean	168	175	118	63.5	63.4	97.6	737	212	163	16.0	54.0	12.2
Cfsm	2.23	2.33	1.57	0.844	0.843	1.30	9.80	2.82	2.17	0.213	0.718	0.162
In.	2.57	2.60	1.82	0.97	0.88	1.50	10.94	3.25	2.42	0.25	0.83	0.18

Calendar year 1954: Max 2,500 Min 12 Mean 203 Cfsm †2.70 In. †36.66
Water year 1954-55: Max 2,120 Min 4.8 Mean 156 Cfsm 2.07 In. 28.21

Peak discharge (base, 1,000 cfs).--Nov. 22 (10 to 11:30 a.m.) 1,070 cfs (7.70 ft); Apr. 12 (6:30 to 7 p.m.) 1,060 cfs (7.68 ft); Apr. 15 (6 to 7 p.m.) 2,620 cfs (10.22 ft); Apr. 20 (5 a.m.) 1,860 cfs (9.16 ft).

* Discharge measurement made on this day.

† Computed using revised drainage area.

Note.--Stage-discharge relation affected by ice Nov. 15, Dec. 2-19, 22-27, Jan. 4 to Mar. 30.

Moose River at St. Johnsbury, Vt.

Location.--Lat 44°25'20", long 72°00'05", on left bank at St. Johnsbury, Caledoria County, half a mile upstream from mouth.

Drainage area.--128 sq mi (revised).

Records available.--August 1928 to September 1955.

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.--27 years, 224 cfs.

Extremes.--Maximum discharge during year, 3,760 cfs Apr. 16 (gage height, 4.17 ft), from rating curve extended above 1,600 cfs; maximum gage height, 4.69 ft Jan. 15 (backwater from ice); minimum discharge, 7.7 cfs Aug. 5.
1928-55: Maximum discharge, 5,800 cfs Apr. 30, 1929 (gage height, 8.3 ft, from graph based on gage readings, site and datum then in use), from rating curve extended above 3,400 cfs; minimum, 6.2 cfs Sept. 17, 18, 1948, Aug. 27, 28, 1949.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Slight diurnal fluctuation caused by powerplant above station.

Revisions (water years).--WSP 1231: 1929-30, 1931-34(M).

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 15				Apr. 16 to Sept. 30			
2.0	45	3.5	460	1.25	8.6	3.2	255
2.5	95	3.6	580	1.3	9.8	3.4	360
2.9	156	3.7	840	1.5	16	3.5	440
3.2	265	4.2	3,950	1.9	37	3.6	570
				2.5	94	3.7	790
				2.9	165	4.2	3,950

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	162	188	a215	185	56	130	240	718	715	47	11	27
2	162	159	a175	170	54	145	290	610	802	43	11	24
3	271	150	a150	165	52	135	320	488	*458	41	9.6	22
4	1,030	202	a110	155	52	120	429	424	241	36	8.8	20
5	964	220	a125	135	52	110	548	404	103	33	12	20
6	634	188	a110	130	53	105	1,070	590	161	36	*24	*20
7	367	159	*105	120	56	100	1,410	420	129	*46	30	19
8	280	140	110	110	59	94	1,280	448	104	36	91	18
9	*234	134	110	105	63	88	1,090	826	87	29	59	17
10	216	120	110	105	60	88	1,030	714	78	26	32	16
11	234	107	105	100	61	110	1,280	501	190	24	34	16
12	285	117	100	94	68	250	1,390	348	204	20	54	26
13	247	102	95	96	85	350	1,470	296	446	18	57	35
14	220	95	85	90	110	300	1,410	268	630	17	92	32
15	188	93	100	85	100	260	3,400	234	594	17	134	26
16	181	83	130	90	84	240	3,430	211	296	22	214	24
17	170	*95	115	83	74	265	2,050	190	190	27	233	24
18	146	a96	170	80	71	240	982	172	144	30	278	22
19	134	105	450	75	69	205	1,730	163	113	28	154	20
20	128	200	524	72	68	180	2,720	165	93	24	87	18
21	123	1,000	334	*70	70	160	1,110	144	87	19	60	16
22	117	1,720	250	72	82	150	934	125	175	16	49	15
23	112	1,180	170	71	110	150	934	113	151	15	134	15
24	107	533	175	70	190	145	934	113	102	23	188	17
25	102	a325	155	70	285	135	*934	146	87	26	124	a18
26	100	a275	130	68	*235	130	934	182	93	20	71	a17
27	141	a245	135	66	170	125	934	154	95	17	51	a17
28	368	a220	150	63	145	120	886	113	74	16	39	a21
29	262	a235	320	61	-	*120	790	98	60	14	33	a32
30	216	a260	350	59	------	120	766	127	53	13	29	a29
31	213	-- ---	240	57	-------	155	-------	127	------ -	12	28	----
Total	8,114	8,748	5,603	2,972	2,634	5,025	36,725	9,632	6,845	791	2,431.4	643
Mean	262	292	181	95.9	94.1	162	1,224	311	228	25.5	78.4	21.4
Cfsm	2.05	2.28	1.41	0.749	0.735	1.27	9.56	2.43	1.78	0.199	0.612	0.167
In.	2.36	2.54	1.63	0.86	0.77	1.46	10.67	2.80	1.99	0.23	0.71	0.19

Calendar year 1954: Max 3,560 Min 19 Mean 328 Cfsm †2.56 In. †34.82
Water year 1954-55: Max 3,430 Min 8.8 Mean 247 Cfsm 1.93 In. 26.21

Peak discharge (base, 1,700 cfs).--Nov. 22 (3 to 3:30 p.m.) 1,970 cfs (3.88 ft); Apr. 6 (8 p.m.) 2,040 cfs (3.89 ft); Apr. 11 (3 p.m.) 2,040 cfs (3.89 ft); Apr. 16 (2 to 2:30 p.m.) 3,760 cfs (4.17 ft); Apr. 20 (12:30 p.m.) 3,040 cfs (4.06 ft).

* Discharge measurement made on this day.

† Computed on basis of revised drainage area.

a No gage-height record; discharge estimated on basis of weather records and records for Ammonoosuc River at Bethlehem Junction, N. H., Moose River at Victory, Vt., and other stations on nearby streams.

Note.--Stage-discharge relation affected by ice Nov. 14-16, Dec. 7-19, Dec. 22 to Apr. 3.

Passumpsic River at Passumpsic, Vt.

Location.--Lat 44°21'55", long 72°02'20", on right bank 0.7 mile upstream from Waterandrick Brook and 1 mile downstream from dam and village of Passumpsic, Caledonia County.

Drainage area.--436 sq mi.

Records available.--October 1928 to September 1955. October 1928 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Altitude of gage is 490 ft (from topographic map).

Average discharge.--27 years, 736 cfs.

Extremes.--Maximum discharge during year, 9,140 cfs Apr. 16 (gage height, 13.82 ft); minimum daily, 55 cfs July 31.
1928-55: 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 200 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 table, water year 1954-55, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.4	42	3.0	535
1.7	87	6.0	2,580
2.1	160	9.0	4,930
2.5	291	13.0	8,400

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	574	612	907	a640	255	450	900	2,110	2,660	200	103	182
2	590	552	729	a670	250	550	1,050	1,820	2,050	178	93	182
3	905	a550	540	a560	250	450	1,000	1,610	1,170	185	74	154
4	3,010	a680	450	a530	*250	400	1,150	1,450	*772	177	80	142
5	2,640	a800	430	a520	250	390	1,600	1,450	640	171	85	149
6	1,560	a620	*470	a520	255	360	2,730	1,960	574	214	108	158
7	1,100	546	380	a490	270	340	3,760	1,470	470	211	162	145
8	900	524	370	a460	280	330	2,730	1,520	410	181	641	150
9	*804	486	390	a430	275	330	2,010	2,260	375	144	299	119
10	753	420	380	440	270	350	2,520	1,840	334	120	*168	112
11	858	371	370	440	285	500	4,020	1,360	543	173	159	101
12	949	435	360	400	350	1,550	4,170	1,110	562	109	235	210
13	879	380	370	400	520	1,500	3,640	998	998	117	248	236
14	798	357	340	410	470	980	4,010	928	1,390	112	899	169
15	663	390	330	420	410	800	7,790	804	1,240	100	850	160
16	723	306	430	410	370	900	7,870	747	741	166	1,220	*134
17	681	*357	350	390	340	940	5,230	705	530	157	928	152
18	584	*380	450	370	325	820	3,860	663	405	183	991	143
19	540	430	1,800	360	310	720	5,450	623	343	165	584	139
20	540	672	1,100	350	300	640	6,280	651	328	141	385	160
21	491	2,590	750	340	340	670	*4,280	579	326	105	279	113
22	475	3,530	660	375	440	600	3,310	518	536	103	306	95
23	440	1,890	600	360	550	600	3,560	496	470	83	1,170	111
24	430	1,260	640	340	820	580	3,460	465	346	131	*998	87
25	420	1,000	520	320	660	560	3,120	564	353	121	535	123
26	390	921	a450	320	520	540	3,120	858	400	115	357	140
27	597	858	a500	305	450	490	3,250	618	375	92	304	127
28	1,080	837	a720	285	410	460	2,920	486	300	94	238	129
29	741	1,020	a1,100	275	-	480	2,380	455	284	100	210	179
30	699	1,100	a1,000	270	-------	470	2,290	579	236	74	184	173
31	711	-------	a740	265	-------	530	-------	530	-------	55	179	-------
Total	26,525	24,874	18,626	12,665	10,475	19,280	103,460	32,227	20,161	4,277	13,072	4,374
Mean	856	829	601	409	374	622	3,449	1,040	672	138	422	146
Cfsm	1.96	1.90	1.38	0.938	0.858	1.43	7.91	2.39	1.54	0.317	0.968	0.335
In.	2.26	2.12	1.59	1.08	0.89	1.64	8.82	2.75	1.72	0.36	1.12	0.37

Calendar year 1954: Max 9,680 Min 124 Mean 982 Cfsm 2.25 In. 30.56
Water year 1954-55: Max 7,870 Min 55 Mean 795 Cfsm 1.82 In. 24.72

Peak discharge (base, 5,000 cfs).--Apr. 16 (1 a.m.) 9,140 cfs (13.82 ft); Apr. 20 (12:30 a.m.) 8,050 cfs (12.61 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 Wells River at Wells River, Moose River at St. Johnsbury, East Branch Passumpsic River near East Haven, and other stations on nearby streams.

Note.--Stage-discharge relation affected by ice Dec. 3 to Apr. 5.

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 1955.

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.--16 years, 214 cfs.

Extremes.--Maximum discharge during year, 3,210 cfs Oct. 16 (gage height, 6.99 ft); minimum, 32 cfs Aug. 5.
1939-55: 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 or no gage-height record, which are fair.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.0	29	3.0	395
1.2	44	4.0	740
1.5	73	5.0	1,310
2.0	140	6.0	2,110
2.5	250	7.0	3,220

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	164	228	164	186	60	118	*158	540	1,200	125	37	73
2	156	195	144	188	59	137	154	580	750	115	36	68
3	156	652	115	165	59	105	153	630	450	170	35	65
4	362	675	*105	150	58	95	151	600	350	125	33	62
5	270	377	145	130	57	99	214	650	310	110	36	58
6	202	287	115	130	59	97	354	550	250	160	67	57
7	184	242	130	115	65	90	506	420	220	125	52	*54
8	168	218	130	105	67	85	320	500	190	110	78	51
9	162	202	130	100	70	85	223	800	170	93	48	49
10	181	175	130	105	75	106	360	500	155	85	*41	48
11	*186	160	120	100	90	255	808	370	170	*77	107	47
12	184	164	110	95	165	540	710	310	250	72	200	53
13	160	135	105	100	140	296	524	300	470	69	103	48
14	144	135	100	95	110	204	1,190	280	320	68	818	46
15	137	130	380	90	100	160	2,700	260	420	63	236	44
16	1,390	120	270	93	95	207	2,500	240	290	73	202	44
17	533	129	150	90	90	215	2,240	235	200	82	195	42
18	356	130	390	*85	85	185	*1,040	200	160	66	190	41
19	290	*144	900	80	80	160	1,280	185	150	62	135	40
20	255	296	365	77	78	140	1,030	180	130	56	112	39
21	230	617	230	75	80	134	753	160	160	51	96	40
22	209	665	185	80	85	118	749	155	270	48	86	38
23	193	344	155	80	145	122	908	155	300	47	183	38
24	177	265	170	76	270	121	758	185	210	45	311	40
25	162	232	145	74	200	110	664	270	400	44	154	44
26	158	211	130	72	150	105	750	650	280	42	118	42
27	179	193	155	70	130	105	800	320	220	42	102	40
28	268	186	170	68	*120	95	650	225	180	48	91	42
29	202	200	480	66	-	102	550	200	155	45	84	48
30	248	186	315	64	------	100	470	400	140	41	78	43
31	311	-- --	240	62	-------	118	-------	*265	-------	38	77	------
Total	7,977	7,893	6,573	3,066	2,842	4,609	23,667	11,315	8,920	2,397	4,141	1,444
Mean	257	263	212	98.9	102	149	789	365	297	77.3	134	48.1
Cfsm	2.93	3.00	2.42	1.13	1.16	1.70	9.01	4.17	3.39	0.882	1.53	0.549
In.	3.39	3.35	2.79	1.30	1.21	1.96	10.05	4.80	3.79	1.02	1.76	0.61

Calendar year 1954: Max 3,250 Min 46 Mean 320 Cfsm 3.65 In. 49.57
Water year 1954-55: Max 2,700 Min 33 Mean 232 Cfsm 2.65 In. 36.03

Peak discharge (base, 2,700 cfs).--Oct. 16 (8 a.m.) 3,210 cfs (6.99 ft); Apr. 15 (6:30 to 7 a.m.) 2,910 cfs (6.74 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 21-23, Jan. 30 to Feb. 2, Feb. 8-28, Apr. 15, 16, Apr. 26 to July 10; discharge estimated on basis of 3 discharge measurements, weather records, recorded range in stage when available, and records for Pemigewasset River at Woodstock and Ammonoosuc River near Bath. State-discharge relation affected by ice Nov. 10, 11, 13-16, Dec. 3-15, 17-19, 21-30, Jan. 3 to Feb. 28, Mar. 3, 4, 7-9, 11, 12, 15, 17-21, 25-28, 30, Apr. 1, 2.

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 1955.

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.--20 years, 685 cfs.

Extremes.--Maximum discharge during year, 8,600 cfs Apr. 15 (gage height, 9.11 ft); minimum daily, 85 cfs Aug. 5.
1935-55: Maximum discharge, 27,900 cfs Mar. 18, 1936 (gage height, 15.40 ft), from rating curve extended above 13,000 cfs; minimum daily, 48 cfs Sept. 3, 1939.

Remarks.--Records good except those for periods of ice effect or doubtful gage-height record, which are fair. Diurnal fluctuation at low flow caused by small powerplants above station.

Revisions.--WSP 871: Drainage area.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second) (Shifting-control method used Apr. 17-19, 23, 24, 26, 27, May 2-5, 10, 11, 26, 30, June 1, 3, Aug. 14)

Oct. 1 to Apr. 14

2.2	203
2.5	290

Note.--Same as following table above 2.5 ft.

Apr. 15 to Sept. 30

1.4	79	3.0	485	7.0	4,600
1.7	121	4.0	1,060	8.0	6,300
2.0	172	5.0	1,900	9.0	8,360
2.5	290	6.0	3,100		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	530	668	842	700	220	430	850	1,700	3,740	430	98	190
2	512	550	650	700	210	500	1,000	1,770	*2,300	400	94	168
3	498	688	470	660	210	420	1,080	1,950	1,450	788	86	140
4	842	1,660	*400	550	210	400	1,200	1,890	1,080	500	96	162
5	836	1,020	500	480	210	370	1,640	2,040	990	400	85	136
6	641	776	450	450	220	350	2,410	1,800	830	723	111	118
7	590	663	470	420	240	330	3,320	1,300	685	700	169	*131
8	540	585	500	400	250	310	2,200	1,700	595	500	250	*120
9	503	555	500	370	260	310	1,530	2,500	526	400	186	113
10	535	490	470	380	270	380	2,000	1,510	476	350	132	111
11	600	436	450	380	350	800	4,000	1,160	516	*230	233	99
12	*615	449	420	350	550	1,750	3,500	997	800	182	727	131
13	540	412	400	360	470	1,000	2,400	932	1,500	180	400	136
14	485	388	380	350	400	750	4,000	880	1,000	176	1,160	130
15	440	396	750	330	360	580	7,500	806	1,300	155	754	105
16	1,480	339	1,150	340	350	750	5,490	740	900	191	436	122
17	1,310	364	640	320	330	780	2,970	729	600	250	600	89
18	788	364	840	310	310	680	2,050	630	500	211	1,220	111
19	636	*396	3,100	300	300	580	3,420	570	450	164	575	96
20	585	759	1,550	290	280	500	3,700	560	396	140	396	101
21	530	3,110	850	270	300	470	2,300	494	475	134	290	103
22	485	3,680	600	300	350	450	2,000	476	860	138	250	88
23	472	1,630	550	290	540	430	2,730	476	899	118	420	92
24	458	1,150	600	*280	900	420	2,480	575	652	105	899	96
25	428	958	550	270	750	420	*1,900	820	1,100	119	526	113
26	380	860	480	260	550	400	2,430	1,940	1,110	117	339	103
27	412	788	550	250	470	370	2,500	1,000	918	112	261	109
28	595	740	650	250	440	350	2,000	712	600	122	236	93
29	550	932	1,300	240	-	350	1,700	630	550	126	205	122
30	610	1,050	1,380	230	------	370	1,500	1,210	480	130	192	126
31	800	--	964	230	-------	550	-------	866	--------	93	196	------
Total	19,226	26,856	23,406	11,310	10,300	16,550	77,800	35,363	28,278	8,384	11,622	3,552
Mean	620	895	755	365	368	534	2,593	1,141	943	270	375	118
Cfsm	1.57	2.27	1.91	0.924	0.932	1.35	6.56	2.89	2.39	C.684	0.949	0.299
In.	1.81	2.53	2.20	1.06	0.97	1.56	7.33	3.33	2.66	0.79	1.09	0.33

Calendar year 1954: Max 8,770 Min 114 Mean 1,004 Cfsm 2.54 In. 34.53
Water year 1954-55: Max 7,500 Min 85 Mean 747 Cfsm 1.89 In. 25.65

Peak discharge (base, 6,500 cfs).--Apr. 15 (6:30 a.m.) 8,600 cfs (9.11 ft).
* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 2-18, 21-29, Jan. 1 to Apr. 4 (no gage-height record Jan. 22, 23, Jan. 29 to Feb. 20, Feb. 23-26, Mar. 2, 11-19, Apr. 1; discharge estimated on basis of weather records, recorded range in stage when available, and records for Ammonoosuc River at Bethlehem Junction and Pemigewasset River at Woodstock). Doubtful gage-height record Apr. 10-15, 20-22, 25, Apr. 28 to May 1, May 6-9, June 2, 12-19, June 28 to July 2, July 4, 5, 7-11; discharge computed on basis of 3 discharge measurements, appearance of recorder chart, weather records, and records for stations mentioned above.

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 1955. 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.--6 years, 5,104 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 40,500 cfs Apr. 17 (gage height, 12.95 ft); minimum daily, 337 cfs Aug. 7.
1949-55: Maximum discharge, 54,000 cfs Mar. 27, 1953 (gage height, 15.96 ft); minimum daily, that of Aug. 7, 1955.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by powerplants, by First Connecticut and Second Connecticut Lakes, Lake Francis, Comerford Station Pond (see p. 232), and other reservoirs (combined usable capacity, about 9¾ billion cubic feet).

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 16

1.5	690	5.0	6,650
2.0	1,270	7.0	14,200
3.0	2,740	11.0	31,700
4.0	4,400	13.0	40,700

Apr. 17 to Sept. 30

0.9	320	2.0	1,340
1.3	580	3.0	2,740

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

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,640	4,650	6,610	4,900	2,400	5,200	5,200	11,400	11,700	2,600	500	2,420
2	5,100	4,880	5,820	5,180	2,800	5,400	6,000	11,900	*16,400	2,640	733	2,350
3	4,760	5,710	4,160	5,700	2,550	4,700	6,400	12,500	12,700	1,810	722	2,300
4	10,700	7,000	3,300	5,000	2,200	4,600	7,400	12,200	8,160	1,120	553	1,320
5	15,200	6,600	1,950	5,200	1,100	2,900	9,560	12,200	4,700	990	424	770
6	14,600	6,150	3,320	5,600	710	2,150	12,900	12,700	5,000	2,170	388	1,370
7	12,600	4,360	4,320	4,600	2,100	3,100	18,000	12,400	5,020	2,080	337	2,140
8	11,300	4,980	4,360	3,200	2,400	3,600	17,300	10,000	4,440	1,580	1,060	*1,890
9	6,890	4,600	4,460	2,800	2,600	3,400	14,100	12,500	4,140	957	1,180	1,850
10	4,050	5,080	*5,530	3,900	2,500	3,500	13,700	13,300	3,070	847	2,050	1,220
11	7,130	4,480	2,770	5,000	2,500	3,600	17,500	11,800	2,780	*771	2,320	430
12	6,910	4,420	2,410	5,900	1,650	6,600	20,600	9,280	2,050	1,670	3,090	1,290
13	6,920	2,980	4,730	5,600	1,050	7,400	19,600	7,700	4,840	1,340	2,530	1,840
14	6,580	1,880	5,620	3,800	3,000	8,000	20,100	6,320	7,740	1,240	3,960	1,550
15	7,070	3,610	5,080	3,000	3,100	7,200	30,900	3,160	10,800	761	4,400	1,710
16	6,600	4,380	5,780	2,500	3,100	7,200	39,300	4,950	11,200	652	4,600	*1,360
17	5,480	4,420	4,880	3,500	3,700	7,200	38,500	5,180	9,400	740	6,100	472
18	6,220	*4,440	4,240	4,100	3,100	6,800	31,100	4,520	5,040	1,430	7,070	465
19	5,220	2,890	8,580	4,500	2,450	5,800	27,300	4,540	1,610	1,640	7,040	1,040
20	4,050	4,900	8,200	4,200	1,450	4,000	29,900	4,050	2,680	1,360	3,370	1,440
21	5,080	10,600	7,400	3,800	1,800	5,200	24,600	3,140	2,840	1,240	2,560	1,500
22	5,020	16,300	5,800	2,600	2,700	5,400	19,600	2,830	4,410	913	2,300	1,390
23	3,160	15,300	5,200	1,350	4,000	4,700	19,100	3,500	4,510	524	2,680	1,400
24	2,780	11,800	4,700	2,100	5,000	4,000	18,400	3,890	4,640	500	4,920	1,110
25	3,220	7,010	3,600	2,400	5,200	3,500	18,100	4,070	4,420	524	4,560	493
26	3,810	6,360	2,900	2,700	4,900	3,100	*18,000	6,350	3,440	1,000	3,220	1,320
27	4,990	5,330	5,200	2,600	4,100	2,700	17,000	5,850	3,620	1,560	2,260	1,710
28	5,580	2,740	5,800	2,400	4,800	3,300	16,100	4,010	3,620	1,470	1,960	1,670
29	6,320	6,720	7,000	2,500	-	3,500	14,100	2,460	3,020	1,420	2,000	1,580
30	5,630	8,060	8,000	1,250	-------	3,100	13,200	2,530	2,780	564	2,060	1,640
31	2,360	-------	7,000	1,400	-------	3,400	-------	3,980	-------	493	2,890	-------
Total	199,950	182,630	158,720	113,180	78,960	144,250	563,560	225,210	170,770	38,606	83,837	43,040
Mean	6,450	6,088	5,120	3,651	2,820	4,653	18,790	7,265	5,692	1,245	2,704	1,435
(†)	+55.0	-105	-782	-938	-509	-453	+1,614	+787	+416	-64.7	-28.0	-473

Adjusted for change in reservoir contents

Mean	6,505	5,983	4,338	2,713	2,312	4,200	20,400	8,052	6,108	1,181	2,676	962
Cfsm	2.46	2.26	1.64	1.03	0.874	1.59	7.72	3.05	2.31	0.447	1.01	0.364
In.	2.84	2.52	1.89	1.18	0.91	1.83	8.61	3.51	2.58	0.51	1.17	0.41

	Observed			Adjusted				
Calendar year 1954:	Max 47,500	Min 600	Mean 7,155	Mean 7,169	Cfsm 2.71	In. 36.81
Water year 1954-55:	Max 39,300	Min 337	Mean 5,487	Mean 5,446	Cfsm 2.06	In. 27.96

Peak discharge (base, 23,000 cfs).--Apr. 17 (1 to 2 a.m.) 40,500 cfs (12.95 ft).
* 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, and Moore Reservoir.
Note.--Stage-discharge relation affected by ice Dec. 21 to Jan. 1, Jan. 3 to Feb. 5, Feb. 7 to Apr. 4.

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 1955.

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.--15 years, 145 cfs.

Extremes.--Maximum discharge during year, 1,580 cfs Apr. 15 (gage height, 5.29 ft); minimum, 11 cfs Aug. 4, 5; minimum daily, 15 cfs Aug. 5.
1940-55: 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 excellent except those for periods of ice effect or no gage-height record, 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), 1944-48(P), 1950.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.3	14	3.0	311
1.6	31	3.5	517
1.9	59	4.0	780
2.2	102	5.0	1,400
2.6	194	6.0	2,010

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	118	150	130	45	115	234	318	465	46	22	35
2	65	102	125	130	43	170	*287	290	290	44	19	31
3	65	106	110	125	41	130	318	266	194	45	20	28
4	116	257	94	115	40	110	336	248	*144	43	17	28
5	146	200	100	105	40	*100	454	245	118	*43	15	27
6	106	156	*80	110	41	96	642	242	100	54	24	28
7	106	135	84	100	42	92	876	216	87	54	28	26
8	91	124	80	90	45	84	645	292	78	43	*39	*25
9	81	106	80	86	50	82	450	520	71	37	27	24
10	84	88	84	82	55	94	586	314	65	34	22	22
11	*112	84	80	80	72	180	969	248	78	33	57	24
12	*133	87	74	78	90	380	966	208	81	27	81	40
13	108	82	76	76	85	360	744	189	106	24	46	40
14	88	75	66	74	80	195	844	173	92	26	615	35
15	79	78	105	72	75	180	1,440	154	84	26	442	33
16	128	70	90	76	70	220	1,380	146	70	37	133	34
17	129	72	76	70	68	220	1,000	137	60	47	95	32
18	102	*74	200	66	65	165	768	120	56	34	124	31
19	90	70	340	64	62	145	1,010	110	52	29	94	45
20	84	90	190	60	60	130	1,110	110	49	28	72	56
21	78	310	150	58	65	120	798	102	75	24	59	54
22	76	350	140	58	80	118	635	95	106	22	51	50
23	70	210	135	62	100	115	650	92	75	18	52	48
24	67	165	130	*60	180	110	541	94	80	21	81	60
25	64	150	115	54	130	110	*541	108	166	23	58	71
26	62	135	120	52	110	108	620	176	99	20	47	58
27	69	125	105	54	100	110	590	116	75	21	43	49
28	137	130	110	51	90	97	494	99	64	32	39	58
29	112	165	240	50	-	99	407	92	57	28	35	60
30	131	170	190	47	------	100	358	126	51	21	32	46
31	137	-- -	160	46	-------	146	-------	110	- -- -	22	36	- - -
Total	2,982	4,084	3,879	2,381	2,024	4,481	20,693	5,756	3,188	1,006	2,525	1,198
Mean	96.2	136	125	76.8	72.3	145	690	186	106	32.5	81.5	39.9
Cfsm	0.978	1.38	1.27	0.780	0.735	1.47	7.01	1.89	1.08	0.330	0.828	0.405
In.	1.13	1.54	1.47	0.90	0.76	1.69	7.82	2.18	1.20	0.38	0.95	0.45

Calendar year 1954: Max 1,250 Min 23 Mean 175 Cfsm 1.78 In. 24.20
Water year 1954-55: Max 1,440 Min 15 Mean 148 Cfsm 1.50 In. 20.47

Peak discharge (base, 980 cfs).--12 p.m. Apr. 6 to 1 a.m. Apr. 7, 1,020 cfs (4.40 ft); 12 p.m. Apr. 11 to 1 a.m. Apr. 12, 1,240 cfs (4.76 ft); Apr. 15 (11:30 p.m.) 1,580 cfs (5.29 ft); Apr. 19 (9:30 to 10:30 p.m.) 1,540 cfs (5.21 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Nov. 18 to Dec. 6, Dec. 14 to Jan. 24; discharge estimated on basis of 3 discharge measurements, weather records, recorded range in stage when available, and records for Dog River at Northfield Falls, Vt., and Ammonoosuc River near Bath, N. H. Stage-discharge relation affected by ice Dec. 6 to Mar. 12, Mar. 14-21, 23-25, and at times during period of no gage-height record Nov. 18 to Dec. 6.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 435 ft (from topographic map).

Average discharge.--15 years, 203 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 1,690 cfs Apr. 16 (gage height, 7.05 ft); minimum, 21 cfs Aug. 5; minimum daily, 22 cfs Aug. 4, 5.
1940-55: 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 fair. Flow regulated by Union Village Reservoir (see p. 232) since October 1949. Some regulation by Lake Fairlee.

Rating tables, water year 1954-55, 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			
3.5	74	5.0	515	2.9	22	5.0	495
3.9	136	6.0	995	3.2	43	6.0	940
4.4	291	7.0	1,650	3.5	82	7.0	1,650
				4.0	175		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	116	361	168	74	257	420	385	385	62	25	*92
2	102	106	308	166	72	316	543	358	230	190	25	78
3	102	170	232	168	70	225	735	338	175	255	24	68
4	103	394	a175	148	68	150	595	305	149	119	22	64
5	*153	*239	a165	135	66	153	695	298	143	106	22	60
6	114	191	a140	136	65	150	896	292	124	192	38	57
7	118	182	a125	135	95	140	1,190	254	106	151	36	53
8	108	168	a160	120	75	105	1,140	348	100	105	41	48
9	102	143	a175	110	70	120	850	314	93	84	30	46
10	102	134	a200	110	70	192	978	260	85	73	26	44
11	122	130	a235	110	80	274	1,400	227	82	60	229	44
12	134	128	a200	105	110	471	1,430	203	114	51	170	50
13	114	124	a160	96	60	372	1,100	200	157	44	183	46
14	103	118	*124	96	77	347	1,050	185	126	41	406	41
15	99	100	299	105	95	344	1,490	164	113	38	963	40
16	176	93	221	105	92	420	847	151	90	59	1,500	40
17	143	106	136	100	90	428	171	141	72	77	*721	38
18	116	120	326	96	85	316	668	131	63	54	340	37
19	108	108	600	95	80	288	1,340	122	57	65	82	35
20	105	208	350	95	70	242	1,490	113	*51	43	82	35
21	100	596	242	92	85	*274	1,450	105	62	38	82	35
22	94	543	210	90	105	225	1,320	96	105	34	515	32
23	90	402	a170	90	135	215	982	92	100	32	185	30
24	89	312	a130	86	277	208	585	95	227	31	210	54
25	82	288	a185	84	190	185	633	114	238	30	141	63
26	82	253	a175	82	120	182	*663	*185	192	30	119	44
27	86	249	a180	*80	118	182	654	120	129	34	126	39
28	113	249	*185	75	136	171	554	108	101	62	110	46
29	102	344	253	72	-	128	488	104	85	35	92	50
30	141	409	205	74	-------	231	429	219	74	30	85	48
31	132	-------	225	74	-------	280	-------	149	-------	26	106	-------
Total	3,441	6,723	6,852	3,298	2,730	7,591	26,786	6,176	3,828	2,251	6,736	1,457
Mean	111	224	221	106	97.5	245	893	199	128	72.6	217	48.6
(†)	+0.07	+2.62	-0.22	+1.16	-0.45	-0.15	-2.39	-0.30	-0.31	-0.30	+0.37	-0.35

Adjusted for change in reservoir contents

Mean	111	227	221	108	97.0	245	890	199	127	72.3	218	48.2
Cfsm	0.854	1.75	1.70	0.831	0.746	1.88	6.85	1.53	0.977	0.556	1.68	0.371
In.	0.98	1.95	1.96	0.95	0.78	2.17	7.64	1.76	1.09	0.64	1.93	0.41

	Observed			Adjusted			
Calendar year 1954:	Max 1,380	Min 18	Mean 260	Mean 260	Cfsm 2.00	In. 27.19	
Water year 1954-55:	Max 1,500	Min 22	Mean 213	Mean 215	Cfsm 1.64	In. 22.26	

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Union Village Reservoir.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage and records for Union Village Reservoir, White River at West Hartford, and Ottauquechee River at North Hartland.
Note.--Stage-discharge relation affected by ice Dec. 17, 22, Jan. 5, Jan. 7 to Feb. 23, Feb. 26, Mar. 3, 4, 7-9.

White River near Bethel, Vt.

Location.--Lat 43°48'45", long 72°39'25", on right bank a third of a mile upstream from Locust Creek and 1¾ miles southwest of Bethel, Windsor County.

Drainage area.--241 sq mi.

Records available.--June 1931 to September 1955 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 550 ft (from topographic map). Prior to Oct. 1, 1940, at datum 2.00 ft higher.

Average discharge.--24 years, 494 cfs.

Extremes.--Maximum discharge during year, 8,440 cfs Apr. 15 (gage height, 6.86 ft), from rating curve extended above 4,200 cfs on basis of slope-area determination at gage height 11.46 ft; maximum gage height, 8.62 ft Mar. 11 (ice jam); minimum discharge, 46 cfs Aug. 1, 2.
1931-55: Maximum discharge, 32,200 cfs Sept. 21, 1938 (gage height, 11.46 ft, present datum), from rating curve extended as explained above; maximum gage height, 13.20 ft Mar. 9, 1942 (ice jam); minimum discharge, 28 cfs Aug. 3, 1933, Aug. 22, 1934.

Remarks.--Records excellent except those for periods of ice effect, shifting control, and fragmentary, doubtful, or no gage-height record, all of which are fair.

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

Rating table, water year 1954-55, except periods of ice effect or shifting-control (gage height, in feet, and discharge, in cubic feet per second)

1.2	41	3.5	1,390
1.4	71	4.0	2,060
1.7	127	5.0	3,680
2.1	264	6.0	5,880
2.5	477	7.0	8,890
3.0	875		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	236	304	605	640	170	600	803	965	1,300	103	47	140
2	232	277	539	620	160	900	1,250	857	785	276	58	120
3	248	f1,780	460	568	155	650	1,350	803	546	281	60	100
4	240	*f2,190	300	*518	150	500	1,060	717	414	155	62	94
5	312	1,240	386	430	145	450	1,180	700	353	135	62	86
6	260	911	300	470	150	390	2,100	644	295	280	80	80
7	268	726	*350	380	165	350	2,620	546	256	291	72	76
8	244	620	338	340	165	310	1,840	697	236	178	100	74
9	232	553	348	310	155	350	1,400	660	217	135	86	72
10	232	477	358	348	150	500	2,510	553	199	116	80	70
11	323	439	345	290	170	900	3,740	484	181	101	180	67
12	353	414	285	305	240	1,700	2,940	427	185	91	150	72
13	299	375	295	320	250	1,390	2,100	403	250	82	f750	85
14	268	358	255	280	210	1,060	2,710	375	252	79	1,640	78
15	252	338	575	260	*215	974	7,310	358	228	74	*466	74
16	356	308	505	280	205	1,340	4,550	308	185	100	350	70
17	308	308	335	260	200	1,260	2,830	286	155	118	380	66
18	273	364	f647	250	195	940	2,210	273	138	85	280	62
19	256	392	f1,260	240	190	812	3,070	252	123	87	250	60
20	268	539	f803	210	190	720	2,830	244	118	84	200	58
21	252	1,310	660	180	200	692	2,090	228	*138	73	180	54
22	232	1,550	480	190	220	*636	1,750	213	199	66	160	52
23	220	938	410	200	350	590	*1,750	206	178	62	150	50
24	210	742	491	190	700	532	1,410	202	263	62	170	80
25	199	668	380	180	500	491	1,670	237	298	60	140	140
26	192	598	330	190	400	471	1,640	*440	220	58	120	105
27	231	546	410	210	350	452	1,320	264	165	56	160	90
28	376	539	414	200	330	403	1,100	224	138	79	140	80
29	295	692	f1,400	190	-	390	1,000	220	118	64	120	95
30	348	700	1,000	180	------	414	1,010	426	107	54	110	92
31	348	------	812	175	------	560	------	291	------	52	120	------
Total	8,363	21,196	16,056	9,404	6,680	21,727	65,143	13,483	8,240	3,537	6,923	2,442
Mean	270	707	518	303	239	701	2,171	435	275	114	223	81.4
Cfsm	1.12	2.93	2.15	1.26	0.992	2.91	9.01	1.80	1.14	0.473	0.925	0.338
In.	1.29	3.27	2.48	1.45	1.03	3.35	10.05	2.08	1.27	0.55	1.07	0.38

Calendar year 1954: Max 4,800 Min 59 Mean 596 Cfsm 2.47 In. 33.57
Water year 1954-55: Max 7,310 Min 47 Mean 502 Cfsm 2.08 In. 28.27

Peak discharge (base, 5,600 cfs).--Apr. 15 (6:15 a.m.) 8,440 cfs (6.86 ft).
* Discharge measurement made on this day.
f Fragmentary gage-height record; discharge computed from partly estimated gage heights.
Note.--No gage-height record Feb. 24, Aug. 26 to Sept. 30; discharge estimated on basis of weather records, and records for station at West Hartford. Doubtful or no gage-height record Aug. 2-12, 16-25; discharge estimated on basis of recorder graph, weather records, and records for station at West Hartford. Stage-discharge relation affected by ice Dec. 3, 4, 6, 7, 11-15, 17, 21-23, 25-27, 29, 30, Jan. 1, 2, 5, 6, 8, 9, Jan. 11 to Mar. 12, Mar. 18, 20, 29. Shifting-control method used Aug. 13-15.

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 1955.

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.--16 years, 48.1 cfs.

Extremes.--Maximum discharge during year, 758 cfs Apr. 10 (gage height, 4.13 ft); minimum, 1.7 cfs Aug. 5.

1939-55: 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 backwater from debris, which are good, and those for periods of ice effect, which are fair.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 10				Apr. 11 to Sept. 30			
0.7	16	2.0	129	0.1	1.6	1.5	61
.9	24	2.5	212	.2	2.6	2.0	121
1.1	35	3.0	330	.3	3.9	2.5	207
1.5	68	3.5	490	.5	8.5	3.0	330
				.9	24	3.5	490
				1.2	38		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	28	70	47	18	44	112	84	100	7.2	2.3	5.9
2	28	26	60	52	17	54	154	76	46	6.9	2.3	5.1
3	28	87	53	49	16	37	140	70	36	7.7	2.0	4.7
4	43	110	45	*47	16	32	135	64	31	6.4	1.8	4.3
5	46	66	47	43	17	32	177	65	29	5.7	1.8	4.1
6	33	54	34	47	18	32	320	58	26	11	2.4	4.3
7	35	48	42	40	18	30	357	53	24	11	2.6	3.9
8	32	45	41	36	*18	29	247	72	24	7.2	5.3	3.6
9	31	42	40	35	19	30	224	62	22	5.7	3.4	3.5
10	32	39	42	39	19	52	398	52	21	5.3	2.7	3.4
11	37	37	40	32	20	90	484	46	19	4.5	5.0	3.4
12	36	37	35	31	21	115	368	43	22	3.9	6.4	4.9
13	32	34	37	33	21	85	266	43	23	3.8	19	4.9
14	30	34	33	30	19	74	273	40	22	3.6	44	3.9
15	28	34	81	28	20	*79	486	37	21	3.6	17	3.6
16	33	32	54	29	20	112	405	35	18	7.6	11	3.6
17	30	32	40	28	20	98	270	34	16	7.5	8.0	3.5
18	28	37	97	26	20	76	214	32	14	5.1	34	3.4
19	26	36	107	25	19	68	*294	31	13	4.5	15	3.5
20	27	55	69	24	19	65	250	30	12	3.9	11	3.0
21	26	111	56	21	18	67	192	29	*16	3.4	8.0	2.9
22	25	101	52	24	19	63	160	28	18	3.0	6.4	2.9
23	24	69	50	24	42	61	*152	26	14	2.9	6.4	2.9
24	23	61	53	23	58	55	129	26	12	2.9	8.2	7.6
25	22	61	43	20	35	54	178	30	16	2.9	6.4	9.6
26	22	60	40	20	29	54	169	*36	17	*2.6	5.9	5.9
27	29	57	46	22	29	53	142	28	12	2.7	7.2	4.9
28	*32	59	49	19	29	45	121	27	11	3.6	7.2	5.9
29	28	97	120	20	-	52	108	27	8.5	3.2	5.3	6.9
30	33	*85	62	20	-------	52	93	34	7.7	2.6	*5.1	5.7
31	31	----	57	19	-------	73	-------	26	-------	2.4	6.7	------
Total	938	1,674	1,695	953	634	1,863	7,014	1,344	671.2	154.3	269.8	135.7
Mean	30.3	55.8	54.7	30.7	22.6	60.1	234	43.4	22.4	4.98	8.70	4.52
Cfsm	0.993	1.83	1.79	1.01	0.741	1.97	7.67	1.42	0.734	0.163	0.285	0.148
In.	1.14	2.04	2.07	1.16	0.77	2.27	8.55	1.64	0.82	0.19	0.33	0.17

Calendar year 1954: Max 341 Min 7.7 Mean 55.6 Cfsm 1.82 In. 24.74
Water year 1954-55: Max 486 Min 1.8 Mean 47.5 Cfsm 1.56 In. 21.15

Peak discharge (base, 350 cfs).--Apr. 6 (9 p.m.) 646 cfs (3.88 ft); Apr. 10 (9 p.m.) 758 cfs (4.13 ft); Apr. 15 (8:30 a.m.) 546 cfs (3.64 ft); Apr. 19 (7 p.m.) 458 cfs (3.41 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 4, 6, 7, 12, 14, 17, 21-24, 27, Dec. 30 to Jan. 2, Jan. 5, Jan. 8 to Mar. 15, Mar. 18-20, 28-30. Backwater from debris Oct. 1-28, Apr. 27 to May 26.

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 1955. October 1927 to September 1928 monthly discharge only, published in WSP 1301.

Gage.--Water-stage recorder. Datum of gage is 374.53 ft above mean sea level, datum of 1929. Prior to Oct. 30, 1927, staff gage at same site and datum.

Average discharge.--40 years, 1,205 cfs.

Extremes.--Maximum discharge during year, 14,800 cfs Apr. 15 (gage height, 11.87 ft); maximum gage height, 12.85 ft Mar. 12 (ice jam); minimum discharge, 107 cfs Aug. 1 (gage height, 2.71 ft); minimum daily, 110 cfs Aug. 1.
1915-55: 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 (gage height, 2.22 ft); minimum daily, 64 cfs Aug. 4, 1918.

Remarks.--Records good except those for periods of ice effect, 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 table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.7	105	5.0	1,340
3.0	183	6.0	2,400
3.5	366	8.0	5,630
4.0	600	10.0	9,600
4.5	920	12.0	15,200

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	570	685	1,660	1,480	450	1,400	2,310	2,360	2,160	275	110	326
2	570	616	1,420	1,480	430	2,500	3,340	2,140	1,740	324	141	275
3	560	1,940	1,230	1,380	410	1,900	3,940	1,980	1,230	568	144	242
4	565	4,600	880	1,240	380	1,300	2,960	1,800	952	366	151	218
5	780	2,410	1,150	1,080	360	1,200	3,570	1,750	822	302	151	212
6	679	1,760	730	1,070	380	1,050	5,480	1,750	715	496	186	202
7	650	1,450	860	1,020	430	900	7,520	1,500	616	638	171	189
8	622	1,250	920	820	430	800	5,550	1,680	585	424	189	183
9	580	1,140	960	740	390	850	4,320	1,710	545	326	232	177
10	570	1,010	1,020	920	380	1,300	6,530	1,480	500	271	180	171
11	638	928	976	720	400	2,200	9,500	1,310	450	242	429	163
12	815	906	794	680	600	4,000	8,250	1,180	468	212	655	180
13	685	822	800	810	670	3,300	6,140	1,100	580	193	794	209
14	606	794	661	720	600	2,500	6,360	1,060	585	186	3,720	189
15	560	767	1,300	630	560	2,270	13,400	952	555	180	1,420	177
16	715	697	1,620	720	540	3,000	10,800	885	468	196	829	171
17	734	703	1,050	720	520	3,020	7,230	822	406	302	878	163
18	622	728	1,250	630	520	2,130	5,590	760	362	242	667	154
19	585	857	3,150	600	500	1,920	*6,840	703	326	215	638	151
20	590	1,120	2,200	540	500	1,620	6,850	679	314	205	520	149
21	580	2,390	1,600	490	500	1,790	5,370	628	330	183	424	133
22	545	3,400	1,300	500	560	*1,560	4,220	585	500	166	366	128
23	510	2,030	1,020	530	740	1,490	4,220	555	*450	151	358	126
24	491	1,660	1,400	520	1,900	1,340	3,550	550	515	144	406	180
25	460	1,530	1,100	480	1,500	1,280	3,910	535	934	144	354	326
26	455	1,460	770	520	1,100	1,260	4,370	972	611	144	314	268
27	478	1,370	1,170	*560	900	1,170	3,710	722	482	160	379	205
28	774	1,330	*1,180	500	840	1,050	3,120	600	388	229	370	199
29	*661	1,640	2,850	490	-	980	2,680	580	334	*177	*310	229
30	774	*1,920	2,320	480	------	1,110	2,520	1,070	298	146	271	225
31	774	-- ---	1,830	470	------	1,530	-------	*801	-------	121	302	---- -
Total	19,198	43,913	41,171	23,540	17,490	53,720	164,150	35,199	19,221	7,928	16,059	5,920
Mean	619	1,464	1,328	759	625	1,733	5,472	1,135	641	256	518	197
Cfsm	0.897	2.12	1.92	1.10	0.906	2.51	7.93	1.64	0.929	0.371	0.751	0.286
In.	1.03	2.37	2.22	1.27	0.94	2.90	8.85	1.90	1.04	0.43	0.87	0.32

Calendar year 1954: Max 9,400 Min 140 Mean 1,497 Cfsm 2.17 In. 29.46
Water year 1954-55: Max 13,400 Min 110 Mean 1,226 Cfsm 1.78 In. 24.14

Peak discharge (base, 11,600 cfs).--Apr. 11 (10:30 to 11:30 p.m.) 12,000 cfs (10.86 ft); Apr. 15 (9:30 to 10 a.m.) 14,800 cfs (11.87 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4-8, 13, 15, 18-27, 29, Jan. 6 to Mar. 13, Mar. 27-29.

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 1955.
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.--44 years, 7,248 cfs (adjusted for storage).
Extremes.--Maximum discharge during year, 50,400 cfs Apr. 16 (gage height, 19.82 ft); minimum daily, 166 cfs July 31.
1911-55: 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, Union Village Reservoir (see p. 232), and other reservoirs (combined usable capacity, about 12¼ billion cubic feet).
Revisions (water years).--WSP 741: 1932 (adjusted monthly and yearly figures only). WSP 781: 1928(M). WSP 891: Drainage area. WSP 1301: 1922-26(M).

Rating table, water year 1954-55, except periods of ice effct (gage height, in feet, and discharge, in cubic feet per second)

2.6	150	6.0	3,730
3.0	312	8.0	8,180
3.5	630	12.0	20,000
4.0	1,040	16.0	34,300
5.0	2,160	20.0	51,200

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,100	6,580	11,500	8,740	3,300	8,600	9,980	16,500	14,200	3,650	1,310	3,790
2	5,600	6,440	9,200	7,360	3,700	11,500	12,900	15,800	20,000	3,210	1,170	3,480
3	5,500	8,500	7,400	8,420	3,000	9,400	14,400	14,300	16,500	1,700	938	1,470
4	9,000	12,500	4,300	7,900	2,600	7,440	13,800	15,600	11,000	2,540	871	g383
5	16,000	12,000	3,000	7,070	1,700	6,750	16,100	15,200	7,950	2,440	914	550
6	g16,800	9,260	5,900	7,240	1,100	3,160	21,400	15,600	7,100	2,730	g225	3,100
7	g14,400	6,320	5,400	6,990	*3,300	5,800	29,000	16,000	7,070	3,400	g210	3,050
8	g12,600	6,790	5,800	5,300	3,600	5,000	28,600	14,200	5,510	2,340	1,880	2,310
9	g10,500	7,110	6,500	4,000	3,300	5,610	23,700	14,400	5,690	g464	2,090	1,920
10	6,800	6,440	7,600	5,200	3,100	5,700	24,600	16,100	3,220	546	2,470	g251
11	6,800	6,200	7,640	5,800	3,800	8,870	30,600	15,400	2,160	2,210	5,820	346
12	8,870	6,400	3,350	6,300	2,000	13,000	33,800	12,200	3,240	2,290	4,630	2,440
13	8,790	3,930	5,900	6,700	2,500	14,000	31,000	10,800	6,980	1,520	5,060	2,060
14	7,940	2,310	6,720	6,400	4,500	*13,000	30,600	10,300	9,200	1,780	12,100	1,780
15	9,290	6,310	7,440	4,300	4,300	12,900	43,300	6,170	11,000	2,020	8,560	2,030
16	7,830	5,430	8,720	3,000	4,300	13,600	49,400	6,560	11,700	g282	8,280	1,820
17	6,520	5,680	7,670	4,650	3,600	13,800	49,100	6,220	10,500	g333	8,900	541
18	8,750	5,560	7,420	5,000	4,700	12,500	46,700	6,350	8,060	2,140	10,300	g255
19	7,410	4,830	13,900	5,400	3,800	10,700	*43,000	5,840	2,480	2,100	10,400	3,980
20	5,950	8,000	11,300	5,100	1,590	8,220	43,300	5,900	4,020	2,020	6,170	2,990
21	5,640	15,000	11,600	4,700	4,000	8,390	40,000	4,750	3,580	1,780	1,740	1,200
22	6,130	g21,700	8,710	3,700	3,100	8,830	33,600	2,990	5,300	1,750	3,230	1,500
23	4,210	g20,400	7,470	1,250	5,320	8,520	28,900	4,280	6,220	g260	4,400	1,740
24	2,880	g15,900	6,570	4,200	8,710	7,660	26,100	4,700	5,720	g183	6,360	618
25	5,190	g12,300	6,250	3,900	9,200	6,900	25,500	4,840	6,590	1,410	5,390	g365
26	4,870	g9,360	4,440	3,500	7,240	6,180	26,400	7,140	3,730	1,500	4,690	1,910
27	5,840	8,500	6,420	3,650	6,130	4,720	24,600	8,580	5,260	1,640	3,250	1,520
28	6,660	6,000	7,850	3,600	7,630	5,640	23,000	6,140	5,900	2,530	1,990	2,460
29	8,050	8,400	10,800	2,800	-	5,660	20,300	3,420	3,760	1,840	3,440	2,280
30	7,400	12,000	11,100	1,700	-------	5,740	18,600	4,870	2,970	g231	3,600	2,050
31	4,300	-------	11,100	3,200	-------	6,740	-------	5,620	-------	g166	3,480	-------
Total	242,620	266,150	238,970	157,070	115,120	264,530	862,280	296,770	216,610	53,005	133,768	54,189
Mean	7,826	8,872	7,709	5,067	4,111	8,533	28,740	9,573	7,220	1,710	4,315	1,806
(†)	+55.0	-102	-783	-937	-509	-454	+1,611	+787	+416	-65.0	-27.7	-473

Adjusted for change in reservoir contents

Mean	7,881	8,769	6,926	4,130	3,602	8,080	30,350	10,360	7,636	1,645	4,287	1,333
Cfsm	1.93	2.14	1.69	1.01	0.880	1.97	7.42	2.53	1.87	0.402	1.05	0.326
In.	2.22	2.39	1.95	1.16	0.92	2.28	8.28	2.92	2.08	0.46	1.21	0.36

	Observed			Adjusted			
Calendar year 1954:	Max 49,700	Min 672	Mean 9,996	Mean 10,010	Cfsm 2.45	In. 33.20
Water year 1954-55:	Max 49,400	Min 166	Mean 7,948	Mean 7,907	Cfsm 1.93	In. 26.23

Peak discharge (base, 34,000 cfs).--Apr. 16 (7 to 9 a.m.) 50,400 cfs (19.82 ft).
* Discharge measurement made on this day.
† Change in contents in First Connecticut and Second Connecticut Lakes, Lake Francis, Comerford Station Pond, Moore Reservoir, and Union Village Reservoir, equivalent in cubic feet per second.
g Computed from twice-daily wire-weight-gage readings.
Note.--No gage-height record Oct. 1-5, 10, 11, Nov. 11, 12, 20, 21, Nov. 27 to Dec. 9, Feb. 25; discharge estimated on basis of recorded range in stage when available, weather records, powerplant records, and records for White River at West Hartford. Stage-discharge relation affected by ice Jan. 8 to Feb. 19, Feb. 21, 22, Mar. 7, 8.

