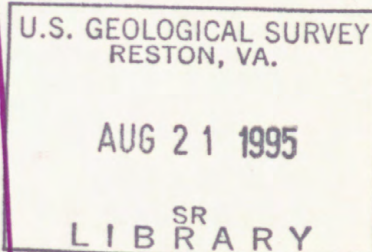
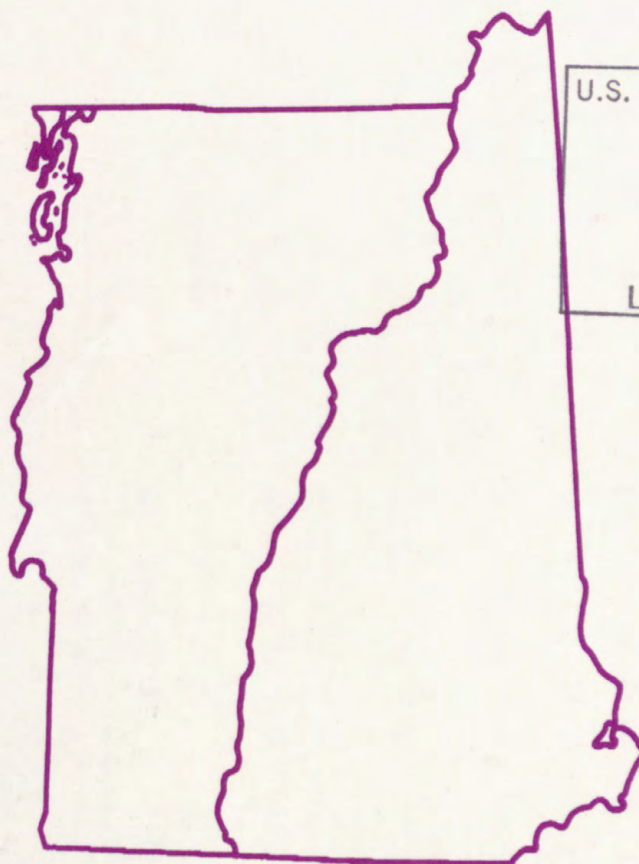




Water Resources Data New Hampshire and Vermont Water Year 1994



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NH-VT-94-1
Prepared in cooperation with the States of New Hampshire and
Vermont and with other agencies

CALENDAR FOR WATER YEAR 1994

1993

OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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31																				

1994

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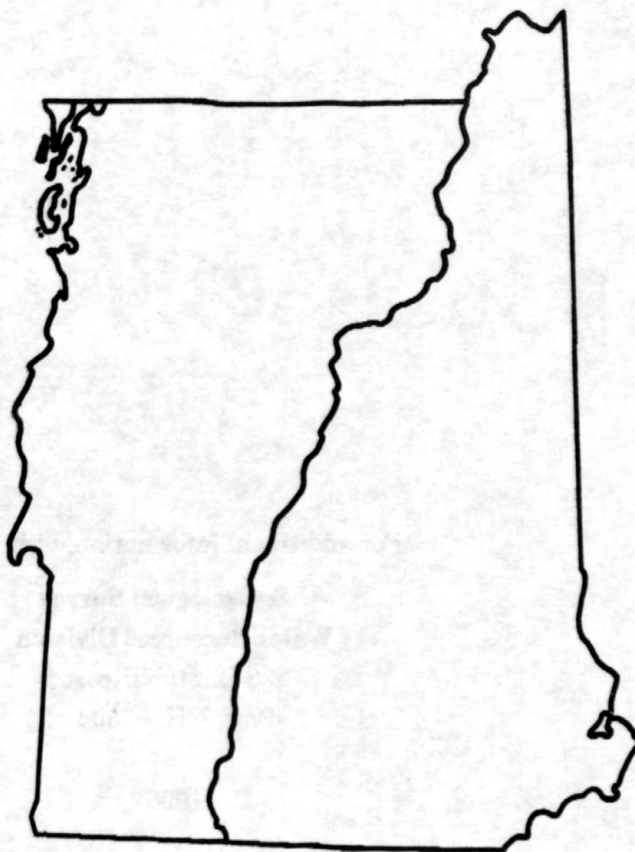
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31																				



Water Resources Data New Hampshire and Vermont Water Year 1994

by K.W. Toppin, M.F. Coakley, C. Keirstead, and S.M. Flanagan



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NH-VT-94-1
Prepared in cooperation with the States of New Hampshire and
Vermont and with other agencies

U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, *Secretary*

U.S. GEOLOGICAL SURVEY

Gordon P. Eaton, *Director*

For additional information, write to:

**U.S. Geological Survey
Water Resources Division
525 Clinton Street
Bow, NH 03304**

1995

PREFACE

This volume of the annual hydrologic data report of New Hampshire and Vermont is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

R.O. Brown

R. Kiah

J.R. Mullaney

J.C. Denner

S. Ward

B.O. Stock

G.S. Hilgendorf

M. Rose

S.L. Wappel

B.S. Davies, and T.M. Collins, Connecticut office, reviewed portions of the report.

Debra H. Foster coordinated the word processing and publishing phases of the report.

This report was prepared in cooperation with the States of New Hampshire and Vermont and with other agencies under the general supervision of Brian Mrazik, Chief, New Hampshire-Vermont District.

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No restrictions on distribution. This report may be purchased from National Technical Information Service, Springfield, Virginia 22161

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13. ABSTRACT (Maximum 200 words)

Water-resources data for the 1994 water year for New Hampshire and Vermont consists of stage, discharge, and water quality of streams; contents of lakes and reservoirs; and ground-water levels. This report contains discharge records for 71 gaging stations, stage records for 5 lakes, monthend contents for 23 lakes and reservoirs, water quality for 10 gaging stations and water levels for 26 observation wells. Also included are data for 18 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data-collection program and are published as miscellaneous measurements. A few pertinent stations in bordering states are also included in this report. These data represent that portion of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in New Hampshire and Vermont.

14. SUBJECT TERMS

*New Hampshire, *Vermont, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels and analyses

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[Letters after station name designate type of data collected: (d) discharge; (c) chemical; (b) biological; (s) sediment, (e) elevation, gage heights, or contents]

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Lancaster well LCW 1 160

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MERRIMACK COUNTY

Concord well CVW 2 163

Concord well CVW 4 164

Franklin well FKW 1 165

Hooksett well HTW 5 166

New London well NLW 1 167

Warner well WCW 1 168

STAFFORD COUNTY

Lee well LIW 1 169

VERMONT

BENNINGTON COUNTY

Pownal well PQW 1 170

CHITTENDEN COUNTY

Milton well MJW 3 171

ESSEX COUNTY

Brighton well BIW 1 172

FRANKLIN COUNTY

Berkshire well BKW 1 173

LAMOILLE COUNTY

Morristown well MPW 1 174

ORANGE COUNTY

West Fairlee well WOW 1 175

ORLEANS COUNTY

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WASHINGTON COUNTY

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Waitsfield well WAW 3 180

WINDSOR COUNTY

Chester well CKW 1 181

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DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record streamflow stations in New Hampshire and Vermont have been discontinued or converted to partial-record stations. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

Discontinued surface-water discharge stations

Station Name	Station Number	Drainage Area (mi ²)	Period of Record (water years)
SACO RIVER BASIN			
Lucy Brook near North Conway, N.H.	01064400	4.68	1964-92
Cold Brook at South Tamworth, N.H.	01064800	5.41	1963-73
Ossipee River at Effingham Falls, N.H.	01065000	330	1942-90
PISCATAQUA RIVER BASIN			
Mohawk Brook near Center Strafford, N.H.	01072850	8.87	1964-77
Dudley Brook near Exeter, N.H.	01073600	4.97	1962-85
MERRIMACK RIVER BASIN			
Pemigewasset River at North Woodstock, N.H.	01074000	28.6	1911-12
East Branch Pemigewasset River near Lincoln, N.H.	01074500	109	1928-53
Pemigewasset River at Woodstock, N.H.	01075000*	193	1940-77
Baker River at Wentworth, N.H.	01075500	58.8	1940-52
Baker River near Rumney, N.H.	01076000*	143	1929-77
Poorfarm Brook near Gilford, N.H.	01079600	5.0	1978-80
Merrimack River at Franklin Junction, N.H.	01081500*	1,507	1903-78
Contoocook River at Peterborough, N.H.	01082000*	68.1	1945-77
Nubanusit River near Peterborough, N.H.	01083000*	46.9	1921-31 1945-89
Contoocook River near Elmwood, N.H.	01083500	168	1917-24
North Branch Contoocook River near Antrim, N.H.	01084000	54.8	1924-70
Beards Brook near Hillsboro, N.H.	01084500	55.4	1945-70
Contoocook River near Henniker, N.H.	01085000*	368	1940-77
Contoocook River below Hopkinton Dam at West Hopkinton, N.H.	01085500*	427	1903-07, 1963-89
Warner River at Davisville, N.H.	01086000	146	1940-78
Blackwater River near Webster, N.H.	01087000*	129	1918-20, 1927-89
Contoocook River at Penacook, N.H.	01088000	766	1929-77
Merrimack River at Garvins Falls, N.H.	01088500	2,427	1904-15
Soucook River near Concord, N.H.	01089000	76.8	1951-87
Suncook River at North Chichester, N.H.	01089500	157	1918-27, 1928-70
Suncook River at East Pembroke, N.H.	01090000	270	1904-05
Merrimack River at Manchester, N.H.	01090500	2,854	1924-50
Piscataquog River below Everett Dam near East Weare, N.H.	01090800*	63.1	1963-89
South Branch Piscataquog River near Goffstown, N.H.	01091000	104	1940-78
Piscataquog River near Goffstown, N.H.	01091500*	202	1940-78
Sucker Brook at Auburn, N.H.	01093000	27.8	1938-70
Souhegan River at Merrimack, N.H.	01094000*	171	1909-76

WATER RESOURCES DATA FOR NEW HAMPSHIRE AND VERMONT
DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

Discontinued surface-water discharge stations--Continued

Station Name	Station Number	Drainage Area (mi ²)	Period of Record (water years)
CONNECTICUT RIVER BASIN			
Big Brook near Pittsburg, N.H.	01127880	6.36	1963-85
Connecticut River at First Connecticut Lake near Pittsburg, N.H.	01128500	83	1917-90
Halls Stream near East Hereford, Quebec, Canada	01129300	85	1963-93
East Branch Passumpsic River near East Haven, Vt.	01133000	53.8	1939-45
Passumpsic River near St. Johnsbury, Vt.	01133500	237	1909-19
Kirby Brook at Concord, Vt.	01134800	8.05	1963-74
Moose River at St. Johnsbury, Vt.	01135000	128	1928-83
Stevens River at West Barnet, Vt.	01136000	22.2	1939-45
Ammonoosuc River at Bretton Woods, N.H.	01136500	a34	1903-07
Ammonoosuc River near Bath, N.H.	01138000	395	1935-80
Connecticut River at South Newbury, Vt.	01139500	2,825	1918-50
South Branch Waits River near Bradford, Vt.	01140000	42.7	1939-51
Connecticut River at Orford, N.H.	01140500	3,100	1900-21
Ompompanoosuc River at Union Village, Vt.	01141500*	130	1940-89
White River near Bethel, Vt.	01142000	241	1931-55
Mascoma River at West Canaan, N.H.	01145000*	80.5	1939-78
Kent Brook near Shelburne, Vt.	01150800	3.31	1963-74
Ottawquechee River at Woodstock, Vt.	01151000	126	1928-30
Black River at Covered Bridge at Weathersfield, Vt.	01152800	114	1976-82
Black River at North Springfield, Vt.	01153000*	158	1929-89
Williams River at Brockways Mills, Vt.	01153500	103	1940-84
Saxtons River at Saxtons River, Vt.	01154000	72.2	1940-82
Cold River at Drewsville, N.H.	01155000	82.7	1940-78
Sacketts Brook near Putney, Vt.	01155200	10.0	1963-74
Flood Brook near Londonderry, Vt.	01155300	9.25	1963-74
West River at Jamaica, Vt.	01155500*	179	1946-89
West River at Newfane, Vt.	01156000*	308	1919-23, 1928-89
Connecticut River at Vernon, Vt.	01156500	6,266	1936, 1938 1944-73
Ashuelot River near Gilsum, N.H.	01157000	71.1	1922-80
Ashuelot River below Surry Mountain Dam near Keene, N.H.	01158000*	101	1945-89
Otter Brook near Keene, N.H.	01158500	42.3	1923-58
Otter Brook below Otter Brook Dam near Keene, N.H.	01158600*	47.2	1958-89
Pratt Brook at Chesham, N.H.	01159000	11.2	1919-21
Minnewawa Brook at Marlborough, N.H.	01159500	31.7	1919-22
South Branch Ashuelot River at Webb near Marlborough, N.H.	01160000	36.0	1920-78
Beaver Brook at Wilmington, Vt.	01167800	6.38	1963-77
HUDSON RIVER BASIN			
Batten Kill at Arlington, Vt.	01329000	152	1929-85
St. LAWRENCE RIVER BASIN			
Mettawee River Tributary near Pawlet, Vt.	04280300	2.95	1963-74
East Creek near Rutland, Vt.	04281000	a47	1911-13
East Creek at Rutland, Vt.	04281500	51.1	1940-77
Lewis Creek Tributary at Starksboro, Vt.	04282700	5.31	1963-74

WATER RESOURCES DATA FOR NEW HAMPSHIRE AND VERMONT

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DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

Discontinued surface-water discharge stations--Continued

Station Name	Station Number	Drainage Area (mi ²)	Period of Record (water years)
St. LAWRENCE RIVER BASIN			
Mollys Brook near marshfield, Vt.	04283000	a24	1920-23
Jail Branch at East Barre, Vt.	04284000	38.9	1920-23, 1933-92
Dog River at Northfield, Vt.	04286500	a52	1909-20, 1928-34
Sonny Brook near Montpelier, Vt.	04287300	2.31	1963-74
Winooski River at Richmond, Vt.	04289500	985	1903-07, 1910
Green River at Garfield, Vt.	04291000	a18	1915-21, 1922-32
Lamoille River at Cadys Falls, Vt.	04291500	268	1913-23
Stony Brook near Eden, Vt.	04292100	4.21	1963-74
Brownington Branch near Evansville, Vt.	04296200	2.15	1963-74

a approximately

WATER RESOURCES DATA FOR NEW HAMPSHIRE AND VERMONT
DISCONTINUED SURFACE-WATER-QUALITY DISCHARGE STATIONS

The following continuous-record surface-water-quality stations have been discontinued. Daily records of water temperature (wt), specific conductance (sc), and dissolved oxygen (do), were collected and published for the period of record shown for each station. Those stations currently being operated as water-quality partial-record stations (sampled frequently less than quarterly) are shown with an asterisk (*) beside the station number.

Discontinued continuous-record surface-water-quality stations

Station Name	Station Number	Drainage Area (mi ²)	Type of record	Period of record (water years)
Merrimack River at Concord, N.H.	01088400	2300	sc,wt	1980-1982
Connecticut River at Wells River, Vt.	01138500	2644	sc,wt	1980-1982
Connecticut River at N. Walpole, N.H.	01154500*	5493	sc,wt	1981
Connecticut River at Walpole, N.H.	01155050	5612	sc,wt	1975-1980
West River at Newfane, Vt.	01156000	308	wt	1960-1965
South Branch Ashuelot River at Webb, near Marlborough, N.H.	01160000	36.0	wt, sc	1954-1978
Beaver Brook at Wilmington, Vt.	01167800	6.38	wt,sc	1972-1977
Winooski River above Chase Mill at Burlington, Vt.	04290550	--	wt,sc,do	1979-1981
Winooski River below Chase Mill at Burlington, Vt.	04290560	--	wt,sc,do	1979-1982
Black River at Coventry, Vt.	04296000*	122	wt,sc	1978-1981
Clyde River at Newport, Vt.	04296500	142	wt,sc	1975-1978

Water Resources Data for New Hampshire and Vermont, 1994

By K.W. Toppin, M.F. Coakley, C. Keirstead, and S.M. Flanagan

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of New Hampshire and Vermont each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the States. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data-New Hampshire and Vermont."

This report series includes records of stage, discharge, and water quality of streams; contents of lakes and reservoirs; and water levels of ground-water wells. This volume contains records for water discharge at 71 gaging stations; stage records for 5 lakes; monthend contents for 23 lakes and reservoirs; water quality at 10 gaging stations; and water levels at 26 observation wells. Also included are data for 18 crest-stage partial record stations. Locations of these sites are shown in figure 1. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous discharge measurements. The data in this report represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in New Hampshire and Vermont.

This series of annual reports for New Hampshire and Vermont began with the 1961 water year with a report that contained only data relating to the quantities of surface water and published as "Water

Resources data for Massachusetts, New Hampshire, Rhode Island, and Vermont." For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for New Hampshire and Vermont were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 1A and 1B." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1939 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identi-

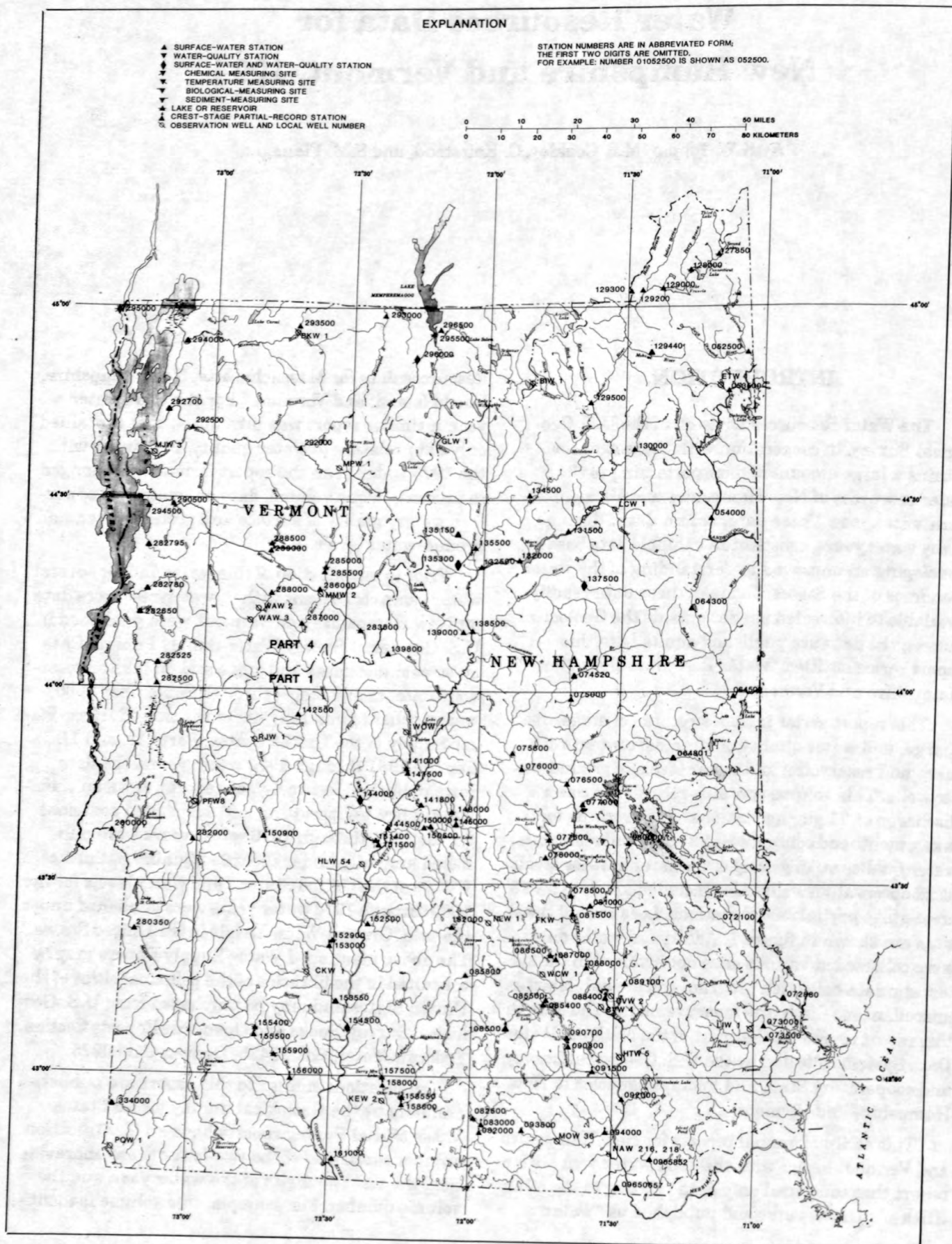


Figure 1.—Location of data-collection sites

fied as "U.S. Geological Survey Water-Data Report NH-VT-94-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Beginning with the 1990 water year, all water-data reports are also available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

Additional information, including current prices, for ordering specific reports may be obtained from the District Office at the address given on the back of the title page or by telephone (603) 225-4681. A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, CO 80225.

COOPERATION

New Hampshire: Department of Environmental Services, State Water Resources Division, D.F. Downing, Chairman.

Vermont: Department of Environmental Conservation, Barbara Ripley, Secretary.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 19 gaging station published in this report. Organizations supplying data are acknowledged in the station descriptions.

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

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow

Runoff for the 1994 water year was normal (between the 25th and 75th quartiles), except for

northern Vermont, which was slightly above-normal (in the highest 25 percent of record). Runoff ranged from 122 percent of median in the Moose River Basin of northern Vermont to 94 percent of median in the Smith River Basin in central New Hampshire. The basis of the normal range is a 30-year reference period (October 1960 through September 1990). Runoff averaged 107 percent of median during the water year based on analysis of runoff from sixteen watersheds in the two States. Index stations on the Pemigewasset River at Plymouth, New Hampshire and Dog River at Northfield Falls, Vermont recorded 1994 water-year runoff at 100 and 103 percent of median, respectively. These and other stations were used as indicators of monthly runoff across both States (fig. 1) for purposes of the discussion in the following paragraphs.

During October and November, runoff increased seasonally across the two-State area and was in the normal range. Runoff during December decreased seasonally and was in the above-normal range throughout the area except for west-central Vermont, which remained normal. December mean discharges were at 150 and 109 percent of median values for the Pemigewasset River and Dog River stations, respectively.

January and February runoff continued to decrease seasonally and was in the normal range across the two-State area. March runoff increased seasonally and was in the normal range across the two-State area except for west-central Vermont, which was below normal. March mean discharges were at 65 and 58 percent of median values for the Pemigewasset River and Dog River stations, respectively.

April runoff increased seasonally and was above normal across the area. April mean discharges were 147 and 172 percent of median values for the Pemigewasset River and Dog River stations, respectively. The Dog River monthly mean flow of 699 cubic feet per second was the third highest April flow for the period of record. Annual peak discharges recorded at gaging stations across the area occurred primarily during mid March to mid April as a result of snowmelt and April precipitation.

Runoff decreased seasonally during May, June, and July and was in the normal range across the area except for the Androscoggin Basin of northeastern New Hampshire, which was above-normal for July,

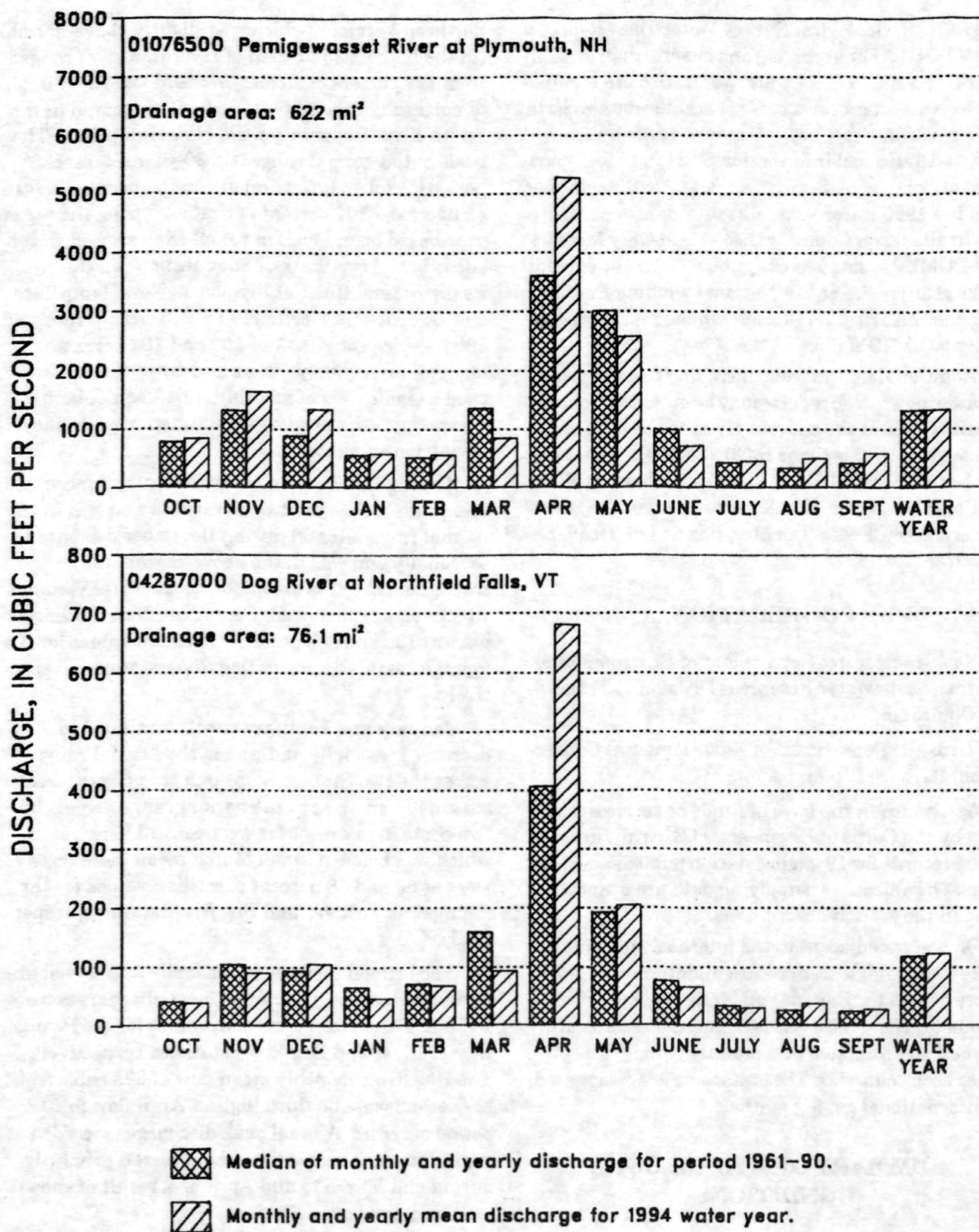


Figure 2.—Comparison of discharge at two long-term index gaging stations during 1994 water year with median discharge for period 1961-90.

and southeastern New Hampshire and southwestern Vermont, which were below normal for July. July mean discharges were at 106 and 89 percent of median values for the Pemigewasset River and Dog River stations, respectively.

In contrast to normal seasonal trends, runoff during August increased as a result of summer showers and was in the normal range except for the lower Connecticut River Basin where runoff was above normal.

September runoff remained in the normal range across the area except for the middle Connecticut River Basin and coastal New Hampshire Basins, which experienced above normal runoff.

Monthly conditions are summarized below, by general trend and exceptions:

October	Normal
November	Normal
December	Above normal; normal in west-central Vermont
January	Normal
February	Normal
March	Normal; below normal in west-central Vermont
April	Above normal
May	Normal
June	Normal
July	Normal; above normal in the Androscoggin River Basin of northeastern New Hampshire; below normal in southeastern New Hampshire and southwestern Vermont
August	Normal; above normal in the lower Connecticut Basin of southern New Hampshire and Vermont
September	Normal; above normal in the middle Connecticut Basin of New Hampshire and Vermont and Coastal Basins of southeastern New Hampshire.

Additional statistics for each gaging station contained in this report are provided in the tables of daily mean discharges.

Floods and Droughts

Annual peak discharges occurred during spring runoff from mid March through mid April across the two States based on analysis of peak discharges from 16 watersheds in both States. The recurrence intervals of annual peak discharges at most gaging

stations were less than 2 years (peaks having a 1 in 2 chance of being equaled or exceeded in any given year) and ranged from less than 2-year to 20-year recurrence intervals. The highest recurrence interval for a peak was recorded at the Black River at Coventry, Vermont. The 20-year recurrence intervals occurred in northern Vermont probably as a result of runoff from the heavy winter snowpack in northern Vermont.

Minimum flows occurred during the summer months between mid July and mid August, based on analysis of flows from 16 watersheds in the 2 States, and declined to 97-percent flow duration (percentage of time flows will be equaled or exceeded). Flows during the summer ranged from 85- to 97-percent flow duration across both States.

Reservoir Storage

Combined usable storage of 5 major reservoirs in both States is 22,436 million cubic feet. At the beginning of the water year, combined usable storage from these reservoirs was 16,876 million cubic feet or 75 percent of normal capacity. Average reservoir storage increased to 77 percent of capacity by the end of December, then began a steady seasonal decline to 42 percent by the end of February. Average reservoir storage then increased to 93 percent of capacity by the end of May. From June through September, average reservoir storage declined seasonally at a steady rate and at the end of September was at 76 percent of normal capacity for a combined usable storage of 17,092 million cubic feet.

Water Quality

Selected water-quality characteristics--temperature, specific conductance, pH, dissolved oxygen, alkalinity, bacteria (fecal coliform and fecal streptococci) counts, and concentrations of major inorganics, trace elements, major nutrients, and suspended sediment--were measured at two National Stream Quality Accounting Network (NASQAN) stations. The data collected are in the normal range, and no values exceeded the extremes for the period of record.

Ground-Water Levels

The ground-water observation well network in New Hampshire and Vermont consisted of 26

wells during the 1994 water year. Most wells are of small diameter and located in sandy material with relatively shallow depths to the water table.

However, two wells in the network (Concord 2 in New Hampshire and Pittsford 8 in Vermont) are relatively deep, with depths to water between 35 to 45 feet. All wells were given equal weight in trend analyses for the water year.

The first half of the water year showed the effects of the previous dry summer, with ground-water levels normal (between the 25th and 75th quartiles) to below normal throughout New Hampshire and Vermont. A late thaw resulted in groundwater levels at the end of March that were below normal, whereas snow melt and heavy rains resulted in above normal to normal ground-water levels in April. Water levels were generally normal for the remainder of the water year (May through September). Monthly ground-water levels for New Hampshire and Vermont are further summarized below:

October	Normal; below normal in eastern and central New Hampshire.
November	Normal; below normal in New Hampshire and in east-central Vermont.
December	Normal; below normal in central New Hampshire; above normal in extreme southern New Hampshire and in western and southern Vermont.
January	Normal; below normal in central New Hampshire and in north-central Vermont.
February	Normal; below normal in southeastern New Hampshire; above normal in southern to north-central Vermont.
March	Below normal; normal in northern and southern New Hampshire and Vermont above normal in extreme southern New Hampshire and Vermont.
April	Above normal; below normal in the Lamolle River Basin of northwestern Vermont; normal in central and coastal New Hampshire and central Vermont.
May	Normal; above normal in the Androscoggin River basin of north-eastern New Hampshire and south-eastern Vermont and southwestern New Hampshire.
June	Normal; below normal in central New Hampshire.
July	Normal; below normal in southeastern New Hampshire and in extreme southwestern Vermont; above normal

in northwestern and in extreme northeastern Vermont.

August Normal; with areas of below normal in northern New Hampshire, central New Hampshire, and extreme southwestern Vermont; above normal in southeastern Vermont and southwestern New Hampshire, central, and extreme northern Vermont.

September Normal; below normal in the Androscoggin River Basin of north-eastern New Hampshire, central New Hampshire, the Connecticut River basin, and southern Vermont; above normal in southeastern New Hampshire, and north-central Vermont.

Record lows were recorded at Concord 2 in New Hampshire at the end of October, November, December, and January. A record low was recorded at Waitsfield 2 in Vermont at the end of January and at Franklin 1 in New Hampshire at the end of March. A record high for entire period of record was recorded at Brighton 1 in VT at the end of April and record highs were recorded for the same well at the end of August and September. A record high was recorded at Waitsfield 3 in Vermont at the end of April.

Hydrographs, for each of the station records contained in this report, provide additional information on water-level trends.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 53 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analysis on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 284 sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the

Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Program (NADP).

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long term program with goals to describe the status and trends of water-quality conditions for a large, diverse, and geographically distributed part of the Nation's ground- and surface-water resources, and to identify, describe, and explain the major natural and human factors that affect these observed conditions and trends.

Assessment activities have begun in more than one-third of the study units and ultimately will be conducted in 60 study units (major drainage basins and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Radiochemical Programs is a network of regularly sampled water-quality stations where samples

are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium Network is a network of stations which have been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

The surface-water and ground- water records published in this report are for the 1994 water year that began October 1, 1993, and ended September 30, 1994. A calendar of the water year is provided on the inside of the front cover. The records contain stream-flow data, stage and content data for lakes and reservoirs, water-quality data for surface water, and ground- water-level data.

The locations of the stations and wells where the data were collected are shown in figure 1. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station-Identification Numbers

Each data station, whether streamgage or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream-order" system is used for surface-water stations and the "latitude-longitude" system is used for wells.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a

downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of identification shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between continuous-record stations and other types of stations; therefore, the station number for a continuous-record station indicates downstream-order position in a list made up of all types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete station number (usually eight digits, but sometimes nine or more if needed) appears just to the left of the station name. The first two digits indicate the Part number (formerly used in Water-Supply Papers to designate major river systems) and the last six or more digits indicate the downstream order within the Part. For example, in the station number 01076500, "01" is the Part number for "North Atlantic Slope Basins" and "076500" is the downstream order number.

Latitude-Longitude System

The identification numbers for wells are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude is found to be in error, the station will retain its initial identification number; however, its true latitude and

longitude will be listed in the LOCATION paragraph of the station description. (See figure 3.)

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

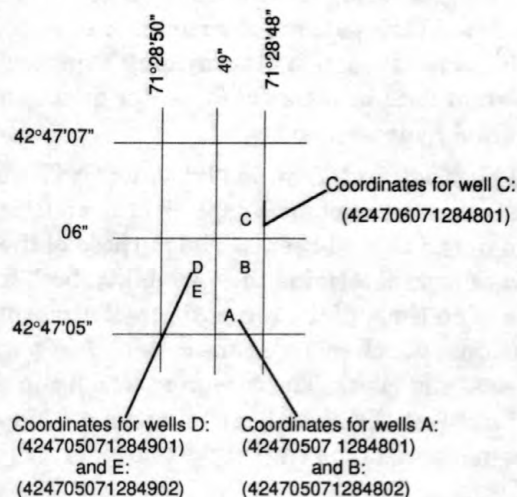


Figure 3.--System for numbering wells (latitude and longitude)

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial

records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record stations for which data are given in this report are shown in figure 1.

Data Collection and Computation

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

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, Water-Supply Paper 2175, and the U.S. Geological Survey Techniques of Water-Resources Investigations (TWRI's), Book 3, Chapter A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for standards (ISO).

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1)

logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

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

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

At some gaging stations, acoustic velocity meter (AVM) systems are used to compute discharge. The AVM system measures the stream's velocity at one or more paths in the cross section. Coefficients are developed to relate this path velocity to the mean velocity in the cross section. Because the AVM sensors are fixed in position, the adjustment coefficients generally vary with stage. Cross-sectional area curves are developed to relate stage, recorded as noted above, to cross section area. Discharge is com-

puted by multiplying path velocity by the appropriate stage related coefficient and area.

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

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

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

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

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

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

REVISED RECORDS.--Because of new information, published records occasionally are found to be incorrect, and revisions are printed in later reports.

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

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

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

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

EXTREMES OUTSIDE PERIOD OF

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

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District Office (address given on the back of the title page of this report) to determine if the published records were ever revised after the station was discontinued. Of course, if the data for a discontinued station were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"); or in inches (line headed "IN."); or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if there is extensive regulation or

diversion or if the drainage area includes large non-contributing areas. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEARS _ - _ , BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS _ - _," will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (See line headings below.), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the desig-

nated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.--The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for 7 consecutive days for a calendar year

or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in District computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.--The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.--Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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

Inches (INCHES) indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e - Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

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

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true values; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and

1,000 ft³/s; and to 3 significant figures for more than 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. Discharges listed for partial-record stations and miscellaneous sites are generally shown to three significant figures.

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

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the District Office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the New Hampshire-Vermont District Office at the address given on the back of the title page or by telephone (603) 225-4681.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records", as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 1.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and

dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory.

Procedures for onsite measurements and for collecting, treating, and shipping samples are detailed in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. These references are listed in the PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS section of this report. These methods are consistent with ASTM standards and generally follow ISO standards. Detailed information on collecting, treating, and shipping samples may be obtained from the New Hampshire-Vermont District Office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

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

determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

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

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended

sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge. Methods used in the computation of sediment records are described in the TWRI Book 3, Chapters C 1 and C3. These methods are consistent with ASTM standards and generally follow ISO standards.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for biochemical oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado.

Methods used to analyze sediment samples and to compute sediment records are described in the TWRI Book 5, Chapter C1. Methods used by the U.S. Geological Survey laboratories are given in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a

frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station.

Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

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

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer

of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this section:

Printed Output	Remark
E	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

Dissolved Trace-Element Concentrations

Note: Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (ug/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within

the range of 10's to 100's of nanograms per liter (ng/L). Data above the ug/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994. Full implementation of the protocols will take place during the 1995 water year.

Change in National Trends Network procedures

Note: Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone:303-491-5643).

Records of Ground-Water Levels

Only water-level data from a national network of 26 observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in New Hampshire and Vermont are shown in figure 1.

In New Hampshire, short-term networks of observation wells are established during areal assessments of ground-water resources. Water levels measured in these wells are included in the project reports. In Vermont, the Water Supply Division (Vermont Department of Environmental Conservation) monitors other wells in addition to the 14 wells that are in the basic network. Information about the availability of the data in the water-level file may be obtained from the Chief, New Hampshire-Vermont District (see address on back of title page).

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the

extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric number, derived from the municipality in which each well is located.

Water-level records are obtained from direct measurements with a steel or electric tape or from the graph or punched tape of a water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum. Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description.

Water levels are reported to as many significant figures as can be justified by the local conditions. Accordingly, most measurements are reported to a hundredth of a foot, but one is given to a tenth of a foot.

Data Presentation

Each well record consists of three parts, the station description, the data table of water levels observed during the water year, and the hydrograph showing water level fluctuations during the most recent three-year period. Hydrographs are based on end-of-month measurements. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing

depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

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

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base, and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) sea level; it is reported with a precision depending on the method of determination.

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

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence. A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum.

Records of Ground-water Quality

Records of ground-water quality in this report differ from other types of records in that for most sampling sites they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, for most general purposes one sampling,

or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground-water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey TWRI publications referred to in the "On-site Measurements and Sample Collection" and the "Laboratory Measurements" sections in this data report. In addition, the TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County, and are identified by well number. The prime identification number for wells sampled is the

15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality record are also applicable to ground-water-quality records.

ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

- * Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.

- * Daily Values File - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.

- * Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.

- * Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.

* **Ground-Water Site Inventory Data Base** - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk; and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

DEFINITION OF TERMS

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

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 ft³ or about 326,000 gallons or 1,233 m³.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

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

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

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5° plus or minus 0.2° on M-F° medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35° plus or minus 1.0° on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are

expressed as number of colonies per 100 mL of sample.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

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

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500° for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter, and periphyton and benthic organisms in grams per square mile.

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

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See "Bed material."

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters or liters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

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

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

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic foot per second (ft³/s) is the rate of discharge representing a volume of 1 ft³ passing a given point during 1 second and is equivalent to 7.48 gal/s or 448.8 gal/min or 0.02832 m³/s.

Cubic feet per second per square mile [(ft³/s)/mi²] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

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

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

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

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

Dissolved refers to that material in a representative water sample which passes through a 0.45-mm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

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

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

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

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

Hydrologic Bench-Mark Network, is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related

factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

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

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

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

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg--larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram ($\mu\text{g}/\text{G}$, $\mu\text{g}/\text{g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter ($\mu\text{g}/\text{L}$, $\mu\text{g}/\text{L}$) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L , mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in

milligrams per liter and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929), is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN), is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust-particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usu-

ally milliliter or liter. Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the Survey's computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

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

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

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

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation
Silt	0.004 - 0.062	Sedimentation
Sand.....	0.062 - 2.0	Sedimentation or sieve
Gravel	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they

also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

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

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplank-

ton community is dominated by small crustaceans and rotifers.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [$\text{mg C}/(\text{m}^2\text{time})$] for periphyton and macrophytes and [$\text{mg C}/(\text{m}^3\text{time})$] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [$\text{mg O}_2/(\text{m}^2\text{time})$] for periphyton and macrophytes and [$\text{mg O}_2/(\text{m}^3\text{time})$] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion

procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

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

Sea Level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

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

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

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

7-day 10-year low flow (7Q10) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

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

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

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

Substrate is the physical surface upon which an organism lives

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

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

Surface area of a lake is that area outlined on the latest Survey topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-mm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1)

dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-mm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

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

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-ft of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface water stations in

the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1994, is called the "1994 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is

required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W. S. Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.
- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W. E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurement at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by the moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 34 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-A16. *Measurement of discharge using tracers*, by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.

- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.
- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F. A. Kilpatrick, R. E. Rathbun, Nobuhiro Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.
- 3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 31 pages.
- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-B4. *Regression modeling of ground-water flow*, by R. L. Cooley and R. L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.
- 3-B4. *Supplement 1. Regression modeling of ground-water flow - Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R. L. Cooley: USGS--TWRI Book 3, Chapter B4. 1993. 8 pages.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction*, by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.
- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E. J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 190 pages.
- 3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L. C. Friedman, editors: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological*

- samples*, by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.
- 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S. A. Leake and D. E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.
- 6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L. J. Torak: USGS--TWRI Book 6, Chapter A3. 1993. 136 pages.
- 6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R. L. Cooley: USGS--TWRI Book 6, Chapter A4. 1992. 108 pages.
- 6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L. J. Torak: USGS--TWRI Book 6, Chapter A5. 1993. 243 pages.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

Remark Codes

The following remark codes may appear with the water-quality data in this section:

Printed Output	Remark
E	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

Dissolved Trace-Element Concentrations

Note: Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (ug/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the ug/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994. Full implementation of the protocols will take place during the 1995 water year.

Change in National Trends Network procedures

Note: Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone:303-491-5643).

ANDROSCOGGIN RIVER BASIN

01052500 DIAMOND RIVER NEAR WENTWORTH LOCATION, N.H.

LOCATION.--Lat 44°52'40", long 71°03'25" Coos County, Hydrologic Unit 01040001, on left bank 1.0 mi upstream from mouth and 1.6 mi north of Wentworth Location.

DRAINAGE AREA.--152 mi².

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

Water-quality records: Water year 1954.

REVISED RECORDS.--WDR ME-81-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,259 ft above sea level.

REMARKS.--Estimated daily discharges: Nov. 25-28, Dec. 9-10, and Dec. 24 to Apr. 14. Records good except for periods of ice effect, Nov. 25-28, Dec. 9-10, and Dec. 24 to Apr. 14, which are poor. Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,630 ft³/s, June 16, 1943, gage height, 10.66 ft, from rating curve extended above 4,300 ft³/s; maximum gage height, 12.23 ft, Feb. 21, 1981 (ice jam); minimum discharge, 6.8 ft³/s, Aug. 27, 1949, Sept. 1, 1952, gage height, 0.81 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	205	241	e124	e790	e113	e96	1800	406	406	71	58
2	159	197	226	e122	e568	e108	e94	2150	352	365	63	69
3	364	171	264	e120	e246	e102	e95	1350	312	621	97	57
4	338	180	265	e118	e126	e97	e148	1320	270	372	80	50
5	415	236	248	e116	e102	e93	e300	1430	228	237	126	49
6	293	940	232	e114	e95	e90	e300	1110	208	197	156	76
7	224	696	213	e112	e89	e92	e1000	1240	766	174	92	69
8	199	378	200	e110	e85	e93	e1200	1720	758	232	67	72
9	206	294	e139	e109	e81	e98	e850	1710	467	180	56	82
10	282	263	e147	e108	e78	e97	e600	1210	327	981	70	96
11	242	233	632	e106	e75	e93	e745	962	264	437	71	181
12	202	226	478	e105	e73	e90	e760	927	242	267	53	329
13	368	208	300	e104	e71	e88	e840	984	271	193	63	248
14	293	225	312	e103	e69	e87	e1280	704	260	156	165	262
15	221	553	379	e102	e68	e93	2220	596	260	141	246	175
16	194	757	439	e100	e67	e98	3650	652	201	238	129	126
17	179	439	274	e99	e67	e100	4040	1220	166	192	91	121
18	183	372	237	e98	e66	e90	1780	834	141	141	122	112
19	181	318	247	e105	e66	e84	1030	617	409	151	211	93
20	157	433	231	e105	e72	e81	1190	497	279	153	128	83
21	281	388	220	e98	e206	e80	953	417	175	114	196	74
22	798	303	347	e96	e796	e83	717	368	330	135	395	67
23	424	284	267	e93	e675	e85	611	337	238	162	195	64
24	312	257	e158	e91	e397	e91	987	307	158	115	123	106
25	290	e118	e145	e89	e196	e120	1610	316	147	156	93	122
26	245	e91	e140	e87	e157	e150	1700	465	235	129	78	101
27	217	e91	e138	e85	e139	e130	2710	1190	185	94	72	88
28	211	e266	e135	e84	e125	e118	4750	687	468	91	65	83
29	207	921	e131	e530	---	e110	2300	481	529	135	58	96
30	190	454	e128	e980	---	e103	1320	448	279	101	53	159
31	182	---	e126	e940	---	e99	---	418	---	84	49	---
TOTAL	8249	10497	7639	5353	5645	3056	39876	28467	9331	7150	3534	3368
MEAN	266	350	246	173	202	98.6	1329	918	311	231	114	112
MAX	798	940	632	980	796	150	4750	2150	766	981	395	329
MIN	157	91	126	84	66	80	94	307	141	84	49	49
CFSM	1.75	2.30	1.62	1.14	1.33	.65	8.74	6.04	2.05	1.52	.75	.74
IN.	2.02	2.57	1.87	1.31	1.38	.75	9.76	6.97	2.28	1.75	.86	.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1994, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1941	269	869	1991	40.9	1953
1942	336	733	1964	83.2	1979
1943	228	739	1974	53.4	1979
1944	159	533	1973	53.9	1948
1945	147	783	1981	43.4	1942
1946	274	853	1946	54.6	1967
1947	1073	1591	1954	402	1972
1948	939	2115	1972	347	1986
1949	311	804	1943	105	1963
1950	158	472	1958	35.1	1952
1951	140	492	1988	15.0	1952
1952	152	836	1954	16.8	1952

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1941 - 1994
ANNUAL TOTAL	116346	132165	
ANNUAL MEAN	319	362	349
HIGHEST ANNUAL MEAN			500
LOWEST ANNUAL MEAN			225
HIGHEST DAILY MEAN	3910	4750	7380
LOWEST DAILY MEAN	34	49	6.8
ANNUAL SEVEN-DAY MINIMUM	47	55	9.0
INSTANTANEOUS PEAK FLOW		5150	8630
INSTANTANEOUS PEAK STAGE		8.33	12.23
INSTANTANEOUS LOW FLOW		46	6.8
ANNUAL RUNOFF (CFSM)	2.10	2.38	2.30
ANNUAL RUNOFF (INCHES)	28.47	32.35	31.23
10 PERCENT EXCEEDS	689	923	844
50 PERCENT EXCEEDS	179	192	157
90 PERCENT EXCEEDS	55	79	51

e Estimated

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SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1906 - 1994	
ANNUAL TOTAL	661150		724880			
ANNUAL MEAN	1811		1986		1904	
HIGHEST ANNUAL MEAN					2923	1974
LOWEST ANNUAL MEAN					1046	1911
HIGHEST DAILY MEAN	6560	Apr 19	8510	Apr 18	16100	May 22 1969
LOWEST DAILY MEAN	1120	May 5	1160	Apr 1	.00	Oct 31 1917
ANNUAL SEVEN-DAY MINIMUM	1160	May 4	1160	Apr 1	152	Mar 21 1948
INSTANTANEOUS PEAK FLOW			8780	Apr 17	16500	May 22 1969
INSTANTANEOUS PEAK STAGE			6.69	Apr 17	9.40	May 22 1969
10 PERCENT EXCEEDS	2220		2660		2600	
50 PERCENT EXCEEDS	1720		1810		1690	
90 PERCENT EXCEEDS	1360		1370		1130	

SACO RIVER BASIN

01054000 ANDROSCOGGIN RIVER NEAR GORHAM, N.H.

LOCATION.--Lat 44°26'10", long 71°11'27", Coos County, Hydrologic Unit 01040001, on right bank at Pulsifer Rips, 2.2 mi downstream from Dead River, and 4.0 mi upstream from Gorham.

DRAINAGE AREA.--1,361 mi².

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

REVISED RECORDS.--WDR ME-81-1: Drainage area.

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

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Rangeley, Mooselookmeguntic, Richardson, Azis-cohos, and Umbagog Lakes. These reservoirs have a combined usable capacity of about 28 .1 billion ft³ with final regulation at Errol Dam 35 mi upstream. Diurnal fluctuations caused by powerplant 0.8 mi upstream. Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 20,000 ft³/s, June 18, 1917, Apr. 30, 1923; minimum daily, 795 ft³/s, Mar. 15, 1948.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2250	2430	2040	2030	2310	2470	1680	6980	3960	2420	2010	1790
2	2240	2490	1910	2050	2350	2610	1650	7550	2890	2540	2010	1760
3	2150	2400	1870	2010	2360	2610	1660	6630	3530	2470	1750	1770
4	2320	2340	1860	1970	2340	2590	1920	4920	3760	2630	1710	1730
5	2360	2360	1970	2010	2350	2590	2160	4070	2860	2500	1820	1830
6	2400	2770	1990	1990	2320	2570	2400	3890	2690	2370	2030	2000
7	2300	3120	1980	1970	2300	2560	3420	3540	3010	2350	2120	1940
8	2260	2610	1950	2050	2350	2580	4120	3680	3790	2520	2110	1880
9	2200	2440	1850	2040	2400	2590	3570	4240	3390	2620	2090	1880
10	2210	2490	1870	1960	2450	2640	3280	4000	3380	3280	2040	1870
11	2240	2320	2230	1960	2390	2690	3370	3720	2800	3490	1960	1860
12	2280	2120	2520	2050	2380	2700	3420	3350	2340	3220	1950	2010
13	2410	2090	2160	2060	2380	2670	3660	3800	2590	2730	1940	1750
14	2340	2010	2210	2000	2390	2640	4510	4080	2550	2270	1980	2080
15	2410	2020	2220	1890	2350	2640	5460	3960	2560	2010	2020	2050
16	2370	2360	2270	1800	2420	2720	8710	3620	2380	2230	2000	1990
17	2270	2360	2150	1840	2450	2750	11900	4080	2280	2210	2010	2010
18	2260	2210	2030	2010	2470	2680	12000	4460	2150	2290	2060	1900
19	2240	2110	2050	1980	2480	2460	9290	4970	2050	2300	2080	1790
20	2190	2160	1960	1990	2500	2430	5570	5640	2220	2290	2100	1770
21	2220	2090	2000	2100	2620	2350	5050	5570	2290	2070	2060	1720
22	2570	2080	2490	2100	2690	2050	4630	4440	2620	2100	2320	1710
23	2670	2110	2300	2040	2650	2060	4120	4350	2660	2180	2200	1770
24	2570	2120	2040	2090	2630	2150	4040	3570	2290	2220	2090	1930
25	2390	1920	2010	2150	2580	2230	4980	3530	2250	2200	2020	1990
26	2240	1690	1810	2050	2550	2250	4740	2820	2390	2280	2010	1920
27	2240	1800	1660	2030	2520	2130	6550	4160	2390	2530	1990	1920
28	2270	2130	1850	2130	2420	2070	9220	5180	2670	2040	1950	1930
29	2270	2680	2060	2360	---	2030	10000	5060	2640	1930	1930	2090
30	2340	2340	2060	2380	---	2000	8030	4500	2540	2070	1810	2070
31	2360	---	2010	2340	---	1900	---	3870	---	2010	1750	---
TOTAL	71840	68170	63380	63430	68400	75410	155110	138230	81920	74370	61920	56710
MEAN	2317	2272	2045	2046	2443	2433	5170	4459	2731	2399	1997	1890
MAX	2670	3120	2520	2380	2690	2750	12000	7550	3960	3490	2320	2090
MIN	2150	1690	1660	1800	2300	1900	1650	2820	2050	1930	1710	1710

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1994, BY WATER YEAR (WY)

	MEAN	2051	2079	2139	2124	2118	2439	3898	4279	2796	2032	1933	1984
MAX	4894	4292	5811	4044	3555	7684	6474	10050	10560	3895	2792	6387	
(WY)	1955	1991	1974	1970	1991	1936	1976	1937	1917	1973	1990	1954	
MIN	1374	1413	1257	1276	1299	1376	1755	1746	1545	1524	1514	1406	
(WY)	1942	1922	1953	1953	1922	1922	1965	1941	1915	1980	1980	1941	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1914 - 1994

ANNUAL TOTAL	891390	978890											
ANNUAL MEAN	2442	2682											
HIGHEST ANNUAL MEAN										2495			
LOWEST ANNUAL MEAN										3675			1974
HIGHEST DAILY MEAN										1689			1965
LOWEST DAILY MEAN	10900	Apr 18	12000	Apr 18						20000	Jun 18	1917	
ANNUAL SEVEN-DAY MINIMUM	1550	Aug 22	1650	Apr 2						795	Mar 15	1948	
INSTANTANEOUS PEAK FLOW	1630	Aug 18	1780	Aug 30						866	Mar 10	1948	
INSTANTANEOUS PEAK STAGE			12400	Apr 17									
10 PERCENT EXCEEDS	2730		8.18	Apr 17									
50 PERCENT EXCEEDS	2150		4020							3650			
90 PERCENT EXCEEDS	1750		2290							2000			
			1900							1600			

01064300 ELLIS RIVER NEAR JACKSON, N.H.

LOCATION.--Lat 44°13'12", long 71°15'00", Carroll County, Hydrologic Unit 01060002, in White Mountain National Forest, on right bank 0.4 mi upstream from small left-bank tributary, 1.3 mi upstream from bridge on State Highway 16, and 6 mi northwest of Jackson.

DRAINAGE AREA.--10.9 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 1,500 ft above sea level, from topographic map. Prior to Oct. 14, 1969, at site 0.3 mi downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e19	15	46	e14	e13	e9.6	e9.8	e115	e39	e14	e10	11
2	e18	13	43	e14	e12	e9.2	e10	e105	e36	e13	e9.2	9.8
3	e33	13	32	e13	e11	e9.0	e11	e80	e38	e14	e12	9.1
4	e32	13	28	e14	e11	e9.0	e18	e64	e33	e12	e10	8.8
5	e47	22	29	e13	e10	e8.9	e17	e66	e28	e11	e12	15
6	e30	51	26	e12	e10	e8.3	52	e60	e29	e10	e16	22
7	e29	28	24	e10	e10	e8.4	108	e62	e29	e16	e13	13
8	e21	20	23	e11	e11	e13	55	e120	e31	e35	e11	12
9	e19	18	22	e10	e9.4	e11	37	e115	e26	e18	e9.8	12
10	e23	16	23	e11	e9.1	e9.8	e50	e90	e23	e19	9.2	11
11	e19	15	63	e10	e8.7	e10	e62	e72	e21	e15	8.5	17
12	e18	15	e41	e10	e8.6	e9.6	e48	e84	e22	e13	8.4	24
13	e31	14	e33	e12	e9.1	e9.2	e55	e80	e30	e11	8.5	33
14	e23	e16	e29	e11	e8.8	e9.1	e165	e60	e39	e10	14	27
15	e20	e19	e28	e10	e8.3	e9.0	e160	e52	e33	e9.8	11	20
16	e18	e20	e33	e10	e8.0	e9.7	e280	e66	e25	e10	9.8	18
17	e17	e17	e26	e10	e7.8	e9.3	e200	e70	e21	e9.6	9.1	16
18	e16	e22	e23	e9.3	e7.9	e8.6	e130	e66	e18	e9.0	27	15
19	e15	e19	e22	e10	e8.5	e8.4	e90	61	e17	e9.8	20	14
20	14	e33	22	e9.8	e9.4	e8.3	e74	58	e16	e9.5	14	13
21	23	e25	29	e9.7	e11	e8.3	e64	e56	e15	e8.6	27	13
22	29	e21	34	e9.6	e20	e8.2	e57	e60	e16	e12	25	12
23	20	e17	26	e9.6	e16	e8.2	e53	e66	e13	e15	16	33
24	17	e15	e20	e9.2	e14	e8.2	e60	e56	e12	e11	14	69
25	16	e13	e22	e9.0	e13	e12	e75	e52	e14	e9.0	13	34
26	15	e15	e18	e8.8	e12	e10	e110	e56	e18	e8.8	12	28
27	15	e21	e15	e8.6	e12	e10	e200	e68	e15	e10	12	30
28	14	e98	e12	e11	e10	e9.6	e170	e50	e15	e9.8	11	58
29	13	e130	e12	e19	---	e9.2	e100	e44	e22	e11	10	56
30	13	e58	e14	e15	---	e10	e85	e40	e17	e10	9.9	43
31	14	---	e15	e14	---	e9.6	---	e38	---	e11	9.8	---
TOTAL	651	812	833	347.6	299.6	290.7	2605.8	2132	711	384.9	402.2	696.7
MEAN	21.0	27.1	26.9	11.2	10.7	9.38	86.9	68.8	23.7	12.4	13.0	23.2
MAX	47	130	63	19	20	13	280	120	39	35	27	69
MIN	13	13	12	8.6	7.8	8.2	9.8	38	12	8.6	8.4	8.8
CFSM	1.93	2.48	2.47	1.03	.98	.86	7.97	6.31	2.17	1.14	1.19	2.13
IN.	2.22	2.77	2.84	1.19	1.02	.99	8.89	7.28	2.43	1.31	1.37	2.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1994, BY WATER YEAR (WY)

	MEAN	29.7	34.0	25.1	15.7	15.3	26.0	71.8	84.7	40.3	21.5	20.4	19.0
MAX	61.5	90.1	104	57.6	109	67.5	150	159	99.3	53.9	62.5	41.7	
(WY)	1992	1970	1974	1986	1981	1979	1987	1984	1973	1969	1990	1981	
MIN	9.15	9.29	6.54	4.34	3.07	6.05	24.2	45.7	16.1	10.5	7.46	6.98	
(WY)	1970	1979	1979	1977	1977	1969	1965	1993	1970	1980	1980	1978	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1964 - 1994

ANNUAL TOTAL	10106.5	10166.5	
ANNUAL MEAN	27.7	27.9	33.9
HIGHEST ANNUAL MEAN			49.1
LOWEST ANNUAL MEAN			21.6
HIGHEST DAILY MEAN	742	Apr 17	1160
LOWEST DAILY MEAN	6.0	Mar 5	a 2.2
ANNUAL SEVEN-DAY MINIMUM	6.2	Mar 2	e 8.3
INSTANTANEOUS PEAK FLOW			b 1460
INSTANTANEOUS PEAK STAGE			d 5.28
ANNUAL RUNOFF (CFSM)	2.54		Nov 29
ANNUAL RUNOFF (INCHES)	34.49		18.90
10 PERCENT EXCEEDS	52		3.11
50 PERCENT EXCEEDS	16		42.22
90 PERCENT EXCEEDS	7.0		70
			18
			8.0

a Also on Mar.3,4, 1980

b From rating curve extended above 390 ft³/s on basis of slope-area measurements at gage heights 10.34 ft.

c Gage height 10.34 ft from recorder, affected by drawdown 18.9 ft from floodmarks, site and datum then in use.

d From crest stage gage.

e Estimated

SACO RIVER BASIN

01064500 SACO RIVER NEAR CONWAY, N.H.

LOCATION.--Lat 43°59'27", long 71°05'29", Carroll County, Hydrologic Unit 01060002, on left bank at Odell Falls 1.8 mi downstream from Swift River and Conway.

DRAINAGE AREA.--385 mi².

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

REVISED RECORDS.--WSP 1301: 1908-09. WDR ME-81-1: Drainage area. WRD ME-87-1: 1936 (M), 1951 (M), 1953 (M), 1960 (M), 1977 (M).

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

REMARKS.--Estimated daily discharges: Dec. 25 to Mar.26. Records good except for periods of ice effect, Dec. 25 to Mar.26, which is fair. Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,200 ft³/s, Mar. 27, 1953, gage height, 17.20 ft, maximum gage height, 19.03 ft Mar. 7, 1979, (ice jam); minimum discharge, 40 ft³/s, Mar. 16, 1932, gage height, 1.61 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	333	511	2070	e415	e550	e356	719	4060	845	407	391	237
2	297	556	1610	e402	e495	e348	801	3910	785	359	319	244
3	294	429	1400	e395	e440	e347	791	2750	741	334	348	225
4	354	397	1240	e380	e400	e340	1100	2360	705	312	325	211
5	419	438	1270	e370	e369	e335	1360	2400	631	288	292	214
6	441	1450	1280	e350	e350	e315	1660	2330	630	274	296	382
7	354	1280	1100	e350	e330	e310	1670	2190	728	326	278	407
8	319	839	986	e355	e318	e410	3360	4000	645	1010	253	312
9	298	686	883	e339	e307	e510	2370	4340	568	677	235	263
10	295	608	853	e328	e305	e670	2200	3120	507	674	222	237
11	298	553	2000	e322	e303	e950	2790	2440	469	558	209	218
12	281	517	1840	e312	e290	e850	2620	2590	471	430	201	263
13	545	489	1280	e308	e279	e720	3050	2820	704	370	195	298
14	526	487	1180	e301	e275	e650	5930	1950	796	333	212	418
15	410	647	1360	e296	e271	e700	5810	1640	773	310	272	351
16	363	893	1430	e290	e269	e860	7700	1690	594	359	232	276
17	338	704	1150	e285	e268	e820	7520	2500	515	331	205	249
18	326	744	1010	e282	e269	e700	4560	2050	469	297	284	232
19	317	724	947	e280	e287	e670	3310	1690	427	293	897	214
20	299	1360	878	e277	e339	e580	3300	1520	391	286	501	202
21	317	1100	1000	e271	e460	e490	2980	1390	372	265	406	194
22	712	858	1700	e269	e630	e465	2500	1390	390	296	887	186
23	573	767	1190	e267	e550	e510	2180	1450	355	439	598	227
24	456	703	876	e260	e480	e620	2400	1290	327	340	438	1750
25	408	608	e710	e260	e440	e680	3120	1160	357	286	362	1190
26	378	548	e630	e258	e402	e810	3760	1250	650	269	322	722
27	358	569	e560	e256	e371	766	5430	1760	498	371	296	579
28	345	3700	e520	e278	e358	707	7330	1280	458	347	275	1450
29	331	10200	e480	e450	---	741	4110	1050	607	454	259	1310
30	317	3270	e455	e730	---	697	3120	942	474	354	238	1020
31	335	---	e435	e640	---	683	---	886	---	457	223	---
TOTAL	11637	36635	34323	10576	10405	18610	101551	66198	16882	12106	10471	14081
MEAN	375	1221	1107	341	372	600	3385	2135	563	391	338	469
MAX	712	10200	2070	730	630	950	7700	4340	845	1010	897	1750
MIN	281	397	435	256	268	310	719	886	327	265	195	186
CFSM	.98	3.17	2.88	.89	.97	1.56	8.79	5.55	1.46	1.01	.88	1.22
IN.	1.12	3.54	3.32	1.02	1.01	1.80	9.81	6.40	1.63	1.17	1.01	1.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1994, BY WATER YEAR (WY)

	MEAN	622	934	754	549	504	946	2637	2264	819	419	362	387
MAX	2369	2493	2656	1887	3170	5986	4564	4609	2189	2043	1685	1794	
(WY)	1978	1908	1974	1986	1981	1936	1987	1940	1952	1973	1990	1954	
MIN	114	211	152	144	124	146	1141	614	300	158	129	102	
(WY)	1948	1909	1956	1940	1940	1940	1965	1941	1964	1991	1936	1948	

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1904 - 1994
ANNUAL TOTAL	306650	343475	
ANNUAL MEAN	840	941	934
HIGHEST ANNUAL MEAN			1463
LOWEST ANNUAL MEAN			489
HIGHEST DAILY MEAN	12200	10200	33900
LOWEST DAILY MEAN	151	186	66
ANNUAL SEVEN-DAY MINIMUM	155	215	74
INSTANTANEOUS PEAK FLOW		17900	47200
INSTANTANEOUS PEAK STAGE		10.49	19.03
INSTANTANEOUS LOW FLOW		182	40
ANNUAL RUNOFF (CFSM)	2.18	2.44	2.43
ANNUAL RUNOFF (INCHES)	29.63	33.19	32.96
10 PERCENT EXCEEDS	1710	2360	2180
50 PERCENT EXCEEDS	363	480	452
90 PERCENT EXCEEDS	190	269	182

e Estimated

SACO RIVER BASIN

37

01064801 BEAR CAMP RIVER NEAR SOUTH TAMWORTH, N.H.

LOCATION.--Lat 43°49'48", long 71°17'18", Carroll County, Hydrologic Unit 01060002, on right bank 0.2 mi east of the fire station in South Tamworth on State Highway 25.

DRAINAGE AREA.--67.6 mi².

PERIOD OF RECORD.--April 1993 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 490 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	115	273	e64	e68	e50	e150	365	80	40	81	22
2	46	124	194	e60	e60	e47	e180	357	76	33	55	23
3	50	99	170	e58	e54	e50	252	242	70	28	44	19
4	63	91	153	e60	e52	e50	404	193	61	24	36	17
5	70	142	231	e68	e50	e47	497	189	48	21	32	18
6	62	442	269	e65	e47	e45	618	189	45	20	29	32
7	51	248	211	e67	e45	e45	1030	177	140	18	25	27
8	45	161	177	e70	e44	e54	777	477	76	23	22	22
9	41	128	149	e66	e43	e68	546	471	55	37	20	19
10	39	115	138	e62	e48	e66	609	307	45	67	18	17
11	36	99	e380	e57	e44	e110	730	220	39	e48	17	16
12	36	89	e315	e55	e42	e105	628	306	43	36	16	15
13	104	80	e210	e50	e43	e85	911	313	81	29	15	15
14	84	88	e180	e45	e45	e75	1790	214	126	23	17	29
15	67	99	e185	e45	e44	e70	1330	171	100	23	18	32
16	59	108	e180	e40	e40	e85	1600	191	70	36	16	23
17	54	92	e150	e40	e37	e98	1240	278	56	33	14	20
18	53	122	134	e55	e38	e92	645	221	49	e27	43	18
19	51	123	122	e50	e40	e78	459	177	43	e23	75	e17
20	46	284	113	e46	e45	e68	409	151	37	e24	48	e15
21	60	189	195	e43	e70	e62	336	134	33	e22	46	e14
22	148	149	413	e40	e85	e65	274	121	35	e21	96	13
23	103	130	279	e39	e75	e70	230	114	30	e21	62	32
24	83	111	e160	e38	e62	e100	234	104	26	e22	45	163
25	71	96	e115	e37	e56	e140	285	100	34	e21	35	105
26	62	87	e90	e37	e52	e170	414	122	68	e21	31	75
27	58	86	e64	e35	e54	e155	556	196	52	e56	25	69
28	56	887	e60	e40	e45	e130	526	147	46	59	22	216
29	51	1650	e62	e98	---	e150	315	118	48	72	21	173
30	50	474	e60	e94	---	e145	239	101	43	59	18	127
31	77	---	e70	e80	---	e140	---	88	---	121	17	---
TOTAL	1930	6708	5502	1704	1428	2715	18214	6554	1755	1108	1059	1403
MEAN	62.3	224	177	55.0	51.0	87.6	607	211	58.5	35.7	34.2	46.8
MAX	148	1650	413	98	85	170	1790	477	140	121	96	216
MIN	36	80	60	35	37	45	150	88	26	18	14	13
CFSM	.92	3.31	2.63	.81	.75	1.30	8.98	3.13	.87	.53	.51	.69
IN.	1.06	3.69	3.03	.94	.79	1.49	10.02	3.61	.97	.61	.58	.77

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, BY WATER YEAR (WY)

MEAN	62.3	224	177	55.0	51.0	87.6	620	144	55.6	31.6	43.3	40.1
MAX	62.3	224	177	55.0	51.0	87.6	632	211	58.5	35.7	52.5	46.8
(WY)	1994	1994	1994	1994	1994	1994	1993	1994	1994	1994	1993	1994
MIN	62.3	224	177	55.0	51.0	87.6	607	77.4	52.8	27.4	34.2	33.5
(WY)	1994	1994	1994	1994	1994	1994	1994	1993	1993	1993	1994	1993

SUMMARY STATISTICS

FOR 1994 WATER YEAR

a WATER YEARS 1993 - 1994

ANNUAL TOTAL	50080	
ANNUAL MEAN	137	137
HIGHEST ANNUAL MEAN		137
LOWEST ANNUAL MEAN		137
HIGHEST DAILY MEAN	1790	3400
LOWEST DAILY MEAN	13	6.5
ANNUAL SEVEN-DAY MINIMUM	16	7.6
INSTANTANEOUS PEAK FLOW	b 4320	b 4320
INSTANTANEOUS PEAK STAGE	7.56	7.56
INSTANTANEOUS LOW FLOW	13	13
ANNUAL RUNOFF (CFSM)	2.03	2.03
ANNUAL RUNOFF (INCHES)	27.56	27.58
10 PERCENT EXCEEDS	293	306
50 PERCENT EXCEEDS	65	59
90 PERCENT EXCEEDS	22	18

a Statistics for period April 1993 to current year.

b From rating curve extended above 1100 ft³/s.

e Estimated

PISCATAQUA RIVER BASIN

01072100 SALMON FALLS RIVER AT MILTON, N.H.

LOCATION.--Lat 43°24'50", long 70°19'15", Strafford County, Hydrologic Unit 01060003, on right bank just downstream from Milton Pond at Milton.

DRAINAGE AREA.--108 mi².

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 405 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Great East, and Lovell Lakes and Horn, Wil-son, and Milton (also controls Northeast and Town House) Ponds. These reservoirs have a combined usable capacity of about 1.28 billion ft³.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	190	169	250	142	135	580	207	88	39	31	28
2	35	190	166	247	142	135	579	231	90	41	31	27
3	35	168	166	242	142	135	587	241	88	42	30	27
4	34	150	166	241	149	135	622	237	85	42	30	27
5	34	150	166	241	158	135	682	237	81	39	30	26
6	34	150	199	240	158	135	694	240	71	38	30	23
7	34	150	241	236	158	116	697	252	72	38	30	23
8	37	122	241	234	158	90	700	291	65	38	30	23
9	45	83	241	234	159	90	653	461	61	39	30	23
10	62	83	241	234	163	154	609	383	60	39	30	24
11	72	83	241	186	122	203	398	289	59	38	30	24
12	131	83	241	140	86	206	256	357	58	38	30	32
13	224	83	241	140	86	218	327	354	57	38	29	37
14	223	83	241	154	85	250	492	304	57	38	29	40
15	212	83	241	166	84	270	607	275	59	38	29	41
16	195	73	241	166	84	264	572	268	47	38	29	41
17	184	63	241	166	84	264	522	287	37	37	29	40
18	173	63	241	166	84	260	437	304	39	33	28	45
19	194	63	241	161	84	257	379	296	40	30	28	44
20	218	63	241	155	84	257	308	271	40	30	28	41
21	210	63	281	155	84	256	273	243	38	30	29	39
22	210	63	735	155	84	254	278	220	37	30	30	38
23	207	63	862	155	84	488	271	182	36	29	29	61
24	206	63	676	155	84	691	263	158	36	29	28	184
25	206	63	527	151	84	703	256	133	36	29	28	228
26	205	63	425	142	84	699	221	125	36	30	28	204
27	203	63	343	142	84	677	198	136	36	30	28	163
28	200	63	297	142	109	643	203	139	36	30	28	135
29	198	63	279	142	---	625	200	140	37	30	28	111
30	196	112	266	142	---	602	198	134	38	30	28	89
31	193	---	256	142	---	584	---	102	---	31	28	---
TOTAL	4438	2855	9353	5622	3109	9931	13062	7497	1620	1081	903	1888
MEAN	143	95.2	302	181	111	320	435	242	54.0	34.9	29.1	62.9
MAX	224	190	862	250	163	703	700	461	90	42	31	228
MIN	28	63	166	140	84	90	198	102	36	29	28	23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1994, BY WATER YEAR (WY)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	169	189	225	172	190	310	445	228	125	62.0	64.3	82.6														
MAX	499	357	604	384	439	720	908	431	453	143	165	145														
(WY)	1978	1984	1984	1978	1970	1979	1969	1984	1984	1973	1982	1981														
MIN	81.4	77.9	40.5	59.7	60.8	108	103	55.4	40.4	26.1	24.9	22.3														
(WY)	1969	1987	1979	1977	1977	1993	1985	1985	1985	1991	1993	1993														

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1969 - 1994

ANNUAL TOTAL	54733	61359	
ANNUAL MEAN	150	168	
HIGHEST ANNUAL MEAN			188
LOWEST ANNUAL MEAN			307
HIGHEST DAILY MEAN	1670	Apr 13	862
LOWEST DAILY MEAN	20	Sep 26	23
ANNUAL SEVEN-DAY MINIMUM	20	Sep 24	24
INSTANTANEOUS PEAK FLOW			904
INSTANTANEOUS PEAK STAGE			4.63
10 PERCENT EXCEEDS	307		333
50 PERCENT EXCEEDS	83		135
90 PERCENT EXCEEDS	24		30

PISCATAQUA RIVER BASIN

39

01072880 COCHECO RIVER AT DOVER, N.H.

LOCATION.--Lat 43°12'21", long 70°53'47", Strafford County, Hydrologic Unit 01060003, on right bank approximately 100 ft downstream from bridge on Spaulding Turnpike, 1.5 mi north of interchange 8, and approximately 4 mi above mouth.

DRAINAGE AREA.--173 mi².

PERIOD OF RECORD.--Discharge: October 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 50 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Regulation by small hydro plant upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	187	441	e210	e270	e210	879	330	157	30	37	25
2	46	227	334	e200	e250	e200	851	434	164	35	30	17
3	47	213	290	e200	e220	e190	811	415	128	37	27	16
4	55	178	271	e190	e190	e185	850	348	124	35	28	12
5	44	165	446	e190	e170	e180	887	336	197	36	22	19
6	49	167	803	e185	e160	e180	780	424	137	28	22	38
7	39	161	693	e175	e150	e175	758	403	70	27	20	29
8	37	144	512	e165	e140	e360	715	614	72	29	12	33
9	40	126	416	e160	e130	e600	600	990	78	33	18	29
10	32	129	362	e155	e125	e950	519	761	80	34	15	26
11	33	119	496	e150	e120	e1300	538	541	81	27	17	20
12	74	115	705	e160	e115	e1500	495	438	61	28	15	20
13	227	109	613	e165	e115	1330	465	406	111	28	22	31
14	224	108	510	e160	e110	1080	866	365	142	23	24	47
15	184	108	510	e150	e110	1000	896	325	93	26	25	29
16	162	98	497	e145	e105	1060	661	310	98	28	19	30
17	136	130	435	e140	e105	1100	617	502	76	27	20	38
18	114	276	383	e160	e120	1000	563	515	58	29	59	60
19	106	297	353	e170	e150	861	490	441	49	21	89	77
20	126	355	333	e160	e180	732	461	374	45	15	61	74
21	159	330	751	e150	e290	670	415	324	50	19	52	69
22	182	258	2350	e140	e400	1220	365	240	53	14	59	67
23	165	222	1820	e135	e360	2050	312	255	61	19	52	79
24	141	198	e830	e130	e310	2070	307	288	57	24	51	701
25	114	176	e570	e125	e270	1720	288	249	56	19	40	498
26	103	155	e420	e120	e260	1480	316	273	57	22	34	309
27	128	147	e330	e120	e240	1270	413	317	55	22	34	220
28	137	196	e290	e140	e220	1250	387	306	50	32	31	197
29	121	578	e260	e250	---	1220	322	200	51	64	24	175
30	108	637	e235	e300	---	1090	299	218	57	48	27	151
31	152	---	e210	e320	---	948	---	176	---	38	22	---
TOTAL	3343	6309	17469	5320	5385	29181	17126	12118	2568	897	1008	3136
MEAN	108	210	564	172	192	941	571	391	85.6	28.9	32.5	105
MAX	227	637	2350	320	400	2070	896	990	197	64	89	701
MIN	32	98	210	120	105	175	288	176	45	14	12	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1994, BY WATER YEAR (WY)

	1990	319	382	222	150	559	721	261	103	38.5	47.0	62.7
MEAN	190	319	382	222	150	559	721	261	103	38.5	47.0	62.7
MAX	334	451	564	252	192	941	1186	391	150	64.1	80.7	105
(WY)	1992	1992	1994	1992	1994	1994	1993	1994	1992	1992	1992	1994
MIN	108	210	220	172	94.9	338	406	175	74.3	22.5	27.8	32.4
(WY)	1994	1994	1993	1994	1993	1992	1992	1993	1993	1993	1993	1993

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1992 - 1994

ANNUAL TOTAL	95382	103860	255
ANNUAL MEAN	261	285	285
HIGHEST ANNUAL MEAN			1994
LOWEST ANNUAL MEAN			1992
HIGHEST DAILY MEAN	3320	2350	3320
LOWEST DAILY MEAN	13	12	12
ANNUAL SEVEN-DAY MINIMUM	16	17	16
INSTANTANEOUS PEAK FLOW		2680	3390
INSTANTANEOUS PEAK STAGE		8.88	9.53
INSTANTANEOUS LOW FLOW		6.4	a 6.4
10 PERCENT EXCEEDS	634	740	540
50 PERCENT EXCEEDS	126	160	160
90 PERCENT EXCEEDS	19	27	28

a Also on Aug. 8, 1994.

e Estimated.

PISCATAQUA RIVER BASIN

01073000 OYSTER RIVER NEAR DURHAM, N.H.

LOCATION.--Lat 43°08'55", long 70°57'56", Strafford County, Hydrologic Unit 01060003, on left bank 200 ft upstream from highway bridge, 2.5 mi west of Durham, and 7 mi upstream from mouth.

DRAINAGE AREA.--12.1 mi².

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 70 ft above sea level, from topographic map. Prior to Oct. 1, 1964, at datum 1.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	14	15	e11	e11	e10	76	23	9.4	2.6	1.0	.94
2	1.8	10	12	e10	e10	e9.8	66	25	8.0	2.1	.86	1.2
3	2.6	9.0	11	e10	e9.4	e9.6	59	20	6.6	1.8	.73	.96
4	2.9	11	10	e10	e8.6	e9.4	68	17	5.4	1.5	.77	.75
5	1.4	9.6	43	e9.8	e8.2	e9.2	53	34	4.7	1.2	.98	1.7
6	1.4	10	43	e9.6	e7.5	e9.1	47	32	5.6	1.2	1.1	4.9
7	1.2	8.1	31	e9.0	e7.2	e9.0	52	25	4.9	1.4	.93	2.5
8	1.1	6.2	24	e8.4	e6.8	e20	45	94	3.9	2.8	.73	1.9
9	1.1	5.2	20	e8.0	e6.4	e27	35	89	3.2	1.9	.62	2.0
10	1.4	4.4	18	e7.8	e6.2	45	34	51	3.1	1.6	.54	1.9
11	1.3	3.8	41	e7.6	e6.2	70	33	33	3.2	1.3	.50	1.4
12	1.6	3.8	41	e7.5	e6.0	72	27	25	4.5	1.0	.53	1.1
13	7.9	3.6	34	e8.4	e5.8	63	41	23	7.0	.91	1.5	1.5
14	4.6	3.4	32	e8.0	e5.8	53	79	19	8.1	.78	1.6	2.4
15	2.9	4.2	32	e7.7	e5.6	54	54	17	7.0	.68	1.2	2.1
16	2.4	4.0	29	e7.6	e5.4	68	43	26	5.9	.77	.94	1.7
17	2.2	5.0	24	e7.2	e5.2	84	38	46	5.1	.77	.61	1.8
18	2.1	21	21	e7.0	e6.0	75	30	32	4.6	.88	7.1	5.6
19	1.9	17	19	e7.6	e7.4	65	27	26	4.0	.92	9.0	4.1
20	1.6	17	18	e7.0	e8.8	65	25	21	3.4	.80	4.2	2.5
21	3.4	13	92	e6.8	e15	68	21	18	3.4	.63	3.0	1.9
22	6.9	14	135	e6.7	e20	199	19	15	3.9	.56	5.0	1.8
23	4.3	14	71	e6.6	e18	286	17	13	2.9	.73	3.6	67
24	3.2	12	44	e7.4	e15	214	16	12	2.6	1.0	2.5	108
25	2.7	11	e29	e7.0	e14	163	15	15	3.2	.86	1.9	32
26	2.5	8.5	e21	e6.6	e13	141	29	17	3.6	.71	1.8	23
27	2.5	7.4	e17	e6.2	e12	125	29	17	2.8	.64	1.8	18
28	2.5	14	e15	e9.0	e11	133	28	13	2.5	2.4	1.7	19
29	2.2	27	e13	e16	---	122	21	13	2.5	3.9	1.5	15
30	2.3	19	e12	e14	---	103	19	11	3.0	1.7	1.3	11
31	8.6	---	e11	e12	---	87	---	11	---	1.3	.98	---
TOTAL	86.8	310.2	978	267.5	261.5	2468.1	1146	833	138.0	41.34	60.52	339.65
MEAN	2.80	10.3	31.5	8.63	9.34	79.6	38.2	26.9	4.60	1.33	1.95	11.3
MAX	8.6	27	135	16	20	286	79	94	9.4	3.9	9.0	108
MIN	1.1	3.4	10	6.2	5.2	9.0	15	11	2.5	.56	.50	.75
CFSM	.23	.85	2.61	.71	.77	6.58	3.16	2.22	.38	.11	.16	.94
IN.	.27	.95	3.01	.82	.80	7.59	3.52	2.56	.42	.13	.19	1.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1994, BY WATER YEAR (WY)

	MEAN	6.62	18.2	22.0	18.7	21.2	48.0	49.6	25.1	12.0	5.02	3.61	4.46
MAX	33.2	62.7	52.9	58.1	84.5	122	104	97.5	47.5	33.7	22.7	52.6	
(WY)	1963	1952	1987	1958	1981	1936	1956	1954	1982	1938	1991	1954	
MIN	.89	1.58	2.73	2.25	3.47	13.5	15.2	8.85	2.07	.65	.61	.65	
(WY)	1942	1979	1966	1981	1980	1967	1985	1957	1936	1949	1949	1957	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1935 - 1994

ANNUAL TOTAL	6636.26	6930.61	
ANNUAL MEAN	18.2	19.0	19.5
HIGHEST ANNUAL MEAN			32.3
LOWEST ANNUAL MEAN			9.09
HIGHEST DAILY MEAN	379	Mar 30	557
LOWEST DAILY MEAN	.45	Sep 21	.33
ANNUAL SEVEN-DAY MINIMUM	.56	Sep 19	.43
INSTANTANEOUS PEAK FLOW			862
INSTANTANEOUS PEAK STAGE			8.45
INSTANTANEOUS LOW FLOW			.13
ANNUAL RUNOFF (CFSM)	1.50	1.57	1.61
ANNUAL RUNOFF (INCHES)	20.40	21.31	21.93
10 PERCENT EXCEEDS	41	51	48
50 PERCENT EXCEEDS	7.1	8.0	9.9
90 PERCENT EXCEEDS	.83	1.1	1.2

a Also on Aug. 12.
e estimated

41

LOCATION...Lat 43°06'09", long 70°57'11", Rockingham County, Hydrologic Unit 01060003, on right bank 200 ft upstream from Packers Falls, 2 mi northwest of Newmarket, and 4.6 mi upstream from mouth.

PERIOD OF RECORD.--Discharge: July 1934 to current year. Water-quality records: Water year 1954.

GAGE.--Water-stage recorder. Elevation of gage is 40 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation by Pawtuckaway and Mendums Ponds. These reservoirs have a usable capacity of about 600 million ft³.

DAILY MEAN VALUES

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1994, BY WATER YEAR (WY)

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1934 - 1994
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e Estimated

MERRIMACK RIVER BASIN

01074520 EAST BRANCH PEMIGEWASSET RIVER AT LINCOLN N.H.

LOCATION.--Lat 44°02'51", long 71°39'37", Grafton County, Hydrologic Unit 01070001, on right bank at old crib dam, locally known as "the old hole" in the town of Lincoln, N.H.

DRAINAGE AREA.--115 mi².

PERIOD OF RECORD.--March 1993 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 830 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	217	216	527	e150	e115	e75	e100	1670	360	151	128	116
2	195	193	465	e160	e110	e75	e100	1450	329	139	111	107
3	276	173	424	e140	e110	e75	e105	969	323	134	146	98
4	255	169	378	e140	e105	e75	e130	913	286	119	110	93
5	333	259	394	e130	e105	e75	233	916	256	105	112	96
6	256	690	358	e105	e100	e76	414	842	249	94	120	279
7	221	438	319	e115	e95	e80	1190	911	251	320	95	173
8	200	319	288	e130	e100	e100	850	2040	245	610	86	146
9	191	e289	259	e120	e95	e120	605	1490	217	240	81	121
10	212	e260	278	e115	e85	e140	604	1300	195	305	79	109
11	182	e235	762	e115	e80	e170	742	979	179	190	75	111
12	181	e210	479	e110	e80	e110	672	1340	219	151	72	128
13	299	e200	e300	e105	e80	e98	881	1100	351	132	72	233
14	222	e210	e270	e105	e80	e92	1780	765	523	119	193	354
15	193	e300	372	e105	e78	e98	1670	691	363	121	141	222
16	178	361	e300	e95	e76	e110	3500	830	276	132	98	174
17	171	287	e240	e115	e75	e95	2220	903	235	111	86	160
18	175	330	e230	e160	e75	e90	1170	752	208	105	329	142
19	166	299	e225	e140	e74	e85	839	672	190	112	343	130
20	157	469	e210	e115	e74	e84	847	628	174	103	186	121
21	264	344	328	e105	e100	e84	705	610	184	93	460	112
22	447	299	e310	e100	e140	e84	596	688	179	140	559	106
23	288	e270	e230	e90	e95	e84	526	717	153	140	296	140
24	250	e250	e220	e85	e90	e85	626	607	141	110	218	485
25	242	226	e235	e80	e85	e110	860	588	163	94	181	273
26	220	e210	e215	e75	e80	e100	1390	624	205	92	160	205
27	209	e200	e210	e75	e76	e96	3190	772	157	103	147	188
28	203	1560	e210	e100	e75	e95	2840	535	222	106	136	350
29	190	1610	e200	e160	---	e98	1340	446	234	116	124	402
30	182	703	e180	e130	---	e96	1130	397	171	131	113	407
31	192	---	e165	e120	---	e95	---	373	---	235	108	---
TOTAL	6967	11579	9581	3590	2533	2950	31855	27518	7238	4853	5165	5781
MEAN	225	386	309	116	90.5	95.2	1062	888	241	157	167	193
MAX	447	1610	762	160	140	170	3500	2040	523	610	559	485
MIN	157	169	165	75	74	75	100	373	141	92	72	93
CFSM	1.95	3.36	2.69	1.01	.79	.83	9.23	7.72	2.10	1.36	1.45	1.68
IN.	2.25	3.75	3.10	1.16	.82	.95	10.30	8.90	2.34	1.57	1.67	1.87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, BY WATER YEAR (WY)

MEAN	225	386	309	116	90.5	95.2	1077	650	247	131	162	174
MAX	225	386	309	116	90.5	95.2	1093	888	252	157	167	193
(WY)	1994	1994	1994	1994	1994	1994	1993	1994	1993	1994	1994	1994
MIN	225	386	309	116	90.5	95.2	1062	412	241	105	158	156
(WY)	1994	1994	1994	1994	1994	1994	1994	1993	1994	1993	1993	1993

SUMMARY STATISTICS

FOR 1994 WATER YEAR

WATER YEARS 1993 - 1994

ANNUAL TOTAL	119610		
ANNUAL MEAN	328		
HIGHEST ANNUAL MEAN		a 328	
LOWEST ANNUAL MEAN		328	1994
HIGHEST DAILY MEAN	3500	6280	Apr 17 1993
LOWEST DAILY MEAN	72	62	Jul 20 1993
ANNUAL SEVEN-DAY MINIMUM	75	67	Jul 15 1993
INSTANTANEOUS PEAK FLOW	b 7200	b 9770	Apr 17 1993
INSTANTANEOUS PEAK STAGE	6.45	7.21	Apr 17 1993
ANNUAL RUNOFF (CFSM)	2.85	2.85	
ANNUAL RUNOFF (INCHES)	38.69	38.72	
10 PERCENT EXCEEDS	756	728	
50 PERCENT EXCEEDS	186	182	
90 PERCENT EXCEEDS	85	80	

a Mean calculated for a complete water year beginning in 1994.

b From rating curve extended above 1300 ft³/s.

e Estimated

MERRIMACK RIVER BASIN

43

01075800 STEVENS BROOK NEAR WENTWORTH, N.H.

LOCATION.--Lat 43°50'12", long 71°53'07", Grafton County, Hydrologic Unit 01070001, on left bank 150 ft upstream from highway bridge, 0.2 mi upstream from mouth, and 2.5 mi southeast of Wentworth.

DRAINAGE AREA.--2.94 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 595 ft above sea level, from topographic map.

REMARKS.--Records good except those for periods of estimated daily discharges, which are fair, and those below 1.0 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	12	6.8	e1.7	e2.4	e1.9	e6.8	15	1.2	.35	e1.4	.36
2	1.8	8.8	5.6	e1.7	e2.2	e1.8	e8.0	11	1.2	.28	e.76	.28
3	2.0	5.3	4.6	e1.5	e2.1	e1.7	e10	6.7	1.1	.25	e.54	.25
4	2.6	4.6	4.1	e1.4	e1.9	e1.7	22	5.5	.98	.23	e.30	.23
5	6.1	11	12	e1.4	e1.8	e1.6	22	5.8	.80	.20	e.38	.24
6	3.7	29	9.4	e1.4	e1.7	e1.6	44	6.0	.75	.16	e.30	.54
7	2.6	12	6.8	e1.3	e1.6	e1.5	59	7.6	.74	.16	e.21	.53
8	2.0	7.2	5.4	e1.3	e1.6	e2.8	23	19	.64	e.16	e.18	.49
9	1.8	5.4	4.5	e1.3	e1.5	e2.5	19	14	.56	e2.8	.17	.36
10	2.0	4.4	4.3	e1.2	e1.5	e1.2	23	8.6	.51	e1.3	.17	.28
11	1.9	3.6	15	e1.2	e1.5	e7.0	28	6.2	.45	e.69	.14	.24
12	2.2	3.4	10	e1.2	e1.4	e4.0	25	9.2	.67	e.28	.14	.23
13	6.0	3.1	7.2	e1.2	e1.4	e3.0	49	9.0	1.1	e.19	.14	.39
14	4.0	3.2	5.1	e1.3	e1.4	e2.8	53	6.0	3.1	e.16	.17	3.9
15	2.9	5.0	e4.6	e1.3	e1.4	e2.9	46	4.8	1.7	e.30	e.16	1.8
16	2.4	4.6	e4.1	e1.2	e1.4	e4.6	67	5.8	.98	e.76	e.14	.80
17	2.1	3.9	e3.8	e1.2	e1.3	e4.0	31	10	.63	e.28	e.19	.72
18	2.0	9.2	e3.5	e1.1	e1.3	e3.4	18	7.3	.48	e.24	e3.6	.59
19	1.8	6.8	e3.2	e1.1	e1.3	e3.0	14	5.4	1.2	e.30	2.6	.42
20	1.6	7.9	3.0	e1.1	e1.5	e2.8	17	4.3	.77	e.20	.79	.30
21	3.2	5.6	12	e1.1	e4.0	e2.7	11	3.4	.57	e.16	e3.2	.26
22	6.1	4.4	15	e1.1	e3.5	e3.0	8.8	3.0	.57	e.58	e4.0	.24
23	3.6	3.8	7.5	e1.1	e3.0	e3.5	7.5	2.6	.48	e.90	e1.8	3.7
24	2.8	3.3	e4.0	e1.1	e2.6	e4.5	10	2.0	.42	e.33	e.98	13
25	2.6	2.8	e3.5	e1.1	e2.4	e10	17	2.3	.48	e.21	e.69	4.1
26	2.5	2.7	e3.0	e1.0	e2.2	e9.0	22	3.5	.62	e.54	e.54	2.4
27	2.3	2.6	e2.7	e1.0	e2.1	e7.6	23	4.9	.53	e.82	e.33	2.4
28	2.2	34	e2.4	e1.6	e2.0	e6.6	19	3.8	.48	e1.2	e.28	7.8
29	1.9	28	e2.2	e5.4	---	e6.0	9.5	2.9	.48	e.90	e.21	4.6
30	1.7	11	e2.2	e3.3	---	e5.8	8.0	2.1	.45	e1.7	e.20	2.8
31	2.7	---	e2.0	e2.7	---	e5.6	---	1.5	---	e4.8	.23	---
TOTAL	85.2	248.6	179.5	46.6	54.0	130.9	720.6	199.2	24.64	21.43	24.94	54.25
MEAN	2.75	8.29	5.79	1.50	1.93	4.22	24.0	6.43	.82	.69	.80	1.81
MAX	6.1	34	15	5.4	4.0	12	67	19	3.1	4.8	4.0	13
MIN	1.6	2.6	2.0	1.0	1.3	1.5	6.8	1.5	.42	.16	.14	.23
CFSM	.93	2.82	1.97	.51	.66	1.44	8.17	2.19	.28	.24	.27	.62
IN.	1.08	3.15	2.27	.59	.68	1.66	9.12	2.52	.31	.27	.32	.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1994, BY WATER YEAR (WY)

	MEAN	3.41	5.23	4.37	3.04	3.38	8.33	15.5	7.77	2.85	1.30	1.34	1.14
MAX	13.6	12.3	18.1	13.2	21.0	21.4	32.8	14.8	15.8	7.54	13.4	7.66	
(WY)	1978	1970	1974	1978	1981	1979	1969	1971	1973	1973	1990	1981	
MIN	.093	.33	.77	.22	.16	1.42	6.07	2.36	.42	.079	.029	.048	
(WY)	1965	1972	1989	1989	1980	1980	1985	1977	1985	1964	1965	1963	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1963 - 1994

ANNUAL TOTAL	1834.39	1789.86	
ANNUAL MEAN	5.03	4.90	4.81
HIGHEST ANNUAL MEAN			7.56
LOWEST ANNUAL MEAN			2.13
HIGHEST DAILY MEAN	126	Mar 28	270
LOWEST DAILY MEAN	.20	Jul 16	.01
ANNUAL SEVEN-DAY MINIMUM	.20	Jul 15	.01
INSTANTANEOUS PEAK FLOW		109	Apr 16
INSTANTANEOUS PEAK STAGE		c 3.25	Jan 28
INSTANTANEOUS LOW FLOW			d
ANNUAL RUNOFF (CFSM)	1.71	1.67	1.64
ANNUAL RUNOFF (INCHES)	23.21	22.65	22.24
10 PERCENT EXCEEDS	12	11	11
50 PERCENT EXCEEDS	1.8	2.2	1.6
90 PERCENT EXCEEDS	.40	.28	.16

a Also occurred on Aug. 12, 13, 16.

b From rating curve extended above 320 ft³/s.

c Ice jam.

d 0.01 ft³/s several days in 1963-65, 1971, 1975, 1977, 1978.

e Estimated

MERRIMACK RIVER BASIN

01076500 PEMIGEWASSET RIVER AT PLYMOUTH, N.H.

LOCATION.--Lat 43°45'33", long 71°41'10", Grafton County, Hydrologic Unit 01070001, on right bank 150 ft downstream from bridge at Plymouth and 0.3 mi downstream from Baker River.

DRAINAGE AREA.--622 mi².

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

Water-quality records: Water years 1953, 1967-74, 1976-79.