Mascoma River at West Canaan, N. H.

Location.--Lat 43°39'00", long 72°04'50", on right bank 45 ft downstream from Boston & Maine Railroad bridge, 0.9 mile east of West Canaan, Grafton County, 1.2 miles downstream from Indian River, and 3¼ miles west of Canaan.

Drainage area.--80.5 sq mi.

Records available.--July 1939 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 835 ft (from topographic map).

Average discharge.--16 years, 124 cfs.

Extremes.--Maximum discharge during year, 1,790 cfs Aug. 14 (gage height, 6.21 ft); minimum, 9.3 cfs Sept. 22-24.

1939-55: 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 tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 19, June 1 to Sept. 30				Dec. 20 to May 31			
0.6	7.4	2.5	205	1.0	24	2.5	230
.7	10	3.0	320	1.2	37	3.0	356
.9	17	4.0	635	1.5	65	4.0	675
1.2	33	5.0	1,070	2.0	135	5.0	1,100
1.5	57	6.0	1,640				
2.0	117						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	*85	216	115	29	140	232	270	500	36	19	33
2	55	75	157	112	27	270	302	230	280	36	17	30
3	59	248	130	*113	26	210	342	210	190	76	15	28
4	62	526	105	110	26	140	278	190	140	48	13	26
5	63	307	105	90	26	120	359	180	115	37	13	24
6	57	199	80	94	27	105	454	160	95	98	40	*22
7	58	152	90	74	38	90	570	140	75	101	29	22
8	53	130	94	67	61	78	454	145	65	59	26	20
9	50	117	96	69	58	74	342	145	56	44	19	19
10	50	100	100	76	54	70	380	130	48	36	15	18
11	66	91	90	64	56	190	647	120	45	31	135	17
12	77	88	77	62	86	390	706	110	70	26	264	17
13	65	80	*74	64	91	280	505	100	280	24	203	17
14	56	76	74	52	75	200	454	105	175	23	1,580	15
15	52	74	280	54	60	180	709	95	140	21	765	15
16	114	65	378	58	*51	245	814	82	100	22	280	14
17	95	66	233	54	46	294	570	80	72	23	195	14
18	74	67	229	52	44	222	439	74	56	21	260	13
19	65	68	540	50	42	168	451	70	47	21	195	13
20	61	139	372	42	41	150	658	65	43	21	138	11
21	56	386	257	37	40	*137	466	60	44	17	100	10
22	51	456	210	40	43	119	368	57	60	*15	79	9.3
23	48	264	170	42	70	118	362	56	85	14	72	9.3
24	46	197	160	42	120	112	317	55	*72	13	69	20
25	43	168	115	40	130	107	317	56	120	13	59	37
26	42	150	92	40	100	100	*418	120	95	12	52	24
27	42	138	115	38	78	97	410	90	78	17	48	19
28	56	134	115	35	75	93	350	80	61	117	44	22
29	57	188	145	35	-	96	330	75	49	53	38	30
30	99	250	145	32	------	96	290	300	41	31	34	23
31	103	--	140	30	------	148	------	*209	------	23	34	------
Total	1,935	5,064	5,184	1,883	1,620	4,839	13,294	3,859	3,297	1,129	4,850	591.6
Mean	62.4	169	167	60.7	57.9	156	443	124	110	36.4	156	19.7
Cfsm	0.775	2.10	2.07	0.754	0.719	1.94	5.50	1.54	1.37	0.452	1.94	0.245
In.	0.89	2.34	2.39	0.87	0.75	2.24	6.14	1.78	1.52	0.52	2.24	0.27

Calendar year 1954: Max 1,440 Min 8.8 Mean 166 Cfsm 2.06 In. 27.99
Water year 1954-55: Max 1,580 Min 9.3 Mean 130 Cfsm 1.61 In. 21.95

Peak discharge (base, 950 cfs).--Aug. 14 (11:30 a.m. to 12:30 p.m.) 1,790 cfs (6.21 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Apr. 27 to May 30, June 1-26; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage when available, and records for Baker River near Rumney and Sugar River at West Claremont. Stage-discharge relation effected by ice Dec. 3-12, 15, Dec. 22 to Jan. 3, Jan. 5 to Mar. 15.

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 1955.

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

Average discharge.--32 years, 219 cfs (adjusted for storage since October 1928).

Extremes.--Maximum discharge during year, 1,600 cfs Aug. 15 (gage height, 3.93 ft); minimum daily, 64 cfs July 30, Aug. 6.
1923-55: 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 except those for periods of no gage-height record, which are good. Flow regulated by Mascoma and Crystal Lakes and Goose and Grafton Ponds (see p. 232).

Revisions (water years).--WSP 726: Drainage area. WSP 801: 1925(M).

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 23		Nov. 24 to Sept. 30			
1.0	110	0.6	53	2.0	396
1.2	156	1.0	110	3.0	900
1.6	269	1.5	223	4.0	1,660

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	177	*118	421	272	201	229	285	310	627	148	114	164
2	174	120	416	272	199	241	302	200	792	148	112	*162
3	169	120	347	*269	196	263	380	210	632	148	114	160
4	164	129	285	269	196	285	458	220	454	148	112	157
5	164	144	285	266	196	279	502	230	388	148	108	153
6	161	156	*256	259	194	272	570	241	239	146	64	148
7	159	161	238	256	194	272	703	240	191	148	74	146
8	156	164	232	253	191	272	816	240	186	148	112	142
9	154	164	229	247	191	259	798	240	186	148	112	140
10	151	164	226	241	191	263	720	240	177	146	112	138
11	148	164	226	238	194	275	586	240	138	144	112	136
12	146	164	223	232	194	285	540	220	136	140	112	136
13	144	161	220	226	196	299	769	186	167	138	129	134
14	141	161	216	223	196	*320	798	185	279	138	851	132
15	138	161	218	218	196	444	876	180	300	*138	1,550	130
16	134	159	223	212	*196	484	1,050	160	238	136	1,160	128
17	134	159	229	223	196	476	1,080	155	178	134	604	124
18	134	151	235	229	196	458	*1,020	140	144	132	400	123
19	131	148	308	223	199	421	907	140	144	130	400	123
20	131	151	629	220	199	369	870	140	*144	128	350	121
21	131	156	630	218	196	331	888	140	144	128	188	119
22	129	169	426	215	196	306	810	140	144	126	188	119
23	129	269	306	212	199	279	512	140	136	124	188	117
24	127	416	292	210	201	279	357	135	128	123	186	117
25	125	373	288	210	212	275	400	135	128	123	186	117
26	123	320	288	210	215	259	437	135	157	121	184	117
27	120	288	285	210	220	250	507	*115	184	110	181	117
28	118	285	282	207	220	256	548	72	174	108	178	115
29	118	285	275	204	-	285	556	72	157	98	174	115
30	118	331	279	204	-------	288	530	89	150	64	171	115
31	118	-------	275	201	-------	288	-------	162	-------	74	169	-------
Total	4,366	5,911	9,290	7,149	5,570	9,562	19,575	5,452	7,242	4,033	8,695	3,965
Mean	141	197	300	231	199	308	652	176	241	130	280	132
(†)	-59.1	+131	-24.5	-147	-102	-9.37	+247	+30.4	+2.74	-76.5	+24.3	-120

Adjusted for change in reservoir contents

Mean	81.8	328	275	83.6	96.7	299	899	206	244	53.6	305	12.6
Cfsm	0.535	2.14	1.80	0.546	0.632	1.95	5.88	1.35	1.59	0.350	1.99	0.082
In.	0.62	2.39	2.07	0.63	0.66	2.25	6.56	1.55	1.78	0.40	2.30	0.09

	Observed			Adjusted			
Calendar year 1954:	Max 2,010	Min 15	Mean 285	Mean 302	Cfsm 1.97	In. 26.78	
Water year 1954-55:	Max 1,550	Min 64	Mean 249	Mean 240	Cfsm 1.57	In. 21.30	

* Discharge measurement made on this day.
† Change in contents in Mascoma and Crystal Lakes and Goose and Grafton Ponds, equivalent in cubic feet per second.
Note.--No gage-height record May 1-5, 7-12, 14-19, 21-26; discharge estimated on basis of records of gate operations and pond elevations at Mascoma Lake.

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, 1 mile upstream from mouth.

Drainage area.--221 sq mi.

Records available.--October 1930 to September 1955.

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.--25 years, 401 cfs.

Extremes.--Maximum discharge during year, about 6,800 cfs Aug. 13 (gage height not determined); minimum, 8.7 cfs July 31; minimum daily, 11 cfs July 31.
1930-55: 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, 1953; 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 table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.2	9.2	3.5	447
1.4	16	4.0	685
1.6	27	4.5	970
1.9	49	5.0	1,360
2.2	82	6.0	2,420
2.5	130	8.0	5,150
3.0	262		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	136	237	490	430	135	450	935	724	435	92	52	140
2	128	200	422	425	130	850	1,310	670	375	72	53	*145
3	136	576	355	425	125	520	1,350	630	285	100	47	125
4	172	1,440	255	380	120	390	1,000	575	237	97	47	123
5	168	*724	356	320	130	330	1,190	560	214	97	49	116
6	156	512	310	340	125	300	1,670	530	202	97	68	117
7	152	410	290	300	170	280	2,310	468	170	168	89	104
8	151	352	280	270	165	260	1,770	473	153	121	87	105
9	139	306	280	*240	150	260	1,390	477	151	94	79	90
10	147	285	*310	300	135	300	2,340	398	140	66	62	94
11	172	262	280	240	140	640	3,440	375	130	95	*219	86
12	168	259	240	240	180	1,600	3,000	341	152	59	357	114
13	160	231	265	250	190	1,130	2.100	330	246	54	1,250	105
14	145	219	220	230	165	892	2,300	330	228	49	3,900	99
15	153	228	778	220	*160	856	4,000	288	183	52	940	90
16	198	199	630	230	160	1,080	3,900	275	151	47	481	100
17	246	203	400	210	155	998	2,500	253	130	54	685	94
18	200	210	699	200	155	718	1,780	237	116	83	522	100
19	182	229	1,180	190	150	650	1,900	219	103	68	406	98
20	162	392	734	180	150	580	1,850	197	*108	54	337	93
21	160	840	540	160	155	*605	1,550	191	107	52	265	85
22	155	910	440	160	160	517	1,200	173	134	54	214	79
23	136	595	370	170	210	494	1,250	180	173	46	240	77
24	145	490	460	170	520	460	1,100	173	145	26	231	133
25	150	451	340	165	380	430	*1,200	170	188	80	188	196
26	136	418	280	160	290	410	1,280	272	183	77	161	132
27	147	402	406	165	260	390	1,210	*231	158	78	153	105
28	199	394	394	160	250	350	991	183	125	92	160	103
29	209	550	766	150	-	379	868	184	107	58	140	118
30	250	565	660	145	------	440	790	386	100	44	140	129
31	259	-- --	560	150	-------	625	-------	295	--------	11	140	-- - -
Total	5,217	13,089	13,990	7,375	5,215	18,184	53,394	10,788	5,329	2,237	11,762	3,295
Mean	168	436	451	238	186	587	1,780	348	178	72.2	379	110
Cfsm	0.760	1.97	2.04	1.08	0.842	2.66	8.05	1.57	0.805	0.327	1.71	0.498
In.	0.88	2.20	2.35	1.24	0.88	3.06	8.99	1.82	0.90	0.38	1.98	0.55

Calendar year 1954: Max 3,230 Min 18 Mean 492 Cfsm 2.23 In. 30.18
Water year 1954-55: Max 4,000 Min 11 Mean 411 Cfsm 1.86 In. 25.23

Peak discharge (base, 5,500 cfs).--Aug. 13 (about 12 p.m.) about 6,800 cfs.
* Discharge measurement made on this day.
Note.--No gage-height record Apr. 12-25, Aug. 13-15, Aug. 28 to Sept. 1; discharge estimated on basis of 1 discharge measurement, weather records, and records for Black River at North Springfield. Stage-discharge relation affected by ice Dec. 3, 4, 6-14, 17, 22-26, Dec. 30 to Mar. 12, Mar. 20, 25-28.

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 1955. 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.--27 years, 400 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 5,890 cfs Aug. 14 (gage height, 6.66 ft); minimum daily, 56 cfs Sept. 14.
1928-55: 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, 30 cfs Sept. 26, 1948.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow regulated by mills above station and by Sunapee Lake (see p. 232).

Revisions (water years).--WSP 711: 1930(M). WSP 756: Drainage area.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	45	3.0	885
1.3	86	4.0	1,750
1.6	175	5.0	3,020
2.0	325	6.0	4,660
2.5	565	7.0	6,540

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	165	265	808	460	140	620	925	836	1,360	175	72	131
2	156	234	661	410	130	1,050	1,230	737	*975	162	65	122
3	156	*932	515	410	150	770	1,340	667	750	169	63	110
4	169	1,850	465	370	140	553	998	601	595	156	63	108
5	156	965	475	340	140	430	1,250	518	536	146	63	100
6	153	724	380	350	110	380	1,620	469	469	128	65	105
7	153	559	385	300	350	340	1,840	435	403	169	68	94
8	143	464	370	270	340	300	1,460	416	373	143	*77	89
9	137	407	380	280	280	280	1,110	416	349	*128	70	100
10	136	357	412	290	240	325	1,420	373	277	116	65	76
11	149	329	403	*240	270	817	2,130	341	213	128	129	81
12	162	317	369	215	520	1,570	1,970	313	431	123	253	89
13	153	293	357	235	270	1,090	1,530	289	922	77	1,060	75
14	143	277	325	190	*215	857	1,420	297	655	78	4,840	56
15	137	273	840	185	200	776	2,130	281	480	81	2,000	70
16	218	261	843	205	170	1,090	2,080	265	369	108	1,040	74
17	289	273	637	200	165	1,180	1,690	245	301	113	737	89
18	234	285	845	170	150	796	1,380	231	249	113	547	59
19	195	285	1,650	170	145	613	1,260	216	223	116	536	65
20	178	501	1,040	150	140	512	1,410	199	209	91	495	79
21	169	1,120	800	135	145	*480	1,280	182	216	81	361	*74
22	165	1,270	620	170	150	399	1,210	178	253	74	289	65
23	156	908	520	160	260	399	1,120	182	285	68	285	63
24	149	730	520	160	470	369	975	165	249	79	261	91
25	143	631	440	145	380	357	938	175	394	79	213	122
26	153	571	370	160	310	349	1,580	369	416	74	189	110
27	169	536	420	145	260	325	1,460	277	361	68	172	97
28	178	524	420	125	290	293	*1,340	238	281	81	175	89
29	178	711	595	150	-	321	1,110	241	231	81	153	102
30	245	871	595	150	--------	376	975	1,350	195	68	140	100
31	285	--------	530	160	--------	589	--------	822	--------	66	134	--------
Total	5,372	17,726	17,990	7,080	6,530	18,606	42,181	12,324	13,020	3,339	14,680	2,685
Mean	173	591	580	228	233	600	1,406	398	434	108	474	89.5
(†)	-31.7	+32.8	-48.2	-60.9	+11.2	+54.5	+113	+14.9	-33.2	-58.2	+29.1	-59.0
Adjusted for change in contents in Sunapee Lake												
Mean	142	624	532	168	244	655	1,519	412	401	49.5	503	30.5
Cfsm	0.528	2.32	1.98	0.625	0.907	2.43	5.65	1.53	1.49	0.184	1.87	0.113
In.	0.61	2.59	2.28	0.72	0.95	2.81	6.30	1.77	1.66	0.21	2.15	0.13

	Observed			Adjusted			
Calendar year 1954:	Max 4,230	Min 65	Mean 533	Mean 534	Cfsm 1.99	In. 26.95	
Water year 1954-55:	Max 4,840	Min 56	Mean 443	Mean 439	Cfsm 1.63	In. 22.18	

Peak discharge (base, 3,000 cfs).--Aug. 14 (9 to 10 a.m.) 5,890 cfs (6.66 ft).
* Discharge measurement made on this day.
† Change in contents in Sunapee Lake, equivalent in cubic feet per second.
Note.--Stage-discharge relation affected by ice Dec. 3-9, 21-28, Jan. 1 to Mar. 2, Mar. 5-9.

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 1955. 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.--26 years, 284 cfs.

Extremes.--Maximum discharge during year, 5,470 cfs Aug. 13 (gage height, 10.48 ft); minimum, 16 cfs Aug. 11, Sept. 17; minimum daily, 20 cfs Aug. 1, 6.
1929-55: 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, 1927.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow regulated by mills above station.

Revisions (water years).--WSP 756: Drainage area. WSP 781: 1931(M), 1934(M).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	18	4.0	535
2.1	45	6.0	1,560
2.5	100	8.0	3,040
3.0	205		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	124	158	411	327	115	350	695	575	348	50	20	86
2	115	139	352	282	125	600	1,010	523	*231	45	27	78
3	114	1,230	289	279	110	410	1,020	474	195	49	27	66
4	130	*1,260	239	255	110	310	746	432	166	52	24	68
5	114	751	259	240	115	280	865	404	151	47	21	58
6	102	523	218	245	120	260	1,130	366	120	57	20	54
7	92	404	253	210	160	240	1,450	292	102	76	24	56
8	94	362	236	190	180	210	1,240	215	99	61	*22	52
9	82	314	223	200	140	230	980	203	96	49	26	48
10	87	269	233	215	130	240	1,650	219	88	44	24	44
11	97	242	*211	*190	145	450	2,520	207	83	36	132	43
12	98	158	207	190	200	1,150	2,220	195	134	*47	185	51
13	93	146	186	200	180	800	1,600	193	201	37	1,110	57
14	87	137	197	180	145	620	1,730	181	157	31	2,770	47
15	84	144	814	180	*140	600	2,880	167	117	37	1,040	63
16	247	166	492	180	140	780	2,770	124	105	47	452	25
17	193	160	327	175	140	736	1,940	114	88	36	316	36
18	122	185	631	170	150	531	1,390	107	79	31	240	40
19	103	194	1,120	160	150	442	1,560	98	82	33	355	122
20	96	437	678	155	140	404	1,520	102	142	30	218	102
21	92	1,080	478	140	140	*400	1,340	85	116	35	162	*40
22	95	800	350	140	150	344	1,120	85	64	30	140	32
23	102	563	280	150	180	350	1,130	94	74	26	158	41
24	108	450	310	150	400	300	955	83	69	26	127	75
25	122	411	240	140	330	287	1,030	112	88	34	97	96
26	114	376	220	140	240	281	1,150	170	103	33	90	65
27	119	352	250	140	210	265	1,120	113	98	32	80	52
28	116	344	240	140	210	235	*850	100	69	32	88	61
29	124	492	428	130	-	235	718	124	67	26	76	68
30	199	481	383	125	------	270	633	263	58	25	79	65
31	183	-- ---	366	130	-------	434	--------	163	-- ----	22	81	- --- -
Total	3,648	12,728	11,121	5,748	4,695	13,044	40,962	6,583	3,590	1,216	8,231	1,791
Mean	118	424	359	185	168	421	1,365	212	120	39.2	266	59.7
Cfsm	0.747	2.68	2.27	1.17	1.06	2.66	8.64	1.34	0.759	0.248	1.68	0.378
In.	0.86	3.00	2.62	1.35	1.11	3.07	9.64	1.55	0.85	0.29	1.94	0.42

Calendar year 1954: Max 2,330 Min 26 Mean 359 Cfsm 2.27 In. 30.85
Water year 1954-55: Max 2,880 Min 20 Mean 311 Cfsm 1.97 In. 26.70

Peak discharge (base, 3,600 cfs).--Apr. 11 (9:30 p.m.) 3,740 cfs (8.78 ft); Aug. 13 (11:30 p.m.) 5,470 cfs (10.48 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 22-28, Jan. 5 to Mar. 16, Mar. 27-29.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 430 ft (from topographic map).

Average discharge.--15 years, 168 cfs.

Extremes.--Maximum discharge during year, 2,800 cfs Aug. 13 (gage height, 8.02 ft); minimum, 5.4 cfs Aug. 6.

1940-55: 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 tables, water year 1954-55, 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			
1.5	41	3.0	362	0.8	5.7	2.2	140
1.9	95	4.0	700	1.0	10	3.0	359
2.5	224	6.0	1,610	1.2	19	4.0	700
				1.5	39	5.0	1,120
				1.8	72	7.0	2,190

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	87	270	155	50	180	594	294	186	23	7.8	32
2	53	75	224	150	48	350	819	260	*111	22	7.4	26
3	51	*1,350	188	140	46	240	626	232	85	27	6.8	24
4	60	712	142	135	46	190	471	210	69	22	6.5	22
5	55	341	175	120	46	170	629	188	67	19	6.1	21
6	50	246	107	135	50	150	858	170	57	37	5.7	19
7	48	200	160	120	88	130	972	154	49	38	6.4	18
8	44	172	155	105	78	125	726	147	48	25	*7.8	16
9	43	154	150	110	70	125	603	138	46	20	7.8	16
10	44	135	*143	*115	64	130	1,250	126	42	18	6.8	16
11	48	123	127	105	100	500	1,590	113	38	16	45	16
12	49	119	121	100	94	640	1,120	102	97	14	63	16
13	44	106	107	105	88	500	880	97	163	13	835	16
14	41	102	104	98	82	400	1,040	107	92	13	885	15
15	41	97	640	96	*80	356	1,700	89	68	13	284	14
16	178	89	368	96	78	570	1,390	80	51	16	129	14
17	106	90	236	86	78	517	876	75	43	31	99	14
18	78	104	583	78	80	329	728	71	37	18	82	13
19	68	111	672	72	81	262	760	64	33	15	106	13
20	64	384	371	70	79	247	668	59	30	12	94	13
21	60	928	260	65	78	236	580	55	30	11	62	12
22	55	479	200	65	79	212	504	50	30	10	46	*11
23	52	306	170	86	100	200	467	49	33	9.4	65	11
24	49	259	180	86	240	*184	374	50	30	9.2	56	62
25	46	252	150	64	190	177	632	65	35	10	42	59
26	45	232	135	60	130	177	784	118	54	9.4	37	31
27	49	214	165	60	115	166	780	69	43	*8.9	37	24
28	66	214	155	60	127	150	*513	59	34	12	36	31
29	65	326	250	58	-	152	412	65	30	12	30	35
30	133	320	200	54	------	188	341	194	26	10	27	27
31	113	--	175	52	-------	325	------	112	----	8.6	31	-
Total	1,953	8,327	7,083	2,861	2,485	8,278	23,692	3,662	1,757	522.5	3.160.1	657
Mean	63.0	278	228	92.3	88.8	267	790	118	58.6	16.9	102	21.9
Cfsm	0.612	2.70	2.21	0.896	0.862	2.59	7.67	1.15	0.569	0.164	0.990	0.213
In.	0.71	3.01	2.56	1.03	0.90	2.99	8.55	1.32	0.63	0.19	1.14	0.24

Calendar year 1954: Max 1,350 Min 9.3 Mean 198 Cfsm 1.92 In. 26.08
Water year 1954-55: Max 1,700 Min 5.7 Mean 177 Cfsm 1.72 In. 23.27

Peak discharge (base, 2,600 cfs).--Nov. 3 (3 p.m.) 2,740 cfs (7.92 ft); Aug. 13 (7:30 p.m.) 2,800 cfs (8.02 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 7-10, 13, 15, Dec. 21 to Feb. 18, Feb. 23-27, Mar. 1-14.

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 1955.

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

Average discharge.--15 years, 119 cfs.

Extremes.--Maximum discharge during year, 2,160 cfs Aug. 13 (gage height, 7.58 ft); minimum, 2.2 cfs Aug. 7; minimum daily, 2.4 cfs Aug. 6.
1940-55: 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, that of 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, 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: 19 -49(M).

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 12				Aug. 13 to Sept. 30	
1.97	2.4	3.0	76	2.16	5.1
2.0	2.8	3.5	160	2.2	6.4
2.1	4.8	4.0	276	2.4	16
2.2	7.7	5.0	620		
2.4	16	6.0	1,100	Note.--Same as preceding table above 2.4 ft.	
2.7	40	7.0	1,750		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	58	207	125	35	130	446	*211	130	13	3.8	21
2	41	50	170	110	33	250	570	187	82	12	3.6	15
3	41	995	140	105	32	170	405	168	62	14	3.0	14
4	41	*474	110	100	32	130	339	154	*51	12	2.6	13
5	37	220	120	96	32	120	451	141	51	10	2.5	12
6	36	162	100	98	37	98	604	127	43	11	2.4	11
7	35	132	115	82	62	92	644	114	38	13	3.2	9.2
8	32	116	105	76	54	88	474	113	36	10	5.6	8.0
9	32	104	100	80	48	86	393	103	36	9.1	4.0	8.0
10	32	93	105	*84	45	90	809	93	32	8.8	3.0	7.6
11	34	87	*98	76	69	330	1,050	86	27	7.7	*35	7.6
12	36	86	94	76	64	420	732	77	92	6.8	44	8.0
13	33	77	82	78	*60	325	544	75	123	6.2	615	7.6
14	30	75	96	68	56	250	639	73	72	*6.2	530	7.2
15	31	72	430	68	54	223	1,180	67	52	5.9	189	6.8
16	115	67	232	68	54	360	968	62	40	6.5	90	6.8
17	73	66	156	62	54	296	580	56	34	8.8	62	6.4
18	55	77	398	54	56	202	452	52	29	6.8	52	6.4
19	48	83	492	51	56	162	488	49	25	5.9	59	6.4
20	46	300	255	49	54	156	435	44	20	5.1	48	6.0
21	42	634	180	46	54	141	376	40	20	4.6	35	6.0
22	39	342	140	46	56	125	325	36	22	4.2	27	*6.0
23	37	218	120	47	70	120	307	36	35	4.2	47	*5.1
24	36	180	130	47	170	*115	253	35	25	4.6	44	32
25	34	174	110	45	140	115	451	38	27	4.4	30	39
26	33	158	94	42	94	109	572	55	28	4.2	25	19
27	36	154	115	42	80	101	498	41	24	4.0	26	13
28	41	158	110	42	90	95	347	37	18	6.5	31	20
29	43	232	180	40	-	98	287	40	16	6.5	22	23
30	80	235	150	38	------	133	240	132	15	5.1	18	17
31	72	------	130	36	------	239	------	82	------	4.2	20	------
Total	1,364	5,886	5,064	2,077	1,741	5,369	15,859	2,624	1,305	231.3	2,082.7	368.1
Mean	44.0	196	163	67.0	62.2	173	529	84.6	43.5	7.46	67.2	12.3
Cfsm	0.609	2.71	2.26	0.928	0.861	2.40	7.33	1.17	0.602	0.103	0.931	0.170
In.	0.70	3.03	2.61	1.07	0.90	2.77	8.17	1.35	0.67	0.12	1.07	0.19

Calendar year 1954: Max 1,020 Min 5.9 Mean 136 Cfsm 1.88 In. 25.52
Water year 1954-55: Max 1,180 Min 2.4 Mean 120 Cfsm 1.66 In. 22.65

Peak discharge (base, 1,750 cfs).--Nov. 3 (2 p.m.) 2,090 cfs (7.48 ft); Aug. 13 (6:30 p.m.) 2,160 cfs (7.58 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 3-10, 12-15, Dec. 21 to Mar. 12, Mar. 22-25.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 218.63 ft above mean sea level, datum of 1929.

Average discharge.--13 years, 9,596 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 64,400 cfs Apr. 16 (gage height, 23.50 ft); minimum daily, 152 cfs Sept. 10.
1942-55: Maximum discharge, 97,000 cfs Mar. 27, 1953 (gage height, 30.37 ft); minimum daily, 115 cfs Aug. 31, 1952.
Maximum stage known, 43.8 ft Mar. 19, 1936, from floodmarks.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Comerford Station Pond (see p. 232), and other reservoirs (combined usable capacity, about 14½ billion cubic feet).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.8	115	7.0	4,230
4.0	202	10.0	11,700
4.5	488	15.0	28,500
5.0	930	20.0	48,700
5.5	1,510	24.0	66,700
6.0	2,270		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,860	7,180	15,500	12,600	3,600	9,400	14,800	*22,000	a12,500	4,140	2,440	4,120
2	7,820	8,350	13,200	11,400	4,300	18,500	20,200	19,600	a24,000	4,050	1,870	4,380
3	5,180	10,400	12,000	8,700	2,900	14,000	22,900	17,700	20,600	1,080	1,210	2,620
4	7,260	19,800	9,120	10,500	3,500	12,000	19,400	17,800	14,200	2,700	901	234
5	15,800	16,700	3,520	10,300	2,600	9,960	22,500	18,300	11,900	3,800	1,040	165
6	*17,300	13,200	7,280	9,150	1,650	7,210	27,300	18,400	9,370	3,540	161	3,870
7	15,600	12,400	6,790	9,200	5,500	7,360	37,200	18,500	8,560	3,710	257	4,280
8	13,600	7,890	6,230	8,040	3,700	7,290	38,400	17,100	*7,340	3,700	1,690	2,770
9	11,400	7,790	7,300	4,100	3,900	6,480	32,200	16,500	6,510	861	2,130	2,410
10	9,590	8,230	10,500	7,010	4,500	6,430	30,800	17,900	5,510	*612	2,580	152
11	6,780	8,620	9,920	7,100	4,500	9,780	42,800	17,800	2,080	3,140	5,370	179
12	8,600	7,680	6,540	7,790	*4,600	22,400	47,200	15,200	2,570	2,860	*7,340	2,970
13	9,720	6,510	5,860	*7,400	3,600	23,000	41,900	12,300	10,600	2,230	8,200	2,340
14	8,510	2,470	*8,040	7,260	4,700	19,600	39,300	12,100	10,400	2,740	27,300	1,920
15	11,100	7,330	12,100	6,600	4,800	18,100	50,400	9,620	11,700	2,300	15,900	2,510
16	9,580	7,010	11,900	4,650	5,400	20,200	63,900	8,680	12,600	352	12,400	2,700
17	7,820	7,340	12,000	5,910	5,600	21,400	61,800	8,070	11,900	165	11,500	524
18	7,900	6,720	11,700	6,100	5,600	18,200	56,900	7,000	11,600	2,830	12,100	466
19	8,490	6,790	20,600	6,240	5,000	16,100	52,600	7,560	3,170	2,480	12,700	4,870
20	8,520	6,950	16,500	6,400	2,500	12,800	52,400	7,110	5,400	2,390	11,800	3,880
21	7,820	17,800	15,100	6,300	5,300	11,900	49,400	5,820	3,720	3,040	2,880	1,530
22	7,410	26,700	12,600	4,900	4,300	11,900	42,900	2,520	5,760	2,480	4,280	*1,820
23	5,410	24,600	11,600	2,400	4,770	11,600	36,500	6,680	8,250	184	5,400	1,840
24	3,540	20,600	9,370	4,900	8,920	*9,980	32,200	5,500	6,550	184	6,800	1,470
25	5,360	17,000	8,890	5,300	11,000	10,300	30,700	5,390	7,360	1,950	7,150	602
26	5,780	12,100	6,570	4,600	10,500	8,650	34,900	a7,000	6,090	1,800	5,710	2,480
27	5,430	12,500	6,600	4,200	8,400	7,240	33,400	a9,200	6,130	1,810	4,080	2,070
28	7,590	9,650	10,000	4,100	8,900	7,000	30,500	a8,900	6,450	3,070	2,410	3,230
29	8,690	10,500	11,700	3,000	-	7,390	27,300	a3,400	5,550	2,410	4,620	2,660
30	9,010	15,400	14,300	2,500	-------	7,520	24,300	a8,100	4,680	184	4,850	3,070
31	4,260	-------	13,900	3,600	-------	10,100	-------	a8,700	-------	170	5,060	-------
Total	268,730	346,210	327,230	202,250	144,540	383,790	‡1,116.8	360,450	263,050	66,962	192,129	68,132
Mean	8,669	11,540	10,560	6,524	5,162	12,380	37,230	11,630	8,768	2,160	6,198	2,271
(†)	-35.8	+61.8	-855	-1,145	-600	-408	+1,972	+832	+385	-200	+25.7	-652

Adjusted for change in reservoir contents

Mean	8,633	11,600	9,701	5,379	4,562	11,970	39,200	12,460	9,153	1,960	6,223	1,619
Cfsm	1.57	2.11	1.77	0.979	0.831	2.18	7.14	2.27	1.67	0.357	1.13	0.295
In.	1.81	2.36	2.04	1.13	0.86	2.51	7.96	2.62	1.86	0.41	1.31	0.33

	Observed			Adjusted			
Calendar year 1954:	Max 56,100	Min 536	Mean 12,690	Mean 12,720	Cfsm 2.32	In. 31.46	
Water year 1954-55:	Max 63,900	Min 152	Mean 10,250	Mean 10,190	Cfsm 1.85	In. 25.20	

Peak discharge (base, 44,000 cfs).--Apr. 16 (10 a.m. to 12 m.) 64,400 cfs (23.50 ft).

* Discharge measurement made on this day.

† Change in contents in First Connecticut and Second Connecticut Lakes, Lake Francis, Comerford Station Pond, Moore Reservoir, Union Village Reservoir, 4 reservoirs in Mascoma River basin, and Sunapee Lake, equivalent in cubic feet per second.

‡ Expressed in thousands.

a No gage-height record; discharge estimated on basis of recorded range in stage, powerplant records, and records for Saxtons River at Saxtons River, Vt.

Note.--Stage-discharge relation affected by ice Jan. 7, 15, 18, Jan. 20 to Feb. 22, Feb. 25 to Mar. 4.

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 Bellows Falls, Vt., and 3.4 miles upstream from mouth.

Drainage area.--82.7 sq mi.

Records available.--June 1940 to September 1955.

Gage.--Water-stage recorder. Altitude of gage is 375 ft (from topographic map).

Average discharge.--15 years, 117 cfs.

Extremes.--Maximum discharge during year, 1,240 cfs May 31 (gage height, 6.03 ft); minimum, 5.7 cfs Aug. 6.
1940-55: 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.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.4	5.1	3.5	155
1.6	8.8	4.0	248
1.9	18	4.5	395
2.2	30	5.0	605
2.6	55	5.5	870
3.0	91		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	60	218	110	14	360	442	*212	725	32	6.7	19
2	41	52	174	112	13	390	584	186	367	28	6.5	17
3	39	394	124	115	12	212	434	160	238	28	6.2	16
4	40	*539	98	100	11	125	373	146	*179	25	6.1	15
5	38	248	106	78	10	105	498	134	155	22	5.9	13
6	35	184	65	88	11	92	553	120	107	28	5.7	14
7	34	136	71	76	100	80	546	109	86	34	6.5	20
8	32	114	69	56	50	68	399	106	79	27	8.0	16
9	31	100	*77	*49	35	68	318	106	74	21	7.1	15
10	33	88	91	60	37	91	518	92	61	20	*6.5	13
11	37	84	86	49	150	447	644	82	53	18	29	15
12	40	83	72	47	*115	543	517	76	180	15	52	18
13	37	74	68	45	80	367	384	71	381	13	152	16
14	33	70	63	38	52	258	364	80	235	*13	748	14
15	30	66	236	36	50	229	564	73	172	12	292	13
16	82	59	204	37	49	402	560	63	120	12	126	13
17	77	58	138	37	44	342	388	53	86	15	87	12
18	56	61	417	33	44	202	298	49	61	13	69	11
19	47	65	683	31	43	148	290	45	51	12	57	11
20	43	311	364	31	43	*131	290	41	46	11	44	11
21	41	511	238	24	42	120	258	39	56	9.8	34	*11
22	38	436	180	23	43	107	244	36	76	9.3	26	9.8
23	35	270	136	24	90	100	233	34	106	8.8	31	9.3
24	34	206	155	25	152	*92	210	34	72	9.0	29	20
25	32	182	112	25	113	92	304	61	62	9.0	24	29
26	31	160	89	23	92	90	455	150	81	8.6	20	19
27	32	143	106	22	80	83	378	78	72	8.2	27	16
28	33	152	112	20	99	69	318	56	51	8.8	30	21
29	36	250	179	18	-	76	277	112	42	9.0	21	25
30	68	255	160	16	------	122	240	531	36	8.0	18	20
31	75	----	140	15	------	250	------	455	------	7.1	17	-----
Total	1,302	5,411	5,031	1,463	1,674	5,861	11,881	3,590	4,110	494.6	1,998.2	472.1
Mean	42.0	180	162	47.2	59.8	189	396	116	137	16.0	64.5	15.7
Cfsm	0.508	2.18	1.96	0.571	0.723	2.29	4.79	1.40	1.66	0.193	0.780	0.190
In.	0.59	2.43	2.26	0.66	0.75	2.64	5.34	1.61	1.85	0.22	0.90	0.21

Calendar year 1954: Max 1,590 Min 5.6 Mean 141 Cfsm 1.70 In. 23.13
Water year 1954-55: Max 748 Min 5.7 Mean 119 Cfsm 1.44 In. 19.46

Peak discharge (base, 1,000 cfs).--Dec. 18 (11:30 p.m.) 1,020 cfs (5.71 ft); May 31 (10 to 11 p.m.) 1,240 cfs (6.03 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 13, 26, 27, Dec. 30 to Feb. 15, Mar. 1, 4, 6, 7, 9, 22, 23, 26-28.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 640 ft (from topographic map).

Average discharge.--9 years, 372 cfs.

Extremes.--Maximum discharge during year, 9,460 cfs Nov. 3 (gage height, 10.62 ft); minimum, 7.3 cfs Aug. 7.
1946-55: 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. Diurnal fluctuation caused by mill above station.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.59	8.4	5.5	460
3.6	8.8	6.0	750
3.8	18	7.0	1,680
4.0	34	8.0	3,060
4.3	69	9.0	5,010
4.6	122	10.0	7,600
5.0	244		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	230	465	415	72	600	750	644	379	49	14	94
2	132	189	379	375	70	1,300	1,360	540	296	45	13	65
3	127	5,050	295	350	68	628	1,360	465	205	74	10	51
4	137	2,800	275	305	68	572	806	410	145	57	9.6	44
5	122	*1,190	300	260	70	430	844	366	115	44	8.8	39
6	103	736	260	270	85	366	1,370	321	100	41	8.4	35
7	96	545	250	230	130	325	2,020	267	94	59	8.4	32
8	91	456	240	200	200	275	1,440	256	*91	49	11	29
9	89	388	230	175	160	260	1,030	248	84	38	9.6	26
10	91	325	240	180	150	271	2,370	215	75	32	*8.8	26
11	98	287	220	160	140	620	3,500	189	65	29	247	25
12	109	279	*190	*140	210	1,450	2,700	164	109	25	355	25
13	101	237	185	145	230	1,090	1,880	150	407	24	2,580	23
14	91	222	180	140	210	736	2,120	156	286	23	3,370	23
15	87	212	1,150	130	190	632	4,110	134	170	21	1,040	23
16	573	189	800	130	*175	908	4,110	120	112	23	428	23
17	350	189	460	125	160	1,110	2,460	107	96	49	287	23
18	219	233	801	115	150	668	1,870	99	78	41	198	21
19	179	287	1,600	110	145	530	2,320	91	62	31	271	20
20	170	875	771	105	140	433	2,240	82	55	27	208	19
21	147	2,580	465	100	140	433	1,820	76	49	23	127	18
22	134	1,430	410	100	145	380	1,520	70	50	*21	94	16
23	122	792	325	102	240	360	1,590	65	137	20	112	*16
24	114	590	350	102	560	334	1,200	66	125	18	109	119
25	105	510	260	95	620	304	1,500	229	137	16	80	186
26	99	446	210	90	400	290	1,530	531	194	15	66	80
27	107	406	250	85	340	265	1,450	211	147	15	80	55
28	176	406	260	85	310	235	1,020	140	120	18	94	97
29	160	505	1,050	82	-	245	*844	133	76	20	68	124
30	348	550	844	80	------	250	743	660	60	17	54	76
31	330	---	566	76	------	400	-------	330	------	16	70	---
Total	4,921	23,134	14,281	5,057	5,578	16,900	53,877	7,535	4,119	980	10,039.6	1,453
Mean	159	771	461	163	199	545	1,796	243	137	31.6	324	48.4
Cfsm	0.888	4.31	2.58	0.911	1.11	3.04	10.0	1.36	0.765	0.177	1.81	0.270
In.	1.02	4.81	2.97	1.05	1.16	3.51	11.19	1.57	0.86	0.20	2.09	0.30

Calendar year 1954: Max 5,050 Min 11 Mean 444 Cfsm 2.48 In. 33.68
Water year 1954-55: Max 5,050 Min 8.4 Mean 405 Cfsm 2.26 In. 30.73

Peak discharge (base, 4,500 cfs).--Nov. 3 (4:30 p.m.) 9,460 cfs (10.62 ft); Apr. 11 (9 p.m.) 4,970 cfs (8.98 ft); Apr. 15 (11 p.m.) 5,870 cfs (9.36 ft); Aug. 13 (7:30 p.m.) 6,950 cfs (9.77 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 3-15, 21-29, Jan. 2 to Mar. 2, Mar. 5, 8, 9, 11, 12, 22, 23, 26-31.

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 1955.

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.--31 years, 618 cfs.

Extremes.--Maximum discharge during year, 18,300 cfs Nov. 3 (gage height, 12.52 ft); minimum, 16 cfs Aug. 6.

1919-23, 1928-55: 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, which are fair.

Revisions (water years).--WSP 756: Drainage area. WSP 1231: 1920-21(M), 1922-23, 1929-31(M).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.78	17	5.0	495
3.9	30	5.5	875
4.0	44	6.0	1,370
4.1	62	7.0	2,710
4.4	170	8.0	4,550
4.7	314	10.0	9,980

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	196	424	884	726	140	800	1,350	1,110	516	78	25	150
2	219	342	734	665	135	2,200	2,410	947	450	72	24	112
3	228	9,850	586	635	130	1,690	2,520	816	*336	91	21	84
4	224	5,290	450	550	130	1,000	1,520	710	252	94	19	72
5	219	*2,140	544	430	130	790	1,610	635	219	68	18	62
6	192	1,360	415	495	140	658	2,360	565	205	58	17	56
7	174	1,000	430	436	230	558	3,510	488	179	62	19	52
8	166	824	425	382	320	435	2,580	456	158	72	20	46
9	158	702	436	342	290	420	1,820	443	150	58	20	44
10	162	593	456	376	250	435	3,820	394	130	48	*18	42
11	166	523	430	325	235	920	6,230	348	112	44	90	40
12	183	502	*400	*270	340	2,400	4,960	314	181	39	583	40
13	183	443	364	290	370	2,020	3,270	288	499	36	3,980	39
14	162	406	357	270	330	1,440	3,440	304	466	35	5,920	38
15	154	394	2,200	245	310	1,220	7,110	272	288	34	1,850	36
16	879	353	1,520	255	295	1,660	7,480	238	205	34	758	36
17	658	348	893	240	*280	1,950	4,410	214	162	42	469	36
18	418	394	1,380	225	275	1,190	2,950	196	142	56	331	36
19	336	495	2,960	210	260	929	3,660	179	112	44	394	35
20	293	1,430	1,480	200	255	758	3,500	162	94	38	348	34
21	283	4,800	947	190	250	766	2,930	146	84	35	238	34
22	248	2,620	700	190	250	695	2,290	134	81	32	174	31
23	228	1,460	560	195	450	*628	2,420	123	174	30	205	*30
24	214	1,100	620	195	800	572	1,890	119	170	31	224	68
25	196	974	500	185	1,000	544	2,450	123	220	30	158	336
26	188	832	380	175	800	530	2,730	758	222	*28	126	158
27	188	774	460	165	620	495	2,530	359	246	26	119	98
28	283	742	500	165	560	400	1,770	248	183	31	179	100
29	272	956	1,750	160	-	425	*1,460	196	134	34	134	219
30	555	1,030	1,500	155	-------	456	1,270	791	98	31	101	138
31	551	-------	984	150	-------	718	-------	509	-------	28	94	-------
Total	8,576	43,101	26,245	9,492	9,575	29,702	92,250	12,585	6,468	1,439	16,676	2,302
Mean	277	1,437	847	306	342	958	3,075	406	216	46.4	538	76.7
Cfsm	0.899	4.67	2.75	0.994	1.11	3.11	9.98	1.32	0.701	0.151	1.75	0.249
In.	1.04	5.20	3.17	1.15	1.16	3.59	11.14	1.52	0.78	0.17	2.01	0.28

Calendar year 1954: Max 9,850 Min 27 Mean 767 Cfsm 2.49 In. 33.79
Water year 1954-55: Max 9,850 Min 17 Mean 708 Cfsm 2.30 In. 31.21

Peak discharge (base, 8,800 cfs).--Nov. 3 (4 p.m.) 18,300 cfs (12.52 ft); Apr. 11 (10 p.m.) 8,800 cfs (9.63 ft); Apr. 16 (1 to 2 a.m.) 10,300 cfs (10.08 ft); Aug. 13 (8:30 to 9 p.m.) 11,900 cfs (10.56 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 6-8, 12, 15, 22-29, Jan. 4, 5, Jan. 12 to Mar. 2, Mar. 5, 8-12, 29.

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 1955.

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.--11 years (1944-55), 11,050 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 70,500 cfs Apr. 16 (gage height, 200.88 ft); minimum daily, 275 cfs July 17, 31.
1936, 1938, 1944-55: 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, Comerford Station Pond (see p. 232), and other reservoirs (combined usable capacity, about 15 billion cubic feet).

Revisions.--WSP 1031: Drainage area.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,040	7,230	17,900	14,200	4,400	11,800	16,400	25,600	12,700	5,430	1,880	5,420
2	7,870	9,100	15,300	13,600	4,500	21,500	23,600	22,000	22,500	3,600	2,150	5,160
3	4,070	20,600	14,100	11,200	4,200	17,500	28,200	20,300	21,900	1,110	1,390	2,300
4	8,140	28,000	13,500	11,800	3,500	15,000	21,800	18,000	15,600	2,400	1,280	285
5	14,800	20,100	4,100	11,300	2,050	13,100	24,700	19,600	12,500	4,280	1,080	280
6	16,500	*15,500	7,410	11,500	2,100	9,930	30,300	19,200	11,600	4,190	310	5,190
7	14,300	14,200	8,670	11,000	9,000	8,800	37,600	19,100	10,300	4,140	352	5,000
8	12,600	10,500	7,170	9,620	4,500	8,190	44,300	19,000	7,700	3,590	1,520	3,420
9	12,600	9,370	8,700	3,590	4,200	7,890	37,900	17,600	6,480	981	2,140	2,960
10	9,520	10,300	12,100	6,700	5,000	7,250	34,800	17,700	4,400	478	2,870	285
11	8,580	9,030	12,000	8,690	6,200	11,900	48,200	18,600	1,110	3,480	*1,800	280
12	8,650	8,040	7,810	8,280	5,400	23,500	55,300	17,200	2,170	3,010	8,660	3,330
13	8,650	9,200	*6,840	*7,710	4,800	25,700	50,800	14,200	10,200	2,500	12,900	2,740
14	8,890	2,280	8,850	7,200	6,000	21,700	45,500	8,580	12,600	3,400	30,200	2,270
15	13,000	7,530	14,400	7,200	6,700	19,700	51,500	11,500	12,400	2,880	21,700	2,020
16	11,800	9,100	14,900	5,800	5,600	21,900	69,100	7,960	12,400	290	14,300	2,130
17	10,000	8,740	14,000	6,500	*6,600	24,200	70,000	8,190	12,500	275	13,000	285
18	8,650	7,410	15,200	7,400	6,000	20,900	67,600	8,040	12,300	3,150	12,300	280
19	8,030	7,460	24,700	8,400	6,700	17,600	65,200	8,680	3,350	2,920	14,300	4,200
20	7,950	9,690	18,600	7,000	2,300	14,500	63,400	7,400	5,940	2,590	14,100	3,750
21	8,160	22,400	17,100	6,500	6,000	13,400	61,700	5,210	5,330	3,050	5,300	2,020
22	7,190	23,900	14,000	5,600	7,000	*13,200	56,700	3,060	6,580	2,640	5,460	1,880
23	5,300	26,600	13,500	2,500	5,400	13,000	44,200	7,230	7,520	280	5,780	1,860
24	1,970	22,700	12,400	6,100	8,400	12,000	37,800	6,650	8,000	*280	6,860	*2,140
25	5,970	18,900	10,200	6,200	11,500	11,600	34,800	7,210	7,830	2,570	8,080	802
26	6,270	14,000	8,500	5,300	11,700	9,830	40,200	7,550	4,140	2,090	6,180	2,780
27	6,260	14,400	7,390	6,000	10,200	8,770	40,800	*10,600	7,550	1,890	2,860	2,570
28	6,890	13,200	11,900	4,500	10,600	8,380	37,000	10,100	6,640	3,580	1,890	3,400
29	9,070	13,000	13,300	1,600	-	9,390	32,900	2,760	6,310	3,020	4,790	3,080
30	11,000	14,600	15,100	2,200	--------	7,740	28,700	7,910	4,820	300	5,570	3,710
31	4,840	--------	14,400	5,200	--------	9,300	--------	10,100	--------	275	5,630	--------
Total	276,560	413,080	384,040	228,690	169,250	439,170	‡1,301	386,830	275,370	74,669	219,612	75,827
Mean	8,921	13,770	12,390	7,377	6,045	14,170	43,370	12,480	9,179	2,409	7,084	2,528
(†)	-35.8	+61.8	-855	-1,145	-600	-408	+1,972	+832	+385	-200	+25.7	-652

Adjusted for change in reservoir contents

Mean	8,886	13,830	11,530	6,232	5,445	13,760	45,340	13,310	9,564	2,209	7,110	1,876
Cfsm	1.42	2.21	1.84	0.995	0.869	2.20	7.24	2.12	1.53	0.353	1.13	0.299
In.	1.63	2.46	2.12	1.15	0.90	2.53	8.07	2.45	1.70	0.41	1.31	0.33

	Observed			Adjusted			
Calendar year 1954:	Max 63,400	Min 821	Mean 14,130	Mean 14,160	Cfsm 2.26	In. 30.68
Water year 1954-55:	Max 70,000	Min 275	Mean 11,630	Mean 11,580	Cfsm 1.85	In. 25.06

Peak discharge (base, 50,000 cfs).--Apr. 16 (2 to 4 p.m.) 70,500 cfs (200.88 ft).
* Discharge measurement made on this day.
† Change in contents in First Connecticut and Second Connecticut Lakes, Lake Francis, Comerford Station Pond, Moore Reservoir, Union Village Reservoir, 4 reservoirs in Mascoma River basin, and Sunapee Lake, equivalent in cubic feet per second.
‡ Expressed in thousands.
Note.--Stage-discharge relation affected by ice Dec. 22, 23, Jan. 14 to Mar. 1.

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 1955.

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.--33 years, 126 cfs.

Extremes.--Maximum discharge during year, 1,210 cfs Nov. 4 (gage height, 6.35 ft); maximum gage height, 6.47 ft Mar. 2 (ice jam); minimum discharge, 5.3 cfs Aug. 5, 6.
1922-55: 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; minimum 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), 1941(M).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.41	5.2	3.0	156
1.5	7.0	3.5	251
1.7	17	4.0	380
2.0	38	5.0	715
2.5	86	6.0	1,060

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*41	75	212	155	14	260	286	258	*186	42	6.2	26
2	38	70	171	140	13	400	404	216	274	39	6.2	23
3	36	495	131	145	12	280	416	182	214	39	6.2	21
4	35	1,030	110	125	12	190	333	159	151	32	5.8	18
5	32	666	106	100	12	145	386	142	118	28	5.5	16
6	32	*431	90	96	13	120	431	126	91	22	5.6	14
7	32	294	86	90	100	105	458	112	71	25	9.0	13
8	28	206	82	*85	90	95	410	108	61	25	7.4	12
9	28	164	76	78	65	90	349	104	54	22	6.7	10
10	30	131	82	70	48	86	383	92	47	21	6.0	10
11	32	112	78	64	85	200	522	83	40	18	11	10
12	34	102	72	56	200	440	575	75	88	16	*15	11
13	32	90	67	50	170	372	498	70	224	14	55	10
14	30	83	68	45	120	289	416	70	210	13	557	9.0
15	29	78	200	41	80	260	480	66	158	13	729	8.5
16	86	72	270	35	54	349	648	60	117	12	398	8.5
17	99	69	226	35	47	389	561	56	85	13	231	8.1
18	76	74	262	36	47	272	416	52	65	10	134	7.7
19	70	78	698	35	46	208	358	47	53	*9.5	145	*7.4
20	68	221	505	33	40	164	338	42	45	9.5	131	7.7
21	59	437	352	28	38	148	302	39	54	8.1	84	7.7
22	52	458	249	27	38	130	276	36	82	7.7	61	7.0
23	47	392	193	25	50	125	258	35	74	7.4	64	6.4
24	43	312	166	24	140	107	238	34	82	7.7	60	13
25	40	238	130	24	150	*96	274	35	75	7.7	49	19
26	37	195	105	23	115	96	416	47	88	7.4	39	15
27	36	170	100	22	100	91	*458	42	97	6.4	40	10
28	36	170	100	20	110	82	410	40	79	7.0	42	18
29	41	220	150	19	-	86	369	40	62	7.4	31	21
30	70	251	186	17	------	91	315	77	51	7.0	27	16
31	80	-- --	180	15	-------	161	--------	143	--- ----	6.7	26	----- -
Total	1,429	7,384	5,503	1,756	2,009	5,907	11,984	2,888	3,096	503.5	2,993.6	384.0
Mean	46.1	246	178	56.6	71.8	191	399	86.7	103	16.2	96.6	12.8
Cfsm	0.648	3.46	2.50	0.796	1.01	2.69	5.61	1.22	1.45	0.228	1.36	0.180
In.	0.75	3.86	2.88	0.92	1.05	3.09	6.27	1.41	1.62	C.26	1.57	0.20

Calendar year 1954: Max 1,330 Min 7.6 Mean 149 Cfsm 2.10 In. 28.39
Water year 1954-55: Max 1,030 Min 5.5 Mean 125 Cfsm 1.76 In. 23.88

Peak discharge (base, 1,000 cfs).--Nov. 4 (1:30 to 2 a.m.) 1,210 cfs (6.35 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 6-9, 15, 16, 25-29, Jan. 1, 2, Jan. 5 to Mar. 12.