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some diurnal fluctuation during period 1940-52 caused by powerplants upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	803	1040	2410	e720	e760	e490	e1300	4790	962	503	714	331
2	666	1330	1820	e700	e720	e500	1440	5080	899	440	497	329
3	726	1010	1570	e710	e700	e430	1340	3430	890	397	436	285
4	994	857	1430	e710	e560	e510	1990	2790	809	361	394	261
5	1370	901	1510	e660	e600	e480	2530	2740	718	329	336	246
6	1150	3030	e1560	e660	e520	e450	3490	2510	721	308	348	409
7	899	2380	e1350	e560	e510	e470	7930	2520	861	302	310	529
8	749	1540	e1280	e560	e480	e480	6250	4330	742	937	267	405
9	659	1210	1200	e540	e530	e680	4290	5100	652	649	245	353
10	724	1050	1080	e560	e470	e660	3910	3920	586	888	226	304
11	683	944	e2100	e540	e500	e1120	4840	2930	532	725	212	273
12	631	872	e2200	e570	e2200	e1080	4520	3200	578	517	205	277
13	1260	805	e1500	e580	e460	e800	5600	3750	939	413	193	358
14	1110	829	e1490	e550	e480	e710	11200	2480	1410	355	225	1170
15	893	1030	1460	e520	e450	e700	9580	2090	1300	331	433	929
16	770	1310	e1400	e520	e410	e900	13000	2140	906	499	293	588
17	691	1080	1360	e480	e400	e1000	12500	3060	737	432	233	500
18	662	1360	1210	e440	e420	e920	6780	2510	629	353	420	442
19	650	1300	1120	e510	e450	e720	4970	2140	622	333	1410	373
20	589	1980	1010	e460	e500	e690	4810	1880	580	331	779	343
21	686	1650	1030	e520	e700	e610	4110	1700	521	289	657	304
22	1710	1240	2770	e470	e840	e690	3310	1630	550	298	2120	284
23	1210	1090	1960	e490	e940	e690	2730	1670	471	512	1120	316
24	962	1000	e900	e430	e700	e1100	2850	1490	413	420	768	1560
25	843	855	e1050	e470	e630	e1500	4220	1350	439	335	605	1170
26	675	792	e800	e440	e560	e1680	5120	1590	681	303	512	826
27	674	855	e600	e430	e570	e1400	6560	2180	580	361	441	698
28	651	3040	e580	e500	e530	e1110	8720	1650	545	390	396	1330
29	622	9430	e660	e700	---	e1400	5060	1300	707	528	361	1520
30	583	3680	e700	e1100	---	e1250	3680	1140	584	456	318	1250
31	659	---	e740	e1000	---	e1200	---	1030	---	1030	287	---
TOTAL	25954	49490	41850	18100	15860	26420	158630	80120	21564	14325	15761	17963
MEAN	837	1650	1350	584	566	852	5288	2585	719	462	508	599
MAX	1710	9430	2770	1100	940	1680	13000	5100	1410	1030	2120	1560
MIN	583	792	580	430	400	430	1300	1030	413	289	193	246
CFSM	1.35	2.65	2.17	.94	.91	1.37	8.50	4.16	1.16	.74	.82	.96
IN.	1.55	2.96	2.50	1.08	.95	1.58	9.49	4.79	1.29	.86	.94	1.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1994, BY WATER YEAR (WY)

	MEAN	953	1320	1129	832	723	1723	3962	2800	1141	623	514	594
MAX	3423	4578	4588	2276	4379	9266	7206	5304	3878	3103	3345	3813	
(WY)	1978	1928	1974	1978	1981	1936	1969	1940	1917	1973	1990	1938	
MIN	129	308	216	148	138	205	1986	806	283	160	111	107	
(WY)	1948	1979	1948	1931	1931	1940	1965	1921	1921	1923	1923	1923	

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1904 - 1994
ANNUAL TOTAL	441087	486037	
ANNUAL MEAN	1208	1332	1360
HIGHEST ANNUAL MEAN			1971
LOWEST ANNUAL MEAN			735
HIGHEST DAILY MEAN	14700	Apr 17	57300
LOWEST DAILY MEAN	165	Jul 20	45
ANNUAL SEVEN-DAY MINIMUM	173	Jul 16	66
INSTANTANEOUS PEAK FLOW			a 65400
INSTANTANEOUS PEAK STAGE			a 29.00
INSTANTANEOUS LOW FLOW			b 39
ANNUAL RUNOFF (CFSM)	1.94	2.14	2.19
ANNUAL RUNOFF (INCHES)	26.38	29.07	29.71
10 PERCENT EXCEEDS	2380	2970	3170
50 PERCENT EXCEEDS	674	720	670
90 PERCENT EXCEEDS	288	351	235

a From flood marks, from rating curve extended above 43,000 ft³/s.

b Also on Oct 3, 1948.

c Estimated

MERRIMACK RIVER BASIN

45

01077000 SQUAM RIVER AT ASHLAND, N.H.

LOCATION.--Lat 43°42'19", long 71°37'49", Grafton County, Hydrologic Unit 01070001, on right bank 200 ft upstream from highway bridge, 0.7 mi north of Ashland, and 1.4 mi downstream from Little Squam Lake.

DRAINAGE AREA.--57.6 mi².

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

Water-quality records: Water year 1957.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 545 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records excellent. Flow completely regulated by powerplant upstream and by Squam and Little Squam Lakes.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	60	61	118	115	82	81	85	85	42	61	59
2	59	59	61	118	116	82	81	84	86	16	62	59
3	59	60	71	118	117	82	81	85	86	16	62	59
4	59	60	76	118	117	81	82	86	86	15	62	59
5	59	60	77	118	114	80	81	86	84	15	62	59
6	59	60	105	117	114	80	83	85	84	15	61	60
7	58	60	118	117	113	80	83	85	84	16	61	60
8	60	60	116	117	113	82	83	90	84	40	61	60
9	61	60	117	117	113	69	83	113	84	61	61	60
10	61	60	117	117	113	63	84	129	68	61	61	59
11	61	60	117	117	113	63	84	128	60	61	61	59
12	60	60	116	117	113	63	84	130	60	61	61	59
13	59	61	116	117	113	63	85	128	58	62	60	59
14	59	61	118	117	96	64	103	128	59	61	60	60
15	59	60	117	117	82	66	127	126	59	61	60	60
16	59	61	117	116	82	64	128	153	59	61	60	60
17	59	62	117	116	82	63	129	166	59	61	60	60
18	58	61	118	117	82	63	129	165	59	67	61	59
19	57	60	118	117	82	63	128	165	59	63	60	59
20	58	61	118	117	82	63	128	164	59	63	61	59
21	58	61	119	117	82	63	128	164	61	63	60	58
22	57	61	119	117	82	64	128	163	59	63	60	58
23	57	61	119	117	80	67	128	113	59	63	60	58
24	57	63	118	115	80	67	128	84	59	63	60	57
25	57	62	118	115	81	64	100	85	59	62	60	57
26	60	62	118	115	82	64	85	87	59	62	60	57
27	60	62	118	115	81	65	84	87	59	61	60	57
28	60	61	118	115	81	66	84	87	60	62	60	57
29	60	62	120	116	---	66	84	87	60	61	59	57
30	60	61	119	116	---	68	84	88	60	62	59	57
31	60	---	118	115	---	77	---	88	---	62	59	---
TOTAL	1829	1822	3395	3616	2721	2147	2980	3514	2017	1602	1875	1761
MEAN	59.0	60.7	110	117	97.2	69.3	99.3	113	67.2	51.7	60.5	58.7
MAX	61	63	120	118	117	82	129	166	86	67	62	60
MIN	57	59	61	115	80	63	81	84	58	15	59	57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1994, BY WATER YEAR (WY)

	72.2	80.0	89.3	94.3	94.6	93.4	121	107	97.7	72.7	75.9	67.9
MEAN	72.2	80.0	89.3	94.3	94.6	93.4	121	107	97.7	72.7	75.9	67.9
MAX	118	202	204	265	234	285	351	295	326	485	240	111
(WY)	1955	1982	1984	1974	1952	1952	1969	1954	1984	1973	1990	1951
MIN	44.5	29.4	22.2	20.8	53.0	16.8	7.93	22.6	51.0	6.81	6.44	6.82
(WY)	1981	1966	1966	1966	1942	1966	1989	1966	1980	1980	1980	1980

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1939 - 1994

ANNUAL TOTAL	29356.0	29279	
ANNUAL MEAN	80.4	80.2	88.7
HIGHEST ANNUAL MEAN			154
LOWEST ANNUAL MEAN			39.5
HIGHEST DAILY MEAN	592	Apr 15	166 May 17
LOWEST DAILY MEAN	7.0	Jul 6	15 Jul 4
ANNUAL SEVEN-DAY MINIMUM	33	Jul 1	19 Jul 2
INSTANTANEOUS PEAK FLOW			172 Jul 18
INSTANTANEOUS PEAK STAGE			10.91 Jul 18
10 PERCENT EXCEEDS	117		130
50 PERCENT EXCEEDS	61		73
90 PERCENT EXCEEDS	59		58

MERRIMACK RIVER BASIN

01078000 SMITH RIVER NEAR BRISTOL, N.H.

LOCATION.--Lat 43°34'04", long 71°44'54", Merrimack County, Hydrologic Unit 01070001, on right bank in Hill, 1.5 mi upstream from mouth, and 1.8 mi southwest of Bristol.

DRAINAGE AREA.--85.8 mi².

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

Water-quality records: Water years 1957, 1976-79.

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

GAGE.--Water-stage recorder. Datum of gage is 449.80 ft above sea level (levels by U.S. Army Corps of Engineers).

Prior to Nov. 25, 1933, nonrecording gage at site 1.5 mi upstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to 1954, some diurnal fluctuation caused by small mill upstream; greater fluctuation prior to 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1885, that of Mar. 19, 1936.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	123	215	e82	e90	e56	e230	288	94	65	86	16
2	35	157	156	e80	e84	e54	e250	337	83	50	55	15
3	34	109	138	e80	e75	e50	e240	255	55	36	42	14
4	42	90	124	e78	e66	e58	e460	206	35	29	33	13
5	45	89	207	e76	e68	e54	611	182	30	25	28	14
6	47	192	272	e70	e58	e52	703	181	27	22	24	19
7	40	179	214	e62	e58	e52	986	186	26	22	22	20
8	35	122	175	e66	e54	e80	962	314	24	24	19	19
9	34	91	145	e62	e56	132	809	439	21	24	18	19
10	30	75	127	e64	e54	158	680	302	19	63	16	19
11	27	66	192	e62	e56	e190	682	219	16	58	15	17
12	28	62	217	e65	e52	e180	697	202	33	37	14	16
13	71	57	159	e68	e51	e150	881	206	97	29	14	15
14	85	57	167	e63	e54	e130	1300	168	142	25	15	19
15	61	61	148	e60	e55	e125	1320	144	139	23	14	20
16	50	60	157	e60	e46	e150	1320	220	83	24	13	19
17	43	56	140	e56	e44	173	1290	415	e59	22	12	18
18	40	108	113	e50	e48	161	965	347	48	21	44	17
19	36	128	111	e58	e48	e130	707	e270	41	22	83	15
20	33	158	100	e52	e52	e120	558	e200	38	22	62	13
21	38	138	187	e60	e68	e110	456	e150	35	20	55	13
22	61	109	452	e54	e82	e115	364	e140	34	18	84	12
23	63	89	375	e56	e105	e120	303	e125	31	20	67	47
24	49	78	184	e49	e90	e180	279	110	28	21	46	186
25	41	69	173	e52	e72	e250	286	111	37	20	35	137
26	36	60	127	e50	e64	e290	339	159	54	20	28	85
27	35	59	84	e48	e62	e230	387	285	50	30	24	68
28	35	192	e68	e48	e60	e200	318	211	39	56	21	120
29	67	443	e76	e47	---	e250	255	157	34	72	19	120
30	48	336	e80	e120	---	e220	213	137	40	70	17	84
31	51	---	e85	e100	---	e210	---	112	---	132	15	---
TOTAL	1383	3613	5168	1998	1772	4430	18851	6778	1492	1122	1040	1209
MEAN	44.6	120	167	64.5	63.3	143	628	219	49.7	36.2	33.5	40.3
MAX	85	443	452	120	105	290	1320	439	142	132	86	186
MIN	27	56	68	47	44	50	213	110	16	18	12	12
CFSM	.52	1.40	1.94	.75	.74	1.67	7.32	2.55	.58	.42	.39	.47
IN.	.60	1.57	2.24	.87	.77	1.92	8.17	2.94	.65	.49	.45	.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1994, BY WATER YEAR (WY)

	MEAN	69.9	129	133	98.5	97.2	251	486	227	102	51.3	37.6	40.6
MAX	267	379	393	253	578	1242	1077	504	353	387	340	457	
(WY)	1978	1928	1974	1986	1981	1936	1969	1954	1922	1973	1990	1938	
MIN	8.45	24.9	22.3	19.2	20.6	29.7	183	71.5	20.5	9.00	4.54	7.62	
(WY)	1948	1972	1923	1940	1980	1940	1957	1941	1964	1965	1965	1948	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1918 - 1994

ANNUAL TOTAL	46527.4	48856	
ANNUAL MEAN	127	134	144
HIGHEST ANNUAL MEAN			223
LOWEST ANNUAL MEAN			64.7
HIGHEST DAILY MEAN	1520	Mar 31	6890
LOWEST DAILY MEAN	9.3	Jul 19	2.7
ANNUAL SEVEN-DAY MINIMUM	9.6	Jul 14	3.2
INSTANTANEOUS PEAK FLOW			b 8100
INSTANTANEOUS PEAK STAGE		6.21	Apr 16
INSTANTANEOUS LOW FLOW		a 12	Aug 17
ANNUAL RUNOFF (CFSM)	1.49	1.56	1.67
ANNUAL RUNOFF (INCHES)	20.17	21.18	22.73
10 PERCENT EXCEEDS	284	285	347
50 PERCENT EXCEEDS	57	65	66
90 PERCENT EXCEEDS	17	20	17

a Also on Sept. 27

b From floodmarks, from rating curve extended above 2,700 ft³/s on basis of contracted-opening measurement of peak flow.

e Estimated

MERRIMACK RIVER BASIN

47

01080000 LAKE WINNIPESAUKEE AT WEIRS BEACH, N.H.

LOCATION.--Lat 43°36'27", long 71°27'30", Belknap County, Hydrologic Unit 01070002, 1,300 ft north of highway bridge at Weirs Beach.

DRAINAGE AREA.--363 mi², at outlet at Lakeport.

PERIOD OF RECORD.--Gage heights: September 1933 to current year. Prior to November 1937, monthend contents only, published in WSP 1301. Prior to October 1970, published as "at The Weirs."

REVISED RECORDS.--WDR NH-VT-78-1: 1938-77 (datum correction).

GAGE.--Water-stage recorder. Datum of gage is 499.92 ft above sea level. Prior to November 1937, nonrecording gage at lake outlet at Lakeport at datum 0.63 ft, corrected, higher. Nov. 24, 1937 to Nov. 7, 1965, water-stage recorder at site 500 ft south at present datum.

REMARKS.--Lake used for recreation and conservation for development of water power. Usable capacity, 7.22 billion ft³ between elevations 500.57 ft and 504.24 ft above sea level. Stage regulated at outlet and by Wentworth, Merrymeet-ing (Reservoirs in Merrimack River basin), and other lakes. Contents given herein are computed from gage height at 2400 on last day of month, eliminating the effect of seiche and wind action.

Capacity table (gage height, in feet, and contents, in millions of cubic feet), furnished by State of New Hampshire, Department of Environmental Services

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

EXTREMES FOR PERIOD OF RECORD.--Maximum daily gage height, 5.94 ft, June 4, 1984; minimum daily, 0.63 ft, Dec. 11, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum daily gage height, 4.52 ft, May 11; minimum daily, 2.27 ft, Mar. 7.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.92	2.86	3.09	3.30	2.99	2.35	2.97	4.37	4.35	4.13	4.10	3.66
2	2.91	2.84	3.09	3.27	2.97	2.33	3.02	4.38	4.33	4.12	4.09	3.62
3	2.91	2.85	3.09	3.26	2.95	2.32	3.07	4.38	4.30	4.10	4.08	3.59
4	2.90	2.83	3.11	3.27	2.93	2.32	3.12	4.39	4.30	4.09	4.06	3.58
5	2.89	2.85	3.19	3.22	2.90	2.30	3.19	4.39	4.29	4.06	4.03	3.55
6	2.88	2.87	3.23	3.20	2.87	2.29	3.27	4.40	4.29	4.05	4.01	3.53
7	2.86	2.86	3.25	3.21	2.84	2.27	3.38	4.39	4.27	4.06	3.98	3.53
8	2.87	2.87	3.24	3.22	2.82	2.29	3.48	4.47	4.24	4.08	3.96	3.51
9	2.86	2.87	3.24	3.21	2.82	2.29	3.56	4.50	4.21	4.09	3.94	3.51
10	2.82	2.86	3.24	3.17	2.80	2.38	3.65	4.51	4.20	4.16	3.90	3.48
11	2.82	2.85	3.27	3.16	2.77	2.41	3.72	4.52	4.17	4.14	3.88	3.44
12	2.83	2.83	3.29	3.14	2.75	2.42	3.77	4.51	4.17	4.13	3.86	3.41
13	2.86	2.85	3.31	3.13	2.72	2.42	3.86	4.46	4.21	4.10	3.84	3.42
14	2.88	2.86	3.32	3.11	2.69	2.42	3.98	4.46	4.23	4.10	3.82	3.48
15	2.88	2.86	3.32	3.09	2.66	2.42	4.06	4.46	4.24	4.09	3.78	3.48
16	2.88	2.85	3.32	3.06	2.63	2.43	4.13	4.47	4.23	4.09	3.75	3.47
17	2.89	2.86	3.29	3.06	2.60	2.43	4.22	4.49	4.23	4.09	3.74	3.46
18	2.87	2.88	3.28	3.14	2.56	2.43	4.26	4.48	4.22	4.09	3.84	3.44
19	2.87	2.91	3.25	3.13	2.54	2.43	4.28	4.47	4.18	4.07	3.86	3.41
20	2.87	2.93	3.23	3.11	2.51	2.42	4.28	4.44	4.16	4.05	3.84	3.39
21	2.89	2.94	3.32	3.11	2.48	2.43	4.28	4.42	4.14	4.04	3.85	3.39
22	2.87	2.95	3.40	3.09	2.46	2.51	4.28	4.41	4.11	4.02	3.89	3.38
23	2.86	2.96	3.43	3.04	2.45	2.57	4.27	4.39	4.08	4.02	3.87	3.43
24	2.86	2.94	3.44	3.03	2.46	2.62	4.27	4.38	4.09	4.02	3.85	3.48
25	2.85	2.94	3.44	3.00	2.46	2.66	4.28	4.38	4.13	4.01	3.82	3.48
26	2.85	2.93	3.37	2.98	2.43	2.70	4.32	4.41	4.13	4.02	3.81	3.48
27	2.83	2.93	3.36	2.95	2.39	2.77	4.33	4.41	4.13	4.02	3.79	3.49
28	2.81	2.99	3.35	3.01	2.37	2.84	4.32	4.41	4.11	4.06	3.78	3.54
29	2.81	3.05	3.34	3.04	---	2.88	4.34	4.40	4.11	4.05	3.73	3.53
30	2.80	3.07	3.33	3.02	---	2.91	4.33	4.39	4.11	4.05	3.70	3.48
31	2.84	---	3.32	3.01	---	2.94	---	4.37	---	4.11	3.69	---
MEAN	2.86	2.90	3.28	3.12	2.67	2.49	3.88	4.43	4.20	4.07	3.88	3.49
MAX	2.92	3.07	3.44	3.30	2.99	2.94	4.34	4.52	4.35	4.16	4.10	3.66
MIN	2.80	2.83	3.09	2.95	2.37	2.27	2.97	4.37	4.08	4.01	3.69	3.38
(†)	15,590	16,000	16,440	15,830	14,580	15,750	18,480	18,580	18,140	18,060	17,220	16,820
(‡)	-37.3	+158	+164	-228	-517	+437	+1053	+22.4	-154	-29.9	-314	-154

CAL YR 1993 MEAN 3.15 MAX 4.13 MIN 2.25 (†) +33.3

WTR YR 1994 MEAN 3.44 MAX 4.52 MIN 2.27 (†) +35.8

(†) Millions of cubic feet at 2400 on last day of month.

(‡) Change in contents equivalent in cubic feet per second.

MERRIMACK RIVER BASIN

01080500 LAKE WINNIPESAUKEE OUTLET AT LAKEPORT, N.H.

LOCATION.--Lat 43°32'57", long 71°27'54", Belknap County, Hydrologic Unit 01070002, 100 ft upstream from highway bridge across Paugus Bay at Lakeport.

DRAINAGE AREA.--363 mi².

PERIOD OF RECORD.--Discharge: January 1860 to December 1911 (monthly gage heights only, published in WSP 301), June 1933 to September 1983. October 1987 to current year.

Water-quality records: Water years 1954-55.

GAGE.--Acoustic velocity meter and measuring flume. Datum of gage is 500.55 ft above sea level. January 1860 to December 1911, nonrecording gage at site 150 ft downstream at same datum. June 1, 1933, to Sept. 30, 1936, nonrecording gage and continuous-recording current meter at present site and datum. Oct. 1, 1936, to May 23, 1944, discharge computed from flow over spillway and through gates and wheels at site 150 ft downstream. May 24, 1944 and September 1983, record obtained from water-stage recorder, deflection meter, and measuring flume.

REMARKS.--Records excellent except those for estimated daily discharges, which are fair. Flow completely regulated by Winnepesaukee (station 01080000), Wentworth, Merrymeeting (Reservoirs in Merrimack River basin), and other lakes. Daily discharge computed from the acoustic velocity meter.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e300	235	277	846	835	977	694	715	678	280	285	e359
2	e170	310	281	844	912	973	696	716	670	264	286	370
3	e170	e330	280	838	912	978	697	621	632	260	248	254
4	e300	356	69	835	911	981	698	725	383	258	297	250
5	e179	328	178	847	911	787	702	707	385	307	258	249
6	e300	160	276	842	913	680	677	635	591	276	344	249
7	295	160	494	834	911	865	376	e750	662	269	339	256
8	295	152	642	843	877	793	547	e717	582	279	340	250
9	173	232	679	844	982	677	386	724	586	167	305	256
10	172	234	659	841	986	668	386	921	581	174	277	377
11	151	154	500	840	982	683	611	950	379	273	279	377
12	22	220	e501	840	984	682	722	1040	383	268	284	375
13	20	54	705	840	984	682	717	1030	391	278	260	373
14	22	162	736	838	984	685	923	1030	379	272	253	201
15	20	289	845	839	981	684	1050	1040	354	221	281	173
16	19	264	845	833	982	684	1050	1030	359	250	279	371
17	19	264	814	831	958	683	1050	1030	352	166	237	173
18	114	264	852	843	983	682	1020	1020	348	272	253	172
19	139	265	852	840	982	683	1050	1020	341	294	240	371
20	165	163	846	838	981	681	1050	1020	299	303	260	278
21	167	164	769	835	983	680	1020	702	287	245	250	277
22	168	275	664	833	981	668	927	644	276	273	e226	271
23	165	279	e835	833	977	574	723	1030	245	243	e234	266
24	164	277	e835	833	984	685	725	748	294	177	e250	167
25	168	175	850	832	983	686	719	558	338	284	e266	171
26	236	280	848	828	984	687	718	554	294	283	e264	188
27	198	175	844	827	982	686	726	579	287	282	e261	170
28	198	167	856	832	981	691	719	683	288	273	e261	184
29	263	186	845	837	---	691	723	683	287	281	e263	266
30	161	177	844	833	---	691	718	682	262	176	e211	274
31	158	---	847	831	---	692	---	682	---	180	e373	---
TOTAL	5091	6751	20368	25950	26806	22639	22820	24986	12193	7828	8464	7968
MEAN	164	225	657	837	957	730	761	806	406	253	273	266
MAX	300	356	856	847	986	981	1050	1040	678	307	373	377
MIN	19	54	69	827	835	574	376	554	245	166	211	167

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1994, BY WATER YEAR (WY)

	MEAN	346	373	517	677	768	655	693	742	544	375	366	371
MAX	909	993	1245	1671	1672	1550	2596	2043	1548	1368	783	868	
(WY)	1978	1982	1955	1955	1958	1951	1936	1954	1954	1973	1967	1951	
MIN	149	149	49.3	45.0	67.7	33.2	92.8	75.2	147	161	185	202	
(WY)	1990	1942	1942	1942	1942	1942	1942	1957	1957	1957	1957	1957	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1934 - 1994

ANNUAL TOTAL	158864	191864	
ANNUAL MEAN	435	526	534
HIGHEST ANNUAL MEAN			858
LOWEST ANNUAL MEAN			174
HIGHEST DAILY MEAN	1910	a 1050	2890
LOWEST DAILY MEAN	19	b 19	c .00
ANNUAL SEVEN-DAY MINIMUM	34	34	c 2.0
INSTANTANEOUS LOW FLOW			.00
10 PERCENT EXCEEDS	835	979	1090
50 PERCENT EXCEEDS	300	386	358
90 PERCENT EXCEEDS	172	173	230

a Also on April 16, 17, 19, and 20.

b Also on Oct. 17.

c Dam closed.

e Estimated

MERRIMACK RIVER BASIN

49

01081000 WINNIPESAUKEE RIVER AT TILTON, N.H.

LOCATION.--Lat 43°26'31", long 71°35'20", Belknap County, Hydrologic Unit 01070002, on right bank at Tilton and 0.3 mi upstream from Packer Brook.

DRAINAGE AREA.--471 mi².

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

Water-quality records: Water year 1953.

REVISED RECORDS.--WSP 1901: 1960.

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

REMARKS.--No estimated daily discharges. Records good. Flow regulated by powerplants prior to 1967 and by Winnepesaukee (station 01080000), Winnisquam 4.5 mi upstream, Wentworth, Merrymeeting (Reservoirs in Merrimack River basin), and other lakes upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	456	360	609	863	1020	996	1170	880	763	295	373	254
2	285	527	584	866	1000	990	1200	903	759	293	366	255
3	273	525	581	867	998	1000	1200	880	757	289	361	259
4	265	434	580	916	994	1000	1290	860	754	284	357	259
5	267	292	639	1010	990	998	1290	858	746	273	358	267
6	258	290	740	1010	989	992	1270	868	668	271	359	275
7	257	292	831	962	984	987	1380	867	519	271	359	270
8	258	280	813	870	981	859	1410	929	502	276	329	267
9	255	277	799	859	983	807	1230	1040	461	280	266	269
10	252	276	794	857	993	837	1150	1080	350	297	258	265
11	226	277	829	854	980	1040	796	1040	334	319	255	264
12	126	276	854	899	980	1070	1140	1060	337	354	256	262
13	121	273	846	997	980	1070	1270	1120	373	353	260	262
14	121	275	885	953	978	1050	1630	1120	440	352	264	268
15	114	275	899	870	988	1030	1770	1110	535	329	261	266
16	112	276	900	959	974	1040	1720	1140	526	279	260	267
17	112	282	885	851	948	1000	1740	1250	516	268	258	271
18	141	317	875	912	923	904	1660	1330	510	266	291	271
19	188	334	871	1020	969	882	1550	1290	506	264	288	268
20	146	358	871	1020	986	872	1380	1220	452	261	276	269
21	154	353	987	960	999	844	1260	1110	346	260	276	268
22	209	327	1230	868	1020	919	1180	1070	332	258	278	265
23	281	316	1180	968	1020	1120	1050	1010	328	264	301	296
24	275	310	1080	843	1020	1110	1030	982	335	265	358	309
25	276	305	1060	842	1010	1130	1020	943	347	263	329	298
26	271	296	1040	842	1010	1230	1030	808	351	261	269	290
27	268	281	1020	878	1080	1210	1050	811	331	254	261	321
28	268	366	949	850	1050	1170	1030	798	286	310	258	398
29	259	649	931	987	---	1180	962	783	279	369	256	395
30	260	662	868	1020	---	1150	858	771	286	374	254	388
31	281	---	863	1020	---	1150	---	765	---	380	255	---
TOTAL	7035	10361	26893	28493	27847	31637	37716	30696	14029	9132	9150	8536
MEAN	227	345	868	919	995	1021	1257	990	468	295	295	285
MAX	456	662	1230	1020	1080	1230	1770	1330	763	380	373	398
MIN	112	273	580	842	923	807	796	765	279	254	254	254

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1994, BY WATER YEAR (WY)

	MEAN	431	508	716	830	924	954	1149	970	718	442	411	415
MAX	1257	1304	2209	1855	1889	2043	2745	2605	2821	1767	897	954	
(WY)	1978	1976	1984	1952	1958	1983	1953	1954	1984	1973	1986	1938	
MIN	219	235	136	145	158	418	420	217	201	179	181	182	
(WY)	1958	1972	1942	1942	1942	1989	1948	1957	1957	1957	1957	1957	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1937 - 1994

ANNUAL TOTAL	203315	241525	
ANNUAL MEAN	557	662	701
HIGHEST ANNUAL MEAN			1229
LOWEST ANNUAL MEAN			304
HIGHEST DAILY MEAN	2360	Apr 23	4480
LOWEST DAILY MEAN	112	Oct 16	48
ANNUAL SEVEN-DAY MINIMUM	121	Oct 12	109
INSTANTANEOUS PEAK FLOW			4580
INSTANTANEOUS PEAK STAGE			8.68
10 PERCENT EXCEEDS	986	1120	1430
50 PERCENT EXCEEDS	373	668	530
90 PERCENT EXCEEDS	244	261	270

MERRIMACK RIVER BASIN

01085800 WEST BRANCH WARNER RIVER NEAR BRADFORD, N.H.

LOCATION.--Lat 43°15'33", long 72°01'35", Merrimack County, Hydrologic Unit 01070003, on left bank 75 ft downstream from small right-bank tributary, 200 ft upstream from highway bridge, and 3.5 mi west of Bradford.

DRAINAGE AREA.--5.75 mi².

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

Water-quality records: Water year 1976.

REVISED RECORDS.--WDR NH-VT-1: 1984.

GAGE.--Water-stage recorder. Elevation of gage is 950 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	13	11	5.0	e7.0	5.0	e23	31	6.2	16	2.3	.89
2	1.1	6.0	8.7	4.9	6.1	4.6	30	23	5.4	5.4	1.7	.73
3	2.0	3.5	8.8	4.6	5.6	4.7	48	16	5.3	3.6	1.3	.67
4	2.0	3.0	7.9	4.8	5.5	4.9	80	14	4.4	2.5	1.1	.63
5	1.9	6.4	41	4.5	5.2	4.4	62	13	4.0	2.0	.97	.61
6	1.6	16	26	4.3	4.9	4.2	97	14	3.5	1.7	1.0	.68
7	1.5	7.8	16	4.2	4.6	4.4	119	14	3.4	3.5	.82	.60
8	1.3	4.6	12	4.5	4.4	7.4	63	59	3.2	6.8	.76	.55
9	1.4	3.6	9.7	4.1	4.4	6.0	48	34	2.7	3.9	.75	.74
10	1.5	3.3	8.6	3.9	4.1	e38	79	21	2.5	9.3	.75	.74
11	1.3	2.9	20	4.1	4.0	e22	75	16	2.2	3.9	.67	.55
12	2.3	2.9	15	4.1	3.9	e13	62	17	2.8	2.6	.61	.49
13	5.6	2.8	11	4.0	3.9	10	120	15	21	2.0	1.1	.46
14	2.9	2.9	10	3.9	4.0	9.7	113	12	19	1.7	1.3	.53
15	2.2	4.5	16	3.9	3.9	e12	85	10	8.5	1.7	1.0	.52
16	1.9	3.7	20	3.8	3.8	e13	92	49	5.2	1.8	.77	.51
17	1.8	5.1	13	3.7	3.8	e11	62	64	4.0	1.4	.61	.58
18	2.2	24	9.9	4.3	3.8	e9.4	39	31	3.2	1.5	16	.56
19	1.5	12	9.1	3.9	4.1	e8.6	32	27	2.6	1.6	7.9	.54
20	1.5	16	8.0	3.6	9.1	e8.0	28	19	2.1	1.3	3.6	.48
21	2.3	9.3	37	3.6	e20	e7.8	22	15	2.2	1.2	3.7	.43
22	3.3	6.7	50	3.6	e15	e9.4	19	13	2.3	1.1	5.5	.44
23	3.0	5.3	23	3.4	e11	e11	16	10	1.8	1.6	3.3	20
24	2.5	4.8	e14	3.3	e9.6	e16	15	8.6	1.7	1.6	2.2	25
25	1.8	4.0	13	3.3	e8.4	e30	14	11	3.1	1.3	1.6	11
26	1.4	3.6	e9.6	3.2	7.3	e26	24	20	3.6	1.2	1.3	6.8
27	1.3	3.5	e6.9	3.2	e6.2	e22	21	31	2.4	1.0	1.2	18
28	1.5	57	5.8	e10	5.4	e20	16	16	2.4	4.3	1.0	27
29	1.4	46	4.8	e30	---	26	13	12	2.9	2.9	.86	13
30	1.4	19	5.4	e13	---	e18	12	9.1	8.6	2.6	.65	8.1
31	3.3	---	5.0	e8.4	---	e17	---	7.5	---	5.0	.67	---
TOTAL	61.7	303.2	456.2	169.1	179.0	403.5	1529	652.2	142.2	98.0	66.99	141.83
MEAN	1.99	10.1	14.7	5.45	6.39	13.0	51.0	21.0	4.74	3.16	2.16	4.73
MAX	5.6	57	50	30	20	38	120	64	21	16	16	27
MIN	1.0	2.8	4.8	3.2	3.8	4.2	12	7.5	1.7	1.0	.61	.43
CFSM	.35	1.76	2.56	.95	1.11	2.26	8.86	3.66	.82	.55	.38	.82
IN.	.40	1.96	2.95	1.09	1.16	2.61	9.89	4.22	.92	.63	.43	.92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1994, BY WATER YEAR (WY)

	7.18	11.9	11.2	7.87	9.48	21.4	37.0	18.1	7.11	2.79	2.77	2.33
MEAN	7.18	11.9	11.2	7.87	9.48	21.4	37.0	18.1	7.11	2.79	2.77	2.33
MAX	30.9	24.1	31.4	33.3	45.9	46.9	93.7	41.1	22.9	9.99	26.1	10.5
(WY)	1976	1990	1974	1978	1981	1977	1969	1984	1982	1973	1990	1987
MIN	.49	1.59	3.04	1.87	.95	7.34	10.9	5.01	1.04	.26	.17	.17
(WY)	1964	1979	1979	1977	1980	1965	1985	1965	1965	1965	1965	1964

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1962 - 1994

ANNUAL TOTAL	3695.81	4202.92	
ANNUAL MEAN	10.1	11.5	11.6
HIGHEST ANNUAL MEAN			17.9
LOWEST ANNUAL MEAN			4.60
HIGHEST DAILY MEAN	235 Mar 30	120 Apr 13	316 Jun 30 1973
LOWEST DAILY MEAN	.23 Sep 1	.43 Sep 21	.07 Aug 7 1965
ANNUAL SEVEN-DAY MINIMUM	.28 Aug 28	.51 Sep 16	.09 Sep 16 1964
INSTANTANEOUS PEAK FLOW		194 Apr 13	a 800 b May 29 1984
INSTANTANEOUS PEAK STAGE		6.65 Apr 13	
INSTANTANEOUS LOW FLOW		c .42 Sep 20	.06 Sep 20 1964
ANNUAL RUNOFF (CFSM)	1.76	2.00	2.02
ANNUAL RUNOFF (INCHES)	23.91	27.19	27.43
10 PERCENT EXCEEDS	20	26	27
50 PERCENT EXCEEDS	2.9	4.6	4.8
90 PERCENT EXCEEDS	.41	1.0	.62

a About, from rating curve extended above 210 ft³/s.

b Could also be on May 30, 1984.

c Also on Sept. 21-23.

e Estimated

MERRIMACK RIVER BASIN

51

01089100 SOUCCOOK RIVER AT PEMBROKE ROAD NEAR CONCORD, N.H.

LOCATION.--Lat 43°12'47", long 71°28'49", Merrimack County, Hydrologic Unit 01070002, on left bank 500 ft east of U.S. Highway 106, 1.4 mi downstream from U.S. Highways 4, 202, and 9.

DRAINAGE AREA.--81.9 mi².

PERIOD OF RECORD.--Discharge: March 1988 to current year. October 1951 to September 1987, at site 0.9 mi upstream (station 01089000).

GAGE.--Water-stage recorder. Elevation of gage is 270 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	59	186	e84	e92	e56	e230	162	72	35	27	10
2	20	70	148	e82	e86	e54	e250	218	68	33	23	10
3	18	70	129	e82	e76	e51	e240	181	64	29	20	9.6
4	20	64	118	e80	e67	e59	e450	156	71	25	18	9.6
5	21	56	211	e78	e70	e54	642	141	52	23	18	9.6
6	22	70	377	e72	e59	e52	568	143	47	21	18	12
7	22	90	272	e64	e59	e52	628	141	44	22	17	13
8	18	70	214	e67	e55	e80	615	241	41	30	15	12
9	17	61	179	e64	e56	e135	457	363	37	30	13	11
10	16	56	158	e65	e54	e160	393	261	35	32	13	11
11	15	52	200	e63	e57	e190	402	208	32	30	12	11
12	15	49	255	e66	e53	e180	350	183	32	25	11	10
13	58	48	209	e70	e52	e150	334	178	66	22	12	10
14	70	46	189	e65	e55	e130	527	155	67	19	14	10
15	53	46	194	e61	e56	e125	452	133	53	18	14	12
16	44	45	e170	e60	e47	e150	364	141	45	33	12	10
17	40	42	e155	e58	e44	e175	399	228	39	24	11	10
18	38	113	141	e51	e49	e160	330	234	35	18	21	12
19	34	136	131	e59	e48	e130	275	196	32	18	29	11
20	32	163	128	e53	e52	e120	248	168	29	16	24	9.9
21	44	163	198	e61	e69	e110	213	142	27	15	20	9.1
22	57	126	565	e56	e83	e115	190	121	27	14	33	8.7
23	56	104	370	e57	e105	e120	174	106	27	15	33	15
24	46	91	265	e50	e91	e180	163	103	25	17	26	40
25	40	80	e195	e53	e73	e245	151	97	28	16	20	38
26	36	67	e150	e51	e65	e290	168	117	36	15	18	31
27	35	61	e100	e49	e62	e230	197	141	33	15	16	28
28	34	90	e75	e48	e60	e200	176	123	31	33	14	41
29	34	339	e78	e47	---	e250	152	101	30	45	13	44
30	34	253	e82	e120	---	e220	136	87	30	32	12	37
31	37	---	e87	e100	---	e210	---	80	---	29	10	---
TOTAL	1050	2780	5929	2036	1795	4433	9874	5049	1255	749	557	505.5
MEAN	33.9	92.7	191	65.7	64.1	143	329	163	41.8	24.2	18.0	16.8
MAX	70	339	565	120	105	290	642	363	72	45	33	44
MIN	15	42	75	47	44	51	136	80	25	14	10	8.7
CFSM	.41	1.13	2.34	.80	.78	1.75	4.02	1.99	.51	.30	.22	.21
IN.	.48	1.26	2.69	.92	.82	2.01	4.48	2.29	.57	.34	.25	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1994, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	94.4	154	134	85.1	87.5	182	275	166	73.1	33.9	46.4	41.1
MAX	168	214	226	137	182	278	429	309	154	66.7	95.4	91.3
(WY)	1992	1992	1991	1991	1990	1990	1993	1989	1989	1988	1990	1991
MIN	31.6	92.2	56.9	35.8	34.6	134	158	74.1	31.1	11.6	18.0	13.8
(WY)	1993	1993	1990	1989	1993	1992	1991	1993	1991	1993	1994	1993

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1988 - 1994	
ANNUAL TOTAL	35376.7		36012.5		114	
ANNUAL MEAN	96.9		98.7		130	
HIGHEST ANNUAL MEAN					87.5	
LOWEST ANNUAL MEAN					1310	
HIGHEST DAILY MEAN	1310		642		Mar 31 1993	
LOWEST DAILY MEAN	7.1		8.7		Aug 9 1991	
ANNUAL SEVEN-DAY MINIMUM	7.6		10		Jul 20 1993	
INSTANTANEOUS PEAK FLOW			a 669		c 3700	
INSTANTANEOUS PEAK STAGE			8.01		c 14.50	
INSTANTANEOUS LOW FLOW			b 8.3		c 1.5	
ANNUAL RUNOFF (CFSM)	1.18		1.20		1.40	
ANNUAL RUNOFF (INCHES)	16.07		16.36		18.97	
10 PERCENT EXCEEDS	244		229		250	
50 PERCENT EXCEEDS	44		57		70	
90 PERCENT EXCEEDS	10		15		20	

a Also occurred on Apr. 7.

b Also occurred on Sept. 23.

c At site 0.9 mi upstream (station 01089000)

e Estimated

a From rating curve extended above 48,000 ft³/s as explained above.
e Estimated

MERRIMACK RIVER BASIN

53

01093800 STONY BROOK TRIBUTARY NEAR TEMPLE, N.H.

LOCATION.--Lat 42°51'36", long 71°50'00", Hillsborough County, Hydrologic Unit 01070002, on left bank 150 ft downstream from highway bridge, 2.9 mi north of Temple, and 5.5 mi upstream from mouth.

DRAINAGE AREA.--3.60 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 920 ft above sea level, from topographic map.

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	19	10	e4.3	e6.4	e4.5	20	13	4.7	1.0	.68	.72
2	1.4	12	8.2	e4.0	e5.8	e4.4	21	13	4.2	.85	.53	.63
3	1.9	7.5	6.9	e3.7	e5.6	e4.3	29	10	4.1	.69	.44	.63
4	1.7	5.8	6.8	e3.5	e5.1	e4.4	46	8.5	3.7	.58	.43	.63
5	1.5	4.7	37	e3.4	e4.9	e4.5	32	8.1	3.4	.42	.68	.63
6	1.3	4.7	24	e3.3	e4.3	e4.4	40	9.0	3.2	.46	.79	.63
7	1.2	4.1	14	e3.3	e4.0	e4.5	52	10	3.9	.43	.50	.63
8	1.2	3.4	11	e3.2	e3.8	e5.4	29	32	3.2	.85	.36	.63
9	1.1	3.0	8.8	e3.2	e3.8	e6.0	22	19	2.6	2.0	.30	.68
10	1.2	2.8	7.9	e3.1	e3.6	e12	25	13	2.3	2.4	.28	.83
11	1.2	2.6	15	e3.1	e3.4	e16	23	11	2.2	.94	.28	.63
12	2.2	2.5	12	e3.0	e3.2	e13	18	11	2.2	.68	.30	.63
13	11	2.4	9.4	e3.2	e2.9	e11	30	11	2.1	.53	.46	.53
14	4.6	2.4	9.2	e3.2	e3.0	11	33	9.6	1.7	.53	.71	.59
15	3.1	2.4	13	e3.0	e3.0	12	22	8.5	1.8	.56	.55	.63
16	2.4	2.4	15	e2.9	e2.8	15	23	23	1.5	.67	.44	.63
17	2.1	2.7	11	e2.8	e2.7	14	20	27	1.3	.63	.37	.63
18	1.7	15	9.0	e4.5	e2.5	16	16	17	1.2	.63	7.4	1.0
19	1.7	8.6	8.3	e4.7	e2.5	10	14	14	1.3	.59	3.7	.64
20	1.5	13	7.4	e4.1	e4.0	8.8	12	12	1.0	.47	2.0	.63
21	3.3	7.9	58	e3.8	e6.0	8.5	11	11	.96	.75	2.7	.53
22	5.6	5.7	31	e3.5	e8.6	13	10	9.3	.98	.50	6.3	.53
23	3.7	4.8	17	e3.4	e8.0	18	9.1	8.2	.82	.98	4.2	19
24	2.7	4.4	e13	e3.3	e7.2	24	8.6	10	.80	1.1	2.2	16
25	2.3	3.9	e8.4	e3.1	e6.6	25	8.3	8.6	2.2	.61	1.5	7.4
26	1.9	3.4	e7.6	e3.0	e6.0	22	9.8	8.6	2.1	.57	1.1	4.6
27	1.9	3.3	e6.4	e3.0	e5.3	19	10	12	1.3	.51	.90	9.4
28	2.1	42	e5.8	e4.8	e4.8	24	11	8.3	1.2	2.8	.88	14
29	1.8	36	e5.4	e9.0	---	23	9.2	6.7	1.4	2.8	.95	7.0
30	2.1	15	e5.0	e8.6	---	18	8.1	6.0	1.3	1.3	.81	4.3
31	5.6	---	e4.6	e6.7	---	17	---	5.0	---	1.0	.73	---
TOTAL	78.4	247.4	406.1	121.7	129.8	392.7	622.1	373.4	64.66	28.83	43.47	95.94
MEAN	2.53	8.25	13.1	3.93	4.64	12.7	20.7	12.0	2.16	.93	1.40	3.20
MAX	11	42	58	9.0	8.6	25	52	32	4.7	2.8	7.4	19
MIN	1.1	2.4	4.6	2.8	2.5	4.3	8.1	5.0	.80	.42	.28	.53
CFSM	.70	2.29	3.64	1.09	1.29	3.52	5.76	3.35	.60	.26	.39	.89
IN.	.81	2.56	4.20	1.26	1.34	4.06	6.43	3.86	.67	.30	.45	.99

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1994, BY WATER YEAR (WY)

	3.81	7.37	8.03	5.74	6.76	14.0	19.5	9.44	4.90	1.87	1.58	1.60
MEAN												
MAX	13.4	17.5	19.0	16.4	19.0	30.9	38.9	28.6	17.1	7.26	6.51	8.50
(WY)	1980	1984	1974	1978	1970	1983	1987	1984	1968	1968	1986	1975
MIN	.34	.65	1.34	1.09	1.59	3.65	4.10	2.64	.66	.28	.18	.11
(WY)	1965	1979	1979	1977	1977	1989	1985	1985	1964	1966	1966	1964

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1963 - 1994

ANNUAL TOTAL	2451.32	2604.50	
ANNUAL MEAN	6.72	7.14	
HIGHEST ANNUAL MEAN			7.00
LOWEST ANNUAL MEAN			10.9
HIGHEST DAILY MEAN	107	Mar 30	1.45
LOWEST DAILY MEAN	.14	Jul 20	306
ANNUAL SEVEN-DAY MINIMUM	.15	Jul 20	.05
INSTANTANEOUS PEAK FLOW			.07
INSTANTANEOUS PEAK STAGE			a 508
INSTANTANEOUS LOW FLOW			7.81
ANNUAL RUNOFF (CFSM)	1.87		c .00
ANNUAL RUNOFF (INCHES)	25.33		1.94
10 PERCENT EXCEEDS	15		26.41
50 PERCENT EXCEEDS	3.0		17
90 PERCENT EXCEEDS	.35		3.4
			.45

a From rating curve extended above 250 ft³/s.

b Also on Aug. 10-13.

c No flow for part of Sept. 26, 1976.

e Estimated

MERRIMACK RIVER BASIN

0109650657 LYLE REED BROOK AT NASHUA, N.H.

LOCATION.--Lat 42°43'25", long 71°31'54", Hillsborough County, Hydrologic Unit 01070004, on left bank upstream from dam approximately 1,000 ft from the Nashua River on State Highway 111 west.

DRAINAGE AREA.--5.01 mi².

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 170 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow is affected by treatment plant upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	3.7	2.9	2.5	2.6	2.3	11	4.4	2.9	1.7	1.2	1.1
2	.89	2.4	2.6	2.6	2.4	2.3	11	4.8	2.7	1.4	1.1	1.0
3	.98	2.1	2.4	2.6	2.3	2.3	10	4.1	2.6	1.3	1.1	1.0
4	.94	1.8	2.3	2.7	2.2	2.4	11	3.8	2.4	1.2	1.0	.98
5	.86	1.8	5.9	2.7	2.1	2.3	9.7	4.2	2.3	1.2	1.0	.99
6	.81	1.7	7.3	2.5	2.1	2.3	8.9	4.9	2.3	1.2	1.0	1.0
7	.81	1.6	5.5	2.5	2.1	2.3	9.2	5.5	2.3	1.3	.95	.94
8	.79	1.4	4.3	2.5	2.0	3.6	8.3	10	2.1	1.3	.91	.91
9	.78	1.4	3.6	2.5	2.0	3.6	7.5	8.1	2.0	1.3	.86	.93
10	.77	1.5	3.3	2.4	1.9	6.8	7.7	6.1	1.9	1.2	.83	.91
11	.72	1.2	4.5	2.3	1.8	8.0	7.3	5.3	1.8	1.2	.83	.86
12	.86	1.2	4.6	2.3	1.8	6.8	6.5	5.0	1.9	1.1	.82	.84
13	1.8	1.3	3.9	2.4	1.9	5.8	7.2	4.5	1.9	1.1	.85	.85
14	1.4	1.2	3.7	2.4	1.9	6.0	11	4.1	1.9	1.1	.88	.87
15	1.2	1.2	3.9	2.2	1.8	6.3	7.8	4.0	1.8	1.1	.83	.83
16	1.0	1.1	3.8	2.0	1.8	7.4	7.9	8.8	1.8	1.1	.81	.81
17	.99	1.3	3.4	2.0	1.7	7.9	7.9	9.6	1.7	1.0	.81	1.0
18	1.0	3.2	3.1	3.3	1.8	6.3	6.6	7.1	1.6	1.0	3.0	1.5
19	.92	2.4	3.1	3.5	1.9	5.7	6.0	6.0	1.5	1.0	2.7	1.2
20	.89	2.4	3.0	2.9	2.5	5.5	5.7	5.3	1.4	.96	1.6	1.0
21	1.1	2.1	5.9	2.5	4.5	5.8	5.3	4.7	1.5	.94	1.7	.93
22	1.3	2.0	7.6	2.4	4.7	12	5.1	4.4	1.6	.91	3.5	.87
23	1.3	1.8	6.0	2.3	3.8	13	4.9	4.4	1.4	1.4	2.9	3.4
24	1.1	1.7	4.4	2.2	3.4	14	4.7	4.7	1.4	1.5	2.0	4.7
25	1.0	1.6	3.9	2.3	3.1	13	4.5	4.2	1.7	1.2	1.6	3.6
26	.86	1.5	3.6	2.2	2.8	12	4.9	4.4	1.6	1.1	1.4	2.6
27	.93	1.4	2.9	2.0	2.6	12	5.0	4.9	1.4	1.0	1.3	2.9
28	.94	3.9	2.5	2.4	2.5	13	4.8	4.0	1.4	1.4	1.3	4.5
29	1.2	6.4	2.4	4.2	---	12	4.3	3.5	1.9	1.6	1.2	3.1
30	1.1	4.1	2.5	3.7	---	12	4.1	3.2	2.4	1.6	1.1	2.4
31	2.5	---	2.5	2.9	---	11	---	3.0	---	1.5	1.1	---
TOTAL	32.67	62.4	121.3	79.9	68.0	225.7	215.8	161.0	57.1	37.91	42.18	48.52
MEAN	1.05	2.08	3.91	2.58	2.43	7.28	7.19	5.19	1.90	1.22	1.36	1.62
MAX	2.5	6.4	7.6	4.2	4.7	14	11	10	2.9	1.7	3.5	4.7
MIN	.72	1.1	2.3	2.0	1.7	2.3	4.1	3.0	1.4	.91	.81	.81
CFSM	.21	.42	.78	.51	.48	1.45	1.44	1.04	.38	.24	.27	.32
IN.	.24	.46	.90	.59	.50	1.68	1.60	1.20	.42	.28	.31	.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	1.04	2.07	3.12	2.74	2.17	5.81	8.49	4.10	1.70	.98	.99	1.18
MAX	1.05	2.08	3.91	2.89	2.43	7.28	9.79	5.19	1.90	1.22	1.36	1.62
(WY)	1994	1994	1994	1994	1994	1994	1993	1994	1994	1994	1994	1994
MIN	1.02	2.06	2.33	2.58	1.92	4.34	7.19	3.01	1.49	.74	.61	.75
(WY)	1993	1993	1993	1994	1993	1993	1994	1993	1993	1993	1993	1993

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1993 - 1994

ANNUAL TOTAL	990.38	1152.48	
ANNUAL MEAN	2.71	3.16	2.87
HIGHEST ANNUAL MEAN			3.16
LOWEST ANNUAL MEAN			2.57
HIGHEST DAILY MEAN	22 Mar 30	14 Mar 24	22 Mar 30
LOWEST DAILY MEAN	.48 Sep 1	.72 Oct 11	.48 Sep 1
ANNUAL SEVEN-DAY MINIMUM	.51 Aug 28	.79 Oct 5	.51 Aug 28
INSTANTANEOUS PEAK FLOW		16 Mar 22	25 Mar 29
INSTANTANEOUS PEAK STAGE		2.16 Mar 22	2.44 Mar 29
INSTANTANEOUS LOW FLOW		.72 Oct 11	.46 Aug 31
ANNUAL RUNOFF (CFSM)	.54	.63	.57
ANNUAL RUNOFF (INCHES)	7.35	8.56	7.77
10 PERCENT EXCEEDS	6.1	6.9	6.3
50 PERCENT EXCEEDS	1.8	2.3	1.9
90 PERCENT EXCEEDS	.59	.94	.73

MERRIMACK RIVER BASIN

55

010965852 BEAVER BROOK AT NORTH PELHAM, N.H.

LOCATION.--Lat 42°46'59", long 71°12'14", Rockingham County, Hydrologic Unit 01070002, on right bank 10 ft downstream from highway bridge at the Wilton-Pelham town line.

DRAINAGE AREA.--47.8 mi².

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 170 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e10	58	94	e78	e105	e84	e240	78	39	9.4	11	6.0
2	e7.8	56	76	e74	e96	e82	e220	90	47	9.2	8.8	5.8
3	e11	43	68	e72	e91	e82	e195	85	40	9.0	8.3	5.5
4	e12	38	61	e71	e86	e86	e220	72	34	9.0	7.9	5.5
5	e6.0	34	133	e70	e82	e84	e175	77	28	9.0	7.7	5.5
6	e6.1	33	240	e70	e80	e82	e155	86	26	8.3	8.2	6.2
7	e5.2	28	198	e69	e79	e80	e170	84	24	8.5	6.3	8.2
8	e4.6	24	164	e68	e78	e120	e150	165	22	8.6	5.7	7.6
9	e4.8	22	128	e67	e78	e145	e120	232	19	8.4	5.5	7.2
10	e5.8	20	107	e66	e74	e215	e115	183	17	8.3	5.4	7.2
11	e5.6	19	129	e64	e71	e290	e110	132	14	8.3	5.2	7.2
12	e6.8	18	143	e63	e69	e255	e92	106	14	6.9	e5.2	6.7
13	29	18	123	e65	e70	e230	e160	88	19	6.0	e5.4	6.4
14	21	17	122	e64	e72	e215	e260	72	17	6.0	e5.6	8.5
15	14	18	126	e61	e70	e235	e200	65	18	6.0	e5.2	6.6
16	12	18	121	e55	e67	e290	e170	105	16	5.9	e5.1	6.1
17	11	19	113	e54	e64	e350	e150	187	13	5.9	e5.0	6.6
18	8.7	78	99	e89	e64	e320	e130	192	13	5.8	e17	14
19	7.2	68	95	e94	e65	e270	e115	157	13	5.9	e16	19
20	8.1	70	92	e83	e76	e265	e110	128	9.1	5.9	e13	12
21	11	61	188	e76	e115	e280	e94	104	8.7	5.8	e10	10
22	24	51	428	e71	e155	e560	e86	87	9.1	5.4	e21	9.0
23	19	45	353	e68	e145	e660	e79	79	7.8	6.9	e17	45
24	15	42	266	e66	e130	e720	e76	69	7.3	8.6	e12	122
25	13	37	197	e65	e110	e540	e74	58	7.3	8.6	e9.3	87
26	12	32	e150	e64	e100	e450	76	57	9.3	7.9	e8.7	58
27	13	29	e140	e62	e95	e390	80	68	9.8	7.5	e8.2	44
28	11	53	e120	e79	e90	e410	89	63	9.8	9.4	e7.6	63
29	11	156	e105	e150	---	e350	81	53	9.4	12	e7.0	53
30	11	115	e92	e135	---	e320	75	47	9.4	15	e6.8	42
31	31	---	e84	e120	---	e265	---	41	---	14	6.4	---
TOTAL	367.7	1320	4555	2353	2477	8725	4067	3110	530.0	251.4	271.5	690.8
MEAN	11.9	44.0	147	75.9	88.5	281	136	100	17.7	8.11	8.76	23.0
MAX	31	156	428	150	155	720	260	232	47	15	21	122
MIN	4.6	17	61	54	64	80	74	41	7.3	5.4	5.0	5.5
CFSM	.25	.92	3.07	1.59	1.85	5.89	2.84	2.10	.37	.17	.18	.48
IN.	.29	1.03	3.54	1.83	1.93	6.79	3.17	2.42	.41	.20	.21	.54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1994, BY WATER YEAR (WY)

	MEAN	46.2	86.9	103	64.9	76.4	144	181	97.6	42.4	20.2	31.4	28.8
MAX	102	142	228	87.2	126	281	406	145	81.9	48.4	80.1	86.5	
(WY)	1991	1992	1987	1992	1990	1994	1987	1989	1989	1988	1991	1991	
MIN	11.9	30.6	27.8	27.5	41.4	56.5	83.7	61.4	17.7	3.53	2.24	5.47	
(WY)	1994	1988	1990	1989	1987	1989	1991	1992	1994	1993	1993	1993	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1987 - 1994

ANNUAL TOTAL	28542.2	28718.4	
ANNUAL MEAN	78.2	78.7	76.8
HIGHEST ANNUAL MEAN			94.0
LOWEST ANNUAL MEAN			65.9
HIGHEST DAILY MEAN	1270	Mar 31	1500
LOWEST DAILY MEAN	1.7	Aug 31	1.2
ANNUAL SEVEN-DAY MINIMUM	1.8	Aug 28	1.4
INSTANTANEOUS PEAK FLOW			1850
INSTANTANEOUS PEAK STAGE			12.88
INSTANTANEOUS LOW FLOW			1.2
ANNUAL RUNOFF (CFSM)	1.64	1.65	1.61
ANNUAL RUNOFF (INCHES)	22.21	22.35	21.84
10 PERCENT EXCEEDS	180	190	160
50 PERCENT EXCEEDS	43	61	52
90 PERCENT EXCEEDS	2.1	6.4	9.2

a About Mar. 24.

b From crest-stage gage.

e Estimated

MERRIMACK RIVER BASIN

RESERVOIRS IN MERRIMACK RIVER BASIN

- 01077500 **NEWFOUND LAKE** on Newfound River, 1.7 mi north of Bristol, N.H., used for recreation and for storage of water for power, has usable capacity of 1.69 billion ft³. Records provided by New Hampshire Water Resources Board.
- 01078500 **FRANKLIN FALLS RESERVOIR** on Pemigewasset River, 2 mi north of Franklin, N.H., completed in 1942, used for flood control, has usable capacity of 6.7 billion ft³. Records provided by U.S. Army Corps of Engineers.
- 01080000 **LAKE WINNIPESAUKEE** on Winnepesaukee River (see station 01080000).
- 01082500 **EDWARD MACDOWELL RESERVOIR** on Nubanusit Brook, at West Peterborough, N.H., 2 mi northwest of Peterborough, completed in 1950, used for flood control, has usable capacity of 558 million ft³. Records provided by U.S. Army Corps of Engineers.
- 01086500 **BLACKWATER RESERVOIR** on Blackwater River, at Swett's Mills, 1 mi south of Webster, N.H., completed in 1941, used for flood control, has usable capacity of 2.004 billion ft³. Records provided by U.S. Army Corps of Engineers.
- 01090700 **EVERETT LAKE** on Piscataquog River, 1.3 mi southeast of East Weare, N.H., completed in 1962, used for flood control and recreation, has usable capacity of 3.768 billion ft³. Records provided by U.S. Army Corps of Engineers.
- Hopkinton and Everett Lakes, connected by a canal, are operated as a unit above elevation 400.00 ft. Diversion from Hopkinton Lake to Everett Lake in March 1968, April 1969, March 1977, March 1979, May and June 1984, and April 1987.

MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

	Newfound Lake	Franklin Falls Reservoir	Edward MacDowell Reservoir
Sept. 30, 1993.....	1259	155.0	10.8
Oct. 31.....	1033	117.6	8.6
Nov. 30.....	1158	361.1	18.3
Dec. 31.....	1042	115.4	19.9
Jan. 31, 1994.....	974	117.6	40.5
Feb. 28.....	969	111.1	25.8
Mar. 31.....	1002	141.6	19.9
Apr. 30.....	1555	277.0	12.2
May 31.....	1514	135.0	11.5
June 30.....	1470	119.8	7.3
July 31.....	1394	117.6	0
Aug. 31.....	1319	115.4	0
Sept. 30.....	1344	91.5	12.2

	Blackwater Reservoir	Everett Lake
Sept. 30, 1993.....	0.7	45.3
Oct. 31.....	0.4	57.7
Nov. 30.....	6.3	51.4
Dec. 31.....	0.9	50.4
Jan. 31, 1994.....	1.0	50.4
Feb. 28.....	0.8	82.3
Mar. 31.....	11.8	73.3
Apr. 30.....	52.1	50.4
May 31.....	2.5	50.4
June 30.....	0.6	48.1
July 31.....	0.4	47.5
Aug. 31.....	0.1	45.8
Sept. 30.....	1.8	49.2

CONNECTICUT RIVER BASIN

57

01129200 CONNECTICUT RIVER BELOW INDIAN STREAM, NEAR PITTSBURG, N.H.

LOCATION---Lat 45°02'25", long 71°26'37", Coos County, Hydrologic Unit 01080101, on right bank 1,200 ft downstream from Indian Stream, 2.5 mi west of Pittsburg, and at mile 376.5.

DRAINAGE AREA---254 mi².

PERIOD OF RECORD---Discharge: October 1956 to current year.

REVISED RECORDS---WDR MA-NH-RI-VT-73-1: 1958, 1960(M), 1969(M).

GAGE---Water-stage recorder. Elevation of gage is 1,150 ft above sea level, from topographic map.

REMARKS---No estimated daily discharges. Record good. Flow regulated by First Connecticut and Second Connecticut Lakes and Lake Francis 3.7 mi upstream (Reservoirs in Connecticut River basin).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	515	618	572	723	590	441	124	1190	750	568	392	448
2	502	616	572	715	582	435	136	1460	736	576	370	445
3	929	599	629	712	567	433	124	1160	705	786	364	438
4	796	602	695	708	498	430	174	1130	662	607	363	432
5	1010	640	699	702	444	430	218	1100	624	532	534	430
6	712	1050	694	700	437	430	313	766	497	527	534	433
7	615	901	685	694	432	425	782	639	918	538	416	439
8	580	741	679	688	430	427	1040	650	824	561	378	458
9	584	689	667	686	425	426	809	633	686	552	364	487
10	699	664	719	681	425	430	630	532	658	576	364	470
11	622	640	915	677	420	430	823	458	606	596	353	661
12	579	632	899	674	417	430	757	479	585	600	349	725
13	669	620	863	668	415	425	779	609	574	574	357	661
14	608	628	874	668	415	425	1240	528	628	560	508	613
15	563	719	869	661	411	307	1430	490	711	555	493	556
16	540	843	848	659	410	228	2140	533	769	560	412	568
17	525	741	794	653	410	232	2150	1050	689	552	376	562
18	527	737	789	649	410	237	875	1170	635	445	385	557
19	516	706	800	648	409	231	608	1070	953	353	413	539
20	499	692	792	642	412	227	805	971	796	347	380	526
21	620	670	793	639	429	189	589	873	695	345	480	517
22	944	645	834	635	472	123	456	852	784	407	633	510
23	642	635	800	631	487	126	391	766	649	424	467	507
24	648	623	755	611	482	136	553	642	518	401	409	544
25	658	579	768	552	471	152	822	569	497	374	431	556
26	685	568	766	523	463	179	1060	572	489	366	469	553
27	658	579	738	520	455	179	1360	1010	479	415	471	567
28	654	599	737	528	446	161	2090	825	491	414	463	577
29	654	664	733	552	---	136	1180	733	528	528	469	584
30	632	625	728	561	---	130	907	732	500	420	453	623
31	618	---	728	581	---	125	---	743	---	413	445	---
TOTAL	20003	20265	23434	19941	12664	9115	25365	24935	19636	15472	13295	15986
MEAN	645	675	756	643	452	294	845	804	655	499	429	533
MAX	1010	1050	915	723	590	441	2150	1460	953	786	633	725
MIN	499	568	572	520	409	123	124	458	479	345	349	430

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1994, BY WATER YEAR (WY)

	MEAN	568	571	751	792	777	549	614	483	379	390	440	462
MAX	1342	1056	1485	1175	1325	1088	1030	1691	863	783	1043	1095	
(WY)	1978	1978	1960	1960	1974	1979	1974	1974	1984	1974	1976	1963	
MIN	111	181	384	462	376	209	347	162	80.9	55.7	64.7	111	
(WY)	1969	1967	1979	1979	1980	1962	1965	1988	1962	1965	1975	1968	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1957 - 1994

ANNUAL TOTAL	217192	220111	
ANNUAL MEAN	595	603	564
HIGHEST ANNUAL MEAN			789
LOWEST ANNUAL MEAN			416
HIGHEST DAILY MEAN	1720	2150	3660
LOWEST DAILY MEAN	259	123	30
ANNUAL SEVEN-DAY MINIMUM	268	134	33
INSTANTANEOUS PEAK FLOW		2760	a 4080
INSTANTANEOUS PEAK STAGE		5.84	7.07
10 PERCENT EXCEEDS	798	845	1030
50 PERCENT EXCEEDS	584	579	520
90 PERCENT EXCEEDS	374	375	145

a From rating curve extended above 2,600 ft³/s.

CONNECTICUT RIVER BASIN

01129440 MOHAWK RIVER NEAR COLEBROOK, N.H.

LOCATION.--Lat 44°52'28", Long 71°24'38", Coos County, Hydrologic Unit 01080101, on right bank of the intersection of State Highway 26 and Bungy Road, 5 mi east of Colebrook.

DRAINAGE AREA.--36.7 mi².

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,220 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	46	56	e36	e25	e21	e27	278	79	154	21	20
2	38	45	e53	e34	e24	e21	e28	225	62	86	20	19
3	101	39	e51	e30	e23	e21	e29	160	62	135	21	17
4	90	43	e50	e25	e23	e24	e35	150	54	59	20	15
5	97	76	e53	e28	e23	e22	e50	143	47	46	53	18
6	60	179	55	e25	e23	e21	183	126	45	43	33	35
7	50	91	51	e24	e22	e20	437	122	200	41	22	25
8	47	65	e47	e25	e22	e22	243	241	93	50	20	36
9	57	56	e40	e31	e21	e20	140	170	63	44	19	41
10	89	53	57	e27	e22	e21	162	136	52	299	26	35
11	56	49	187	e23	e21	e23	205	111	45	91	20	79
12	58	49	97	e23	e21	e20	198	106	47	56	18	60
13	76	47	e78	e22	e20	e19	288	135	56	42	22	114
14	54	49	e68	e25	e21	e19	467	109	67	36	72	73
15	46	90	e64	e24	e20	e20	621	85	52	43	54	44
16	44	86	e66	e21	e21	e35	1460	151	40	64	34	36
17	44	64	e52	e21	e20	e24	598	187	35	43	24	40
18	44	67	e48	e25	e19	e22	276	118	31	35	56	32
19	40	58	e46	e23	e19	e21	275	94	109	48	46	26
20	37	77	e44	e21	e22	e20	281	78	48	38	28	24
21	80	62	e56	e21	e45	e20	195	68	39	29	125	22
22	100	55	e90	e20	e32	e20	152	63	167	40	82	20
23	64	55	e53	e20	e27	e20	139	60	57	34	43	20
24	57	52	e48	e20	e25	e20	222	56	43	27	30	31
25	53	39	e46	e19	e23	e34	270	70	39	54	25	25
26	47	76	e47	e19	e22	e28	363	156	39	33	23	23
27	44	73	e44	e18	e21	e27	634	202	37	25	22	22
28	45	102	e43	e30	e21	e26	477	102	68	32	20	21
29	45	160	e42	e50	---	e28	234	79	56	39	17	25
30	41	74	e43	e41	---	e27	201	80	44	26	15	45
31	41	---	e40	e30	---	e26	---	69	---	24	16	---
TOTAL	1787	2077	1815	801	648	712	8890	3930	1876	1816	1047	1043
MEAN	57.6	69.2	58.5	25.8	23.1	23.0	296	127	62.5	58.6	33.8	34.8
MAX	101	179	187	50	45	35	1460	278	200	299	125	114
MIN	37	39	40	18	19	19	27	56	31	24	15	15
CFSM	1.57	1.89	1.60	.70	.63	.63	8.07	3.45	1.70	1.60	.92	.95
IN.	1.81	2.11	1.84	.81	.66	.72	9.01	3.98	1.90	1.84	1.06	1.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1994, BY WATER YEAR (WY)

	MEAN	64.2	76.5	57.1	36.9	25.3	83.4	212	91.7	52.5	32.2	39.5	35.0
MAX	122	110	127	59.5	45.3	156	296	177	73.1	58.6	93.3	53.2	
(WY)	1991	1989	1991	1992	1990	1990	1994	1989	1990	1994	1988	1993	
MIN	32.1	57.0	25.9	25.8	13.4	23.0	119	66.7	26.7	13.0	13.1	22.5	
(WY)	1993	1988	1990	1994	1993	1994	1990	1988	1992	1991	1987	1990	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1987 - 1994

ANNUAL TOTAL	23288	26442	
ANNUAL MEAN	63.8	72.4	
HIGHEST ANNUAL MEAN			67.3
LOWEST ANNUAL MEAN			81.2
HIGHEST DAILY MEAN	899	Apr 17	1991
LOWEST DAILY MEAN	11	Feb 28	1993
ANNUAL SEVEN-DAY MINIMUM	11	Feb 28	1993
INSTANTANEOUS PEAK FLOW		1460	Apr 16
INSTANTANEOUS PEAK STAGE		a 15	Aug 30
INSTANTANEOUS LOW FLOW		17	Aug 29
ANNUAL RUNOFF (CFSM)	1.74	7.92	Apr 16
ANNUAL RUNOFF (INCHES)	23.61	c 15	Aug 30
10 PERCENT EXCEEDS	121	155	126
50 PERCENT EXCEEDS	44	44	40
90 PERCENT EXCEEDS	13	20	17

a Also on Sept. 4.

b From rating curve extended above 600 ft³/s.

c Also on Aug. 30, 31, Sept. 3-5.

e Estimated

CONNECTICUT RIVER BASIN

59

01129500 CONNECTICUT RIVER AT NORTH STRATFORD, N.H.

LOCATION.--Lat 44°44'56", long 71°37'50", Coos County, Hydrologic Unit 01080101, on left bank at North Stratford, 400 ft downstream from Nulhegan River, and at mile 344.5.

DRAINAGE AREA.--799 mi².

PERIOD OF RECORD.--Discharge: August 1930 to current year.

Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 781: 1934(M). WSP 891: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 880.17 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes and Lake Francis (Reservoirs in Connecticut River basin) 36 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1010	1160	1230	e1090	e1080	e805	e860	4810	1980	1810	828	741
2	899	1200	1170	e1070	e1030	e830	e840	5890	1790	1640	736	770
3	1750	1110	1210	e1090	e900	e805	e1320	4360	1660	2740	714	710
4	1980	1110	1300	e1090	e920	e805	e1870	3590	1500	1800	663	671
5	2470	1370	1350	e1020	e850	e830	e2490	3450	1320	1270	897	657
6	1750	3300	1360	e1040	e825	e800	5420	2890	1200	1120	1350	760
7	1350	2810	1280	e930	e805	e850	6140	2540	3040	1110	918	791
8	1190	1910	1230	e950	e845	e800	5560	2790	3020	1120	741	869
9	1160	1580	1130	e925	e800	e830	4180	2910	1960	1050	654	910
10	1680	1430	1200	e945	e820	e805	3690	2420	1560	2040	716	893
11	1490	1330	2820	e920	e775	e1200	4570	2010	1320	1440	645	1100
12	1260	1310	2520	e960	e750	e1060	4470	1970	1240	1180	576	1480
13	1600	1290	1830	e985	e800	e930	4860	2350	1320	1000	553	1440
14	1460	1250	1840	e1040	e795	e770	7200	1990	1440	907	850	1530
15	1230	1630	1820	e1020	e730	e700	8980	1650	1530	891	1430	1210
16	1120	2190	1800	e995	e720	e910	14300	1900	1350	1030	1000	1040
17	1050	1800	1450	e970	e730	e870	16900	3580	1210	960	797	1050
18	1070	1700	1370	e970	e705	e820	9150	3290	1060	869	822	1020
19	1060	1590	1410	e980	e710	e750	4900	2610	1520	825	1140	937
20	972	1550	1370	e1050	e810	e650	5690	2210	1620	756	904	873
21	1250	1480	1400	e965	e1020	e650	4560	1890	1200	649	1190	828
22	3300	1350	1800	e1000	e1190	e660	3350	1720	1890	940	2510	801
23	2000	1320	1440	e965	e1270	e730	2690	1610	1510	1080	1520	788
24	1640	1260	1070	e890	e1080	e830	3530	1440	1080	913	1090	875
25	1430	1050	e1300	e935	e995	e1110	5110	1390	960	934	892	892
26	1330	985	e1180	e880	e880	e1140	7190	1840	942	786	870	851
27	1250	1070	e1020	e865	e875	e950	9560	4450	881	1060	843	824
28	1240	1300	e975	e865	e830	e800	11700	3120	1210	973	827	864
29	1240	2310	e1020	e1100	---	e890	7500	2240	1370	1510	790	961
30	1170	1680	e1080	e1420	---	e825	4420	2010	1070	1100	763	1110
31	1120	---	e1140	e1290	---	e805	---	1910	---	922	713	---
TOTAL	44521	46425	44115	31215	24540	26210	173000	82830	44753	36425	28942	28246
MEAN	1436	1547	1423	1007	876	845	5767	2672	1492	1175	934	942
MAX	3300	3300	2820	1420	1270	1200	16900	5890	3040	2740	2510	1530
MIN	899	985	975	865	705	650	840	1390	881	649	553	657

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1994, BY WATER YEAR (WY)

	MEAN	1304	1621	1537	1316	1207	1618	3923	2558	1267	857	848	935
MAX	3445	3119	3095	2398	3295	6254	7348	6018	3724	2074	2475	3203	
(WY)	1978	1960	1974	1973	1981	1936	1934	1972	1943	1973	1976	1954	
MIN	355	583	643	549	350	271	2104	847	472	292	220	357	
(WY)	1949	1948	1948	1948	1940	1940	1965	1977	1962	1955	1940	1949	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1930 - 1994

ANNUAL TOTAL	541188	611222											
ANNUAL MEAN	1483	1675											
HIGHEST ANNUAL MEAN										1582			
LOWEST ANNUAL MEAN										2246		1974	
HIGHEST DAILY MEAN	10600	Apr 17	16900	Apr 17						1141		1965	
LOWEST DAILY MEAN	379	Jul 20	553	Aug 13						108		Sep 29 1960	
ANNUAL SEVEN-DAY MINIMUM	422	Jul 16	676	Aug 8						128		Aug 16 1975	
INSTANTANEOUS PEAK FLOW			a 18500	Apr 17						a 28700		Jun 16 1943	
INSTANTANEOUS PEAK STAGE			11.69	Apr 17						bc 20.60		Mar 6 1979	
INSTANTANEOUS LOW FLOW			549	Aug 13									
10 PERCENT EXCEEDS	2480		3030							3020			
50 PERCENT EXCEEDS	1170		1120							1120			
90 PERCENT EXCEEDS	642		791							452			

a From rating curve extended above 15,000 ft³/s.

b Ice jam.

c From floodmarks in well.

e Estimated

CONNECTICUT RIVER BASIN

01130000 UPPER AMMONOOSUC RIVER NEAR GROVETON, N.H.

LOCATION.--Lat 44°37'30", long 71°28'10", Coos County, Hydrologic Unit 01080101, on left bank 75 ft upstream from highway bridge, 0.2 mi downstream from Nash Stream, and 2.8 mi northeast of Groveton.

DRAINAGE AREA.--232 mi².

PERIOD OF RECORD.--Discharge: August 1940 to November 1980, October 1982 to current year.

Water-quality records: Water year 1955.

GAGE.--Water-stage recorder. Elevation of gage is 920 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Prior to May 21, 1969, some regulation by pond 9 mi upstream on Nash Stream. Small diversion upstream for municipal supply of Berlin.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e200	e220	e360	e250	e190	e150	e280	e1900	e730	251	e115	e120
2	e160	e280	e300	e260	e170	e145	e295	e2200	e660	247	e98	e125
3	e380	e255	e280	e240	e190	e140	e315	e1700	e600	558	e140	e110
4	e370	e245	e350	e225	e160	e150	e370	e1400	e540	363	125	e105
5	e535	e290	e340	e205	e150	e145	e580	e1300	e480	231	285	e100
6	e400	e760	e430	e170	e145	e160	1980	e1250	e400	194	282	e270
7	e275	e640	e360	e190	e160	e150	3290	e980	e660	177	165	e190
8	e200	e450	e310	e210	e150	e155	e2200	e1050	e640	313	132	e150
9	e180	e370	e260	e200	e155	e145	e1500	e1100	e480	273	118	e125
10	e240	e340	e275	e190	e145	e290	e1400	e960	e360	837	121	e115
11	e180	e310	e500	e185	e130	e250	e2000	e760	e340	578	117	e110
12	e170	e300	e720	e180	e140	e200	e1600	e740	e310	340	107	e110
13	e320	e295	e490	e175	e145	e210	e1800	e860	e330	236	106	e130
14	e250	e290	e460	e170	e125	e250	e3000	e750	e360	e170	131	e370
15	e190	e350	e580	e165	e115	e260	e2800	e640	e390	e145	155	e240
16	e160	e500	e600	e155	e120	e240	4800	e800	e350	e150	137	e190
17	e190	e420	e520	e150	e115	e230	5350	e1300	e310	e140	125	e165
18	e210	e390	e420	e250	e110	e210	e2800	e1200	e280	e125	143	e145
19	e200	e370	e375	e220	e140	e190	e1900	e1000	e310	e135	208	e130
20	e150	e355	e380	e190	e190	e210	e2100	e840	e340	e130	181	e120
21	e220	e340	e370	e175	e250	e200	e1600	e700	e270	e115	267	115
22	e760	e320	e640	e165	e300	e220	e1200	e640	e400	e130	510	109
23	e600	e300	e560	e160	e240	e250	e960	e580	e280	e160	316	108
24	e440	e290	e410	e180	e200	e350	e1200	e540	211	e120	226	165
25	e340	e250	e380	e155	e170	e365	e1800	e520	194	e110	203	207
26	e290	e230	e350	e140	e165	e320	e2250	e800	239	e105	e180	165
27	e265	e250	e340	e130	e150	e260	3620	e1650	225	e130	e165	145
28	e240	e310	e340	e180	e140	e300	4620	e1100	314	e125	e155	141
29	e225	e520	e330	e310	---	e275	e2800	e860	410	e140	e140	168
30	e210	e460	e300	e260	---	e260	e1700	e740	280	e120	e130	228
31	e205	---	e280	e210	---	e270	---	e720	---	e130	e120	---
TOTAL	8755	10700	12610	6045	4560	6950	62110	31580	11693	6978	5403	4671
MEAN	282	357	407	195	163	224	2070	1019	390	225	174	156
MAX	760	760	720	310	300	365	5350	2200	730	837	510	370
MIN	150	220	260	130	110	140	280	520	194	105	98	100
CFSM	1.22	1.54	1.75	.84	.70	.97	8.92	4.39	1.68	.97	.75	.67
IN.	1.40	1.72	2.02	.97	.73	1.11	9.96	5.06	1.87	1.12	.87	.75
(†)	2.17	2.34	2.35	2.95	2.40	2.46	2.37	3.26	2.22	1.62	1.41	1.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1994, BY WATER YEAR (WY)

	MEAN	309	451	349	240	208	448	1431	1150	449	228	204	204
MAX	1057	1128	994	748	851	1374	2416	2695	1115	600	572	1427	
(WY)	1991	1970	1974	1978	1970	1945	1954	1972	1947	1973	1969	1954	
MIN	69.7	118	68.6	53.3	56.6	74.4	637	402	179	94.0	78.4	51.0	
(WY)	1949	1948	1948	1948	1980	1941	1965	1941	1953	1991	1975	1948	

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1940 - 1994
ANNUAL TOTAL	148946	172055	
ANNUAL MEAN	408	471	473
HIGHEST ANNUAL MEAN			696
LOWEST ANNUAL MEAN			297
HIGHEST DAILY MEAN	4020	Apr 18	8350
LOWEST DAILY MEAN	45	Jul 16	32
ANNUAL SEVEN-DAY MINIMUM	55	Jul 15	37
INSTANTANEOUS PEAK FLOW		a 5890	a 24100
INSTANTANEOUS PEAK STAGE		7.60	b 12.01
INSTANTANEOUS LOW FLOW			32
ANNUAL RUNOFF (CFSM)	1.76	2.03	2.04
ANNUAL RUNOFF (INCHES)	23.88	27.59	27.68
10 PERCENT EXCEEDS	911	1020	1110
50 PERCENT EXCEEDS	245	255	240
90 PERCENT EXCEEDS	71	130	94

(†) Diversion in cubic feet per second for municipal supply of Berlin; records furnished by City of Berlin.

a From rating curve extended above 5,600 ft³/s on basis of contracted-opening measurement of peak flow, caused by failure of dam on Nash stream.

b From floodmarks.

e Estimated

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LOCATION.--Lat 44°24'36", long 71°43'16", Coos County, Hydrologic Unit 01080101, on left bank 250 ft upstream from highway bridge, 1,200 ft downstream from dam of Gilman Paper Co., 1.2 mi downstream from Dalton, and at mile 300.1.

PERIOD OF RECORD.--Discharge: March 1927 to current year. Published as "at Waterford, Vt." 1927-35. Records published for both sites January to September 1935. Water-quality records: Water years 1953, 1971, 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is 799.89 ft above sea level. Prior to Sept. 30, 1935, nonrecording gage at bridge 10.5 mi downstream at mean sea level. Jan. 1, 1935, to June 29, 1937, nonrecording gage at bridge 250 ft downstream at present datum. Since June 2, 1961, auxiliary water-stage recorder 10.8 mi downstream from base gage. July 11, 1956, to June 1, 1961, auxiliary nonrecording gage read hourly at same site.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis (Reservoirs in Connecticut River basin), and other reservoirs. These reservoirs have a combined usable capacity of about 8.3 billion ft³.

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2030	1890	2930	e1700	e2200	e1350	e1700	9890	e2800	e1750	e1600	1120
2	1570	2180	1900	e1600	e1750	e1300	e1800	10500	e2600	e2800	e1450	1110
3	2090	2130	2140	e1550	e1650	e1350	e1800	10100	e2400	e2650	2080	1140
4	3200	1880	2440	e1600	e1500	e1300	2780	7950	e2200	e4100	1510	1100
5	3570	2030	2500	e1600	e1600	e1300	4000	6890	e2100	e2700	1480	868
6	3700	3160	2840	e1450	e1400	e1350	5240	6390	e2000	e2100	2570	1350
7	2860	5090	2610	e1500	e1350	e1300	9700	5640	e2000	e1850	2120	1400
8	2320	4040	2380	e1250	e1300	e1400	12000	5490	e4100	e1780	1490	1290
9	1960	3130	2130	e1300	e1400	e1300	11900	6720	e3500	e1750	1240	1470
10	2210	2740	2070	e1250	e1300	e1350	10600	6210	e2800	e1700	1150	1540
11	2390	2440	2920	e1300	e1350	e1300	10200	5290	e2300	e2750	1160	1520
12	2300	2290	5240	e1250	e1250	e2200	11500	4690	e2100	e2200	1100	1970
13	2300	2210	3060	e1350	e1200	e1900	11600	5580	e2000	e1900	1050	2280
14	2790	2130	3230	e1400	e1300	e1600	12800	5090	e2100	e1700	936	2420
15	2640	2330	3780	e1550	e1300	e1500	14800	4340	e2200	e1580	1670	2380
16	2030	3360	3840	e1500	e1150	e1400	17700	3830	e2320	e1500	1920	1890
17	1510	3650	3560	e1450	e1120	e1800	23900	5480	e2150	e1600	1420	1580
18	2040	3240	2800	e1400	e1150	e1700	25700	6520	e2050	e1500	1290	1670
19	1820	3120	2620	e1400	e1100	e1600	19400	5520	e2000	e1400	1640	1520
20	1690	2840	2700	e1450	e1100	e1450	13200	4680	e2500	e1350	1710	1430
21	1620	2970	2620	e1600	e1300	e1300	11000	3850	e2100	e1280	1550	1330
22	3450	2620	3550	e1400	e1700	e1400	8790	3300	e2000	e1250	3310	1270
23	4550	2440	3630	e1500	e2100	e1350	6840	3390	e3300	e1220	3440	1230
24	3250	2330	2010	e1450	e2300	e1500	6260	2850	e2200	e1700	2210	1330
25	2620	2030	1880	e1400	e1900	e1700	7750	2820	e1800	e1500	1650	1590
26	2460	1310	2000	e1500	e1700	e2300	9910	2870	e1580	e1600	1460	1460
27	2140	1610	e1800	e1350	e1450	e2400	13100	5180	e1500	e1380	1340	1420
28	1980	2150	e1400	e1300	e1450	e2000	15600	6360	e1450	e1700	1300	1360
29	1990	3090	e1300	e1250	---	e1700	17200	4660	e1800	e1600	1270	1510
30	2030	3870	e1400	e1800	---	e1900	14400	3890	e2100	e2350	1210	1800
31	1950	---	e1550	e2500	---	e1750	---	3180	---	e1900	1120	---
TOTAL	75060	80300	80830	45900	41370	49050	333170	169150	68050	58140	50446	45348
MEAN	2421	2677	2607	1481	1477	1582	11110	5456	2268	1875	1627	1512
MAX	4550	5090	5240	2500	2300	2400	25700</					

MEAN	2194	2887	2491	2026	1779	2875	7815	5578	2493	1504	1415	1542
MAX	6129	7331	5786	4178	6093	12140	15380	11890	5915	4229	3662	7140
(WY)	1978	1928	1974	1932	1981	1936	1934	1972	1947	1973	1976	1954
MIN	654	1066	860	751	533	482	3712	1951	1030	654	406	685
(WY)	1949	1948	1948	1948	1940	1940	1965	1941	1988	1955	1942	1984

ANNUAL TOTAL	966855		1096814				
ANNUAL MEAN	2649		3005			2888	
HIGHEST ANNUAL MEAN						4005	1928
LOWEST ANNUAL MEAN						2004	1965
HIGHEST DAILY MEAN	16300	Apr 19	25700	Apr 18	46500	Mar 20	1936
LOWEST DAILY MEAN	607	Jul 20	868	Sep 5	115	Oct 3	1937
ANNUAL SEVEN-DAY MINIMUM	725	Jul 15	1100	Aug 30	265	Sep 8	1957
INSTANTANEOUS PEAK FLOW			27500	Apr 18	48300	Mar 20	1936
INSTANTANEOUS PEAK STAGE			20.06	Apr 18	25.60	Mar 20	1936
10 PERCENT EXCEEDS	4740		5540		6050		
50 PERCENT EXCEEDS	1980		1970		1850		
90 PERCENT EXCEEDS	931		1300		810		

e Estimated

CONNECTICUT RIVER BASIN

01131500 CONNECTICUT RIVER NEAR DALTON, N.H.--Continued

(National water quality assessment program station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Water-quality records: Water years 1953, 1971, 1994 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

		DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, (PER- CENT SATUR- ATION) (00300) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)			
DATE	TIME	2530	60	5.7	21.0	19.5	739	6.9	77	21	24	
DATE	TIME	SODIUM AD- SORP- TION RATIO (00931)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (00935)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	SPE- CIFIC CON- DUCT- ANCE LAB AS (US/CM) (90095)	ALKA- LINEITY LAB (MG/L CACO3) (90410)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
JUN 1994 30...	1145	0.3	19	3.7	53	0.70	6.7	63	18	170	20	6.6
DATE	TIME	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SILICA, DIS- SOLVED (MG/L AS STO2) (00955)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)
JUN 1994 30...	1.2	0.20	0.010	0.01	0.00	0.01	0.01	0.01	0.01	0.05	0.01	0.00
DATE	TIME	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	DEETHYL ATRA- ZINE, WATER, DISS, REC, (UG/L) (04040)	ATRA- ZINE, WATER, DISS, REC, (UG/L) (39632)	METHYL AZIN- PHOS WAT FLT GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	
JUN 1994 30...	0.20	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

CONNECTICUT RIVER BASIN

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01131500 CONNECTICUT RIVER NEAR DALTON, N.H.--Continued

(National water quality assessment program station)

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

			LIN- URON			METRI- BUZIN			MOL- INATE		NAPROP- AMIDE		METHYL PARA- THION	
DATE	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	LINDANE DIS- SOLVED (UG/L) (39341)	WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	SENCOR WATER DISSOLV (UG/L) (82630)	WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA- THION, DIS- SOLVED (UG/L) (39542)	WAT FLT 0.7 U GF, REC (UG/L) (82667)			
JUN 1994 30...	<0.01	<0.01	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.03			
DATE	PEB- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)			
JUN 1994 30...	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.02			
DATE	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DIAZ- INON D10 SRG WAT FLT 0.7 U GF, REC (91063)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC (91065)	TERBUTH YLAZINE SURROGT WAT FLT 0.7 U GF, REC (91064)	SET NUMBER SCHED- ULE 2001 (NO.) (99818)	SAMPLE VOLUME SCHED- ULE 2010 (ML) (99857)				
JUN 1994 30...	<0.03	<0.01	<0.01	<0.01	<0.01	70	100	120	<0	921				

CONNECTICUT RIVER BASIN

01134500 MOOSE RIVER AT VICTORY, VT.

LOCATION.--Lat 44°30'42", long 71°50'13", Essex County, Hydrologic Unit 01080102, on right bank at Victory, 2.7 mi upstream from highway bridge.

DRAINAGE AREA.--75.2 mi².

PERIOD OF RECORD.--January 1947 to current year. Water quality records: Water year 1957.

REVISED RECORDS.--WSP 1381: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,103.99 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	98	125	e46	e60	e46	e83	496	181	174	57	53
2	76	112	117	e48	e55	e45	e82	733	160	106	98	54
3	228	91	108	e51	e53	e45	e84	512	144	462	388	44
4	189	88	112	e49	e50	e45	e116	360	117	260	157	39
5	180	111	117	e48	e49	e47	e239	322	97	110	314	36
6	135	334	136	e47	e48	e45	e285	270	85	85	467	62
7	107	304	116	e46	e47	e45	e650	247	370	94	181	62
8	92	164	104	e46	e46	e50	e840	297	430	329	111	63
9	82	127	81	e45	e45	e56	e1160	381	181	173	85	77
10	137	112	90	e43	e44	e63	e680	274	121	496	75	80
11	114	102	e190	e42	e43	e79	597	214	95	444	65	87
12	94	101	e153	e44	e42	e72	619	215	105	164	57	108
13	154	96	e138	e47	e41	e68	661	281	143	109	62	135
14	124	95	e120	e47	e40	e69	1130	203	258	83	110	157
15	100	154	e111	e47	e39	e75	1350	163	234	71	135	106
16	88	197	e145	e46	e37	e82	1800	188	127	99	83	75
17	82	137	e122	e44	e37	e76	2270	420	92	79	63	82
18	88	140	e113	e43	e37	e73	1030	288	74	63	85	69
19	85	124	e110	e42	e38	e70	604	202	78	124	139	57
20	74	123	e106	e41	e41	e69	695	164	65	189	87	50
21	129	114	e103	e41	e90	e66	669	141	61	99	136	45
22	329	100	e90	e39	e60	e69	486	127	84	225	380	41
23	191	99	e72	e40	e52	e74	360	116	61	252	173	41
24	136	93	e61	e42	e49	e79	425	106	47	256	102	108
25	114	63	e62	e42	e48	e103	626	116	47	179	77	81
26	96	57	e64	e41	e47	e100	909	204	66	133	68	65
27	89	64	e59	e40	e47	e95	1430	619	51	102	66	59
28	92	125	e53	e64	e47	e85	1580	454	134	86	64	89
29	88	385	e46	e92	---	e81	852	227	177	122	53	101
30	79	223	e43	e102	---	e81	521	189	97	86	46	124
31	77	---	e43	e75	---	e83	---	164	---	70	44	---
TOTAL	3738	4133	3110	1530	1332	2136	22833	8693	3982	5324	4028	2250
MEAN	121	138	100	49.4	47.6	68.9	761	280	133	172	130	75.0
MAX	329	385	190	102	90	103	2270	733	430	496	467	157
MIN	74	57	43	39	37	45	82	106	47	63	44	36
CFSM	1.60	1.83	1.33	.66	.63	.92	10.1	3.73	1.77	2.28	1.73	1.00
IN.	1.85	2.04	1.54	.76	.66	1.06	11.30	4.30	1.97	2.63	1.99	1.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1994, BY WATER YEAR (WY)

MEAN	108	146	116	75.0	71.4	161	498	274	116	66.4	61.5	65.9
MAX	353	376	386	190	429	468	806	674	299	236	207	323
(WY)	1991	1960	1974	1986	1981	1953	1954	1972	1973	1973	1986	1954
MIN	14.1	35.9	21.8	12.7	15.7	32.9	251	85.6	31.1	10.8	10.2	8.34
(WY)	1948	1948	1948	1948	1980	1956	1975	1977	1988	1991	1952	1948

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1947 - 1994

ANNUAL TOTAL	48666	63089	
ANNUAL MEAN	133	173	146
HIGHEST ANNUAL MEAN			205
LOWEST ANNUAL MEAN			102
HIGHEST DAILY MEAN	1420	Apr 11	4100
LOWEST DAILY MEAN	11	Jul 20	2.6
ANNUAL SEVEN-DAY MINIMUM	15	Jul 14	3.6
INSTANTANEOUS PEAK FLOW			2760
INSTANTANEOUS PEAK STAGE			10.01
INSTANTANEOUS LOW FLOW			36
ANNUAL RUNOFF (CFSM)	1.77	2.30	1.94
ANNUAL RUNOFF (INCHES)	24.07	31.21	26.39
10 PERCENT EXCEEDS	296	383	350
50 PERCENT EXCEEDS	88	94	70
90 PERCENT EXCEEDS	27	45	20

e Estimated

CONNECTICUT RIVER BASIN

65

01135150 POPE BROOK (SITE W-3) NEAR NORTH DANVILLE, VT.

LOCATION.--Lat 44°28'35", long 72°07'33", Caledonia County, Hydrologic Unit 01080102, on left bank 1.1 mi upstream of North Brook and 0.3 mi north of Pope Cemetery.

DRAINAGE AREA.--3.25 mi².

PERIOD OF RECORD.--December 1990 to current year..

GAGE.--Water-stage recorder. Datum of gage is 1,141.20 ft above sea level.