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 1955.

Gage.--Water-stage recorder and concrete control. Datum of gage is 480.00 ft above mean sea level, datum of 1929 (Corps of Engineers benchmark).

Average discharge.--10 years, 174 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 840 cfs Apr. 15 (gage height, 8.23 ft); minimum daily, 1.0 cfs Aug. 20, 21.
1945-55: 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. 232).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

3.82	1.0	5.5	82
3.9	1.6	6.0	154
4.0	2.6	6.5	257
4.2	5.4	7.0	402
4.4	9.5	8.0	760
4.7	20	9.0	1,110
5.0	36		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*61	102	329	204	24	214	365	335	386	55	6.9	33
2	56	*94	268	171	24	400	533	*279	374	52	6.5	29
3	54	130	187	187	23	492	621	237	284	60	6.4	25
4	51	355	146	193	22	314	583	211	193	44	5.8	22
5	48	704	141	187	16	197	575	191	161	36	5.4	20
6	47	*694	124	146	12	182	617	175	125	36	4.9	18
7	46	668	*103	133	66	129	628	157	102	31	9.6	16
8	42	587	81	111	69	121	632	152	88	32	9.1	15
9	40	320	71	94	56	121	583	144	78	28	*7.7	13
10	42	173	44	90	69	121	529	130	67	26	6.9	13
11	47	154	2.4	90	92	169	609	118	58	23	10	13
12	48	144	77	*67	148	446	654	107	123	20	21	13
13	45	125	234	58	176	598	781	100	298	18	40	13
14	42	108	168	58	152	594	784	98	287	17	107	12
15	39	103	176	57	104	510	834	92	205	15	469	11
16	100	90	281	57	85	458	389	85	156	16	668	11
17	125	83	326	57	*85	583	103	77	121	16	654	11
18	98	85	309	57	85	437	368	70	95	14	313	10
19	86	91	461	57	81	273	686	64	76	12	1.2	10
20	83	184	583	42	72	197	795	58	64	12	1.0	10
21	72	448	571	36	72	289	788	53	77	10	1.0	11
22	65	575	567	36	65	232	746	49	128	9.5	379	10
23	59	594	399	36	67	175	438	46	111	9.1	286	9.3
24	56	563	247	36	96	156	309	45	112	9.8	83	*18
25	51	434	223	36	143	*144	353	46	108	9.3	64	27
26	48	318	168	36	157	140	507	65	118	8.6	51	21
27	48	230	143	36	157	136	567	*56	122	*8.2	49	16
28	48	207	146	36	193	118	571	51	104	8.6	55	25
29	51	242	182	36	-	121	548	49	82	8.8	42	28
30	94	318	242	30	--------	138	*441	110	66	8.0	34	24
31	109	--------	279	24	--------	218	--------	168	--------	7.3	34	--------
Total	1,901	8,923	7,278.4	2,494	2,411	8,423	16,937	3,618	4,369	660.2	3,435.4	507.3
Mean	61.3	297	235	80.5	86.1	272	565	117	146	21.3	111	16.9
(†)	+0.07	+12.7	0	-0.90	+3.22	-9.26	-3.67	+0.78	-2.35	-0.19	+0.04	-0.04
Adjusted for change in contents in Surry Mountain Reservoir												
Mean	61.4	310	235	79.5	89.3	262	561	117	143	21.1	111	16.9
Cfsm	0.608	3.07	2.33	0.787	0.884	2.59	5.55	1.16	1.42	0.209	1.10	0.167
In.	0.70	3.43	2.68	0.91	0.92	3.00	6.20	1.34	1.58	0.24	1.27	0.19

	Observed			Adjusted			
Calendar year 1954:	Max 728	Min 2.4	Mean 202	Mean 202	Cfsm 2.00	In. 27.17	
Water year 1954-55:	Max 834	Min 1.0	Mean 167	Mean 167	Cfsm 1.65	In. 22.46	

* Discharge measurement made on this day.
† Change in contents in Surry Mountain Reservoir, equivalent in cubic feet per second.

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 1955.

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.--32 years, 71.2 cfs.

Extremes.--Maximum discharge during year, 780 cfs Nov. 3 (gage height, 4.99 ft); maximum gage height, 6.27 ft Mar. 1 (backwater from ice); minimum discharge, 1.2 cfs Aug. 6. 1923-55: 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, 1.1 cfs Oct. 4, 5, 1953.

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

Revisions (water years).--WSP 871: Drainage area. WSP 1231: 1924(M), 1928, 1930(M), 1933-34(M), 1941-42(M), 1947(M).

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 1

2.3	6.0	3.5	113
2.6	14	3.8	203
2.8	22	4.2	380
3.0	37	4.5	530
3.2	60		

Mar. 2 to Sept. 30

1.95	1.2	2.3	5.3
2.0	1.6	2.5	10
2.1	2.4	2.8	22

Note.--Same as preceding table above 2.8 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*52	41	126	85	9.0	170	175	157	*193	21	1.8	19
2	52	37	105	87	8.5	189	239	134	121	34	1.8	17
3	50	395	89	94	8.0	145	227	116	84	51	1.6	15
4	49	483	75	85	8.0	120	180	105	65	30	1.6	13
5	46	222	72	74	8.0	90	212	98	58	24	1.5	11
6	42	145	69	68	9.0	70	245	89	47	*21	1.4	9.3
7	42	113	62	60	50	63	245	82	40	20	*2.0	7.7
8	39	98	50	*50	46	58	203	78	36	16	2.1	6.6
9	36	85	*52	47	38	52	166	74	33	14	*2.1	5.7
10	20	75	56	45	35	58	210	68	29	12	1.8	5.1
11	25	68	54	41	50	181	279	62	26	10	6.7	5.0
12	25	65	50	37	100	230	262	57	59	8.5	16	5.5
13	22	59	48	34	90	200	211	53	85	7.2	91	4.6
14	21	56	49	29	60	145	196	50	69	6.4	365	4.1
15	20	54	145	30	50	120	249	47	54	5.9	192	3.9
16	71	50	160	33	43	222	270	44	42	6.8	99	3.8
17	57	48	125	27	35	203	211	40	33	7.4	66	3.6
18	46	53	210	24	35	135	169	36	27	6.4	53	3.4
19	37	52	430	24	34	*100	169	33	24	5.7	159	3.6
20	32	148	266	21	32	90	172	30	22	4.8	186	3.6
21	29	226	189	18	30	82	154	28	41	4.3	118	3.6
22	26	211	155	19	29	77	145	26	63	3.9	78	3.2
23	25	154	130	18	50	74	139	25	52	3.6	63	2.9
24	24	123	105	16	78	66	129	24	44	3.9	50	11
25	26	109	87	15	84	62	185	33	45	3.5	39	14
26	23	100	77	14	70	62	*311	50	41	3.0	32	8.8
27	22	96	72	13	60	60	*306	39	36	3.0	32	7.4
28	22	102	72	12	64	56	245	38	30	3.1	32	20
29	*28	145	98	12	-	60	214	34	26	3.1	25	19
30	47	148	107	11	-------	62	186	69	24	2.6	22	15
31	48	----	98	10	-------	105	-------	106	-------	2.1	20	-------
Total	1,104	3,762	3,483	1,153	1,213.5	3,407	6,304	1,925	1,549	348.2	1,762.4	255.4
Mean	35.6	125	112	37.2	43.3	110	210	62.1	51.6	11.2	56.9	8.51
Cfsm	0.842	2.96	2.65	0.879	1.02	2.60	4.96	1.47	1.22	0.265	1.35	0.201
In.	0.97	3.31	3.06	1.01	1.07	3.00	5.54	1.69	1.36	0.31	1.55	0.22

Calendar year 1954: Max 820 Min 3.3 Mean 87.6 Cfsm 2.07 In. 28.10
Water year 1954-55: Max 483 Min 1.4 Mean 72.0 Cfsm 1.70 In. 23.09

Peak discharge (base, 600 cfs).--Nov. 3 (8 p.m.) 780 cfs (4.99 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 3-10, 14, 15, 17, 22-26, Jan. 1, Jan. 5 to Mar. 1, Mar. 3-9, 14, 15, 18-20, 24, 27-30.

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 & Maine Railroad, and 2½ miles south of Marlboro, Cheshire County.

Drainage area.--36.0 sq mi.

Records available.--October 1920 to September 1955. 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.--35 years, 59.5 cfs.

Extremes.--Maximum discharge during year, 511 cfs Mar. 11 (gage height, 4.92 ft); maximum gage height, 5.12 ft Feb. 11 (ice jam); minimum discharge, 2.6 cfs Aug. 8; minimum daily, 2.7 cfs Aug. 8.
1920-55: 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, 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 11				Mar. 12 to Sept. 30			
1.9	5.5	3.8	86	1.8	2.7	3.4	55
2.1	10	4.1	149	2.0	6.7	3.8	86
2.5	23	4.5	300	2.3	16	4.1	149
3.0	42	4.7	400	2.6	27	4.5	300
3.5	61			3.0	40	4.7	400

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*19	43	109	63	8.0	160	175	120	*215	14	2.9	21
2	26	37	79	64	7.6	239	243	105	107	17	4.5	19
3	18	252	62	78	7.2	114	222	94	71	45	4.5	13
4	22	322	52	62	7.0	62	129	76	47	28	4.5	9.6
5	19	141	49	52	7.0	54	164	75	44	19	4.7	12
6	18	*98	43	49	7.0	48	184	77	44	14	4.5	17
7	20	65	41	45	64	50	164	55	34	*14	3.1	13
8	18	57	40	39	58	45	125	57	32	12	2.7	11
9	24	51	41	*34	38	40	84	70	31	9.3	*4.1	13
10	16	47	46	35	33	44	98	63	24	8.0	4.5	12
11	16	44	45	31	54	218	155	43	21	6.7	7.0	11
12	17	44	41	28	110	314	141	53	51	5.6	11	21
13	17	46	41	24	80	180	98	56	92	5.2	44	17
14	16	38	43	21	54	114	101	54	61	4.0	302	16
15	15	40	152	19	35	85	138	39	43	4.0	94	16
16	68	54	125	18	25	215	149	42	30	4.7	46	14
17	62	57	80	17	22	200	118	42	24	5.4	206	8.5
18	42	68	164	16	21	86	101	33	20	6.3	76	5.8
19	32	69	400	15	20	*56	103	30	16	6.3	276	*5.2
20	27	156	187	14	19	54	112	31	16	5.8	317	6.7
21	23	273	118	13	20	57	103	25	32	5.6	118	5.8
22	19	201	100	12	19	45	92	20	103	5.6	64	5.6
23	29	120	78	12	50	51	89	21	68	4.9	56	5.2
24	17	94	66	12	100	45	86	30	50	4.1	46	12
25	15	71	52	11	90	42	170	30	76	4.0	40	19
26	15	64	50	11	60	45	*380	85	50	5.4	35	15
27	15	62	47	11	40	42	390	58	39	5.2	43	10
28	15	65	50	10	52	38	243	34	26	5.4	48	14
29	20	126	73	10	-	40	180	28	22	6.3	42	18
30	56	141	84	9.2	-------	56	149	133	19	4.9	29	16
31	56	-- --	78	8.6	-------	105	-------	99	-------	3.1	25	- -- -
Total	792	2,946	2,636	843.8	1,107.8	2,944	4,686	1,778	1,508	288.8	1,965.0	382.4
Mean	25.5	98.2	85.0	27.2	39.6	95.0	156	57.4	50.3	9.32	63.4	12.7
Cfsm	0.708	2.73	2.36	0.756	1.10	2.64	4.33	1.59	1.40	0.259	1.73	0.353
In.	0.82	3.04	2.72	0.87	1.14	3.04	4.84	1.84	1.56	0.30	2.03	0.40

Calendar year 1954: Max 660 Min 4.0 Mean 66.2 Cfsm 1.84 In. 24.97
Water year 1954-55: Max 400 Min 2.7 Mean 59.9 Cfsm 1.66 In. 22.60

Peak discharge (base, 550 cfs).--No peak above base.
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4-14, 17, 22-28, Jan. 4 to Mar. 1, Mar. 5-9, 16-18, 20, 26-29 (no gage-height record Feb. 12-16).

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 1955.

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.--45 years, 657 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 3,020 cfs Apr. 27 (gage height, 6.56 ft); minimum, 50 cfs Aug. 7, 8; minimum daily, 59 cfs Aug. 8, 9.
1907-11, 1914-55: 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, which are good. Flow regulated by mills above station. High flow affected by Surry Mountain Reservoir since 1942 (see p. 232).

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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.9	54	5.0	1,070
3.2	103	6.0	2,170
3.6	212	7.0	3,790
4.0	390		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	288	434	1,440	900	125	1,180	1,430	1,620	1,480	307	77	264
2	284	*451	1,260	763	115	2,040	1,980	1,350	1,550	268	72	234
3	272	748	1,030	885	110	1,860	2,270	1,190	*1,160	307	70	209
4	276	1,860	812	885	105	1,300	2,010	1,060	870	357	73	177
5	*268	1,830	763	777	115	885	1,910	975	735	272	72	160
6	252	1,560	602	770	110	812	2,010	900	628	260	73	152
7	302	1,340	595	668	358	770	2,010	833	538	263	73	149
8	237	1,200	565	570	544	661	1,910	728	475	230	59	147
9	226	1,090	544	475	368	635	1,670	735	440	206	59	136
10	212	791	576	451	297	661	1,510	728	406	172	60	131
11	216	648	590	445	447	1,040	1,650	680	357	158	77	121
12	244	609	457	412	1,010	2,070	1,840	616	477	149	176	134
13	252	570	*457	384	826	2,240	1,770	590	1,010	139	*411	139
14	230	518	661	*335	609	1,890	1,720	596	1,040	120	1,390	142
15	226	445	900	321	499	1,610	1,770	531	848	121	1,330	131
16	342	469	1,180	260	*384	1,680	1,910	469	668	126	1,140	126
17	531	469	1,090	265	330	2,140	1,440	469	557	133	1,120	114
18	487	512	1,180	270	330	1,780	1,190	423	445	124	1,140	112
19	390	570	2,270	265	335	1,240	1,340	384	352	114	1,360	110
20	330	1,010	2,370	250	302	968	1,650	350	316	112	1,910	99
21	316	1,900	1,890	230	302	870	1,720	330	418	99	1,350	101
22	272	2,120	1,430	210	316	*960	1,690	271	694	97	862	101
23	252	1,870	1,170	200	434	862	1,590	260	777	93	960	99
24	244	1,570	1,180	200	735	798	1,220	264	609	81	724	122
25	230	1,390	952	215	763	749	1,360	272	635	*85	499	219
26	230	1,130	742	215	707	770	2,220	467	596	85	390	*206
27	256	1,030	756	210	622	680	2,940	570	505	101	352	164
28	272	915	735	190	721	616	2,680	440	493	93	412	174
29	276	1,080	798	185	-	596	2,300	375	445	91	368	230
30	374	1,450	922	150	-------	714	*1,980	714	374	91	307	214
31	423	-------	968	135	-------	1,010	-------	862	-------	85	284	-------
Total	9,010	31,579	30,885	12,491	11,919	36,087	54,690	20,052	19,898	4,939	17,250	4,617
Mean	291	1,053	996	403	426	1,164	1,823	647	663	159	556	154
(†)	+0.07	+12.7	0	-0.90	+3.22	-9.26	-3.67	+0.78	-2.35	-0.19	+0.04	-0.04
Adjusted for change in contents in Surry Mountain Reservoir												
Mean	291	1,065	996	402	429	1,155	1,819	648	661	159	556	154
Cfsm	0.693	2.54	2.37	0.957	1.02	2.75	4.33	1.54	1.57	0.379	1.32	0.367
In.	0.80	2.83	2.73	1.10	1.06	3.17	4.83	1.78	1.76	0.44	1.53	0.41

	Observed			Adjusted			
Calendar year 1954:	Max 3,200	Min 72	Mean 765	Mean 765	Cfsm 1.82	In. 24.71	
Water year 1954-55:	Max 2,940	Min 59	Mean 694	Mean 694	Cfsm 1.65	In. 22.44	

Peak discharge (base, 3,000 cfs).--Apr. 27 (10:30 a.m. to 2 p.m.) 3,020 cfs (6.56 ft).
* Discharge measurement made on this day.
† Change in contents in Surry Mountain Reservoir, equivalent in cubic feet per second.
Note.--Stage-discharge relation affected by ice Dec. 7, 8, 23, Jan. 17 to Feb. 6.

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 1955. 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.--39 years, 30.0 cfs.

Extremes.--Maximum discharge during year, 173 cfs Apr. 27 (gage height, 8.14 ft); minimum, 1.6 cfs Aug. 9.
1916-55: 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 table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

5.0	1.3	6.5	43
5.3	4.9	7.0	71
5.6	11	8.0	157
6.0	23	8.1	168

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	20	74	42	11	47	58	91	36	11	6.5	16
2	8.9	20	65	41	12	92	76	73	42	7.0	4.7	13
3	9.2	49	53	44	11	74	93	61	30	6.8	2.6	*10
4	17	109	40	41	7.6	58	84	55	20	4.9	2.4	7.0
5	13	*104	30	36	7.2	47	77	48	20	9.4	2.2	5.8
6	15	82	34	35	5.9	42	80	43	22	11	2.1	9.4
7	*14	63	29	33	16	38	84	42	17	13	2.1	11
8	12	42	26	26	12	32	77	38	16	9.2	2.1	10
9	7.0	41	24	25	11	29	64	36	15	5.6	1.8	10
10	7.0	35	24	27	12	28	57	27	12	4.9	2.0	6.2
11	15	30	19	22	19	39	59	27	7.9	8.6	2.8	4.9
12	14	26	22	18	19	78	64	26	13	9.6	4.2	11
13	15	21	25	18	15	83	60	23	20	9.7	7.3	10
14	13	22	25	17	19	79	55	22	25	11	14	10
15	12	26	*43	10	20	65	54	24	18	8.0	12	9.9
16	12	21	60	10	*15	70	65	25	16	4.2	9.2	7.0
17	16	21	55	16	17	94	64	22	*15	4.1	7.6	4.4
18	28	22	57	*12	14	77	57	20	7.9	*8.3	12	3.3
19	23	23	98	12	11	50	50	19	7.0	4.8	35	6.5
20	18	39	104	14	10	43	58	16	13	7.3	47	6.8
21	17	79	83	13	14	41	57	9.8	15	10	64	9.2
22	16	96	71	8.5	10	40	54	8.1	16	4.8	49	5.6
23	9.7	84	58	8.1	19	40	52	15	19	3.9	32	3.8
24	a8.6	66	45	11	24	36	52	14	32	4.1	22	8.6
25	a18	60	42	12	27	34	64	14	27	6.4	22	4.9
26	a16	55	38	8.6	28	31	124	15	25	4.9	16	5.3
27	a17	48	36	12	30	33	162	12	21	5.2	14	7.5
28	a16	45	33	7.9	32	35	137	8.1	17	9.7	20	10
29	a15	54	38	8.5	-	*29	*119	7.9	16	8.1	23	7.9
30	a12	71	48	7.9	------	28	110	11	13	3.6	18	7.6
31	12	-- --	48	11	-------	42	--------	19	-- ----	3.0	16	- - -
Total	442.4	1,474	1,447	607.5	448.7	1,554	2,267	871.9	573.8	222.1	475.6	242.6
Mean	14.3	49.1	46.7	19.6	16.0	50.1	75.6	28.1	19.1	7.16	15.3	8.09
Cfsm	0.786	2.70	2.57	1.08	0.879	2.75	4.15	1.54	1.05	0.393	0.841	0.445
In.	0.90	3.01	2.96	1.24	0.92	3.18	4.63	1.78	1.17	0.45	0.97	0.50

Calendar year 1954: Max 235 Min 3.7 Mean 35.1 Cfsm 1.93 In. 26.17
Water year 1954-55: Max 162 Min 1.8 Mean 29.1 Cfsm 1.60 In. 21.71

Peak discharge (base, 150 cfs).--Apr. 27 (12 to 12:30 a.m.) 173 cfs (8.14 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, and records for Priest Brook near Winchendon, Millers River near Winchendon, and Ware River near Barre.
Note.--Stage-discharge relation affected by ice Dec. 26, Jan. 14, 15, 18-21, 23-25, 27, 28, Jan. Jan. 31 to Feb. 5, Feb. 12-14, 16, Mar. 8, 9.

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 1955.

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.--39 years, 142 cfs.

Extremes.--Maximum discharge during year, 731 cfs Aug. 19 (gage height, 6.83 ft); minimum daily, 9.7 cfs Aug. 6-8.
1916-55: 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 powerplant and by Lake Monomonac and other reservoirs.

Revisions (water years).--WSP 451: 1916. WSP 871: Drainage area. WSP 1051: 1919, 1920-21(M), 1922-24, 1928(M), 1933-34.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from grass Nov. 4-7, Nov. 20 to Dec. 1, Dec. 15-26, 30)

3.6	7.0	4.5	139
3.7	12	5.0	311
3.8	19	6.0	524
4.0	39	6.5	642
4.2	70		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	156	100	248	278	32	251	301	405	137	44	13	46
2	121	127	217	267	32	405	285	342	182	33	12	43
3	84	203	187	273	28	362	298	312	129	28	11	*38
4	61	438	145	254	42	304	282	291	45	21	10	35
5	77	475	129	224	24	260	270	*255	42	22	10	30
6	103	388	108	220	19	238	272	252	85	*28	9.7	31
7	*70	262	105	207	76	224	281	231	92	29	9.7	30
8	49	191	103	145	72	190	262	212	35	45	9.7	27
9	29	182	121	52	68	179	231	200	49	30	10	26
10	37	191	144	99	64	188	212	178	63	23	16	22
11	93	194	52	77	135	279	199	172	31	22	24	24
12	80	188	70	108	290	317	274	157	38	21	46	31
13	70	177	123	68	225	325	301	114	82	20	74	34
14	90	*170	108	66	200	286	289	49	101	22	80	38
15	103	171	321	31	178	243	291	45	84	22	60	37
16	55	162	393	29	*165	268	249	95	73	19	45	37
17	38	158	360	48	158	284	231	101	67	16	41	37
18	107	165	386	52	128	246	200	43	32	*18	60	42
19	92	167	524	*62	37	224	153	38	26	16	400	59
20	80	278	470	45	36	231	230	64	30	16	480	164
21	76	416	*407	45	82	221	220	32	57	19	350	151
22	75	418	344	31	39	216	247	26	88	14	210	126
23	31	382	335	27	201	220	271	59	109	13	140	123
24	27	301	270	46	191	204	216	36	128	13	105	136
25	32	260	249	49	146	203	271	32	58	14	90	134
26	64	249	240	48	63	205	489	79	45	12	72	131
27	96	235	230	34	82	209	593	75	63	13	64	131
28	144	224	215	28	159	197	524	26	42	16	60	139
29	142	308	284	29	-	*185	483	22	35	15	57	118
30	122	282	325	27	------	202	454	26	30	12	*50	108
31	42	-----	319	43	------	253	------	39	------	11	47	-----
Total	2,446	7,462	7,532	3,014	2,972	7,619	8,879	4,008	2,078	647	2,666.1	2,128
Mean	78.9	249	243	97.2	106	246	296	129	69.3	20.9	86.0	70.9
Cfsm	0.951	3.00	2.93	1.17	1.28	2.96	3.57	1.55	0.835	0.252	1.04	0.854
In.	1.10	3.34	3.37	1.35	1.33	3.41	3.98	1.80	0.93	0.29	1.19	0.95

Calendar year 1954: Max 858 Min 11 Mean 171 Cfsm 2.06 In. 28.01
Water year 1954-55: Max 593 Min 9.7 Mean 141 Cfsm 1.70 In. 23.04

Peak discharge (base, 690 cfs).--Aug. 19 (time unknown) 731 cfs (6.83 ft).
* Discharge measurement made on this day.
Note.--No gage-height record Aug. 14-30; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage, powerplant records, and records for Priest Brook near Winchendon and Tarbell Brook near Winchendon. Stage-discharge relstion affected by ice Dec. 23, 26, Jan. 8, 9, 13, 14, 17-21, 24-26, Jan. 28 to Feb. 4, Feb. 7-14, 16, Mar. 8.

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 1955.

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.--39 years, 33.3 cfs.

Extremes.--Maximum discharge during year, 286 cfs Apr. 27 (gage height, 4.68 ft); minimum, 0.1 cfs Aug. 4.
1916-55: 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. 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.2	1.1	3.0	36
2.3	2.4	3.5	86
2.4	4.5	4.0	159
2.5	7.4	5.0	358
2.7	16		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	27	74	47	5.5	52	64	86	50	9.3	2.3	19
2	11	25	66	43	5.5	99	103	75	59	8.5	1.5	21
3	12	62	55	44	5.5	95	130	66	51	10	1.2	*13
4	11	127	45	42	5.5	73	107	50	39	13	4.7	8.9
5	11	*116	40	38	5.5	51	92	*45	31	14	4.6	7.4
6	11	92	33	37	5.2	42	92	42	24	18	5.5	7.4
7	*10	68	25	32	19	38	109	40	19	14	3.8	7.4
8	8.9	53	23	28	15	32	96	38	17	10	3.2	13
9	8.5	43	25	25	12	29	78	38	15	8.5	2.3	10
10	8.5	25	28	23	11	31	57	34	13	6.7	2.3	7.4
11	8.9	25	28	20	22	51	65	28	11	15	2.1	7.0
12	9.7	26	27	18	62	95	72	27	18	11	5.1	10
13	9.8	26	26	17	50	121	71	26	33	5.0	11	9.7
14	14	25	25	15	37	109	66	28	33	*3.9	61	7.8
15	14	25	*48	13	25	81	68	24	26	2.2	61	7.4
16	34	26	59	12	*18	86	76	23	*21	2.3	40	6.4
17	28	20	57	12	16	109	78	23	17	2.3	26	5.2
18	28	21	63	*11	15	89	70	18	13	2.3	20	5.0
19	24	28	129	10	15	62	64	17	11	1.8	74	5.0
20	21	49	117	9.3	14	46	64	15	9.7	8.1	183	5.2
21	18	126	91	8.5	14	42	61	14	11	11	119	5.5
22	16	135	73	8.2	14	36	60	13	27	6.7	80	6.1
23	15	113	44	8.2	27	37	61	12	34	5.4	44	8.9
24	12	86	46	7.8	41	35	58	12	37	5.2	32	8.9
25	12	70	43	7.4	43	33	84	11	42	4.3	27	13
26	*11	58	37	7.4	40	34	197	15	38	3.4	25	12
27	12	45	34	7.4	36	36	268	16	29	3.2	21	11
28	12	45	33	7.0	36	*32	207	15	22	3.2	20	12
29	13	57	42	6.4	-	33	*143	14	17	2.8	20	17
30	22	79	48	6.1	------	39	116	20	13	2.6	19	17
31	27	----	50	5.8	------	42	--------	24	----	2.3	17	----
Total	464.3	1,723	1,534	576.5	614.7	1,790	2,877	909	780.7	216.0	933.6	294.6
Mean	15.0	57.4	49.5	18.6	22.0	57.7	95.9	29.3	26.0	6.97	30.3	9.82
Cfsm	0.773	2.96	2.55	0.959	1.13	2.97	4.94	1.51	1.34	0.359	1.56	0.506
In.	0.89	3.30	2.94	1.11	1.18	3.43	5.52	1.74	1.50	0.41	1.80	0.56

Calendar year 1954: Max 278 Min 0.4 Mean 38.5 Cfsm 1.98 In. 26.96
Water year 1954-55: Max 268 Min 1.2 Mean 34.8 Cfsm 1.79 In. 24.38

Peak discharge (base, 150 cfs).--Apr. 27 (9 to 11 a.m.) 286 cfs (4.68 ft); Aug. 20 (3 to 5:30 a.m.) 207 cfs (4.28 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.

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 1955.

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.--16 years, 313 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 1,060 cfs Apr. 28, 29 (gage height, 6.24 ft); minimum daily, 23 cfs Aug. 10, 11.
1939-55: Maximum discharge, 4,400 cfs Apr. 13, 1940 (gage height, 8.40 ft); minimum daily, 16 cfs Sept. 25, 1939.
Maximum stage known, 15.9 ft Sept. 21 or 22, 1938, from floodmarks.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow regulated by Lake Monomonac and other reservoirs, by mills and powerplants, and at high flow by Birch Hill Reservoir since 1941 (see p. 232).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from aquatic vegetation July 27 to Aug. 22)

3.5	21	5.0	325
3.6	26	5.5	570
3.8	42	6.0	880
4.1	76	6.5	1,280
4.5	147		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	264	233	727	667	76	465	576	970	312	111	31	169
2	233	302	655	608	74	739	637	880	430	112	31	155
3	202	440	565	*620	68	758	685	771	356	123	29	138
4	155	852	440	592	70	643	667	655	199	132	*27	120
5	160	948	400	525	75	525	631	555	169	120	29	105
6	196	932	310	510	62	475	620	490	159	166	28	97
7	153	852	300	450	270	435	655	470	205	180	28	91
8	136	709	290	430	275	375	649	435	121	152	27	86
9	112	540	289	320	230	356	581	415	116	136	25	85
10	105	450	361	260	*200	361	515	380	136	102	23	78
11	151	410	260	230	250	525	485	348	112	86	23	78
12	165	395	222	250	560	764	505	320	143	84	54	107
13	152	361	280	200	540	804	540	280	233	72	154	*104
14	148	348	252	190	400	*758	535	202	260	66	425	96
15	193	338	534	150	350	655	540	183	205	66	510	91
16	240	320	764	140	290	603	376	196	166	66	378	88
17	256	307	758	150	250	661	265	236	146	71	196	85
18	268	312	739	145	210	614	*475	166	117	63	155	85
19	244	330	925	150	145	530	637	147	94	59	374	80
20	206	442	985	125	140	465	592	146	88	53	309	128
21	182	745	955	120	171	440	530	134	136	58	126	263
22	167	845	838	102	161	425	505	109	485	58	589	169
23	135	866	752	96	330	435	520	*120	560	51	992	166
24	116	797	685	96	520	430	490	125	525	49	970	197
25	*109	703	570	110	450	425	645	109	430	46	962	276
26	*124	631	500	110	300	445	771	149	320	43	948	248
27	149	570	510	100	256	450	992	205	*240	40	817	222
28	226	540	475	86	338	410	1,060	121	193	40	586	236
29	230	592	565	80	-	375	1,060	107	150	42	316	230
30	294	*727	673	76	--------	410	1,030	125	123	39	212	216
31	240	--------	703	72	--------	490	--------	146	--------	33	177	--------
Total	5,711	16,837	17,282	7,760	7,061	16,246	18,669	9,695	6,929	2,519	9,551	4,289
Mean	184	561	557	250	252	524	622	313	231	81.3	308	143
(†)	-0.11	+3.82	-0.90	-3.32	+1.57	+0.71	+15.6	-16.7	-0.35	-0.19	+0.52	0

Adjusted for change in reservoir contents

Mean	184	565	557	247	254	525	638	296	231	81.1	309	143
Cfsm	0.984	3.02	2.98	1.32	1.36	2.81	3.41	1.58	1.24	0.434	..65	0.765
In.	1.14	3.37	3.43	1.52	1.41	3.24	3.81	1.83	1.38	0.50	1.90	0.85

	Observed			Adjusted		
Calendar year 1954:	Max 1,320	Min 45	Mean 385	Mean 385	Cfsm 2.06	In. 27.96
Water year 1954-55:	Max 1,060	Min 23	Mean 336	Mean 336	Cfsm 1.80	In. 24.38

* 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. 6-8, 26, Jan. 7 to Feb. 20, Feb. 23-26. Discharge in cubic feet per second per square mile and runoff in inches may not represent natural flow because of regulation.

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 1955. 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 benchmark). Prior to Oct. 26, 1948, staff gage at site 0.2 mile upstream at datum 14.40 ft higher.
Average discharge.--40 years, 84.5 cfs (adjusted for storage).
Extremes.--Maximum discharge during year, 432 cfs Apr. 29 (gage height, 4.46 ft); minimum, 0.03 cfs Aug. 21, 22; minimum daily, 0.04 cfs Aug. 21.
1915-55: 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, that of Aug. 21, 1955.
Remarks.--Records excellent except those for periods of no gage-height record, which are fair. Flow regulated by Tully Reservoir since 1948 (see p. 232).
Revisions (water years).--WSP 451: 1916. WSP 891: Drainage area. WSP 1051: 1916(M), 1928. WSP 1301: 1917-35(M), 1937(M).

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

2.25	0.03	2.8	18
2.3	.1	3.1	52
2.35	.4	3.4	101
2.4	.9	3.7	172
2.5	2.8	4.0	259
2.6	6.2	4.5	450
2.7	11		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	53	170	121	14	108	147	365	137	14	2.6	28
2	26	46	152	103	14	180	202	*313	157	a12	2.6	24
3	26	55	137	103	14	259	253	276	128	a21	2.1	20
4	25	66	114	103	4.9	250	285	225	95	a25	1.9	18
5	23	112	84	103	.1	194	279	170	82	a20	1.7	14
6	20	125	*71	82	.1	125	292	133	68	a21	1.6	14
7	19	130	63	*72	.08	101	296	116	52	a40	1.4	13
8	17	133	51	72	*24	79	282	105	44	a42	1.4	11
9	17	90	51	55	35	69	237	101	40	a25	1.2	9.6
10	18	74	59	52	35	69	194	90	37	a18	1.2	8.5
11	20	69	77	49	35	71	170	80	32	14	1.3	10
12	23	49	58	39	96	160	164	74	47	11	9.3	24
13	21	42	38	49	157	269	157	68	82	9.0	29	21
14	20	42	51	49	154	279	147	62	80	8.0	.4	14
15	18	46	92	28	127	251	157	58	65	7.1	126	12
16	40	44	140	21	39	219	110	53	49	7.1	279	*11
17	62	44	142	21	27	234	62	49	38	9.6	228	9.6
18	52	47	128	21	27	*244	127	47	29	8.5	87	8.5
19	43	49	135	21	27	211	225	43	21	7.1	.2	8.0
20	37	88	177	21	27	147	244	39	17	5.8	.06	8.0
21	32	162	228	21	27	119	214	37	27	5.0	.04	8.0
22	28	216	222	21	28	99	186	34	108	4.7	143	6.7
23	25	228	172	21	47	92	160	30	88	4.4	269	5.8
24	23	228	147	18	92	92	150	26	53	4.7	256	12
25	21	222	114	18	103	72	167	27	*59	5.0	244	39
26	19	119	90	18	105	77	237	*67	56	4.4	231	34
27	*19	93	72	18	86	93	296	80	38	4.0	228	22
28	20	112	72	18	90	84	393	63	26	3.7	240	26
29	23	159	72	15	-	77	428	52	20	3.7	100	38
30	46	167	123	15	-------	77	401	63	16	3.4	36	31
31	59	-------	145	15	-------	95	-------	76	-------	a2.8	30	-------
Total	869	3,110	3,447	1,383	1,435.18	4,496	6,662	3,022	1,791	371.0	2,555.00	508.7
Mean	28.0	104	111	44.6	51.3	145	222	97.5	59.7	12.0	82.4	17.0
(†)	+0.04	+8.68	+0.30	-2.24	+2.98	-0.67	+1.85	-10.3	-0.08	-0.04	+0.07	0
Adjusted for change in contents in Tully Reservoir												
Mean	28.1	112	111	42.4	54.2	144	224	87.2	59.6	11.9	82.5	17.0
Cfsm	0.558	2.22	2.20	0.841	1.08	2.86	4.44	1.73	1.18	0.236	1.64	0.337
In.	0.64	2.49	2.55	0.97	1.12	3.30	4.96	2.00	1.32	0.27	1.89	0.38

	Observed			Adjusted			
Calendar year 1954:	Max 439	Min 2.6	Mean 85.0	Mean 85.0	Cfsm 1.69	In. 22.92	
Water year 1954-55:	Max 428	Min 0.04	Mean 81.2	Mean 81.2	Cfsm 1.61	In. 21.89	

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Tully Reservoir.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for Moss Brook at Wendell Depot.

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 1955. Published as "at Wendell" 1909-10.

Gage.--Staff gage read twice daily except during period Jan. 17 to Mar. 29, when it was read once daily. 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.--39 years (1916-55), 21.2 cfs.

Extremes.--Maximum discharge during year, 735 cfs June 21 (gage height, 5.00 ft, from graph based on gage readings), from rating curve extended above 400 cfs on basis of slope-area determinations at gage heights 5.62 and 6.30 ft; minimum, 1.1 cfs Aug. 9, 10. 1916-55: Maximum discharge, 1,540 cfs Mar. 19, 1936 (gage height, 6.30 ft, from floodmarks), from rating curve extended above 400 cfs as described above; 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.0	1.1	1.8	18
1.1	1.7	2.1	36
1.2	2.4	2.5	72
1.3	3.6	3.0	138
1.4	5.1	3.5	235
1.5	7.6	4.0	364
1.6	10	4.5	530

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	12	*40	24	3.2	64	58	60	23	12	1.5	8.0
2	4.6	9.6	31	25	3.1	56	84	46	19	10	1.4	7.0
3	6.6	35	25	26	3.0	40	85	38	13	32	1.4	6.0
4	5.1	62	21	*23	3.0	24	52	33	11	30	1.3	5.6
5	4.5	39	18	17	3.0	21	52	31	13	20	1.3	5.0
6	4.5	25	14	17	3.2	19	57	31	10	21	1.3	4.5
7	4.4	18	12	17	*27	18	62	28	8.6	26	*1.3	4.0
8	3.9	14	13	16	35	16	47	25	7.8	21	1.3	4.2
9	3.6	12	14	15	25	17	36	24	7.3	12	1.1	22
10	3.9	11	15	13	12	22	33	21	6.6	9.6	1.1	23
11	5.0	9.6	15	11	17	35	38	18	5.8	7.6	1.4	13
12	5.1	9.8	14	11	42	80	38	16	21	5.6	16	11
13	4.5	9.3	12	10	29	74	33	15	29	4.6	92	6.3
14	4.2	9.0	14	8.8	22	63	31	16	21	4.2	178	5.3
15	3.9	8.6	34	7.6	15	39	36	14	*12	3.8	66	4.5
16	20	8.3	35	7.0	12	49	44	12	11	4.9	28	*4.0
17	19	8.0	30	6.8	11	76	38	11	15	9.3	14	3.8
18	11	9.8	36	6.4	10	*46	33	10	9.8	6.0	32	3.6
19	8.0	12	80	5.8	9.2	28	31	9.6	7.6	4.2	248	3.3
20	6.6	41	52	5.4	8.4	25	33	8.8	6.0	3.4	224	3.2
21	5.6	79	38	5.0	8.6	23	*31	8.0	146	2.8	75	3.2
22	5.1	63	31	4.8	8.4	25	33	7.3	*426	2.4	40	3.1
23	4.6	42	29	4.8	17	29	33	6.8	118	2.3	30	3.0
24	4.4	30	25	4.5	26	27	31	6.6	53	3.1	24	17
25	4.2	28	23	4.4	23	26	47	9.1	44	2.6	18	18
26	*4.0	27	21	4.3	19	31	137	*28	36	2.3	13	10
27	4.2	24	19	4.3	19	25	226	18	25	2.0	12	7.0
28	4.4	23	17	4.1	19	18	128	11	20	2.1	14	12
29	5.5	41	20	3.7	-	15	91	12	21	2.1	10	10
30	16	52	26	3.5	------	21	82	28	16	1.8	8.8	8.0
31	16	-- --	30	3.3	------	33	------	24	------	1.8	8.6	------
Total	206.4	772.0	804	319.5	433.1	1,085	1,760	626.2	1,162.5	272.5	1,165.8	238.6
Mean	6.66	25.7	25.9	10.3	15.5	35.0	58.7	20.2	38.8	8.79	37.6	7.95
Cfsm	0.541	2.09	2.11	0.837	1.26	2.85	4.77	1.64	3.15	0.715	3.06	0.646
In.	0.62	2.33	2.43	0.97	1.31	3.28	5.32	1.89	3.51	0.82	3.52	0.72

Calendar year 1954: Max 226 Min 1.0 Mean 19.0 Cfsm 1.54 In. 20.97
Water year 1954-55: Max 426 Min 1.1 Mean 24.2 Cfsm 1.97 In. 26.72

Peak discharge (base, 160 cfs).--Apr. 27 (4 p.m.) 253 (3.58 ft); June 21 (12 p.m.) 735 cfs (5.00 ft); Aug. 13 (9 p.m.) 304 cfs (3.78 ft); Aug. 19 (11 p.m.) 645 cfs (4.80 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 4, 8, 19, 23, 25, 26, Jan. 9 to Feb. 2, Feb. 7 to Mar. 12.

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 1955.
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.--41 years, 632 cfs (adjusted for storage).
Extremes.--Maximum discharge during year, 3,170 cfs Aug. 19 (gage height, 6.00 ft); minimum daily, 45 cfs Aug. 7.
1914-55: 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 periods of ice effect, which are fair. Flow regulated by powerplants, Lake Monomonac and other reservoirs, and at high flow by Birch Hill and Tully Reservoirs (see p. 232).
Revisions (water years).--WSP 641: 1920(M). WSP 756: Drainage area. WSP 781: 1928(M), 1933(M). WSP 1301: 1915(M).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.7	45	3.5	705
1.9	72	4.0	1,040
2.2	126	5.0	1,870
2.5	199	6.0	3,170
3.0	396		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	387	445	*1,310	1,110	140	1,140	1,180	1,920	666	256	102	343
2	391	462	1,200	1,060	140	1,540	1,330	1,710	809	276	84	321
3	372	930	1,060	1,100	130	1,440	1,380	1,510	738	372	78	253
4	325	1,490	868	*1,050	125	1,260	1,400	1,250	549	334	76	236
5	291	1,440	776	949	125	1,080	1,380	1,070	445	275	74	217
6	295	1,380	600	914	120	935	1,370	942	396	357	*49	232
7	299	1,270	550	820	550	822	1,480	880	386	462	45	214
8	263	1,150	540	700	680	757	1,390	835	334	376	85	214
9	220	914	600	610	540	718	1,240	802	275	303	70	220
10	211	764	653	500	420	712	1,080	731	271	253	68	191
11	243	686	620	440	520	1,060	1,020	672	260	271	87	190
12	295	653	480	430	1,100	1,530	1,020	620	315	136	148	295
13	283	588	500	365	1,000	1,580	1,050	575	523	170	865	260
14	267	556	510	315	800	1,520	1,030	492	549	150	1,470	236
15	423	556	930	290	650	1,350	1,060	428	468	144	887	*256
16	669	530	1,230	260	490	1,330	1,060	401	386	160	900	208
17	498	510	1,260	265	430	1,400	582	462	347	186	679	172
18	428	530	1,320	270	410	*1,270	757	428	283	175	653	160
19	434	568	1,810	275	330	1,120	1,030	362	226	135	2,210	195
20	372	928	1,680	230	315	956	1,140	329	211	127	1,890	322
21	329	1,560	1,590	220	370	880	1,030	295	328	117	1,030	304
22	299	1,620	1,440	200	400	861	977	253	1,440	118	774	260
23	274	1,510	1,250	185	600	887	970	239	1,160	106	1,410	236
24	226	1,340	1,200	195	900	854	928	260	921	118	1,400	336
25	226	1,300	950	200	800	848	1,240	292	835	128	1,370	450
26	211	1,180	822	200	660	861	1,980	*428	666	101	1,340	401
27	*243	977	894	180	570	887	2,810	462	*504	98	1,240	343
28	286	949	835	165	680	822	2,410	372	418	98	1,050	372
29	352	1,170	894	150	-	744	2,350	303	352	92	750	391
30	474	1,400	1,100	145	---	809	2,170	376	295	86	453	347
31	510	---	1,190	140	---	963	---	434	---	86	357	---
Total	10,385	29,356	30,662	13,933	13,995	32,936	39,844	20,133	15,356	6,066	21,694	8,175
Mean	335	979	989	449	500	1,062	1,328	649	512	196	700	272
(†)	-0.07	+12.5	-0.60	-5.56	+4.55	+0.04	+17.4	-27.0	-0.42	-0.22	+0.60	0
Adjusted for change in reservoir contents												
Mean	335	991	988	444	504	1,062	1,346	622	511	195	700	272
Cfsm	0.893	2.64	2.63	1.18	1.34	2.83	3.59	1.66	1.36	0.520	1.87	0.725
In.	1.03	2.95	3.04	1.36	1.40	3.27	4.00	1.91	1.52	0.60	2.15	0.81

	Observed			Adjusted			
Calendar year 1954:	Max 2,300	Min 49	Mean 706	Mean 707	Cfsm 1.89	In. 25.58	
Water year 1954-55:	Max 2,810	Min 45	Mean 664	Mean 664	Cfsm 1.77	In. 24.04	

* 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. 6-9, 12-15, 23-25, Jan. 7 to Feb. 28.

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 1955.

Average discharge.--40 years, 11,960 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 since 1940, Comerford Station Pond since 1930 (see p. 232), and other reservoirs (combined usable capacity, about 19½ 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,960	9,170	20,200	15,800	4,770	13,200	16,900	30,500	12,400	7,170	2,620	6,270
2	9,010	9,390	17,900	17,600	4,920	23,100	26,400	26,200	25,100	3,810	2,640	6,560
3	5,780	20,900	15,600	14,100	4,730	20,300	33,400	24,200	24,100	1,530	1,740	3,310
4	8,160	34,900	15,500	12,800	4,360	16,400	27,200	19,800	18,000	3,860	1,650	152
5	13,800	23,600	6,990	13,500	1,260	15,100	28,300	21,200	14,500	5,720	1,560	138
6	16,600	19,500	9,040	12,700	2,660	12,000	35,600	20,600	14,300	4,610	244	5,560
7	16,500	14,800	9,910	13,200	9,310	10,400	41,300	21,100	11,200	5,760	300	6,190
8	14,700	14,900	8,320	10,500	6,250	9,760	56,500	20,200	9,270	4,430	790	4,480
9	12,600	10,600	9,680	5,990	5,910	9,580	46,900	18,600	7,320	1,140	2,320	4,620
10	10,800	11,800	12,200	7,930	5,940	8,810	40,500	18,600	6,940	375	2,900	226
11	9,820	11,100	13,000	8,840	7,120	13,100	56,200	19,900	882	5,030	5,940	138
12	9,310	9,660	8,880	9,140	7,750	27,100	65,200	18,700	2,990	3,880	9,590	4,060
13	9,230	11,100	8,700	8,090	7,070	30,600	56,300	15,600	10,400	3,500	13,500	3,880
14	9,460	1,760	10,700	8,330	7,850	26,000	50,000	14,100	14,400	3,840	31,400	3,010
15	11,900	8,910	14,100	7,350	7,460	22,500	48,000	11,700	14,300	3,850	27,800	2,720
16	14,600	10,600	16,500	5,650	7,430	24,200	79,600	10,800	13,400	138	15,900	2,260
17	10,900	10,100	15,900	7,220	7,380	27,000	75,900	9,140	13,100	390	14,900	138
18	10,200	8,430	18,000	8,560	7,240	24,600	66,200	9,700	12,500	4,060	15,000	138
19	8,280	8,620	27,300	7,180	6,030	21,000	60,100	9,680	4,640	3,570	18,500	5,830
20	9,050	9,520	26,000	8,980	3,280	16,900	58,300	8,500	7,220	2,710	17,300	3,730
21	9,200	25,900	19,300	7,130	7,160	15,800	56,100	7,740	6,370	3,480	9,890	3,160
22	8,260	32,200	14,300	5,880	7,580	15,400	51,300	2,480	9,440	3,460	9,030	2,260
23	5,320	33,600	15,300	2,670	6,920	15,100	45,600	7,760	9,880	138	7,800	2,620
24	3,740	28,400	15,400	7,260	8,550	13,600	41,700	8,720	10,300	138	8,550	3,600
25	5,350	23,500	12,400	6,860	12,800	13,300	41,700	8,200	8,960	3,180	10,100	487
26	6,780	17,400	11,100	5,820	13,400	12,600	49,600	8,990	6,630	2,720	8,820	3,720
27	6,650	15,500	9,110	5,420	12,200	11,200	49,600	11,300	8,480	2,730	4,920	3,260
28	8,240	14,900	13,300	5,970	12,700	10,300	45,700	11,600	8,560	3,910	3,230	4,240
29	8,840	15,000	14,400	2,020	-	11,000	40,400	4,510	6,960	4,120	6,640	3,790
30	12,000	16,400	18,900	1,220	--------	9,860	36,600	9,290	6,100	138	6,450	4,690
31	5,990	--------	15,700	6,680	--------	10,500	--------	11,700	--------	138	6,480	--------
Total	300,030	482,160	443,630	258,390	200,030	510,310	‡1,427.1	441,110	318,622	93,525	268,504	95,257
Mean	9,678	16,070	14,310	8,335	7,144	16,460	47,570	14,230	10,620	3,017	8,661	3,175
(†)	-35.8	+87.1	-856	-1,152	-592	-418	+1,986	+806	+382	-200	+26.4	-652

Adjusted for change in reservoir contents

Mean	9,643	16,160	13,460	7,184	6,552	16,040	49,560	15,040	11,000	2,817	8,688	2,524
Cfsm	1.35	2.26	1.88	1.00	0.915	2.24	6.92	2.10	1.54	0.393	1.21	0.352
In.	1.55	2.52	2.17	1.16	0.95	2.58	7.72	2.42	1.71	0.45	1.40	0.39

		Observed				Adjusted				
Calendar year 1954:	Max	72,500	Min	237	Mean	15,940	Mean	15,970	Cfsm	2.23	In.	30.27
Water year 1954-55:	Max	79,600	Min	138	Mean	13,260	Mean	13,200	Cfsm	1.84	In.	25.02

† Change in contents in First Connecticut and Second Connecticut Lakes, Lake Francis, Comerford Station Pond, Moore Reservoir, Union Village Reservoir, 4 reservoirs in Mascoma River basin, Sunapee Lake, and Surry Mountain, Birch Hill, and Tully Reservoirs, equivalent in cubic feet per second.

‡ Expressed in thousands.

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 1955.
Gage.--Water-stage recorder. Datum of gage is 517.36 ft above mean sea level, datum of 1929.
Average discharge.--42 years, 898 cfs (adjusted for storage).
Extremes.--Maximum discharge during year, 8,570 cfs Aug. 19 (gage height, 7.65 ft); minimum daily, 47 cfs July 31, Aug. 7.
1913-55: 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. 232), and by several powerplants above station.
Revisions (water years).--WSP 781: 1915(M). WSP 1301: 1918(M).