REMARKS.--Records excellent between 3 and 100 ft³/s, good between 1 and 3 ft³/s, and fair less than 1 ft³/s and those for estimated discharges.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 1960-1990, 380 ft³/s, June 30, 1973, gage height, 3.4 ft (data provided by USACOE-CRREL)

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	4.6	3.6	2.6	e2.6	e2.1	2.9	33	7.5	3.0	1.6	2.2
2	3.2	3.6	3.8	2.8	2.4	2.0	3.0	19	6.8	5.0	1.7	1.8
3	7.1	3.0	4.1	2.6	2.4	2.0	6.1	14	5.9	4.9	1.7	1.7
4	3.9	3.6	4.3	2.6	2.2	2.0	10	13	4.8	2.6	1.5	1.6
5	3.9	6.3	4.6	2.6	2.0	1.9	7.8	11	4.4	2.2	6.4	1.6
6	2.8	9.3	4.3	2.5	2.0	1.9	22	11	4.2	2.2	2.3	2.0
7	2.6	5.1	3.8	2.4	2.0	1.9	26	9.7	10	8.6	1.8	1.7
8	2.4	4.1	3.6	2.5	1.9	2.2	13	16	5.8	5.8	1.6	1.6
9	3.1	3.8	3.3	2.4	2.0	2.1	12	11	4.4	6.1	1.5	1.6
10	3.9	3.7	4.2	2.3	1.9	4.1	15	10	3.8	13	1.4	1.6
11	2.7	3.6	e9.4	2.3	1.8	2.8	17	8.6	3.4	3.9	1.4	1.9
12	3.6	4.0	e6.0	2.4	1.8	2.4	19	9.0	4.7	2.9	1.3	1.8
13	4.6	3.4	e4.4	2.4	1.9	2.3	35	7.9	5.3	2.5	2.7	4.6
14	2.9	3.7	4.8	2.4	1.9	2.2	40	7.0	8.7	2.2	4.3	8.5
15	2.7	5.3	7.9	2.4	1.9	2.6	48	6.6	4.4	2.7	2.2	2.6
16	2.5	4.2	6.5	e2.3	1.9	3.6	80	13	3.5	2.7	2.2	2.3
17	2.7	3.9	4.1	e2.2	1.8	2.6	45	12	3.1	2.2	1.7	2.4
18	3.8	4.6	4.1	2.2	1.9	2.4	29	8.0	2.8	2.2	5.3	2.0
19	2.7	3.7	4.4	2.2	2.0	2.3	35	7.0	2.6	4.2	2.8	2.4
20	2.5	4.8	4.0	e2.1	2.7	2.2	31	6.3	2.3	2.4	2.1	1.9
21	7.4	3.8	4.8	e2.1	e5.0	2.3	25	5.9	3.7	2.0	8.6	1.8
22	5.1	3.7	5.8	2.0	3.3	2.4	21	5.5	3.1	4.0	4.3	1.7
23	3.8	3.8	3.5	1.9	2.6	3.4	23	5.2	2.7	2.7	2.5	3.8
24	3.3	3.6	e3.4	2.0	2.5	4.1	31	4.8	2.3	2.1	2.0	3.5
25	2.9	2.5	4.2	2.0	2.3	4.3	29	7.9	3.0	1.9	2.9	2.5
26	2.7	3.0	3.7	2.0	2.4	3.4	43	22	2.5	1.8	4.8	2.3
27	2.8	3.2	e3.3	e2.0	e2.3	3.2	34	13	2.9	1.7	2.9	2.3
28	2.9	9.3	e2.9	e3.1	e2.2	3.1	26	7.9	9.8	3.0	2.3	4.9
29	2.7	7.6	e2.6	e5.6	---	3.0	18	6.8	3.9	2.3	2.0	5.6
30	2.6	4.5	e2.6	3.7	---	2.8	16	7.4	2.9	1.9	1.8	5.3
31	2.8	---	e2.5	2.9	---	2.8	---	6.1	---	1.7	1.8	---
TOTAL	104.9	133.3	134.5	77.5	63.6	82.4	762.8	325.6	135.2	106.4	83.4	81.5
MEAN	3.38	4.44	4.34	2.50	2.27	2.66	25.4	10.5	4.51	3.43	2.69	2.72
MAX	7.4	9.3	9.4	5.6	5.0	4.3	80	33	10	13	8.6	8.5
MIN	2.3	2.5	2.5	1.9	1.8	1.9	2.9	4.8	2.3	1.7	1.3	1.6
CFSM	1.04	1.37	1.33	.77	.70	.82	7.82	3.23	1.39	1.06	.83	.84
IN.	1.20	1.53	1.54	.89	.73	.94	8.73	3.73	1.55	1.22	.95	.93

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1994, BY WATER YEAR (WY)

	1991	1992	1993	1994	1991	1992	1993	1994	1991	1992	1993	1994
MEAN	3.80	4.64	4.00	4.02	2.61	4.84	20.4	7.83	3.82	2.24	2.16	2.60
MAX	5.26	5.47	4.34	5.66	3.51	6.81	25.4	10.5	4.95	3.43	2.69	3.26
(WY)	1992	1993	1994	1991	1991	1991	1994	1994	1993	1994	1994	1993
MIN	2.77	4.01	3.43	2.50	1.98	2.66	16.1	6.18	2.73	1.40	1.73	2.17
(WY)	1993	1992	1993	1994	1993	1994	1991	1993	1991	1991	1993	1992

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1991 - 1994	
ANNUAL TOTAL	1870.9		2091.1		5.31	
ANNUAL MEAN	5.13		5.73		5.73	
HIGHEST ANNUAL MEAN					5.08	
LOWEST ANNUAL MEAN						
HIGHEST DAILY MEAN	85	Apr 17	80	Apr 16	85	Apr 17 1993
LOWEST DAILY MEAN	1.1	Jul 26	1.3	Aug 12	.82	Aug 3 1991
ANNUAL SEVEN-DAY MINIMUM	1.3	Jul 14	1.6	Aug 6	.91	Jul 28 1991
INSTANTANEOUS PEAK FLOW			150	Apr 16	150	Apr 16 1994
INSTANTANEOUS PEAK STAGE			2.48	Apr 16	2.48	Apr 16 1994
INSTANTANEOUS LOW FLOW			a 1.2	Aug 11	.74	Aug 2 1991
ANNUAL RUNOFF (CFSM)	1.58		1.76		1.67	
ANNUAL RUNOFF (INCHES)	21.41		23.94		22.66	
10 PERCENT EXCEEDS	9.3		11		10	
50 PERCENT EXCEEDS	3.1		3.0		3.2	
90 PERCENT EXCEEDS	1.5		1.9		1.5	

a Also occurred on Aug. 12.

e Estimated

CONNECTICUT RIVER BASIN

01135300 SLEEPERS RIVER (SITE W-5) NEAR ST. JOHNSBURY, VT

LOCATION---Lat 44°26'04", long 72°02'22", Caledonia County, Hydrologic Unit 01080102, on left bank just upstream of Emerson Falls and 2.6 mi from mouth.

DRAINAGE AREA---42.9 mi².

PERIOD OF RECORD---October 1990 to current year.

GAGE---Water-stage recorder. Elevation of gage is 641.68 ft above sea level.

REMARKS---Records excellent except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	57	27	e22	e30	e24	e54	366	79	26	16	20
2	21	51	29	e24	e28	24	e54	230	67	37	21	17
3	87	37	40	e23	27	23	e60	161	63	115	25	14
4	43	38	42	23	e26	24	e165	138	48	34	17	13
5	46	60	49	e22	e25	23	e150	126	42	23	135	12
6	31	120	52	e22	e25	23	e260	117	39	21	48	18
7	26	62	44	e21	e24	23	466	108	105	122	26	16
8	24	41	41	e22	e24	27	241	178	64	148	19	13
9	25	36	30	e21	e23	29	175	132	44	104	16	13
10	47	35	41	e21	e22	e35	231	112	36	211	15	12
11	30	33	139	e20	e21	e40	275	95	31	57	13	13
12	30	36	63	22	e21	e39	283	99	38	36	12	14
13	61	33	e44	e23	e21	e38	410	90	51	28	16	38
14	35	33	51	e23	e20	36	510	76	110	22	31	122
15	29	51	72	e22	e20	38	541	69	53	24	23	36
16	26	46	78	e22	e19	e45	903	135	37	31	19	25
17	26	37	34	e21	e19	e42	501	170	30	23	15	27
18	36	51	32	e21	e20	e40	325	98	26	20	51	21
19	29	39	41	e20	21	39	354	79	22	78	42	20
20	24	45	40	e20	27	35	348	67	19	35	24	18
21	76	41	44	e20	e44	36	268	60	28	24	95	16
22	78	36	73	e19	e40	e41	223	56	29	75	76	15
23	44	37	36	e19	e30	e46	222	52	22	43	34	29
24	36	35	e28	e20	e27	e64	304	47	18	30	22	59
25	31	16	e35	e20	e26	e62	299	75	24	23	19	31
26	27	18	e30	e19	e26	e56	461	262	25	27	49	27
27	27	26	e26	e19	e25	e54	338	214	21	23	28	24
28	29	76	e24	e35	e25	e52	275	97	113	33	22	54
29	27	113	e21	e74	---	e54	195	75	57	36	18	58
30	25	51	e20	e44	---	e49	176	79	33	22	15	59
31	27	---	e20	e34	---	e52	---	64	---	19	14	---
TOTAL	1126	1390	1346	758	706	1213	9067	3727	1374	1550	976	854
MEAN	36.3	46.3	43.4	24.5	25.2	39.1	302	120	45.8	50.0	31.5	28.5
MAX	87	120	139	74	44	64	903	366	113	211	135	122
MIN	21	16	20	19	19	23	54	47	18	19	12	12
CFSM	.85	1.08	1.01	.57	.59	.91	7.04	2.80	1.07	1.16	.73	.66
IN.	.98	1.20	1.17	.66	.61	1.05	7.86	3.23	1.19	1.34	.85	.74

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1994, BY WATER YEAR (WY)

	MEAN	67.1	72.2	68.8	45.9	30.4	78.8	237	83.9	38.9	23.8	22.3	28.1
MAX	128	124	143	65.8	42.9	107	302	120	53.3	50.0	31.5	31.8	
(WY)	1991	1991	1991	1991	1991	1991	1991	1994	1993	1994	1994	1993	1993
MIN	33.0	46.3	36.4	24.5	19.8	39.1	181	60.2	25.8	8.47	16.1	21.6	
(WY)	1993	1994	1993	1994	1993	1994	1991	1993	1991	1991	1993	1992	

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1991 - 1994	
ANNUAL TOTAL	20379.5		24087			
ANNUAL MEAN	55.8		66.0		66.4	
HIGHEST ANNUAL MEAN					79.9	
LOWEST ANNUAL MEAN					56.9	
HIGHEST DAILY MEAN	878	Apr 17	903	Apr 16	903	Apr 16 1994
LOWEST DAILY MEAN	4.6	Jul 20	a 12	Aug 12	2.3	Aug 3 1991
ANNUAL SEVEN-DAY MINIMUM	5.2	Jul 15	14	Sep 4	3.4	Jul 28 1991
INSTANTANEOUS PEAK FLOW			1640	Apr 16	1970	Oct 24 1990
INSTANTANEOUS PEAK STAGE			3.85	Apr 16	4.14	Oct 24 1990
INSTANTANEOUS LOW FLOW			b 8.8	Nov 25	2.0	Aug 3 1991
ANNUAL RUNOFF (CFSM)	1.30		1.54		1.55	
ANNUAL RUNOFF (INCHES)	17.66		20.88		21.02	
10 PERCENT EXCEEDS	113		143		145	
50 PERCENT EXCEEDS	30		35		37	
90 PERCENT EXCEEDS	10		19		11	

a Also occurred on Sept. 5, 10.

b Affected by anchor ice upstream.

e Estimated

CONNECTICUT RIVER BASIN

67

01135300 SLEEPERS RIVER (SITE W-5) NEAR ST. JOHNSBURY, VT--Continued

(National water quality assessment program station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1992 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET	SPE-CIFIC CON- DUCT- ANCE	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SODIUM AD- SORP- TION RATIO (00932)	SODIUM AD- SORP- TION RATIO (00931)	
		PER SECOND (00061)	(US/CM) (00095)										
OCT 1993													
06...	1300	32	248	7.5	15.0	9.0	748	10.9	96	110	7	0.2	
NOV													
18...	0730	56	235	7.9	2.5	2.5	749	13.0	96	110	7	0.2	
DEC													
14...	0730	47	244	7.9	3.5	3.0	750	12.7	95	8	40	0.4	
JAN 1994													
20...	0915	20	266	6.6	-33.5	0.0	759	14.0	96	120	6	0.1	
MAR													
02...	1045	24	257	7.1	-9.5	0.0	761	14.2	97	130	5	0.1	
APR													
06...	1000	183	198	6.3	3.5	0.0	744	15.0	105	91	7	0.2	
19...	1315	270	155	6.7	17.0	4.5	739	14.0	111	72	6	0.1	
MAY													
10...	1415	112	179	6.8	11.0	10.0	743	11.0	100	85	5	0.1	
JUN													
22...	1120	32	252	6.9	21.5	19.0	739	9.6	106	120	6	0.1	
JUL													
12...	1410	37	241	7.7	31.5	22.5	744	8.8	104	120	8	0.2	
AUG													
09...	0930	17	308	6.8	17.0	15.5	748	9.3	95	140	9	0.2	
30...	0920	14	298	6.9	13.5	13.5	744	10.1	100	140	8	0.2	
SEP													
27...	0930	23	281	7.6	17.5	14.5	744	9.7	97	140	7	0.2	
DATE		CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT 1993													
06...	0	130	6.1	144	1.9	7.7	252	108	33	19	41	1.8	
NOV													
18...	0	117	9.5	131	1.9	7.5	242	100	21	16	41	1.8	
DEC													
14...	--	119	2.5	27	0.30	7.0	32	7.3	66	21	2.3	0.47	
JAN 1994													
20...	--	142	6.9	159	2.0	7.7	272	115	27	15	46	1.9	
MAR													
02...	--	131	6.7	149	1.9	7.4	266	111	24	14	48	2.0	
APR													
06...	--	97	7.2	123	1.9	7.6	209	84	36	11	34	1.5	
19...	--	78	3.8	95	1.5	7.7	167	66	18	7	27	1.2	
MAY													
10...	--	97	3.8	104	1.6	7.8	193	80	16	9	32	1.3	
JUN													
22...	--	139	5.3	147	2.2	8.1	263	118	22	13	44	1.8	
JUL													
12...	--	136	6.1	147	2.2	8.1	254	47	50	18	44	1.8	
AUG													
09...	--	181	9.7	193	2.4	8.0	326	146	24	29	53	2.2	
30...	--	171	7.8	180	2.3	7.9	309	136	31	32	52	2.1	
SEP													
27...	--	155	6.8	165	2.7	7.9	289	130	26	17	51	2.1	

(National water quality assessment program station)

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

[illegible]

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(National water quality assessment program station)

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

[illegible]

CONNECTICUT RIVER BASIN

01135300 SLEEPERS RIVER (SITE W-5) NEAR ST. JOHNSBURY, VT--Continued

(National water quality assessment program station)

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

[illegible]

CONNECTICUT RIVER BASIN

71

01135500 PASSUMPSIC RIVER AT PASSUMPSIC, VT.

LOCATION.--Lat 44°21'56", long 72°02'23", Caledonia County, Hydrologic Unit 01080102, on right bank 0.7 mi upstream from Water Andric, 1 mi downstream from dam and village of Passumpsic, and 4 mi upstream from mouth.

DRAINAGE AREA.--436 mi².

PERIOD OF RECORD.--Discharge: October 1928 to current year. Monthly discharge only October 1928, published in WSP 1301. Water-quality records: Water years 1953, 1967-74 (partial-record station), 1994.

REVISED RECORDS.--WSP 781: 1933(M). WSP 871: Drainage area. WSP 1231: 1929, 1930-31(M).

GAGE.--Water-stage recorder. Elevation of gage is 490 ft above sea level, from topographic map.

REMARKS.--Records good except for those estimated daily discharges, which are fair. Low flow regulated by powerplants upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1780, about 31.5 ft in November 1927, from information by local residents (discharge not determined).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	354	449	554	e235	e430	e241	e603	2970	973	595	330	261
2	322	594	660	e231	e390	e242	e637	3250	916	516	e605	290
3	749	467	517	e228	e367	e245	e685	2260	859	1480	e1290	242
4	727	427	552	e222	e348	e247	e860	1810	721	959	e1900	220
5	666	486	543	e219	e333	e250	e1500	1630	609	523	e1000	216
6	527	1200	625	e215	e312	e253	e2500	1480	538	417	e1900	286
7	405	1190	552	e210	e292	e270	e4450	1370	1970	466	e1290	324
8	354	746	506	e203	e280	e298	e4000	1610	1750	1200	e685	278
9	340	565	402	e197	e270	e333	3300	1770	1030	736	e510	323
10	579	514	453	e197	e264	e365	2310	1400	748	1950	e445	315
11	499	462	1250	e196	e257	e435	2620	1220	595	1300	e405	322
12	405	453	1150	e193	e252	e498	2640	1150	575	714	e381	436
13	617	456	952	e188	e248	e490	3150	1290	800	491	275	607
14	527	428	873	e190	e238	e472	4980	1100	1110	401	366	876
15	398	542	791	e188	e227	e455	5040	943	1100	360	549	590
16	371	805	909	e183	e224	e470	7580	1070	713	487	387	393
17	344	602	890	e177	e227	e543	8690	2130	546	424	316	393
18	383	605	777	e173	e228	e520	4480	1470	470	346	386	365
19	390	552	539	e171	e229	e503	3070	1150	428	520	659	322
20	340	531	515	e169	e240	e485	3670	972	427	648	425	271
21	513	533	520	e168	e323	e467	3120	851	397	435	624	252
22	650	464	e625	e170	e517	e499	2450	779	460	685	1550	236
23	813	459	e543	e171	e450	e528	2030	724	376	882	819	249
24	574	436	e470	e172	e320	e580	2470	670	348	778	502	480
25	494	304	e400	e173	e268	e685	3090	715	316	570	392	411
26	411	283	e343	e174	e240	e695	4400	1340	374	517	387	326
27	400	323	e298	e175	e240	e660	5230	3010	354	525	353	293
28	387	491	e270	e245	e240	e625	5550	1780	724	406	337	404
29	390	1420	e252	e348	---	e605	3330	1190	908	598	286	532
30	358	960	e242	e730	---	e585	2420	1040	538	446	257	593
31	355	---	e238	e670	---	e580	---	944	---	353	244	---
TOTAL	14642	17747	18211	7181	8254	14124	100855	45088	21673	20728	19855	11106
MEAN	472	592	587	232	295	456	3362	1454	722	669	640	370
MAX	813	1420	1250	730	517	695	8690	3250	1970	1950	1900	876
MIN	322	283	238	168	224	241	603	670	316	346	244	216
CFSM	1.08	1.36	1.35	.53	.68	1.04	7.71	3.34	1.66	1.53	1.47	.85
IN.	1.25	1.51	1.55	.61	.70	1.21	8.61	3.85	1.85	1.77	1.69	.95

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1994, BY WATER YEAR (WY)

	MEAN	524	701	594	467	410	928	2284	1355	648	390	327	349
MAX	1522	1667	1919	1255	2280	4013	3931	3082	1846	1519	963	1126	
(WY)	1946	1960	1974	1978	1981	1936	1934	1972	1973	1973	1990	1954	
MIN	132	253	169	128	123	161	1150	517	225	138	122	98.8	
(WY)	1948	1948	1948	1948	1980	1940	1981	1941	1988	1955	1934	1948	

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR			FOR 1994 WATER YEAR			WATER YEARS 1929 - 1994		
ANNUAL TOTAL	252931			299464			747		
ANNUAL MEAN	693			820			1153		
HIGHEST ANNUAL MEAN							472		
LOWEST ANNUAL MEAN							15400		
HIGHEST DAILY MEAN	7500	Mar 31		8690	Apr 17		15400	Mar 18	1936
LOWEST DAILY MEAN	110	Jul 26		e 168	Jan 21		13	Sep 12	1948
ANNUAL SEVEN-DAY MINIMUM	143	Jul 15		171	Jan 18		75	Aug 22	1949
INSTANTANEOUS PEAK FLOW				10900	Apr 17		a 18200	Jul 1	1973
INSTANTANEOUS PEAK STAGE				15.81	Apr 17		23.49	Jul 1	1973
ANNUAL RUNOFF (CFSM)	1.59			1.88			1.71		
ANNUAL RUNOFF (INCHES)	21.58			25.55			23.28		
10 PERCENT EXCEEDS	1350			1770			1700		
50 PERCENT EXCEEDS	418			499			420		
90 PERCENT EXCEEDS	175			238			165		

a From rating curve extended above 14,000 ft³/s on basis of computations of flow over dam at gage height 21.23 ft.

e Estimated

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(National water quality assessment program station)

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

[illegible]

CONNECTICUT RIVER BASIN

01135500 PASSUMPSIC RIVER AT PASSUMPSIC, VT.--Continued

(National water quality assessment program station)

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	OCRESOL 4,6-DINITRO WAT,FLT GF 0.7U REC (UG/L) (49299)	ESFEN- VAL- ERATE, WAT,FLT GF 0.7U REC (UG/L) (49298)	FEN- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO- METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIO- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH- OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	1-NAPH THOL, WATER, FLTRD, GF 0.7U REC (UG/L) (49295)	NEB- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)
JUN 1994 22...	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
DATE	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY- ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PRO- POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SILVEX, DIS- SOLVED (UG/L) (39762)	TRI- CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	BDMC, SURROG, WATER, UNFLTRD REC PERCENT (99835)	SET NUMBER SCHED- ULE (NO.) (99821)	SAMPLE VOLUME, SCHED- ULE (ML) (99847)
JUN 1994 22...	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	44	<0	900

CONNECTICUT RIVER BASIN

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01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, N.H.

LOCATION.--Lat 44°16'08", long 71°37'52, Grafton County, Hydrologic Unit 01080101, on left bank 0.2 mi upstream from Pierce Bridge and Bethlehem Junction, 0.8 mi upstream from unnamed tributary entering from left, 3 mi east of Bethlehem, 3.4 mi downstream from Little River, and at mile 35.0.

DRAINAGE AREA.--87.6 mi².

PERIOD OF RECORD.--Discharge: August 1939 to current year. Water-quality records: Water years 1967-74, 1992 to current year.

REVISED RECORDS.--WSP 1701: 1951(M), 1953-54(M).

GAGE.--Water-stage recorder. Datum of gage is 1,180.74 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	122	224	e88	e80	e58	e77	784	212	73	53	54
2	111	126	e180	e86	e75	e57	e80	710	197	68	45	55
3	210	99	e165	e84	e70	e57	e84	453	212	75	60	50
4	206	94	e160	e86	e67	e56	e96	410	180	63	51	47
5	297	116	202	e80	e66	e56	e130	421	154	57	68	48
6	186	311	191	e78	e63	e55	e300	385	159	54	90	267
7	148	204	161	e66	e62	e55	1080	387	161	93	63	176
8	129	140	145	e68	e66	e78	658	914	163	190	52	111
9	120	121	125	e65	e60	e98	372	714	140	92	49	87
10	143	112	140	e68	e58	e94	473	579	124	94	50	75
11	119	105	489	e66	e60	e120	621	431	112	77	48	76
12	112	104	306	e70	e57	e90	461	535	118	65	44	115
13	193	97	188	e72	e56	e78	643	512	258	58	44	227
14	143	100	e180	e68	e60	e72	1410	348	271	53	82	277
15	121	122	e180	e63	e56	e70	1110	301	208	53	81	184
16	111	128	e200	e62	e55	e84	2360	406	154	56	56	137
17	105	109	e155	e62	e54	e74	e1800	526	129	51	48	124
18	101	143	e140	e56	e54	e70	e850	399	115	48	119	108
19	95	125	e135	e64	e53	e68	e600	331	105	53	163	98
20	92	218	e130	e61	e58	e65	e620	299	96	51	87	89
21	109	160	e150	e62	e100	e65	e460	287	96	45	187	82
22	182	133	e340	e58	e88	e64	359	332	98	54	276	77
23	129	128	e180	e60	e76	e64	313	358	85	67	130	80
24	112	125	e125	e52	e70	e65	369	293	77	50	95	155
25	112	85	e135	e56	e66	e90	530	287	76	44	78	124
26	100	95	e100	e55	e62	e76	838	319	86	44	69	105
27	96	140	e80	e53	e60	e74	1520	437	75	53	64	97
28	98	641	e72	e70	e58	e72	1270	290	102	52	62	140
29	92	869	e75	e120	---	e78	632	236	110	57	56	172
30	88	344	e86	e94	---	e74	568	215	83	49	52	197
31	92	---	e90	e85	---	e73	---	211	---	59	50	---
TOTAL	4072	5416	5229	2178	1810	2250	20684	13110	4156	1998	2472	3634
MEAN	131	181	169	70.3	64.6	72.6	689	423	139	64.5	79.7	121
MAX	297	869	489	120	100	120	2360	914	271	190	276	277
MIN	88	85	72	52	53	55	77	211	75	44	44	47
CFSM	1.50	2.06	1.93	.80	.74	.83	7.87	4.83	1.58	.74	.91	1.38
IN.	1.73	2.30	2.22	.92	.77	.96	8.78	5.57	1.76	.85	1.05	1.54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1994, BY WATER YEAR (WY)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
MEAN	153	216	167	110	104	184	520	517	203	101	95.9	98.9
MAX	416	524	590	315	712	691	896	1054	462	253	273	550
(WY)	1978	1960	1974	1986	1981	1953	1969	1940	1973	1973	1990	1954
MIN	34.1	59.0	44.9	30.9	31.9	47.3	183	221	91.5	39.0	34.0	32.5
(WY)	1948	1979	1948	1948	1980	1940	1965	1993	1953	1991	1961	1948

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1939 - 1994
ANNUAL TOTAL	60007	67009	
ANNUAL MEAN	164	184	206
HIGHEST ANNUAL MEAN			293
LOWEST ANNUAL MEAN			145
HIGHEST DAILY MEAN	3100	Apr 17	6300
LOWEST DAILY MEAN	29	Feb 26	21
ANNUAL SEVEN-DAY MINIMUM	30	Feb 23	24
INSTANTANEOUS PEAK FLOW			4020
INSTANTANEOUS PEAK STAGE			7.66
INSTANTANEOUS LOW FLOW			a 42
ANNUAL RUNOFF (CFSM)	1.88		2.10
ANNUAL RUNOFF (INCHES)	25.48		28.46
10 PERCENT EXCEEDS	337		408
50 PERCENT EXCEEDS	104		98
90 PERCENT EXCEEDS	37		55

a Also occurred on July 26 and Aug. 2.

b From rating curve extended above 4,100 ft³/s on basis of slope-area measurement of peak flow.

e Estimated

CONNECTICUT RIVER BASIN

01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, N.H.--Continued

(National water quality assessment program station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-74, 1992 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

		DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SODIUM AD- SORP- TION RATIO (00932) (00931)		
DATE	TIME												
OCT 1993													
07...	0900	154	40	7.7	10.0	7.0	733	11.0	94	10	37 0.4		
NOV													
18...	1200	154	37	8.0	2.0	3.0	734	13.0	100	18	25 0.3		
DEC													
14...	1300	153	38	7.9	3.5	3.0	730	13.1	102	7	42 0.4		
JAN 1994													
19...	1315	84	49	7.6	-23.5	0.0	738	12.2	86	13	42 0.5		
MAR													
02...	0815	72	48	7.0	-20.5	0.0	741	14.2	100	10	45 0.6		
APR													
06...	0815	633	65	7.7	1.5	0.5	730	15.0	109	8	46 0.5		
19...	1100	626	26	6.0	11.0	2.0	726	15.0	114	7	39 0.4		
MAY													
10...	1100	591	20	7.3	16.0	6.5	728	11.8	100	5	36 0.3		
JUN													
22...	0820	306	36	6.3	18.0	14.0	726	9.8	100	7	47 0.5		
JUL													
12...	1050	66	37	6.0	21.0	18.0	732	8.8	97	8	48 0.6		
AUG													
08...	1330	50	43	7.1	25.0	20.5	735	9.4	109	11	46 0.6		
29...	1245	--	41	7.2	18.0	17.5	726	9.0	99	11	46 0.6		
SEP													
26...	1130	104	30	6.1	21.0	13.5	732	10.0	99	7	43 0.4		
DATE		CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT 1993													
07...	0	16	3.0	28	0.50	7.9	35	5.1	85	16	3.0	0.52	
NOV													
18...	0	9	2.6	25	0.40	7.4	35	5.3	79	14	6.5	0.52	
DEC													
14...	0	10	2.6	32	0.30	6.4	32	6.9	56	21	2.1	0.44	
JAN 1994													
19...	--	14	5.7	38	0.50	6.7	48	6.9	52	19	4.2	0.65	
MAR													
02...	--	20	5.6	35	0.40	7.5	47	6.7	53	19	3.0	0.68	
APR													
06...	--	7	3.9	31	0.40	6.1	37	7.5	84	24	2.3	0.49	
19...	--	6	2.7	27	0.30	5.9	29	3.2	66	20	2.2	0.39	
MAY													
10...	--	5	1.6	9	0.20	5.8	22	2.1	49	14	1.7	0.29	
JUN													
22...	--	10	4.4	22	0.40	6.6	38	5.7	120	16	2.2	0.48	
JUL													
12...	--	10	4.7	28	0.40	6.8	40	6.2	110	16	2.4	0.52	
AUG													
08...	--	16	5.6	40	0.50	6.8	49	8.3	140	18	3.4	0.61	
29...	--	14	5.4	28	0.30	6.8	45	7.4	160	20	3.2	0.61	
SEP													
26...	--	15	3.1	27	0.40	6.4	33	6.0	97	12	2.2	0.47	

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WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

[illegible]

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(National water quality assessment program station)

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

[illegible]

CONNECTICUT RIVER BASIN

01138500 CONNECTICUT RIVER AT WELLS RIVER, VT.

LOCATION---Lat 44°09'13", long 72°02'34", Orange County, Hydrologic Unit 01080101, on right bank at village of Wells River, 200 ft downstream from bridge on U.S. Highway 302, 400 ft upstream from Wells River, 1,200 ft downstream from Ammonoosuc River, and at mile 266.0.

DRAINAGE AREA---2,644 mi².

PERIOD OF RECORD---October 1949 to current year. October and November 1949 monthly discharge only, published in WSP 1301. Water-quality records: 1952, 1957, 1979 to 1986.

REVISED RECORD---WDR NH-VT-93-1:1992.

GAGE---Water-stage recorder. Datum of gage is 399.75 ft above sea level.

REMARKS---No estimated daily discharge. Records good. Flow regulated by powerplants, by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs (Reservoirs in Connecticut River basin), and other reservoirs. These reservoirs have a combined capacity of about 14.8 billion ft³.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5060	3110	4840	1990	2910	5490	5350	16500	7050	2700	2950	2910
2	3310	4050	4860	1810	3840	3770	5660	17300	6020	3760	2410	1060
3	3510	2910	3760	2790	4220	4250	5400	16000	6160	4730	2020	1720
4	5220	4070	5140	2650	3640	4420	7870	12600	5350	5080	3670	1420
5	5740	4080	5860	3530	2910	4710	10300	9950	4200	5780	2540	1970
6	5990	3910	5690	4280	4470	5290	12200	10700	4270	4100	2470	2230
7	4920	5670	5000	3800	3920	5000	19600	9880	4760	2960	1660	1760
8	4420	6870	4750	3430	4020	2030	18300	10900	7920	6400	1990	1020
9	3160	6310	4690	3900	4760	5880	17200	11100	8150	3610	1870	2110
10	2680	5340	5040	4200	4590	4070	17600	9920	7150	4440	2980	1170
11	4130	5610	5720	4300	4810	5260	18200	9410	5760	5100	2020	933
12	4700	5930	6580	4350	2650	4680	18500	9340	2970	4530	1980	1150
13	5090	5810	6720	2520	3670	4560	17900	9500	5270	4950	1990	3600
14	4240	4660	7160	1910	4010	4560	25900	9050	5480	3390	1530	3920
15	3420	3600	6350	2520	5840	5060	23400	8690	7050	3030	2290	4550
16	2250	4010	5390	2970	5740	4270	31200	8010	5860	1610	2070	3720
17	2420	4720	6230	5870	5240	4490	36100	8430	4210	1580	1150	3000
18	4610	5960	7160	3460	5570	3460	27600	7980	3270	2110	2540	3130
19	4980	4500	5620	5350	5720	3950	24500	9700	3700	3550	3100	2920
20	4750	4550	5660	4170	5150	2830	22800	7960	2560	4100	3130	3540
21	5380	4360	5950	3660	4070	2870	18300	7860	3500	3890	2260	2920
22	6140	4730	6550	3290	5710	3150	16800	7300	3350	5440	5060	2750
23	4950	5250	4520	2160	6180	3450	15000	6460	3930	4110	3050	2420
24	3200	4440	4310	2160	5250	3970	12100	5380	4610	1760	4540	2370
25	5340	4690	5870	2860	5960	5200	12300	5690	4120	3490	2650	2640
26	5300	4210	4300	4500	4340	4650	10800	6380	2800	4260	4330	3310
27	5870	2480	5770	4760	3990	5580	17900	7840	3370	3160	2490	2720
28	3890	3230	2890	3080	5260	6070	24400	10300	2640	2780	2400	2470
29	3310	7400	3160	3690	---	5610	19400	9940	4270	3360	4000	1900
30	3140	4170	3050	4390	---	4540	18100	8640	3010	4680	3910	2260
31	2410	---	3110	3700	---	5060	---	6650	---	4620	3140	---
TOTAL	133530	140630	161700	108050	128440	138180	530680	295360	142760	119060	84190	73593
MEAN	4307	4688	5216	3485	4587	4457	17690	9528	4759	3841	2716	2453
MAX	6140	7400	7160	5870	6180	6070	36100	17300	8150	6400	5060	4550
MIN	2250	2480	2890	1810	2650	2030	5350	5380	2560	1580	1150	933

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1994, BY WATER YEAR (WY)

MEAN	3759	4810	4634	3517	3739	5778	12780	8415	4396	2671	2485	2539
MAX	9801	9815	11320	6200	10050	13420	20110	17120	10320	8418	6709	10810
(WY)	1978	1960	1974	1978	1981	1979	1954	1972	1984	1973	1990	1954
MIN	1226	2008	1445	1632	1824	2492	6429	3479	1906	1206	1013	883
(WY)	1964	1979	1979	1981	1980	1962	1965	1987	1988	1991	1970	1978

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1950 - 1994

ANNUAL TOTAL	1810269	2056173	
ANNUAL MEAN	4960	5633	4965
HIGHEST ANNUAL MEAN			7157
LOWEST ANNUAL MEAN			3211
HIGHEST DAILY MEAN	25800	36100	50600
LOWEST DAILY MEAN	821	933	152
ANNUAL SEVEN-DAY MINIMUM	1070	1480	522
INSTANTANEOUS PEAK FLOW		38300	57100
INSTANTANEOUS PEAK STAGE		12.43	a 17.35
INSTANTANEOUS LOW FLOW		353	
10 PERCENT EXCEEDS	8320	9930	10300
50 PERCENT EXCEEDS	4040	4440	3530
90 PERCENT EXCEEDS	1810	2340	1280

a From peak-stage indicator.

CONNECTICUT RIVER BASIN

81

01139000 WELLS RIVER AT WELLS RIVER, VT.

LOCATION.--Lat 44°09'03", long 72°03'55", Orange County, Hydrologic Unit 01080103, on right bank, 0.8 mi west of village of Wells River, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--98.4 mi².

PERIOD OF RECORD.--Discharge: August 1940 to current year. Water-quality records: Water years 1957-58.

REVISED RECORDS.--WSP 1171: Drainage area. WSP 1201: 1942(P), 1944-45(M), 1946-47(P), 1948(M), 1950.

GAGE.--Water-stage recorder. Datum of gage is 505.53 ft above sea level (levels by Connecticut River Power Co.).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some diurnal fluctuation at low flow prior to 1958 and since June 1984 caused by small powerplant upstream. Flow partly regulated by Groton and Ricker Ponds.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	88	95	e42	e48	e41	e105	518	133	79	38	38
2	44	106	92	e43	e46	e40	e110	497	123	67	35	41
3	67	82	92	e41	e45	e40	e121	388	115	59	37	35
4	65	75	90	e41	e44	e40	e230	324	99	52	36	31
5	81	89	114	e40	e42	e39	e260	288	89	49	91	30
6	64	173	125	e39	e41	e41	481	266	83	46	104	38
7	60	131	106	e39	e39	e45	969	249	93	45	66	38
8	54	96	98	e39	e37	e48	700	338	96	62	48	38
9	47	82	84	e40	e37	e52	507	350	83	52	39	35
10	63	75	88	e40	e37	e60	475	278	73	51	34	32
11	54	69	254	e41	e37	e69	563	239	67	51	29	31
12	49	68	160	e42	e36	e74	561	231	72	45	26	31
13	80	67	126	e42	e36	e69	762	225	159	39	24	50
14	67	63	121	e41	e35	e68	1190	193	201	35	78	192
15	58	69	119	e40	e35	e70	1080	166	158	32	84	116
16	52	71	129	e39	e36	e78	1490	222	114	38	54	78
17	49	64	95	e39	e36	e80	1400	374	91	39	42	72
18	52	89	90	e38	e37	e76	922	279	78	35	261	58
19	49	98	96	e37	e37	e73	719	229	65	42	280	50
20	45	97	88	e37	e39	e70	793	191	56	49	129	43
21	51	86	92	e36	e49	e68	638	166	67	41	145	39
22	84	75	e78	e35	e120	e74	535	151	81	65	225	36
23	71	73	e68	e34	e78	e80	467	137	60	91	127	47
24	64	71	e58	e33	e54	e92	524	111	52	71	85	140
25	57	52	e63	e33	e50	e118	591	106	54	55	64	108
26	51	53	e55	e34	e47	e110	754	182	62	48	55	86
27	48	58	e47	e34	e45	e102	753	426	62	57	51	73
28	49	109	e43	e49	e42	e97	636	268	124	61	47	156
29	47	250	e38	e238	---	e98	471	201	136	89	40	117
30	45	135	e37	e140	---	e100	405	167	93	58	35	119
31	51	---	e39	e70	---	e102	---	142	---	46	31	---
TOTAL	1769	2714	2880	1536	1265	2214	19212	7902	2839	1649	2440	1998
MEAN	57.1	90.5	92.9	49.5	45.2	71.4	640	255	94.6	53.2	78.7	66.6
MAX	84	250	254	238	120	118	1490	518	201	91	280	192
MIN	44	52	37	33	35	39	105	106	52	32	24	30
CFSM	.58	.92	.94	.50	.46	.73	6.51	2.59	.96	.54	.80	.68
IN.	.67	1.03	1.09	.58	.48	.84	7.26	2.99	1.07	.62	.92	.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1994, BY WATER YEAR (WY)

	MEAN	94.0	127	117	89.5	91.8	185	453	258	134	70.2	60.8	57.5
MAX	337	279	395	232	349	467	763	589	449	323	305	196	
(WY)	1982	1990	1984	1978	1981	1953	1952	1972	1973	1973	1990	1981	
MIN	16.3	37.6	36.3	23.2	22.1	49.5	205	82.2	47.7	25.2	18.7	17.9	
(WY)	1964	1971	1948	1948	1980	1941	1965	1965	1962	1965	1980	1963	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1940 - 1994

ANNUAL TOTAL	42457	48418											
ANNUAL MEAN	116	133											
HIGHEST ANNUAL MEAN										145			
LOWEST ANNUAL MEAN										239			1990
HIGHEST DAILY MEAN	1480	Apr 17								66.5			1965
LOWEST DAILY MEAN	17	Jul 20								2960	Jul 1		1973
ANNUAL SEVEN-DAY MINIMUM	20	Jul 16								8.3	Sep 5		1953
INSTANTANEOUS PEAK FLOW										13	Aug 1		1965
INSTANTANEOUS PEAK STAGE										a 5970	Jun 30		1973
INSTANTANEOUS LOW FLOW										5.91	Apr 16		1973
ANNUAL RUNOFF (CFSM)	1.18									19	Aug 13		1948
ANNUAL RUNOFF (INCHES)	16.05									5.1	Oct 6		
10 PERCENT EXCEEDS	228									1.47			
50 PERCENT EXCEEDS	64									19.98			
90 PERCENT EXCEEDS	27									335			
										80			
										29			

a From rating curve extended above 1,400 ft³/s on basis of peak flow over dam.

e Estimated

CONNECTICUT RIVER BASIN

01139800 EAST ORANGE BRANCH AT EAST ORANGE, VT.

LOCATION.--Lat 44°05'34", long 72°20'10", Orange County, Hydrologic Unit 01080103, on left bank 0.3 mi east of East Orange, 1.6 mi upstream from mouth, and 5 mi southwest of Orange.

DRAINAGE AREA.--8.95 mi².

PERIOD OF RECORD.--June 1958 to current year.

REVISED RECORDS.--WDR MA-NH-RI-VT-72-1: 1960-64(P), 1969- 71(P).

GAGE.--Water-stage recorder. Elevation of gage is 1,180 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional diurnal fluctuation at low flow caused by mill upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	12	e12	e5.7	e8.3	e4.7	e6.8	70	17	6.3	7.8	6.0
2	5.3	9.8	e13	e6.0	e7.2	e4.7	e7.5	51	17	5.8	6.8	5.6
3	9.0	8.6	e13	e6.0	e7.0	e4.6	e13	45	16	5.8	6.6	4.7
4	8.9	10	14	e5.9	e6.6	e4.6	e25	41	13	4.7	5.9	4.3
5	12	18	17	e5.8	e6.4	e4.6	e20	38	12	4.2	10	4.2
6	7.1	28	15	e5.6	e6.1	e4.5	e90	36	11	7.0	9.0	5.0
7	6.3	13	14	e5.4	e5.9	e4.5	74	34	14	7.9	7.8	5.1
8	6.0	9.7	13	e5.4	e5.7	e4.6	30	45	11	5.7	6.7	5.3
9	6.6	9.6	25	e5.4	e5.5	e4.6	26	35	10	5.1	5.9	4.5
10	8.7	9.1	20	e5.3	e5.3	e8.9	31	31	9.1	6.3	5.4	4.2
11	6.2	8.8	e15	e5.3	e5.2	e6.7	36	29	8.6	4.7	4.8	4.2
12	7.5	9.4	e11	e5.3	e5.1	e5.5	41	30	12	4.4	4.5	4.3
13	11	8.7	e16	e5.4	e4.9	e4.7	67	27	16	4.3	4.3	7.7
14	7.0	9.8	e12	e5.4	e4.8	e4.7	60	25	19	4.2	9.0	13
15	6.5	11	e17	e5.4	e4.7	e5.2	74	24	10	5.8	7.8	7.6
16	6.3	9.0	19	e5.3	e4.6	e4.8	118	37	8.7	5.7	6.0	7.6
17	6.2	9.5	e12	e5.3	e4.6	e4.6	89	33	7.7	4.8	5.4	7.6
18	6.5	14	e9.4	e5.3	e4.6	e4.6	77	26	7.1	5.0	36	7.5
19	6.0	10	e11	e5.2	e4.7	e4.7	86	24	6.7	6.8	12	7.4
20	5.8	11	e13	e5.2	e5.6	e4.7	73	23	6.6	5.4	10	7.0
21	14	11	e16	e5.2	e14	e4.8	64	21	9.3	4.5	20	6.5
22	11	9.3	e19	e5.2	e7.4	e4.9	58	20	6.9	16	12	5.8
23	8.0	9.5	e11	e5.2	e5.5	e5.4	59	20	6.9	8.3	7.7	13
24	6.9	9.3	e8.8	e5.2	e5.2	e7.2	69	18	6.1	7.9	7.6	9.0
25	6.5	13	e9.4	e5.2	e5.0	e8.0	68	19	7.5	7.8	7.4	7.7
26	6.2	12	e8.0	e5.2	e4.8	e7.5	80	34	6.3	7.9	7.1	7.5
27	6.2	13	e7.6	e5.3	e4.7	e6.8	81	27	6.8	8.1	6.9	11
28	6.7	40	e6.5	e10	e4.8	e6.5	66	20	15	12	6.3	16
29	6.2	25	e6.2	e20	---	e6.4	59	18	8.5	8.6	5.5	8.2
30	6.1	17	e6.0	e14	---	e6.4	55	17	6.9	8.5	4.6	7.6
31	7.5	---	e5.6	e10	---	e6.4	---	16	---	8.5	4.3	---
TOTAL	229.2	388.1	395.5	200.1	164.2	170.8	1703.3	934	312.7	208.0	261.1	215.1
MEAN	7.39	12.9	12.8	6.45	5.86	5.51	56.8	30.1	10.4	6.71	8.42	7.17
MAX	14	40	25	20	14	8.9	118	70	19	16	36	16
MIN	5.0	8.6	5.6	5.2	4.6	4.5	6.8	16	6.1	4.2	4.3	4.2
CFSM	.83	1.45	1.43	.72	.66	.62	6.34	3.37	1.16	.75	.94	.80
IN.	.95	1.61	1.64	.83	.68	.71	7.08	3.88	1.30	.86	1.09	.89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1994, BY WATER YEAR (WY)

	MEAN	10.2	13.6	13.0	9.38	9.20	17.9	51.2	34.7	14.0	6.85	5.53	5.23
MAX	35.5	33.1	41.0	26.6	46.0	47.0	91.2	75.7	41.1	41.0	25.5	14.9	
(WY)	1976	1990	1984	1978	1981	1976	1969	1971	1973	1973	1990	1976	
MIN	1.14	3.41	2.91	2.53	1.90	5.02	21.0	14.3	5.28	1.63	1.15	.40	
(WY)	1964	1979	1964	1971	1964	1971	1965	1965	1965	1963	1970	1963	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1958 - 1994

ANNUAL TOTAL	5277.6	5182.1	
ANNUAL MEAN	14.5	14.2	15.9
HIGHEST ANNUAL MEAN			29.1
LOWEST ANNUAL MEAN			6.71
HIGHEST DAILY MEAN	153	Apr 17	260
LOWEST DAILY MEAN	2.2	Jul 19	.20
ANNUAL SEVEN-DAY MINIMUM	2.4	Jul 14	.21
INSTANTANEOUS PEAK FLOW			b 272
INSTANTANEOUS PEAK STAGE			d 4.57
INSTANTANEOUS LOW FLOW			f 4.0
ANNUAL RUNOFF (CFSM)	1.62	1.59	bc 800
ANNUAL RUNOFF (INCHES)	21.94	21.54	g .10
10 PERCENT EXCEEDS	30	32	24.17
50 PERCENT EXCEEDS	8.6	7.6	40
90 PERCENT EXCEEDS	4.0	4.7	8.0
			2.2

a Also occurred on Jul. 14, Sept. 5, 10, 11.

b From rating curve extended above 160 ft³/s on basis of slope-area measurement of peak flow.

c From flood marks.

d Ice jam.

e Estimated

f Also on July 15.

g Also on Sept. 19, 1963.

CONNECTICUT RIVER BASIN

83

01141800 MINK BROOK NEAR ETNA, N.H.

LOCATION.--Lat 43°42'08", long 72°11'15", Grafton County, Hydrologic Unit 01080104, on left bank 2 mi northeast of Etna and 5 mi east of Hanover.