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 9, 10, 12)

Oct. 1 to Nov. 3
Aug. 20 to Sept. 30

1.5	74	3.0	910
1.8	161	4.0	1,980
2.1	278	5.0	3,430
2.5	500	7.0	7,140

Nov. 4 to Aug. 19

1.4	45	2.1	263
1.7	111	2.5	500

Note.--Same as preceding table above 2.5 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	688	866	1,330	1,120	1,000	1,530	1,720	1,100	404	90	394	852
2	430	813	1,260	1,260	1,040	1,730	1,850	990	562	83	418	854
3	253	5,830	*1,220	1,320	970	1,410	1,860	750	548	139	238	450
4	694	3,360	1,170	1,290	1,000	1,320	1,680	960	167	138	284	128
5	632	2,920	884	*1,250	840	1,270	1,990	1,000	116	95	*321	123
6	678	2,330	1,090	1,270	294	1,250	2,360	1,100	466	96	78	568
7	317	1,480	1,110	1,190	1,020	1,180	2,640	900	566	98	47	724
8	237	1,210	1,190	1,490	1,010	1,150	2,080	460	620	162	227	658
9	84	1,170	1,140	1,430	*1,120	1,150	1,450	800	635	55	122	688
10	84	1,100	1,210	1,150	1,100	1,310	1,860	700	727	75	101	246
11	274	1,080	1,190	1,200	1,310	1,980	3,260	720	247	78	102	164
12	106	1,090	1,140	1,240	1,260	2,280	2,940	740	132	63	173	516
13	471	1,050	1,120	1,330	790	1,670	2,400	720	362	71	1,450	652
14	535	374	1,360	1,300	980	1,390	2,330	570	726	75	2,980	600
15	664	834	2,630	1,290	1,170	*1,560	3,770	285	637	76	1,940	*494
16	1,570	1,080	1,620	534	1,180	2,290	3,670	420	442	72	1,480	560
17	584	1,090	1,420	1,190	1,150	2,100	2,610	520	476	171	1,410	393
18	818	1,150	2,160	1,200	1,140	1,790	2,020	460	254	373	2,400	175
19	873	1,170	2,340	1,220	902	1,120	*2,150	410	73	638	5,240	482
20	721	1,980	1,680	1,170	330	1,020	2,240	460	272	649	1,360	868
21	788	5,850	1,480	1,100	937	1,060	2,210	140	636	618	578	630
22	854	3,250	1,360	1,060	1,140	1,400	1,970	110	732	713	880	608
23	294	2,080	1,300	1,050	1,270	1,460	1,800	255	672	324	888	632
24	171	1,850	1,340	1,050	1,390	1,240	1,600	*221	706	64	999	550
25	654	1,780	1,280	1,040	1,270	1,240	3,000	365	279	356	804	299
26	732	1,370	1,240	1,030	1,230	1,070	3,550	222	92	626	785	658
27	786	1,310	1,220	1,020	1,200	910	3,650	298	69	639	290	598
28	*920	1,130	1,240	990	1,240	991	3,000	139	116	686	230	748
29	751	1,440	1,680	980	-	1,210	2,250	143	168	636	803	749
30	1,040	1,440	1,510	373	--------	1,300	1,350	357	*76	204	811	740
31	368	--------	1,390	900	--------	1,440	--------	408	--------	47	743	--------
Total	18,071	53,477	43,304	35,037	29,283	43,821	71,660	16,723	11,978	8,210	28,576	16,407
Mean	583	1,783	1,397	1,130	1,046	1,414	2,389	539	399	265	922	547
(†)	-99.9	+144	-91.7	-707	-455	-48.2	+1,326	+37.3	-149	-178	+38.6	-314

Adjusted for change in reservoir contents

Mean	483	1,927	1,305	423	591	1,365	3,714	577	250	87.3	960	232
Cfsm	1.33	5.32	3.60	1.17	1.63	3.77	10.3	1.59	0.691	0.241	2.65	0.641
In.	1.54	5.94	4.16	1.35	1.70	4.35	11.45	1.84	0.77	0.28	3.06	0.72

	Observed			Adjusted			
Calendar year 1954:	Max 5,850	Min 43	Mean 965	Mean 1,011	Cfsm 2.73	In. 37.90
Water year 1954-55:	Max 5,850	Min 47	Mean 1,032	Mean 990	Cfsm 2.73	In. 37.16

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Somerset and Harriman Reservoirs.
Note.--No gage-height record Apr. 25 to May 23, Sept. 14; discharge estimated on basis of weather records, recorded range in stage, powerplant records, and records for station near West Deerfield. Stage-discharge relation affected by ice Dec. 23, Jan. 11-15, 17-29, Jan. 31 to Feb. 4, Feb. 13, 14, Mar. 7-9.

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 1955. 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.--16 years, 179 cfs.

Extremes.--Maximum discharge during year, 4,660 cfs Nov. 3 (gage height, 7.44 ft); minimum, 9.0 cfs Aug. 6, 7; minimum daily, 9.4 cfs Aug. 6, 7.
1939-55: Maximum discharge, 10,000 cfs Dec. 31, 1948 (gage height, 9.62 ft), from rating curve extended above 3,600 cfs on basis of computation of peak flow over dam; 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	8.2	3.5	393
1.6	13	4.0	635
1.8	26	5.0	1,310
2.0	44	6.0	2,390
2.5	117	6.5	3,120
3.0	230		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	91	281	196	47	360	637	297	121	33	14	61
2	60	77	244	193	44	470	932	259	101	36	12	55
3	61	2,590	*208	203	42	265	615	233	86	52	12	51
4	54	886	175	179	40	170	428	214	76	38	12	49
5	50	422	181	*150	30	151	579	198	73	32	*10	45
6	49	293	145	164	37	153	717	186	65	59	9.4	45
7	48	236	140	130	180	151	791	166	60	57	9.4	41
8	44	206	140	120	150	120	542	164	61	40	11	37
9	43	181	146	115	*110	120	502	151	61	35	11	34
10	45	161	170	120	90	177	1,050	136	57	31	11	33
11	50	151	153	95	190	553	1,290	123	52	28	32	34
12	49	144	135	86	185	773	881	115	108	23	74	35
13	45	130	123	88	100	641	635	97	112	22	1,180	32
14	42	128	324	78	115	420	624	104	83	21	848	30
15	44	119	1,230	76	101	*347	1,060	93	66	21	294	*31
16	371	112	446	76	86	698	919	85	54	22	134	30
17	158	110	287	66	75	454	624	80	48	44	94	30
18	101	176	778	62	76	274	472	76	43	27	395	28
19	82	172	821	62	73	222	*547	68	40	24	1,920	27
20	75	668	409	58	75	210	486	61	40	22	546	26
21	69	1,370	297	53	76	203	420	59	68	20	268	26
22	64	618	236	56	73	186	382	57	154	18	244	25
23	60	371	215	58	135	186	361	55	64	18	193	24
24	57	313	225	59	185	164	300	*54	*57	18	149	169
25	52	316	185	56	160	172	1,120	302	73	20	108	115
26	51	284	170	54	120	166	968	251	54	19	99	59
27	52	259	170	54	99	151	739	126	50	17	88	44
28	*61	253	166	52	144	130	472	97	61	19	79	118
29	73	361	388	50	-	135	432	135	44	22	68	80
30	136	337	293	50	------	234	347	290	36	20	62	57
31	125	----	236	50	------	383	--------	138	--------	16	65	-----
Total	2,322	11,535	9,117	2,909	2,838	8,839	19,872	4,470	2,068	874	7,053.8	1,471
Mean	74.9	384	294	93.8	101	285	662	144	68.9	28.2	228	49.0
Cfsm	0.847	4.34	3.33	1.06	1.14	3.22	7.49	1.63	0.779	0.319	2.58	0.554
In.	0.98	4.85	3.84	1.22	1.19	3.72	8.36	1.88	0.87	0.37	2.97	0.62

Calendar year 1954: Max 2,590 Min 12 Mean 192 Cfsm 2.17 In. 29.49
Water year 1954-55: Max 2,590 Min 9.4 Mean 201 Cfsm 2.27 In. 30.87

Peak discharge (base, 1,880 cfs).--Nov. 3 (12 m.) 4,660 cfs (7.44 ft); Dec. 15 (2:30 a.m.) 2,080 cfs (5.77 ft); Apr. 10 (6 to 6:30 p.m.) 1,930 cfs (5.64 ft); Apr. 25 (7:30 p.m.) 1,960 cfs (5.66 ft); Aug. 13 (7 p.m.) 2,640 cfs (6.18 ft); Aug. 19 (10 a.m.) 3,940 cfs (7.02 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4, 6-8, 12, 23, 25-27, Jan. 5, Jan. 7 to Feb. 14, Feb. 16, 19-21, 24-26, Mar. 1-4, 8, 9, 28, 29.

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 1955. 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.--15 years (1940-55), 1,298 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 18,600 cfs Aug. 19 (gage height, 9.11 ft); minimum daily, 65 cfs July 31.
1940-55: 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. 232), and by several powerplants above station.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

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
2.5	605	8.0	14,200

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	817	902	2,050	1,560	1,250	2,600	2,980	1,820	778	154	334	1,020
2	740	1,050	1,920	1,820	1,250	2,800	3,490	1,500	648	167	617	1,100
3	416	10,800	1,660	1,900	1,150	1,920	3,120	1,220	907	186	216	662
4	810	5,310	1,680	1,800	1,200	1,410	2,650	1,400	430	335	358	316
5	675	3,870	1,340	1,620	1,050	1,620	3,220	1,370	253	216	288	152
6	800	3,160	1,500	*1,700	540	1,510	3,870	1,560	457	249	*126	496
7	523	2,190	*1,390	1,370	1,600	1,470	4,350	1,380	744	174	67	1,020
8	310	1,670	1,500	1,820	*1,250	1,430	3,300	851	689	211	174	620
9	238	1,580	1,840	1,760	1,300	1,450	2,620	1,210	814	198	181	708
10	164	1,490	1,660	1,520	1,350	1,640	3,010	964	748	100	191	594
11	452	1,460	1,600	1,430	2,000	3,540	5,120	1,050	584	136	484	219
12	312	1,500	1,510	1,470	1,640	3,940	4,470	965	390	104	417	376
13	462	1,390	1,290	1,650	988	3,220	3,610	1,050	487	144	3,590	724
14	694	820	1,820	1,500	1,190	2,130	3,390	854	932	90	4,490	602
15	1,070	918	5,790	1,600	1,500	2,090	4,980	506	910	94	2,670	684
16	2,440	1,420	2,710	1,050	1,400	3,490	5,320	622	462	186	1,620	585
17	988	1,390	2,140	1,500	1,310	*3,050	3,850	772	540	230	1,520	586
18	872	1,600	3,860	1,400	1,360	2,330	2,890	612	530	378	4,390	154
19	910	1,750	4,390	1,550	1,160	1,770	3,050	626	228	626	10,700	470
20	880	3,500	2,760	1,450	481	1,360	*3,260	612	223	758	3,250	*1,030
21	960	8,250	2,050	1,400	1,050	1,480	2,980	329	850	739	1,460	634
22	971	4,660	1,900	1,300	1,270	1,680	2,900	230	1,140	764	1,230	794
23	566	3,010	1,940	1,350	1,700	2,130	2,600	318	931	271	1,260	662
24	334	2,650	1,950	1,300	1,860	1,710	4,360	469	801	186	1,440	1,160
25	597	2,650	1,780	1,300	1,520	1,700	5,030	*970	600	206	1,060	562
26	954	2,230	1,580	1,300	1,500	1,510	6,050	975	177	712	1,150	546
27	921	2,020	1,750	1,150	1,340	1,320	5,300	536	239	597	720	730
28	*1,100	1,800	1,660	1,200	1,670	1,170	4,000	499	202	634	428	958
29	1,030	2,530	2,430	1,200	-	1,620	3,410	336	199	730	691	955
30	1,230	2,480	2,380	680	--------	1,970	2,400	959	*256	335	992	1,130
31	889	--------	1,930	1,000	--------	2,330	--------	614	--------	65	1,070	--------
Total	24,125	80,050	65,760	44,650	36,879	63,320	109,640	27,179	17,149	9,975	47,184	20,249
Mean	778	2,668	2,121	1,440	1,317	2,043	3,655	877	572	322	1,522	675
(†)	-99.9	+144	-91.7	-707	-455	-48.2	+1,326	+37.3	-149	-178	+38.6	-314

Adjusted for change in reservoir contents

Mean	678	2,813	2,030	733	862	1,994	4,980	914	423	144	1,561	360
Cfsm	1.22	5.04	3.64	1.31	1.54	3.57	8.92	1.64	0.758	0.258	2.80	0.645
In.	1.40	5.62	4.19	1.51	1.61	4.12	9.96	1.89	0.85	0.30	3.22	0.72

	Observed	Adjusted
Calendar year 1954:	Max 10,800 Min 68 Mean 1,406	Mean 1,451 Cfsm 2.60 In. 35.29
Water year 1954-55:	Max 10,800 Min 65 Mean 1,496	Mean 1,455 Cfsm 2.61 In. 35.39

* 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 Jan. 13 to Feb. 11, Feb. 23, Mar. 1.

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 1955. 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.--51 years, 13,800 cfs (adjusted for storage since October 1923).

Extremes.--Maximum discharge during year, 81,400 cfs Apr. 16 (gage height, 28.28 ft); minimum daily, 393 cfs July 31.

1904-55: Maximum discharge, 236,000 cfs Mar. 19, 1936 (gage height, 49.3 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 since 1940, Comerford Station Pond since 1930 (see p. 232), and other reservoirs (combined usable capacity, about 27½ 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.9	345	5.0	1,170	9.0	7,110	24.0	61,300
4.2	525	6.0	2,260	13.0	17,800	28.0	80,000
4.5	735	7.0	3,620	18.0	35,700		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,960	10,000	23,700	18,500	6,500	17,000	21,600	34,200	13,800	7,450	2,780	7,340
2	10,200	10,700	*21,600	19,000	6,500	27,200	32,100	29,100	24,600	4,330	3,420	7,730
3	8,290	28,900	18,400	17,300	6,000	25,300	38,500	26,900	27,200	2,230	2,000	4,230
4	9,280	43,500	18,100	15,600	6,000	19,300	32,200	22,500	20,000	4,200	1,990	924
5	15,100	30,400	8,800	15,600	3,300	17,500	33,700	24,400	15,800	5,930	1,940	548
6	18,500	23,900	10,500	14,900	4,000	14,000	40,300	23,800	15,000	5,100	*601	5,730
7	18,300	19,800	12,000	14,700	11,500	12,900	46,100	23,800	11,800	6,000	581	6,980
8	15,200	18,200	10,600	12,500	8,000	11,200	53,700	23,000	9,760	4,690	1,010	4,780
9	13,700	12,900	12,100	8,280	7,500	11,600	49,000	21,000	8,150	1,610	2,460	4,920
10	11,000	13,800	14,300	9,430	*7,500	11,200	42,700	20,900	7,200	790	2,980	1,080
11	10,300	13,000	15,900	11,000	9,500	16,500	55,200	22,100	2,160	4,900	6,000	626
12	10,100	11,900	10,900	11,000	10,000	32,100	64,900	21,000	3,620	3,950	9,720	4,050
13	9,920	13,200	10,500	10,000	8,500	36,300	60,900	17,800	11,100	3,770	16,800	4,520
14	10,500	3,130	12,000	10,500	9,500	31,600	54,600	15,500	16,300	3,740	39,400	3,700
15	13,400	9,800	21,500	9,500	9,300	27,500	59,300	12,700	15,900	3,670	33,300	3,440
16	17,800	12,400	21,000	7,000	9,300	*29,900	78,300	11,000	14,500	477	18,800	2,880
17	12,600	12,000	19,300	9,000	9,000	33,800	79,200	9,990	14,500	810	17,600	926
18	11,000	10,800	23,200	10,500	9,000	29,700	71,800	10,500	14,100	4,390	20,100	687
19	10,100	10,600	34,300	9,000	7,500	24,800	67,500	10,200	4,950	4,230	33,400	5,320
20	10,400	13,700	30,700	8,800	4,250	20,400	*66,200	9,040	7,190	3,470	26,000	*4,700
21	10,200	33,600	23,600	9,000	8,500	18,700	64,800	7,880	7,100	4,130	13,500	3,780
22	9,620	41,400	17,500	7,500	9,500	18,000	*59,200	3,130	10,800	4,170	10,800	3,080
23	6,510	37,800	18,500	4,500	9,000	18,300	50,600	7,870	11,400	*323	9,610	3,420
24	4,180	32,300	18,200	9,000	11,000	16,900	44,500	8,730	11,700	*474	10,800	4,680
25	5,770	27,300	15,000	8,500	15,000	16,100	44,800	*9,050	10,300	3,080	11,500	1,650
26	7,640	21,400	13,400	7,500	15,500	14,800	54,500	10,800	7,030	3,400	10,400	4,220
27	*7,800	18,600	10,700	7,000	14,500	13,400	55,600	12,200	8,430	3,170	5,920	4,190
28	9,740	18,100	15,300	7,500	15,000	11,100	49,100	12,200	8,570	4,320	3,640	5,130
29	10,500	18,400	17,600	4,500	-	12,700	43,900	4,970	7,320	4,720	7,300	4,840
30	13,600	20,100	20,200	3,000	--------	12,700	39,000	10,400	6,520	838	7,340	5,510
31	6,780	--------	19,700	8,500	--------	14,000	--------	12,600	--------	a393	7,540	--------
Total	335,990	591,630	539,100	318,610	250,650	616,500	‡1,5538	489,260	346,800	105,255	339,232	115,611
Mean	10,840	19,720	17,390	10,280	8,952	19,890	51,790	15,780	11,560	3,395	10,940	3,854
(†)	-136	+231	-948	-1,859	-1,047	-466	+3,312	+843	+233	-378	+65.0	-966
Adjusted for change in reservoir contents												
Mean	10,700	19,950	16,440	8,419	7,904	19,420	55,100	16,630	11,790	3,018	11,010	2,888
Cfsm	1.36	2.54	2.09	1.07	1.00	2.47	7.01	2.11	1.50	0.384	1.40	0.367
In.	1.57	2.83	2.41	1.23	1.05	2.85	7.82	2.44	1.67	0.44	1.61	0.41

	Observed			Adjusted			
Calendar year 1954:	Max 73,000	Min 1,000	Mean 17,860	Mean 17,940	Cfsm 2.28	In. 30.96	
Water year 1954-55:	Max 79,200	Min 393	Mean 15,350	Mean 15,260	Cfsm 1.94	In. 26.33	

Peak discharge (base, 61,000 cfs).--Apr. 16 (11 to 12 p.m.) 81,400 cfs (28.28 ft).

* Discharge measurement made on this day.

† Change in contents in all reservoirs from First Connecticut and Second Connecticut Lakes to 2 reservoirs in Deerfield River basin listed on p. 232, and change in contents in Moore Reservoir on Connecticut River, equivalent in cubic feet per second. ‡ Expressed in thousands.

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. 5-7, 22, 23, Jan. 11 to Mar. 1, Mar. 5.

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 1955. 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.--17 years, 96.8 cfs.

Extremes.--Maximum discharge during year, 6,300 cfs Aug. 19 (gage height, 11.78 ft), from rating curve extended above 3,700 cfs on basis of computation of peak flow over dam; minimum, 6.6 cfs Aug. 9, 10; minimum daily, 6.8 cfs Aug. 9, 10.
1938-55: Maximum discharge, that of Aug. 19, 1955; minimum, 2.2 cfs Oct. 1, 1950; minimum daily, 5.5 cfs Sept. 27-30, 1941, Sept. 10, 1944.

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 tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 19)

Oct. 1 to Aug. 18				Aug. 19 to Sept. 30			
1.4	6.2	2.5	121	1.9	34	4.0	765
1.5	8.8	3.0	259	2.2	74	5.0	1,420
1.7	17	3.5	453	2.5	136	7.0	3,020
1.9	30	4.0	700	3.0	290	9.0	4,440
2.2	66	4.5	980	3.5	500		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	56	189	146	19	394	*292	246	60	*16	*7.6	87
2	50	46	156	199	18	241	273	200	50	18	7.6	90
3	38	788	135	208	18	121	215	186	*42	21	7.3	98
4	32	316	115	142	18	*86	254	169	36	20	7.3	102
5	29	175	115	105	18	84	333	159	35	19	10	102
6	30	*139	90	110	20	105	365	146	37	26	8.8	107
7	24	121	86	96	90	97	337	135	31	66	8.1	105
8	30	110	90	80	65	65	212	a120	30	28	7.8	90
9	23	102	91	80	45	67	169	a105	31	21	6.8	90
10	26	84	100	80	37	124	189	*93	28	35	6.8	88
11	30	72	95	71	120	387	197	86	27	28	14	81
12	29	71	84	65	110	313	177	77	46	20	27	98
13	32	66	79	65	52	286	166	71	63	17	469	90
14	26	63	237	50	45	191	172	66	41	15	280	79
15	25	65	774	58	37	146	200	62	31	13	98	74
16	154	59	243	62	35	247	200	58	27	12	49	74
17	66	59	166	55	34	177	165	55	23	14	34	68
18	45	76	624	48	36	119	144	58	20	15	619	54
19	38	80	497	44	39	110	149	47	16	15	*5,870	52
20	34	435	246	38	44	102	149	44	22	12	706	55
21	32	405	185	32	45	108	144	36	23	10	328	68
22	30	237	*140	34	41	188	154	38	27	9.1	261	54
23	28	159	130	37	135	372	162	41	31	8.1	215	43
24	27	154	135	40	141	197	135	41	30	8.8	173	128
25	26	218	110	*36	78	197	694	104	37	8.8	134	124
26	26	191	90	33	66	183	707	184	31	8.8	109	55
27	30	169	100	31	70	169	548	84	28	8.8	96	*42
28	36	156	102	28	141	130	300	60	25	9.1	85	83
29	59	338	128	25	-	126	416	55	22	*8.8	79	68
30	113	269	202	22	------	179	315	106	16	8.4	74	48
31	82	-----	200	19	-------	226	-------	68	-------	8.1	76	---
Total	1,299	5,259	5,734	2,139	1,617	5,537	7,932	3,000	966	528.8	7,874.1	2,397
Mean	41.9	175	185	69.0	57.8	179	264	96.8	32.2	17.1	254	79.9
Cfsm	0.794	3.31	3.50	1.31	1.09	3.39	5.00	1.83	0.610	0.324	4.81	1.51
In.	0.91	3.70	4.04	1.51	1.14	3.90	5.59	2.11	0.68	0.37	5.55	1.69

Calendar year 1954: Max 918 Min 8.8 Mean 109 Cfsm 2.06 In. 28.03
Water year 1954-55: Max 3,870 Min 6.8 Mean 121 Cfsm 2.29 In. 31.19

Peak discharge (base, 1,250 cfs).--Dec. 15 (12:30 to 1 a.m.) 1,720 cfs (5.66 ft); Dec. 18 (5 p.m.) 1,640 cfs (5.54 ft); Apr. 25 (8:30 to 9 p.m.) 1,800 cfs (5.80 ft); Aug. 19 (7 a.m.) 6,300 cfs (11.78 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for West Branch Westfield River at Huntington.

Note.--Stage-discharge relation affected by ice Dec. 6-8, 21-26, Jan. 5-9, Jan. 11 to Feb. 23, Feb. 25, 26, Mar. 5-9.

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 1955.

Gage.--Water-stage recorder. Altitude of gage is 745 ft (from topographic map).

Average discharge.--9 years, 94.7 cfs.

Extremes.--Maximum discharge during year, 1,120 cfs Aug. 20 (gage height, 5.53 ft); minimum, 3.6 cfs Aug. 6, 7, 10, 11.
1946-55: Maximum discharge, 1,450 cfs Mar. 23, 1948 (gage height, 5.93 ft), from rating curve extended above 960 cfs by logarithmic plotting; minimum, 1.1 cfs Sept. 6, 1953.

Remarks.--Records excellent except those for periods of ice effect, which are good. Some regulation by Long Pond and other small reservoirs.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.91	3.6	3.5	145
2.0	4.9	4.0	286
2.2	9.8	4.5	485
2.4	19	5.0	755
2.7	40	5.5	1,100
3.1	80		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	63	89	236	212	25	115	131	233	54	30	4.6	70
2	63	78	198	195	24	161	139	192	51	27	4.4	*62
3	72	171	161	207	23	135	141	161	46	36	4.1	54
4	75	353	133	195	23	100	143	137	39	35	3.8	48
5	69	346	122	163	24	97	156	122	42	23	3.8	43
6	63	270	105	154	25	99	161	*118	38	30	3.6	40
7	58	207	100	131	110	115	179	115	35	48	3.8	36
8	*54	163	95	130	120	102	179	106	34	51	5.1	32
9	51	*137	96	120	100	90	150	100	32	39	4.4	29
10	51	116	115	105	70	89	129	93	29	31	3.7	27
11	54	102	116	90	80	137	120	85	27	25	3.6	27
12	54	96	105	85	155	254	115	79	38	21	6.0	28
13	52	86	98	80	130	239	108	74	56	16	44	26
14	48	81	98	73	80	192	106	80	55	*13	129	23
15	44	79	248	68	65	152	111	79	46	11	105	22
16	74	80	327	63	54	150	120	72	37	13	67	21
17	98	102	280	59	57	176	118	67	32	25	46	20
18	89	100	239	54	60	150	108	61	27	24	78	19
19	73	92	320	52	60	120	104	56	23	19	*515	18
20	60	136	324	48	62	104	105	51	25	14	1,070	18
21	52	236	254	45	65	98	100	48	27	11	716	17
22	47	276	210	43	65	99	100	45	64	9.0	431	16
23	42	239	233	40	*105	143	110	40	*83	7.8	515	15
24	38	192	201	*41	180	156	110	35	80	7.3	427	28
25	36	179	175	38	139	163	154	35	105	7.3	313	66
26	35	176	150	38	102	163	236	48	96	7.0	195	60
27	36	161	137	38	89	152	313	52	74	6.1	143	42
28	41	152	129	35	99	*128	310	48	57	5.9	129	39
29	46	182	171	30	-	112	280	43	48	5.9	111	43
30	72	242	218	28	-------	111	270	46	38	5.1	92	36
31	92	-------	239	26	-------	122	-------	46	-------	4.7	76	-------
Total	1,808	4,919	5,633	2,686	2,191	4,224	4,606	2,567	1,438	613.1	5,252.9	1,025
Mean	58.3	164	182	86.6	78.2	136	154	82.8	47.9	19.8	169	34.2
Cfsm	1.06	2.98	3.31	1.57	1.42	2.47	2.80	1.51	0.871	0.360	3.07	0.622
In.	1.22	3.33	3.81	1.82	1.48	2.86	3.11	1.74	0.97	0.41	3.55	0.69

Calendar year 1954 : Max 770 Min 5.3 Mean 117 Cfsm 2.13 In. 28.75
Water year 1954-55 : Max 1,070 Min 3.6 Mean 101 Cfsm 1.84 In. 24.99

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 6-8, 25, 26, Jan. 8 to Feb. 16, Feb. 19, 20, 23, 24, Mar. 5, 9.

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 1955.

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.--27 years, 166 cfs.

Extremes.--Maximum daily discharge during year, 1,750 cfs Aug. 20; minimum daily, 9.9 cfs Aug. 6.
1928-55: 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. Diversion Aug. 18-25, 1955, for flood-control purposes.

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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	163	380	373	47	266	240	399	120	45	13	147
2	122	150	311	367	48	323	252	326	104	50	15	145
3	130	479	241	375	46	246	255	267	96	64	11	124
4	131	668	224	326	46	172	259	233	83	55	11	97
5	130	592	202	266	45	179	268	215	82	44	11	88
6	117	441	169	264	62	191	285	207	74	66	9.9	95
7	113	329	202	205	217	187	315	195	69	98	11	74
8	104	266	204	206	200	168	290	184	64	84	12	92
9	96	224	202	193	150	154	244	175	60	67	12	61
10	95	191	173	171	136	174	221	195	53	54	11	57
11	109	171	178	170	192	354	211	221	50	47	10	56
12	106	159	169	147	276	483	205	172	85	39	17	59
13	106	147	164	141	197	408	197	151	103	32	56	55
14	92	140	228	132	140	328	191	168	93	28	309	49
15	91	133	488	128	129	267	204	154	78	25	222	47
16	186	132	532	123	117	302	211	140	61	35	136	45
17	197	148	416	145	114	306	204	129	52	53	88	43
18	180	150	454	106	116	253	188	117	43	44	394	41
19	136	158	613	106	117	209	183	110	39	36	1,630	36
20	113	350	546	95	120	184	185	99	41	29	1,750	37
21	98	480	364	69	124	165	177	91	66	25	1,170	38
22	38	488	343	94	124	203	178	83	125	22	773	35
23	50	403	330	77	237	272	200	78	132	19	795	34
24	51	335	341	64	317	265	195	70	149	18	662	70
25	78	316	259	79	225	273	343	79	178	18	458	147
26	87	295	224	74	168	271	486	100	153	18	316	150
27	82	272	229	70	159	238	663	93	114	17	256	85
28	63	268	235	37	185	209	588	81	87	17	226	90
29	98	369	347	60	-	195	531	77	70	16	197	93
30	131	418	429	53	-------	201	479	90	59	15	169	80
31	173	-------	433	50	-------	222	-------	91	-------	13	154	----- --
Total	3,423	8,835	9,630	4,766	4,054	7,668	8,449	4,790	2,583	1,193	9,902.9	2,270
Mean	110	294	311	154	145	247	282	155	86.1	38.5	319	75.7
Cfsm	1.14	3.04	3.21	1.59	1.50	2.55	2.91	1.60	0.889	0.398	3.30	0.782
In.	1.32	3.39	3.70	1.83	1.56	2.95	3.25	1.84	0.99	0.46	3.80	0.87

Calendar year 1954: Max 1,210 Min 12 Mean 208 Cfsm 2.15 In. 29.22
Water year 1954-55: Max 1,750 Min 9.9 Mean 185 Cfsm 1.91 In. 25.96

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 1955.
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.--43 years, 322 cfs (adjusted for diversion).
Extremes.--Maximum discharge during year, 12,200 cfs Aug. 19 (gage height, 12.83 ft), from rating curve extended above 4,600 cfs on basis of contracted-opening determination at 12.83 ft and slope-area determination at 18.2 ft; minimum, 20 cfs Aug. 3, 5, 11; minimum daily, 21 cfs July 31, Aug. 4-6.
1912-55: Maximum discharge, 22,700 cfs Sept. 21, 1938 (gage height, 18.2 ft, from floodmarks), from rating curve extended above 4,600 cfs as described above; 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 or no gage-height record, 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from aquatic vegetation Aug. 6-17)

Oct. 1 to Aug. 19

1.6	16	3.5	750
1.7	24	4.0	1,140
1.8	34	5.0	2,030
2.0	65	7.0	3,970
2.2	110	9.0	6,370
2.5	215	11.0	9,210
3.0	450		

Aug. 20 to Sept. 30

2.0	45	3.0	400
2.1	59	3.5	745
2.3	99	4.0	1,140
2.6	196		

Note.--Same as preceding table above 4.0 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*231	377	784	771	111	464	a520	792	240	169	78	398
2	155	309	677	730	105	712	a530	692	178	80	57	283
3	219	784	555	820	110	571	a540	580	188	76	22	239
4	268	1,430	410	720	115	420	a540	509	165	140	21	200
5	248	1,160	428	588	54	309	a550	460	168	*186	21	231
6	227	918	424	564	91	355	*a570	481	*199	99	21	356
7	268	704	330	534	691	423	638	407	183	215	28	240
8	209	*595	325	400	538	360	607	412	175	207	75	216
9	82	490	320	385	370	328	483	*442	161	164	27	207
10	164	423	385	427	282	370	466	387	131	122	61	59
11	263	380	369	310	385	664	468	379	99	230	31	124
12	206	358	355	300	560	978	419	369	119	80	87	291
13	179	272	389	293	470	880	406	352	241	103	166	131
14	193	296	367	265	370	724	408	198	221	55	565	130
15	167	370	921	140	263	567	415	264	238	66	553	148
16	224	289	970	225	225	557	399	332	170	48	370	150
17	350	289	820	305	246	668	412	288	138	48	199	58
18	368	307	788	*230	256	556	434	238	128	163	1,550	56
19	300	325	*1,290	200	209	428	395	210	65	97	*8,880	212
20	251	584	1,160	185	243	375	391	215	171	50	*5,060	122
21	209	1,060	910	175	299	410	377	104	113	77	1,930	117
22	183	1,030	637	105	256	400	381	135	301	*80	1,000	105
23	100	828	612	148	402	697	348	280	341	26	1,260	122
24	71	692	622	216	690	679	395	148	290	24	1,160	78
25	234	661	570	152	522	651	652	159	244	86	812	268
26	127	643	460	155	371	586	872	234	295	57	842	378
27	166	559	488	145	304	571	1,240	250	344	33	685	269
28	176	541	447	150	*374	504	1,130	108	237	56	625	231
29	223	737	642	88	-	426	1,060	137	214	47	553	*248
30	201	872	828	75	-------	a430	932	175	120	24	436	217
31	322	-------	895	197	-------	a490	-------	298	-------	21	407	-------
Total	6,584	18,283	19,178	9,998	8,812	16,553	16,978	10,015	5,877	2,909	27,582	5,886
Mean	212	609	619	323	315	534	566	323	196	93.8	890	196
(†)	0	0	0	0	0	0	0	0	0	0	144	0

Adjusted for diversion

Mean	212	609	619	323	315	534	566	323	196	93.8	1,034	196
Cfsm	1.07	3.06	3.11	1.62	1.58	2.68	2.84	1.62	0.985	0.471	5.20	0.985
In.	1.23	3.42	3.58	1.87	1.65	3.09	3.17	1.87	1.10	0.54	5.99	1.10

	Observed					Adjusted				
Calendar year 1954:	Max	2,100	Min	18	Mean	354	Mean	401	Cfsm	2.02	In.	27.35
Water year 1954-55:	Max	8,880	Min	21	Mean	407	Mean	419	Cfsm	2.11	In.	28.61

Peak discharge (base, 1,300 cfs).--Nov. 4 (8 to 9 a.m.) 1,620 cfs (4.56 ft); Dec. 19 (12 m. to 1 p.m.) 1,340 cfs (4.23 ft); Apr. 27 (3 to 7 p.m.) 1,330 cfs (4.22 ft); Aug. 19 (10 a.m.) 12,200 cfs (12.83 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.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, and records for Ware River at Cold Brook and East Branch Swift River near Hardwick.
Note.--Stage-discharge relation affected by ice Dec. 7-9, 25, 26, Jan. 8, 9, 11, 12, 14-21, 27-30, Feb. 2-5, 12-14, 16, Mar. 8.

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 1955. 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.--8 years, 6.37 cfs.

Extremes.--Maximum discharge during year, 275 cfs Aug. 19 (gage height, 3.13 ft), from rating curve extended above 78 cfs by logarithmic plotting; minimum, 0.004 cfs Aug. 3, 9, 10.
1947-55: Maximum discharge, that of Aug. 19, 1955; minimum, that of Aug. 3, 9, 10, 1955.

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

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 23		Feb. 24 to Sept. 30			
0.8	1.08	0.32	0.01	1.2	4.6
1.0	2.5	.4	.03	1.4	9.0
1.2	4.7	.5	.12	1.6	17.1
1.4	9.0	.6	.30	1.8	29
1.6	17.1	.7	.58	2.0	45
1.8	29	.8	1.02	2.4	93
2.0	45	1.0	2.35	2.8	174

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	3.5	*10.0	7.8	1.4	25	13.7	13.4	5.9	0.45	0.01	3.5
2	3.9	3.1	8.5	10.7	1.3	12.4	12.6	11.4	3.6	.65	.01	2.9
3	3.4	31	7.8	9.7	1.2	7.8	10.8	10.4	2.8	1.12	.01	2.45
4	2.35	12.4	7.0	*8.0	1.2	7.6	11.4	9.4	3.0	.44	*.01	2.2
5	1.85	8.0	6.5	6.8	1.2	7.5	10.4	8.8	3.0	.32	.01	2.8
6	1.95	6.5	5.4	7.2	1.7	10.4	12.8	8.0	2.0	.95	.01	2.8
7	1.7	5.8	5.2	6.3	9.5	6.8	12.4	7.8	1.9	.97	.01	1.9
8	1.6	5.6	5.1	5.3	*4.0	5.4	9.0	7.8	2.0	.46	.01	1.5
9	1.6	5.1	5.8	4.9	3.7	5.4	8.0	7.0	*1.9	.25	.01	1.35
10	2.0	4.7	7.0	4.8	3.5	12.7	8.2	6.5	1.5	.21	.01	1.35
11	2.25	4.5	6.1	4.0	19	28	8.8	5.7	1.5	.16	.10	8.2
12	1.8	4.5	5.6	4.0	12	14.6	7.8	5.4	7.4	.10	4.8	4.9
13	1.6	4.1	5.1	3.9	5.2	14.2	7.5	5.3	4.3	.08	45	2.35
14	1.45	4.1	9.3	3.4	3.7	*9.0	7.8	6.8	*2.5	.08	13.7	*2.0
15	1.5	3.9	17.3	3.4	3.6	8.5	8.8	5.0	1.75	.06	3.2	1.9
16	13.1	3.7	9.0	3.5	3.3	16.6	8.8	4.2	1.45	1.8	1.75	1.6
17	3.8	3.7	7.2	3.3	3.4	10.4	7.5	4.2	1.65	.92	1.18	1.5
18	2.9	4.3	28	2.8	3.4	7.8	*6.8	3.8	1.02	.27	31	1.4
19	2.5	4.1	19.1	2.7	3.5	6.8	7.8	3.2	.70	.13	163	1.35
20	2.4	30	11.4	2.5	4.4	6.1	7.2	3.0	.74	.07	35	1.5
21	2.25	24	9.4	2.2	4.4	5.9	6.5	2.8	1.4	.04	17.4	1.18
22	2.1	14.0	8.8	2.2	3.9	8.9	7.2	2.45	2.6	.02	12.6	.92
23	1.95	10.0	9.0	2.3	27	12.0	8.6	*2.3	1.45	.02	12.7	.92
24	1.85	9.0	7.8	2.4	11	9.3	7.1	2.35	4.6	.07	8.8	13.5
25	1.7	10.0	6.5	2.3	6.1	10.4	38	6.8	3.4	.06	6.8	5.3
26	*1.7	8.8	6.5	2.2	5.4	10.5	35	6.2	1.65	.04	5.7	2.7
27	2.45	8.0	6.1	2.1	9.2	8.7	33	3.5	1.18	.02	6.4	2.05
28	2.35	8.2	6.5	1.7	14	6.8	19.3	2.8	1.24	.06	4.7	8.0
29	7.2	21	8.0	1.6	-	7.0	24	3.1	.84	.07	3.7	3.6
30	6.4	13.1	13.8	1.5	-------	13.3	17.2	6.4	.58	.02	3.7	3.0
31	4.8	-------	10.1	1.4	-------	13.9	-------	6.5	-------	.01	4.4	-------
Total	90.20	278.7	278.9	126.9	171.2	329.7	383.4	182.30	69.55	9.92	395.73	90.62
Mean	2.91	9.29	9.00	4.09	6.11	10.6	12.8	5.88	2.32	0.320	12.4	3.02
Cfsm	0.858	2.74	2.65	1.21	1.80	3.13	3.78	1.73	0.684	0.094	3.66	0.891
In.	0.99	3.06	3.06	1.39	1.88	3.62	4.21	2.00	0.76	0.11	4.23	0.99

Calendar year 1954: Max 43 Min 0.12 Mean 6.27 Cfsm 1.85 In. 25.13
Water year 1954-55: Max 163 Min 0.01 Mean 6.57 Cfsm 1.94 In. 26.30

Peak discharge (base, 72 cfs).--Apr. 25 (6:30 to 7 p.m.) 87 cfs (2.36 ft); Aug. 13 (6:30 p.m.) 148 cfs (2.69 ft); Aug. 19 (1:30 a.m.) 275 cfs (3.13 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4, 6-8, 22, 23, 26, Jan. 5, 7-14, Jan. 17 to Feb. 8, Feb. 11, 12, 23, 24, 28, Mar. 1, 8, 9, 18-20, 28, 29.

East Branch Swift River near Hardwick, Mass.

Location.--Lat 42°23'36", long 72°14'21", on left bank 1.00 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 1955. 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.--18 years, 70.7 cfs.

Extremes.--Maximum discharge during year, 1,650 cfs Aug. 19 (gage height, 21.865 ft), from rating curve extended above 500 cfs on basis of computation of flow over dam at gage height 22.49 ft; minimum, 0.1 cfs Aug. 7.
1937-55: 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 Aug. 7, 14-21, 1939, Aug. 26-28, 1949, Aug. 31 to Sept. 6, Sept. 9-12, 1953.

Remarks.--Records good.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

19.1	0	19.5	36
19.15	.4	19.6	67
19.2	1.6	20.0	239
19.25	3.8	20.5	540
19.3	7.2	21.0	900
19.35	12	21.5	1,320
19.4	18		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	80	170	161	25	130	136	186	56	19	1.6	44
2	34	67	134	150	24	210	146	148	65	23	1.4	38
3	54	188	109	168	23	168	150	123	56	34	.8	33
4	56	350	90	153	23	126	140	107	40	28	.6	29
5	50	239	84	126	22	97	134	99	38	23	.6	28
6	42	159	76	119	25	99	140	88	32	23	.5	30
7	35	121	69	115	132	101	159	78	28	31	.4	26
8	31	99	67	101	138	90	148	73	25	33	.6	22
9	31	88	69	86	86	82	123	71	23	26	.4	19
10	34	75	84	80	64	80	107	67	20	20	.2	16
11	38	69	84	71	75	138	103	62	20	16	.3	18
12	39	71	76	64	200	288	99	57	51	11	2.4	21
13	40	64	69	61	150	244	96	54	92	9.8	32	20
14	38	62	75	54	90	190	96	57	78	8.0	138	19
15	35	61	172	50	67	148	105	54	57	6.8	132	18
16	74	56	183	48	54	148	115	51	42	9.9	75	17
17	96	57	140	48	57	177	109	45	34	18	39	15
18	84	64	147	46	54	150	101	39	26	16	74	15
19	67	62	327	48	53	117	99	36	20	13	1,100	15
20	56	131	266	50	54	101	99	34	21	9.8	956	16
21	46	250	188	39	57	94	96	32	25	7.6	394	13
22	39	234	144	36	59	107	97	28	48	6.0	210	12
23	34	170	119	36	116	146	105	25	50	5.3	164	11
24	34	134	117	36	219	140	107	28	46	5.0	144	25
25	33	128	109	36	159	136	150	30	57	4.1	113	56
26	33	119	94	35	113	144	261	46	54	4.4	84	51
27	34	107	90	34	92	138	392	46	39	3.8	71	39
28	36	107	90	32	97	117	304	38	33	3.8	65	45
29	47	159	126	30	-	101	255	34	30	3.0	54	48
30	75	210	179	27	------	103	224	42	24	2.1	46	44
31	86	---	190	25	-------	121	--------	45	-------	1.7	46	-----
Total	1,463	3,781	3,937	2,165	2,328	4,231	4,396	1,926	1,230	425.1	3,946.8	803
Mean	47.2	126	127	69.8	83.1	136	147	62.1	41.0	13.7	127	26.8
Cfsm	1.08	2.88	2.91	1.60	1.90	3.11	3.36	1.42	0.938	0.314	2.91	0.613
In.	1.25	3.22	3.35	1.84	1.98	3.60	3.74	1.64	1.05	0.36	3.36	0.68

Calendar year 1954: Max 587 Min 2.8 Mean 81.2 Cfsm 1.86 In. 25.21
Water year 1954-55: Max 1,100 Min 0.2 Mean 83.9 Cfsm 1.92 In. 26.07

Peak discharge (base, 350 cfs).--Nov. 4 (5:30 to 6:30 a.m.) 374 cfs (20.245 ft); Apr. 27 (1 to 2:30 p.m.) 410 cfs (20.30 ft); Aug. 19 (5 to 6:30 p.m.) 1,650 cfs (21.865 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 1955.

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.--43 years (1912-55), 306 cfs (adjusted for storage and diversions).

Extremes.--Maximum discharge during year, 903 cfs Aug. 19 (gage height, 5.68 ft); minimum daily, 34 cfs Nov. 11, Jan. 1, Feb. 22, Apr. 19.
1910-55: 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 excellent except those for period of no gage-height record, which are good. Flow regulated since August 1939 by Quabbin Reservoir (see p. 232). Diversion from Ware River to Quabbin Reservoir since 1940 and from Quabbin Reservoir to Wachusett Reservoir since 1941 and to Chicopee Valley Aquaduct 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.9	28	3.0	183
2.0	36	4.0	399
2.2	56	5.0	670
2.5	98		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	111	101	34	100	107	*106	48	104	*104	145	108
2	58	102	105	45	100	106	61	112	102	99	128	109
3	44	110	103	111	102	103	48	104	*106	130	127	63
4	110	105	57	103	102	*106	118	106	58	133	128	48
5	102	103	42	103	56	60	106	105	44	137	127	47
6	102	58	105	104	44	47	107	105	110	105	106	117
7	102	44	102	104	115	114	106	59	101	105	127	107
8	102	112	104	59	100	104	106	47	102	104	147	105
9	58	101	104	45	100	105	60	111	102	59	127	106
10	44	*102	104	113	100	108	47	104	103	46	128	62
11	112	34	57	101	106	109	114	104	58	113	130	47
12	36	110	43	102	60	62	104	104	48	102	116	116
13	125	58	111	103	43	47	103	104	98	104	79	106
14	123	46	106	104	109	114	104	60	86	103	48	105
15	115	110	107	57	103	104	103	46	88	104	113	106
16	58	102	106	45	102	108	59	112	87	98	103	106
17	45	89	104	112	103	106	46	104	88	*125	a103	61
18	110	85	64	103	102	106	112	103	53	137	a175	46
19	102	85	*47	103	59	62	34	105	44	103	a630	116
20	102	57	111	102	44	46	113	104	108	104	a180	106
21	102	47	102	100	110	114	102	59	103	113	a70	107
22	112	96	102	*55	34	114	103	44	104	117	a120	107
23	101	87	102	43	117	110	57	110	103	94	a115	107
24	124	87	105	111	104	108	46	102	105	124	a110	65
25	138	38	35	101	103	107	118	105	59	137	a110	49
26	116	98	44	97	57	64	106	104	45	104	a80	*116
27	115	52	111	103	44	49	107	103	110	102	a68	105
28	103	47	102	103	109	116	105	59	103	103	50	107
29	104	99	104	56	-	107	109	45	103	114	114	104
30	59	88	106	41	--------	107	60	45	100	102	109	105
31	45	--------	104	110	--------	108	--------	111	--------	127	110	--------
Total	2,871	2,463	2,800	2,673	2,428	2,928	2,670	2,734	2,625	3,352	4,023	2,759
Mean	92.6	82.1	90.3	86.2	86.7	94.5	89.0	88.2	87.5	108	130	92.0
(†)	+3.59	+417	+333	+89.7	+310	+513	+561	+191	+133	-125	+874	-14.0

Adjusted for diversion and change in reservoir contents

Mean	96.2	499	423	176	397	607	650	279	220	‡-17.2	1,003	78.0
Cfsm	0.512	2.65	2.25	0.936	2.11	3.23	3.46	1.48	1.17	‡-0.091	5.34	0.415
In.	0.59	2.96	2.60	1.08	2.20	3.72	3.86	1.71	1.31	‡-0.11	6.15	0.46

	Observed			Adjusted			
Calendar year 1954:	Max 143	Min 33	Mean 91.0	Mean 328	Cfsm 1.74	In. 23.74	
Water year 1954-55:	Max 630	Min 34	Mean 94.0	Mean 368	Cfsm 1.96	In. 26.53	

* 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, typical regulation pattern, and records for Hop Brook near New Salem.

Quaboag River at West Brimfield, Mass.

Location.--Lat 42°10'31", long 72°15'46", on left bank 15 ft upstream from site of former highway bridge at West Brimfield, Hampden County, 0.4 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 1955.

Gage.--Water-stage recorder. Concrete control since June 15, 1937. Datum of gage is 377.36 ft above mean sea level, datum of 1929. Prior to Aug. 19, 1912, staff gage on right bank at upstream side of former highway bridge, and Aug. 19, 1912, to May 30, 1923, water-stage recorder at downstream end of bridge pier at same datum.

Average discharge.--43 years (1912-55), 243 cfs.

Extremes.--Maximum discharge during year, 12,800 cfs Aug. 19 (gage height, 14.79 ft, from floodmark), from rating curve extended above 2,700 cfs on basis of slope-area determinations at gage heights 11.8 and 14.79 ft; minimum daily, 32 cfs Aug. 6. 1909-55: Maximum discharge, that of Aug. 19, 1955; minimum daily, 7.8 cfs Oct. 11, 19, 1930.

Remarks.--Records excellent 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; regulation much greater prior to 1938.

Revisions (water years).--WSP 451: 1916. WSP 711: Drainage area. WSP 1301: 1918(M).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.5	24	4.0	585
2.7	55	5.0	1,280
3.0	125	8.0	4,030
3.5	321	12.0	8,730

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	321	227	530	627	115	352	456	580	140	86	41	794
2	298	223	520	645	105	372	429	541	125	91	38	697
3	298	508	450	645	102	367	429	498	120	98	38	609
4	288	580	400	633	105	388	*456	456	112	86	35	546
5	265	585	360	591	110	362	445	445	109	*82	35	482
6	252	585	350	585	115	362	445	466	*103	89	32	456
7	223	568	330	514	300	346	445	424	96	120	42	408
8	215	*541	325	325	300	300	403	408	93	109	65	357
9	204	509	320	470	290	331	403	*372	93	96	48	321
10	196	470	330	460	280	372	393	346	89	89	45	288
11	192	400	350	430	270	472	372	321	82	86	*46	261
12	185	350	350	390	310	509	362	298	106	80	84	248
13	174	300	340	355	230	525	346	279	117	75	338	219
14	170	310	330	230	330	514	326	265	109	71	435	204
15	160	310	600	220	280	504	316	244	103	69	352	185
16	244	290	620	210	255	530	302	227	96	97	302	167
17	240	290	620	200	252	477	298	208	91	112	274	160
18	223	300	640	*185	244	509	279	196	84	93	1,220	147
19	215	305	740	180	244	482	270	178	80	77	*7,590	144
20	208	400	820	175	252	461	265	170	82	73	6,370	147
21	192	520	840	170	248	445	252	160	80	69	5,360	140
22	174	550	780	175	235	488	270	153	98	67	4,270	134
23	170	560	730	170	307	591	288	147	98	65	3,640	128
24	156	550	690	170	346	591	279	134	103	63	3,020	180
25	156	540	627	170	326	603	424	131	125	61	*2,500	231
26	153	530	580	160	316	615	472	137	112	55	2,090	219
27	150	520	541	120	302	574	530	134	103	50	1,730	208
28	147	470	514	80	*302	456	541	125	98	46	1,440	223
29	174	500	536	150	-	541	633	107	96	41	1,220	*223
30	223	520	621	130	------	525	621	109	91	46	1,040	215
31	235	-- --	633	115	-------	482	-------	120	-------	45	910	- - -
Total	6,501	13,311	16,417	9,680	6,871	14,446	11,750	8,379	3,034	2,367	44,650	8,741
Mean	210	444	530	312	245	466	392	270	101	77.0	1,440	291
Cfsm	1.39	2.94	3.51	2.07	1.62	3.09	2.60	1.79	0.669	0.510	9.54	1.93
In.	1.60	3.28	4.04	2.38	1.69	3.56	2.89	2.06	0.75	0.59	11.00	2.15

Calendar year 1954: Max 924 Min 41 Mean 311 Cfsm 2.06 In. 27.97
Water year 1954-55: Max 7,590 Min 32 Mean 400 Cfsm 2.65 In. 35.99

Peak discharge (base, 840 cfs).--Dec. 21 (time unknown) 854 cfs (4.42 ft); Aug. 19 (8:30 a.m.) 12,800 cfs (14.79 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Nov. 10 to Dec. 22; discharge estimated on basis of weather records, recorded range in stage, and records for Quinebaug River at Westville and Ware River at Coldbrook. Stage-discharge relation affected by ice Dec. 23, 26, Jan. 8 to Feb. 16, Mar. 8.

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 1955. 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 1¾ miles downstream at different datum.
Average discharge.--27 years, 1,102 cfs (adjusted to present drainage area and for storage and diversions).
Extremes.--Maximum discharge during year, 40,500 cfs Aug. 19 (gage height, 22.14 ft), from rating curve extended above 22,000 cfs on basis of computation of peak flow over dam; minimum daily, 47 cfs Aug. 7.
1928-55: Maximum discharge, 45,200 cfs Sept. 21, 1938, by computation of flow over dam; minimum daily, 16 cfs several times in 1929-31.
Remarks.--Records excellent except those for periods of ice effect or backwater from aquatic vegetation, 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 power-plants above station, by Quabbin Reservoir on Swift River since 1939 (see p. 232), and by smaller reservoirs.
Revisions (water years).--WSP 711: Drainage area. WSP 1231: 1934.

Rating tables, water year 1954-55, except periods of ice effect or backwater from aquatic vegetation (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19				Aug. 20-31		Sept. 1-30	
3.4	39	6.0	1,130	6.5	1,800	4.2	194
3.6	61	8.0	3,050	7.0	2,250	4.5	309
4.0	129	10.0	5,550	9.0	4,580	5.0	570
4.5	266	12.0	9,240	12.0	9,710	5.5	900
5.0	475	16.0	19,900	17.0	23,000	6.0	1,330
5.5	760	20.0	32,900			6.5	1,810

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*988	922	1,840	1,910	530	1,230	1,340	2,040	763	522	368	1,790
2	890	864	1,680	1,840	492	1,740	1,270	1,810	716	125	359	1,560
3	496	1,300	1,500	2,070	b380	*1,560	1,210	1,610	650	163	253	1,380
4	784	2,690	1,270	1,910	b410	1,340	1,590	1,460	317	434	256	1,060
5	870	2,480	1,100	1,710	246	1,050	*1,560	1,340	347	832	256	1,080
6	828	2,060	1,270	1,580	96	1,020	1,500	1,550	799	494	184	1,380
7	658	1,710	1,060	1,640	1,240	1,330	1,620	1,360	627	*288	47	1,290
8	880	1,520	972	1,280	1,530	1,130	1,570	1,170	479	*529	253	970
9	571	1,430	996	1,150	1,060	1,100	1,280	*1,290	522	348	331	924
10	488	1,330	1,070	1,250	955	1,120	1,210	1,190	478	273	*256	732
11	542	1,170	1,040	1,200	906	1,660	1,310	1,110	159	747	246	586
12	662	1,090	894	1,080	1,440	2,000	1,230	1,070	221	564	380	888
13	727	955	1,090	1,050	1,030	2,030	1,140	1,020	843	329	702	941
14	676	904	1,080	1,000	1,090	1,950	1,100	738	689	370	2,580	802
15	592	820	1,940	668	1,020	1,630	1,090	744	664	493	1,890	551
16	634	919	2,220	588	884	1,600	1,070	944	575	130	1,400	796
17	786	900	1,970	854	817	1,800	1,000	871	484	189	980	486
18	900	*910	1,860	808	864	1,600	1,090	824	123	683	3,000	316
19	874	878	2,790	829	663	1,340	984	769	147	559	*30,600	656
20	801	1,130	2,710	710	668	1,220	1,120	709	641	445	*20,800	738
21	728	2,030	*2,370	674	1,090	1,280	976	557	529	376	10,800	473
22	819	2,120	1,990	326	742	1,420	1,010	311	437	312	7,360	514
23	486	1,910	1,650	485	1,050	2,240	1,030	505	557	126	6,450	703
24	381	1,660	1,700	*666	1,600	2,060	938	709	550	207	5,740	215
25	568	1,640	1,610	685	1,450	1,900	1,470	600	371	376	4,330	786
26	638	1,610	1,390	675	990	1,780	2,080	554	527	311	3,610	957
27	501	1,520	1,460	518	958	1,690	2,570	659	814	334	3,050	939
28	626	1,350	1,380	524	1,110	1,610	2,570	362	668	285	2,570	*897
29	702	1,660	1,460	250	-	1,450	2,610	368	612	276	2,340	906
30	665	2,010	1,960	234	--------	1,360	2,500	415	592	93	2,080	816
31	812	--------	2,150	582	--------	1,390	--------	776	--------	191	1,920	--------
Total	21,573	43,492	49,472	30,746	25,311	47,630	43,038	29,435	15,901	11,404	115,291	26,132
Mean	696	1,450	1,596	992	904	1,536	1,435	950	530	368	3,719	871
(†)	+6.25	+420	+336	+92.0	+314	+516	+564	+190	+140	-125	+1,020	-19.0

Adjusted for diversion and change in reservoir contents

Mean	702	1,870	1,931	1,084	1,217	2,052	1,999	1,139	670	243	4,739	852
Cfsm	1.02	2.72	2.81	1.58	1.77	2.98	2.91	1.66	0.974	0.353	6.89	1.24
In.	1.18	3.03	3.24	1.82	1.84	3.44	3.24	1.91	1.09	0.41	7.94	1.38

	Observed			Adjusted			
Calendar year 1954:	Max 3,970	Min 225	Mean 1,032	Mean 1,319	Cfsm 1.92	In. 26.04	
Water year 1954-55:	Max 30,600	Min 47	Mean 1,259	Mean 1,546	Cfsm 2.25	In. 30.52	

* 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 State-discharge relation affected by ice.
Note.--Backwater from aquatic vegetation May 17 to Aug. 13, Aug. 16-18.

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 1955.

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.--46 years, 324 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 4,680 cfs Aug. 28 (gage height, 6.67 ft); minimum, 5.5 cfs Sept. 30; minimum daily, 9.4 cfs Aug. 6, 7.
1909-55: 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. Flow regulated by Knightville Reservoir since 1941 (see p. 232).

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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.7	6.9	3.5	440
1.8	11	4.0	765
2.0	26	4.5	1,220
2.3	59	5.0	1,810
2.6	114	6.0	3,310
3.0	225		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	128	243	620	420	62	462	913	765	167	49	14	161
2	151	203	519	420	62	*1,150	1,210	620	148	44	12	61
3	164	302	405	537	62	1,030	1,240	519	131	81	11	75
4	151	2,340	348	451	64	392	712	468	114	64	10	80
5	131	3,060	339	339	61	239	750	430	106	47	9.9	82
6	121	1,670	216	317	61	288	1,250	400	95	*49	9.4	86
7	128	519	178	313	190	339	1,730	362	*86	54	9.4	86
8	112	440	203	236	326	194	1,380	339	86	46	11	86
9	106	390	280	206	213	181	742	322	86	38	14	86
10	108	343	322	215	161	289	964	*284	84	50	14	86
11	126	313	326	209	173	679	1,460	257	75	54	13	86
12	124	300	304	170	409	1,470	1,350	232	117	34	67	84
13	110	277	284	154	501	1,940	896	212	151	27	393	84
14	101	261	259	124	333	1,250	797	206	124	26	310	125
15	101	250	1,160	104	193	755	1,130	190	104	24	951	193
16	798	232	1,940	110	135	765	1,280	173	84	26	2,000	128
17	404	*225	896	116	116	930	930	167	72	31	1,140	65
18	250	300	715	116	119	445	669	156	61	37	145	58
19	196	339	1,490	116	121	381	648	143	55	28	187	55
20	173	663	*1,570	114	124	304	676	128	56	24	130	54
21	159	1,220	947	110	148	339	641	119	56	21	68	56
22	146	2,630	568	110	168	330	683	112	184	18	383	50
23	133	1,820	400	106	187	473	669	106	105	17	781	45
24	126	658	395	106	585	352	537	119	87	16	1,560	382
25	119	648	395	106	357	385	774	158	119	15	2,080	430
26	114	588	322	101	299	352	892	383	86	*15	1,880	173
27	126	555	304	73	263	288	1,410	199	70	15	1,640	*116
28	161	507	357	62	229	222	1,940	151	64	16	2,230	241
29	174	738	617	64	-	250	2,760	131	64	15	2,920	239
30	366	922	750	64	-------	404	1,870	343	55	16	2,870	157
31	322	-------	669	64	-------	*676	-------	215	-------	-------	1,230	-------
Total	5,629	22,956	18,098	5,753	5,722	17,554	32,903	8,409	2,892	1,013	23,092.7	3,710
Mean	182	765	584	186	204	566	1,097	271	96.4	32.7	745	124
(†)	+0.11	+1.54	+1.08	+1.27	+3.47	-4.14	-0.27	-2.61	-0.12	-0.04	+0.15	0

Adjusted for change in reservoir contents

Mean	182	767	585	187	208	562	1,096	269	96.3	32.6	745	124
Cfsm	1.12	4.73	3.61	1.15	1.28	3.47	6.77	1.66	0.594	0.201	4.60	0.765
In.	1.29	5.28	4.16	1.33	1.34	4.00	7.55	1.91	0.66	0.23	5.30	0.85

	Observed			Adjusted		
Calendar year 1954:	Max 3,060	Min 19	Mean 395	Mean 395	Cfsm 2.44	In. 33.09
Water year 1954-55:	Max 3,060	Min 9.4	Mean 405	Mean 405	Cfsm 2.50	In. 33.90

* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second in Knightville Reservoir.

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 1955.

Gage.--Water-stage recorder and concrete control. Datum of gage is 641.40 ft above mean sea level, datum of 1929.

Average discharge.--10 years, 2.76 cfs.

Extremes.--Maximum discharge during year, 680 cfs Aug. 19 (gage height, 4.485 ft), from rating curve extended above 80 cfs; minimum, 0.04 cfs Aug. 8, 9.
1945-55: Maximum discharge, that of Aug. 19, 1955; minimum, 0.03 cfs Aug. 31, Sept. 1, 1953.

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

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19

1.12	0.06	1.7	3.8
1.2	.14	1.8	6.4
1.3	.29	1.9	10.0
1.4	.52	2.1	22
1.5	1.01	2.3	42
1.6	2.1		

Aug. 19 to Sept. 30

1.9	10.0	2.8	97
2.1	20	3.2	175
2.4	44		

Note.--Same as preceding table below 1.9 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.24	2.1	6.8	3.9	0.49	9.2	6.4	6.8	1.34	0.44	0.08	1.51
2	1.14	2.5	5.5	4.7	.48	5.6	7.6	5.6	1.19	.40	.07	1.39
3	1.14	29	4.6	4.6	.48	4.1	6.2	5.0	.97	.41	.07	1.24
4	1.14	12.1	3.8	3.9	.48	3.4	6.4	4.4	.90	.28	.07	1.09
5	1.09	7.4	3.5	3.4	.49	3.1	10.9	4.0	.83	.25	.07	1.29
6	1.14	5.8	3.1	3.4	.54	3.4	12.9	3.7	.72	*.36	.07	1.81
7	1.09	4.8	2.8	3.0	3.1	3.0	11.2	3.4	*.64	.36	.06	1.34
8	.97	4.2	2.5	2.6	2.7	2.6	7.6	3.2	.64	.28	.06	1.01
9	.93	*3.6	2.6	2.3	2.2	2.7	5.8	3.0	.64	.23	.06	.86
10	.97	3.2	2.8	2.2	1.9	6.3	6.1	*2.8	.60	.21	.06	.78
11	1.01	3.0	2.6	2.0	4.4	14.3	6.4	2.7	.60	.20	.07	1.04
12	.93	2.8	2.3	1.8	3.0	9.2	5.8	2.4	1.28	.17	.52	1.09
13	.86	2.6	2.1	1.69	2.5	8.0	5.1	2.1	1.09	.15	5.8	.80
14	.80	2.4	10.6	1.2	2.4	5.6	5.0	1.99	.80	.14	14.7	.72
15	1.60	2.2	18.1	1.3	2.1	4.7	5.5	1.87	.68	.13	5.1	.68
16	4.0	2.1	7.8	1.6	1.8	6.2	5.2	1.69	.53	.22	2.6	.66
17	2.1	2.1	5.6	1.19	1.6	5.0	4.7	1.57	.42	.22	1.63	.52
18	1.57	2.3	16.7	1.05	1.6	3.6	4.1	1.45	.34	.16	32	.41
19	1.39	2.5	13.5	1.1	1.6	3.2	4.1	1.28	.30	.13	159	.38
20	1.28	9.3	*8.0	.85	1.65	2.9	3.9	1.14	.43	.12	21	.38
21	1.19	15.0	6.4	.75	1.7	3.0	4.3	1.05	.74	.11	10.0	.34
22	1.14	9.0	5.2	.90	1.7	4.2	4.7	.93	1.51	.10	6.4	.30
23	1.09	6.4	4.4	.95	5.4	5.4	4.7	.93	.75	.09	5.4	.29
24	1.09	5.5	4.1	1.01	4.1	4.2	4.3	1.34	1.23	.09	3.9	4.5
25	.97	6.4	3.6	.90	3.4	4.7	19.4	2.4	1.39	.08	3.1	2.8
26	.97	5.5	3.2	.86	2.7	4.1	19.9	2.7	.78	*.08	2.5	1.51
27	1.28	5.0	3.0	.80	2.5	3.2	15.0	1.87	.64	*.08	2.1	*1.09
28	1.34	4.6	3.1	.76	4.2	2.9	9.6	1.45	.72	.12	1.81	2.6
29	2.6	10.8	4.2	.66	-	3.4	12.4	1.47	.86	.11	1.51	1.81
30	3.4	9.6	5.8	.54	-------	5.6	8.8	2.2	.58	.09	1.45	1.45
31	3.0	---	5.0	.50	-------	*6.1	-------	1.57	-------	.08	1.57	---
Total	44.46	183.8	173.3	56.41	61.21	152.9	234.0	78.00	24.14	5.89	282.83	35.69
Mean	1.43	6.13	5.59	1.82	2.19	4.93	7.80	2.52	0.805	0.190	9.12	1.19
Cfsm	0.872	3.74	3.41	1.11	1.34	3.01	4.76	1.54	0.491	0.116	5.56	0.726
In.	1.01	4.17	3.93	1.28	1.39	3.47	5.31	1.77	0.55	0.13	6.41	0.81

Calendar year 1954: Max 29 Min 0.10 Mean 3.20 Cfsm 1.95 In. 26.47
Water year 1954-55: Max 159 Min 0.06 Mean 3.65 Cfsm 2.23 In. 30.23

Peak discharge (base, 35 cfs).--Nov. 3 (7:30 to 8 a.m.) 38 cfs (2.26 ft); Dec. 14 (11 p.m.) 39 cfs (2.27 ft); Apr. 25 (5 to 5:30 p.m.) 38 cfs (2.255 ft); Aug. 19 (3:30 a.m.) 680 cfs (4.485 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4, 6-8, 17, 21-23, 25, 26, Jan. 5, 7-9, 11, 12, 14-16, 18-23, 25, Jan. 28 to Feb. 26, Mar. 1, 4-9, 13, 14, 17-20, 22-24, 27, 28.

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 1955.

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.--45 years, 105 cfs.

Extremes.--Maximum discharge during year, 16,500 cfs Aug. 19 (gage height, 11.33 ft), from rating curve extended above 5,700 cfs on basis of slope-area determination of peak flow; minimum 1.3 cfs Aug. 8.
1910-55: 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, no gage-height record, or shifting control, which are fair. Some diurnal fluctuation at low flow prior to 1952 by mill above station.

Revisions (water years).--WSP 415: 1910-12, calendar years. WSP 781: 1933(M), drainage area.

Rating tables, water year 1954-55, except periods of ice effect or shifting control (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19				Aug. 19 to Sept. 30			
0.57	1.4	1.7	91	0.2	8.5	2.5	575
.6	1.7	2.0	159	.4	18	3.0	860
.7	3.2	2.5	324	.7	40	4.0	1,770
.8	5.6	3.0	560	1.0	80	5.0	3,090
1.0	14	4.0	1,200	1.4	166	6.0	4,750
1.2	26	4.5	1,600	2.0	361	6.5	5,660
1.4	46						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	g37	g65	181	139	14	349	336	205	31	11	2.4	36
2	39	62	152	152	14	*293	438	170	27	10	2.0	31
3	37	1,350	127	179	13	156	330	146	24	28	*1.8	28
4	g34	480	107	136	13	113	227	129	22	21	1.7	25
5	g32	g301	105	105	13	105	*326	116	21	14	1.6	26
6	30	200	90	109	15	110	504	103	18	*17	1.5	37
7	g31	160	82	90	105	103	578	93	*17	23	1.5	28
8	28	g136	84	68	76	82	324	89	17	16	*1.4	20
9	27	*g113	86	68	66	91	243	82	17	11	1.6	17
10	27	98	100	66	59	150	386	*74	15	9.2	2.0	16
11	g29	86	88	58	170	633	453	66	14	7.6	2.4	17
12	g27	76	76	54	115	530	338	59	24	6.2	10	21
13	g24	70	72	50	76	417	243	55	26	5.6	329	16
14	g23	66	220	33	71	257	234	51	21	5.0	841	14
15	g24	62	710	43	66	196	349	45	18	4.5	211	14
16	200	59	282	47	53	321	345	42	15	5.0	79	13
17	100	59	190	34	48	241	234	39	13	5.6	44	12
18	g66	74	606	28	48	150	181	36	11	5.3	*1,400	11
19	54	82	573	32	48	120	173	34	10	4.5	*5,190	10
20	g49	382	*275	26	50	104	165	32	11	4.2	578	11
21	g45	1,300	184	21	50	101	173	30	12	3.8	263	11
22	g41	451	145	25	49	115	187	27	85	3.6	185	*g10
23	g37	254	130	25	193	173	193	26	41	3.4	154	10
24	34	193	125	25	230	118	156	31	28	3.0	114	108
25	g31	193	105	*22	125	132	860	37	40	3.0	85	92
26	g32	170	92	21	92	118	764	50	26	2.8	70	43
27	42	154	90	21	77	95	590	42	18	*2.8	59	g26
28	g55	144	88	21	101	80	320	32	17	3.2	51	66
29	g66	264	252	18	-	85	380	31	18	3.2	43	56
30	g120	268	240	16	-------	137	275	51	14	3.2	39	36
31	95	-------	193	15	-------	192	-------	39	-------	2.5	39	-------
Total	1,516	7,372	5,850	1,747	2,050	5,867	10,305	2,062	671	248.2	9,803.9	861
Mean	48.9	246	189	56.4	73.2	189	344	66.5	22.4	8.01	316	28.7
Cfsm	0.930	4.68	3.59	1.07	1.39	3.59	6.54	1.26	0.426	0.152	6.01	0.546
In.	1.07	5.21	4.14	1.24	1.45	4.15	7.29	1.46	0.47	0.18	6.93	0.61

Calendar year 1954: Max 1,360 Min 3.6 Mean 122 Cfsm 2.32 In. 31.40
Water year 1954-55: Max 5,190 Min 1.4 Mean 132 Cfsm 2.51 In. 34.20

Peak discharge (base, 1,650 cfs).--Nov. 3 (about 1 p.m.) about 2,300 cfs (gage height unknown); Nov. 21 (4 a.m.) 2,580 cfs (5.50 ft); Apr. 25 (7 p.m.) 1,920 cfs (4.85 ft); Aug. 19 (4 a.m.) 16,500 cfs (11.33 ft).

* Discharge measurement made on this day.
g Computed from once-daily staff- or chain-gage readings.

Note.--No gage-height record Oct. 2, 3, 6, 8-10, 16, 17, 19, 24, 27, 31, Nov. 2-4, 6, 7, 10-14, Sept. 2-5, 7-21, 23; discharge estimated on basis of weather records and records for West Branch Westfield River at Huntington. Stage-discharge relation affected by ice Dec. 4-14, 22-28, 30, Jan. 5, Jan. 7 to Feb. 21, Feb. 24-26, Mar. 4-10, 18-20, 27-29. Shifting-control method used Oct. 1 to Nov. 14.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 388.60 ft above mean sea level, datum of 1929.

Average discharge.--20 years, 190 cfs.

Extremes.--Maximum discharge during year, 26,100 cfs Aug. 19 (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.
1935-55: Maximum discharge, that of Aug. 19, 1955; minimum, that of Aug. 9, 1955.

Remarks.--Records good except those for periods of ice effect, which are fair. Some diurnal fluctuation at low flow caused by mill above station.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 18)

Oct. 1 to Aug. 17				Aug. 18 to Sept. 30			
0.28	3.3	1.5	121	0.6	17	2.5	625
.3	3.8	1.9	245	.9	40	3.0	970
.4	6.6	2.5	585	1.2	75	4.0	1,780
.6	15	3.0	930	1.5	132	6.0	4,100
.9	36	4.0	1,630	1.8	226	8.0	7,340
1.2	68	5.0	2,500	2.1	375	10.0	11,400

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	140	351	250	29	630	584	395	72	24	5.3	75
2	74	126	286	263	28	*572	706	320	66	22	4.8	64
3	71	2,130	241	315	28	300	516	272	57	28	4.5	58
4	68	902	200	237	28	215	356	241	50	27	4.2	53
5	61	520	204	194	27	187	*552	222	47	22	4.0	54
6	57	368	162	200	29	211	904	200	43	*37	3.8	86
7	60	286	154	171	210	207	1,020	177	*38	36	3.8	59
8	53	241	160	133	170	160	592	171	37	24	*3.5	45
9	51	215	162	133	145	168	443	162	37	19	3.3	38
10	51	187	190	135	115	346	594	*148	35	16	4.0	36
11	54	168	168	119	310	1,160	650	140	32	15	4.5	38
12	51	160	143	108	230	845	520	128	58	13	20	45
13	46	140	135	108	155	685	384	117	66	11	554	36
14	43	133	403	68	145	425	373	108	49	11	1,210	31
15	44	126	1,430	83	140	325	520	100	40	10	341	30
16	355	117	526	102	110	510	514	92	32	11	143	29
17	187	*117	330	93	98	402	373	86	27	13	94	26
18	128	131	997	62	98	230	310	80	24	12	*2,260	24
19	104	143	938	68	96	204	290	74	23	10	10,500	22
20	95	609	*488	55	100	178	276	67	23	9.0	5,390	24
21	88	2,040	325	44	102	184	281	63	26	8.3	749	25
22	80	799	258	52	100	193	320	56	72	7.6	617	22
23	74	488	234	55	333	268	340	53	49	7.2	481	22
24	66	373	234	56	364	211	276	66	40	6.6	310	218
25	61	368	190	*53	230	245	1,220	76	88	6.6	211	239
26	70	325	171	51	174	218	1,180	136	51	6.6	161	94
27	83	300	171	47	160	177	1,000	98	36	6.6	132	*60
28	110	286	171	47	207	151	572	74	33	*6.2	114	181
29	125	489	416	41	-	160	741	64	42	6.2	93	146
30	218	500	390	33	-------	229	526	112	32	5.9	81	89
31	187	--- --	346	29	-------	382	--------	83	--------	5.6	81	----- --
Total	2,886	12,927	10,574	3,405	3,961	10,378	16,933	4,181	1,325	443.4	19,587.7	1,969
Mean	93.1	431	341	110	141	335	564	135	44.2	14.3	632	65.6
Cfsm	0.994	4.60	3.64	1.17	1.50	3.58	6.02	1.44	0.472	0.153	6.74	0.700
In.	1.15	5.13	4.20	1.35	1.57	4.12	6.72	1.66	0.53	0.18	7.77	0.78

Calendar year 1954: Max 2,160 Min 8.0 Mean 217 Cfsm 2.32 In. 31.47
Water year 1954-55: Max 10,500 Min 3.3 Mean 243 Cfsm 2.59 In. 35.16

Peak discharge (base, 2,700 cfs, revised).--Nov. 3 (1 p.m.) 3,070 cfs (5.63 ft); Nov. 21 (4 a.m.) 3,450 cfs (6.05 ft); Dec. 15 (12:30 to 1 a.m.) 2,750 cfs (5.28 ft); Aug. 19 (4:30 a.m.) 26,100 cfs (15.27 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 4, 8, 12, 13, 25, 30, Jan. 8, 9, 18, 20, 21, 27, 28, Feb. 1-14, 19, 20, Mar. 1, 4, 8.

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 1955. 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.--45 years (1910-55), 90.8 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. 232); 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 1954 to September 1955

Month	Mean	Per square mile	Runoff in inches
October	31.9	0.697	0.80
November	218	4.76	5.32
December	191	4.17	4.82
Calendar year 1954	108	2.36	32.29
January	62.9	1.37	1.58
February	52.8	1.15	1.20
March	140	3.06	3.52
April	278	6.07	6.77
May	77.2	1.69	1.94
June	23.2	.507	.56
July	-.229	-.0050	-.01
August	616	13.4	15.51
September	22.4	.489	.55
Water year 1954-55	144	3.14	42.56

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 1955.
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.--41 years, 948 cfs (adjusted for diversion and, since October 1931, for storage).
Extremes.--Maximum discharge during year, 70,300 cfs Aug. 19 (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, 73 cfs Aug. 8; minimum daily, 79 cfs Aug. 1, 8.
1914-55: Maximum discharge, that of Aug. 19, 1955; minimum, 9 cfs Oct. 2, 1921.
Remarks.--Records excellent except those for periods of ice effect, doubtful gage-height record, or backwater from aquatic vegetation, which are good, and those for periods 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. 232).
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 table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.9	79	6.0	1,690
3.2	143	8.0	3,720
3.5	228	10.0	6,440
4.0	418	15.0	15,000
4.5	645	20.0	26,500
5.0	945	25.0	40,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	479	730	2,010	1,400	b430	1,510	2,040	2,090	483	210	*79	820
2	414	605	1,670	1,260	b450	2,390	2,650	1,720	427	190	110	684
3	384	d5,000	1,410	1,730	b570	*2,070	2,690	1,450	397	220	95	590
4	589	4,600	1,050	1,660	b425	1,150	2,000	1,290	376	180	107	501
5	448	4,430	1,000	1,330	b340	820	*2,140	1,220	314	230	114	514
6	488	3,230	1,200	1,390	370	766	3,150	1,300	316	350	114	730
7	397	1,450	1,100	1,380	1,120	997	4,090	1,070	306	*260	95	641
8	405	1,210	1,150	992	851	876	3,040	978	*280	216	79	564
9	328	1,090	1,200	740	625	625	1,930	997	262	183	85	494
10	316	d985	1,150	1,060	541	814	2,020	874	276	199	81	548
11	367	d855	1,050	1,080	831	2,730	2,910	*826	266	206	101	476
12	348	880	840	939	1,460	3,420	2,720	718	314	186	202	542
13	400	d796	1,100	994	958	3,530	2,070	672	459	152	1,300	448
14	370	684	1,800	790	850	2,490	1,760	610	389	220	3,140	474
15	373	872	5,170	537	610	1,820	2,190	533	344	261	1,790	514
16	1,260	712	4,020	482	505	1,830	2,490	682	280	259	2,230	570
17	1,110	*668	2,520	674	483	2,220	2,000	597	255	122	1,960	405
18	760	689	2,950	730	457	1,320	1,550	559	212	163	7,210	332
19	594	796	4,500	666	470	1,060	1,510	505	186	153	*37,400	540
20	526	1,860	3,380	692	456	874	1,470	422	258	134	11,000	636
21	505	d5,600	2,650	b560	510	984	1,390	418	256	105	3,620	404
22	461	4,470	*1,980	b420	535	1,240	1,570	333	580	105	2,710	402
23	418	3,540	1,580	b310	764	1,900	1,600	410	400	110	3,040	*420
24	354	1,980	1,370	b420	1,430	1,290	1,330	384	330	110	3,200	703
25	423	1,730	1,090	566	1,120	1,330	3,560	384	460	93	3,480	1,340
26	585	1,590	932	*560	736	1,250	4,470	788	260	110	2,740	667
27	559	1,490	1,100	592	748	1,060	4,510	776	280	91	2,380	514
28	582	1,320	1,230	b540	790	906	3,350	452	260	97	2,470	632
29	660	2,100	1,670	b380	-	844	4,850	410	300	103	3,490	850
30	932	2,610	2,360	b240	--------	919	3,880	645	250	91	3,350	582
31	874	--------	2,100	b370	--------	1,520	--------	688	--------	101	2,580	--------
Total	16,709	58,572	58,332	25,484	19,435	46,555	76,930	24,801	9,776	5,210	100,350	17,537
Mean	539	1,952	1,882	822	694	1,502	2,564	800	326	168	3,237	585
(†)	-33.1	+150	-68.8	-168	+16.2	+117	+264	+71.5	+15.3	-15.2	+187	-66.3
Adjusted for diversion and change in reservoir contents												
Mean	508	2,102	1,813	654	710	1,618	2,828	872	341	153	3,424	518
Cfsm	1.02	4.23	3.65	1.32	1.43	3.26	5.69	1.75	0.686	0.308	6.89	1.04
In.	1.17	4.72	4.21	1.52	1.49	3.75	6.35	2.02	0.77	0.35	7.94	1.16

	Observed			Adjusted			
Calendar year 1954:	Max 5,600	Min 89	Mean 1,063	Mean 1,117	Cfsm 2.25	In. 30.54	
Water year 1954-55:	Max 37,400	Min 79	Mean 1,259	Mean 1,298	Cfsm. 2.61	In. 35.45	

* 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.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed on basis of recorder graph, weather records, and records for other stations in Westfield River basin.
Note.--No gage-height record Dec. 4-14, June 22 to July 7, Aug. 22; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage when available, and records for other stations in Westfield River basin. Backwater from aquatic vegetation July 12 to Aug. 13.

Connecticut River at Thompsonville, Conn.

Location.--Lat 41°59'14", long 72°36'21", on right bank just upstream from Enfield Dam and 1 mile downstream from Thompsonville, Hartford County.

Drainage area.--9,661 sq mi.

Records available.--July 1928 to September 1955.

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.--27 years, 16,520 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 174,000 cfs Aug. 19 (gage height, 10.93 ft); minimum daily, 1,130 cfs Aug. 7.
1928-55: 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, 1953.

Remarks.--Records excellent except those below 4,000 cfs and those for periods of ice effect, which are good. 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 since 1940, Comerford Station Pond since 1930, Quabbin Reservoir since 1939 (see p. 232), and other reservoirs (combined usable capacity, about 88½ billion cubic feet).

Revisions (water years).--WSP 741: 1932. WSP 891: Drainage area.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,800	10,400	28,200	24,400	7,230	18,700	19,600	45,100	15,800	7,410	2,460	12,300
2	11,600	12,200	28,500	23,800	6,970	28,000	31,700	40,500	19,000	6,410	3,420	11,300
3	10,300	19,900	25,100	24,700	b6,460	*34,400	40,500	33,800	29,000	3,900	3,400	10,200
4	8,760	50,800	21,800	21,800	b6,050	26,100	41,900	31,400	26,700	3,340	2,720	5,700
5	12,700	46,000	18,700	19,800	5,290	21,100	37,600	28,500	19,900	6,880	2,620	2,710
6	17,300	34,800	12,500	19,200	3,770	19,200	*42,300	30,100	18,000	7,700	1,640	5,460
7	19,500	27,000	12,300	18,700	7,940	17,200	49,900	28,900	16,400	5,410	1,130	9,220
8	18,100	23,800	b13,200	19,200	14,300	14,300	56,600	28,600	*12,800	*6,350	1,800	8,920
9	15,600	19,300	b13,700	14,900	10,600	13,200	57,400	27,400	10,300	3,730	2,290	6,830
10	13,700	16,200	16,000	11,300	9,270	14,200	50,400	25,600	8,890	2,560	2,550	5,150
11	12,900	15,300	18,000	11,800	9,960	16,300	52,200	*25,800	5,940	3,640	3,660	2,890
12	11,000	15,000	17,100	12,200	13,800	31,000	65,400	25,900	3,570	4,560	9,700	4,180
13	11,300	14,500	13,000	12,600	b13,400	42,800	68,800	24,000	7,290	4,200	15,400	6,220
14	11,400	11,500	14,400	b13,700	b12,300	41,400	62,600	20,700	14,900	4,090	36,700	6,130
15	12,200	7,590	24,000	b11,600	11,400	34,700	59,200	17,600	17,600	4,230	45,600	5,000
16	16,100	13,000	30,600	10,100	10,600	32,500	71,800	15,800	17,300	2,640	31,300	4,800
17	18,300	14,400	26,700	10,100	10,700	38,500	84,500	13,200	16,000	1,480	23,800	3,370
18	15,500	*13,000	25,000	b10,400	10,300	36,800	81,200	12,800	15,400	2,630	29,200	1,910
19	12,300	12,600	41,000	b11,300	b12,300	31,500	73,900	12,600	13,000	5,690	127,000	3,600
20	11,800	14,800	44,300	b11,600	8,560	26,200	70,800	12,000	7,180	4,220	104,000	7,490
21	12,200	31,800	*33,400	b11,300	7,050	23,000	69,400	10,400	7,990	3,980	49,900	6,070
22	11,300	48,800	27,800	9,800	9,570	22,900	67,000	7,460	8,870	3,820	29,400	4,940
23	9,900	48,000	25,600	7,500	11,800	25,400	59,800	6,720	12,700	3,090	25,700	4,220
24	6,610	40,900	23,800	6,710	13,600	24,200	52,800	9,510	13,600	1,660	24,500	5,000
25	6,580	35,400	21,200	9,060	16,000	21,700	50,600	10,600	12,500	2,240	24,800	7,790
26	7,400	30,900	17,700	9,270	16,800	20,500	61,400	12,200	11,600	2,830	21,700	5,300
27	8,860	24,800	15,500	8,480	18,000	18,400	67,400	14,600	8,720	3,350	18,000	6,150
28	9,410	23,100	15,800	b8,280	17,400	16,800	62,700	13,700	9,900	4,110	11,100	*7,120
29	11,800	24,200	18,900	6,630	-	14,800	57,800	11,500	9,910	4,870	13,900	8,160
30	13,500	26,700	24,500	4,540	--------	15,500	52,700	8,440	8,090	3,350	14,900	7,500
31	14,000	--------	26,400	4,740	--------	16,200	--------	14,200	--------	1,240	14,200	--------
Total	384,720	726,690	694,700	399,510	298,680	757,500	1,713,900	619,630	398,850	126,510	698,490	185,630
Mean	12,410	24,220	22,410	12,890	10,670	24,440	57,330	19,990	13,300	4,081	22,530	6,188
(†)	-218	+774	-733	-1,988	-771	+112	+4,084	+1,039	+320	-591	+1,192	-1,145

Adjusted for change in contents and diversion

Mean	12,190	25,000	21,680	10,900	9,896	24,550	61,410	21,030	13,610	3,490	23,720	5,043
Cfsm	1.26	2.59	2.24	1.13	1.02	2.54	6.36	2.18	1.41	0.361	2.46	0.522
In.	1.45	2.89	2.59	1.30	1.07	2.93	7.09	2.51	1.57	0.42	2.83	0.58

	Observed			Adjusted		
Calendar year 1954:	Max 82,500	Min 2,140	Mean 20,890	Mean 21,260 Cfsm 2.20	In. 29.86	
Water year 1954-55:	Max 127,000	Min 1,130	Mean 19,210	Mean 19,380 Cfsm 2.01	In. 27.23	

* Discharge measurement made on this day.
† Change in contents in all reservoirs from First Connecticut and Second Connecticut Lakes to Borden Brook and Cobble Mountain Reservoirs listed on page 232, change in contents in Moore Reservoir on Connecticut River, and diversion from Chicopee River basin, equivalent in cubic feet per second.
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 Connecticut 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 1955.

Gage.--Water-stage recorder. Datum of gage is 26.23 ft above mean sea level, datum of 1929.

Average discharge.--27 years, 142 cfs.

Extremes.--Maximum discharge during year, 13,300 cfs Aug. 19 (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, 24 cfs Aug. 5 (gage height, 0.58 ft); minimum daily, 25 cfs Aug. 5.
1928-55: Maximum discharge, that of Aug. 19, 1955; minimum, 10 cfs Aug. 13, 14, 1944; minimum daily, 16 cfs Aug. 13, 1944.

Remarks.--Records excellent except those for period of no gage-height record, which are good. Flow regulated by mills and small reservoirs upstream. Records of water temperatures and suspended sediment loads for the water year 1955 are given in WSP 1400.

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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19				Aug. 20-30			
0.5	20	4.0	450	1.7	98	9.0	1,360
.6	25	6.0	706	2.5	198	12.0	2,970
.7	32	9.0	1,500	3.0	264	15.0	5,520
1.0	68	13.0	3,720	6.0	605		
1.5	138	17.0	8,100				
2.0	196						

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	138	256	339	82	244	202	367	109	50	31	242
2	88	115	209	300	82	327	196	292	115	50	31	221
3	93	334	172	307	83	300	196	231	96	55	29	206
4	93	333	150	284	75	231	321	196	85	64	28	192
5	83	307	144	239	78	184	345	*220	83	58	25	182
6	82	216	133	231	80	190	327	266	83	52	28	203
7	80	172	120	256	254	248	321	239	76	49	29	204
8	78	150	116	216	223	209	284	223	73	57	65	193
9	76	130	116	196	196	202	239	202	73	49	62	168
10	76	121	138	178	137	256	202	178	70	44	48	152
11	80	113	156	161	154	307	190	166	67	57	48	154
12	80	111	144	150	292	345	172	150	83	64	93	172
13	78	109	128	138	184	333	166	138	104	52	258	159
14	75	107	147	126	172	292	172	130	98	43	403	144
15	*75	106	400	121	138	256	172	124	82	42	416	135
16	83	103	389	125	118	266	166	117	*71	42	233	134
17	112	102	333	122	156	307	156	113	65	49	114	132
18	111	102	314	113	202	300	150	112	58	52	398	122
19	92	103	440	111	172	239	144	106	52	44	*7,770	*118
20	85	217	440	109	150	202	144	102	62	46	5,070	130
21	82	345	367	95	144	190	138	96	61	38	1,460	102
22	80	389	266	103	135	310	156	93	86	38	850	105
23	78	307	216	102	210	513	172	91	82	35	606	102
24	76	216	202	*104	284	586	166	92	76	34	a580	134
25	76	216	196	103	239	470	249	135	85	39	a450	232
26	75	216	178	100	178	378	338	115	83	31	a370	206
27	76	202	166	100	156	356	450	112	75	26	333	172
28	82	184	161	84	172	321	430	96	65	29	310	162
29	107	234	190	91	-	275	420	89	62	30	284	166
30	138	256	332	91	-------	239	400	88	57	31	259	152
31	146	--	356	85	-------	216	-------	89	---	31	246	-------
Total	2,727	5,754	7,075	4,880	4,546	9,092	7,184	4,768	2,337	1,381	20,927	4,896
Mean	88.0	192	228	157	162	293	239	154	77.9	44.5	675	163
Cfsm	0.894	1.95	2.32	1.60	1.65	2.98	2.43	1.57	0.792	0.452	6.86	1.66
In.	1.03	2.18	2.68	1.84	1.72	3.44	2.71	1.81	0.88	0.52	7.91	1.85

Calendar year 1954: Max 624 Min 35 Mean 144 Cfsm 1.46 In. 19.84
Water year 1954-55: Max 7,770 Min 25 Mean 207 Cfsm 2.10 In. 28.57

Peak discharge (base, 550 cfs).--Mar. 24 (1 to 3 p.m.) 599 cfs (5.33 ft); Aug. 19 (6 p.m.) 13,300 cfs (19.9 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.

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 1955. 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.--42 years, 183 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 34,300 cfs Aug. 19 (gage height, 14.06 ft), from rating curve extended above 9,600 cfs on basis of slope-area determination of peak flow; minimum daily, 5.0 cfs July 23, 28.
1913-55: Maximum discharge, that of Aug. 19, 1955; minimum daily, 3.2 cfs Sept. 12, 1953.

Remarks.--Records good except those for periods of ice effect, no gage-height record, or doubtful gage-height record, which are fair. August flood flow affected by, and flow at other times regulated by, Otis Reservoir (see p. 232).

Revisions (water years).--WSP 641: 1924(M). WSP 756: Drainage area. WSP 781: 1928(M). WSP 1231: 1914.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	202	359	245	24	400	284	430	65	24	15	d122
2	81	205	311	320	24	373	349	370	*56	21	14	153
3	173	1,220	233	339	24	232	317	320	45	25	14	177
4	166	781	198	290	24	170	267	300	38	22	14	265
5	158	*450	251	254	24	155	348	*280	36	19	14	265
6	158	349	220	230	30	147	544	305	36	20	16	278
7	140	349	215	130	160	141	670	259	33	*20	16	265
8	55	311	205	150	140	123	468	248	33	18	16	252
9	62	265	217	220	120	130	366	232	31	18	15	244
10	152	243	207	210	96	219	420	212	29	17	15	240
11	154	212	154	210	230	570	444	193	26	16	16	229
12	150	125	222	190	195	475	390	128	39	14	34	88
13	144	141	210	180	135	383	320	113	40	14	458	59
14	136	207	335	54	125	290	300	104	34	13	1,340	44
15	54	202	762	100	115	230	400	93	31	13	676	40
16	214	196	488	185	92	306	385	85	25	13	337	38
17	235	196	*327	180	82	284	290	79	23	13	178	33
18	202	205	771	155	80	202	240	73	22	11	2,400	31
19	184	151	806	160	80	173	230	65	19	7.9	*16,100	31
20	173	503	514	125	84	146	225	59	25	6.9	d3,380	103
21	160	1,610	380	*70	82	139	230	54	25	*5.6	d1,710	30
22	66	802	330	40	82	149	250	49	77	5.6	d1,160	*40
23	68	527	280	43	250	184	260	49	43	5.0	d805	45
24	154	413	180	45	270	182	230	66	92	5.6	d504	193
25	150	387	195	43	180	227	860	59	164	5.6	d381	178
26	148	292	246	40	140	196	840	64	83	5.9	d302	92
27	154	242	237	38	130	156	680	58	36	5.3	d272	70
28	147	317	237	38	155	130	450	47	45	5.0	d265	208
29	95	452	363	32	-	125	600	47	45	5.3	d223	143
30	163	448	370	28	--------	*165	520	94	*31	11	d194	98
31	227	--------	290	26	--------	218	--------	63	--------	16	d171	--------
Total	4,391	12,003	10,113	4,370	3,173	7,020	12,177	4,598	1,327	401.7	31,055	4,054
Mean	142	400	326	141	113	226	406	148	44.2	13.0	1,002	135
(†)	-59.4	-10.8	-28.7	-21.1	+16.6	+52.0	+84.0	+1.5	+2.9	-4.3	-30.1	-57.1

Adjusted for change in reservoir contents

Mean	82.3	389	297	120	130	278	490	150	47.2	8.66	972	78.0
Cfsm	0.895	4.23	3.23	1.30	1.41	3.02	5.33	1.63	0.513	0.094	10.6	0.848
In.	1.03	4.72	3.73	1.50	1.47	3.49	5.94	1.88	0.57	0.11	12.18	0.95

	Observed			Adjusted			
Calendar year 1954:	Max 1,980	Min 9.3	Mean 197	Mean 200	Cfsm 2.17	In. 29.56
Water year 1954-55:	Max 16,100	Min 5.0	Mean 259	Mean 255	Cfsm 2.77	In. 37.57

Peak discharge (base, 1,400 cfs).--Nov. 3 (1 p.m.) 1,580 cfs (6.30 ft); Nov. 21 (2 a.m.) 2,450 cfs (7.01 ft); Dec. 18 (4 p.m.) 1,580 cfs (6.30 ft); Aug. 14 (7:45 a.m.) 2,280 cfs (7.03 ft); Aug. 19 (4:45 a.m.) 34,300 cfs (14.06 ft); Aug. 21 (7 p.m.) 2,400 cfs (7.13 ft).

* Discharge measurement made on this day.

† Change in contents in Otis Reservoir, equivalent in cubic feet per second.

d Doubtful gage-height record; discharge computed from reconstructed gage-height graph based on recorder graph, recorded drop in stage when intake was flushed, and weather records.

Note.--No gage-height record Apr. 13 to May 5; discharge estimated on basis of weather records, recorded range in stage, records of discharge from Otis Reservoir, and records for West Branch Westfield River at Huntington. Stage-discharge relation affected by ice Dec. 6-8, 21-25, 30, Jan. 1, Jan. 6 to Mar. 1, Mar. 4, 5, 28, 29.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 510.24 ft above mean sea level, datum of 1929.

Average discharge.--7 years, 195 cfs.

Extremes.--Maximum discharge during year, 44,000 cfs Aug. 19 (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, 4.4 cfs Aug. 8 (gage height, 0.29 ft); minimum daily, 5.6 cfs Aug. 9.
1948-55: Maximum discharge, that of Aug. 19, 1955; minimum, that of Aug. 8, 1955; minimum daily, that of Aug. 9, 1955; minimum gage height, that of Aug. 8, 1955.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Ordinary flow regulated by powerplant above station.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19				Aug. 19 to Sept. 30			
0.3	4.6	2.0	173	1.8	48	6.0	1,960
.4	6.5	2.5	310	2.0	67	7.0	3,250
.6	12	3.0	520	2.5	144	9.0	6,710
.8	21	4.0	1,110	3.0	246	11.0	12,300
1.1	41	6.0	2,810	4.0	581	14.0	26,400
1.5	84			5.0	1,130		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	118	284	320	50	348	264	470	94	33	6.8	155
2	54	117	226	340	*50	389	286	369	83	16	5.9	149
3	45	1,020	199	280	53	255	255	297	74	16	6.1	124
4	49	716	159	240	51	216	299	263	54	14	18	133
5	63	456	146	210	57	195	439	235	39	22	14	103
6	54	303	150	230	45	190	585	239	40	13	13	118
7	68	222	135	190	470	205	674	213	41	13	7.8	*119
8	57	191	130	170	192	171	520	174	49	14	5.7	68
9	34	166	155	160	149	169	377	185	47	12	5.6	74
10	48	150	193	140	106	280	353	166	33	17	5.9	56
11	42	139	193	115	277	525	381	146	31	35	9.8	80
12	65	126	173	130	240	466	338	129	47	22	43	155
13	40	121	165	135	180	331	292	125	66	27	331	118
14	61	101	303	120	140	*262	282	81	55	16	1,150	87
15	50	108	920	110	110	207	310	86	*57	21	592	80
16	154	106	550	90	100	289	260	89	37	12	254	71
17	114	99	345	105	110	281	218	87	35	14	145	57
18	104	108	765	95	125	206	218	80	18	24	2,490	52
19	*85	108	926	95	113	180	216	78	17	34	*24,800	97
20	99	405	520	95	87	182	*204	66	50	19	3,710	83
21	83	1,240	345	95	109	180	202	58	34	20	1,150	58
22	67	762	290	85	110	237	289	39	46	18	746	52
23	77	443	260	75	215	331	275	60	54	9.9	629	48
24	59	324	230	80	250	337	237	68	39	9.9	460	175
25	71	328	210	75	194	417	637	57	50	9.9	324	222
26	63	296	200	60	148	361	830	79	50	24	264	149
27	67	240	190	80	139	289	800	80	56	20	220	111
28	90	211	190	65	202	231	505	45	36	16	202	221
29	118	446	300	70	-	185	852	44	47	16	184	186
30	180	393	500	60	-------	195	668	90	30	15	140	130
31	142	-------	400	65	-------	245	-------	90	-------	13	148	-------
Total	2,361	9,563	9,752	4,180	4,072	8,355	12,066	4,288	1,409	565.7	30,080.6	3,331
Mean	76.2	319	315	135	145	270	402	138	47.0	18.2	1,228	111
Cfsm	0.903	3.78	3.73	1.60	1.72	3.20	4.76	1.64	0.557	0.216	14.5	1.32
In.	1.04	4.22	4.30	1.84	1.79	3.69	5.31	1.89	0.62	0.25	16.72	1.47

Calendar year 1954: Max 1,270 Min 8.8 Mean 176 Cfsm 2.09 In. 28.34
Water year 1954-55: Max 24,800 Min 5.6 Mean 269 Cfsm 3.19 In. 43.14

Peak discharge (base, 1,300 cfs).--Nov. 3 (1:30 p.m.) 1,360 cfs (4.34 ft); Nov. 21 (6 a.m.) 1,500 cfs (4.53 ft); Dec. 18 (5:30 p.m.) 1,420 cfs (4.45 ft); Aug. 14 (7:30 a.m.) 1,760 cfs (4.88 ft); Aug. 19 (8 a.m.) 44,000 cfs (16.48 ft).
* Discharge measurement made on this day.
Note.--No gage-height record Dec. 22 to Jan. 14; discharge estimated on basis of weather records, records for upstream powerplant and records for Naugatuck River near Thomaston. Stage-discharge relation affected by ice Dec. 6-8, Jan. 15 to Feb. 7, Feb. 12-17.

West Branch Farmington River at Riverton, Conn.

Location.--Lat 41°57'13", long 73°00'51", on right bank 0.4 mile downstream from Still River, 0.6 mile south of Riverton, Litchfield County, and 8.2 miles upstream from East Branch.

Drainage area.--216 sq mi.

Records available.--September 1929 to September 1955. Prior to October 1948, published as Farmington River at Riverton.

Gage.--Water-stage recorder. Datum of gage is 472.22 ft above mean sea level, datum of 1929.

Average discharge.--26 years, 405 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 101,000 cfs Aug. 19 (gage height, 20.3 ft, from floodmarks); minimum daily, 21 cfs July 23.
1929-55: Maximum discharge, that of Aug. 19, 1955; minimum, 15 cfs Aug. 22, 30, Sept. 6, 1953 (gage height, 0.42 ft); minimum daily, 17 cfs Aug. 22, 1953.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are good. Flow regulated by Otis Reservoir (see p. 232) and at low flow by plants upstream.

Revisions (water years).--WSP 781: Drainage area. WSP 1081: 1930-36. WSP 1301: 1935(M).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.5	20	3.0	790
1.0	72	4.0	1,540
1.5	159	5.0	2,530
2.0	303	6.0	3,840
2.5	510	7.0	5,390

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	168	372	790	646	95	956	670	1,100	207	84	38	340
2	160	356	664	736	*100	982	790	895	181	64	35	320
3	236	2,650	545	790	105	580	754	742	156	62	35	350
4	250	1,820	420	670	100	469	688	658	126	60	47	870
5	254	1,100	478	545	95	424	1,000	610	107	60	43	410
6	243	790	422	570	90	419	1,380	658	108	50	45	420
7	253	688	406	416	700	435	1,680	555	100	54	40	440
8	152	605	410	341	400	359	1,260	495	109	52	38	370
9	118	515	436	428	300	362	930	495	106	46	36	350
10	208	465	487	420	200	570	965	444	89	55	36	320
11	224	432	404	358	500	1,280	1,040	415	85	76	42	370
12	245	322	448	346	545	1,190	930	330	116	55	90	430
13	214	299	432	323	323	895	790	305	145	55	1,100	250
14	228	366	700	202	295	*680	742	246	122	42	2,500	180
15	150	361	2,180	221	259	540	860	236	*115	45	1,700	170
16	414	349	1,260	316	250	745	825	226	89	37	800	150
17	397	340	825	333	231	730	700	222	79	44	450	130
18	348	352	1,750	307	241	505	610	202	62	50	4,860	120
19	*306	330	2,040	296	222	436	575	191	56	56	*52,000	180
20	302	1,010	1,260	250	196	400	*540	169	93	38	9,060	170
21	284	3,110	860	200	221	404	535	154	84	44	3,520	110
22	186	1,820	724	150	219	495	724	128	144	*30	2,480	100
23	*167	1,180	640	140	462	700	724	141	136	21	1,670	105
24	224	895	535	150	610	640	590	172	111	22	1,150	420
25	248	895	456	140	447	825	1,520	157	269	22	850	490
26	240	748	490	120	348	724	2,000	203	186	37	700	270
27	247	585	495	140	321	570	1,950	204	118	31	600	480
28	292	640	495	130	461	460	1,260	141	108	27	540	450
29	255	846	712	120	-	400	1,860	130	136	27	470	400
30	407	1,070	1,000	100	--------	440	1,460	244	96	40	410	300
31	441	--------	860	100	--------	575	--------	207	--------	46	370	--------
Total	7,861	25,311	23,624	10,004	8,336	19,190	30,352	11,075	3,639	1,432	85,755	9,465
Mean	254	844	762	323	298	619	1,012	357	121	46.2	2,766	316
(†)	-59.4	-10.8	-28.7	-21.1	+16.6	+52.0	+84.0	+1.5	+2.9	-4.3	-30.1	-57.1

Adjusted for change in reservoir contents

Mean	195	833	733	302	315	671	1,096	358	124	41.9	2,736	259
Cfsm	0.903	3.86	3.39	1.40	1.46	3.11	5.07	1.66	0.574	0.194	12.67	1.20
In.	1.04	4.31	3.91	1.61	1.52	3.58	5.66	1.91	0.64	0.22	14.61	1.34

	Observed			Adjusted		
Calendar year 1954:	Max 3,110	Min 29	Mean 449	Mean 452	Cfsm 2.09	In. 28.36
Water year 1954-55:	Max 52,000	Min 21	Mean 647	Mean 642	Cfsm 2.97	In. 40.35

Peak discharge (base, 3,100 cfs).--Nov. 3 (3 p.m.) 3,280 cfs (5.65 ft); Nov. 21 (4:30 a.m.) 4,140 cfs (6.25 ft); Dec. 18 (5 p.m.) 3,700 cfs (5.88 ft); Aug. 19 (7 a.m.) 101,000 cfs (20.3 ft).

* Discharge measurement made on this day.

† Change in contents in Otis Reservoir, equivalent in cubic feet per second, furnished by the Collins Co.

Note.--No gage-height record July 21 to Sept. 30; discharge estimated on basis of records for station near New Boston, Mass., Still River at Robertsville, Conn., new station above Still River at Riverton, Conn., and peak discharge Aug. 19. Stage-discharge relation affected by ice Jan. 20 to Feb. 11, Feb. 16.

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 1955.

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.--24 years, 8.14 cfs.

Extremes.--Maximum discharge during year, 1,690 cfs Aug. 19 (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, 0.30 cfs (regulated) July 24, 25 (gage height, 0.20 ft); minimum daily, 0.69 cfs July 24, Aug. 3.
1931-55: Maximum discharge, that of Aug. 19, 1955; minimum, 0.13 cfs (regulated) June 21, 1933; minimum daily, 0.64 cfs Sept. 23, 24, 27-29, 1941, Aug. 27, 28, 1949; minimum gage height, 0.03 ft Oct. 11, 13, 1943 (orifice plate removed).

Remarks.--Records excellent except those for periods of ice effect, which are good. Infrequent low water regulation.