DRAINAGE AREA.--4.60 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 1,000 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges and those below 0.5 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.9	8.8	8.7	e2.8	e3.2	e2.3	e10	20	3.3	1.8	3.6	3.9
2	e1.6	5.6	7.4	e2.6	e3.0	e2.2	e12	15	3.2	1.3	2.5	2.3
3	e1.7	4.5	6.6	e2.4	e2.8	e2.2	22	11	3.1	1.0	2.0	1.7
4	e2.0	5.3	6.5	e2.6	e2.7	e2.1	33	9.2	2.6	.74	1.6	1.5
5	e2.3	11	12	e2.4	e2.5	e2.1	34	8.3	2.3	.60	1.8	1.5
6	e1.9	14	12	e2.1	e2.4	e2.1	61	8.0	2.1	.54	1.5	2.7
7	e1.7	8.8	e8.4	e2.1	e2.3	e2.1	86	7.2	2.6	.50	1.1	2.3
8	e1.5	6.2	7.4	e2.4	e2.2	e5.0	40	15	2.1	.45	.94	2.2
9	e1.4	5.9	6.4	e2.2	e2.2	e5.0	35	10	1.7	.93	.77	2.1
10	e1.3	4.8	e6.4	e2.0	e2.1	e25	42	7.7	1.5	7.2	.69	1.7
11	e1.2	4.3	e11	e1.9	e2.1	e16	44	6.5	1.3	2.3	.57	1.4
12	e1.2	4.2	e9.3	e2.1	e2.0	e5.6	45	8.1	3.5	1.4	.53	1.3
13	e3.5	3.8	e14	e2.0	e2.0	e4.2	105	6.7	3.5	.99	.54	1.5
14	e2.8	e3.7	e8.0	e2.2	e2.0	e4.6	86	5.5	7.0	.77	.80	2.4
15	e2.4	e4.4	e7.5	e2.0	e2.0	e3.8	72	5.1	2.9	2.3	.60	1.7
16	e2.1	4.2	e6.8	e2.0	e1.9	e6.1	94	14	2.1	2.4	.46	1.8
17	e1.9	4.0	e6.4	e2.2	e1.8	e5.5	50	17	1.6	1.5	.41	1.8
18	e1.8	10	e5.8	e3.6	e1.8	e4.3	31	10	2.6	1.4	12	1.5
19	e1.7	6.2	e5.5	e2.6	e1.9	e4.1	26	8.3	4.2	1.5	6.0	1.2
20	e1.5	6.6	e5.2	e2.3	e2.2	e3.8	22	6.9	2.0	.99	2.7	1.0
21	e2.7	5.1	e9.8	e2.2	e5.2	e3.8	18	5.5	2.3	.78	18	.98
22	e5.6	4.9	14	e2.1	e4.5	e4.3	16	4.6	1.9	2.4	9.9	.90
23	e3.5	4.3	e7.5	e2.1	e3.7	e4.6	14	4.3	1.3	2.7	4.4	11
24	e2.8	4.3	e6.4	e2.2	e3.3	e7.1	13	3.9	1.3	1.7	3.0	10
25	e2.5	5.9	e5.5	e2.1	e2.9	e11	12	6.2	2.2	1.1	2.4	4.2
26	e2.2	10	e4.9	e1.9	e2.7	e9.3	23	8.6	2.1	2.6	2.0	3.3
27	e2.0	5.5	e4.1	e1.9	e2.5	e8.8	17	9.6	2.0	2.6	1.8	6.2
28	e1.9	22	e3.6	e2.1	e2.4	e8.8	12	5.9	4.2	3.3	1.5	13
29	e1.8	e19	e3.4	e7.5	---	e9.3	11	4.8	2.7	2.7	1.3	9.5
30	1.7	e10	e3.2	e4.0	---	e7.9	9.4	4.0	2.3	9.9	1.1	6.4
31	3.2	---	e3.0	e3.3	---	e7.5	---	3.4	---	14	1.2	---
TOTAL	67.3	217.3	226.7	77.9	72.3	191.5	1095.4	260.3	77.5	82.76	87.71	102.98
MEAN	2.17	7.24	7.31	2.51	2.58	6.18	36.5	8.40	2.58	2.67	2.83	3.43
MAX	5.6	22	14	7.5	5.2	25	105	20	7.0	14	18	13
MIN	1.2	3.7	3.0	1.9	1.8	2.1	9.4	3.4	1.3	.45	.41	.90
CFSM	.47	1.57	1.59	.55	.56	1.34	7.94	1.83	.56	.58	.62	.75
IN.	.54	1.76	1.83	.63	.58	1.55	8.86	2.11	.63	.67	.71	.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1994, BY WATER YEAR (WY)

	5.40	7.26	6.92	4.35	4.86	13.6	24.1	12.0	4.57	2.27	2.05	1.78
MEAN	5.40	7.26	6.92	4.35	4.86	13.6	24.1	12.0	4.57	2.27	2.05	1.78
MAX	23.2	17.9	22.4	16.4	22.4	48.7	49.4	27.9	13.8	10.4	15.0	7.66
(WY)	1976	1976	1984	1986	1984	1977	1969	1976	1973	1973	1976	1987
MIN	.23	.76	1.03	.67	.70	2.66	10.1	3.29	.53	.19	.047	.11
(WY)	1964	1972	1979	1981	1980	1989	1990	1965	1964	1965	1965	1964

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1962 - 1994

ANNUAL TOTAL	2555.30	2559.65	
ANNUAL MEAN	7.00	7.01	7.43
HIGHEST ANNUAL MEAN			14.0
LOWEST ANNUAL MEAN			2.52
HIGHEST DAILY MEAN	100	Mar 30	261
LOWEST DAILY MEAN	.09	Jul 26	.02
ANNUAL SEVEN-DAY MINIMUM	.16	Jul 14	.02
INSTANTANEOUS PEAK FLOW		a 201	a 629
INSTANTANEOUS PEAK STAGE		2.92	b 4.28
INSTANTANEOUS LOW FLOW		c .36	.01
ANNUAL RUNOFF (CFSM)	1.52	1.52	1.62
ANNUAL RUNOFF (INCHES)	20.66	20.70	21.95
10 PERCENT EXCEEDS	14	14	18
50 PERCENT EXCEEDS	2.5	3.2	3.1
90 PERCENT EXCEEDS	.56	1.3	.37

a From rating curve extended above 130 ft³/s on basis of slope-area measurement at gage heights 3.50 ft and 3.75 ft.

b Ice jam.

c Also occurred on Jul. 9.

e Estimated

CONNECTICUT RIVER BASIN

01142500 AYERS BROOK AT RANDOLPH, VT.

LOCATION.--Lat 43°56'04", long 72°39'30", Orange County, Hydrologic Unit 01080105, on right bank 135 ft upstream from bridge on State Highway 12, just north of village limits of Randolph, 0.4 mi upstream from Adams Brook, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--30.5 mi².

PERIOD OF RECORD.--July 1939 to September 1975, June 1976 to current year.

REVISED RECORDS.--WDR MA-NH-RI-VT-72-1: 1949(M), 1952(M), 1953(P), 1958(P), 1960(M), 1967(M).

GAGE.--Water-stage recorder. Datum of gage is 630.50 ft Vermont State Department of Highways datum. Prior to Oct. 1, 1964, at site 140 ft downstream at datum 2.25 ft higher and Oct. 1, 1964, to Sept. 30, 1975, at site 140 ft downstream at datum 1.25 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1830, about 18 ft, present datum, in November 1927.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	26	e39	e24	e21	e20	e50	197	56	23	e10	21
2	9.6	27	e35	e22	e22	e19	e56	147	50	19	e9.6	19
3	13	23	31	e20	e20	e20	e64	118	51	19	14	16
4	14	22	31	e18	e19	e19	e100	105	43	16	13	15
5	31	28	36	e18	e19	e18	122	95	39	15	33	15
6	19	50	38	e17	e18	e18	237	89	36	16	22	16
7	16	36	34	e17	e18	e17	386	83	36	e25	15	17
8	14	28	32	e17	e18	e17	251	113	33	e16	13	18
9	12	25	29	e16	e18	e17	211	99	30	e13	12	e14
10	12	23	31	e16	e18	e21	213	83	28	e15	11	e13
11	12	22	70	e16	e17	e28	245	75	25	e14	9.9	e13
12	12	22	45	e16	e16	e24	263	75	31	e12	9.7	e13
13	20	20	e44	e15	e16	e23	477	69	53	e11	9.2	e14
14	16	22	42	e15	e16	e21	692	63	54	e10	15	e22
15	15	23	41	e15	e15	e22	606	58	35	e9.9	14	e18
16	14	22	42	e14	e15	e27	801	100	29	e12	11	e15
17	13	20	38	e14	e14	e25	534	115	26	e9.3	9.5	e13
18	15	27	36	e14	e15	e24	343	86	23	e11	107	e12
19	14	23	34	e14	e15	e23	294	75	23	e9.7	61	e12
20	12	23	32	e13	e18	e24	271	68	20	e9.6	33	e12
21	27	22	e33	e13	e48	e23	218	62	20	e12	85	e11
22	36	21	e48	e13	e37	e26	181	58	21	e33	65	e11
23	24	21	e31	e13	e30	e30	162	53	17	e25	40	e28
24	20	19	e26	e13	e27	e45	171	49	15	e17	30	42
25	18	e19	e30	e12	e24	e58	186	48	19	e12	26	24
26	16	e18	e27	e12	e21	e54	225	102	20	e10	24	19
27	17	18	23	e12	e22	e50	190	114	26	e10	22	20
28	17	59	e29	e16	e21	e47	164	75	42	e13	21	43
29	16	70	e27	e26	---	e44	128	65	32	e17	19	28
30	15	43	e27	e35	---	e42	115	62	27	e12	17	23
31	16	---	e26	e26	---	e46	---	55	---	e11	16	---
TOTAL	516.6	822	1087	522	578	892	7956	2656	960	457.5	796.9	557
MEAN	16.7	27.4	35.1	16.8	20.6	28.8	265	85.7	32.0	14.8	25.7	18.6
MAX	36	70	70	35	48	58	801	197	56	33	107	43
MIN	9.6	18	23	12	14	17	50	48	15	9.3	9.2	11
CFSM	.55	.90	1.15	.55	.68	.94	8.70	2.81	1.05	.48	.84	.61
IN.	.63	1.00	1.33	.64	.70	1.09	9.70	3.24	1.17	.56	.97	.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1994, BY WATER YEAR (WY)

	MEAN	26.9	38.7	41.0	32.4	32.9	74.4	164	79.4	38.3	19.0	15.0	14.9
MAX	102	102	151	82.5	136	189	289	173	142	85.5	64.0	48.9	
(WY)	1946	1960	1984	1978	1981	1979	1969	1972	1947	1973	1989	1981	
MIN	2.29	9.05	11.9	9.31	8.27	14.0	52.1	23.4	7.32	2.05	1.90	1.91	
(WY)	1964	1954	1948	1981	1940	1940	1946	1941	1965	1965	1965	1963	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1939 - 1994

ANNUAL TOTAL	15772.8	17801.0	
ANNUAL MEAN	43.2	48.8	47.9
HIGHEST ANNUAL MEAN			78.4
LOWEST ANNUAL MEAN			16.7
HIGHEST DAILY MEAN	483	801	1200
LOWEST DAILY MEAN	3.5	9.2	.80
ANNUAL SEVEN-DAY MINIMUM	3.8	10	.97
INSTANTANEOUS PEAK FLOW		a 1220	a 2600
INSTANTANEOUS PEAK STAGE		b 6.98	10.37
INSTANTANEOUS LOW FLOW			.60
ANNUAL RUNOFF (CFSM)	1.42	1.60	1.57
ANNUAL RUNOFF (INCHES)	19.24	21.71	21.34
10 PERCENT EXCEEDS	84	100	110
50 PERCENT EXCEEDS	23	23	26
90 PERCENT EXCEEDS	5.8	12	6.6

a From rating curve extended above 500 ft³/s on basis of contracted-opening measurement of peak flow.

b From crest-stage gage.

e Estimated

01144000 WHITE RIVER AT WEST HARTFORD, VT.

LOCATION.--Lat 43°42'51", long 72°25'07", Windsor County, Hydrologic Unit 01080105, on left bank 700 ft upstream from highway bridge at West Hartford and 7.4 mi upstream from mouth.

DRAINAGE AREA.--690 mi².

PERIOD OF RECORD.--Discharge: June 1915 to current year. October 1927 to September 1928 monthly discharge only, published in WSP 1301. Water-quality records: Water years 1953, 1967-74, 1992 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1928(M). WSP 1031: 1916(m), 1923. WSP 1301: 1916-26(M), 1929(M).

GAGE.--Water-stage recorder. Datum of gage is 374.53 ft above sea level. Prior to Oct. 30, 1927, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some diurnal fluctuation at low flow during period 1934-50 caused by powerplant upstream. Stage and discharge of the flood of Nov. 4, 1927, are the greatest since at least 1761.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	338	514	984	e580	e520	e740	e1400	4070	1140	662	434	514
2	289	580	842	e530	e540	e700	e1600	4010	1090	531	351	514
3	464	478	875	e510	e520	e660	1730	2930	1070	450	501	425
4	602	447	870	e470	e500	e620	3050	2460	929	396	423	390
5	909	521	946	e450	e470	e600	3330	2190	815	352	502	364
6	749	1980	1060	e440	e460	e580	6040	2010	739	322	875	365
7	543	1710	930	e430	e460	e580	11500	1910	711	366	530	363
8	451	1080	867	e420	e450	e560	6530	2310	675	364	390	452
9	395	845	769	e420	e460	e560	4790	2530	605	332	342	423
10	359	728	743	e410	e450	e600	5120	2050	543	422	296	386
11	342	650	1810	e400	e430	e760	6430	1800	493	362	261	332
12	321	606	e1530	e400	e410	e680	5840	1750	509	283	240	318
13	388	580	e990	e400	e400	e620	9320	1810	719	248	229	312
14	422	553	e1100	e390	e390	e630	15400	1550	879	232	472	438
15	364	696	1090	e380	e380	e650	11900	1380	781	226	652	548
16	336	756	1160	e370	e370	e750	16300	1980	589	255	411	405
17	318	650	922	e370	e360	e740	12100	3320	502	240	333	378
18	311	806	e780	e360	e380	e720	7230	2480	450	243	2600	364
19	319	790	917	e350	e380	e660	5760	2040	531	258	3050	311
20	293	712	820	e350	e450	e700	6260	1770	491	267	1400	282
21	314	648	852	e340	e900	e670	4790	1550	415	241	2370	266
22	885	588	1570	e340	e1800	e720	3940	1380	445	333	3570	253
23	703	555	1130	e340	e1300	e860	3390	1250	387	824	1790	444
24	546	529	650	e330	e1050	e1200	3350	1120	350	709	1180	1640
25	470	461	e500	e320	e930	e1850	4200	1100	357	497	912	949
26	420	343	e460	e310	e840	e1600	5480	1370	410	366	800	720
27	390	450	e440	e310	e750	e1450	4710	2510	385	361	706	658
28	383	762	e480	e400	e780	e1350	4540	1720	902	381	646	1740
29	410	2620	632	e600	---	e1300	3200	1410	1270	623	563	1400
30	376	1430	e610	e1100	---	e1250	2720	1240	792	517	481	1330
31	391	---	e600	e720	---	e1300	---	1100	---	738	434	---
TOTAL	13801	24068	27929	13540	17130	26660	181950	62100	19974	12401	27744	17284
MEAN	445	802	901	437	612	860	6065	2003	666	400	895	576
MAX	909	2620	1810	1100	1800	1850	16300	4070	1270	824	3570	1740
MIN	289	343	440	310	360	560	1400	1100	350	226	229	253
CFSM	.65	1.16	1.31	.63	.89	1.25	8.79	2.90	.96	.58	1.30	.83
IN.	.74	1.30	1.51	.73	.92	1.44	9.81	3.35	1.08	.67	1.50	.93

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1994, BY WATER YEAR (WY)

	MEAN	657	1014	1000	814	792	1893	3919	1999	883	474	365	405
MAX	2416	2391	3189	2127	3503	7170	7286	4734	3459	1742	1822	2774	
(WY)	1946	1960	1984	1937	1981	1936	1969	1940	1947	1973	1976	1938	
MIN	80.0	285	237	197	169	222	1488	634	224	108	90.5	77.5	
(WY)	1964	1954	1923	1925	1940	1940	1946	1941	1921	1965	1965	1963	

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1915 - 1994	
ANNUAL TOTAL	360087		444581			
ANNUAL MEAN	987		1218		1183	
HIGHEST ANNUAL MEAN					1910	1976
LOWEST ANNUAL MEAN					494	1965
HIGHEST DAILY MEAN	12400	Apr 17	16300	Apr 16	31300	Mar 18 1936
LOWEST DAILY MEAN	122	Aug 12	226	Jul 15	a 54	Sep 27 1963
ANNUAL SEVEN-DAY MINIMUM	133	Aug 8	243	Jul 13	59	Sep 22 1963
INSTANTANEOUS PEAK FLOW			20000	Apr 16	b 120000	Nov 4 1927
INSTANTANEOUS PEAK STAGE			13.58	Apr 16	c 29.30	Nov 4 1927
INSTANTANEOUS LOW FLOW			217	Jul 15	d 35	Aug 4 1918
ANNUAL RUNOFF (CFSM)	1.43		1.77			
ANNUAL RUNOFF (INCHES)	19.41		23.97		1.71	
10 PERCENT EXCEEDS	2070		2520		23.29	
50 PERCENT EXCEEDS	470		605		2690	
90 PERCENT EXCEEDS	175		335		620	
					188	

a Also occurred on Sept. 28, 1963.

b From rating curve extended above 29,000 ft³/s on basis of slope-area measurements of peak flow.

c From floodmarks.

d About

e Estimated

CONNECTICUT RIVER BASIN

01144000 WHITE RIVER AT WEST HARTFORD, VT.--Continued

(National water quality assessment program station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1953, 1967-74, 1992 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994												
DATE	TIME	DIS-CHARGE,	SPE-CIFIC	PH	TEMPER-ATURE	TEMPER-ATURE	BARO-METRIC	OXYGEN,	OXYGEN,	HARD-NESS	SODIUM	SODIUM
		INST.	CIFIC	WATER			PRES-					
		CUBIC	CON-DUCT-	FIELD			SURE					
		FEET	ANCE	(STAND-ARD			OF					
		PER SECOND	(US/CM)	UNITS)	(DEG C)	(DEG C)	(MM HG)	(MG/L)	(PER-CENT SATUR-ATION)	(MG/L CACO3)	PERCENT	RATIO
		(00061)	(00095)	(00400)	(00020)	(00010)	(00025)	(00300)	(00301)	(00900)	(00932)	(00931)
OCT 1993												
06...	0700	1210	180	7.9	18.0	11.0	753	10.9	100	53	14	0.2
NOV												
17...	1400	--	118	7.9	6.5	5.5	753	11.9	96	47	14	0.2
DEC												
28...	1050	547	157	7.0	-15.5	0.0	762	15.0	102	70	13	0.3
JAN 1994												
26...	1345	510	164	6.7	-10.5	0.0	770	12.8	87	67	13	0.3
MAR												
01...	1145	1050	129	5.9	-20.0	0.0	763	14.8	101	59	13	0.2
APR												
05...	1145	3300	107	6.4	6.0	2.0	752	15.0	109	41	16	0.3
20...	0730	6960	90	7.4	5.0	3.5	750	15.0	115	32	13	0.2
MAY												
11...	0830	1840	120	6.3	5.5	10.0	756	10.8	97	49	14	0.2
JUN												
06...	1130	740	150	7.0	24.5	18.0	759	9.4	100	--	--	--
16...	1200	608	158	6.9	27.0	24.0	759	8.0	95	69	14	0.3
23...	0810	400	172	7.0	14.5	20.5	748	8.4	95	75	14	0.3
29...	1700	1080	110	5.8	24.5	19.0	748	9.6	105	47	12	0.2
JUL												
13...	0820	248	200	6.3	18.0	23.5	751	7.5	89	78	15	0.3
AUG												
09...	1230	338	159	7.1	32.0	22.5	754	8.0	94	64	15	0.3
30...	1300	480	149	6.6	20.0	19.0	752	9.2	102	64	15	0.3
SEP												
27...	1250	620	147	5.8	16.0	15.0	751	9.6	97	62	14	0.3
DATE		CAR-BONATE	BICAR-BONATE	CHLO-RIDE,	SOLIDS,	POTAS-SIUM,	PH	SPE-CIFIC	ALKA-LINITY	IRON,	MANGA-NESE,	MAGNE-SIUM,
		WATER	WATER	RIDE,	AT 180	SUM,	WATER	CIFIC	LAB	DIS-	DIS-	DIS-
		DIS IT	DIS IT	DIS-	DEG. C	DIS-	WHOLE	CON-DUCT-	LAB	SOLVED	SOLVED	SOLVED
		FIELD	FIELD	SOLVED	DIS-	SOLVED	(STAND-ARD	ANCE	(MG/L	UG/L	UG/L	UG/L
		MG/L AS	MG/L AS	(MG/L	SOLVED	(MG/L	ARD	LAB	AS	(UG/L	(UG/L	(MG/L
		CO3	HCO3	AS CL)	(MG/L)	AS K)	UNITS)	(US/CM)	CACO3)	AS FE)	AS MN)	AS CA)
		(00452)	(00453)	(00940)	(70300)	(00935)	(00403)	(90095)	(90410)	(01046)	(01056)	(00915)
OCT 1993												
06...	0	50	5.9	71	1.0	7.9	130	46	32	9	18	1.9
NOV												
17...	0	49	5.0	73	0.80	7.5	118	41	17	11	16	1.8
DEC												
28...	0	60	8.5	98	1.0	7.7	177	62	23	22	24	2.4
JAN 1994												
26...	--	72	8.2	97	1.0	7.6	174	65	9	7	23	2.3
MAR												
01...	--	61	6.7	75	0.80	7.1	139	48	18	8	20	2.1
APR												
05...	--	44	7.0	60	0.80	7.4	113	37	40	12	14	1.5
20...	--	37	3.5	48	0.70	7.4	89	30	49	6	11	1.1
MAY												
11...	--	53	6.1	71	0.80	7.6	130	45	16	10	17	1.6
JUN												
06...	--	71	--	--	--	--	--	--	--	--	--	--
16...	--	94	8.1	87	1.1	7.6	169	63	20	13	24	2.2
23...	--	88	10	105	1.3	7.8	195	73	25	10	26	2.4
29...	--	52	4.5	71	0.70	7.2	113	43	45	9	16	1.6
JUL												
13...	--	--	11	106	1.4	7.8	198	74	30	10	27	2.6
AUG												
09...	--	83	8.2	88	1.0	7.7	157	58	31	14	22	2.1
30...	--	72	8.6	87	0.90	7.7	159	57	31	19	22	2.3
SEP												
27...	--	61	6.9	86	1.1	7.6	151	56	29	8	21	2.2

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(National water quality assessment program station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- ORTH, DIS- SOLVED (MG/L AS P) (00671)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
OCT 1993												
06...	3.3	4.1	7.8	0.10	<0.010	<0.010	0.090	0.010	<0.010	<0.20	<0.20	<0.010
NOV												
17...	3.1	3.6	8.4	0.10	<0.010	<0.010	0.190	0.010	<0.010	<0.20	<0.20	<0.010
DEC												
28...	4.4	4.8	11	<0.10	<0.010	<0.010	0.370	0.020	<0.010	<0.20	<0.20	<0.010
JAN 1994												
26...	4.3	4.8	9.8	<0.10	0.010	<0.010	0.450	0.030	0.020	<0.20	<0.20	<0.010
MAR												
01...	4.2	4.0	8.7	<0.10	0.010	<0.010	<0.050	<0.010	<0.010	<0.20	<0.20	<0.010
APR												
05...	3.5	3.8	7.2	<0.10	0.010	<0.010	0.390	0.040	<0.010	<0.20	0.30	0.080
20...	3.3	2.2	6.8	<0.10	<0.010	<0.010	0.290	0.030	<0.010	<0.20	<0.20	<0.010
MAY												
11...	3.6	3.6	7.9	<0.10	<0.010	<0.010	0.240	0.010	<0.010	<0.20	<0.20	<0.010
JUN												
06...	--	--	--	--	<0.010	<0.010	0.190	0.030	<0.010	<0.20	<0.20	<0.010
16...	3.3	5.1	8.2	<0.10	--	--	--	--	--	--	--	--
23...	3.6	5.9	9.0	<0.10	--	--	--	--	--	--	--	--
29...	3.5	3.1	6.4	<0.10	<0.010	<0.010	0.200	0.020	0.010	<0.20	<0.20	<0.010
JUL												
13...	3.1	6.6	8.7	<0.10	<0.010	<0.010	0.210	<0.010	<0.010	<0.20	<0.20	<0.010
AUG												
09...	2.9	5.2	7.6	<0.10	<0.010	<0.010	0.230	0.050	0.030	<0.20	<0.20	0.030
30...	3.9	5.4	8.1	<0.10	<0.010	<0.010	2.40	0.010	<0.010	<0.20	<0.20	<0.010
SEP												
27...	4.2	4.6	7.3	<0.10	<0.010	<0.010	0.140	<0.010	<0.010	<0.20	<0.20	<0.010
DATE	CARBON, ORGANIC DIS- SOLVED AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL AS C) (00689)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)
OCT 1993												
06...	3.8	0.4	--	--	--	--	--	--	--	--	--	--
NOV												
17...	2.2	0.1	--	--	--	--	--	--	--	--	--	--
DEC												
28...	1.4	0.1	--	--	--	--	--	--	--	--	--	--
JAN 1994												
26...	--	0.1	--	--	--	--	--	--	--	--	--	--
MAR												
01...	0.9	0.1	--	--	--	--	--	--	--	--	--	--
APR												
05...	1.8	1.7	--	--	--	--	--	--	--	--	--	--
20...	1.8	1.0	--	--	--	--	--	--	--	--	--	--
MAY												
11...	1.2	0.2	--	--	--	--	--	--	--	--	--	--
JUN												
06...	--	--	<0.01	<0.00	<0.02	<0.05	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01
16...	--	--	<0.01	0.00	0.01	<0.04	<0.01	<0.01	<0.05	<0.01	<0.00	<0.01
23...	1.5	0.2	<0.01	<0.01	0.01	<0.04	<0.01	<0.01	<0.05	<0.01	<0.00	<0.01
29...	--	--	0.01	0.00	0.03	<0.04	<0.01	<0.01	<0.05	<0.01	<0.00	<0.01
JUL												
13...	1.2	0.2	--	--	--	--	--	--	--	--	--	--
AUG												
09...	1.6	0.2	--	--	--	--	--	--	--	--	--	--
30...	1.3	0.2	--	--	--	--	--	--	--	--	--	--
SEP												
27...	1.6	0.1	--	--	--	--	--	--	--	--	--	--

(National water quality assessment program station)

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	DCPA		DI- AZINON, DIS- (UG/L)	DI- ELDRIN (UG/L)	2,6-DI- ETHYL	DIMETH- OATE	DISUL- FOTON	EPTC	ETHAL- FLUR-	ETHO- PROP	FONOFOS WATER REC (UG/L) (04095)	
	WATER	P, P' DDE			WAT FLT (UG/L)	WATER FLTRD (UG/L)	WATER FLTRD (UG/L)	WATER FLTRD (UG/L)	WATER FLTRD (UG/L)	ALIN WAT FLT (UG/L)		WATER FLTRD (UG/L)
	FLTRD											
	0.7 U											
	GF, REC (82682)	DISSOLV (34653)	SOLVED (39572)	SOLVED (39381)	GF, REC (82660)	GG, REC (82662)	GF, REC (82677)	GF, REC (82668)	GF, REC (82663)	GF, REC (82672)		
OCT 1993												
06...	--	--	--	--	--	--	--	--	--	--	--	
NOV												
17...	--	--	--	--	--	--	--	--	--	--	--	
DEC												
28...	--	--	--	--	--	--	--	--	--	--	--	
JAN 1994												
26...	--	--	--	--	--	--	--	--	--	--	--	
MAR												
01...	--	--	--	--	--	--	--	--	--	--	--	
APR												
05...	--	--	--	--	--	--	--	--	--	--	--	
20...	--	--	--	--	--	--	--	--	--	--	--	
MAY												
11...	--	--	--	--	--	--	--	--	--	--	--	
JUN												
06...	<0.00	<0.01	<0.01	<0.01	<0.01	<0.02	<0.06	<0.00	<0.01	<0.01	<0.01	
16...	<0.00	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.00	<0.01	<0.01	<0.01	
23...	<0.00	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.00	<0.01	<0.01	<0.01	
29...	<0.00	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.00	<0.01	<0.01	<0.01	
JUL												
13...	--	--	--	--	--	--	--	--	--	--	--	
AUG												
09...	--	--	--	--	--	--	--	--	--	--	--	
30...	--	--	--	--	--	--	--	--	--	--	--	
SEP												
27...	--	--	--	--	--	--	--	--	--	--	--	
DATE	ALPHA		LIN- URON	MALA- THION,	METO- LACHLOR	METRI- BUZIN	MOL- INATE	NAPROP- AMIDE	METHYL PARA-	PEB- ULATE		
	BHC	LINDANE	WATER	THION,	METO-	BUZIN	WATER	WATER	PARA-	ULATE		
	DIS-	DIS-	0.7 U	DIS-	WATER	WATER	0.7 U	0.7 U	DIS-	0.7 U	0.7 U	
	SOLVED (UG/L)	SOLVED (UG/L)	GF, REC (UG/L)	SOLVED (UG/L)	DISSOLV (UG/L)	DISSOLV (UG/L)	GF, REC (UG/L)	GF, REC (UG/L)	SOLVED (UG/L)	GF, REC (UG/L)	GF, REC (UG/L)	
	(34253)	(39341)	(82666)	(39532)	(39415)	(82630)	(82671)	(82684)	(39542)	(82667)	(82669)	
OCT 1993												
06...	--	--	--	--	--	--	--	--	--	--	--	
NOV												
17...	--	--	--	--	--	--	--	--	--	--	--	
DEC												
28...	--	--	--	--	--	--	--	--	--	--	--	
JAN 1994												
26...	--	--	--	--	--	--	--	--	--	--	--	
MAR												
01...	--	--	--	--	--	--	--	--	--	--	--	
APR												
05...	--	--	--	--	--	--	--	--	--	--	--	
20...	--	--	--	--	--	--	--	--	--	--	--	
MAY												
11...	--	--	--	--	--	--	--	--	--	--	--	
JUN												
06...	<0.01	<0.01	<0.04	<0.01	0.01	<0.01	<0.01	<0.01	<0.02	<0.03	<0.01	
16...	<0.01	<0.01	<0.04	<0.01	0.01	<0.01	<0.01	<0.01	<0.02	<0.03	<0.01	
23...	<0.01	<0.01	<0.04	<0.01	0.01	<0.01	<0.01	<0.01	<0.02	<0.03	<0.01	
29...	<0.01	<0.01	<0.04	<0.01	0.01	<0.01	<0.01	<0.01	<0.02	<0.03	<0.01	
JUL												
13...	--	--	--	--	--	--	--	--	--	--	--	
AUG												
09...	--	--	--	--	--	--	--	--	--	--	--	
30...	--	--	--	--	--	--	--	--	--	--	--	
SEP												
27...	--	--	--	--	--	--	--	--	--	--	--	

(National water quality assessment program station)

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PANIL WATER 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER 0.7 U GF, REC (UG/L) (82665)
OCT 1993											
06...	--	--	--	--	--	--	--	--	--	--	--
NOV											
17...	--	--	--	--	--	--	--	--	--	--	--
DEC											
28...	--	--	--	--	--	--	--	--	--	--	--
JAN 1994											
26...	--	--	--	--	--	--	--	--	--	--	--
MAR											
01...	--	--	--	--	--	--	--	--	--	--	--
APR											
05...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	--	--	--	--	--	--	--	--	--	--	--
JUN											
06...	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.02	<0.03
16...	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	0.01	<0.02	<0.03
23...	<0.02	<0.02	<0.01	<0.01	0.00	<0.02	<0.02	<0.01	0.01	<0.02	<0.03
29...	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	0.01	<0.02	<0.03
JUL											
13...	--	--	--	--	--	--	--	--	--	--	--
AUG											
09...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
SEP											
27...	--	--	--	--	--	--	--	--	--	--	--
	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DIAZ- INON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)	TERBUTH YLAZINE SURROGT WAT FLT 0.7 U GF, REC PERCENT (91064)	SET NUMBER SCHED- ULE 2001 (NO.) (99818)	SAMPLE VOLUME SCHED- ULE 2010 (ML) (99857)	2,4,5-T DIS- SOLVED (UG/L) (39742)	2,4-D, DIS- SOLVED (UG/L) (39732)
OCT 1993											
06...	--	--	--	--	--	--	--	--	--	--	--
NOV											
17...	--	--	--	--	--	--	--	--	--	--	--
DEC											
28...	--	--	--	--	--	--	--	--	--	--	--
JAN 1994											
26...	--	--	--	--	--	--	--	--	--	--	--
MAR											
01...	--	--	--	--	--	--	--	--	--	--	--
APR											
05...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	--	--	--	--	--	--	--	--	--	--	--
JUN											
06...	<0.01	<0.01	<0.01	<0.01	100	200	110	--	886	<0.05	<0.05
16...	<0.01	<0.01	<0.01	<0.01	80	100	110	<0	917	<0.05	<0.05
23...	<0.01	<0.01	<0.01	<0.01	60	100	97	<0	902	--	--
29...	<0.01	<0.01	<0.01	<0.01	70	100	120	<0	908	--	--
JUL											
13...	--	--	--	--	--	--	--	--	--	--	--
AUG											
09...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
SEP											
27...	--	--	--	--	--	--	--	--	--	--	--

(National water quality assessment program station)

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

[illegible]

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(National water quality assessment program station)

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

	FEN- URON, WATER, FLTRD, GF 0.7U	FLUO- METURON WATER, FLTRD, GF 0.7U	LINURON WATER, FLTRD, GF 0.7U	MCPA, WATER, FLTRD, GF 0.7U	MCPB, WATER, FLTRD, GF 0.7U	METHIO- CARB, WATER, FLTRD, GF 0.7U	METH- OMYL, WATER, FLTRD, GF 0.7U	1-NAPH THOL, WATER, FLTRD, GF 0.7U	NEB- URON, WATER, FLTRD, GF 0.7U	NORFLUR AZON, WATER, FLTRD, GF 0.7U	ORY- ZALIN, WATER, FLTRD, GF 0.7U
DATE	REC (UG/L) (49297)	REC (UG/L) (38811)	REC (UG/L) (38478)	REC (UG/L) (38482)	REC (UG/L) (38487)	REC (UG/L) (38501)	REC (UG/L) (49296)	REC (UG/L) (49295)	REC (UG/L) (49294)	REC (UG/L) (49293)	REC (UG/L) (49292)
OCT 1993											
06...	--	--	--	--	--	--	--	--	--	--	--
NOV											
17...	--	--	--	--	--	--	--	--	--	--	--
DEC											
28...	--	--	--	--	--	--	--	--	--	--	--
JAN 1994											
26...	--	--	--	--	--	--	--	--	--	--	--
MAR											
01...	--	--	--	--	--	--	--	--	--	--	--
APR											
05...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	--	--	--	--	--	--	--	--	--	--	--
JUN											
06...	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
16...	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
23...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
JUL											
13...	--	--	--	--	--	--	--	--	--	--	--
AUG											
09...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
SEP											
27...	--	--	--	--	--	--	--	--	--	--	--
	OXAMYL, WATER, FLTRD, GF 0.7U	PIC- LORAM, WATER, FLTRD, GF 0.7U	PRO- PHAM, WATER, FLTRD, GF 0.7U	PRO- POXUR, WATER, FLTRD, GF 0.7U	SILVEX, DIS- SOLVED (UG/L)	TRI- CLOPYR, WATER, FLTRD, GF 0.7U	BDMC, SURROG, WATER, UNFLTRD REC	SET NUMBER SCHED- ULE 2051 (NO.)	SAMPLE VOLUME, SCHED- ULE 2051 (ML)	SEDI- MENT, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DATE	REC (UG/L) (38866)	REC (UG/L) (49291)	REC (UG/L) (49236)	REC (UG/L) (38538)	REC (UG/L) (39762)	REC (UG/L) (49235)	PERCENT (99835)				
OCT 1993											
06...	--	--	--	--	--	--	--	--	--	8	84
NOV											
17...	--	--	--	--	--	--	--	--	--	2	80
DEC											
28...	--	--	--	--	--	--	--	--	--	1	50
JAN 1994											
26...	--	--	--	--	--	--	--	--	--	23	59
MAR											
01...	--	--	--	--	--	--	--	--	--	3	78
APR											
05...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	--	--	--	--	--	--	--	--	--	--	--
JUN											
06...	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	30	<0	920	--	--
16...	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	34	<0	931	--	--
23...	--	--	--	--	--	--	--	--	--	2	86
29...	--	--	--	--	--	--	--	--	--	--	--
JUL											
13...	--	--	--	--	--	--	--	--	--	2	71
AUG											
09...	--	--	--	--	--	--	--	--	--	1	83
30...	--	--	--	--	--	--	--	--	--	4	67
SEP											
27...	--	--	--	--	--	--	--	--	--	2	97

CONNECTICUT RIVER BASIN

01144500 CONNECTICUT RIVER AT WEST LEBANON, N.H.

LOCATION.--Lat 43°38'46", long 72°18'46", Grafton County, Hydrologic Unit 01080104, on left bank 50 ft downstream from railroad bridge at West Lebanon, 500 ft downstream from White River, and at mile 215.0.

DRAINAGE AREA.--4,092 mi².

PERIOD OF RECORD.--Discharge: October 1911 to November 1976 (published as "at White River Junction, VT"), November 1978 to current year. Water-quality records: Water year 1954, 1994.

REVISED RECORDS.--WSP 741: 1932 (adjusted monthly and yearly figures only). WSP 781: 1928(M). WSP 891: Drainage area. WSP 1301: 1922-26(M).

GAGE.--Water-stage recorder. Datum of gage is 321.52 ft above sea level. Prior to June 16, 1918, nonrecording gage on downstream side of pier of railroad bridge 50 ft upstream at same datum. June 16, 1918, to Nov. 2, 1930, nonrecording gage at various locations on upstream and downstream sides of railroad bridge at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, Union Village Reservoir (Reservoirs in Connecticut River basin), and other reservoirs. These reservoirs have a combined usable capacity of about 17.2 billion ft³.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3730	4500	6370	3440	e3450	e4800	7060	25000	10300	3830	3070	3190
2	5860	4420	4790	3110	e3750	e4650	9180	24800	8350	3950	3770	2160
3	3090	4170	5340	e3550	e3400	e4300	8970	22700	5810	4800	3060	1460
4	4850	4440	5650	e3600	e3300	e4900	12900	18300	5630	5000	3300	1940
5	5970	5100	7280	e3650	e3500	e4650	16400	14500	5850	5680	3220	2060
6	4990	5740	7420	e4200	e3650	e4050	20500	13500	4810	5020	3690	4370
7	6000	6870	7260	e3750	e3700	e5100	36900	13400	5670	5680	2900	1940
8	4640	7340	5050	e2950	e3850	e3700	34500	13900	7600	4170	2640	2040
9	4260	7050	5270	e2750	e3700	e5100	28800	14900	7490	3650	2550	1690
10	3720	6910	6680	e3800	e3900	e4850	28100	13300	8430	5740	2520	1910
11	3460	6810	7900	e4050	e4300	e6000	30300	13000	5500	4390	2640	1600
12	3600	6740	8380	e3750	e3100	e5900	30000	12600	4240	4430	1420	1850
13	5760	5800	7690	e4050	e2850	e5900	33600	13300	4950	5680	1950	3370
14	5930	6070	7810	e3400	e3900	e5600	45400	12100	6770	3940	2550	4660
15	4500	5670	7720	e3050	e4550	e5100	43900	10500	8250	4470	3340	4830
16	1910	4590	7500	e2950	e4500	e5400	51200	9700	6770	2380	2590	4460
17	2740	5060	7260	e4500	e4450	e5000	54000	12900	6520	1900	2970	3720
18	5140	5550	7100	e2950	e4700	e5900	48700	12700	3520	2100	5960	3850
19	5870	5840	7210	e4150	e4350	e5100	40700	12000	3600	3110	7460	3580
20	5570	4290	7140	e3900	e5000	4230	38400	11400	4460	4150	5170	3670
21	5950	6030	7180	e3400	e6100	4880	32200	9530	3750	5210	5050	3480
22	4800	4960	8020	e2700	e5500	4980	26600	7720	4520	4840	10100	3630
23	5140	5040	7510	e2550	e5200	4590	23300	8350	4270	5610	6290	4370
24	2850	5870	6990	e2650	e5000	6550	18100	7200	5530	3070	5060	3120
25	4480	5890	6280	e3500	e5200	6430	18300	6890	4240	4800	4240	3820
26	5880	4740	4500	e3550	e4850	7540	19500	8840	3600	4600	4530	4040
27	5870	4170	5120	e3750	e4350	7330	24300	9150	3750	3540	4430	4390
28	5040	4110	4850	e3450	e4600	8910	30000	12900	3450	3480	3660	4450
29	3920	8760	3450	e4850	---	8390	30300	11200	6650	4340	4220	4260
30	2370	7860	3430	e4550	---	7760	25500	10300	3980	3990	4250	3540
31	2460	---	3170	e4350	---	7830	---	9330	---	5730	3750	---
TOTAL	140350	170390	197320	110850	118700	175420	867610	395910	168260	133280	122350	97450
MEAN	4527	5680	6365	3576	4239	5659	28920	12770	5609	4299	3947	3248
MAX	6000	8760	8380	4850	6100	8910	54000	25000	10300	5740	10100	4830
MIN	1910	4110	3170	2550	2850	3700	7060	6890	3450	1900	1420	1460

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1994, BY WATER YEAR (WY)

MEAN	4763	6779	6198	4867	4702	9142	20430	13110	6249	3642	3023	3235
MAX	12990	24860	16890	10680	17650	35510	32900	25890	16870	14050	8904	12900
(WY)	1982	1928	1984	1913	1981	1936	1934	1972	1947	1973	1990	1954
MIN	1314	2313	1795	1627	1419	1626	10130	4556	1946	1393	1072	1007
(WY)	1948	1948	1948	1948	1940	1940	1965	1987	1921	1921	1942	1921

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1912 - 1994	
ANNUAL TOTAL	2307845		2697890		7206	
ANNUAL MEAN	6323		7391		10700	
HIGHEST ANNUAL MEAN					4101	
LOWEST ANNUAL MEAN					1928	
HIGHEST DAILY MEAN	40400	Apr 18	54000	Apr 17	129000	Nov 4 1927
LOWEST DAILY MEAN	927	Aug 14	1420	Aug 12	82	Aug 8 1965
ANNUAL SEVEN-DAY MINIMUM	1390	Aug 11	2060	Sep 7	731	Aug 27 1934
INSTANTANEOUS PEAK FLOW			58600	Apr 16	a 136000	Nov 4 1927
INSTANTANEOUS PEAK STAGE			20.97	Apr 16	35.00	Nov 4 1927
INSTANTANEOUS LOW FLOW			1040	Aug 13	82	Aug 8 1965
10 PERCENT EXCEEDS	10100		13300		16000	
50 PERCENT EXCEEDS	4590		4850		4540	
90 PERCENT EXCEEDS	2010		3020		1670	

a From rating curve extended above 70,000 ft³/s.

e Estimated

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(National water quality assessment program station)

PERIOD OF RECORD.--Water year 1954, 1994 to current year.

		DIS- CHARGE, INST. CUBIC FEET	SPE- CIFIC CON- DUCT-	PH WATER WHOLE FIELD (STAND-	TEMPER- ATURE AIR (DEG C)	TEMPER- TURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) SATUR-(PER-CENT AS SODIUM PERCENT	HARD-NESS TOTAL (MG/L) AS CACO3	SODIUM RATIO				
JUN 1994	DATE	TIME	SECOND (00061)	ANCE (US/CM) (00095)	ARDS (UNIT) (00400)	AIR (DEG C) (00020)	OF (DEG C) (00010)	DIS-SOLVED (MG/L) SATUR-(PER-CENT AS SODIUM PERCENT	CACON (CACO3) (00900)	RATIO (00932)				
30...	0745	1810	98	6.0	18.5	19.0	751	7.8	85	35	23	0.4		
	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO-RIDE, DEGR. SOLVED (MG/L) AS CL (00940)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) AS K (70300)	POTAS-IUM, LAB ARD (MG/L) AS K (00935)	PH WHOLE LAB STAND-ARDS (MG/L) AS P (00403)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	ALKA-LINITY LAB (MG/L) AS CACO3 (90410)	MANGA-NESE, DIS-SOLVED (UG/L) AS MN (01056)	CALCIUM DIS-SOLVED (MG/L) AS CA (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) AS MG (00925)	SILICA, DIS-SOLVED (MG/L) AS SIO2 (00955)			
JUN 1994	DATE	TIME	37	7.4	70	0.80	6.9	99	30	68	18	12	1.2	5.3
30...	NITRO-GEN, PHOS-PHORUS NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00631)	FUORO-RIDE, DIS-SOLVED (MG/L) AS F (00950)	NITRO-GEN, PHOS-PHORUS NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00631)	FLURO-RIDE, DIS-SOLVED (MG/L) AS F (00950)	ORTH-OXO, DIS-SOLVED (MG/L) AS O (00671)	NO2+NO3 DIS-SOLVED (MG/L) AS NO3 (00631)	AMMO-NIA DIS-SOLVED (MG/L) AS NH3 (00608)	ORGANIC DIS-SOLVED (MG/L) AS ORG (00623)	TOTAL ORGANIC DIS-SOLVED (MG/L) AS TOG (00625)	THION, DIS-SOLVED (MG/L) AS THS (00665)	ALA-ZINE, CHLOR-WATER, DISSOLV REC, (UG/L) (46342)			
JUN 1994	DATE	TIME	5.0	6.8	<0.10	<0.010	<0.010	0.190	0.040	<0.010	0.30	0.20	0.030	<0.01
30...	DIETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN-POS FLTRD GF, REC (UG/L) (82686)	BEN-FUR-ALIN WAT PLD GF, REC (UG/L) (82673)	CARBONYL BARYL FLTRD GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI-AZINON, DIS-SOLVED (UG/L) (39572)				
JUN 1994	DATE	TIME	<0.01	0.01	<0.04	<0.01	<0.01	<0.05	<0.01	<0.00	<0.01	<0.00	<0.01	<0.01
30...	DI-EHTHAL-PROP ALIN FLTRD GF, REC (UG/L) (39381)	2,6-DI-ETHYL ANILINE WAT FLT GF, REC (UG/L) (82660)	DIMETH-YL OATE FLTRD GF, REC (UG/L) (82662)	DISUL-FOTON WATER FLTRD GF, REC (UG/L) (82677)	EPTC WATER FLTRD GF, REC (UG/L) (82668)	ETHALO-FLUR-ALIN WAT FLT GF, REC (UG/L) (82663)	ETHO-PROF WATER FLTRD GF, REC (UG/L) (82672)	FOONOPOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHCLINDANE DIS-SOLVED (UG/L) (34253)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-UROWN WATER FLTRD GF, REC (UG/L) (82666)	MALA-THON, DIS-SOLVED (UG/L) (39532)		
JUN 1994	DATE	TIME	<0.01	<0.01	<0.02	<0.01	<0.00	<0.01	<0.01	<0.01	<0.01	<0.04	<0.01	<0.01

CONNECTICUT RIVER BASIN

01144500 CONNECTICUT RIVER AT WEST LEBANON, N.H.--Continued

(National water quality assessment program station)

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA- THION WAT FLT DIS- (UG/L) (39542)	METHYL THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD (UG/L) (82664)	PRON- AMIDE WATER FLTRD (UG/L) (82676)	PRO- METON, WATER, DISS, REC (UG/L) (04037)
JUN 1994 30...	0.00	<0.01	<0.01	<0.01	<0.02	<0.03	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01
	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DIAZ- INON D10 SRG WAT FLT 0.7 U GF, REC (UG/L) (91063)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC (UG/L) (91065)
JUN 1994 30...	<0.02	<0.02	<0.01	0.01	<0.02	<0.03	<0.01	<0.01	<0.01	<0.01	70	100
	TERBUTH YLAZINE SURROGT WAT FLT 0.7 U GF, REC PERCENT (91064)	SET NUMBER SCHED- ULE 2001 (NO.) (99818)	SAMPLE VOLUME SCHED- ULE 2010 (ML) (99857)	2,4,5-T DIS- SOLVED (UG/L) (39742)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ACIFL- UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI- CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	BENTA- ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO- MACIL, WATER, DISS, REC (UG/L) (04029)
JUN 1994 30...	110	850	895	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BRO- MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	CAR- BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CARBO- FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	3HYDRXY CARBO- FURAN WAT,FLT FLTRD, GF 0.7U REC (UG/L) (49308)	AMIBEN, WATER, FLTRD, GF 0.7U REC (UG/L) (49307)	CHLORO- THALO- NIL, WAT,FLT FLTRD, GF 0.7U REC (UG/L) (49306)	CLOPYR- ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	DACTHAL MONO- ACID, WAT,FLT FLTRD, GF 0.7U REC (UG/L) (49304)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO- BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)
JUN 1994 30...	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	OCRESOL 4,6- DINITRO WAT,FLT GF 0.7U REC (UG/L) (49299)	ESFEN- VAL- ERATE, WAT,FLT GF 0.7U REC (UG/L) (49298)	FEN- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO- METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIO- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH- OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	1-NAPH THOL, WATER, FLTRD, GF 0.7U REC (UG/L) (49295)	NEB- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)
JUN 1994 30...	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY- ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PRO- POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SILVEX, DIS- SOLVED (UG/L) (39762)	TRI- CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	BDMC, SURROG, WATER, UNFLTRD REC (UG/L) (99835)	SET NUMBER SCHED- ULE 2051 (NO.) (99821)	SAMPLE VOLUME, SCHED- ULE 2051 (ML) (99847)	
JUN 1994 30...	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	84	880	934

CONNECTICUT RIVER BASIN

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01150500 MASCOMA RIVER AT MASCOMA, N.H.

LOCATION.--Lat 43°38'55", long 72°10'55", Grafton County, Hydrologic Unit 01080104, on left bank at Mascoma, 100 ft downstream from outlet of Mascoma Lake.

DRAINAGE AREA.--153 mi².

PERIOD OF RECORD.--Feb. 1993 to Sept. 1993; August 1923 to Jan. 1993, at site 900 ft downstream.

REVISED RECORDS.--WSP 726: Drainage area. WSP 801: 1925(M), WRD NH-VT-84-1: 1973(M).

GAGE.--Water-stage recorder. Elevation of gage is 755 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Mascoma and Crystal Lakes and Goose and Grafton Ponds (Reservoirs in Connecticut River basin).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	222	307	98	95	105	368	446	197	71	125	46
2	202	232	323	98	96	105	367	356	172	68	114	46
3	193	239	323	98	97	105	372	252	161	62	94	46
4	189	241	324	98	97	106	329	258	148	57	85	39
5	190	244	322	99	97	105	287	262	140	54	74	37
6	193	247	322	99	97	105	765	263	108	46	66	37
7	191	255	322	101	97	104	1210	261	89	41	60	37
8	190	261	323	101	97	105	1470	266	106	40	50	37
9	189	227	321	101	101	105	1480	341	109	39	43	38
10	187	269	314	100	106	108	1190	439	102	42	40	37
11	185	266	311	100	106	110	1010	379	85	50	39	37
12	183	264	311	99	105	112	1010	324	78	53	37	37
13	227	262	308	98	104	115	1120	301	77	53	35	37
14	261	259	303	98	104	217	1760	289	103	50	33	38
15	260	257	300	98	104	317	2200	274	170	48	e30	46
16	257	255	296	97	103	309	2300	260	140	50	e29	51
17	253	254	291	97	102	233	2470	276	115	52	e29	55
18	247	253	283	98	102	301	2200	334	101	52	e33	55
19	245	255	273	97	101	293	1530	351	105	51	e48	55
20	242	255	190	97	100	283	1300	319	105	50	e69	55
21	238	257	116	97	100	275	1150	287	99	49	e79	55
22	232	224	217	96	101	268	978	265	85	49	e131	54
23	234	194	313	95	102	259	828	177	78	48	167	54
24	234	193	311	95	103	238	710	116	74	48	133	84
25	231	193	304	95	104	225	661	130	76	48	101	163
26	231	194	292	94	105	233	560	169	73	49	84	166
27	227	192	205	93	105	239	496	284	73	48	70	138
28	223	193	141	92	105	299	500	380	74	51	66	197
29	221	256	140	91	---	377	463	336	72	54	55	257
30	218	307	116	92	---	374	441	271	73	58	53	206
31	219	---	98	93	---	372	---	229	---	78	46	---
TOTAL	6810	7220	8320	3005	2836	6502	31525	8895	3188	1609	2118	2240
MEAN	220	241	268	96.9	101	210	1051	287	106	51.9	68.3	74.7
MAX	261	307	324	101	106	377	2470	446	197	78	167	257
MIN	183	192	98	91	95	104	287	116	72	39	29	37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1994, BY WATER YEAR (WY)

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
MEAN	135	180	189	153	168	311	637	346	179	114	98.2	93.4
MAX	461	560	607	368	550	1222	1338	763	493	658	443	591
(WY)	1976	1928	1984	1978	1981	1936	1969	1937	1984	1973	1990	1938
MIN	34.6	35.8	46.5	39.3	38.7	65.4	229	78.2	54.1	30.9	19.0	31.3
(WY)	1964	1965	1979	1981	1980	1931	1957	1957	1985	1985	1985	1980

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1923 - 1994	
ANNUAL TOTAL	74427		84268		217	
ANNUAL MEAN	204		231		359	
HIGHEST ANNUAL MEAN					84.4	
LOWEST ANNUAL MEAN					5090	
HIGHEST DAILY MEAN	1540	Apr 13	2470	Apr 17	2.0	Mar 19 1936
LOWEST DAILY MEAN	30	Jul 21	a 29	Aug 16	16	Feb 3 1929
ANNUAL SEVEN-DAY MINIMUM	30	Jul 21	32	Aug 12	5840	Aug 24 1985
INSTANTANEOUS PEAK FLOW			2520	Apr 17	b 7.50	Mar 19 1936
INSTANTANEOUS PEAK STAGE			7.64	Apr 17	462	Mar 19 1936
10 PERCENT EXCEEDS	323		353		124	
50 PERCENT EXCEEDS	110		130		51	
90 PERCENT EXCEEDS	41		48			

a Also occurred on Aug. 17.

b From gage located 900 ft. downstream of present site at different datum.

CONNECTICUT RIVER BASIN

01150900 OTTAUQUECHEE RIVER NEAR WEST BRIDGEWATER, VT.

LOCATION.--Lat 43°37'20", long 72°45'34", Rutland County, Hydrologic Unit 02010001, on right bank 50 ft upstream from highway bridge on Mission Chapel Road, 1.6 mi northwest of West Bridgewater and 2.6 mi southeast of Sherburne Center.

DRAINAGE AREA.--23.4 mi².

PERIOD OF RECORD.--October 1984 to current year.

REVISED RECORDS.--WRD NH-VT-87-1: 1985-86.

GAGE.--Water-stage recorder. Elevation of gage is 1,150 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	26	49	e26	e24	e34	60	197	64	19	56	36
2	12	27	42	e25	e26	e32	67	160	52	15	38	28
3	44	22	52	e23	e24	e30	86	112	50	13	37	23
4	36	22	50	e22	e23	e29	185	95	42	10	29	20
5	74	47	67	e22	e22	e28	160	86	36	9.5	40	18
6	46	133	67	e20	e22	e27	307	84	33	9.0	38	16
7	33	92	54	e20	e22	e26	639	84	32	9.0	28	21
8	27	54	47	e20	e22	e30	358	137	28	11	22	32
9	23	42	40	e19	e21	e38	189	130	24	14	19	26
10	22	38	46	e19	e21	e47	220	103	21	31	17	22
11	16	34	174	e19	e20	e88	358	85	18	15	14	18
12	16	35	117	e19	e19	58	251	98	22	11	13	16
13	25	31	86	e19	e19	47	408	92	33	9.6	12	15
14	20	32	64	e18	e18	43	757	75	37	8.6	28	30
15	19	69	65	e18	e18	40	492	72	28	9.0	24	24
16	18	57	70	e17	e17	42	681	161	23	11	16	19
17	17	47	53	e17	e17	39	539	177	19	9.2	14	19
18	16	85	45	e17	e18	37	272	127	17	14	159	18
19	16	60	44	e16	e18	32	194	103	16	15	209	15
20	15	55	39	e16	e22	31	225	86	14	18	82	14
21	26	43	45	e16	e42	30	160	74	16	13	95	14
22	46	37	e73	e16	e83	36	127	68	15	59	158	13
23	30	37	e45	e16	e75	39	110	61	13	113	91	67
24	25	35	e39	e15	e50	62	116	53	11	94	60	102
25	24	26	e36	e14	e43	92	150	65	12	45	47	62
26	19	23	e33	e14	e39	83	229	94	12	34	40	47
27	18	23	e31	e15	e35	73	266	116	14	44	34	56
28	19	87	e30	e20	e36	69	223	78	19	55	29	127
29	17	127	e29	e30	---	72	134	71	18	55	26	97
30	16	70	e28	e40	---	63	120	60	29	56	21	122
31	21	---	e27	e34	---	58	---	52	---	112	19	---
TOTAL	772	1516	1687	622	816	1455	8083	3056	768	940.9	1515	1137
MEAN	24.9	50.5	54.4	20.1	29.1	46.9	269	98.6	25.6	30.4	48.9	37.9
MAX	74	133	174	40	83	92	757	197	64	113	209	127
MIN	12	22	27	14	17	26	60	52	11	8.6	12	13
CFSM	1.06	2.16	2.33	.86	1.25	2.01	11.5	4.21	1.09	1.30	2.09	1.62
IN.	1.23	2.41	2.68	.99	1.30	2.31	12.85	4.86	1.22	1.50	2.41	1.81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1994, BY WATER YEAR (WY)

	MEAN	49.3	71.0	49.4	36.2	37.1	86.4	155	78.9	38.9	27.1	26.9	32.3
MAX	121	121	80.1	63.4	76.6	185	269	130	67.8	57.5	51.5	97.2	97.2
(WY)	1988	1989	1991	1986	1990	1986	1994	1989	1989	1987	1986	1987	1987
MIN	19.0	34.7	25.4	19.4	14.5	44.6	92.5	37.3	13.7	6.77	7.88	10.7	10.7
(WY)	1985	1985	1990	1988	1987	1989	1985	1987	1988	1991	1985	1991	1991

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1985 - 1994	
ANNUAL TOTAL	19353.6		22367.9		57.3	
ANNUAL MEAN	53.0		61.3		71.6	
HIGHEST ANNUAL MEAN					43.6	
LOWEST ANNUAL MEAN					1270	
HIGHEST DAILY MEAN	1270		Apr 17		1270	
LOWEST DAILY MEAN	4.1		Jul 26		3.0	
ANNUAL SEVEN-DAY MINIMUM	5.5		Jul 15		3.3	
INSTANTANEOUS PEAK FLOW			a 918		a 1450	
INSTANTANEOUS PEAK STAGE			6.97		7.78	
INSTANTANEOUS LOW FLOW			b 8.2		2.8	
ANNUAL RUNOFF (CFSM)	2.27		2.62		2.45	
ANNUAL RUNOFF (INCHES)	30.77		35.56		33.30	
10 PERCENT EXCEEDS	97		127		118	
50 PERCENT EXCEEDS	27		34		33	
90 PERCENT EXCEEDS	8.1		15		11	

a From rating curve extended above 700 ft³/s.

b Also on July 15.

e Estimated

01151500 OTTAUQUECHEE RIVER AT NORTH HARTLAND, VT.

LOCATION.--Lat 43°36'09", long 72°21'17", Windsor County, Hydrologic Unit 01080106, on left bank 100 ft upstream from highway bridge at North Hartland, 0.3 mi downstream from North Hartland Dam, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--221 mi².

PERIOD OF RECORD.--Discharge: October 1930 to current year. Water-quality records: Water years 1954-55.

GAGE.--Water-stage recorder. Datum of gage is 336.77 ft above sea level (levels by U. S. Army Corps of Engineers).

REMARKS.-- No estimated daily discharges. Records good. Flow regulated by powerplants upstream and by North Hartland Reservoir (Reservoir in Connecticut River basin) since March 1961; greater regulation by powerplants at North Hartland Reservoir since July 1985. Small seasonal storage in reservoir at Plymouth.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1760, 21.5 ft in November 1927, from floodmarks, discharge 30,400 ft³/s, by computation of peak flow over dam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	152	255	239	273	206	335	688	292	187	338	192
2	65	153	218	224	169	186	721	1270	272	39	202	84
3	72	40	286	176	168	185	730	1170	274	39	224	160
4	155	258	281	217	164	201	1140	714	314	76	146	112
5	171	96	318	160	159	169	1520	593	146	61	134	83
6	145	459	532	152	158	183	1660	535	257	29	120	111
7	73	430	250	160	157	157	3190	565	236	124	187	152
8	118	188	267	147	150	216	3550	733	145	38	88	146
9	81	187	246	156	151	346	2340	776	180	34	110	140
10	69	166	228	154	91	309	1490	691	183	24	127	106
11	69	130	559	155	209	626	2220	582	160	319	42	87
12	71	194	668	157	81	384	2360	522	167	144	42	144
13	99	176	255	154	134	314	2770	968	217	62	150	40
14	155	153	337	156	126	290	1180	638	264	61	42	152
15	45	107	367	154	123	337	1850	444	260	66	154	41
16	53	353	408	125	122	346	3610	315	102	85	109	151
17	74	223	258	88	134	338	3780	1220	158	69	39	80
18	70	327	225	40	117	269	4110	798	134	49	784	112
19	69	298	309	123	154	284	3970	677	109	260	1290	42
20	63	227	255	398	99	264	3560	640	108	23	401	131
21	73	223	283	100	283	225	2740	569	158	195	348	39
22	170	168	665	82	582	354	1490	441	120	70	702	39
23	114	187	433	185	315	331	904	447	90	307	401	273
24	84	142	129	86	254	539	874	359	90	334	265	662
25	141	160	272	151	273	613	1040	363	206	141	165	245
26	24	53	255	86	236	631	1450	478	174	194	345	197
27	108	124	124	148	230	583	1430	584	73	398	168	288
28	60	332	148	147	194	647	1150	428	90	468	165	959
29	74	1070	84	174	---	408	805	386	189	199	148	541
30	72	394	286	341	---	741	696	242	95	212	137	513
31	142	---	160	195	---	514	---	487	---	516	93	---
TOTAL	2861	7170	9361	5030	5306	11196	58665	19323	5263	4823	7666	6022
MEAN	92.3	239	302	162	189	361	1955	623	175	156	247	201
MAX	171	1070	668	398	582	741	4110	1270	314	516	1290	959
MIN	24	40	84	40	81	157	335	242	73	23	39	39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1994, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1931	215	1060	1988	33.3	1965
1932	336	816	1976	70.5	1965
1933	338	1028	1984	72.2	1948
1934	278	726	1937	56.2	1948
1935	276	1157	1981	55.4	1940
1936	623	2570	1936	84.0	1940
1937	1379	2587	1969	472	1946
1938	665	1676	1940	201	1941
1939	287	964	1984	70.3	1965
1940	159	1131	1973	34.8	1965
1941	120	759	1976	28.5	1965
1942	136	1030	1938	29.7	1967

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1931 - 1994	
ANNUAL TOTAL	131851		142686		400	
ANNUAL MEAN	361		391		691	
HIGHEST ANNUAL MEAN					173	
LOWEST ANNUAL MEAN					1976	
HIGHEST DAILY MEAN	4660	Apr 21	4110	Apr 18	13300	Mar 18 1936
LOWEST DAILY MEAN	23	Sep 19	23	Jul 20	3.8	Jul 3 1933
ANNUAL SEVEN-DAY MINIMUM	24	Sep 17	55	Jul 4	14	Sep 25 1967
INSTANTANEOUS PEAK FLOW			4360	Apr 18	a 24400	Sep 21 1938
INSTANTANEOUS PEAK STAGE			7.51	Apr 18	17.68	Sep 21 1938
INSTANTANEOUS LOW FLOW			22	Jul 14	b .20	Jul 6 1984
10 PERCENT EXCEEDS	692		755		918	
50 PERCENT EXCEEDS	159		192		203	
90 PERCENT EXCEEDS	43		71		56	

a From rating curve extended above 6,200 ft³/s on basis of computations of flow over dams at gage heights 15.58 ft, 17.68 ft, and 21.50 ft.

b During hydroelectric construction.

LOCATION.--Lat 43°23'15", long 72°21'45", Sullivan County, Hydrologic Unit 01080104, on right bank 0.2 mi downstream from Redwater Brook at West Claremont and 2.4 mi upstream from mouth.

PERIOD OF RECORD.--Discharge: May 1928 to current year. Published as "at Claremont" prior to October 1928. Water-quality records: Water year 1954.

REVISED RECORDS.--WSP 711: 1930 (M). WSP 756: Drainage area. WSP 1901: 1960 (adjusted figures only).

GAGE.--Water-stage recorder. Datum of gage is 358.78 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1928, nonrecording gage at site 0.8 mi upstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Regulation by Sunapee Lake 25 mi upstream (Reservoirs in Connecticut River basin) and occasional diurnal fluctuation at low flow by mills upstream; greater regulation by mills prior to 1971. Maximum gage height 11.80 ft, Mar. 12, 1936 (ice jam).

DAILY MEAN VALUES

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1994, BY WATER YEAR (WY)

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1928 - 1994
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a From rating curve extended above 6,700 ft³/s on basis of computation of flow over dam at gage heights 10.49 ft and 10.92 ft.

b Ice jam as explained above.

e Estimated

CONNECTICUT RIVER BASIN

99

01153550 WILLIAMS RIVER NEAR ROCKINGHAM, VT.

LOCATION.--Lat 43°11'30", Long 72°29'08", Windham county, Hydrologic Unit 01080107 on left bank 50 ft downstream from highway bridge on Parker Hill Road, 0.2 mi downstream from Divoll Brook, 2.2 mi upstream from mouth and 4.5 mi northwest of Bellows Falls.

DRAINAGE AREA.--112 mi².

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 300 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges which are fair and periods of faulty or no gage-height record, Apr. 7 to Jun. 30, which are poor. Low flow regulated by powerplant upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1938 had greatest discharge since at least 1753.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	82	155	e126	e139	e72	e320	e315	e97	93	49	24
2	27	94	124	e123	e122	e67	e425	e500	e91	63	42	27
3	30	61	129	e122	e109	e65	e335	e375	e87	52	36	24
4	31	53	127	e120	e95	e75	e930	e275	e81	42	33	23
5	30	55	284	e118	e100	e68	e1700	e230	e75	38	31	21
6	30	169	290	e107	e71	e68	e2300	e210	e69	36	27	20
7	26	113	205	e93	e67	e68	e3300	e195	e61	35	27	20
8	26	73	174	e98	e64	e100	e930	e320	e54	36	26	20
9	24	58	146	e93	e66	e135	e730	e570	e42	34	24	20
10	22	51	134	e95	e63	e200	e640	e300	e35	42	28	22
11	22	47	251	e90	e64	e222	e1100	229	e32	34	27	21
12	24	46	219	e95	e61	e190	e910	213	e60	27	23	18
13	46	46	163	e101	e60	e158	e2300	191	e160	25	35	18
14	40	52	159	e91	e62	e120	e4200	152	247	24	50	17
15	32	75	157	e83	e64	e148	e1450	138	113	23	42	18
16	29	66	167	e80	e54	e180	e2650	658	97	36	31	18
17	27	58	139	e72	e50	e210	e3200	727	e70	28	26	18
18	27	180	121	e63	e53	e165	e2350	413	e59	105	285	18
19	27	113	133	e72	e53	e135	e1450	332	e51	72	236	18
20	23	107	124	e65	e59	e110	e900	263	e50	51	99	17
21	29	89	381	e75	e100	e115	e630	e210	e48	39	82	16
22	57	73	701	e70	e130	e130	e480	e180	e46	38	116	16
23	41	65	328	e70	e155	e175	e360	e170	e43	65	71	191
24	32	61	186	e60	e130	e370	e285	e150	e36	54	52	179
25	27	48	e165	e63	e106	e425	e250	e139	e51	47	43	89
26	27	56	e149	e60	e96	e485	e375	e155	e58	73	37	65
27	25	64	e129	e58	e87	e285	e540	e500	e52	56	34	107
28	25	615	e104	e57	e83	e220	e400	e370	e78	65	31	720
29	24	512	e118	e57	---	e400	e300	e195	e76	79	28	234
30	23	233	e122	e180	---	e305	e225	e150	143	54	25	143
31	29	---	e130	e150	---	e235	---	e110	---	64	23	---
TOTAL	912	3415	5914	2807	2363	5701	35965	8935	2262	1530	1719	2162
MEAN	29.4	114	191	90.5	84.4	184	1199	288	75.4	49.4	55.5	72.1
MAX	57	615	701	180	155	485	4200	727	247	105	285	720
MIN	22	46	104	57	50	65	225	110	32	23	23	16
CFSM	.26	1.02	1.70	.81	.75	1.64	10.7	2.57	.67	.44	.50	.64
IN.	.30	1.13	1.96	.93	.78	1.89	11.95	2.97	.75	.51	.57	.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1994, BY WATER YEAR (WY)

	MEAN	151	206	174	114	131	427	706	299	131	55.6	54.5	71.2
MAX	461	281	326	180	278	850	1199	535	242	86.5	123	282	
(WY)	1988	1990	1991	1990	1990	1990	1994	1990	1992	1992	1990	1987	
MIN	29.4	114	78.2	58.7	51.0	184	408	121	57.3	21.7	19.5	25.7	
(WY)	1994	1994	1990	1989	1993	1994	1992	1987	1988	1993	1993	1993	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1987 - 1994

ANNUAL TOTAL	67915	73685	
ANNUAL MEAN	186	202	210
HIGHEST ANNUAL MEAN			283
LOWEST ANNUAL MEAN			183
HIGHEST DAILY MEAN	4950	Mar 30	6210
LOWEST DAILY MEAN	12	Sep 16	12
ANNUAL SEVEN-DAY MINIMUM	15	Sep 11	14
INSTANTANEOUS PEAK FLOW			b 11500
INSTANTANEOUS PEAK STAGE			10.59
INSTANTANEOUS LOW FLOW			9.1
ANNUAL RUNOFF (CFSM)	1.66	1.80	1.87
ANNUAL RUNOFF (INCHES)	22.56	24.47	25.46
10 PERCENT EXCEEDS	450	377	443
50 PERCENT EXCEEDS	57	78	100
90 PERCENT EXCEEDS	17	25	26

a Also occurred on Sept. 22.

b From rating curve extended above 3,800 ft³/s.

c From crest-stage gage.

d Also occurred on Sept. 22,23.

e Estimated

CONNECTICUT RIVER BASIN

01154500 CONNECTICUT RIVER AT NORTH WALPOLE, N.H.

LOCATION.--Lat 43°07'34", long 72°26'14", Cheshire County, Hydrologic Unit 01080104, on left bank at North Walpole, 100 ft upstream from Saxtons River, 0.7 mi downstream from Vilas Bridge between Bellows Falls, Vt., and North Walpole, N.H., and at mile 172.5.

DRAINAGE AREA.--5,493 mi², includes that of Saxtons River.

PERIOD OF RECORD.--Discharge: March 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 218.63 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs (Reservoirs in Connecticut River basin), and other reservoirs, combined usable capacity, about 24.8 billion ft³.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1750, 43.8 ft, Mar. 19, 1936, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5560	5260	10800	5030	e7800	e6300	12900	30500	12200	7450	6310	3780
2	5630	6380	8580	5420	e4600	e6500	15600	32500	12100	6420	5360	3380
3	5300	6920	8380	5030	e4100	e6300	17000	29300	9320	5470	4440	2130
4	5010	5310	4910	5230	e5000	e6600	23600	25200	6930	7160	4330	2130
5	6860	6950	11500	4450	e6000	e7000	28500	20500	7500	6520	4580	2110
6	5940	4590	11800	5290	e5200	e6300	30600	16800	7210	5970	4030	5080
7	6940	9550	11600	e5400	e5200	e5600	49100	17400	6690	6150	4010	2700
8	7040	11400	9340	e4500	e4850	e7900	52900	19000	7850	5730	3840	2310
9	3120	8990	8180	e4300	e5650	e7200	43600	21900	9230	3840	3480	2550
10	3860	8480	9050	e4600	e5250	e8600	39700	18400	10400	7480	2840	2480
11	6150	8440	11700	e4550	e5400	e9700	42100	17200	7870	6650	2870	2500
12	4290	8720	10600	e4700	e4900	e11000	42900	16600	6490	6790	1650	2330
13	6690	7090	10700	e5600	e4600	e9300	46700	17500	6290	5450	2120	4360
14	7050	7380	10700	e5200	e5400	e10300	61400	16300	10900	4780	2880	4620
15	6890	8020	11200	e5150	e5500	e9800	57200	14900	10000	4010	4060	5950
16	1840	6450	11100	e3700	e5400	e10100	63500	14100	9580	4120	3140	5030
17	1870	6600	10400	e5600	e6600	e7000	71400	20300	9340	3540	4390	4960
18	6720	7100	9300	e4600	e6200	e10600	66700	20100	7540	2070	7560	4660
19	7260	7960	10200	e5500	e5900	e9800	57900	17500	4240	3710	12700	4510
20	6490	7120	10500	e4850	e6000	e7700	50800	16800	4300	4830	8070	4180
21	7000	7830	11200	e4800	e6500	e7400	45800	13900	5850	6550	7670	4230
22	5990	8190	13700	e5300	e7700	7840	36600	12400	5880	5850	11500	5100
23	4290	6980	13000	e3900	e7400	8460	30000	11800	5870	7350	10500	6580
24	3310	7140	11200	e3700	e8200	8770	26100	11200	6050	5550	7500	5300
25	6640	8210	9920	e4100	e7700	13200	23500	11400	5800	5070	5680	5490
26	6820	7570	8340	e4300	e7100	13800	25700	10100	5650	6630	5450	5170
27	6850	3940	5200	e5150	e6800	14300	30000	13900	5020	5300	6510	6390
28	7330	5090	5270	e5250	e6800	13400	35100	15500	5420	6110	5010	8960
29	6250	15700	4310	e5400	---	15800	36800	16000	5580	5380	5470	8640
30	2940	12100	5250	e5600	---	13500	32000	12600	7210	5170	5310	6440
31	3260	---	3880	e7600	---	13700	---	13800	---	6760	4620	---
TOTAL	171190	231460	291810	153800	167750	293770	1195700	545400	224310	173860	167880	134050
MEAN	5522	7715	9413	4961	5991	9476	39860	17590	7477	5608	5415	4468
MAX	7330	15700	13700	7600	8200	15800	71400	32500	12200	7480	12700	8960
MIN	1840	3940	3880	3700	4100	5600	12900	10100	4240	2070	1650	2110

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1994, BY WATER YEAR (WY)

	MEAN	6055	8485	8284	6579	6931	13330	27610	16920	8168	4326	3818	3684
MAX	18300	18420	22550	14890	21810	34150	45630	33380	20600	18930	12990	14820	
(WY)	1978	1960	1984	1978	1981	1979	1969	1972	1947	1973	1990	1954	
MIN	1424	2886	2124	1866	2736	4532	13630	6477	3276	1845	1461	1610	
(WY)	1949	1948	1948	1948	1980	1956	1965	1965	1963	1965	1942	1948	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1942 - 1994

ANNUAL TOTAL	3216490		3750980										
ANNUAL MEAN	8812		10280										
HIGHEST ANNUAL MEAN										9516			
LOWEST ANNUAL MEAN										13980			1976
HIGHEST DAILY MEAN	54700	Apr 18	71400	Apr 17						4991			1965
LOWEST DAILY MEAN	1190	Aug 15	1650	Aug 12						88300	Mar 28	1953	
ANNUAL SEVEN-DAY MINIMUM	1460	Aug 11	2720	Sep 3						a 115	Aug 31	1952	
INSTANTANEOUS PEAK FLOW			72600	Apr 17						777	Aug 7	1970	
INSTANTANEOUS PEAK STAGE			25.25	Apr 17						97000	Mar 27	1953	
10 PERCENT EXCEEDS	15000		18600							30.37	Mar 27	1953	
50 PERCENT EXCEEDS	6090		6760							21300			
90 PERCENT EXCEEDS	2520		4010							6060			
										1930			

a Also occurred on Sept. 2, 1957.

e Estimated

CONNECTICUT RIVER BASIN

101

01154500 CONNECTICUT RIVER AT NORTH WALPOLE, N.H.--Continued

(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to September 1980 (published as "at Walpole"),
October 1980 to current year (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to September 1981.

WATER TEMPERATURES: October 1980 to September 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
NOV										
16...	1115	8410	97	7.2	12.0	6.0	0.50	760	12.2	98
MAR										
23...	1030	11600	130	7.2	21.0	0.0	1.0	744	13.2	92
MAY										
25...	1130	11500	93	7.4	16.0	15.5	0.80	742	7.7	80
JUL										
12...	1045	3830	119	7.2	33.0	24.5	3.0	754	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOC- CI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
NOV										
16...	K4	K2	33	11	1.4	4.7	1.0	33	0	27
MAR										
23...	35	65	39	13	1.6	7.8	1.0	40	0	33
MAY										
25...	K11	K5	32	11	1.2	4.0	0.90	36	0	30
JUL										
12...	56	5	38	13	1.4	5.2	1.2	49	0	40

DATE	SULFATE DIS- SOLVED AS SO4 (00945)	CHLO- RIDE, DIS- SOLVED AS CL (00940)	FLUO- RIDE, DIS- SOLVED AS F (00950)	SILICA, DIS- SOLVED AS SIO2 (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED AS N (00613)	NITRO- GEN, NO2+NO3 DIS- TOTAL AS N (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED AS N (00631)	NITRO- GEN, AMMONIA DIS- SOLVED AS N (00608)
NOV										
16...	7.1	6.8	0.10	5.2	56	55	<0.010	0.190	0.190	0.030
MAR										
23...	8.1	12	<0.10	5.6	66	71	0.020	0.360	0.360	0.060
MAY										
25...	6.7	6.4	<0.10	4.9	64	53	<0.010	--	<0.050	0.030
JUL										
12...	7.1	8.1	<0.10	4.8	70	66	<0.010	0.200	0.200	0.020

CONNECTICUT RIVER BASIN

01154500 CONNECTICUT RIVER AT NORTH WALPOLE, N.H.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 16...	<0.20	0.030	0.010	<0.010	30	19	<3	80	<4	17
MAR 23...	<0.20	<0.010	<0.010	<0.010	30	19	<3	62	<4	24
MAY 25...	0.50	0.090	0.050	0.050	50	20	<3	63	<4	23
JUL 12...	<0.20	0.010	<0.010	0.020	20	20	<3	61	<4	10

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 16...	<10	<1	<1	<1.0	52	<6	9	204	49
MAR 23...	<10	<1	<1	<1.0	59	<6	4	125	83
MAY 25...	<10	<1	<1	<1.0	51	<6	5	155	61
JUL 12...	10	<1	<1	<1.0	69	<6	9	93	54

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

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e Estimated

CONNECTICUT RIVER BASIN

01161000 ASHUELOT RIVER AT HINSDALE, N.H.--Continued

(National water quality assessment program station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Water-quality records: Water years 1953, 1958, 1968, 1994 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, SOLVED DIS-SOLVED (MG/L) (00300)	OXYGEN, SATUR-ATION (00301)	HARD-NESS TOTAL (MG/L CACO3) (00900)	SODIUM AD-SORP-TION RATIO SODIUM PERCENT (00932)	(00931)	
JUN 1994	27...	1000	245	115	6.6	21.5	21.0	759	8.5	96	21	57	1
DATE	TIME	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	ALKA-LINITY LAB AS CACO3 (90410)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	
JUN 1994	27...	21	79	1.4	6.6	126	16	500	35	6.1	1.4	6.5	
DATE	TIME	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	
JUN 1994	27...	14	7.2	<0.10	<0.01	0.00	0.01	<0.04	<0.01	<0.01	0.01	<0.01	
DATE	TIME	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DIMETH-OATE WATER FLTRD 0.7 U GF, REC (UG/L) (82662)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	
JUN 1994	27...	<0.00	<0.01	<0.00	<0.01	0.01	<0.01	<0.01	<0.02	<0.01	<0.00	<0.01	
DATE	TIME	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN WAT FLTRD 0.7 U GF, REC (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)	
JUN 1994	27...	<0.01	<0.01	<0.01	<0.01	<0.04	<0.01	0.01	<0.01	<0.01	<0.01	<0.02	

CONNECTICUT RIVER BASIN

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01161000 ASHUELOT RIVER AT HINSDALE, N.H.--Continued

(National water quality assessment program station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994, continued

DATE	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)
JUN 1994 27...	<0.03	<0.01	<0.02	<0.02	<0.01	<0.01	0.00	<0.02	<0.02	<0.01	<0.01
DATE	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DIAZ- INON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)	TERBUTH YLAZINE SURROGT WAT FLT 0.7 U GF, REC PERCENT (91064)	SET NUMBER SCHED- ULE 2001 (NO.) (99818)	SAMPLE VOLUME SCHED- ULE 2010 (ML) (99857)
JUN 1994 27...	<0.02	<0.03	<0.01	<0.01	<0.01	<0.01	80	100	120	<0	895

RESERVOIRS IN CONNECTICUT RIVER BASIN

- 01127850; 01128000. **FIRST CONNECTICUT AND SECOND CONNECTICUT LAKES** on Connecticut River are operated as a unit for storage of water for power and are used for recreation. The downstream order and usable capacity of each are as follows: Second Lake, 12 mi northeast of Pittsburg, NH, 506 million ft³; First Lake, 5.6 mi northeast of Pittsburg, NH, 3.33 billion ft³. Records provided by New England Power Co.
01129000. **LAKE FRANCIS** on Connecticut River at Pittsburg, NH, completed in March 1940, used for storage of water for power and for recreation, has usable capacity of 4.326 billion ft³. Records provided by New Hampshire Water Resources Board.
- 01132000; 01132500. **MOORE AND COMERFORD RESERVOIRS** on Connecticut River are operated as a unit for storage of water for hydroelectric power development and are used for recreation. The downstream order and usable capacity of each are as follows: Moore Reservoir, 4.5 mi northwest of Littleton, NH, filled in April 1956, 4.97 billion ft³; Comerford Reservoir, 5 mi northeast of Monroe, NH, completed in 1930, 1.279 billion ft³. Records provided by New England Power Co.
01141000. **UNION VILLAGE RESERVOIR** on Ompompanoos River, 0.3 mi north of Union Village, VT, completed in 1949 for flood control, has usable capacity of 1.66 billion ft³. Records provided by U.S. Army Corps of Engineers.
- 01148000; 01150000. **LAKES AND PONDS IN MASCOMA RIVER BASIN** are operated as a unit for storage of water for power and are used for recreation. The reservoirs and usable capacity of each are as follows: 01148000 Goose Pond, 5.2 mi northeast of Mascoma, NH, 509 million ft³; Grafton Pond, 8.5 mi southeast of Mascoma, 144 million ft³; Crystal Lake, 5.8 mi southeast of Mascoma, 75 million ft³; 01150000 Mascoma Lake at Mascoma, 337 million ft³; total usable capacity of the four reservoirs, 1.06 billion ft³. Records provided by New Hampshire Water Resources Board.
01151400. **NORTH HARTLAND RESERVOIR** on Ottauquechee River at North Hartland, VT, completed in 1961, used for flood control and recreation, has usable capacity of 3.11 billion ft³. Records provided by U.S. Army Corps of Engineers.
01152000. **SUNAPEE LAKE** on Sugar River at Sunapee, NH, used for recreation and storage of water for power, has usable capacity of 862 million ft³. Records provided by New Hampshire Water Resources Board.
01152900. **NORTH SPRINGFIELD RESERVOIR** on Black River at North Springfield, VT, completed in 1960, used for flood control and recreation, has usable capacity of 2.23 billion ft³. Records provided by U.S. Army Corps of Engineers.
01155400. **BALL MOUNTAIN RESERVOIR** on West River, 2 mi north of Jamaica, VT, completed in 1961, used for food control and recreation, has usable capacity of 2.38 billion ft³. Records provided by U.S. Army Corps of Engineers.
01155900. **TOWNSHEND RESERVOIR** on West River, 1.8 mi northwest of Townshend, VT, completed in 1961, used for flood control and recreation, has usable capacity of 1.46 billion ft³. Records provided by U.S. Army Corps of Engineers.
01157500. **SURRY MOUNTAIN LAKE** on Ashuelot River, 4.5 mi north of Keene, NH, completed in 1942, used for flood control and recreation, has usable capacity of 1.42 billion ft³. Records provided by U.S. Army Corps of Engineers.
01158550. **OTTER BROOK LAKE** on Otter Brook, 2.5 mi northeast of Keene, NH completed in 1958, used for flood control and recreation, has usable capacity of 798 million ft³. Records provided by U.S. Army Corps of Engineers

MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

Date	First and Second Connecticut Lakes	Lake Francis	Moore and Comerford Reservoirs	Union Village Reservoirs	Lakes and Ponds in Mascoma River basin	North Hartland Reservoir
Sept. 30, 1993.....	2764.3	4103.9	4339.0	0.24	1051.1	123.0
Oct. 31.....	2694.3	4229.7	5685.0	0.47	790.1	123.0
Nov. 30.....	2534.2	3693.6	5871.0	5.0	726.3	117.2
Dec. 31.....	2021.0	3693.6	5354.9	5.1	651.3	121.0
Jan. 31, 1994.....	1662.0	2477.5	4815.6	4.2	647.8	103.7
Feb. 28.....	1185.2	1922.3	3197.4	3.1	695.3	114.0
Mar. 31.....	598.7	2528.6	1456.6	3.6	830.0	117.0
Apr. 30.....	2293.8	4151.5	5795.4	2.3	1102.7	118.0
May 31.....	3318.6	4160.1	6167.2	0.42	1102.5	128.0
June 30.....	3171.2	4069.5	6050.4	0.34	1067.9	127.0
July 31.....	3054.0	4073.8	5155.0	0.24	1080.4	130.0
Aug. 31.....	2843.9	3594.3	5020.5	0.29	1057.9	126.0
Sept. 30.....	2391.5	3394.8	5122.4	0.48	1043.0	122.0

	Sunapee Lake	North Springfield Lake	Ball Mountain Reservoir	Townshend Reservoir	Surry Mountain Lake	Otter Brook Lake
Sept. 30, 1993.....	462	25.4	103.2	24.1	63.4	37.2
Oct. 31.....	355	24.0	28.8	35.2	63.4	40.0
Nov. 30.....	314	30.5	27.6	37.6	136.8	45.6
Dec. 31.....	289	33.4	20.7	37.6	96.9	42.8
Jan. 31, 1994.....	277	26.9	56.8	39.7	122.6	57.7
Feb. 28.....	211	26.2	29.7	38.0	78.2	37.9
Mar. 31.....	248	32.0	40.0	71.6	99.7	35.1
Apr. 30.....	672	29.8	15.4	40.8	88.8	16.4
May 31.....	672	26.9	10.5	39.0	68.1	36.8
June 30.....	614	26.2	33.8	37.2	61.0	39.6
July 31.....	544	29.1	83.7	35.8	59.8	37.6
Aug. 31.....	486	24.0	52.6	36.2	57.4	36.5
Sept. 30.....	466	24.7	68.7	44.8	64.5	39.3

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional diurnal fluctuation at low flow caused by mills upstream; diurnal fluctuation greater prior to 1960. Diversion upstream for municipal supply of Bennington and North Bennington since 1961.

e Estimated

ST. LAWRENCE RIVER BASIN

04280000 POULTNEY RIVER BELOW FAIR HAVEN, VT.

LOCATION.--Lat 43°37'40", long 73°18'50", Rutland County, Hydrologic Unit 02010001, on right bank 0.3 mi downstream from Carver Falls, 1.9 mi upstream from Hubbardton River, and 3.2 mi northwest of Fair Haven.

DRAINAGE AREA.--187 mi².

PERIOD OF RECORD.--Discharge: October 1928 to current year. Water-quality records: Water year 1954.

REVISED RECORDS.--WSP 1114: 1929(M), 1932-35.

GAGE.--Water-stage recorder. Elevation of gage is 105 ft above sea level, from topographic map.

REMARKS.--Records good except for periods of estimated daily discharges which are fair. Flow regulated by powerplant upstream and Lake Bomoseen. Water-quality records for some prior periods have been collected at this location.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	158	276	e183	e305	e200	e690	314	198	200	282	379
2	21	185	248	e183	e280	e175	e750	320	221	140	179	314
3	50	202	241	e164	e260	e180	1250	267	190	126	273	128
4	64	190	240	e148	e250	e170	1880	239	183	101	199	117
5	119	224	437	e145	e240	e183	1770	190	153	86	260	101
6	98	509	424	e140	e230	e210	2230	211	155	78	419	95
7	80	405	355	e145	e220	e210	3660	253	138	85	314	99
8	84	305	352	e142	e190	e230	2330	260	151	76	284	87
9	44	270	314	e158	e178	e250	1820	295	102	56	266	83
10	66	214	309	e112	e170	e350	1660	256	93	66	236	95
11	43	182	514	e116	e172	e810	1640	209	70	68	186	75
12	41	168	454	e111	e171	e720	1420	200	67	59	89	66
13	60	154	359	e122	e160	e485	1590	210	182	51	82	70
14	61	140	346	e111	e160	e420	2990	187	226	37	103	63
15	49	179	337	e108	e140	e420	1800	179	174	42	117	72
16	36	182	338	e90	e150	e440	1690	430	123	42	122	69
17	49	161	298	e118	e130	e415	1940	550	110	39	118	64
18	51	400	281	e105	e111	e370	1350	600	97	42	669	66
19	54	338	274	e90	e100	e335	1150	530	74	52	1430	65
20	35	289	201	e75	e110	e295	996	460	77	40	693	60
21	37	253	221	e102	e250	e290	881	391	79	33	865	62
22	61	217	538	e102	e380	e440	792	289	88	112	1950	51
23	68	201	372	e90	e320	e460	640	267	65	237	1090	71
24	54	190	260	e103	e270	e620	396	255	66	476	819	155
25	53	154	277	e103	e245	e1000	294	226	65	336	684	88
26	54	139	e200	e91	e240	e930	349	266	63	285	607	101
27	38	136	e130	e84	e213	e795	341	363	61	518	663	110
28	54	253	e152	e110	e200	e780	285	307	64	353	599	319
29	47	543	e145	e180	---	e840	258	280	107	495	475	320
30	44	336	e146	e385	---	e735	230	241	238	330	352	302
31	47	---	e170	e340	---	e670	---	210	---	511	290	---
TOTAL	1694	7277	9209	4256	5845	14428	39072	9255	3680	5172	14715	3747
MEAN	54.6	243	297	137	209	465	1302	299	123	167	475	125
MAX	119	543	538	385	380	1000	3660	600	238	518	1950	379
MIN	21	136	130	75	100	170	230	179	61	33	82	51
CFSM	.29	1.30	1.59	.73	1.12	2.49	6.96	1.60	.66	.89	2.54	.67
IN.	.34	1.45	1.83	.85	1.16	2.87	7.77	1.84	.73	1.03	2.93	.75

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1994, BY WATER YEAR (WY)

	MEAN	143	228	259	244	257	526	681	318	162	101	80.0	94.1
	MAX	721	760	1018	766	800	1627	1441	902	776	639	629	666
	(WY)	1978	1973	1984	1973	1984	1986	1977	1983	1947	1976	1976	1938
	MIN	18.2	21.4	38.4	42.0	26.8	113	231	71.5	19.4	7.08	3.94	11.3
	(WY)	1974	1965	1965	1931	1980	1940	1966	1941	1965	1965	1965	1982

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1929 - 1994

ANNUAL TOTAL	85793.8	118350	
ANNUAL MEAN	235	324	257
HIGHEST ANNUAL MEAN			527
LOWEST ANNUAL MEAN			66.9
HIGHEST DAILY MEAN	3000	Mar 30	3660
LOWEST DAILY MEAN	9.9	Aug 7	21
ANNUAL SEVEN-DAY MINIMUM	11	Aug 7	41
INSTANTANEOUS PEAK FLOW			a 4010
INSTANTANEOUS PEAK STAGE			13.95
ANNUAL RUNOFF (CFSM)	1.26		1.73
ANNUAL RUNOFF (INCHES)	17.07		23.54
10 PERCENT EXCEEDS	531		686
50 PERCENT EXCEEDS	135		200
90 PERCENT EXCEEDS	21		61
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a From rating curve extended above 2,600 ft³/s on basis of computations of flow over dam at gage heights 16.10 ft, 21.40 ft, and 24.36 ft.

b From high-water mark in well.

e Estimated

ST. LAWRENCE RIVER BASIN

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04280350 METTAWEE RIVER NEAR PAWLET, VT.

LOCATION.--Lat 43°22'04", long 73°13'00", Rutland County, Hydrologic Unit 02010001, on left bank 10 ft downstream from highway bridge 1.0 mi southwest of Butternut Bend and 2.5 mi northwest of Pawlet.

DRAINAGE AREA.--70.2 mi².

PERIOD OF RECORD.--October 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 525 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges and for periods of shifting control, Mar. 4 to Sept. 30, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	82	126	e100	e110	e96	382	255	97	59	72	63
2	39	70	121	e92	e96	e92	381	206	88	51	58	50
3	64	62	129	e88	e92	e88	566	175	87	46	54	46
4	53	62	128	e88	e88	e87	678	157	76	42	49	43
5	79	94	239	e84	e87	e83	567	146	69	38	47	41
6	61	188	184	e80	e86	e80	908	145	64	36	47	40
7	54	137	167	e75	e83	e80	1330	147	64	38	42	38
8	50	113	154	e67	e75	e100	802	194	59	46	38	37
9	48	103	140	e62	e70	e110	644	176	54	39	37	49
10	48	94	144	e62	e67	e250	659	152	50	42	42	43
11	45	85	236	e62	e66	353	626	139	47	34	36	36
12	46	82	190	e67	e62	229	551	151	68	31	32	35
13	51	76	e170	e62	e62	193	1170	140	223	29	31	33
14	47	78	160	e59	e62	191	1250	129	286	28	48	36
15	45	106	147	e54	e58	196	845	130	143	28	42	34
16	43	93	145	e54	e58	212	962	286	110	31	36	33
17	40	115	131	e50	e58	175	768	264	91	29	32	34
18	39	263	126	e50	e62	164	559	220	83	36	241	35
19	38	171	122	e46	e62	149	454	199	73	33	148	31
20	37	152	115	e46	e75	136	388	177	65	29	94	30
21	45	133	211	e42	e170	144	330	159	76	26	198	29
22	63	123	240	e42	e250	210	284	144	67	37	169	28
23	52	115	186	e42	e210	244	245	128	57	41	116	49
24	49	107	e150	e40	e175	371	215	117	57	64	94	51
25	47	94	e140	e39	e150	534	200	119	58	40	80	42
26	45	104	e125	e38	e135	448	250	135	52	153	72	39
27	43	85	117	e37	e110	395	226	143	48	122	66	57
28	44	211	e112	e63	e100	482	201	119	52	96	59	113
29	44	204	e110	e290	---	433	177	115	51	80	55	94
30	41	147	e110	e210	---	383	162	102	101	72	50	75
31	53	---	e110	e115	---	367	---	91	---	113	47	---
TOTAL	1495	3549	4685	2306	2779	7075	16780	4960	2516	1589	2232	1364
MEAN	48.2	118	151	74.4	99.2	228	559	160	83.9	51.3	72.0	45.5
MAX	79	263	240	290	250	534	1330	286	286	153	241	113
MIN	37	62	110	37	58	80	162	91	47	26	31	28
CFSM	.69	1.69	2.15	1.06	1.41	3.25	7.97	2.28	1.19	.73	1.03	.65
IN.	.79	1.88	2.48	1.22	1.47	3.75	8.89	2.63	1.33	.84	1.18	.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1994, BY WATER YEAR (WY)

MEAN	87.0	151	129	98.1	98.7	195	282	139	78.4	47.1	51.7	46.2
MAX	286	233	183	131	182	244	559	266	141	84.2	101	99.3
(WY)	1988	1989	1987	1991	1990	1986	1994	1989	1986	1986	1988	1987
MIN	28.1	84.1	45.8	45.3	45.5	96.5	152	55.4	36.3	16.0	17.4	27.6
(WY)	1993	1985	1990	1989	1987	1989	1985	1987	1988	1985	1985	1993

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1985 - 1994

ANNUAL TOTAL	43691	51330	
ANNUAL MEAN	120	141	117
HIGHEST ANNUAL MEAN			141
LOWEST ANNUAL MEAN			85.6
HIGHEST DAILY MEAN	1400	Mar 30	1770
LOWEST DAILY MEAN	14	Aug 12	9.6
ANNUAL SEVEN-DAY MINIMUM	16	Aug 7	10
INSTANTANEOUS PEAK FLOW		a 2360	a 3310
INSTANTANEOUS PEAK STAGE		bc 5.18 d	5.22
INSTANTANEOUS LOW FLOW		25	7.8
ANNUAL RUNOFF (CFSM)	1.71	2.00	1.66
ANNUAL RUNOFF (INCHES)	23.15	27.20	22.62
10 PERCENT EXCEEDS	250	258	235
50 PERCENT EXCEEDS	82	87	80
90 PERCENT EXCEEDS	23	38	27

a From rating curve extended above 925 ft³/s.

b From crest-stage gage.

c Ice affected.

d About

e Estimated

ST. LAWRENCE RIVER BASIN

04282000 OTTER CREEK AT CENTER RUTLAND, VT.

LOCATION.--Lat 43°36'13", long 73°00'49", Rutland County, Hydrologic Unit 02010002, on right bank 200 ft downstream from dam, 500 ft upstream from bridge on U.S. Highway 4 at Center Rutland, 1.2 mi downstream from East Creek, and 1.5 mi west of Rutland.

DRAINAGE AREA.--307 mi².

PERIOD OF RECORD.--Discharge: May 1928 to current year. Water-quality records: Water years 1955, 1971.

REVISED RECORDS.--WSP 1084: 1929.