Revisions (water years).--WSP 1171: Drainage area. WSP 1301: 1933-45(M).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.3	0.53	2.5	82
0.7	1.85	3.5	168
1.0	3.11	5.0	324
1.1	4.55	7.0	619
1.3	10.3	8.0	915
1.7	29.0		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.54	4.33	10.3	11.9	2.76	20.0	11.9	16.9	3.93	2.63	0.81	6.57
2	2.37	4.68	8.95	15.1	2.84	13.4	11.1	13.8	3.20	1.97	.75	5.77
3	2.25	75	8.00	13.8	2.58	8.32	11.5	*12.6	3.20	1.74	.69	5.52
4	2.25	21.6	7.41	10.7	2.37	7.41	16.9	12.2	2.80	1.54	.79	5.26
5	2.09	12.2	7.13	8.95	2.54	6.57	28.4	11.5	3.02	1.40	.72	5.02
6	2.13	9.27	6.30	10.3	3.42	8.95	34.0	11.9	2.67	1.33	1.06	6.85
7	2.05	7.71	b6.0	9.93	33.4	12.2	26.4	10.7	2.67	1.40	2.80	5.02
8	1.97	6.85	5.52	b7.4	7.41	b7.1	15.6	11.1	2.76	1.81	2.75	*4.33
9	2.01	6.30	6.03	6.85	b5.5	8.00	12.2	9.93	2.89	1.16	.92	4.33
10	2.15	5.77	9.60	6.85	5.02	21.5	11.5	8.95	2.67	1.46	.97	4.13
11	2.57	5.77	7.41	6.57	13.0	22.2	10.7	8.63	2.58	2.50	1.99	4.55
12	2.01	5.02	6.30	b6.3	b15	13.8	9.60	8.32	5.52	1.47	8.98	5.02
13	1.93	4.78	5.77	5.52	b6.3	11.9	9.60	7.71	4.55	1.26	54	3.93
14	*1.93	4.78	31.1	b5.0	b4.3	9.27	10.7	7.71	*3.11	1.16	53	3.74
15	2.54	4.55	74	b4.8	4.13	8.32	10.7	7.13	2.67	1.28	12.4	3.74
16	7.13	4.33	19.2	4.78	b4.1	17.3	9.6	6.57	1.37	1.19	5.77	3.57
17	4.13	4.33	12.6	4.78	5.26	13.4	8.95	6.85	1.77	1.26	3.57	3.42
18	3.15	4.33	35.8	b4.1	6.03	8.95	8.95	6.57	1.81	1.62	107	3.29
19	3.07	5.02	33.8	3.93	6.03	8.32	8.63	6.03	1.77	3.37	*673	3.20
20	2.76	25.0	15.6	b3.7	6.85	8.32	8.32	5.26	3.94	1.19	56	8.63
21	2.58	46.7	11.9	b3.4	7.13	7.71	8.32	5.02	2.54	1.09	27.0	3.42
22	2.67	17.4	10.3	b3.6	6.57	15.8	13.4	4.78	2.99	1.06	17.8	2.97
23	2.58	11.1	9.60	3.74	23.5	30.6	11.1	4.78	3.10	.87	14.2	2.89
24	2.54	11.5	9.60	3.74	11.1	24.4	9.93	7.41	2.83	.69	11.9	13.1
25	2.46	21.4	8.63	*3.57	8.00	29.0	39.1	6.57	2.91	.80	10.3	10.2
26	2.17	11.5	b7.7	3.57	6.57	20.2	38.3	6.57	2.29	1.02	10.4	5.77
27	2.29	9.27	7.71	3.57	6.57	15.1	32.8	4.55	1.89	.93	8.95	4.33
28	2.37	9.27	8.00	b3.1	8.95	12.6	18.2	3.74	11.4	1.02	8.00	12.7
29	7.79	24.8	12.6	3.02	~	12.6	43.1	3.42	9.33	1.16	7.13	6.85
30	9.60	14.2	32.1	2.62	-------	13.8	24.8	4.78	3.40	.78	6.85	5.02
31	6.03	-------	20.2	2.58	-------	12.6	-------	3.74	-------	.84	7.13	-------
Total	96.11	398.76	455.16	187.77	217.23	429.64	514.30	245.72	101.58	43.00	1,117.63	163.14
Mean	3.10	13.3	14.7	6.06	7.76	13.9	17.1	7.93	3.39	1.39	36.1	5.44
Cfsm	0.752	3.23	3.57	1.47	1.88	3.37	4.15	1.92	0.823	0.337	8.76	1.32
In.	0.86	3.60	4.12	1.70	1.96	3.88	4.63	2.21	0.92	0.39	10.10	1.52

Calendar year 1954: Max 75 Min 1.06 Mean 7.69 Cfsm 1.87 In. 25.35
Water year 1954-55: Max 673 Min 0.69 Mean 10.9 Cfsm 2.65 In. 35.89

Peak discharge (base, 140 cfs).--Dec. 14 (12 p.m.) 196 cfs (3.78 ft); Aug. 19 (4 a.m.) 1,690 cfs (9.22 ft).
* Discharge measurement made on this day.
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 1955.
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.--14 years, 86.3 cfs (adjusted for storage and diversion).
Extremes.--Maximum discharge during year, 11,700 cfs Aug. 19 (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, 16 cfs Aug. 10 (gage height, 0.79 ft).
1941-55: Maximum discharge, that of Aug. 19, 1955; 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 except those for periods of no gage-height record, which are fair. Flow regulated by Whigville Reservoir (see p. 233) 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 tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19				Aug. 19 to Sept. 30			
0.8	17	1.7	166	*1.5	34	4.0	1,160
1.0	35	2.1	320	1.8	75	6.0	2,490
1.3	75	2.7	650	2.1	150	8.0	4,300
				2.5	330	10.0	6,750
				3.0	660		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	46	93	149	46	192	119	152	47	27	22	64
2	41	92	84	176	45	160	114	128	43	25	22	61
3	39	*531	77	166	43	110	119	114	43	22	21	56
4	42	194	70	133	43	104	254	104	40	21	21	54
5	37	116	69	114	43	89	246	97	37	23	21	51
6	35	88	64	126	78	170	263	93	43	23	19	a80
7	35	74	60	124	342	162	230	89	35	23	25	a70
8	35	69	57	93	88	108	163	84	35	23	23	*54
9	33	63	73	88	64	132	131	88	35	21	20	a52
10	32	59	91	88	59	178	124	75	34	30	20	a50
11	33	59	72	82	158	192	114	72	30	30	58	a50
12	33	57	63	75	149	158	106	70	65	22	134	a60
13	33	55	62	75	75	131	106	64	47	22	395	a53
14	33	52	343	68	64	116	112	60	39	22	298	a50
15	62	52	635	64	64	112	110	57	35	22	93	a48
16	82	52	227	64	60	156	101	57	32	24	60	46
17	47	52	146	64	126	152	89	63	*30	21	52	44
18	42	52	371	60	110	112	88	57	27	30	547	a42
19	41	59	383	59	95	106	86	54	24	25	*6,500	a40
20	*39	220	202	55	86	93	86	52	73	23	1,020	a50
21	35	242	158	52	82	101	*80	50	42	22	436	a42
22	34	133	136	55	75	274	97	46	39	22	258	a38
23	32	99	121	54	186	398	88	48	35	20	200	a35
24	30	110	119	*55	140	271	86	51	49	21	158	a120
25	32	144	108	54	95	267	220	52	43	21	126	a95
26	33	106	93	52	84	223	275	69	33	23	• 98	*54
27	34	86	95	52	80	192	246	55	32	23	87	a45
28	34	84	97	48	91	155	166	47	34	23	81	a120
29	76	185	119	46	-	138	360	45	43	23	75	a70
30	64	119	346	43	-------	133	220	48	32	21	69	55
31	51	-------	216	43	-------	128	-------	50	-------	19	67	-------
Total	1,275	3,350	4,850	2,477	2,671	5,013	4,599	2,191	1,176	717	11,026	1,749
Mean	41.1	112	156	79.9	95.4	162	153	70.7	39.2	23.1	356	58.3
(†)	+7.3	+8.6	+7.7	+6.3	+7.8	+10.1	+7.6	+6.5	+7.3	+6.3	+8.8	+5.6

Adjusted for diversion and change in reservoir contents

Mean	48.4	121	164	86.2	103	172	161	77.2	46.5	23.4	365	63.9
Cfsm	1.07	2.68	3.63	1.91	2.28	3.81	3.56	1.71	1.03	0.650	8.08	1.41
In.	1.23	2.99	4.18	2.20	2.37	4.39	3.97	1.97	1.15	0.75	9.32	1.57

	Observed			Adjusted			
Calendar year 1954:	Max 635	Min 17	Mean 73.7	Mean 81.3	Cfsm 1.80	In. 24.44	
Water year 1954-55:	Max 6,500	Min 19	Mean 113	Mean 120	Cfsm 2.65	In. 36.09	

Peak discharge (base, 660 cfs).--Oct. 15 (10 p.m.) 695 cfs (2.80 ft); Nov. 3 (4:30 a.m.) 735 cfs (2.90 ft); Dec. 14 (9 p.m.) 1,120 cfs (3.73 ft); Feb. 7 (1:30 a.m.) 672 cfs (2.75 ft); Aug. 19 (7:30 a.m.) 11,700 cfs (13.22 ft).
* Discharge measurement made on this day.
† Change in contents in Whigville Reservoir, diversion for municipal supply of city of New Britain from Whigville Reservoir and at Whites Bridge pumping plant, equivalent in cubic feet per second.
a No gage-height record; discharge estimated on basis of fragmentary record, 5 staff-gage readings, and high-water mark

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 mile southeast of Granby, Hartford County, and 1.9 mile upstream from mouth.

Drainage area.--60.6 sq mi.

Records available.--July 1946 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 147.54 ft above mean sea level, datum of 1929.

Average discharge.--9 years, 133 cfs.

Extremes.--Maximum discharge during year, about 40,000 cfs Aug. 19, from a comparison of unit runoff of tributary and nearby streams; maximum gage height, 23.58 ft Aug. 19 (prior to destruction of railroad bridge); minimum discharge, 14 cfs Aug. 5, 10 (gage height, 1.65 ft).
1946-55: Maximum discharge, that of Aug. 19, 1955; maximum gage height, that of Aug. 19, 1955; minimum, 10 cfs Aug. 26, 1949 (gage height, 1.42 ft).

Remarks.--Records good prior to June 1, fair thereafter. Infrequent regulation at low flow.

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 9 to Aug 12; stage-discharge relation affected by ice Jan. 14, 15, 18, 20, 21, 28-31, Feb. 2-4, 9, 13, 14; backwater from Farmington River Aug. 19-21)

Oct. 1 to Dec. 14		Dec. 15 to Aug. 19		Aug. 19 to Sept. 30			
1.8	32	1.5	15	4.2	76	8.0	1,470
2.0	48	1.7	27	5.0	162	10.0	4,900
2.5	101	2.0	51	6.0	358	12.0	10,200
3.0	166	2.5	109	7.0	730	15.0	21,000
4.0	395	3.0	187				
5.0	610	5.0	610				
		8.0	1,420				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	76	158	262	51	272	214	345	78	47	19	137
2	39	70	133	273	52	276	212	284	68	42	17	127
3	39	520	118	264	51	173	204	244	62	46	16	122
4	38	342	103	214	51	131	334	218	58	40	16	116
5	38	185	103	177	49	125	415	198	52	36	16	113
6	38	129	90	183	53	142	405	183	50	33	17	129
7	38	106	79	171	372	171	365	163	46	32	17	113
8	36	90	80	133	142	134	262	154	47	29	19	102
9	37	85	83	128	98	134	212	144	47	26	16	98
10	38	79	103	128	86	257	195	136	46	28	16	95
11	*38	75	96	115	194	410	183	130	44	63	22	94
12	38	72	87	101	211	345	167	120	68	45	62	*100
13	36	70	83	102	138	288	162	109	82	36	469	91
14	36	68	216	86	96	225	171	103	61	28	387	87
15	37	67	1,100	85	89	183	171	96	*52	25	184	82
16	87	66	425	88	80	258	154	87	50	28	97	82
17	70	65	275	85	86	266	142	85	46	50	72	83
18	54	66	539	77	97	185	134	79	41	33	1,380	81
19	48	89	609	76	115	160	126	74	38	28	18,400	84
20	45	269	355	74	119	144	*119	70	40	26	5,460	110
21	44	345	260	72	109	144	117	67	58	25	1,620	88
22	42	228	210	72	101	312	160	64	117	24	716	83
23	41	142	183	71	241	550	153	61	115	22	480	81
24	40	125	181	*71	202	385	133	67	89	22	327	152
25	40	248	162	71	134	375	530	65	101	22	258	170
26	39	168	134	71	113	315	695	78	85	21	214	123
27	41	135	131	68	113	291	712	96	70	20	184	103
28	53	123	134	60	163	229	395	78	58	22	169	142
29	77	305	163	58	-	208	692	72	71	23	152	126
30	129	245	389	56	-------	208	492	87	61	21	143	110
31	96	-------	355	54	-------	214	-------	99	-------	19	143	------
Total	1,513	4,633	7,137	3,546	3,406	7,510	8,426	3,856	1,901	962	31,108	3,224
Mean	48.8	154	230	114	122	242	281	124	63.4	31.0	1,003	107
Cfsm	0.805	2.54	3.80	1.88	2.01	3.99	4.64	2.05	1.05	0.512	16.6	1.77
In.	0.93	2.83	4.38	2.17	2.09	4.60	5.18	2.36	1.17	0.59	19.14	1.98

Calendar year 1954: Max 1,100 Min 26 Mean 113 Cfsm 1.86 In. 25.33
Water year 1954-55: Max 18,400 Min 16 Mean 212 Cfsm 3.50 In. 47.42

Peak discharge (base, 1,000 cfs).--Dec. 15 (4:15 a.m.) 1,820 cfs (9.26 ft); Dec. 18 (9:40 p.m.) 1,120 cfs (6.95 ft); Aug. 19 (10 a.m.) about 40,000 cfs.
* Discharge measurements made on this day.

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 Salmon Brook, and 8 miles upstream from mouth.

Drainage area.--584 sq mi.

Records available.--August 1928 to September 1955. 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 94.85 ft higher.

Average discharge.--27 years, 1,073 cfs (adjusted to present site; adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 69,200 cfs Aug. 19 (gage height, 23.5 ft, from floodmarks), by computation of flow over Rainbow dam; minimum daily, 150 cfs Jan. 30, July 10.

1928-55: Maximum discharge, that of Aug. 19, 1955; minimum daily, 5.1 cfs Mar. 5, 1944, Oct. 28, Nov. 11, 1945, and Feb. 22, 1947.

Remarks.--Records excellent except those for periods of no gage-height record, which are 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. 232), 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 1171: Drainage area. WSP 1051: 1945(m). WSP 1301: 1937-43 (adjusted figures of monthly and yearly discharge and runoff).

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19				Aug. 20 to Sept. 30			
1.1	132	5.0	4,870	1.3	168	6.0	5,680
1.5	350	7.0	8,800	1.6	320	9.0	12,100
2.0	740	9.0	13,500	2.0	590	13.0	23,500
2.5	1,250	13.0	24,000	3.0	1,480	19.0	45,700
3.0	1,840	19.0	45,700	4.0	2,630	22.0	61,000

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	442	780	1,970	2,150	392	1,520	1,480	3,670	642	377	215	1,160
2	474	780	1,540	1,640	488	1,860	1,560	2,630	707	342	205	1,090
3	349	1,600	1,090	1,660	261	1,820	1,680	*2,360	603	418	215	1,010
4	404	4,000	1,050	1,650	322	1,500	2,230	1,840	320	198	550	924
5	466	2,600	720	1,610	384	790	2,430	1,860	332	322	300	944
6	624	2,100	880	1,320	379	1,060	2,530	1,560	492	204	230	1,130
7	416	1,200	700	1,120	1,370	1,110	3,220	1,540	418	*214	290	850
8	456	1,200	950	1,170	1,560	1,170	3,140	1,330	477	235	420	948
9	450	1,150	1,250	773	1,110	782	2,640	1,360	514	190	230	828
10	474	750	1,100	952	782	974	2,100	1,070	531	150	230	734
11	*298	900	1,400	979	772	1,830	1,970	1,060	404	231	310	652
12	202	900	1,000	813	1,580	2,450	1,970	1,020	402	440	805	*885
13	476	800	650	850	1,060	2,300	1,970	893	531	280	1,700	740
14	630	750	1,300	823	810	1,970	1,700	524	538	270	2,500	654
15	662	480	3,500	720	814	1,550	1,570	810	*560	300	4,500	660
16	589	950	3,700	616	613	1,450	1,670	690	520	240	2,600	578
17	878	900	2,400	588	705	1,570	1,730	836	370	230	1,800	264
18	630	950	2,200	777	794	1,970	1,550	710	280	220	1,850	365
19	713	950	3,500	774	964	1,500	1,240	708	240	230	*45,100	1,090
20	719	1,270	3,200	769	666	1,020	1,390	667	370	350	56,700	290
21	*730	2,300	2,520	642	728	1,310	1,170	492	450	320	27,600	194
22	558	3,710	1,660	662	708	1,460	1,160	458	600	370	13,800	466
23	745	2,510	1,660	746	996	2,310	1,430	486	636	250	8,460	368
24	379	2,020	1,560	598	1,470	2,500	1,310	602	691	280	5,520	777
25	450	1,700	1,280	506	1,490	2,500	1,740	634	452	220	4,870	988
26	436	1,750	980	*466	1,090	2,500	3,850	718	456	250	2,500	1,350
27	639	1,640	925	456	622	2,140	4,920	628	536	430	1,600	664
28	618	860	1,150	461	776	1,970	4,410	659	492	330	1,450	1,040
29	920	*1,420	1,300	361	-	1,550	3,660	568	435	300	1,250	945
30	780	1,850	1,660	150	-------	1,470	4,440	333	482	200	1,450	932
31	950	-------	2,270	393	-------	1,370	-------	649	-------	300	1,160	-------
Total	17,557	44,770	51,065	27,195	23,706	51,276	67,860	33,365	14,481	8,721	190,410	23,520
Mean	566	1,492	1,647	877	847	1,654	2,262	1,076	483	281	6,142	784
(†)	-79	+250	+255	+58	+73	+239	+141	+39	-28	-61	+309	-20
Adjusted for diversion and change in reservoir contents												
Mean	487	1,742	1,902	935	920	1,893	2,403	1,115	455	220	6,451	764
Cfsm	0.834	2.98	3.26	1.60	1.58	3.24	4.11	1.91	0.779	0.377	11.0	1.31
In.	0.96	3.32	3.76	1.84	1.64	3.74	4.59	2.20	0.87	0.43	12.68	1.46

	Observed			Adjusted		
Calendar year 1954:	Max 4,520	Min 102	Mean 950	Mean 1,080	Cfsm 1.85	In. 25.08
Water year 1954-55:	Max 56,700	Min 150	Mean 1,518	Mean 1,616	Cfsm 2.77	In. 37.49

* Discharge measurement made on this day.

† Change in contents in Otis, Barkhamsted, East Branch, Nepaug and Whigville Reservoirs, and diversion from Barkhamsted, Nepaug and Whigville Reservoirs and Whites Bridge pumping plant, equivalent in cubic feet per second; furnished by Collins Co., Water Bureau of Hartford Metropolitan District Commission, and Board of Water Commissioners of New Britain.

Note.--No gage-height record Oct. 29 to Nov. 19, Dec. 4-20, June 15-22, July 9, 10, 12, 15-31, Aug. 1-30; discharge computed on basis of records furnished by Farmington River Power Co.

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 1955.

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.--19 years, 72.8 cfs.

Extremes.--Maximum discharge during year, 7,000 cfs Aug. 19, 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, from floodmark; minimum discharge, 11 cfs Aug. 7 (gage height, 1.50 ft).
1936-55: Maximum discharge, that of Aug. 19, 1955; minimum, 7.3 cfs Oct. 6, 1941 (gage height, 1.31 ft); minimum daily, 9.4 cfs, Oct. 6, 1941.
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 no gage-height record, which are fair. Some regulation by mills and reservoirs above station.

Revisions (water years).--WSP 1201: 1939-40(P), 1941(M), 1943-44(P), 1950.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from debris Aug. 21, 22)

Oct. 1 to Dec. 15		Dec. 16 to Mar. 22		Mar. 23 to Sept. 30			
2.0	34	1.8	24	1.6	13	7.0	465
2.5	56	2.5	53	2.0	23	11.0	1,580
3.8	115	3.8	115	4.0	125	15.0	3,500
				6.0	270	18.0	5,500
Note.--Same as following table above 3.8 ft.		Note.--Same as following table above 3.8 ft.					

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	51	92	100	*31	*193	*103	98	*32	*23	15	60
2	49	54	82	131	37	168	96	*84	30	18	*18	55
3	46	383	77	*122	36	95	106	65	29	15	19	*55
4	*47	164	67	105	35	98	290	62	27	25	19	55
5	48	80	64	91	28	91	190	62	24	22	28	55
6	47	69	*72	115	30	178	140	67	27	20	22	67
7	46	62	47	108	b200	212	134	54	27	23	23	64
8	45	62	46	86	67	110	103	56	29	22	42	47
9	43	66	54	79	50	122	93	56	30	21	24	34
10	43	51	80	74	49	152	93	52	29	27	25	27
11	54	48	50	74	b100	143	87	46	24	26	43	85
12	60	54	48	68	b140	131	84	46	52	24	162	75
13	56	47	54	68	64	120	71	42	35	18	345	53
14	54	44	182	72	60	115	69	37	32	22	188	44
15	49	54	*716	39	63	108	66	34	29	17	56	46
16	110	*46	186	34	48	149	56	38	27	23	36	46
17	62	48	115	38	151	131	52	59	24	15	31	38
18	59	61	284	42	118	112	64	56	21	21	466	31
19	45	59	342	44	79	118	54	50	19	22	*5,080	40
20	36	241	164	41	67	110	53	46	60	18	2,230	100
21	35	176	125	41	70	118	52	40	32	19	400	65
22	34	110	108	34	65	412	77	36	53	16	178	55
23	45	88	98	30	148	425	59	46	34	14	128	48
24	45	92	93	39	122	206	54	48	46	30	110	145
25	47	164	86	b41	91	173	149	44	38	23	105	170
26	49	88	77	36	81	170	140	36	27	20	85	51
27	50	80	86	31	79	176	164	34	27	18	65	49
28	40	77	86	b40	98	140	87	31	33	19	60	145
29	91	186	100	29	-	128	227	27	29	18	50	74
30	71	115	317	24	-------	122	149	36	31	14	40	42
31	52	-------	160	30	-------	115	-------	40	-------	14	45	----- --
Total	1,610	2,920	4,158	1,906	2,207	4,841	3,162	1,528	957	627	10,138	1,921
Mean	51.9	97.3	134	61.5	78.8	156	105	49.3	31.9	20.2	327	64.0
Cfsm	1.28	2.40	3.30	1.51	1.94	3.84	2.59	1.21	0.786	0.498	8.05	1.58
In.	1.48	2.68	3.80	1.74	2.02	4.43	2.89	1.40	0.88	0.57	9.28	1.76

Calendar year 1954: Max 828 Min 18 Mean 73.5 Cfsm 1.81 In. 24.57
Water year 1954-55: Max 5,080 Min 14 Mean 98.6 Cfsm 2.43 In. 32.93

Peak discharge (base, 550 cfs).--Dec. 15 (3:30 a.m.) 1,060 cfs (9.18 ft at 6:30 a.m.); Dec. 18 (8 p.m.) 640 cfs (7.48 ft at 12 p.m.); Mar. 22 (11 p.m.) 715 cfs (7.90 ft at 1 a.m. Mar. 23); Aug. 19 (9 to 11 a.m.) 7,000 cfs (19.65 ft at 1 p.m.).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record 8 a.m. Aug. 19 to 9 a.m. Aug. 21; discharge estimated from graph based on 4 stage observations, high-water mark, and records for stations on North and South Branches. No gage-height record 9 a.m. Aug. 23 to noon Sept. 6; discharge estimated on basis of 1 discharge measurement, weather records, and records for stations on North and South Branches.

North Branch Park River at Hartford, Conn.

Location.--Lat 41°47'03", long 72°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 1955.

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.--19 years, 37.9 cfs.

Extremes.--Maximum discharge during year, 10,000 cfs Aug. 19, from rating curve extended above 1,600 cfs on basis of slope-area determination of peak flow in reach 2.6 miles upstream; maximum gage height, 18.8 ft Aug. 19, from floodmark; minimum discharge, 0.5 cfs Aug. 7 (gage height, 0.85 ft).

1936-55: Maximum discharge, that of Aug. 19, 1955; minimum, 0.04 cfs Sept. 24, 25, 1943 (gage height, 0.75 ft); minimum daily, 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. Some regulation by mills upstream and by storage and diversion at Hartford water-supply reservoirs above station.

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.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second) (Backwater from debris on control June 7-10, July 12, 13, 28-31, Aug. 1, 2, Sept. 24-30)

Oct. 1 to Aug. 18				Aug. 19 to Sept. 30			
0.9	0.7	2.0	29	1.5	7.8	3.5	340
1.1	2.0	2.3	58	1.7	14	6.0	830
1.3	4.0	2.6	107	2.0	31	8.0	1,400
1.5	7.3	3.7	380	2.3	64	12.0	3,350
1.7	12	6.0	830	2.7	140	16.0	6,550

Note.--Same as following table above 6.0 ft.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.7	12	35	52	*6.9	*131	*32	64	*8.3	*4.8	1.15	16
2	8.7	*11	27	84	6.9	101	31	*49	7.5	3.5	*1.1	*15
3	7.1	179	*22	*81	6.3	50	28	43	7.1	3.0	1.0	14
4	*7.1	89	18	50	5.9	33	226	38	6.3	2.5	.9	13
5	6.7	35	17	35	6.9	31	132	116	6.7	2.5	.8	13
6	6.3	23	b12	53	9.3	58	68	144	6.3	4.4	.75	14
7	5.9	18	12	b58	b150	93	74	61	5.5	9.4	1.2	12
8	5.7	15	11	b39	b49	b59	45	47	5.7	3.7	2.3	10
9	5.7	14	13	24	b21	b72	34	44	6.1	2.7	2.2	9.4
10	5.9	12	32	23	16	152	31	37	6.9	2.4	1.3	9.2
11	6.3	12	25	20	b35	138	28	35	6.3	7.5	5.4	15
12	5.9	12	b17	17	b130	85	23	31	12	4.6	45	14
13	5.3	12	16	15	b39	74	24	28	13	3.9	168	10
14	5.1	11	133	b12	20	52	29	27	9.2	3.1	118	9.4
15	5.3	11	509	12	16	44	30	26	7.7	2.4	39	9.7
16	20	10	130	12	14	93	26	26	6.1	2.9	13	9.7
17	17	10	61	12	58	82	21	25	4.7	3.5	8.3	9.2
18	11	11	214	11	95	42	21	11	3.7	4.5	459	8.1
19	8.9	12	249	10	63	36	20	7.9	3.4	4.0	*6460	8.7
20	8.3	196	74	9.5	39	35	20	8.7	13	3.1	2,510	36
21	7.5	118	42	8.5	29	35	18	8.1	8.9	2.2	390	12
22	6.9	55	37	9.2	26	347	36	8.3	18	1.7	114	10
23	6.5	31	32	9.8	109	402	34	8.5	13	1.5	62	16
24	6.3	36	35	10	68	107	26	9.2	9.5	2.6	40	31
25	6.1	116	b31	9.8	b33	74	135	8.9	11	3.4	31	36
26	5.9	45	24	9.5	26	74	158	10	8.3	3.9	26	15
27	6.3	29	22	9.2	28	91	212	9.5	6.1	8.0	23	16
28	6.5	28	26	7.9	49	52	70	8.3	4.7	2.7	23	28
29	18	150	45	7.9	-	42	238	7.9	12	2.8	18	19
30	31	64	294	6.7	-------	39	123	8.5	7.7	2.6	16	12
31	18	-------	112	6.3	-------	35	-------	9.2	-------	1.7	17	------
Total	279.9	1,377	2,327	724.3	1,155.2	2,759	1,993	965.0	244.7	111.5	10,598.40	450.4
Mean	9.03	45.9	75.1	23.4	41.3	89.0	66.4	31.1	8.16	3.60	342	15.0
Cfsm	0.357	1.81	2.97	0.925	1.63	3.52	2.62	1.23	0.323	0.142	13.5	0.593
In.	0.41	2.02	3.42	1.07	1.70	4.06	2.92	1.42	0.36	0.16	15.56	0.66

Calendar year 1954: Max 509 Min 1.1 Mean 32.6 Cfsm 1.29 In. 17.50
Water year 1954-55: Max 6,460 Min 0.75 Mean 63.0 Cfsm 2.49 In. 33.76

Peak discharge (base, 500 cfs).--Dec. 15 (3:30 a.m.) 766 cfs (5.64 ft at 5 a.m.); Dec. 18 (10 p.m.) 524 cfs (4.39 ft at 11 p.m.); Mar. 22 (10:30 p.m.) 774 cfs (5.64 ft at 12 p.m.); Aug. 19 (11 a.m.) 10,000 cfs (18.8 ft at 12 m.).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Aug. 19-26; discharge estimated from graph based on partial record, 3 stage observations in vicinity of gage, high-water mark, and recorded recession from flood peak of Sept. 21, 1938.

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 1955.

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.--19 years, 121 cfs.

Extremes.--Maximum discharge during year, 16,200 cfs Aug. 19 (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, 15 cfs July 24, Aug. 1, 7; minimum gage height, 2.28 ft Aug. 7.
1936-55: Maximum discharge, that of Aug. 19, 1955; 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.

Remarks.--Records good. Some regulation by mills above station and by storage and diversion at Hartford water-supply reservoirs on small headwater streams.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	68	143	177	*41	*359	*143	191	*43	*32	18	84
2	56	*68	117	212	43	319	130	*156	38	24	*21	*82
3	51	540	108	239	43	160	136	124	36	21	22	76
4	*49	353	91	173	43	136	370	111	34	26	24	76
5	49	139	85	140	38	124	430	153	32	28	34	73
6	49	104	*91	180	38	260	220	258	34	26	34	87
7	49	85	64	198	*405	375	227	130	34	38	26	82
8	49	79	59	136	127	180	163	105	36	28	52	63
9	49	82	69	117	75	184	130	105	41	26	30	47
10	47	70	120	105	67	318	124	94	41	28	30	41
11	62	68	82	105	118	313	124	85	36	36	55	116
12	70	70	67	94	354	235	114	80	69	32	270	100
13	65	70	69	91	111	205	105	75	54	26	530	71
14	68	59	216	91	82	177	105	69	45	28	368	61
15	59	65	*1,270	64	80	156	105	64	36	24	114	59
16	139	62	425	54	64	248	91	67	36	32	62	61
17	88	62	205	54	200	240	80	88	32	21	50	54
18	70	82	406	57	244	163	88	72	28	30	697	47
19	59	79	760	59	156	163	80	62	24	24	*9,800	52
20	47	420	291	57	108	149	77	59	82	21	6,980	152
21	45	365	194	52	100	160	80	54	50	22	926	98
22	42	187	163	50	94	593	114	50	75	19	320	82
23	51	127	143	43	248	1,020	105	54	57	16	212	73
24	53	130	143	50	221	380	85	62	59	34	173	195
25	53	322	140	54	133	274	287	59	59	38	155	289
26	59	143	108	52	108	254	291	50	41	24	138	92
27	62	117	114	45	102	304	465	48	34	28	101	73
28	51	111	120	52	140	209	187	43	43	24	98	205
29	126	371	153	45	-	180	490	38	45	21	84	115
30	136	231	*565	34	------	170	336	41	45	19	61	63
31	82	----	375	36	------	156	------	52	------	18	68	----
Total	1,994	4,729	6,956	2,916	3,583	8,164	5,482	2,699	1,319	814	21,553	2,769
Mean	64.3	158	224	94.1	128	263	183	87.1	44.0	26.3	695	92.3
Cfsm	0.869	2.14	3.03	1.27	1.73	3.55	2.47	1.18	0.595	0.355	9.39	1.25
In.	1.00	2.39	3.49	1.46	1.80	4.09	2.76	1.36	0.66	0.41	10.83	1.40

Calendar year 1954: Max 1,270 Min 20 Mean 115 Cfsm 1.55 In. 21.08
Water year 1954-55: Max 9,800 Min 16 Mean 173 Cfsm 2.34 In. 31.65

Peak discharge (base, 1,000 cfs).--Dec. 15 (9 a.m.) 1,670 cfs (5.69 ft); Dec. 19 (3 a.m.) 1,030 cfs (4.70 ft); Mar. 23 (3:30 a.m.) 1,460 cfs (5.39 ft); Aug. 19 (6 p.m.) 16,200 cfs (16.36 ft).
* Discharge measurement made on this day.
Note.--No gage-height record Aug. 19-23; discharge estimated from gage-height graph based on 1 stage observation, high-water mark, stage data furnished by engineers of city of Hartford, and records for North and South Branches.

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 1955.

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.--29 years, 116 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 2,740 cfs Aug. 19 (gage height, 10.46 ft); minimum, 27 cfs Oct. 24 (gage height, 1.21 ft); minimum daily, 29 cfs Oct. 24.
1919-21, 1928-55: 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 excellent. Flow regulated by Shenipsit Lake (see p. 233), 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.2	26	5.0	650
1.5	54	7.0	1,210
2.0	104	9.0	1,950
3.0	244		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	135	137	156	212	*82	198	170	270	98	82	47	209
2	55	96	138	217	81	205	104	271	94	54	58	228
3	82	348	133	245	80	157	148	217	89	49	68	156
4	132	294	58	200	86	166	287	200	68	46	73	173
5	88	215	91	195	40	70	260	*196	68	45	58	128
6	79	95	142	204	63	171	265	266	92	47	56	163
7	81	116	131	236	287	277	252	146	88	71	49	150
8	107	147	128	157	174	158	190	175	88	65	50	164
9	47	94	163	164	122	153	202	231	70	63	67	158
10	33	130	168	191	95	191	181	157	63	58	77	100
11	90	93	114	164	144	210	212	153	66	57	86	159
12	101	134	131	160	167	148	136	152	68	57	128	193
13	87	60	154	159	120	157	171	160	138	59	248	111
14	87	66	192	155	145	193	193	76	121	58	381	107
15	119	124	503	87	95	140	176	90	68	59	240	113
16	60	101	330	128	100	179	89	133	58	65	109	132
17	42	94	242	165	178	190	126	150	54	65	106	75
18	89	102	246	98	184	167	188	108	54	114	178	68
19	*89	107	430	96	83	86	153	103	49	89	1,760	117
20	89	164	296	97	106	124	134	86	93	86	1,200	144
21	89	233	236	134	148	204	144	89	96	96	810	124
22	88	221	218	52	112	236	176	90	227	84	605	99
23	*41	155	199	63	182	410	80	111	156	64	469	106
24	29	147	187	120	190	295	121	101	*84	58	377	94
25	67	129	179	97	171	240	261	96	56	58	284	160
26	82	146	165	95	68	179	240	94	52	72	256	185
27	94	134	186	94	104	214	354	97	130	73	219	100
28	94	127	179	90	164	226	321	70	132	80	238	146
29	128	225	194	49	-	194	411	78	56	77	244	111
30	67	191	293	69	--------	193	351	80	69	47	210	133
31	91	--------	283	105	--------	186	--------	111	--------	46	203	--------
Total	2,562	4,425	6,265	4,298	3,571	5,917	6,096	4,357	2,645	2,044	8,954	4,106
Mean	82.6	148	202	139	128	191	203	141	88.2	65.9	289	137
(†)	-9.3	+21.0	+5.9	-11.7	+6.4	+29.1	+3.5	-9.3	-15.5	-19.6	+20.3	-23.2

Adjusted for change in contents in Shenipsit Lake

Mean	73.3	169	208	127	134	220	206	132	72.7	46.3	309	114
Cfsm	0.984	2.27	2.79	1.70	1.80	2.95	2.77	1.77	0.976	0.621	4.15	1.53
In.	1.13	2.53	3.22	1.96	1.87	3.40	3.09	2.04	1.09	0.72	4.78	1.71

	Observed			Adjusted		
Calendar year 1954:	Max 564	Min 29	Mean 119	Mean 120	Cfsm 1.61	In. 21.86
Water year 1954-55:	Max 1,760	Min 29	Mean 151	Mean 151	Cfsm 2.03	In. 27.54

Peak discharge (base, 900 cfs).--Aug. 19 (12:30 p.m.) 2,740 cfs (10.46 ft).
* Discharge measurement made on this day.
† Change in contents, equivalent in cubic feet per second, in Shenipsit Lake; furnished by Rockville Water & Aqueduct Co.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 69.50 ft above mean sea level, datum of 1929.

Average discharge.--27 years, 178 cfs.

Extremes.--Maximum discharge during year, 4,870 cfs Aug. 19 (gage height, 6.02 ft); minimum, 6.8 cfs Aug. 4, 5, 6 (gage height, 0.47 ft).
1928-55: 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 1201: 1929.

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Dec. 14)

Oct. 1 to Aug. 19				Aug. 20 to Sept. 30			
0.4	4.2	1.5	197	0.9	40	2.0	365
.5	7.9	2.0	380	1.2	95	3.0	1,020
.7	23	3.0	1,020	1.5	170	4.0	2,040
.9	50	4.0	2,040				
1.2	113	5.3	3,790				

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	144	271	435	b65	360	243	352	159	36	8.7	128
2	101	122	231	430	b65	412	229	278	108	31	7.9	113
3	93	1,440	208	435	b60	300	246	246	85	28	7.2	100
4	91	736	182	360	*b70	348	520	223	72	25	7.2	89
5	84	431	182	304	b70	328	500	264	72	21	7.2	78
6	79	324	168	332	b85	494	372	440	64	19	9.6	80
7	74	258	b147	360	b590	628	360	320	68	50	11	74
8	70	223	b147	285	328	380	300	282	64	41	66	65
9	70	204	b152	260	210	332	253	296	63	27	44	58
10	69	187	238	243	179	332	236	243	59	21	23	54
11	68	173	210	223	299	328	223	213	50	35	17	58
12	68	168	173	203	530	308	210	194	153	23	127	76
13	66	160	158	203	256	293	207	176	156	18	757	*65
14	64	152	381	*164	200	267	*219	161	94	16	771	53
15	63	147	1,700	173	179	246	239	150	*70	15	316	50
16	151	140	766	b160	170	316	229	136	54	14	161	48
17	141	140	465	b150	355	340	207	170	42	16	95	43
18	*102	140	918	b140	360	270	197	153	35	14	194	42
19	84	142	1,440	b130	263	243	191	131	33	13	3,650	40
20	77	548	*675	b120	226	236	182	113	108	14	1,670	78
21	73	643	475	b110	213	246	173	103	78	11	601	89
22	69	*405	402	b120	197	555	223	96	64	10	336	56
23	65	289	364	b120	274	1,160	229	89	50	8.7	605	45
24	63	269	364	b120	308	*580	200	91	47	12	439	192
25	60	431	340	b120	246	455	274	85	78	24	269	356
26	60	327	285	b120	207	412	304	83	74	19	194	185
27	65	260	274	b110	207	416	368	123	59	15	162	113
28	95	245	282	b90	229	340	293	101	55	12	156	229
29	158	383	376	b90	-	293	675	83	63	14	128	221
30	248	354	766	b75	-------	274	525	78	47	12	111	143
31	190	-------	640	b65	-------	256	-------	119	-------	10	116	------
Total	2,865	9,585	13,380	6,250	6,441	11,748	8,627	5,592	2,224	624.7	11,066.8	3,021
Mean	92.4	320	432	202	230	379	288	180	74.1	20.2	357	101
Cfsm	0.880	3.05	4.11	1.92	2.19	3.61	2.74	1.71	0.706	0.192	3.40	0.962
In.	1.01	3.40	4.74	2.21	2.28	4.16	3.06	1.97	0.79	0.22	3.92	1.07

Calendar year 1954: Max 2,590 Min 11 Mean 210 Cfsm 2.00 In. 27.19
Water year 1954-55: Max 3,650 Min 7.2 Mean 223 Cfsm 2.12 In. 28.83

Peak discharge (base, 1,300 cfs).--Nov. 3 (10 a.m.) 1,980 cfs (3.94 ft); Dec. 15 (5 a.m.) 2,160 cfs (4.10 ft); Dec. 18 (11 p.m.) 2,100 cfs (4.05 ft); Mar. 23 (3 a.m.) 1,470 cfs (3.48 ft); Aug. 19 (1 p.m.) 4,870 cfs (6.02 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Eightmile River at North Plain, Conn.
(Formerly published as West Branch 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 1955. 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. 7, 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.--18 years, 39.6 cfs (adjusted to present site).

Extremes.--Maximum discharge during year, 805 cfs Dec. 18 (gage height, 5.89 ft); minimum, 0.8 cfs Aug. 5-7; minimum gage height, 1.70 ft Aug. 7.
1937-55: Maximum discharge, 1,810 cfs Sept. 21, 1938 (gage height, 8.2 ft, from floodmarks, site and datum then in use), by computation of flow through submerged highway bridge; minimum observed, 0.05 cfs Sept. 12, 1944 (gage height, 1.60 ft).

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

Revisions (water years).--WSP 1141: 1948. WSP 1331: 1940-41(M), 1943(M), 1948(M), 1951(M), 1952-53(P).

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 30, Aug. 19 to Sept. 30				Dec. 31 to Aug. 19			
2.0	5.0	3.5	120	1.7	0.8	2.4	24
2.3	16	4.0	215	1.8	1.9	2.8	54
2.5	27	5.0	427	1.9	3.6	3.4	123
3.0	65	5.5	605	2.1	9.3	4.1	247

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	32	70	110	14	67	53	64	37	4.8	1.5	41
2	20	40	59	116	14	69	50	53	25	3.8	1.4	28
3	18	427	53	90	13	56	53	47	21	3.2	1.1	23
4	18	195	46	78	*b15	84	130	42	17	3.2	1.0	20
5	17	135	46	73	15	77	102	40	17	2.8	.8	18
6	16	101	42	84	24	102	78	43	14	3.6	.8	16
7	15	74	39	90	227	130	84	41	18	6.1	.8	14
8	14	65	b35	68	78	90	69	43	16	15	12	12
9	14	55	36	68	63	78	57	41	14	10	7.4	11
10	14	50	115	58	51	71	52	36	12	7.4	2.7	10
11	14	44	70	54	90	67	49	31	11	7.1	1.9	10
12	14	42	48	50	140	59	*43	28	24	4.3	32	9.6
13	14	39	37	47	84	58	46	25	27	3.6	122	*8.4
14	13	37	150	b37	*b65	53	48	25	18	3.0	168	7.7
15	13	33	300	b41	55	*50	51	23	13	2.8	72	7.7
16	24	32	155	37	47	96	48	20	*11	3.8	36	7.1
17	20	33	100	b35	102	78	42	20	8.3	5.0	24	7.1
18	*16	31	310	b33	84	64	39	20	8.0	3.6	46	6.2
19	15	34	290	33	65	58	39	18	7.1	*3.0	479	5.9
20	14	160	175	b30	57	56	36	17	9.3	2.7	220	14
21	14	155	120	b25	54	68	36	15	8.3	2.2	95	18
22	13	101	*101	b26	51	215	45	15	9.7	2.2	59	11
23	12	74	84	b26	63	237	45	15	6.7	2.2	162	9.2
24	12	*79	101	b26	64	130	39	16	7.1	2.5	122	99
25	12	128	79	*26	55	102	54	14	9.0	3.8	70	169
26	12	90	74	25	50	95	63	15	11	2.8	48	65
27	12	70	65	25	46	96	57	19	8.0	1.9	38	40
28	15	70	60	b18	53	78	44	16	9.0	2.7	36	89
29	24	107	90	18	-	67	90	13	7.4	2.2	28	70
30	56	84	195	15	------	63	78	13	6.7	1.7	22	43
31	39	------	154	14	------	56	------	18	------	1.6	23	------
Total	545	2,617	3,299	1,476	1,739	2,670	1,720	846	410.6	124.6	1,933.4	889.9
Mean	17.6	87.2	106	47.6	62.1	86.1	57.3	27.3	13.7	4.02	62.4	29.7
Cfsm	0.946	4.69	5.70	2.56	3.34	4.63	3.08	1.47	0.737	0.216	3.35	1.60
In.	1.09	5.23	6.57	2.95	3.48	5.34	3.44	1.70	0.82	0.25	3.86	1.78

Calendar year 1954: Max 440 Min 1.8 Mean 47.9 Cfsm 2.58 In. 34.89
Water year 1954-55: Max 479 Min 0.8 Mean 50.1 Cfsm 2.69 In. 36.51

Peak discharge (base, 350 cfs).--Nov 3 (about 4 a.m.) 700 cfs (5.73 ft); Dec. 14 (about 10 p.m.) 605 cfs (about 5.5 ft); Dec. 18 (about 7 p.m.) 805 cfs (5.89 ft); Feb. 7 (about 7 a.m.) 376 cfs (4.67 ft); Mar. 22 (about 11 p.m.) 353 cfs (4.55 ft); Aug. 19 (about 7 a.m.) 750 cfs (5.80 ft).
* Discharge measurement made on this day.
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 highway bridge on Connecticut Highway 156, 0.4 mile upstream from confluence with West Branch, 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 1955.

Gage.--Water-stage recorder. Datum of gage is 55.21 ft above mean sea level, datum of 1929.

Average discharge.--18 years, 45.8 cfs.

Extremes.--Maximum discharge during year, 575 cfs Dec. 19 (gage height, 3.77 ft); minimum, 0.3 cfs (regulated) Aug. 7 (gage height, ~0.04 ft).
1937-55: 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. Occasional regulation at low flow.

Rating tables, water year 1954-55, except periods of ice effect and backwater from leaves or debris on control (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-18		Oct. 18 to Sept. 30					
0.6	16	0	0.35	0.5	11	2.0	165
.9	35	.1	.6	.7	23	2.5	233
1.1	52	.2	1.3	.9	43	3.0	329
		.3	3.8	1.5	107	3.5	470

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	47	86	125	16	68	58	66	42	6.1	0.85	36
2	28	40	71	115	b16	82	55	54	28	5.4	.7	40
3	26	238	63	121	b15	69	56	48	19	5.4	.5	29
4	26	193	56	99	*b18	76	113	45	15	4.4	.45	23
5	24	130	55	83	17	95	125	43	14	3.8	.4	19
6	23	103	52	82	19	98	90	47	13	3.8	.35	17
7	21	81	46	95	b180	140	83	43	14	14	.35	17
8	20	68	b43	b73	132	102	71	42	12	14	6.1	14
9	19	62	48	72	b71	84	60	47	12	8.7	4.1	12
10	18	56	80	65	56	81	56	41	12	6.1	2.9	11
11	19	52	78	60	70	75	52	35	10	5.0	2.1	11
12	19	50	58	55	164	70	*49	31	15	4.1	29	12
13	18	48	51	52	b106	66	50	28	26	3.5	135	*11
14	17	46	79	42	*b73	64	55	27	18	2.9	205	10
15	17	44	380	44	60	*58	59	24	13	2.6	138	9.5
16	41	41	196	43	b55	80	58	22	*10	2.4	62	9.5
17	45	40	132	*39	84	108	51	23	8.3	2.9	33	8.7
18	*30	40	168	35	114	79	48	22	7.2	2.4	36	8.3
19	23	41	439	35	81	66	46	20	6.4	*1.9	277	8.3
20	20	93	194	30	68	62	47	18	6.8	1.5	271	20
21	19	160	145	26	63	65	46	16	7.5	1.1	122	25
22	17	124	*b120	29	59	120	49	15	7.2	1.0	71	16
23	16	86	b104	28	66	219	55	14	6.8	.8	72	12
24	16	*76	110	30	81	144	49	16	6.4	1.0	124	38
25	15	125	102	30	69	110	54	15	7.2	1.5	78	167
26	14	112	83	28	59	98	57	15	8.7	1.5	54	95
27	15	82	78	28	56	103	59	24	8.7	1.3	44	53
28	17	74	76	b20	59	86	54	19	10	1.3	41	66
29	34	102	100	b21	-	74	85	16	9.5	1.7	32	106
30	79	116	166	b17	-------	68	94	15	7.5	1.2	26	66
31	65	-------	177	b16	-------	63	-------	17	-------	1.0	24	------
Total	789	2,570	3,636	1,638	1,927	2,773	1,882	908	381.2	114.3	1,892.80	970.3
Mean	25.5	85.7	117	52.8	68.8	89.5	62.7	29.3	12.7	3.69	61.1	32.2
Cfsm	1.16	3.90	5.32	2.40	3.13	4.07	2.85	1.33	0.577	0.168	2.78	1.47
In.	1.34	4.35	6.13	2.77	3.26	4.69	3.18	1.53	0.64	0.19	3.20	1.64

Calendar year 1954: Max 694 Min 0.25 Mean 55.0 Cfsm 2.50 In. 33.96
Water year 1954-55: Max 439 Min 0.35 Mean 53.4 Cfsm 2.43 In. 32.92

Peak discharge (base, 300 cfs).--Dec. 15 (11 a.m.) 510 cfs (3.58 ft); Dec. 19 (6 a.m.) 575 cfs (3.77 ft); Aug. 19 (8:30 p.m.) 467 cfs (3.49 ft).

* Discharge measurement made on this day.
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 Hampshire Water Resources Board.

Comerford Station Pond on Connecticut River, 4½ miles northeast of Barnet, Vt., completed in 1930 for storage of water for hydroelectric power development, has usable capacity of 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 1955. 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 capacities 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 1955. 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. Drainage area, 61.2 sq mi. Completed in 1919 for storage of water to compensate for

Reservoirs in Connecticut River basin--Continued

Barkhamsted, East Branch and Nepaug Reservoirs--Continued.
water diverted from the river. Total capacity, 400,000,000 cu ft. Records available, August 1928 to September 1955. 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 1955. 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 1955. 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 1955. Gage-height records furnished by Rockville Water & Aqueduct Co.

Month-end usable contents, in millions of cubic feet, water year October 1954 to September 1955

Date	First and Second Connecticut Lakes	Lake Francis	Comerford Station Pond	Union Village Reservoir	Lakes and ponds in Mascoma River basin
Sept.30, 1954	3,636.1	4,102.2	1,137	2.4	1,073.9
Oct. 31.....	3,602.3	4,108.2	1,312	2.6	915.7
Nov. 30.....	3,508.9	4,099.6	1,142	9.4	1,256.2
Dec. 31.....	2,369.9	3,050.0	1,235	8.8	1,190.7
Jan. 31, 1955	1,135.3	1,767.1	1,239	11.9	797.1
Feb. 28.....	552.2	1,124.0	1,235	10.8	549.7
Mar. 31.....	113.4	515.4	1,068	10.4	524.6
Apr. 30.....	2,066.9	2,766.6	1,047	4.2	1,164.7
May 31.....	3,302.3	3,415.0	1,271	3.4	1,246.1
June 30.....	3,612.2	4,221.0	1,216	2.6	1,253.2
July 31.....	3,430.3	4,136.7	1,194	1.8	1,048.3
Aug. 31.....	3,402.3	3,945.6	1,043	2.8	1,113.3
Sept.30.....	2,845.1	3,246.6	1,221	1.9	803.4

Date	Sunapee Lake	Surry Mountain Reservoir	Birch Hill Reservoir	Tully Reservoir	Somerset and Harriman Reservoirs
Sept.30, 1954	503	0.3	3.0	0.2	6,473.8
Oct. 31.....	418	.5	2.7	.3	6,206.3
Nov. 30.....	503	33.5	12.6	22.8	6,580.2
Dec. 31.....	374	33.5	10.2	23.6	6,334.5
Jan. 31, 1955	211	31.1	1.3	17.6	4,440.7
Feb. 28.....	238	38.9	5.1	24.8	3,339.7
Mar. 31.....	384	14.1	7.0	23.0	3,210.5
Apr. 30.....	678	4.6	47.4	27.8	6,647.0
May 31.....	718	6.7	2.7	.3	6,746.9
June 30.....	632	.6	1.8	.1	6,360.7
July 31.....	476	.1	1.3	0	5,885.1
Aug. 31.....	554	.2	2.7	.2	5,988.6
Sept.30.....	401	.1	2.7	.2	5,173.5

Date	Quabbin Reservoir†	Ludlow Reservoir	Watershops Pond	Knightville Reservoir	Borden Brook and Cobble Mountain Reservoirs
Sept.30, 1954	52,226	181.1	0	0.2	3,155.1
Oct. 31.....	51,936	181.1	0	.5	2,955.1
Nov. 30.....	52,423	181.1	70.3	4.5	3,235.2
Dec. 31.....	52,990	181.1	71.8	7.4	2,941.9
Jan. 31, 1955	52,916	179.9	70.3	10.8	2,381.9
Feb. 28.....	53,149	181.1	71.8	19.2	2,314.3
Mar. 31.....	53,888	181.1	71.1	8.1	2,528.6
Apr. 30.....	54,795	181.1	73.1	7.4	3,100.8
May 31.....	54,717	169.1	72.7	.4	3,164.5
June 30.....	54,332	180.2	71.8	.1	3,067.4
July 31.....	52,684	174.7	71.3	0	2,876.4
Aug. 31.....	54,773	170.8	69.4	.4	3,215.4
Sept.30.....	54,706	148.7	0	.4	2,909.8

Date	Otis Reservoir	Barkhamsted, East Branch and Nepaug Reservoirs	Whigville Reservoir	Shenipsit Lake	
Sept.30, 1954	673	4,665	4.1	625.4	
Oct. 31.....	514	4,420	6.0	600.6	
Nov. 30.....	486	4,925	8.7	655.0	
Dec. 31.....	408	5,549	8.8	670.8	
Jan. 31, 1955	352	5,601	5.3	639.5	
Feb. 28.....	392	5,559	6.8	655.0	
Mar. 31.....	532	5,914	8.7	732.9	
Apr. 30.....	749	5,914	8.8	742.0	
May 31.....	753	5,839	6.0	717.1	
June 30.....	761	5,561	5.3	676.9	
July 31.....	749	5,176	5.3	624.4	
Aug. 31.....	669	5,913	8.7	678.9	
Sept.30.....	521	5,828	5.1	618.8	

† 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 mile 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 1955.

Gage.--Water-stage recorder. Datum of gage is 23.64 ft above mean sea level, datum of 1929.

Average discharge.--14 years, 21.8 cfs (adjusted).

Extremes (unadjusted for storage or diversion).--Maximum discharge during year, 375 cfs Dec. 15 (gage height, 4.50 ft); minimum, 0.008 cfs Aug. 7 (gage height, 0.66 ft).
1941-55: Maximum discharge, 1,600 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; minimum gage height, 0.48 ft Sept. 9-12, 1944.

Remarks.--Records excellent except those below 2.0 cfs, which are fair. 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 11, 12, 18-25, June 28 to Aug. 13, and Sept. 8-25 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. Draft on Killingworth Reservoir is determined at a staff-gage station just below spillway. Change in contents in Kelseytown Reservoir is determined at a temporary recording station at dam. 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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	20	38	61	7.2	36	25	30	9.2	1.9	0.4	7.6
2	14	16	32	56	7.4	42	25	25	6.4	1.7	.35	7.2
3	15	104	26	54	7.1	33	25	21	5.3	2.0	.3	5.9
4	14	94	23	44	*7.4	47	51	19	4.7	1.6	.25	4.9
5	13	62	21	37	7.2	54	45	17	4.4	1.4	.2	4.6
6	11	49	21	37	7.7	53	35	17	4.2	1.9	.2	4.5
7	11	37	18	44	90	80	36	16	4.0	2.6	.15	4.0
8	9.4	30	16	30	54	51	30	16	3.8	2.4	2.0	3.4
9	9.0	26	18	30	31	42	25	18	3.7	2.0	1.5	3.0
10	9.2	22	38	26	23	41	23	15	3.6	1.6	1.2	2.8
11	*9.4	20	31	24	26	38	22	14	3.5	1.4	.9	2.7
12	9.5	19	23	22	58	33	*19	13	4.9	1.2	10	2.6
13	9.5	18	*21	21	34	32	19	11	10	1.1	41	*2.5
14	9.2	16	38	18	22	29	23	10	8.0	1.0	27	2.1
15	8.9	16	257	17	20	26	27	9.8	6.0	.9	15	1.9
16	14	16	101	16	19	44	26	*9.5	4.9	1.0	9.7	1.9
17	14	15	61	*15	41	53	22	10	*4.0	1.5	6.6	1.8
18	12	16	93	15	49	38	20	9.8	3.5	1.3	8.5	1.8
19	10	16	201	15	35	33	18	8.6	3.2	*1.1	117	1.7
20	9.6	70	91	14	30	32	18	7.4	3.0	1.1	81	1.7
21	8.8	88	63	12	27	37	17	6.5	2.7	.9	31	1.6
22	8.2	58	51	11	24	*92	19	6.2	3.6	.7	18	1.5
23	7.4	41	43	12	33	166	21	6.2	3.3	.6	23	1.4
24	7.4	*36	42	13	46	78	18	6.7	3.2	1.3	31	3.6
25	7.1	59	40	13	35	54	24	6.4	4.1	.9	18	15
26	6.8	45	34	13	29	48	26	6.1	7.2	.6	12	9.6
27	7.3	36	32	12	27	51	26	4.3	6.0	.5	9.5	6.7
28	8.8	33	31	9.9	31	40	21	4.6	4.1	.7	9.2	16
29	18	54	43	9.5	-	34	53	4.3	2.8	.6	7.6	20
30	48	52	103	7.9	-------	31	44	4.4	2.1	.5	6.0	12
31	31	-------	100	7.4	-------	28	-------	4.3	-------	.4	4.9	-------
Total	385.5	1,184	1,750	716.7	828.0	1,496	803	357.1	139.4	38.4	493.45	156.0
Mean	12.4	39.5	56.5	23.1	29.6	48.3	26.8	11.5	4.65	1.24	15.9	5.20
Cfsm	1.07	3.41	4.87	1.99	2.55	4.16	2.31	0.991	0.401	0.107	1.37	0.448
In.	1.22	3.80	5.62	2.29	2.66	4.80	2.58	1.14	0.45	0.12	1.58	0.50

Calendar year 1954: Max 533 Min 0.7 Mean 29.5 Cfsm 2.54 In. 34.46
Water year 1954-55: Max 257 Min 0.15 Mean 22.9 Cfsm 1.97 In. 26.76

Peak discharge (base, 200 cfs, unadjusted for storage or diversion).--Dec. 15 (6:30 a.m.) 375 cfs (4.50 ft); Dec. 19 (2 a.m.) 295 cfs (4.08 ft); Mar. 23 (5:30 a.m.) 205 cfs (3.50 ft).
* Discharge measurement made on this day.

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 1955.
Gage.--Water-stage recorder and timber control. Datum of gage is 20.24 ft above mean sea level, datum of 1929.
Average discharge.--25 years, 207 cfs.
Extremes.--Maximum discharge during year, 3,790 cfs Aug. 20 (gage height, 9.01 ft); minimum, 25 cfs Aug. 7.
1930-55: 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 (gage height, 0.38 ft).
Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
(a)	1936	Mar. 12, 1936	2,680	8.20
971,1301	1940	May 31, 1940	2,270	7.66
971,1301	1941	Feb. 8, 1941	2,010	7.33
971,1301	1943	Dec. 30, 1942	1,890	7.09
1001,1301	1944	Sept.15, 1944	2,200	7.61
1201,1301	1949	Jan. 1, 1949	2,500	7.97

a Published in WSP 801, 851, 1301.

Remarks.--Records good except those for periods of doubtful or no gage-height record, which are fair. Flow regulated by mills upstream.
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). Revised figures of discharge, in cubic feet per second, for the water years 1936, 1938, 1940-41, 1943-44 and 1949, superseding those published in WSP 851, 971, 1001, 1201, and 1301, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1936		1938-Con.		1938-Con.		1942	
Mar. 12	2,320	Sept.20	1,410	Sept.29	408	Dec. 31	1,730
13	2,100	21	3,770	30	408		
		22	3,070			1944	
1937		23	1,660	1940		Sept.15	1,640
Nov. 29	1,650	24	980	June 1	1,900		
		25	678			1948	
1938		26	550	1941		Dec. 31	1,680
Jan. 25	1,570	27	480	Feb. 8	1,890		
26	2,000	28	440			1949	
						Jan. 1	2,200

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
March 1936	20,108	2,320	209	649	5.95	6.86
Water year 1935-36	71,346	2,320	13	195	1.79	24.36
Calendar year 1936	83,028	2,320	13	227	2.08	28.35
November 1937	9,516	1,650	129	317	2.91	3.25
Calendar year 1937	93,492	1,650	16	256	2.35	31.90
January 1938	12,741	2,000	196	411	3.77	4.35
September	16,889	3,770	114	563	5.17	5.77
Water year 1937-38	110,236	3,770	20	302	2.77	37.64
Calendar year 1938	112,974	3,770	50	310	2.84	38.56
June 1940	13,498	1,900	208	450	4.13	4.61
Water year 1939-40	87,296	1,900	23	239	2.19	29.77
Calendar year 1940	87,014	1,900	23	238	2.18	29.65
February 1941	8,832	1,890	103	315	2.89	3.01
Water year 1940-41	48,734	1,890	27	134	1.23	16.61
Calendar year 1941	44,048	1,890	23	[illegible]	1.11	15.03
December 1942	10,165	1,730	124	328	3.01	3.47
Calendar year 1942	68,909	1,730	44	189	1.73	23.49
Water year 1942-43	79,703	1,730	50	218	2.00	27.17
September 1944	5,669	1,640	35	189	1.73	1.93
Water year 1943-44	53,051	1,640	35	145	1.33	18.09
Calendar year 1944	62,686	1,640	35	171	1.57	21.37
December 1948	5,119	1,680	93	165	1.51	1.74
Calendar year 1948	78,767	1,680	44	215	1.97	26.86
January 1949	17,091	2,200	255	551	5.06	5.83
Water year 1948-49	76,992	2,200	31	211	1.94	26.25
Calendar year 1949	72,153	2,200	31	198	1.82	24.60

Revised peak discharge.--1937-38: Nov. 29 (9 a.m.) 1,890 cfs; Jan. 26 (4 to 5 a.m.) 2,340 cfs; July 24 (9 p.m.) 1,380 cfs.
1939-40: Jan. 16 (1 a.m.) 1,780 cfs; Mar. 15 (10:30 p.m.) 1,950 cfs; May 31 (11:30 p.m.) 2,270 cfs.

Quinnipiac River at Wallingford, Conn.--Continued

Rating tables, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 22				Mar. 23 to Sept. 30			
1.0	92	4.0	765	0.3	20	4.0	765
1.5	173	6.0	1,380	.5	51	6.0	1,380
2.0	270	6.5	1,630	1.0	102	8.0	2,500
				2.0	286	9.0	3,770

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	144	164	295	480	125	352	280	355	139	a78	39	165
2	141	162	254	420	125	480	267	286	128	a74	38	150
3	127	709	230	405	110	340	273	257	126	a70	36	135
4	125	737	214	358	116	375	442	238	124	a67	37	125
5	120	480	206	308	117	340	518	230	111	a65	36	115
6	112	332	199	318	125	405	430	224	105	a64	33	120
7	106	262	178	335	646	618	418	218	101	a63	27	115
8	102	226	173	280	465	465	355	216	102	a62	140	100
9	102	204	166	250	260	352	297	218	105	a61	89	95
10	102	191	250	246	204	348	276	204	105	a95	59	90
11	102	182	250	238	241	348	259	191	102	196	48	100
12	*105	177	214	222	465	328	244	181	120	121	174	120
13	102	169	193	214	308	302	240	176	137	a74	570	100
14	100	164	397	202	218	276	259	171	124	a67	638	90
15	105	160	1,630	191	195	260	269	163	106	a62	358	85
16	217	155	1,280	189	182	305	252	158	98	a59	220	80
17	228	159	680	184	362	345	234	163	91	a56	163	75
18	169	160	726	175	*388	292	226	162	a85	*a59	318	70
19	141	162	1,120	169	286	264	224	153	a80	59	*2,290	103
20	127	388	815	168	240	248	222	144	114	53	3,160	265
21	117	518	580	151	222	280	214	137	101	53	1,380	40
22	111	420	450	159	212	597	*234	132	*99	49	662	55
23	105	302	380	159	276	1,000	244	129	91	46	498	58
24	101	262	368	159	352	765	224	132	91	78	334	131
25	98	345	335	157	280	568	267	129	96	63	282	240
26	97	310	292	153	234	492	320	157	98	51	240	*210
27	96	256	276	151	220	475	355	158	98	47	210	151
28	117	240	272	144	236	405	308	163	104	44	190	200
29	176	365	298	137	-	348	442	135	104	44	170	208
30	236	*368	615	125	-------	320	455	128	85	42	160	169
31	204	--------	655	120	-------	297	--------	140	--------	34	155	----- --
Total	4,037	8,729	14,011	6,967	7,210	12,590	9,048	5,648	3,170	2,056	12,754	3,760
Mean	130	291	452	225	258	406	302	182	106	66.3	411	125
Cfsm	1.19	2.67	4.15	2.06	2.37	3.72	2.77	1.67	0.972	0.608	3.77	1.15
In.	1.37	2.98	4.78	2.38	2.47	4.29	3.09	1.92	1.08	0.70	4.35	1.28

Calendar year 1954: Max 1,630 Min 53 Mean 209 Cfsm 1.92 Ir. 26.04
Water year 1954-55: Max 3,160 Min 27 Mean 247 Cfsm 2.27 Ir. 30.69

Peak discharge (base, 900 cfs).--Dec. 15 (3 a.m.) 1,750 cfs (6.70 ft); Mar. 23 (3 to 4 a.m.) 1,030 cfs (5.00 ft); Aug. 20 (5 a.m.) 3,790 cfs (9.01 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and stage change when intake action was restored July 18.

Note.--Doubtful gage-height record Aug. 26 to Sept. 19; discharge estimated or basis of 1 staff-gage reading and weather records.

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 1955. 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.--19 years, 116 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 1,640 cfs Aug. 19 (gage height, 6.65 ft); minimum daily, 10 cfs Aug. 2.
1936-55: Maximum discharge, 6,400 cfs Sept. 21, 1938 (gage height, 10.80 ft), from rating curve extended above 1,300 cfs on basis of computation of peak flow over dam; minimum daily, 4.4 cfs Aug. 15, 1936.

Remarks.--Records good except those for period of no gage-height record, which are fair. 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.8	9.4	3.5	267
2.0	19	4.0	412
2.2	33	5.0	800
2.5	67	6.0	1,260
3.0	155		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	73	179	157	41	235	244	155	56	28	24	60
2	88	69	151	163	39	260	322	139	*54	26	10	56
3	90	872	131	207	38	139	285	130	44	46	18	52
4	88	*637	106	167	39	*85	165	*116	43	31	20	48
5	82	289	110	124	39	88	200	112	38	29	19	54
6	82	173	86	122	40	84	325	113	43	55	20	50
7	79	117	95	107	159	79	448	102	36	44	23	48
8	70	109	100	90	101	70	294	101	39	34	24	45
9	51	100	103	85	82	67	216	109	38	30	23	40
10	40	94	129	90	73	149	284	95	36	22	27	35
11	71	90	122	82	214	401	390	85	37	25	54	42
12	76	96	107	74	139	458	336	82	37	25	65	40
13	72	72	102	74	96	297	250	74	42	33	215	38
14	64	55	145	63	83	190	240	73	43	24	419	36
15	67	71	552	63	73	145	351	63	38	21	242	38
16	209	85	318	64	66	261	375	67	33	22	97	37
17	134	87	*194	64	64	279	242	64	32	23	*59	36
18	96	95	451	58	62	151	188	66	31	35	159	35
19	79	93	680	59	57	130	183	57	28	*28	1,150	40
20	80	281	306	*55	55	101	188	50	18	32	575	45
21	74	1,020	183	50	63	114	190	43	26	24	224	*50
22	70	552	149	54	66	107	179	34	151	29	143	59
23	48	294	139	52	176	129	175	42	66	25	120	58
24	31	209	143	58	183	103	137	36	50	23	107	102
25	45	177	120	54	136	103	356	37	101	24	93	105
26	48	171	105	54	94	96	515	47	44	30	90	69
27	55	161	112	52	76	79	422	38	38	22	112	54
28	70	153	116	48	103	70	260	37	33	24	100	88
29	66	216	302	44	-	82	247	59	29	24	80	88
30	97	228	260	32	-------	*120	218	133	*32	23	70	63
31	78	-------	207	40	-------	181	-------	67	-------	22	65	-------
Total	2,375	6,739	6,003	2,506	2,457	4,853	8,225	2,426	1,336	883	4,427	1,611
Mean	76.6	225	194	80.8	87.8	157	274	78.3	44.5	28.5	143	53.7
(†)	6.79	10.1	8.88	11.1	11.9	12.7	15.6	12.2	8.25	12.3	8.24	11.7

Adjusted for diversion

Mean	83.4	235	203	91.9	99.7	169	290	90.5	52.8	40.8	151	65.4
Cfsm	1.46	4.12	3.56	1.61	1.75	2.96	5.08	1.58	0.925	0.715	2.64	1.15
In.	1.68	4.59	4.09	1.86	1.82	3.42	5.66	1.83	1.03	0.82	3.05	1.28

	Observed			Adjusted			
Calendar year 1954:	Max 1,020	Min 11	Mean 119	Mean 127	Cfsm 2.22	In. 30.25	
Water year 1954-55:	Max 1,130	Min 10	Mean 120	Mean 131	Cfsm 2.29	In. 31.13	

Peak discharge (base, 1,150 cfs).--Nov. 3 (4 p.m.) 1,280 cfs (6.03 ft); Nov. 21 (8 a.m.) 1,300 cfs (6.08 ft); Aug. 19 (10 a.m.) 1,640 cfs (6.65 ft).

* 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.

Note.--No gage-height record Aug. 28 to Sept. 21; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage, and records for Housatonic River rear Great Barrington and West Branch Westfield River at Huntington.

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 1955.

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.--42 years, 530 cfs.

Extremes.--Maximum discharge during year, 6,060 cfs Aug. 19 (gage height, 9.65 ft); minimum daily, 51 cfs July 24.
1913-55: 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 tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 19				Dec. 20 to Sept. 30			
2.5	97	5.0	1,480	2.1	48	4.0	735
3.0	209	6.0	2,200	2.5	97	5.0	1,500
3.5	399	6.5	2,510	3.0	209	7.0	2,870
4.0	680			3.5	407	9.0	5,050

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	282	a400	1,040	938	b255	1,010	866	1,200	423	181	75	283
2	187	a320	849	930	b210	1,560	1,080	1,040	*379	185	122	276
3	272	a500	736	1,120	b205	1,320	1,220	914	325	165	87	240
4	376	a2,400	628	1,030	b215	930	1,280	802	309	212	96	160
5	306	*1,940	532	810	220	758	1,220	*720	191	194	87	203
6	280	1,270	579	750	163	691	1,470	645	304	206	101	303
7	271	795	500	682	885	739	1,890	592	244	242	65	234
8	272	653	510	617	832	602	1,940	448	213	219	95	217
9	176	579	468	478	450	578	1,600	561	179	183	118	199
10	196	521	533	559	344	770	1,380	501	193	172	92	142
11	309	505	533	484	445	1,410	1,580	484	209	167	105	108
12	264	508	454	412	882	1,910	1,600	439	119	131	171	249
13	251	436	496	423	517	1,850	1,460	383	269	157	354	153
14	265	437	517	369	b580	1,580	1,280	364	274	114	962	136
15	247	449	1,120	322	a420	1,230	1,250	255	226	128	1,000	184
16	332	404	1,390	351	a340	1,130	1,360	376	174	128	607	147
17	371	395	*1,110	412	324	1,320	1,300	375	202	58	325	116
18	444	386	1,150	356	305	1,210	1,180	267	210	166	521	119
19	328	409	2,130	347	304	978	1,030	272	162	160	4,190	179
20	260	686	2,140	316	245	729	978	302	242	*133	3,620	167
21	291	1,960	1,530	*272	409	781	938	238	177	104	2,280	163
22	258	2,430	1,060	261	438	744	986	186	240	120	1,590	*173
23	288	2,000	914	271	799	895	986	235	372	97	1,130	164
24	102	1,340	843	369	1,160	826	842	302	295	51	826	206
25	272	1,050	735	316	*882	770	1,030	241	345	112	621	384
26	241	939	568	306	640	752	1,480	249	288	126	495	377
27	208	833	644	b245	515	585	1,800	261	282	128	399	256
28	220	750	622	b265	732	615	1,670	246	240	105	335	266
29	299	939	772	b255	-	539	1,540	156	220	142	390	374
30	236	1,130	1,110	b170	-------	*565	1,460	420	*216	58	323	287
31	303	-------	1,120	b310	-------	728	-------	644	-------	*83	326	-------
Total	8,407	27,364	27,333	14,746	13,716	30,105	39,696	14,118	7,522	4,427	21,508	6,465
Mean	271	912	882	476	490	971	1,323	455	251	143	694	216
Cfsm	0.968	3.26	3.15	1.70	1.75	3.47	4.72	1.62	0.896	0.511	2.48	0.771
In.	1.12	3.63	3.63	1.96	1.82	4.00	5.27	1.88	1.00	0.59	2.86	0.86

Calendar year 1954: Max 2,430 Min 57 Mean 568 Cfsm 2.03 In. 27.55
Water year 1954-55: Max 4,190 Min 51 Mean 590 Cfsm 2.11 In. 28.62

Peak discharge (base, 2,400 cfs).--Nov. 4 (time unknown) 2,620 cfs (6.65 ft); Nov. 22 (8 a.m.) 2,590 cfs (6.62 ft); Dec. 20 (7:30 a.m.) 2,430 cfs (6.37 ft); Aug. 19 (5:30 p.m.) 6,060 cfs (9.65 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, recorded range in stage when available, 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 1955.

Gage.--Water-stage recorder. Altitude of gage is 690 ft (from topographic map).

Extremes.--Maximum discharge during year, 1,060 cfs Aug. 19 (gage height, 5.75 ft), from rating curve extended above 470 cfs by logarithmic plotting; minimum, 4.5 cfs Aug. 4, 5. 1951-55: Maximum discharge, 1,710 cfs Apr. 6, 1952 (gage height, 5.86 ft), from rating curve extended above 680 cfs by logarithmic plotting; maximum gage height, 5.91 ft June 1, 1952; minimum discharge, 3.0 cfs Sept. 2-5, 1952.

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

Rating tables, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 3-6, Nov. 20 to Dec. 2, Dec. 18, Aug. 19)

Oct. 1 to Dec. 18		Dec. 19 to Aug. 19				Aug. 20 to Sept. 30	
2.0	25	1.7	4.1	2.2	45	2.1	13
2.2	47	1.8	6.1	2.5	104	2.2	19
2.5	100	1.9	9.0	3.0	224	2.5	49
3.0	224	2.0	16	4.0	560	3.0	142
4.0	560					4.0	390

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	40	156	164	17	329	155	207	54	12	5.1	36
2	39	37	142	204	16	276	177	182	*49	14	5.1	32
3	39	214	130	218	16	172	172	164	43	19	4.9	29
4	37	*216	119	182	16	143	188	147	39	16	4.7	28
5	35	156	115	155	16	137	261	*132	39	13	4.9	27
6	34	132	100	159	18	152	347	124	37	16	5.1	28
7	33	121	90	141	70	130	351	110	35	14	5.1	27
8	32	108	84	108	60	115	278	104	32	12	5.1	25
9	31	100	80	104	37	104	233	98	31	12	4.9	23
10	30	94	88	98	34	260	218	86	28	11	4.7	22
11	30	86	80	88	95	405	207	78	26	10	5.5	21
12	29	82	75	74	86	338	191	68	32	9.0	7.4	22
13	28	75	69	72	56	272	174	58	35	9.0	22	21
14	27	73	83	a62	47	204	164	51	31	8.6	94	20
15	31	66	a180	a60	39	177	167	43	28	8.2	40	20
16	39	58	a130	a58	35	230	164	42	22	7.9	21	18
17	36	56	*a120	a56	34	202	145	40	17	7.6	14	18
18	32	58	432	a52	32	150	132	37	16	7.9	120	18
19	30	56	540	a50	31	139	124	35	15	7.0	540	18
20	30	167	335	a45	31	120	116	34	16	*6.5	173	18
21	30	358	257	*a39	32	120	122	34	15	6.3	179	18
22	29	290	216	35	35	130	120	32	20	6.1	286	*16
23	28	227	182	34	270	182	116	32	17	6.1	194	18
24	26	196	172	32	186	145	108	32	16	6.1	144	30
25	31	196	145	28	*102	159	194	34	29	6.1	111	31
26	31	172	124	28	90	159	245	39	21	6.1	90	24
27	32	154	118	26	100	134	272	34	17	5.7	82	22
28	35	142	116	24	159	116	218	32	14	5.7	69	34
29	33	200	147	22	-	112	294	31	13	5.5	54	30
30	41	182	227	20	-------	*118	245	101	*12	5.1	42	26
31	42	-------	207	18	-------	141	-------	51	-------	5.1	39	------
Total	1,017	4,112	5,059	2,456	1,740	5,571	5,898	2,292	799	284.6	2,416.5	718
Mean	32.8	137	163	79.2	62.1	180	197	73.9	26.6	9.18	78.0	23.9
Cfsm	0.625	2.61	3.10	1.51	1.18	3.43	3.75	1.41	0.507	0.175	1.49	0.455
In.	0.72	2.91	3.58	1.74	1.23	3.95	4.18	1.62	0.57	0.20	1.71	0.51

Calendar year 1954: Max 540 Min 6.8 Mean 91.4 Cfsm 1.74 In. 23.63
Water year 1954-55: Max 540 Min 4.7 Mean 88.7 Cfsm 1.69 In. 22.92

Peak discharge (base, 750 cfs).--Dec. 18 (7:30 to 8 p.m.) 1,030 cfs (4.99 ft); Aug. 19 (8:45 a.m.) 1,060 cfs (5.75 ft).

* Discharge measurement made on this day.

a No gage-height record, discharge estimated on basis of 2 discharge measurements, weather records, recorded range in stage when available, and records for Green River at Williamstown and West Branch Westfield River at Huntington.

Note.--Stage-discharge relation affected by ice Jan. 8, 14-21, 25, Jan. 27 to Feb. 9, Feb. 12-14, 16, Mar. 7, 8.

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 1955.

Gage.--Water-stage recorder. Datum of gage is 645.72 ft above mean sea level, datum of 1929.

Average discharge.--6 years, 88.7 cfs.

Extremes.--Maximum discharge during year, 14,200 cfs Aug. 19 (gage height, 13.01 ft), from rating curve extended above 2,400 cfs on basis of slope-area determination of peak flow; minimum, 3.3 cfs Aug. 10, 11 (gage height, 1.33 ft).
1949-55: Maximum discharge, that of Aug. 19, 1955; minimum, 2.2 cfs Aug. 28, 1949 (gage height, 1.12 ft); minimum daily, 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 good. Infrequent regulation at low flow.

Rating tables, water year 1954-55, except periods of ice effect or backwater from rocks on control (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 14						Aug. 14 to Sept. 30			
1.3	3.0	1.8	17	3.0	186	2.0	18	6.0	760
1.4	4.1	2.0	31	5.0	566	2.5	47	7.0	1,190
1.5	5.8	2.2	51	7.0	1,130	3.0	91	8.0	1,790
1.6	8.3	2.5	96			4.0	235	9.0	2,690
						5.0	460	11.0	6,400

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	50	137	130	b16	191	127	180	46	16	4.4	62
2	29	48	113	156	b16	b169	134	148	38	14	4.3	55
3	34	*801	96	152	b16	104	143	130	34	13	4.0	51
4	31	385	77	123	*b16	78	148	116	29	12	3.9	46
5	28	218	b67	96	b15	75	229	*106	28	11	3.7	42
6	29	158	55	104	b20	96	367	125	25	12	3.7	55
7	31	123	54	88	b327	96	404	101	22	13	3.4	44
8	25	103	54	b63	b88	77	277	98	22	12	3.6	37
9	24	91	66	60	55	80	224	93	22	10	3.7	33
10	24	77	103	b54	48	187	252	80	22	9.0	3.4	*32
11	23	67	78	49	154	280	243	72	20	c8.3	3.7	37
12	23	64	66	46	b127	228	196	64	29	c7.6	79	69
13	22	58	63	b39	b77	154	167	58	31	c7.0	371	49
14	21	55	203	b34	b60	118	156	52	29	c6.6	699	36
15	25	52	494	b34	b47	99	186	49	25	*c6.3	135	33
16	91	*48	214	b33	*b41	166	182	46	20	6.3	50	30
17	63	48	144	b30	b42	154	148	48	17	9.0	34	28
18	40	50	370	b28	b44	101	130	43	15	9.0	913	26
19	33	51	428	b27	44	91	120	39	14	9.4	*6,220	26
20	35	298	211	*b23	55	80	113	36	22	7.3	1,340	25
21	31	934	143	b20	63	*80	110	33	*21	6.6	606	24
22	28	408	123	b21	64	103	154	31	57	5.8	493	23
23	25	230	113	b22	306	154	139	29	37	5.5	446	21
24	24	173	b101	b23	148	139	118	47	30	5.1	247	70
25	22	180	b88	b23	b99	165	246	44	49	5.5	167	82
26	22	146	80	b22	b74	146	328	64	29	6.0	130	45
27	23	122	77	b20	77	113	357	46	22	5.6	106	33
28	41	118	85	b19	113	93	211	36	21	5.3	102	109
29	48	238	165	b18	-	86	426	32	25	5.5	80	81
30	80	186	234	b16	------	94	260	66	19	5.3	68	51
31	70	------	178	b16	------	113	------	48	------	5.0	67	------
Total	1,074	5,580	4,480	1,589	2,252	3,910	6,295	2,160	820	260.0	12,394.8	1,355
Mean	34.6	186	145	51.3	80.4	126	210	70.0	27.3	8.39	400	45.2
Cfsm	0.718	3.86	3.01	1.06	1.67	2.61	4.36	1.45	0.566	0.174	8.30	0.938
In.	0.83	4.31	3.47	1.22	1.74	3.01	4.86	1.67	0.63	0.20	9.57	1.05

Calendar year 1954: Max 934 Min 7.9 Mean 83.0 Cfsm 1.72 In. 23.40
Water year 1954-55: Max 6,220 Min 3.4 Mean 116 Cfsm 2.41 In. 32.56

Peak discharge (base, 800 cfs).--Nov 3 (7 a.m.) 970 cfs (6.65 ft); Nov. 21 (5 a.m.) 1,300 cfs (7.45 ft); Dec. 14 (12 p.m.) 850 cfs (6.18 ft); Aug. 19 (7:30 a.m.) 14,200 cfs (13.01 ft).
* Discharge measurement made on this day.
b Stage-discharge affected by ice.
c Backwater from rocks on control.

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 1955.

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.--43 years, 1,078 cfs.

Extremes.--Maximum discharge during year, 22,700 cfs Aug. 19 (gage height, 22.84 ft, from floodmarks); minimum, 104 cfs Aug. 9; minimum gage height, 1.00 ft Nov. 2; minimum daily discharge, 144 cfs July 18.
1912-55: 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 or backwater from aquatic vegetation, which are good. Low flow completely regulated by powerplant of Connecticut Power Co.

Revisions.--WSP 781: Drainage area.

Rating tables, water year 1954-55, except periods of ice effect or backwater from aquatic vegetation (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 18				Aug. 19 to Sept. 30			
1.0	126	5.0	2,110	1.8	385	12.0	7,600
1.5	280	7.0	3,420	3.0	950	16.0	12,400
3.0	1,000	9.0	4,930	5.0	2,080	20.0	18,000
				8.0	4,130		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	590	604	2,230	2,230	b600	1,820	1,700	3,000	1,010	332	185	970
2	591	670	1,990	2,050	b440	2,660	1,800	2,470	794	314	185	880
3	528	1,920	1,880	2,170	b440	2,660	1,700	2,170	687	321	185	795
4	714	3,420	1,510	2,170	b390	2,170	1,600	1,990	584	236	185	710
5	681	3,280	1,400	1,990	b430	1,820	2,500	1,800	510	322	365	628
6	612	2,860	1,240	1,620	b430	1,600	3,200	1,670	423	381	185	720
7	560	2,170	1,150	1,820	b1,420	1,600	3,600	1,510	546	418	175	805
8	576	1,700	1,190	1,180	b1,670	1,400	3,600	1,400	449	364	170	675
9	508	1,370	1,180	b1,090	b1,520	1,320	3,400	1,310	386	325	160	618
10	386	1,180	1,220	1,200	b1,070	1,500	3,200	1,280	372	280	200	*600
11	462	1,120	1,250	b1,150	b940	2,410	3,000	1,180	404	278	175	524
12	598	1,080	1,170	b1,040	b1,370	3,210	2,860	1,120	413	274	290	600
13	510	1,010	1,060	b970	b1,400	3,210	2,730	1,020	344	220	810	690
14	429	919	1,080	b870	b990	3,000	2,530	874	498	180	2,200	551
15	436	895	2,380	b850	*b950	2,600	*2,470	831	484	*175	2,670	492
16	794	890	2,730	b840	b780	2,290	2,470	674	368	194	1,880	510
17	782	822	2,350	b820	b840	2,470	2,410	788	335	208	1,220	461
18	640	820	2,440	b820	751	2,290	2,230	708	340	144	1,620	425
19	681	823	4,130	b730	690	2,050	2,050	611	316	276	*17,000	334
20	584	1,340	4,050	b700	702	1,880	1,880	578	273	213	14,800	563
21	*524	3,740	2,790	b650	739	1,550	1,820	618	*380	203	9,160	515
22	524	4,450	2,660	666	873	1,200	1,880	508	409	181	5,690	409
23	498	*4,050	2,350	634	1,410	1,600	1,990	426	493	181	4,570	413
24	467	3,420	2,050	610	2,290	1,900	1,880	609	544	184	3,290	492
25	238	2,660	1,880	b680	2,230	2,000	1,880	672	532	184	2,360	835
26	523	2,230	1,520	b630	1,770	1,900	2,730	669	551	178	1,830	820
27	468	1,990	1,420	620	1,300	1,800	3,420	626	432	175	1,500	725
28	469	1,930	1,370	500	1,430	1,600	3,420	558	410	184	1,380	760
29	486	1,930	1,640	b580	-	1,500	3,560	439	377	187	1,210	915
30	746	2,350	2,040	b500	-------	1,400	3,630	535	360	190	1,120	804
31	586	-------	2,530	b410	-------	1,500	-------	958	-------	190	1,020	----- --
Total	17,191	57,643	59,880	32,790	29,865	61,910	77,140	33,602	14,024	7,492	77,790	19,239
Mean	555	1,921	1,932	1,058	1,067	1,997	2,571	1,084	467	242	2,509	641
Cfsm	0.878	3.04	3.06	1.67	1.69	3.16	4.07	1.72	0.739	0.383	3.97	1.01
In.	1.01	3.39	3.53	1.92	1.76	3.64	4.54	1.98	0.82	0.44	4.58	1.13

Calendar year 1954: Max 5,010 Min 150 Mean 1,207 Cfsm 1.91 In. 25.92
Water year 1954-55: Max 17,000 Min 144 Mean 1,339 Cfsm 2.12 In. 28.74

Peak discharge (base, 3,600 cfs).--Nov. 21 (8 to 11 p.m.) 4,770 cfs (8.78 ft); Dec. 19 (2 to 5p.m.) 4,370 cfs (8.26 ft); Apr. 30 (1 a.m.) 3,840 cfs (7.57 ft); Aug. 19 (1 to 2 p.m.) 22,700 cfs (22.84 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Backwater from aquatic vegetation Oct. 1 to Nov. 2, June 5 to Aug. 13.

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 Connecticut-New York State line, 1.7 miles upstream from mouth, and 2½ miles northwest of Gaylordsville, Litchfield County.

Drainage area.--204 sq mi.

Records available.--December 1929 to September 1955.

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.--26 years, 296 cfs.

Extremes.--Maximum discharge during year, 17,400 cfs Aug. 19 (gage height, 14.9 ft, from floodmark in gage house), from rating curve extended above 9,800 cfs by logarithmic plotting; minimum, 12 cfs Aug. 3-5 (gage height, 0.59 ft); minimum daily, 12 cfs Aug. 4.
1929-55: Maximum discharge, that of Aug. 19, 1955; minimum, 8 cfs Sept. 24, 26, 1939 (gage height, 0.52 ft); minimum daily, 9 cfs Sept. 23-26, 1939.

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

Revisions (water years).--WSP 1201: 1939.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.5	7	3.0	600
.6	13	4.0	1,070
.8	30	6.0	2,390
1.0	52	8.0	4,400
1.5	135	10.0	7,400
2.0	255	12.0	10,900

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146	164	600	640	b110	532	450	920	204	60	15	325
2	144	168	540	620	b110	620	450	798	192	59	15	299
3	135	1,020	488	685	b100	453	480	685	173	53	13	271
4	133	970	431	584	b100	431	550	620	150	50	12	247
5	125	752	413	512	b100	410	650	564	155	56	14	226
6	119	620	b360	496	b110	536	750	596	146	66	19	222
7	115	500	b310	488	b1,380	592	800	504	131	66	21	206
8	108	435	b305	366	682	435	700	469	125	59	21	185
9	104	389	310	375	372	442	650	450	119	50	19	168
10	102	340	399	372	296	600	600	396	119	47	17	*157
11	102	310	372	331	314	798	552	356	110	48	19	159
12	101	296	331	282	379	640	508	325	131	46	27	185
13	97	277	310	290	b245	580	496	302	135	41	256	192
14	92	263	384	b220	b240	516	480	279	123	38	716	164
15	92	255	1,060	b210	229	469	492	258	111	35	406	155
16	162	242	870	b200	*212	560	472	242	97	35	271	146
17	166	*237	685	b200	242	640	424	239	89	34	209	137
18	135	237	925	b190	290	512	396	224	78	33	377	131
19	121	229	1,470	b180	290	469	372	206	74	34	10,700	129
20	115	498	1,070	b160	375	435	359	192	*95	33	5,150	127
21	115	1,170	820	b160	453	457	346	178	106	31	3,000	117
22	106	1,120	685	b170	322	600	403	162	115	29	*2,010	110
23	99	895	b600	b170	684	800	406	159	121	27	1,430	102
24	95	775	588	b170	942	700	356	327	115	30	1,110	144
25	92	798	544	b160	461	750	484	268	150	29	835	255
26	91	685	461	b150	382	650	718	242	125	32	667	187
27	91	600	435	146	337	550	1,070	204	102	29	576	153
28	106	560	424	b125	420	500	*820	185	87	28	524	229
29	125	730	508	b110	-	480	1,070	171	75	25	435	260
30	175	730	752	b100	-------	460	1,140	212	66	20	382	199
31	160	-------	820	b110	-------	450	-------	197	-------	18	356	------
Total	3,689	16,265	18,270	8,972	10,177	17,067	17,444	10,930	3,619	1,239	29,622	5,587
Mean	119	542	589	289	363	551	581	353	121	40.0	956	186
Cfsm	0.583	2.66	2.89	1.42	1.78	2.70	2.85	1.73	0.593	0.196	4.69	0.912
In.	0.67	2.97	3.33	1.64	1.85	3.11	3.18	1.99	0.66	0.23	5.41	1.02

Calendar year 1954: Max 1,470 Min 24 Mean 320 Cfsm 1.57 In. 21.29
Water year 1954-55: Max 10,700 Min 12 Mean 391 Cfsm 1.92 In. 26.06

Peak discharge (base, 1,400 cfs).--Feb. 7 (4 a.m.) 2,630 cfs (6.34 ft); Aug. 19 (12 m.) 17,400 cfs (14.9 ft).

* Dishcarge measurement made on this day.
b Stage-discharge relation affected by ice.

Note.--No gage-height record Mar. 22 to Apr. 10; discharge estimated on basis of records for Wappinger Creek near Wappingers Falls, N. Y.

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 height only), November 1914 (fragmentary), July 1940 to September 1955.

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.--15 years (1940-55), 1,673 cfs.

Extremes.--Maximum discharge during year, 51,800 cfs Aug. 19 (gage height, 18.58 ft); minimum daily, 145 cfs Aug. 10.

1900-1914, 1940-55: Maximum discharge, that of Aug. 19, 1955; 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 of 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. Ordinary flow regulated by powerplants above station.

Revisions (water years).--WSP 1301: 1949.

Rating table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.2	115	4.0	1,940
1.4	195	5.0	3,120
1.6	277	7.0	6,380
2.0	447	10.0	13,500
2.5	710	13.0	23,800
3.0	1,050	17.0	43,200

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	848	828	3,250	3,320	596	2,740	2,500	4,760	1,420	479	227	1,570
2	830	966	2,920	3,120	750	3,530	2,620	3,970	1,320	412	208	1,440
3	806	3,260	2,680	3,180	590	3,530	2,860	3,460	1,030	418	206	1,320
4	818	4,930	2,220	3,120	580	3,060	3,530	3,060	1,040	458	231	1,200
5	867	4,440	2,120	2,860	540	2,560	4,280	2,860	824	461	299	1,070
6	853	3,970	1,900	2,560	560	2,500	4,760	2,800	811	381	385	1,080
7	810	3,120	1,560	2,560	3,230	2,560	5,450	2,440	665	596	146	1,170
8	727	2,440	*1,620	1,880	2,620	2,100	5,270	2,270	860	554	157	1,080
9	728	2,000	1,740	1,840	2,160	2,100	4,930	2,160	652	452	177	952
10	694	1,740	1,980	1,920	1,640	2,500	4,440	2,000	514	402	145	903
11	592	1,650	1,960	1,740	1,480	3,600	3,970	1,840	540	391	247	875
12	714	1,620	1,760	1,500	1,990	4,280	3,970	1,740	824	325	328	959
13	806	1,550	1,580	1,560	1,830	4,280	3,820	1,600	599	324	955	1,100
14	766	1,480	1,810	1,380	1,540	3,970	3,600	1,500	627	292	3,130	980
15	604	*1,310	3,970	1,230	1,330	3,530	*3,460	1,420	760	294	3,240	734
16	784	1,370	4,120	1,240	*1,350	3,390	3,390	1,300	627	198	2,250	819
17	1,100	1,290	3,530	1,250	1,280	3,600	3,250	1,150	490	294	1,560	770
18	961	1,250	4,360	1,080	1,290	3,250	3,060	1,290	441	302	1,820	686
19	821	1,210	6,570	1,070	1,210	2,920	2,860	1,130	465	249	38,800	644
20	842	2,100	6,000	980	1,330	2,620	2,620	1,000	*571	228	27,700	446
21	788	5,630	5,100	920	1,480	2,380	2,500	998	518	274	15,100	866
22	684	6,570	3,970	926	1,340	2,680	2,680	950	664	336	9,490	*580
23	678	5,630	3,320	976	2,370	3,970	2,740	838	738	203	7,460	612
24	656	4,930	3,060	952	3,530	3,670	2,620	984	868	194	5,560	790
25	620	4,280	2,740	872	3,060	3,530	2,860	1,220	854	288	4,060	1,200
26	418	3,460	2,270	936	2,560	3,250	3,970	1,290	818	198	3,110	1,170
27	674	3,060	2,220	970	2,000	3,060	5,450	1,070	698	176	2,580	1,060
28	643	2,860	2,100	820	2,100	2,560	4,930	927	662	223	2,310	1,120
29	772	3,180	2,500	660	-	2,440	5,630	976	540	264	2,010	1,370
30	902	3,460	3,320	670	-------	2,320	5,810	975	510	201	1,840	1,240
31	1,020	-------	3,820	660	-------	2,320	-------	1,040	-------	183	1,700	-------
Total	23,846	85,584	92,070	48,752	46,336	94,800	113,830	55,018	21,950	10,050	137,431	29,806
Mean	769	2,853	2,970	1,573	1,655	3,058	3,794	1,775	732	324	4,433	994
Cfsm	0.774	2.87	2.99	1.58	1.66	3.08	3.82	1.79	0.736	0.326	4.46	1.00
In.	0.89	3.20	3.45	1.82	1.73	3.55	4.26	2.06	0.82	0.38	5.14	1.12

Calendar year 1954: Max 7,380 Min 137 Mean 1,771 Cfsm 1.78 In. 24.19
Water year 1954-55: Max 38,800 Min 145 Mean 2,081 Cfsm 2.09 In. 28.42

Peak discharge (base, 4,500 cfs).--Nov. 4 (8 to 10 a.m.) 4,930 cfs (6.21 ft); Nov. 21 (10:30 p.m.) 7,170 cfs (7.37 ft); Dec. 19 (12 m.) 6,970 cfs (7.26 ft); Apr. 7 (8 to 12 p.m.) 5,630 cfs (6.56 ft); Apr. 29 (10 p.m.) 6,380 cfs (6.96 ft); Aug. 19 (5 p.m.) 51,800 cfs (18.58 ft).

* Discharge measurement made on this day.

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 1955.

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.--24 years, 121 cfs.

Extremes.--Maximum discharge during year, 3,920 cfs Aug. 19 (gage height, 11.18 ft), from rating curve extended above 3,000 cfs by logarithmic plotting; minimum, 12 cfs May 24 (gage height, 0.98 ft).
1931-55: Maximum discharge, that of Aug. 19, 1955; minimum, 5 cfs Oct. 20, 1946 (corrected); minimum daily, 8 cfs Sept. 27, 1948; minimum gage height, 0.77 ft Aug. 10, 1939.

Remarks.--Records good except those for periods of no gage-height record and backwater from ice or grass on control, 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 1954-55, except periods of ice effect and backwater from grass on control (gage height, in feet, and discharge, in cubic feet per second)

0.9	12	6.0	406
1.5	31	7.0	609
2.0	52	8.0	1,120
3.0	105	9.0	1,820
4.0	182	10.0	2,680
5.0	283		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	90	250	304	50	170	140	320	61	41	14	107
2	58	80	210	230	48	188	132	225	57	40	14	98
3	52	360	180	256	*47	216	136	191	51	38	14	91
4	49	609	160	220	53	214	287	164	47	35	14	82
5	52	450	140	182	53	283	399	148	48	34	16	77
6	51	272	125	173	56	235	347	144	42	33	15	110
7	47	182	110	196	320	294	311	128	41	33	14	99
8	45	144	105	161	402	234	266	118	42	34	53	78
9	45	128	100	144	141	182	215	118	43	33	43	*69
10	43	118	140	125	102	182	191	108	45	29	22	65
11	42	108	140	122	110	182	178	102	38	55	57	62
12	44	99	120	111	235	178	156	96	43	39	204	68
13	44	93	110	105	191	168	140	90	58	30	397	64
14	43	87	170	114	125	156	144	87	52	27	896	58
15	44	82	400	118	99	140	148	82	46	*26	1,140	58
16	67	82	600	90	90	163	136	76	38	30	690	58
17	72	*80	326	84	201	220	122	74	36	85	444	54
18	58	82	277	82	320	168	*114	71	33	41	362	50
19	54	84	474	80	168	144	111	68	29	37	2,350	48
20	54	174	474	75	125	140	111	66	59	30	2,620	55
21	56	621	310	70	111	150	108	62	60	25	1,240	54
22	52	755	*240	67	108	296	125	60	58	22	785	47
23	50	400	205	64	*136	458	144	39	*94	20	580	45
24	46	280	196	62	220	428	118	48	66	32	426	64
25	44	310	186	60	152	278	148	56	84	45	285	122
26	45	270	152	58	122	230	230	68	64	31	215	84
27	46	230	140	56	108	250	300	66	54	24	181	62
28	57	210	140	52	114	205	218	54	50	22	155	99
29	65	250	164	48	-	178	256	49	47	22	134	125
30	128	350	282	46	-------	164	372	60	44	20	122	80
31	125	-------	392	45	-------	148	-------	56	-------	15	114	------
Total	1,738	7,080	7,018	3,600	4,007	6,642	5,803	3,094	1,530	1,028	13,616	2,233
Mean	56.1	236	226	116	143	214	193	99.8	51.0	33.2	439	74.4
Cfsm	0.819	3.45	3.30	1.69	2.09	3.12	2.82	1.46	0.745	0.485	6.41	1.09
In.	0.94	3.85	3.80	1.95	2.18	3.60	3.15	1.68	0.83	0.56	7.39	1.22

Calendar year 1954: Max 755 Min 24 Mean 115 Cfsm 1.68 In. 22.84
Water year 1954-55: Max 2,620 Min 14 Mean 157 Cfsm 2.29 In. 31.15

Peak discharge (base, 600 cfs).--Nov. 4 (7 to 9 a.m.) 645 cfs (7.12 ft); Nov. 21 (11:30 p.m.) 912 cfs (7.66 ft); Aug. 15 (12:30 a.m.) 1,360 cfs (8.37 ft); Aug. 19 (11 p.m.) 3,920 cfs (11.18 ft).
* Discharge measurement made on this day.
Note.--No gage-height record Nov. 23 to Dec. 16; discharge estimated on basis of weather records and records for Pomperaug River at Southbury and other nearby streams. Stage-discharge relation affected by ice Jan. 18 to Feb. 7. Backwater from grass on control May 16 to Aug. 13.

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 1955.

Gage.--Nonrecording gage at dam or at auxiliary artificial control below dam; read usually once daily.

Average discharge.--20 years, 86.4 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 13,800 cfs (observed) Aug. 19; minimum observed, 2.4 cfs at times.
1935-55: Maximum discharge observed, that of Aug. 19, 1955; no flow at times (result of regulation).

Remarks.--Records good. Discharge computed on basis of flow over spillway, through flood gates, and through fountain at toe of dam. Rating curves for flood gates 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 dam, which was calibrated with sharp-crested weir. Water diverted from Shepaug River for municipal supply of Waterbury. Flow regulated since September 1933 by Shepaug Reservoir (see p. 252).

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 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	24	145	148	14	169	128	250	42	2.4	2.4	21
2	13	30	128	148	14	214	128	180	29	2.4	2.4	14
3	11	520	104	173	14	128	150	151	12	2.4	2.4	11
4	8.8	328	92	128	13	104	220	128	8.8	2.4	2.4	7.9
5	6.9	218	84	84	11	84	360	119	7.9	2.4	2.4	4.6
6	5.3	158	69	95	2.4	98	460	158	6.9	2.4	2.4	12
7	4.0	119	57	116	350	141	500	122	2.4	2.4	2.4	9.8
8	4.6	98	53	107	76	84	348	107	2.4	2.4	2.4	4.6
9	4.6	82	51	84	28	84	268	90	2.4	2.4	2.4	2.4
10	4.6	71	122	62	21	155	254	84	2.4	2.4	2.4	2.4
11	4.6	64	90	46	45	238	246	95	2.4	2.4	2.4	2.4
12	4.6	59	69	46	122	214	218	71	2.4	2.4	2.4	6.1
13	3.4	55	59	44	55	169	162	57	2.4	2.4	2.4	27
14	2.5	51	110	40	35	128	162	53	2.4	2.4	960	23
15	2.9	49	538	37	29	104	180	49	2.4	2.4	440	28
16	20	46	263	37	28	162	173	40	2.4	2.4	238	24
17	21	44	187	37	28	198	145	42	2.4	2.4	138	23
18	11	24	360	33	42	125	141	37	2.4	2.4	300	21
19	8.8	23	566	29	55	104	128	33	2.4	2.4	6,480	20
20	6.9	385	321	26	35	84	119	29	2.4	2.4	1,650	19
21	4.6	1,140	191	24	79	92	107	8.8	2.4	2.4	576	14
22	4.6	538	158	23	55	120	146	4.0	2.4	2.4	328	14
23	4.0	302	138	24	116	198	151	2.4	55	2.4	226	12
24	4.0	260	122	26	187	148	113	25	18	2.4	180	34
25	2.9	250	95	26	110	238	226	11	26	2.4	128	84
26	2.5	202	71	24	84	226	268	17	11	2.4	104	33
27	2.5	173	76	23	69	151	483	8.8	2.4	2.4	95	16
28	2.5	145	87	21	98	113	284	2.4	2.4	2.4	7e	65
29	15	240	145	20	-	101	440	2.4	2.4	2.4	6e	97
30	45	238	234	17	--------	107	348	30	2.4	2.4	51	60
31	49	--------	226	14	--------	128	--------	49	--------	2.4	2e	--------
Total	298.1	5,936	5,011	1,762	1,815.4	4,409	7,058	2,055.8	264.6	74.4	12,092.2	712.2
Mean	9.62	198	162	56.8	64.8	142	235	66.3	8.82	2.40	390	23.7
(†)	+14.9	+4.4	0	-1.1	+11.3	0	+0.7	+6.5	+15.3	+4.9	+1e.5	+12.7

Adjusted for diversion and change in reservoir contents

Mean	24.5	202	162	55.7	76.1	142	236	72.8	24.1	7.30	408	36.4
Cfsm	0.645	5.32	4.26	1.47	2.00	3.74	6.21	1.92	0.634	0.192	10.74	0.958
In.	0.74	5.94	4.91	1.70	2.08	4.31	6.93	2.21	0.71	0.22	12.38	1.07

	Observed			Adjusted			
Calendar year 1954:	Max 1,140	Min 2.4	Mean 73.7	Mean 88.0	Cfsm 2.32	In. 31.39
Water year 1954-55:	Max 6,480	Min 2.4	Mean 114	Mean 121	Cfsm 3.18	In. 43.20

† 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, 1¼ miles southwest of village of Roxbury, Litchfield County, and 2.4 miles upstream from Jacks Brook.

Drainage area.--133 sq mi.

Records available.--October 1930 to September 1955.

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.--25 years, 249 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 50,300 cfs Aug. 19 (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 at peak flow; minimum, 7.4 cfs Aug. 5 (gage height, 1.42 ft).

1930-55: Maximum discharge, that of Aug. 19, 1955; minimum, 2 cfs Oct. 6, 1951 (gage height, 1.25 ft).

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. 252). 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19				Aug. 19 to Sept. 30			
1.4	6.5	2.4	152	2.6	63	7.0	1,450
1.5	11	3.0	350	3.0	111	9.0	3,280
1.6	18	4.0	835	3.5	183	11.0	6,600
1.8	39	5.0	1,460	4.0	272	13.0	12,100
2.0	68	6.0	2,250	5.0	502	14.0	16,500
				6.0	880		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	124	124	550	480	95	534	399	918	155	52	11	218
2	117	165	484	535	95	555	404	808	140	48	11	204
3	110	1,150	430	540	90	382	493	725	117	43	9.6	186
4	104	675	374	462	90	370	687	650	100	39	9.2	166
5	98	512	358	394	90	334	876	575	94	37	7.8	155
6	92	435	310	404	100	552	1,030	550	86	34	8.3	149
7	86	374	280	370	850	476	1,090	516	72	31	10	141
8	81	334	250	306	345	358	945	466	58	28	16	127
9	77	303	230	295	250	366	835	435	54	23	11	*118
10	75	273	334	280	185	448	752	382	52	26	9.2	111
11	73	256	306	253	402	565	700	346	48	82	9.6	108
12	72	246	266	249	488	525	625	310	70	52	32	103
13	68	227	246	230	300	462	575	277	90	36	328	102
14	65	217	408	200	230	412	545	256	70	30	1,770	107
15	66	202	1,030	190	200	370	530	236	63	26	973	106
16	128	191	700	180	180	530	516	217	57	34	635	101
17	117	188	545	180	*316	535	476	211	51	32	494	94
18	92	*174	1,020	170	284	408	*435	194	47	29	1,860	90
19	79	168	1,310	160	250	370	404	176	44	27	*15,400	87
20	75	742	890	150	240	342	382	160	75	24	4,060	87
21	70	2,170	700	140	270	*370	358	128	68	22	2,330	*80
22	65	1,150	600	140	242	549	399	102	*68	19	1,650	73
23	63	890	535	140	484	700	408	92	166	17	1,170	68
24	60	752	484	140	430	575	362	117	119	26	828	119
25	60	780	430	130	330	650	565	133	124	31	603	178
26	55	675	374	130	280	600	895	179	96	21	486	121
27	57	575	350	120	266	530	1,060	145	73	18	412	94
28	62	535	342	110	303	458	780	117	63	16	359	172
29	88	780	417	100	-	426	1,030	102	68	14	308	170
30	147	675	700	90	-------	412	1,060	182	58	12	272	139
31	157	-------	625	95	-------	408	-------	174	-------	11	244	-------
Total	2,683	15,938	15,878	7,363	7,685	14,572	19,616	9,879	2,446	940	34,326.7	3,774
Mean	86.5	531	512	238	274	470	654	319	81.5	30.3	1,107	126
(†)	+14.9	+4.4	0	-1.1	+11.3	0	+0.7	+6.5	+15.3	+4.9	+18.5	+12.7
Adjusted for diversion and change in reservoir contents												
Mean	101	535	512	237	285	470	655	326	96.8	35.2	1,125	139
Cfsm	0.759	4.02	3.85	1.78	2.14	3.53	4.92	2.45	0.728	0.265	8.46	1.05
In.	0.88	4.48	4.44	2.05	2.23	4.07	5.49	2.82	0.81	0.31	9.75	1.17

	Observed			Adjusted			
Calendar year 1954:	Max 2,170	Min 14	Mean 255	Mean 269	Cfsm 2.02	In. 27.43	
Water year 1954-55:	Max 15,400	Min 7.8	Mean 370	Mean 377	Cfsm 2.83	In. 38.50	

Peak discharge (base, 1,500 cfs).--Nov. 21 (2:30 a.m.) 2,740 cfs (6.57 ft); Dec. 18 (11 to 12 p.m.) 1,890 cfs (5.53 ft); Aug. 14 (8 a.m.) 3,250 cfs (7.17 ft); Aug. 19 (8 a.m.) 50,300 cfs (17.2 ft).

* Discharge measurement made on this day.

† 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 Dec. 7-9, Jan. 13 to Feb. 7, Feb. 13-16, Feb. 19, 20.

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 1955.

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.--23 years, 129 cfs.

Extremes.--Maximum discharge during year, 29,400 cfs Aug. 19 (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, 11 cfs Aug. 7 (gage height, 2.54 ft).
1932-55: Maximum discharge, that of Aug. 19, 1955; minimum, 3.3 cfs Aug. 27, 1949 (gage height, 2.32 ft).

Remarks.--Records good except those for period of 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 table, water year 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 6				Feb. 7 to Sept. 30			
2.8	29	4.5	338	2.9	35	7.0	1,470
3.1	59	5.0	515	3.1	54	10.0	3,160
3.5	116	6.0	970	3.5	111	13.0	5,400
4.0	208	7.0	1,470	4.0	206	17.0	11,300
				5.0	515		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	75	212	226	45	324	170	245	58	29	15	113
2	63	105	192	300	45	268	170	210	52	27	14	98
3	58	*1,130	171	257	b45	179	190	189	47	24	13	89
4	57	405	153	215	46	217	350	173	41	22	12	82
5	52	277	153	184	41	187	500	161	41	20	12	76
6	49	215	133	202	54	472	550	150	39	19	12	86
7	48	182	113	194	650	353	400	137	35	19	15	70
8	45	164	110	142	146	217	320	137	35	19	21	60
9	45	149	124	146	100	219	250	130	35	18	16	*54
10	45	133	178	135	92	242	220	116	34	37	14	53
11	45	124	144	124	232	230	*204	108	32	88	15	55
12	43	121	124	116	228	208	185	100	56	38	60	65
13	41	111	116	114	114	196	181	92	72	28	380	52
14	40	108	337	96	100	173	181	84	51	24	1,360	47
15	40	102	759	98	89	161	181	77	41	22	348	47
16	102	97	338	98	77	269	165	73	35	26	181	44
17	65	97	237	92	*313	250	146	77	31	26	126	42
18	54	*92	606	b85	213	200	142	73	29	24	1,550	41
19	50	94	536	*82	159	170	134	66	27	21	*9,510	43
20	47	344	323	77	142	150	137	60	48	20	1,370	49
21	45	1,080	254	71	128	200	126	56	43	19	679	44
22	43	430	230	70	111	450	146	53	*58	18	468	40
23	41	294	208	70	318	400	133	52	48	17	350	35
24	39	272	208	70	198	420	121	54	45	22	270	120
25	38	349	188	67	144	380	273	52	73	21	226	130
26	37	247	162	65	125	310	502	98	48	20	193	85
27	38	217	160	63	123	270	398	77	39	18	175	60
28	43	206	160	54	150	230	252	59	33	17	156	140
29	80	395	200	52	-	200	464	52	46	16	132	120
30	111	264	480	50	-------	190	325	66	35	16	118	82
31	100	-------	294	47	-------	180	-------	60	-------	15	118	-------
Total	1,671	7,879	7,603	3,662	4,228	7,915	7,516	3,137	1,307	750	17,927	2,122
Mean	53.9	263	245	118	151	255	251	101	43.6	24.2	578	70.7
Cfsm	0.716	3.49	3.25	1.57	2.01	3.39	3.33	1.34	0.579	0.321	7.68	0.939
In.	0.83	3.89	3.75	1.81	2.09	3.91	3.72	1.54	0.65	0.37	8.85	1.05

Calendar year 1954: Max 1,130 Min 16 Mean 133 Cfsm 1.77 In. 23.99
Water year 1954-55: Max 9,510 Min 12 Mean 180 Cfsm 2.39 In. 32.46

Peak discharge (base, 1,400 cfs).--Nov. 3 (7:30 a.m.) 1,620 cfs (7.29 ft); Nov. 21 (8 a.m.) 1,790 cfs (7.59 ft); Dec. 15 (1:30 a.m.) 1,420 cfs (6.86 ft); Feb. 7 (7 a.m.) 1,570 cfs (7.25 ft); Aug. 14 (11 a.m.) 2,950 cfs (9.65 ft); Aug. 19 (6:30 a.m.) 29,400 cfs (21.8 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 10, Mar. 17 to Apr. 10, Aug. 19, Sept. 22-29; discharge estimated on basis of weather records, engineer's notes, high-water marks and time of peak for flood of Aug. 19, and records for Naugatuck River near Thomaston and Burlington Brook near Burlington.

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 1955.

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.--27 years, 2,609 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 69,400 cfs Aug. 19 (gage height, 23.43 ft); minimum, 37 cfs Oct. 7, 10 (gage height, 0.40 ft); minimum daily, 130 cfs July 31.

1928-55: Maximum discharge, 69,500 cfs Mar. 12, 1936 (gage height, 23.5 ft, from floodmarks), from rating curve extended above 35,000 cfs on basis of computation of peak flow at Stevenson and Derby dams and slope-area determination of peak flow; practically no flow at times, result of regulation.

Remarks.--Records excellent. Ordinary flow completely regulated by Stevenson hydroelectric plant. Flow regulated by Lake Candlewood, Lake Lillinonah from February 1955, Lake Zoar and Shepaug Reservoir having a combined capacity of 8,500,000,000 cu ft (see p. 252) 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 1954-55 (gage height, in feet, and discharge, in cubic feet per second)

1.3	127	9.0	8,700
2.0	285	12.0	16,600
3.0	660	15.0	27,300
4.0	1,250	18.0	40,500
5.0	2,130	21.0	56,000
7.0	4,880		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,800	1,450	5,520	6,060	1,110	4,130	3,780	8,040	1,960	490	353	2,530
2	1,070	996	5,020	4,900	970	5,090	3,750	7,400	2,180	363	294	2,320
3	540	6,600	4,700	5,140	1,200	5,230	3,990	6,600	834	346	372	1,840
4	1,320	8,040	4,240	5,420	452	5,450	5,730	*5,520	1,060	325	250	1,760
5	792	7,200	2,930	4,770	1,010	5,180	6,160	4,550	922	703	306	1,790
6	1,150	6,420	3,570	4,450	1,560	4,390	6,600	4,450	1,210	468	194	2,000
7	1,180	5,340	2,700	4,480	4,970	4,960	8,260	4,480	1,170	874	153	1,390
8	998	4,280	2,070	3,920	5,460	4,410	8,260	3,160	920	1,000	1,380	1,350
9	704	3,830	2,930	1,490	2,660	3,490	7,400	3,390	990	450	346	2,100
10	596	2,610	3,120	3,630	2,860	3,740	7,000	3,440	935	330	459	1,090
11	1,150	2,640	3,420	3,170	2,890	4,820	6,600	3,580	666	801	330	855
12	763	2,600	2,980	2,510	3,080	5,900	6,240	3,020	704	863	1,350	1,320
13	1,180	2,310	2,320	2,630	1,430	5,060	6,240	2,750	1,040	473	2,820	1,320
14	988	2,140	3,100	2,490	2,470	5,620	6,240	2,370	802	498	5,180	1,350
15	2,410	2,300	7,200	1,760	2,180	5,640	5,520	2,020	750	800	6,600	1,450
16	380	2,050	7,000	1,700	2,010	5,880	4,820	2,100	1,040	404	5,790	1,160
17	599	2,030	6,240	2,400	3,310	5,500	4,780	2,110	286	*384	3,880	242
18	1,440	1,980	6,600	2,010	3,460	5,320	4,960	1,510	149	658	5,150	172
19	1,570	2,280	11,000	1,570	2,300	5,270	4,300	2,420	152	460	41,000	3,280
20	*1,280	3,470	9,200	1,550	1,540	3,900	4,160	1,420	1,160	504	54,800	1,090
21	1,250	10,900	8,040	1,170	2,380	4,090	4,080	1,290	1,160	839	31,700	237
22	1,400	11,700	6,800	1,610	2,260	5,810	3,730	1,320	720	1,070	20,000	252
23	918	9,450	5,960	1,480	3,230	6,160	3,440	1,360	1,100	367	15,100	674
24	275	8,260	5,510	1,390	*4,670	6,020	3,770	1,350	1,090	338	13,000	1,820
25	805	7,400	4,580	1,460	4,560	5,880	4,870	1,850	1,310	498	11,900	1,610
26	824	6,060	3,770	1,800	4,460	5,700	5,040	1,960	982	421	10,600	1,330
27	1,380	5,340	3,340	1,330	3,120	5,700	6,420	2,180	1,060	264	8,500	491
28	494	4,700	4,410	1,240	2,880	4,520	7,200	750	853	702	5,920	345
29	2,380	*5,340	3,420	1,040	-	4,120	7,820	1,380	850	148	4,040	372
30	592	5,880	5,250	808	--------	3,940	8,260	288	1,180	148	2,900	277
31	1,140	--------	6,420	1,220	--------	3,800	--------	1,110	--------	130	2,460	--------
Total	33,368	145,596	153,360	80,378	74,482	154,720	169,220	89,168	29,235	16,119	257,127	37,817
Mean	1,076	4,853	4,947	2,593	2,660	4,991	5,641	2,876	974	520	8,294	1,261
(†)	+15	+36	-28	-153	+131	+14	+172	-216	+56	-74	+54	+211
Adjusted for diversion and change in reservoir contents												
Mean	1,091	4,889	4,919	2,440	2,791	5,005	5,813	2,660	1,030	446	8,348	1,472
Cfsm	0.706	3.16	3.18	1.58	1.81	3.24	3.76	1.72	0.667	0.289	5.40	0.953
In.	0.81	3.53	3.67	1.82	1.88	3.74	4.20	1.98	0.74	0.33	6.23	1.06

	Observed			Adjusted			
Calendar year 1954:	Max 11,700	Min 58	Mean 2,734	Mean 2,758	Cfsm 1.79	In. 24.23
Water year 1954-55:	Max 54,800	Min 130	Mean 3,399	Mean 3,415	Cfsm 2.21	In. 29.99

Peak discharge (base, 11,000 cfs).--Nov. 21 (10 a.m.) 12,700 cfs (10.64 ft); Dec. 19 (2:30 a.m.) 11,700 cfs (10.15 ft); Aug. 19 (11 p.m.) 69,400 cfs (23.43 ft).

* Discharge measurement made on this day.

† Change in contents in Lake Candlewood, Lake Lillinonah, Lake Zoar and Shepaug Reservoir, and small diversion from basin at Shepaug Reservoir, equivalent in cubic feet per second; furnished by Connecticut Light & Power Co. and city of Waterbury.

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 1955.

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.--25 years, 144 cfs.

Extremes.--Maximum discharge during year, 41,600 cfs Aug. 19 (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, 16 cfs Aug. 3; minimum gage height, 0.48 ft Sept. 22.
1930-55: Maximum discharge, that of Aug. 19, 1955; minimum, about 7 cfs Mar. 12, 1940 (result of freezeup); minimum daily, 13 cfs Oct. 24, 1931; minimum gage height, that of Sept. 22, 1955.

Remarks.--Records excellent except those for periods of shifting control or no gage-height record, which are fair. Slight diurnal fluctuation.

Revisions (water years).--WSP 741: 1931-32. WSP 781: Drainage area. WSP 821: 1936(M). WSP 1111: 1939(M).

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 30 to Sept. 30)

1.0	17	4.0	1,160
1.3	41	6.0	2,880
1.6	77	9.0	6,250
2.0	155	12.0	10,900
2.5	310	15.0	16,700
3.0	540		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	77	231	240	42	377	234	330	64	33	19	130
2	40	117	195	289	42	331	244	268	57	28	20	a104
3	37	1,210	162	275	42	175	254	237	49	27	19	*97
4	38	525	139	222	42	146	366	201	43	26	21	88
5	38	314	137	175	42	128	520	214	41	26	25	90
6	39	225	115	195	b66	197	664	244	39	25	42	94
7	39	180	b97	180	747	213	670	180	36	26	26	79
8	35	155	b100	b119	132	141	430	170	43	24	31	66
9	33	139	115	b117	83	175	303	168	44	24	24	58
10	34	119	172	126	76	328	286	144	36	47	23	57
11	35	111	144	111	354	400	289	128	34	51	35	57
12	36	107	117	91	296	334	250	111	88	30	71	102
13	35	97	107	90	106	254	231	100	85	26	433	77
14	*34	93	470	b67	85	198	*225	88	*57	25	1,690	55
15	40	90	960	b70	83	162	240	80	45	25	442	52
16	104	87	382	b74	79	301	237	76	37	30	187	53
17	63	87	244	b73	109	286	204	79	33	32	110	44
18	50	83	829	b63	113	*180	175	141	29	38	2,160	43
19	44	88	750	64	106	155	160	84	26	35	*a14,700	100
20	43	479	362	57	122	139	153	47	49	28	a2,320	64
21	86	1,440	258	55	124	150	144	42	38	28	a950	37
22	114	530	225	55	102	296	218	37	119	26	a550	36
23	36	310	201	56	369	470	210	41	102	25	a350	37
24	34	271	189	57	246	382	172	57	63	24	a280	166
25	35	342	168	57	146	450	539	62	66	23	a220	185
26	35	264	141	55	115	358	694	71	47	24	a190	111
27	35	210	144	52	111	272	595	51	38	23	180	79
28	39	204	144	48	155	219	350	43	41	23	a170	203
29	85	483	216	45	-	195	786	39	42	23	a150	151
30	98	338	515	42	-------	201	520	107	36	20	146	100
31	106	-------	370	*b38	-------	228	-------	77	-------	18	141	------ --
Total	1,562	8,775	8,399	3,258	4,135	7,841	10,363	3,717	1,527	863	25,725	2,615
Mean	50.4	293	271	105	148	253	345	120	50.9	27.8	830	87.2
Cfsm	0.701	4.08	3.77	1.46	2.06	3.52	4.80	1.67	0.708	0.387	11.5	1.21
In.	0.81	4.55	4.35	1.68	2.14	4.06	5.36	1.92	0.79	0.45	13.26	1.35

Calendar year 1954: Max 1,440 Min 19 Mean 145 Cfsm 2.02 In. 27.32
Water year 1954-55: Max 14,700 Min 18 Mean 216 Cfsm 3.00 In. 40.72

Peak discharge (base, 1,500 cfs).--Nov. 3 (6 a.m.) 1,630 cfs (4.58 ft); Nov. 21 (3:30 a.m.) 2,300 cfs (5.36 ft); Dec. 14 (12 p.m.) 1,800 cfs (4.80 ft); Dec. 18 (5 p.m.) 1,800 cfs (4.82 ft); Feb. 7 (3 a.m.) 1,840 cfs (4.83 ft); Aug. 14 (7 a.m.) 3,750 cfs (6.90 ft); Aug. 19 (about 5:30 a.m.) 41,600 cfs (24.0 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of graph based on high-water mark and time of peak and existing record.

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 1955.

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.--25 years, 48.0 cfs.

Extremes.--Maximum discharge during year, 10,400 cfs Aug. 19 (gage height, 13.1 ft, from floodmarks in gage house), from rating curve extended above 2,600 cfs on basis of contracted-opening determination at peak flow; minimum, 0.65 cfs Aug. 7 (gage height, 2.01 ft).

1930-55: Maximum discharge, that of Aug. 19, 1955; minimum, 0.08 cfs Aug. 27-29, 1941; 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 and no gage-height record, which are fair. 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 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Aug. 19				Aug. 19 to Sept. 30			
2.0	0.6	3.3	48	2.4	3.3	4.8	234
2.2	2.0	3.8	108	2.6	6.6	5.5	400
2.5	5.6	4.5	240	2.8	12	7.0	990
2.7	11	5.5	520	3.0	20	9.0	2,420
3.0	26	6.5	940	3.4	43	11.0	5,200
				4.0	102		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	26	74	85	13	130	70	101	18	7.6	0.9	22
2	15	43	61	113	14	98	68	80	15	5.6	.8	18
3	13	462	52	97	13	61	71	67	12	4.9	.8	*17
4	14	172	46	76	12	49	141	59	10	4.0	.8	15
5	14	101	44	61	12	45	215	55	9.7	3.4	.7	13
6	13	74	41	89	18	71	228	89	8.4	2.8	.7	18
7	13	58	38	66	220	81	176	52	7.4	2.7	.8	15
8	11	48	36	41	50	56	110	51	7.6	2.4	2.0	11
9	11	44	42	40	31	a60	85	47	8.1	2.2	1.8	9.0
10	11	38	60	41	28	a130	76	39	7.4	3.0	1.4	8.3
11	11	35	46	39	95	a140	69	36	6.7	9.6	1.3	8.3
12	11	34	38	33	123	a90	62	31	20	4.5	11	11
13	10	31	36	32	50	a70	61	28	18	3.4	207	9.0
14	*9.7	31	190	23	35	a60	*64	26	*12	2.6	417	7.1
15	12	30	370	25	31	a50	66	a24	9.4	2.1	113	6.8
16	48	28	143	26	29	a110	57	a23	7.1	2.1	51	6.6
17	26	28	94	25	35	a80	49	a21	5.8	2.3	28	5.9
18	19	28	256	23	40	*a65	46	20	5.0	2.9	892	5.5
19	16	30	216	22	35	55	44	18	4.5	3.2	*3,660	5.5
20	15	175	119	20	40	49	42	16	14	2.5	*467	12
21	14	258	85	19	43	50	39	14	9.1	1.9	205	14
22	13	124	75	20	37	118	66	12	8.8	1.6	127	6.5
23	12	85	65	20	150	186	58	12	56	1.4	88	4.4
24	11	81	65	20	88	178	52	21	14	1.5	64	44
25	10	129	56	18	54	170	188	20	16	1.4	50	52
26	10	82	56	18	44	132	198	38	10	1.4	41	20
27	10	67	46	18	41	102	176	29	7.6	1.2	35	14
28	11	66	50	16	57	81	105	18	13	1.3	31	53
29	37	162	79	14	-	75	260	15	25	1.1	25	31
30	50	100	202	12	-------	75	156	28	11	1.1	22	19
31	37	-------	127	*10	-------	73	-------	21	-------	1.0	23	-------
Total	522.7	2,670	2,908	1,142	1,438	2,790	3,098	1,091	376.6	88.7	6,569.0	481.9
Mean	16.9	89.0	93.8	36.8	51.4	90.0	103	35.2	12.6	2.86	212	16.1
Cfsm	0.704	3.71	3.91	1.53	2.14	3.75	4.29	1.47	0.525	0.119	8.83	0.671
In.	0.81	4.14	4.51	1.76	2.23	4.32	4.79	1.70	0.59	0.14	10.18	0.75

Calendar year 1954: Max 462 Min 1.6 Mean 47.5 Cfsm 1.98 In. 26.87
Water year 1954-55: Max 3,660 Min 0.7 Mean 63.5 Cfsm 2.65 In. 35.92

Peak discharge (base, 650 cfs).--Nov. 3 (5 a.m.) 700 cfs (5.93 ft); Dec. 14 (11:30 p.m.) 890 cfs (6.38 ft); Feb. 6 (3 a.m.) 760 cfs (6.08 ft); Aug. 14 (6 a.m.) 940 cfs (6.50 ft); Aug. 19 (5 a.m.) 10,400 cfs (13.1 ft).

* 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 stations on nearby streams.

Note.--Stage-discharge relation affected by ice Dec. 6-9, 21-23, Jan. 8, 9, 12-21, 28-31, Feb. 1-11, 13-23.

Naugatuck River near Naugatuck, Conn.

Location.--Lat 41°28'15", long 73°03'10", on left bank 0.2 mile upstream from Beacon Hill Brook, 1.3 miles downstream from Naugatuck, New Haven County, and at mile 12.4.

Drainage area.--246 sq mi.

Records available.--June 1918 to September 1924, September 1928 to September 1955.

Gage.--Water-stage recorder. Datum of gage is 155.17 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--33 years (1918-24, 1928-55), 470 cfs (adjusted for storage and diversion).

Extremes.--Maximum discharge during year, 106,000 cfs Aug. 19 (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; minimum, 65 cfs July 31 (gage height, 0.28 ft); minimum daily, 71 cfs July 31.
1918-24, 1928-55: Maximum discharge, that of Aug. 19, 1955; minimum, 24 cfs Oct. 21, 1935; minimum daily, 40 cfs Oct. 5, 12, 1930, Sept. 7, 1936; minimum gage height, 0.14 ft July 17, 1939.
Flood of November 1927 reached a stage of 14 ft (discharge, about 26,000 cfs).

Remarks.--Records excellent except those for period of no gage-height record, which are fair. Flow regulated by plants above station during low stages, and by Pitch, Morris and Wigwam Reservoirs having a combined capacity of 550,000,000 cu ft. Flow increased by diversion from Shepaug Reservoir into Naugatuck River basin.

Revisions (water years).--WSP 781: Drainage area. WSP 1171: 1918-24, 1928-49.

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	261	343	843	986	208	1,190	658	960	223	149	91	400
2	244	371	703	1,070	205	1,330	652	790	198	123	96	320
3	224	3,910	610	1,130	189	773	676	730	181	108	98	300
4	227	1,980	532	874	189	780	1,190	634	159	114	96	270
5	227	1,170	510	731	186	634	1,510	574	144	112	102	270
6	208	866	470	773	267	1,120	1,830	646	159	110	108	290
7	205	710	*406	801	2,260	1,300	1,780	536	154	108	143	250
8	201	622	398	574	653	787	1,230	495	149	102	206	200
9	186	562	440	520	411	724	890	510	159	98	114	170
10	174	500	654	520	380	1,080	790	445	152	212	108	150
11	192	465	550	485	776	1,300	760	398	139	252	127	140
12	192	450	460	430	1,260	1,130	700	373	211	142	388	280
13	186	411	430	425	490	898	670	345	260	110	1,280	250
14	186	384	1,320	359	398	773	652	309	207	104	3,320	160
15	205	384	4,240	351	393	668	658	280	172	94	1,150	150
16	463	371	1,690	355	355	940	618	274	157	127	500	150
17	297	363	1,110	347	759	1,070	558	288	*149	100	345	130
18	251	347	2,440	320	654	759	515	266	132	114	6,460	120
19	230	363	2,850	308	515	640	495	317	114	132	*56,400	250
20	221	1,500	1,490	290	505	592	475	229	193	121	9,270	190
21	211	3,090	1,130	261	568	710	*445	201	195	119	2,860	140
22	290	1,640	954	286	460	1,430	541	172	187	117	1,600	120
23	210	1,050	836	275	1,110	1,970	580	187	288	102	1,100	110
24	171	914	808	286	*1,050	1,360	500	213	235	120	900	400
25	183	1,260	724	279	622	1,500	1,140	210	223	110	700	600
26	189	946	610	272	510	1,190	1,830	300	175	110	600	450
27	205	766	616	265	480	1,030	1,630	270	162	110	550	250
28	217	724	610	234	574	855	995	204	175	108	520	540
29	361	1,460	780	227	-	730	1,890	170	192	104	450	500
30	522	1,170	1,860	195	-------	700	1,500	208	167	85	430	300
31	411	-------	1,490	201	-------	688	-------	249	-------	71	420	-------
Total	7,550	29,092	32,564	14,430	16,427	30,651	28,358	11,783	5,411	3,688	90,532	7,850
Mean	244	970	1,050	465	587	989	945	380	180	119	2,920	262
(†)	-6.2	+5.3	-0.6	-13.0	+4.4	+0.3	0	-8.2	-21.1	-25.6	+0.3	-26.1

Adjusted for diversion and change in reservoir contents

Mean	238	975	1,049	452	591	989	945	372	159	93.4	2,920	236
Cfsm	0.967	3.96	4.26	1.84	2.40	4.02	3.84	1.51	0.646	0.380	11.9	0.959
In.	1.11	4.42	4.91	2.12	2.50	4.64	4.28	1.74	0.72	0.44	13.72	1.07

	Observed			Adjusted			
Calendar year 1954:	Max 4,240	Min 85	Mean 541	Mean 527	Cfsm 2.14	In. 29.08	
Water year 1954-55:	Max 56,400	Min 71	Mean 763	Mean 755	Cfsm 3.07	In. 41.67	

Peak discharge (base, 4,000 cfs).--Nov. 3 (10 a.m.) 5,330 cfs (5.56 ft); Nov. 21 (8 a.m.) 4,280 cfs (4.99 ft); Dec. 15 (3 a.m.) 6,500 cfs (6.20 ft); Dec. 18 (9 p.m.) 5,150 cfs (5.48 ft); Feb. 7 (6a.m.) 4,120 cfs (4.90 ft); Aug. 14 (9 a.m.) 6,550 cfs (6.43 ft); Aug. 19 (about 10:30 a.m.) 106,000 cfs (25.7 ft).

* 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 Aug. 17 to Sept. 30; discharge estimated on basis of records for upstream stations near Thomaston and, for period Aug. 18-21, on one or more daily stage observations at Waterbury, Naugatuck, and Ansonia.

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 offpeak power periods. Usable capacity, 6,210,000,000 cu ft. Records available, August 1928 to September 1955. 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 1955. Records furnished by Bureau of Engineering, city of Waterbury, Conn.

Lake Lillinonah on Housatonic River, lat 41°26'52", long 73°17'49", 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 to September 1955. 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 1955. 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 1955. 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 1955. 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 1955. Records furnished by Bureau of Engineering, city of Waterbury, Conn.

Month-end contents, water year October 1954 to September 1955

Date	Lake Candlewood (Rocky River Reservoir)		Shepaug Reservoir		Lake Lillinonah	
	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)
Sept.30	6,186	-	96.7	-	-	-
Oct. 31	6,149	-14	97.2	+0.2	-	-
Nov. 30	6,149	0	99.6	+.9	-	-
Dec. 31	6,125	-9	99.6	0	-	-
Calendar year 1954	-	+6	-	+.1	-	-
Jan. 31	5,907	-81	96.7	-1.1	0	0
Feb. 28	6,040	+55	98.8	+.9	39	+16
Mar. 31	6,137	+36	98.8	0	40	0
Apr. 30	6,100	-14	100.6	+.7	328	+111
May 31	5,979	-45	97.5	-1.1	16	-116
June 30	6,040	+24	94.6	-1.1	8	-3
July 31	5,798	-90	67.2	-10.2	3	-2
Aug. 31	6,052	+95	97.0	+11.1	24	+8
Sept.30	5,834	-84	98.0	+.4	652	+242
Water year 1954-55	-	-11	-	0	-	+21

Date	Lake Zoar		Pitch, Morris, and Wigwam Reservoirs			
Sept.30	249.0	-	508.2	-		
Oct. 31	285.1	+13.4	531.1	+8.5		
Nov. 30	368.0	+32.0	553.8	+8.8		
Dec. 31	317.0	-19.0	552.3	-.6		
Calendar year 1954	-	+4.0	-	+.1	-	-
Jan. 31	127.9	-70.6	517.4	-13.0		
Feb. 28	244.6	+48.2	553.4	+14.9		
Mar. 31	183.2	-22.9	554.2	+.3		
Apr. 30	377.3	+74.9	554.3	0		
May 31	213.6	-61.1	552.6	-.6		
June 30	267.0	+20.6	540.4	-4.7		
July 31	303.3	+13.6	512.2	-10.5		
Aug. 31	123.7	-67.1	532.9	+7.7		
Sept.30	226.9	+39.8	497.3	-13.7		
Water year 1954-55	-	-.7	-	-.3		

Saugatuck River near Westport, Conn.

Location.--Lat 41°10'15", long 73°22'00", on left bank on old Ford Road (Clinton Avenue), 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 1955.
Gage.--Water-stage recorder. Datum of gage is 18.16 ft above mean sea level, datum of 1929.
Average discharge.--23 years, 142 cfs (adjusted for storage and diversion from Saugatuck Reservoir since October 1941).
Extremes.--Maximum discharge during year, 2,530 cfs Aug. 19 (gage height, 8.04 ft); minimum, 1.0 cfs July 8, 9 (gage height, 2.00 ft); minimum daily, 1.9 cfs July 9.
1932-55: Maximum discharge, 5,310 cfs Mar. 12, 1936 (gage height, 11.30 ft), from rating curve extended above 2,400 cfs, verified by computation of flow-over-dam for flood of September 1938 (gage height, 10.28 ft); minimum, 0.2 cfs Oct. 19, 1953 (gage height, 1.92 ft); minimum daily, 1.0 cfs Aug. 11, 1939.
Remarks.--Records excellent except those for periods of ice effect, which are 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 1201: 1935.

Rating table, water year 1954-55, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.0	1.0	3.5	195
2.1	3.0	4.0	335
2.2	6.5	5.0	700
2.3	11	6.0	1,180
2.4	18	7.0	1,790
2.6	36	8.0	2,500
3.0	91		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	60	142	376	b27	218	181	293	22	11	4.4	72
2	12	73	166	357	b26	276	166	240	17	11	4.4	64
3	12	369	183	335	b25	221	185	195	17	8.8	4.0	56
4	17	234	166	279	b28	326	431	*171	17	7.8	4.0	48
5	16	138	162	232	b30	329	441	157	14	7.0	4.0	44
6	15	93	153	226	b50	382	369	153	13	7.0	3.7	58
7	17	74	114	240	465	472	350	123	12	7.4	4.4	51
8	17	61	103	169	226	320	273	118	12	13	4.8	31
9	8.8	48	123	157	138	276	229	121	11	1.9	4.0	22
10	8.3	43	208	157	112	268	211	100	11	6.5	4.0	19
11	11	41	183	138	140	248	195	91	11	18	4.0	20
12	11	36	155	121	276	234	169	83	30	9.6	42	20
13	9.6	35	140	114	b185	232	169	75	33	7.0	174	18
14	9.2	30	246	105	b125	208	171	68	21	6.2	183	17
15	11	28	*785	86	98	178	178	64	16	5.8	99	17
16	12	26	520	88	85	262	169	62	13	13	51	16
17	12	26	360	83	287	270	140	62	12	18	31	15
18	12	27	480	77	299	216	138	49	11	11	201	14
19	14	*27	720	61	198	195	123	46	11	8.3	*1,920	16
20	14	104	476	b53	173	190	123	36	16	7.4	1,370	31
21	14	465	347	b43	160	221	116	24	14	6.5	753	20
22	11	329	273	36	133	560	162	21	12	5.8	455	*15
23	11	193	262	42	216	740	160	20	*14	5.4	351	12
24	10	173	262	56	*268	483	138	22	21	6.5	244	47
25	10	268	254	48	195	372	188	20	29	8.3	173	57
26	10	203	221	42	164	366	273	20	22	6.5	133	34
27	10	148	200	40	164	360	296	20	17	6.2	118	30
28	11	135	183	34	173	285	224	17	16	5.4	101	82
29	33	240	203	b30	-	237	352	14	14	4.8	85	80
30	49	195	571	b27	--------	221	382	16	12	3.0	74	54
31	60	--------	540	b25	--------	190	--------	18	--------	4.4	74	--------
Total	479.9	3,922	8,901	3,877	4,466	9,356	6,702	2,519	491	248.5	6,689.7	1,080
Mean	15.5	131	287	125	160	302	223	81.3	16.4	8.02	216	36.0
(†)	+10.2	+134.6	+6.9	+5.0	+45.7	+0.7	+1.3	+2.1	+9.0	-1.75	+91.6	+13.4

Adjusted for diversion and change in reservoir contents

Mean	25.7	266	294	130	206	303	224	83.4	25.4	6.27	308	49.4
Cfsm	0.332	3.43	3.79	1.68	2.66	3.91	2.89	1.08	0.328	0.081	3.97	0.637
In.	0.38	3.83	4.37	1.94	2.77	4.51	3.22	1.24	0.37	0.09	4.58	0.71

	Observed				Adjusted			
Calendar year 1954:	Max 785	Min 1.4	Mean 97.3		Mean 121	Cfsm 1.56	In. 21.26	
Water year 1954-55:	Max 1,920	Min 1.9	Mean 134		Mean 160	Cfsm 2.06	In. 28.01	

Peak discharge (base, 900 cfs).--Aug. 19 (10:30 a.m.) 2,530 cfs (8.04 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.
b Stage-discharge relation affected by ice.

Measurements of streamflow in the North Atlantic slope basins, Maine to Connecticut, made at points other than regular gaging stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. Measurements believed to have been made under base-flow conditions are identified by an asterisk (*) to the left of the discharge figure. These measurements when correlated with the simultaneous discharge of a nearby stream where continuous records are available will give a picture of the low-flow potentiality of stream. The column headed, "Measured previously" shows the water years in which measurements were made at the same, or practically the same, site.

Determinations of peak flow at points other than regular gaging stations are given in a separate table below.

Discharge measurements made at points other than gaging stations in the North Atlantic slope basins, Maine to Connecticut during water year 1955

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Menunketesuck River basin, Conn.						
Menunketesuck River.	Long Island Sound.	Lat 41°21'12", long 72°32'21", 0.4 mile downstream from State Highway 80 and 1.3 miles east of Killingworth.	6.4	1943,1945 1946, 1949-51, 1953-54	Oct. 11 June 17 July 19	*4.09 *2.19 *.475
Quinnipiac River basin, Conn.						
Eightmile River.	Quinnipiac River.	Lat 41°36'54", long 72°55'24", at bridge on wood's road, 1.6 miles northwest of Southington.	6.42	1954	June 21 July 18	*8.45 *5.40

* Base flow.

The following table contains determinations of peak discharge made at crest stage by indirect methods or by current meter or computed from rating curve at points other than regular gaging stations.

Determinations of peak discharge during water year October 1954 to September 1955

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Mumford River	Blackstone River.	Lat 42°04'24", long 71°42'58", at Manchaug Road Bridge at East Douglas, Mass, 0.1 mile below Southwick Brook (discontinued).	27.8	1939-51	Aug. 19	2,140
Blackstone River.	Narragansett Bay.	Lat 42°00'54", long 71°33'15", at Tupper Mill Dam at Blackstone, Mass., ½ mile above Branch River.	259	1936	Aug. 19	18,800
Crystal Lake Brook.	Edson Brook.	Lat 41°57'50", long 72°21'50", 0.6 mile southwest of West Stafford, Conn.	5.83		Aug. 19	784
Willimantic River.	Shetucket River.	Lat 41°56'34", long 72°18'21", 0.8 mile downstream from Stafford Springs, Conn.	53.5		Aug. 19	14,500
Roaring Brook	Williamantic River.	Lat 41°54'39", long 72°16'15", at culvert on State Highway 15, 2.6 miles northeast of West Willington, Conn.	18.0		Aug. 19	2,920
Wales Brook..	Mill Brook (head of Quinebaug River).	Lat 42°04'50", long 72°12'05", 0.15 mile above unnamed tributary and 1.3 miles northeast of Wales, Mass.	3.71		Aug. 19	1,080
Hamilton Reservoir Outlet.	....do.....	Lat 42°04'44", long 72°09'16", 1.1 miles below outlet of Hamilton Reservoir and 2½ miles southwest of Fiskdale, Mass.	24.2		Aug. 19	6,540
Quinebaug River.	Shetucket River.	Lat 42°06'31", long 72°07'26", at bridge 0.5 mile southwest of Fiskdale, Mass. and 0.7 mile below mouth of Long Pond Outlet.	67.5	1936,1938	Aug. 19	15,400
Upper Sibley Pond Outlet.	Cady Brook..	Lat 42°08'54", long 72°00'36", at outlet of Upper Sibley Pond, 0.9 mile northwest of Charlton City, Mass.	2.23		Aug. 19	1,240
Cady Brook...	Quinebaug River.	Lat 42°05'28", long 72°01'19", ½ mile northeast of Southbridge, Mass. and 1.2 miles above mouth.	12.0		Aug. 19	26,300
Cohasse Brook	....do.....	Lat 42°03'39", long 72°02'49", at Wells Pond Dam, 0.5 mile south of Southbridge, Mass.	2.87		Aug. 19	1,280
Lebanon Brook	....do.....	Lat 42°03'51", long 72°00'43", at dam 0.15 mile above mouth and ¾ mile southeast of Southbridge, Mass.	10.0		Aug. 19	1,140
Alder Meadow Brook.	Bartons Brook.	Lat 42°12'58", long 71°57'28", 0.1 mile above mouth and 2½ miles southeast of Spencer, Mass.	2.18		Aug. 19	1,530
French River.	Quinebaug River.	Lat 42°09'19", long 71°53'05", at dam at North Oxford, Mass., 1 mile below Texas Pond.	24.1	1936,1938	Aug. 19	8,540

Determinations of peak discharge during water year October 1954 to September 1955--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
South Fork Little River.	French River	Lat 42°06'17", long 71°55'46", at dam at outlet of Granite Reservoir, ½ mile northwest of South Charlton, Mass.	7.97		Aug. 19	2,060
Quinebaug River.	Shetucket River.	Lat 41°46'55", long 71°54'00", at Dyer Dam, 1⅝ miles southwest of Danielson, Conn.	465	1936,1938	Aug. 19	43,900
Do.....	....do.....	Lat 41°33'03", long 72°02'30", at dam of tunnel plant of Connecticut Light & Power Co. near Taftville, Conn.	743	1936,1938	Aug. 20	40,700
Manhan River.	Connecticut River.	Lat 42°15'17", long 72°47'15", at outlet of White Reservoir, 3.5 miles south of Westhampton, Mass.	4.41		Aug. 19	1,080
Do.....	....do.....	Lat 42°12'14", long 72°46'13", 0.2 mile northwest of Russellville, Mass., and 0.4 mile above Sacket Brook.	15.1		Aug. 19	9,350
Bachelor Brook.	....do.....	Lat 42°16'12", long 72°35'14", 1 mile northwest of South Hadley, Mass., and 1 mile above mouth.	31.1		Aug. 19	5,320
Stony Brook..	....do.....	Lat 42°14'55", long 72°34'48", 0.2 mile above Leaping Well Brook and 1 mile north of South Hadley, Mass.	19.2		Aug. 19	1,920
Ware River (head of Chicopee River).	....do.....	Lat 42°14'29", long 72°15'59", at Twomile Bridge, 1¾ miles southwest of Ware, Mass.	191		Aug. 19	9,530
Fivemile River.	East Brookfield River (head of Quaboag River).	Lat 42°17'39", long 72°02'18", at outlet of Brooks Pond, 2½ miles northeast of North Brookfield, Mass.	13.2		Aug. 19	1,730
Lamberton Brook.	Quaboag River.	Lat 42°14'08", long 72°10'29", 0.25 mile above mouth and 1.5 miles west of West Brookfield, Mass.	4.47		Aug. 19	4,140
Quaboag River.	Chicopee River.	Lat 42°13'03", long 72°11'36", at bridge on old West Brookfield Road at Warren, Mass., 1.2 miles above Cherry Brook.	134		Aug. 19	4,730
O'Neil Brook.	Quaboag River.	Lat 42°13'02", long 72°13'16", at West Warren, Mass., 0.1 mile above mouth.	2.04		Aug. 19	1,670
Blodgett Mill Brook.	....do.....	Lat 42°10'22", long 72°14'58", at West Brimfield, Mass., 0.8 mile above mouth.	7.38		Aug. 19	5,860
Foskett Mill Stream.	....do.....	Lat 42°07'42", long 72°15'32", at dam 1.2 miles southeast of Fentonville, Mass., and 1.4 miles above mouth.	6.65		Aug. 19	3,900
Chicopee Brook.	....do.....	Lat 42°05'01", long 72°18'57", at dam 50 ft above Maple Street Bridge at South Monson, Mass. and 0.2 mile above Conant Brook.	4.68		Aug. 19	1,700
Conant Brook.	Chicopee Brook.	Lat 42°04'24", long 72°17'42", at Monson Reservoir dam, 1.4 miles southeast of South Monson, Mass. and 1.6 miles from mouth.	7.94	1938	Aug. 19	5,600
Broad Brook..	Chicopee River.	Lat 42°13'34", long 72°24'11", at Belchertown-Ludlow town line, 3.5 miles south of Belchertown, Mass.	7.07		Aug. 19	4,740
Twelvemile Brook.	....do.....	Lat 42°08'25", long 72°23'41", 0.4 mile above Maxwell Brook and 1.8 miles southeast of North Wilbraham, Mass.	8.56		Aug. 19	8,690
Mill River...	Connecticut River.	Lat 42°05'39", long 72°34'03", at Hancock Street Bridge at Springfield, Mass., 0.25 mile below Watershops Pond (discontinued).	33.9	1938-51	Aug. 19	1,960
Walker Brook.	West Branch Westfield River.	Lat 42°16'42", long 72°59'03", at Chester, Mass., ¼ mile above mouth.	17.7		Aug. 19	5,220
Stage Brook (head of Bradley Brook).	Westfield River.	Lat 42°10'59", long 72°52'26", 1 mile southwest of Russell, Mass. and 1.4 miles above mouth.	5.21		Aug. 19	4,910
Black Brook..	Bradley Brook.	Lat 42°11'47", long 72°52'29", 0.8 mile above Stage Brook and 1 mile northwest of Russell, Mass.	2.97		Aug. 19	1,760
Potash Brook.	Westfield River.	Lat 42°10'14", long 72°53'15", at Blandford-Russell town line, 2.1 miles east of Blandford, Mass.	1.53		Aug. 19	1,210
Westfield River.	Connecticut River.	Lat 42°09'56", long 72°49'47", at dam at Woronoco, Mass.	351		Aug. 19	61,500
Unnamed tributary.	Westfield Little River.	Lat 42°06'56", long 72°54'15", at Cobble Mountain Reservoir, 4 miles northwest of Granville, Mass.	.66		Aug. 19	415

Determinations of peak discharge during water year October 1955 to September 1955--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Cooks Brook..	Westfield Little River.	Lat 42°06'56", long 72°50'26", at West Parish, Mass., 0.3 mile north of Westfield-Granville town line.	0.32		Aug. 19	218
Dickinson Brook (head of Munn Brook)	....do.....	Lat 42°04'47", long 72°50'42", ½ mile above Munn Brook and 1½ miles northeast of Granville, Mass.	6.42		Aug. 19	5,750
Westfield Little River.	Westfield River.	Lat 42°07'10", long 72°47'10", at Stevens Paper Co. dam at Westfield, Mass., 1.0 mile above Jacks Brook.	77.7		Aug. 19	21,700
Powdermill Brook.	....do.....	Lat 42°09'45", long 72°45'49", 2.9 miles north of Westfield, Mass. and 4.6 miles above mouth.	2.50		Aug. 19	5,740
Great Brook..	....do.....	Lat 42°03'05", long 72°45'41", at Longyard Road, 0.55 mile southeast of Southwick, Mass.	19.3		Aug. 19	3,610
Clay Brook...	Muddy Brook..	Lat 41°59'54", long 72°39'12", at culvert on Russell Ave., 0.5 mile west of State Highway 75 and 1.1 miles north of Suffield, Conn.	.69		Aug. 19	531
Stony Brook..	Connecticut River.	Lat 41°58'18", long 72°39'29", 400 ft downstream from State Highway 75 and 0.8 mile south of Suffield, Conn.	36.9		Aug. 19	17,300
Scantic River.	....do.....	Lat 41°58'58", long 72°30'59", at bridge on State Highway 191, 0.1 mile south of State Highway 20 in Scitico, Conn.	66.0	1938	Aug. 19	15,400
Fall River...	West Branch Farmington River.	Lat 42°09'35", long 73°03'35", at outlet of Otis Reservoir, ½ mile above mouth and 1 mile northeast of Cold Spring, Mass.	17.2	1936	Aug. 19	1,320
Silver Brook.	Clam River...	Lat 42°05'38", long 73°06'13", 0.6 mile southwest of West New Boston, Mass. and 0.6 mile above mouth.	6.52		Aug. 19	4,370
Clam River...	West Branch Farmington River.	Lat 42°06'01", long 73°05'43", at West New Boston, Mass., 0.2 mile below Buck River.	29.3		Aug. 19	12,100
West Branch Farmington River.	Farmington River.	Lat 41°58'43", long 73°01'11", 1.5 miles north of Riverton, Conn.	128		Aug. 19	57,200
Mad River....	Still River..	Lat 41°55'55", long 73°05'32", in gorge along U. S. Highway 44, 1½ miles west of Winsted, Conn.	19.7		Aug. 19	10,200
Colebrook Brook.	Indian Meadow Brook.	Lat 41°56'14", long 73°05'11", 500 ft upstream from bridge on State Highway 183 and 1 mile northwest of Winsted, Conn.	2.84		Aug. 19	1,660
Highland Lake Outlet.	Mad River....	Lat 41°55'22", long 73°04'58", at Highland Lake Dam, 0.5 mile west of Winsted, Conn.	7.30		Aug. 19	4,050
Sandy Brook..	Still River..	Lat 41°59'21", long 73°03'10", at bridge on Sandy Brook Road, 0.8 mile northwest of Robertsville, Conn.	31.1		Aug. 19	10,100
Morgan Brook.	West Branch Farmington River.	Lat 41°54'42", long 73°00'31", at culvert on U. S. Highway 44, 3 miles east of Winsted, Conn.	6.39		Aug. 19	2,510
Hubbard River	East Branch Farmington River.	Lat 42°02'08", long 72°56'18", at culvert on State Highway 20, 2½ miles northeast of West Hartland, Conn.	19.9		Aug. 19	10,500
Valley Brook.	....do.....	Lat 42°02'03", long 72°55'49", at culvert on State Highway 20, 2½ miles northeast of West Hartland, Conn.	7.20		Aug. 19	8,260
Beaver Brook.	....do.....	Lat 41°55'18", long 72°58'19", at bridge on State Highway 181, 0.5 mile southwest of Barkhamsted, Conn.	5.31		Aug. 19	3,350
Farmington River.	Connecticut River.	Lat 41°47'30", long 72°55'29", 1.3 miles south of Collinsville, Conn.	360	1936,1938	Aug. 19	140,000
East Branch Salmon Brook.	Salmon Brook.	Lat 42°00'02", long 72°50'03", at bridge on Silver St. near State Highway 189, 0.4 mile north of North Granby, Conn.	13.2		Aug. 19	14,300
West Branch Salmon Brook.	....do.....	Lat 41°57'35", long 72°51'03", in Huggins Gorge, 0.5 mile northwest of West Granby, Conn.	11.7		Aug. 19	10,500
North Branch Park River	Park River...	Lat 41°48'16", long 72°43'24", near Bloomfiled-West Hartford town line, Conn.	18.6		Aug. 19	7,980
Salmon Creek	Housatonic River.	Lat 41°56'30", long 73°23'28", at bridge on Brinton Road, 0.6 mile north of Lime Rock, Conn.	30.1	1949	Aug. 19	6,300
Birdseye Brook.	Furnace Brook	Lat 41°49'58", long 73°19'17", 300 ft downstream from Great Hollow Road and 0.9 mile southeast of Cornwall, Conn.	3.88		Aug. 19	1,300

Determinations of peak discharge during water year October 1955 to September 1955--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Furnace Brook	Housatonic River.	Lat 41°49'06", long 73°22'11", at culvert on State Highway 4 in Cornwall Bridge, Conn.	13.5	1945,1949	Aug. 19	4,060
West Aspetuck River.	Aspetuck River.	Lat 41°37'14", long 73°25'18", at bridge on State Highway 129 at Hurds Corner, 2 miles southeast of Merryall, Conn.	16.6		Aug. 19	1,830
Still River..	Housatonic River.	Lat 41°24'00", long 73°25'44", 500 ft upstream from U. S. Highway 6 bridge at Danbury, Conn.	38.3		Aug. 19	2,770
Bantam River.	Shepaug River	Lat 41°44'46", long 73°10'47", 400 ft downstream from East Litchfield Road and 0.5 mile east of Litchfield, Conn.	20.6		Aug. 19	10,100
Sprain Brook.	Weekeepeemee River.	Lat 41°35'13", long 73°15'12", 600 ft upstream from State Highway 47 and 2.5 miles northwest of Hotchkissville, Conn.	6.91		Aug. 19	2,980
Nonewaug River.	Pomperaug River.	Lat 41°33'19", long 73°12'05", at bridge on U. S. Highway 6, 0.9 mile northeast of Woodbury, Conn.	25.6		Aug. 19	12,300
Transylvania Brook.	....do.....	Lat 41°29'58", long 73°15'25", at bridge on State Highway 172, 2 miles north of South Britain, Conn.	2.45		Aug. 19	839
West Branch Naugatuck River.	Naugatuck River.	Lat 41°50'03", long 73°08'55", at Stillwater Pond dam, 1.1 miles northwest of West Torrington, Conn.	24.2		Aug. 19	11,900
East Branch Naugatuck River.	....do.....	Lat 41°49'24", long 73°07'23", ¼ mile north of junction of Newfield Road and State Highway 8 in Torrington, Conn.	10.2		Aug. 19	6,210
Branch Brook.	....do.....	Lat 41°39'27", long 73°06'17", at bridge on State Highway 109, 1.8 miles southwest of Thomaston, Conn.	21.0		Aug. 19	10,300
Naugatuck River.	Long Island Sound.	Lat 41°36'37", long 73°03'35", 0.4 mile downstream from Frost Bridge and 4.0 miles north of Waterbury, Conn.	138		Aug. 19	75,900
Hancock Brook	Naugatuck River.	Lat 41°36'10", long 73°02'46", 1.7 miles upstream from mouth and 3.4 miles north of Waterbury, Conn.	12.9		Aug. 19	4,870
Steel Brook..	....do.....	Lat 41°35'11", long 73°04'43", at Falls Avenue Bridge, Oakville, Conn.	12.9		Aug. 19	5,890
Mad River....	....do.....	Lat 41°32'58", long 73°00'24", at Pine Grove Cemetery, Fair Lawn section of Waterbury, Conn.	18.0		Aug. 19	2,070
Hop Brook....	....do.....	Lat 41°30'21", long 73°03'31", at American Brass Co. bridge, 1.4 miles north of Naugatuck, Conn.	16.5		Aug. 19	2,650

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