GAGE.--Water-stage recorder. Datum of gage is 474.80 ft above sea level; prior to Oct. 1, 1964, datum was 1.00 ft higher. Prior to July 22, 1929, nonrecording gage at same site.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by powerplants and Chittenden Reservoir 14 mi upstream on East Creek. These reservoirs have a combined usable capacity of about 819.8 million ft³. Prior to June 3, 1947, regulation by East Pittsford Reservoir, usable capacity, 150 million ft³.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e250	e290	575	e345	e600	e390	982	1210	501	376	548	305
2	e200	e375	475	e345	e525	373	1080	1290	445	258	403	283
3	e290	e345	508	e330	541	e360	1180	956	502	218	417	217
4	e415	e310	547	e325	486	e360	1850	792	389	191	310	200
5	e590	e333	793	e325	412	352	1830	693	315	202	390	183
6	e560	e990	852	e325	392	341	2340	585	323	209	331	192
7	e405	e990	681	324	381	341	3720	539	363	204	254	198
8	e295	e660	594	e335	e370	502	3470	794	322	168	221	300
9	e270	e495	516	e350	e370	554	2380	1050	260	157	196	272
10	e250	e366	491	e345	e380	763	1990	823	234	327	189	291
11	e230	317	1080	e335	e350	1260	2160	668	245	261	185	251
12	e240	313	954	e325	327	1130	2120	674	285	228	170	241
13	e270	345	655	e325	322	854	3110	700	828	204	162	214
14	e300	349	709	e315	338	740	5790	493	1150	143	249	258
15	e265	617	671	310	e330	734	4690	451	895	136	257	215
16	e248	598	608	336	325	760	5070	1170	543	225	207	198
17	e250	456	463	e345	e325	721	4700	1480	408	268	265	227
18	e253	989	423	e340	e320	630	3040	1140	368	184	1100	223
19	e250	806	495	e330	300	572	2120	901	330	220	1420	220
20	e238	612	471	e325	346	509	1900	787	274	244	787	212
21	e250	495	658	e320	558	504	1730	685	278	e162	981	235
22	e520	468	1310	e320	815	767	1420	598	313	e310	1300	199
23	e477	447	909	e315	752	796	1210	512	253	e1050	851	358
24	e360	410	476	e310	599	1080	1170	489	222	e960	637	e1090
25	e290	313	e465	297	e510	1460	1440	493	250	e540	516	e990
26	e260	251	e425	291	458	1360	1710	627	227	e430	454	e620
27	e222	318	371	e321	406	1150	1720	911	232	e430	390	e540
28	e228	581	e360	e452	e400	1110	1590	618	405	e500	363	e1030
29	e252	1230	e350	830	---	1210	1210	557	314	e650	320	e1050
30	e222	829	e345	945	---	1050	927	460	549	604	251	e1070
31	e222	---	343	799	---	959	---	409	---	992	205	---
TOTAL	9372	15898	18573	11835	12238	23692	69649	23555	12023	11051	14329	11882
MEAN	302	530	599	382	437	764	2322	760	401	356	462	396
MAX	590	1230	1310	945	815	1460	5790	1480	1150	1050	1420	1090
MIN	200	251	343	291	300	341	927	409	222	136	162	183
CFSM	.98	1.73	1.95	1.24	1.42	2.49	7.56	2.48	1.31	1.16	1.51	1.29
IN.	1.14	1.93	2.25	1.43	1.48	2.87	8.44	2.85	1.46	1.34	1.74	1.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1994, BY WATER YEAR (WY)

	MEAN	352	507	514	464	459	824	1479	831	438	277	241	263
MAX	1227	1025	1291	1094	1564	2376	3078	2120	1565	1047	1591	1385	
(WY)	1988	1960	1984	1949	1981	1936	1969	1940	1947	1976	1976	1938	
MIN	86.5	141	126	100	110	231	554	271	130	78.2	91.2	78.4	
(WY)	1965	1965	1948	1948	1980	1965	1946	1941	1965	1965	1965	1964	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1928 - 1994

ANNUAL TOTAL	184783	234097	
ANNUAL MEAN	506	641	553
HIGHEST ANNUAL MEAN			1049
LOWEST ANNUAL MEAN			239
HIGHEST DAILY MEAN	4470	Mar 31	5790
LOWEST DAILY MEAN	72	Jul 17	136
ANNUAL SEVEN-DAY MINIMUM	102	Aug 7	193
INSTANTANEOUS PEAK FLOW			6190
INSTANTANEOUS PEAK STAGE			10.32
ANNUAL RUNOFF (CFSM)	1.65		2.09
ANNUAL RUNOFF (INCHES)	22.39		28.37
10 PERCENT EXCEEDS	1100		1190
50 PERCENT EXCEEDS	280		409
90 PERCENT EXCEEDS	138		222
			136
			1200
			339
			136

a Also occurred on Aug. 7, 1965.

b Present datum, from rating curve extended above 7,400 ft³/s on basis of computation of peak flow over dam.

e Estimated

ST. LAWRENCE RIVER BASIN

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04282500 OTTER CREEK AT MIDDLEBURY, VT.

LOCATION.--Lat 44°00'47", long 73°10'06", Addison County, Hydrologic Unit 02010002, on right bank 150 ft upstream from highway bridge in Middlebury and 3.5 mi downstream from Middlebury River.

DRAINAGE AREA.--628 mi².

PERIOD OF RECORD.--Discharge: April 1903 to April 1907, October 1910 to January 1920, October 1928 to current year. Water-quality records: Water years 1954, 1967-74.

REVISED RECORDS.--WSP 434: 1903-4. WSP 684: 1913(M), drainage area. WSP 1114: 1913. WSP 1207: 1929, 1931.

GAGE.--Water-stage recorder. Datum of gage is 335.75 ft above sea level. Apr. 1, 1903, to Apr. 30, 1907, and Oct. 5, 1910, to Jan. 31, 1920, nonrecording gage at site 1,800 ft upstream at datum 10 ft lower, and Oct. 1, 1928, to Oct. 17, 1933, at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation by Chittenden Reservoir, usable capacity, 819 billion ft³ on East Creek.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 13,600 ft³/s, Nov. 4, 1927, gage height, 13.3 ft, present datum, at site 1,800 ft upstream, from rating curve extended above 9,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	554	438	1360	582	e1450	e770	2600	2840	993	1040	1140	590
2	459	606	1120	580	e1300	e750	2540	2770	1020	809	994	674
3	516	679	903	e600	e1150	e730	2500	2630	1000	592	1100	662
4	687	636	862	580	e1000	e720	2570	2510	968	486	1030	505
5	797	623	1030	e580	e960	e710	2560	2360	842	451	937	423
6	895	1040	1230	e600	e900	e700	2760	2200	724	490	1130	385
7	756	1290	1290	e590	e860	e690	3040	2030	763	461	926	419
8	591	1210	1180	e570	e840	e700	3090	1880	760	456	709	625
9	544	995	1000	e610	e820	e800	3240	1800	645	420	624	768
10	550	802	876	654	e800	e940	3510	1770	549	377	526	744
11	456	705	1080	646	e800	1290	3900	1740	504	521	471	700
12	484	637	1330	570	e800	1400	4130	1640	510	474	518	578
13	518	573	1290	541	e800	1430	4270	1510	706	409	433	464
14	535	579	1130	e530	e790	1430	4630	1390	1270	350	475	598
15	527	648	1150	e530	e780	1400	4660	1200	1490	313	723	635
16	544	885	1070	e525	e770	1370	5250	1280	1420	296	614	521
17	553	930	977	e525	e760	1340	6040	1770	1100	417	489	536
18	568	922	823	e520	e750	1280	6310	1900	727	455	924	585
19	549	1170	784	e550	e740	1220	6500	1960	673	379	1730	568
20	527	1150	776	e650	e730	1140	6230	1950	597	396	1830	440
21	530	981	799	687	e850	1060	5710	1880	548	397	1960	369
22	640	823	1250	688	e1100	1180	5150	1730	605	480	2170	371
23	741	790	1460	681	e1150	1310	4630	1510	574	980	2250	378
24	681	776	1290	642	e1100	1460	4160	1190	499	1100	2300	900
25	556	679	e1000	632	e1000	1680	3760	1040	477	1070	2240	1180
26	490	528	e900	e615	e900	1790	3540	1130	487	858	2070	994
27	460	445	e800	e610	e850	1990	3320	1490	472	824	1830	882
28	431	626	e750	e600	e800	2370	3120	1570	898	1050	1520	1030
29	462	1260	e580	e1050	---	2760	2990	1500	1150	1060	1190	1480
30	398	1430	621	e1500	---	2710	2870	1340	984	986	876	1560
31	372	---	e600	e1600	---	2650	---	1080	---	953	659	---
TOTAL	17371	24856	31411	20838	25550	41770	119580	54590	23955	19350	36388	20564
MEAN	560	829	1013	672	912	1347	3986	1761	798	624	1174	685
MAX	895	1430	1460	1600	1450	2760	6500	2840	1490	1100	2300	1560
MIN	372	438	600	520	730	690	2500	1040	472	296	433	369
CFSM	.89	1.32	1.61	1.07	1.45	2.15	6.35	2.80	1.27	.99	1.87	1.09
IN.	1.03	1.47	1.86	1.23	1.51	2.47	7.08	3.23	1.42	1.15	2.16	1.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1994, BY WATER YEAR (WY)

	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
MEAN	636	865	904	846	845	1515	2565	1516	823	525	456	487
MAX	2021	1897	2610	2509	2414	4538	4500	3649	3025	1723	2624	2411
(WY)	1988	1976	1984	1949	1981	1936	1960	1983	1947	1976	1976	1938
MIN	172	260	246	205	229	384	1034	370	208	126	129	168
(WY)	1965	1965	1948	1948	1980	1940	1946	1903	1965	1965	1965	1982

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1903 - 1994

	1993	1994	1903-1994
ANNUAL TOTAL	337589	436223	
ANNUAL MEAN	925	1195	997
HIGHEST ANNUAL MEAN			1878
LOWEST ANNUAL MEAN			397
HIGHEST DAILY MEAN	4030	Apr 23	a 11000
LOWEST DAILY MEAN	147	Jul 19	92
ANNUAL SEVEN-DAY MINIMUM	168	Jul 15	107
INSTANTANEOUS PEAK FLOW			a 11000
INSTANTANEOUS PEAK STAGE		7.60	10.30
INSTANTANEOUS LOW FLOW		280	
ANNUAL RUNOFF (CFSM)	1.47	1.90	1.59
ANNUAL RUNOFF (INCHES)	20.00	25.84	21.56
10 PERCENT EXCEEDS	2270	2500	2320
50 PERCENT EXCEEDS	590	842	629
90 PERCENT EXCEEDS	250	476	260

a From rating curve extended above 9,000 ft³/s.

e Estimated

ST. LAWRENCE RIVER BASIN

04282525 NEW HAVEN RIVER AT BROOKSVILLE NEAR MIDDLEBURY, VT.

LOCATION.--Lat 44°03'42", long 73°10'16", Rutland County, Hydrologic Unit 02010002, 3 mi north of Middlebury off Rt 7 and on secondary road that parallels Route 7.

DRAINAGE AREA.-- 115 mi².

PERIOD OF RECORD.--Discharge: October 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 275 ft above sea level, from topographic map. Prior to Sept. 5, 1990, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e70	e141	e225	e92	e151	e105	e285	523	260	294	43	81
2	e70	e132	e200	e96	e126	e101	e310	454	210	139	40	75
3	e91	e113	e140	e91	e118	e108	e345	313	249	103	57	62
4	e88	e120	e151	e92	e102	e107	e530	258	177	84	48	56
5	e168	e187	e220	e90	e89	e95	681	231	147	73	219	52
6	e116	e490	e232	e90	e84	e93	1420	223	133	71	141	56
7	e91	e305	e189	e85	e83	e92	1380	264	200	73	83	82
8	e81	e220	e166	90	e92	e120	785	388	157	72	63	110
9	e75	e200	e145	94	e82	e131	659	362	129	68	52	77
10	e82	e122	e139	e95	e92	e180	835	273	114	74	49	63
11	e76	e86	e300	90	e83	e271	898	233	104	63	45	57
12	e74	e86	e268	e93	e71	255	781	212	123	55	41	58
13	e118	e94	e182	e91	e70	194	1240	207	267	50	39	71
14	e109	e95	e198	e90	e73	170	1670	182	328	47	145	166
15	e84	e171	e188	e83	e74	165	1260	164	222	48	119	116
16	e81	e163	e169	e89	e71	e171	2380	345	151	50	77	84
17	e81	e124	e127	e101	e73	e162	1250	582	121	46	60	85
18	e83	e271	e115	e94	e72	e142	725	368	106	42	328	71
19	e78	e221	e134	e99	e65	e130	619	274	95	73	247	62
20	e78	e169	e128	e110	e74	e115	608	223	86	83	127	61
21	e132	e135	e180	e108	e270	e115	462	193	87	66	375	64
22	e233	e129	e355	e100	e350	e172	383	174	91	130	416	54
23	e168	e123	e245	e97	e210	e180	326	158	80	109	191	72
24	e140	e115	e127	e86	e160	e295	319	143	75	80	127	205
25	e103	e86	e160	e80	e153	e410	391	137	77	62	100	119
26	e92	e67	e136	e79	e123	e380	571	271	75	53	93	98
27	e90	e87	e97	e90	e109	e330	625	544	74	48	107	99
28	e90	e390	e98	e95	e110	e325	518	320	149	54	94	131
29	e85	e550	e94	e177	---	e350	335	230	125	79	78	145
30	e82	e305	e93	e200	---	e300	305	190	113	57	67	138
31	e89	---	e89	e170	---	e280	---	163	---	49	63	---
TOTAL	3098	5497	5290	3137	3230	6044	22896	8602	4325	2395	3734	2670
MEAN	99.9	183	171	101	115	195	763	277	144	77.3	120	89.0
MAX	233	550	355	200	350	410	2380	582	328	294	416	205
MIN	70	67	89	79	65	92	285	137	74	42	39	52
CFSM	.87	1.59	1.48	.88	1.00	1.70	6.64	2.41	1.25	.67	1.05	.77
IN.	1.00	1.78	1.71	1.01	1.04	1.96	7.41	2.78	1.40	.77	1.21	.86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	198	224	208	130	87.2	281	491	242	134	67.0	107	95.7
MEAN	198	224	208	130	87.2	281	491	242	134	67.0	107	95.7
MAX	409	369	385	153	115	494	763	371	176	108	245	132
(WY)	1991	1991	1991	1991	1994	1990	1994	1990	1990	1990	1990	1991
MIN	90.7	133	119	101	46.5	156	328	145	107	44.7	49.0	68.5
(WY)	1993	1992	1993	1994	1992	1993	1991	1993	1991	1993	1993	1993

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1990 - 1994	
ANNUAL TOTAL	53513		70918			
ANNUAL MEAN	147		194		177	
HIGHEST ANNUAL MEAN					220	1991
LOWEST ANNUAL MEAN					144	1993
HIGHEST DAILY MEAN	1050	Mar 31	2380	Apr 16	2380	Apr 16 1994
LOWEST DAILY MEAN	22	Jul 17	39	Aug 13	21	Sep 9 1991
ANNUAL SEVEN-DAY MINIMUM	31	Aug 7	48	Jul 12	26	Jul 28 1991
INSTANTANEOUS PEAK FLOW			a 4180	Apr 16	a 4180	Apr 16 1994
INSTANTANEOUS PEAK STAGE			9.09	Apr 16	9.97	Oct 24 1991
INSTANTANEOUS LOW FLOW			37	Aug 13	20	Sep 9 1991
ANNUAL RUNOFF (CFSM)	1.27		1.69		1.54	
ANNUAL RUNOFF (INCHES)	17.31		22.94		20.94	
10 PERCENT EXCEEDS	300		364		410	
50 PERCENT EXCEEDS	93		118		120	
90 PERCENT EXCEEDS	44		64		49	

a From rating curve extended above 1,130 ft³/s.

e Estimated

ST. LAWRENCE RIVER BASIN

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04282650 LITTLE OTTER CREEK AT FERRISBURG, VT.

LOCATION.--Lat 44°11'51", long 73°14'58", Addison County, Hydrologic Unit 02010002, on left bank at highway bridge on Route 7, 1.1 mi north of junction of Routes 22a and 7 in Ferrisburg.

DRAINAGE AREA.-- 57.1 mi².

PERIOD OF RECORD.--March 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 145 ft above sea level, from topographic map. Prior to Oct. 23, 1990, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	20	143	e23	e27	e42	e55	57	77	8.9	10	11
2	6.5	41	88	e24	e28	e39	e67	75	56	9.1	8.9	17
3	7.7	39	65	e24	e25	e35	e92	61	55	8.5	9.4	17
4	7.6	45	55	e23	e24	e30	e140	49	41	7.4	9.2	15
5	8.8	61	129	e23	e23	e29	e180	39	32	5.8	27	13
6	8.7	89	126	e22	e23	e30	e250	32	27	4.9	46	12
7	7.3	76	113	e22	e22	e28	e540	34	27	4.6	39	14
8	6.4	61	89	e21	e23	e29	e400	42	26	5.2	22	19
9	6.4	47	70	e21	e22	e33	e300	48	22	6.4	13	20
10	10	37	56	e20	e21	e35	e260	41	19	7.1	10	16
11	12	30	70	e20	e20	e39	e270	37	16	8.7	9.0	12
12	12	26	59	e21	e20	e34	e290	31	17	7.0	8.3	11
13	20	22	83	e20	e19	e31	e300	27	26	5.5	7.2	10
14	17	19	66	e20	e19	e34	e375	23	27	4.5	12	13
15	14	20	34	e19	e18	e37	e300	21	26	3.9	18	14
16	11	21	41	e19	e18	e38	e400	37	22	3.8	16	11
17	11	20	66	e18	e19	e36	e750	112	20	3.6	12	10
18	14	26	56	e18	e18	e34	e500	112	18	3.5	12	9.2
19	14	27	30	e18	e19	e34	e320	93	15	3.8	21	7.4
20	13	25	23	e18	e45	e34	e160	63	12	39	20	6.2
21	18	22	40	e18	e80	e37	103	44	10	58	35	5.3
22	21	20	e50	e17	e110	e40	83	34	8.7	42	112	4.5
23	19	18	e40	e16	e63	e52	67	29	7.8	23	121	4.6
24	16	17	e35	e16	e52	e76	54	23	7.0	15	76	11
25	13	24	e38	e16	e47	e95	45	19	6.9	11	43	13
26	12	17	e34	e17	e44	e75	51	70	7.4	9.0	26	11
27	10	15	e32	e19	e42	e65	53	269	7.5	8.0	22	12
28	11	51	e35	e30	e43	e58	45	248	8.2	8.0	18	11
29	11	233	e36	e40	---	e54	37	152	8.9	9.3	15	13
30	11	203	e32	e48	---	e52	32	84	8.2	9.8	12	13
31	9.8	---	e25	e30	---	e50	---	63	---	11	8.1	---
TOTAL	367.3	1372	1859	681	934	1335	6519	2069	661.6	355.3	818.1	356.2
MEAN	11.8	45.7	60.0	22.0	33.4	43.1	217	66.7	22.1	11.5	26.4	11.9
MAX	21	233	143	48	110	95	750	269	77	58	121	20
MIN	6.4	15	23	16	18	28	32	19	6.9	3.5	7.2	4.5
CFSM	.21	.80	1.05	.38	.58	.75	3.81	1.17	.39	.20	.46	.21
IN.	.24	.89	1.21	.44	.61	.87	4.25	1.35	.43	.23	.53	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994
MEAN	71.0	79.3	62.7	38.3	27.9
MAX	178	174	106	54.5	35.7
(WY)	1991	1991	1991	1992	1991
MIN	11.0	43.2	32.4	22.0	18.0
(WY)	1993	1992	1993	1994	1992

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1990 - 1994

ANNUAL TOTAL	20074.1	17327.5	56.4
ANNUAL MEAN	55.0	47.5	72.2
HIGHEST ANNUAL MEAN			47.5
LOWEST ANNUAL MEAN			1991
HIGHEST DAILY MEAN	1000	e 750	1000
LOWEST DAILY MEAN	1.7	3.5	1.7
ANNUAL SEVEN-DAY MINIMUM	1.8	4.1	1.8
INSTANTANEOUS PEAK FLOW		be 1150	b 1300
INSTANTANEOUS PEAK STAGE		a 5.19	4.44
INSTANTANEOUS LOW FLOW		3.2	1.5
ANNUAL RUNOFF (CFSM)	.96	.83	.99
ANNUAL RUNOFF (INCHES)	13.08	11.29	13.43
10 PERCENT EXCEEDS	129	89	144
50 PERCENT EXCEEDS	20	23	26
90 PERCENT EXCEEDS	3.8	8.2	6.8

a Ice jam.

b From rating curve extended above 920 ft³/s.

e Estimated

ST. LAWRENCE RIVER BASIN

04282780 LEWIS CREEK AT NORTH FERRISBURG, VT.

LOCATION...Lat 44°14'57", long 73°13'44", Addison County, Hydrologic Unit 02010002, on right bank 100 ft east of State Highway 7 crossing, 3 mi northeast of Ferrisburg, Vt.

DRAINAGE AREA...77.2 mi².

PERIOD OF RECORD...March 1990 to current year.

GAGE...Water-stage recorder. Elevation of gage is 105 ft above sea level, from topographic map.

REMARKS...Records good, except those for estimated daily discharges and those above 500 ft³/s, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	63	126	e68	e65	e100	e145	177	181	25	13	25
2	31	79	128	e64	e69	e92	e160	183	131	23	14	26
3	72	72	111	e62	e64	e87	e172	136	138	21	34	22
4	63	105	112	e59	e64	e82	e195	116	102	19	21	20
5	63	161	210	e58	e62	e79	e360	102	83	17	177	19
6	54	411	167	e57	e61	e78	e500	94	72	17	91	19
7	46	235	143	e56	e58	e76	e950	102	102	35	43	21
8	40	146	128	e55	e57	e77	618	109	82	100	31	26
9	40	114	108	e55	e57	e82	627	114	65	35	24	23
10	66	96	103	e55	e56	e90	653	92	55	37	20	21
11	56	83	138	e53	e54	e98	673	84	49	27	18	19
12	50	74	116	e50	e54	e90	566	76	52	21	17	19
13	91	67	143	e47	e53	e84	656	72	83	18	17	20
14	73	64	185	e46	e52	e86	898	69	79	17	60	29
15	59	72	108	e45	e50	e91	667	60	67	16	59	32
16	52	77	101	e45	e48	e101	1080	95	55	18	34	23
17	57	66	e105	e45	e46	e98	1030	204	47	16	26	22
18	75	83	e120	e45	e46	e94	472	148	42	15	35	21
19	64	77	e95	e44	e46	e87	370	121	38	16	57	19
20	54	69	e90	e43	e52	e85	322	101	34	16	38	17
21	58	63	e117	e42	e130	e90	262	87	30	15	144	16
22	96	57	e96	e41	e270	e100	223	78	29	21	199	15
23	73	54	e85	e40	e200	e112	185	67	27	27	81	17
24	61	51	e98	e39	e130	e170	163	61	24	22	54	26
25	55	75	e90	e40	e125	e230	149	66	25	16	42	24
26	51	100	e73	e40	e115	e210	190	189	26	15	37	21
27	47	72	e84	e47	e108	e195	173	429	24	14	43	21
28	53	136	e86	e66	e103	e170	135	216	29	15	42	24
29	56	303	e84	e90	---	e160	117	160	28	18	33	25
30	49	156	e82	e115	---	e145	108	131	25	16	27	29
31	48	---	e76	e97	---	e132	---	110	---	14	24	---
TOTAL	1787	3281	3508	1709	2295	3471	12819	3849	1824	702	1555	661
MEAN	57.6	109	113	55.1	82.0	112	427	124	60.8	22.6	50.2	22.0
MAX	96	411	210	115	270	230	1080	429	181	100	199	32
MIN	31	51	73	39	46	76	108	60	24	14	13	15
CFSM	.75	1.42	1.47	.71	1.06	1.45	5.53	1.61	.79	.29	.65	.29
IN.	.86	1.58	1.69	.82	1.11	1.67	6.18	1.85	.88	.34	.75	.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

MEAN	113	123	123	85.7	71.1	177	300	105	54.1	31.9	48.7	39.6
MAX	247	238	229	123	121	275	446	124	60.8	74.0	139	55.0
(WY)	1991	1991	1991	1991	1991	1990	1993	1994	1994	1990	1990	1991
MIN	26.7	65.3	41.6	42.1	32.8	112	179	75.9	47.2	16.9	17.3	21.1
(WY)	1993	1993	1993	1993	1993	1994	1991	1992	1991	1993	1992	1992

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1990 - 1994

ANNUAL TOTAL	34930.6	37461	102
ANNUAL MEAN	95.7	103	131
HIGHEST ANNUAL MEAN			83.4
LOWEST ANNUAL MEAN			1991
HIGHEST DAILY MEAN	1070	Mar 30	1500
LOWEST DAILY MEAN	9.6	Jul 20	9.6
ANNUAL SEVEN-DAY MINIMUM	11	Jul 15	11
INSTANTANEOUS PEAK FLOW			a 2870
INSTANTANEOUS PEAK STAGE			b 5.40
INSTANTANEOUS LOW FLOW			8.1
ANNUAL RUNOFF (CFSM)	1.24	1.33	1.32
ANNUAL RUNOFF (INCHES)	16.83	18.05	17.98
10 PERCENT EXCEEDS	218	184	229
50 PERCENT EXCEEDS	50	66	64
90 PERCENT EXCEEDS	16	21	18

a From rating curve extended above 250 ft³/s.

b Ice jam.

e Estimated

ST. LAWRENCE RIVER BASIN

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04282795 LAPLATE RIVER AT SHELBURNE FALLS, VT.

LOCATION.--Lat 44°22'12", long 73°13'00", Chittenden County, Hydrologic Unit 02010003, on left bank at Shelburne Falls, 2.0 mi above mouth.

DRAINAGE AREA.--44.6 mi².

PERIOD OF RECORD.--March 1990 to current year.

GAGE.--Nonrecording gage at site 100 ft downstream, March to October 23, 1990. Water-stage recorder, October 24, 1990, to current year. Elevation of gage is 150 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	24	61	e23	e26	e35	e49	79	126	6.9	6.3	5.7
2	7.7	47	55	e25	e23	e34	e52	95	66	6.4	8.7	6.0
3	19	46	44	e20	e22	e33	e62	64	65	6.0	10	5.6
4	20	67	44	e16	e22	e30	e135	51	43	5.3	7.8	4.9
5	18	137	118	e18	e21	e28	e150	44	33	4.5	49	4.3
6	16	172	102	e19	e21	e27	e200	40	29	5.0	43	4.9
7	12	112	69	e18	e20	e26	e350	47	43	4.2	17	5.1
8	9.2	63	60	e18	e19	e26	e290	50	38	26	10	5.5
9	11	47	48	e18	e19	e29	e250	53	29	10	7.8	5.6
10	40	40	44	e18	e19	e31	e210	43	24	8.2	6.6	4.7
11	26	36	53	e17	e18	e35	e240	40	19	6.4	6.0	4.4
12	17	31	49	e17	e18	e33	253	36	19	5.4	5.2	4.3
13	51	28	61	e16	e18	e30	255	33	24	4.7	4.6	4.3
14	36	25	49	e16	e17	e27	328	30	25	4.4	19	4.8
15	24	33	39	e15	e17	e30	221	26	21	4.4	20	6.3
16	19	42	44	e15	e17	e37	383	41	16	4.3	11	5.2
17	20	34	75	e15	e16	e35	426	111	12	4.1	8.0	4.8
18	30	40	43	e15	e16	e32	190	70	11	4.0	12	4.4
19	27	37	30	e15	e17	e31	126	49	10	4.6	22	4.0
20	21	32	30	e15	e21	e29	94	39	9.0	4.4	13	3.7
21	21	27	43	e14	e47	e29	77	34	8.5	4.2	63	3.7
22	45	24	e38	e14	e95	e32	67	29	7.9	4.4	130	3.8
23	33	21	e30	e13	e80	e35	59	26	7.3	6.1	36	4.2
24	25	20	e32	e13	e58	e50	53	23	6.9	17	18	4.1
25	21	23	e30	e13	e45	e80	48	27	8.0	8.0	11	5.7
26	18	17	e26	e13	e40	e70	74	107	8.1	7.7	8.5	5.2
27	16	19	e26	e15	e38	e65	79	358	7.3	6.3	8.2	5.3
28	21	58	e28	e20	e36	e60	60	121	9.2	6.0	9.2	5.2
29	25	252	e23	e29	---	e64	50	63	8.6	7.0	7.2	5.4
30	19	102	e20	e40	---	e50	45	47	7.4	7.8	5.6	5.6
31	17	---	e21	e35	---	e47	---	44	---	7.5	5.2	---
TOTAL	693.9	1656	1435	568	826	1200	4876	1920	741.2	211.2	588.9	146.7
MEAN	22.4	55.2	46.3	18.3	29.5	38.7	163	61.9	24.7	6.81	19.0	4.89
MAX	51	252	118	40	95	80	426	358	126	26	130	6.3
MIN	7.7	17	20	13	16	26	45	23	6.9	4.0	4.6	3.7
CFSM	.50	1.24	1.04	.41	.66	.87	3.64	1.39	.55	.15	.43	.11
IN.	.58	1.38	1.20	.47	.69	1.00	4.07	1.60	.62	.18	.49	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	56.0	69.1	47.2	22.6	21.6	64.3	144	44.5	17.3	12.6	26.4	10.2
MAX	113	135	86.8	37.5	34.8	95.5	249	61.9	24.7	41.5	99.7	18.7
(WY)	1991	1991	1991	1991	1991	1991	1993	1994	1994	1990	1990	1991
MIN	10.9	41.1	16.5	14.0	8.61	38.7	86.4	23.8	9.70	3.20	3.18	4.89
(WY)	1993	1993	1993	1993	1993	1994	1991	1992	1991	1991	1991	1994

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1990 - 1994

ANNUAL TOTAL	16015.7	14862.9	
ANNUAL MEAN	43.9	40.7	42.3
HIGHEST ANNUAL MEAN			55.4
LOWEST ANNUAL MEAN			33.7
HIGHEST DAILY MEAN	705	426	1040
LOWEST DAILY MEAN	2.0	a 3.7	1.0
ANNUAL SEVEN-DAY MINIMUM	2.5	4.0	1.3
INSTANTANEOUS PEAK FLOW		b 691	b 1320
INSTANTANEOUS PEAK STAGE		c 9.50	c 9.50
INSTANTANEOUS LOW FLOW		3.2	.82
ANNUAL RUNOFF (CFSM)	.98	.91	.95
ANNUAL RUNOFF (INCHES)	13.36	12.40	12.87
10 PERCENT EXCEEDS	108	78	107
50 PERCENT EXCEEDS	17	24	19
90 PERCENT EXCEEDS	5.2	5.3	4.3

a Also occurred on Sept. 21.

b From rating curve extended above 200 ft³/s.

c Ice jam.

e Estimated

04285500 NORTH BRANCH WINOOSKI RIVER AT WRIGHTSVILLE, VT.

LOCATION.--Lat 44°17'58", long 72°34'45", Washington County, Hydrologic Unit 02010003, on right bank at Wrightsville, 0.8 mi downstream from Wrightsville Detention Reservoir, and 3.5 mi upstream from mouth.

DRAINAGE AREA--69.2 mi².

PERIOD OF RECORD.--Discharge: October 1933 to current year. Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 1237: 1937: 1934-39.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 550.53 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Nov. 21, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges and period of shifting control, Apr. 18 to Sept. 30, which are fair. Discharge affected since 1935 by Wrightsville Detention Reservoir (Reservoirs in Winooski River basin). Flow regulated by powerplant at Wrightsville Detention Reservoir since September 1985. Occasional diurnal fluctuation at low flow caused by small mill upstream; more frequent diurnal fluctuation prior to 1968. Maximum discharge since construction of Wrightsville Detention Reservoir in 1935, 1,100 ft³/s, July 5 and October 24, 1990, gage height 4.32 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 17,200 ft³/s, Nov. 3, 1927, by computation of peak flow over dam 0.8 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	78	193	e38	e60	e54	112	596	179	50	22	35
2	66	94	119	e46	e39	e60	124	740	151	29	12	24
3	135	80	117	e51	e38	e48	135	400	142	49	9.7	19
4	148	81	117	e48	e38	e46	193	276	97	45	9.9	17
5	146	110	127	e45	e39	e48	306	234	77	27	25	16
6	108	384	129	e40	e40	e76	511	205	71	27	33	13
7	92	366	113	e45	e46	e38	797	181	165	28	28	12
8	78	221	95	e55	e32	e42	814	209	175	26	28	12
9	65	191	82	e43	e32	e56	771	254	92	26	28	12
10	107	141	89	e45	e33	e53	488	218	58	21	28	12
11	93	99	155	e50	e32	e50	580	191	60	30	26	12
12	77	100	208	e47	e36	e60	606	184	52	48	20	12
13	148	94	136	e31	e35	46	732	144	149	28	16	20
14	132	90	127	e30	e33	46	851	122	83	28	17	196
15	98	111	137	e37	e35	49	900	87	72	28	26	176
16	79	129	145	e43	e43	56	992	139	50	28	28	61
17	87	106	105	e43	e115	67	1020	359	40	28	27	44
18	113	101	79	e65	e54	59	1030	284	62	28	30	38
19	59	94	86	e55	e50	56	1000	211	28	28	49	26
20	103	100	78	e65	e30	51	981	150	28	28	33	26
21	133	104	89	e67	e60	51	966	123	29	28	90	27
22	228	87	149	e42	e135	59	930	86	28	28	189	26
23	214	87	119	e80	e125	64	874	88	28	28	64	27
24	191	76	79	e57	e87	114	838	67	30	28	61	51
25	146	76	77	e70	e77	149	826	69	29	28	33	66
26	86	76	74	e72	e79	178	839	326	28	28	28	55
27	91	74	e48	e46	e93	138	854	803	28	25	38	45
28	83	114	e61	e115	e90	121	854	588	38	21	34	103
29	87	461	e43	e120	---	116	822	256	28	20	28	103
30	77	274	e39	e113	---	109	669	196	28	20	28	182
31	77	---	e42	e90	---	106	---	145	---	20	28	---
TOTAL	3430	4199	3257	1794	1606	2266	21415	7931	2125	904	1116.6	1468
MEAN	111	140	105	57.9	57.4	73.1	714	256	70.8	29.2	36.0	48.9
MAX	228	461	208	120	135	178	1030	803	179	50	189	196
MIN	59	74	39	30	30	38	112	67	28	20	9.7	12
MEAN(†)	113	144	101	58.7	57.5	72.0	740	233	70.8	24.7	36.0	52.2
CFSM(†)	1.63	2.08	1.45	0.85	0.83	1.04	10.7	3.38	1.02	0.36	0.52	0.75
IN(†)	1.88	2.32	1.68	0.98	0.87	1.20	11.9	3.89	1.14	0.41	0.63	0.84

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1994, BY WATER YEAR (WY)

MEAN	106	139	112	77.3	68.5	173	458	250	91.2	46.2	43.0	52.9
MAX	437	248	318	212	348	556	714	617	396	271	255	230
(WY)	1991	1984	1974	1935	1981	1936	1994	1972	1984	1973	1990	1938
MIN	6.00	25.9	28.0	17.5	14.6	21.4	161	47.3	15.8	7.91	8.47	5.10
(WY)	1964	1954	1948	1940	1980	1940	1946	1941	1949	1953	1942	1963

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1934 - 1994

ANNUAL TOTAL	45538.0	51511.6	
ANNUAL MEAN	125	141	135
HIGHEST ANNUAL MEAN			226
LOWEST ANNUAL MEAN			71.4
HIGHEST DAILY MEAN	838	Mar 31	1030
LOWEST DAILY MEAN	8.8	Jul 23	9.7
ANNUAL SEVEN-DAY MINIMUM	8.9	Jul 21	12
INSTANTANEOUS PEAK FLOW			a 1040
INSTANTANEOUS PEAK STAGE			3.88
10 PERCENT EXCEEDS	257		293
50 PERCENT EXCEEDS	76		72
90 PERCENT EXCEEDS	25		27

a From rating curve extended above 920 ft³/s.

e Estimated

(†) Adjusted for change in contents in Wrightsville Detention Reservoir.

NOTE: All statistics are based on unadjusted daily and monthly mean data.

RESERVOIRS IN WINOOSKI RIVER BASIN ABOVE MONTPELIER, VT.

04283500 EAST BARRE DETENTION RESERVOIR.--Lat 44°09'18", long 72°26'42", Washington County, Hydrologic Unit 0201003, at dam on Jail Branch at East Barre, 4.5 mi upstream from mouth. **DRAINAGE AREA**, 38.8 mi². **PERIOD OF RECORD**, February 1936 (in WSP 1307), March and April 1936 (in WSP 798), May 1936 to August 1938 (in WSP 1307), September 1938 (in WSP 867), October 1938 to current year. **GAGE**, water-stage recorder. Datum of gage is above sea level (levels by U.S. Army Corps of Engineers). Prior to Aug. 30, 1960, nonrecording gage, and Aug. 30 to Sept. 30, 1960, water-stage recorder, at present site at datum 1,127.9 ft above sea level. Reservoir is formed by earthfill dam completed by U.S. Army Corps of Engineers in 1935 for flood control. Usable capacity, 525 million ft³ between elevation 1,124.9 ft (bottom of outlet opening) and 1,165.0 ft (crest of spillway). Dam has no gates; below elevation 1,165.0 ft, outflow from reservoir is dependent on capacity of outlet opening near base of dam. Outlet-opening enlargement and reservoir-construction modifications completed in November 1959. Size of opening since enlargement, height, 7 ft and average width, 3.7 ft. Figures given herein represent usable contents, determined from capacity tables furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,163.9 ft, present datum, Mar. 22, 1936; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,150.19 ft Apr. 17; minimum, not determined.

04285000 WRIGHTSVILLE DETENTION RESERVOIR.--Lat 44°18'38", long 72°34'31", Washington County, Hydrologic Unit 02010003, at dam on North Branch Winooski River at Wrightsville, 0.3 mi downstream from Long Meadow Brook, and 4.2 mi upstream from mouth. **DRAINAGE AREA**, 66.5 mi². **PERIOD OF RECORD**, November 1935 to February 1936 (in WSP 1307), March to May 1936 (in WSP 798), June 1936 to August 1938 (in WSP 1307), September 1938 (in WSP 867), October 1938 to current year. **GAGE**, water-stage recorder. Datum of gage is 612.75 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to July 28, 1960, nonrecording gage, and July 28 to Sept. 30, 1960, water-stage recorder, at present site at datum 612.75 ft above sea level. Reservoir is formed by earthfill dam completed by U.S. Army Corps of Engineers in 1935 for flood control; modification of intake-structure works to create a recreational pool completed in June 1965. Usable capacity for recreation, 22 million ft³ between elevations 612.75 ft (bottom of outlet opening) and 620.00 ft; for flood control, 851.5 million ft³ between elevations 620.00 ft and 685.00 ft (crest of spillway). Reservoir used for storage of water for power September 1985 to current year. Usable capacity for storage of water power 774 million ft³ between elevation 631.00 ft, sill of gate and 685.00 ft, crest of spillway. Total usable capacity 873.5 million ft³. Figures given herein represent usable contents, determined from capacity tables furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 676.4 ft, present datum, Mar. 22, 1936, from graph based on gage readings; minimum observed, 613.00 ft, Aug. 17, 1949, and Aug. 17-19, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 660.71 ft, Apr. 17; minimum, 632.95 ft, Oct. 15, Aug. 2.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

Date	Elevation (feet)	Contents (millions of cubic feet)	Change in contents	
			Millions of cubic feet	Equivalent, cubic feet per second
04283500 East Barre Detention Reservoir				
Sept. 30.	1130.58	6.3	--	--
Oct. 31.	1129.45	4.9	-1.4	-0.52
Nov. 30.	1131.52	7.6	+2.7	+1.04
Dec. 31.	1131.11	7.0	-0.6	-0.22
CAL YR 1993	--	--	-4.4	-0.14
Jan. 31.	1131.11	10.6	+3.6	+1.34
Feb. 28.	1133.14	10.0	-0.6	-0.25
Mar. 31.	1134.74	12.7	+2.7	+1.01
Apr. 30.	1136.96	18.3	+5.6	+2.16
May 31.	1133.14	10.0	-8.3	-3.10
June 30.	1131.49	7.5	-2.5	-0.96
July 31.	1130.22	5.8	-1.7	-0.63
Aug. 31.	1134.62	12.5	+6.7	+2.50
Sept. 30.	1135.98	15.4	+2.9	+1.12
WTR YR 1994	--	--	+9.1	+0.29
04285000 Wrightsville Detention Reservoir				
Sept. 30.	633.04	94.1	--	--
Oct. 31.	e 633.75	99.6	+5.5	+2.05
Nov. 30.	635.19	111.1	+11.5	+4.44
Dec. 31.	633.75	99.6	-11.5	+4.29
CAL YR 1993	--	--	-4.8	-0.15
Jan. 31.	634.04	101.8	+2.2	+0.82
Feb. 28.	634.08	102.2	+0.4	+0.16
Mar. 31.	633.70	99.2	-3.0	-1.12
Apr. 30.	641.43	166.6	+67.4	+26.0
May 31.	634.63	106.5	-60.1	-22.4
June 30.	634.62	106.4	-0.1	-0.04
July 31.	633.10	94.6	-11.8	-4.41
Aug. 31.	633.66	98.9	+4.3	+1.61
Sept. 30.	634.74	107.4	+8.5	+3.28
WTR YR 1994.	--	--	+13.3	+0.42
e estimated				

e estimated

ST. LAWRENCE RIVER BASIN

04286000 WINOOSKI RIVER AT MONTPELIER, VT.

LOCATION.--Lat 44°15'23", long 72°35'36", Washington County, Hydrologic Unit 02010003, on right bank 0.4 mi upstream from Dog River and 1 mi downstream from depot at Montpelier.

DRAINAGE AREA.--397 mi².

PERIOD OF RECORD.--May 1909 to June 1914 (fragmentary), July 1914 to September 1923, August 1928 to current year.

REVISED RECORDS.--WSP 424: 1915. WSP 894: Drainage area. WSP 1437: 1912-14(M), 1915-18, 1919(M), 1920, 1921(M), 1922-23, 1929, 1933, 1934(M), 1936, 1937(M), 1938, 1946(M), WDR MA-NH-RI-VT-72-1: 1969(M), 1970(P), 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 499.99 ft above sea level. Prior to June 16, 1914, nonrecording gage at site 0.9 mi upstream at different datum. June 16 to July 3, 1914, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by several small powerplants upstream, by Peacham Pond and, since 1926, by Mollys Falls Reservoir, combined usable capacity, 492 million ft³, which regulated runoff from 24 mi², and by East Barre and Wrightsville Detention Reservoirs since 1935 (Reservoirs in Winooski River basin). See table below for monthend contents in Peacham Pond and Mollys Falls Reservoir.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 57,000 ft³/s, Nov. 3, 1927, gage height, 27.1 ft, from rating curve extended above 6,900 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	352	399	465	e260	e330	e440	e600	2250	695	280	126	216
2	240	558	403	e260	e310	e377	635	2390	688	224	171	256
3	368	333	473	e200	e293	e430	653	1650	613	306	122	196
4	406	345	472	e250	e290	e415	1320	1360	460	252	148	125
5	409	460	503	e210	e290	e450	1520	1180	391	181	437	119
6	333	1190	539	e220	e280	e400	2320	1030	385	173	409	185
7	273	955	547	e250	e283	e382	3900	879	583	212	195	167
8	240	625	463	e260	e300	e460	3060	1110	632	338	157	151
9	229	490	363	e230	e280	e418	2510	1290	444	242	186	125
10	365	430	490	e200	e282	e495	2320	1080	378	273	153	113
11	307	353	948	e219	e270	e537	2900	919	382	274	153	108
12	266	343	829	e201	e290	e500	2890	825	317	238	112	107
13	443	345	713	e230	e238	e435	3620	714	635	196	105	153
14	397	419	491	e182	e231	e435	5190	638	699	161	227	700
15	318	349	465	e213	e263	e470	4780	539	533	149	220	494
16	267	384	480	e193	e230	e520	6640	807	390	211	158	274
17	247	351	376	e210	e250	e556	5620	1540	337	147	130	226
18	282	405	373	e190	e314	e580	4000	1200	400	136	551	194
19	270	377	425	e199	e334	e560	3530	902	243	155	634	156
20	249	519	357	e230	e280	e540	3560	703	214	155	281	143
21	326	511	383	e250	e408	e560	3160	642	283	131	413	140
22	573	329	e600	e220	e920	e605	2860	489	328	317	870	125
23	475	332	e460	e181	e548	e660	2570	488	233	352	389	159
24	407	369	e340	e181	e431	e760	2430	482	201	229	304	348
25	366	328	e360	e188	e399	e850	2560	430	232	171	224	292
26	265	244	e320	e225	e377	e905	3010	1140	220	142	218	258
27	275	345	e260	e290	e431	e865	2970	2360	204	136	234	208
28	412	495	e280	e250	e399	e800	2710	1480	359	155	204	402
29	397	1210	e290	e480	---	e780	2320	1020	403	215	183	373
30	267	691	e310	e430	---	e740	1870	805	300	153	141	456
31	264	---	e340	e398	---	e620	---	639	---	138	134	---
TOTAL	10288	14484	14118	7500	9551	17545	88028	32981	12182	6442	7989	6969
MEAN	332	483	455	242	341	566	2934	1064	406	208	258	232
MAX	573	1210	948	480	920	905	6640	2390	699	352	870	700
MIN	229	244	260	181	230	377	600	430	201	131	105	107
(†)	432.8	381.8	267.9	185.5	136.2	92.4	415.8	447.2	438.2	449	433.6	438.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1994, BY WATER YEAR (WY)

	MEAN	381	512	485	408	383	901	1887	956	480	262	231	231
MAX	1432	1164	1504	1226	1475	3442	3275	2374	1785	1245	1008	934	
(WY)	1946	1991	1984	1935	1981	1936	1933	1972	1947	1973	1990	1938	
MIN	74.3	152	126	109	91.6	153	742	254	136	88.5	87.1	60.1	
(WY)	1964	1979	1915	1940	1940	1940	1946	1921	1949	1991	1952	1921	

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1914 - 1994	
ANNUAL TOTAL	192726		228077		593	
ANNUAL MEAN	528		625		967	
HIGHEST ANNUAL MEAN					270	
LOWEST ANNUAL MEAN					12200	
HIGHEST DAILY MEAN	4220	Apr 11	6640	Apr 16	17	Mar 18 1936
LOWEST DAILY MEAN	76	Jul 21	105	Aug 13	49	Sep 3 1933
ANNUAL SEVEN-DAY MINIMUM	84	Jul 20	132	Sep 7	17200	Sep 10 1957
INSTANTANEOUS PEAK FLOW			a 8320	Apr 16	17.55	Apr 7 1912
INSTANTANEOUS PEAK STAGE			12.69	Apr 16		Jun 30 1973
10 PERCENT EXCEEDS	997		1200			
50 PERCENT EXCEEDS	355		365			
90 PERCENT EXCEEDS	147		160			

(†) Month-end contents in millions of cubic feet in Peacham Pond and Mollys Falls Reservoir; records furnished by Green Mountain Power Corporation.

a From rating curve extended above 6,900 ft³/s.

e Estimated

ST. LAWRENCE RIVER BASIN

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04287000 DOG RIVER AT NORTHFIELD FALLS, VT.

LOCATION.--Lat 44°10'58", long 72°38'27", Washington County, Hydrologic Unit 02010003, on right bank 1 mi downstream from Northfield Falls and 1.2 mi downstream from Cox Branch.

DRAINAGE AREA.--76.1 mi².

PERIOD OF RECORD.--Discharge: October 1934 to current year. October 1934 monthly discharge only, published in WSP 1307. Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 1237: 1935-37.

GAGE.--Water-stage recorder. Datum of gage is 603.00 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Infrequent diurnal fluctuation at low flow by powerplant upstream; regulation much greater prior to 1955.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	55	133	e66	e56	e80	151	513	121	46	20	28
2	27	51	129	61	e60	e74	169	399	110	41	19	27
3	36	44	118	53	e56	72	188	310	106	41	19	24
4	35	46	110	51	e54	e70	326	262	89	34	19	21
5	65	72	117	e48	e50	e64	354	227	79	31	57	20
6	46	232	111	e48	e50	67	765	207	72	29	39	21
7	36	145	102	e46	51	65	1070	185	84	46	24	22
8	32	96	96	e46	47	e60	600	263	74	32	21	24
9	30	79	85	e45	48	e60	460	244	63	29	19	21
10	33	71	94	44	47	e70	500	201	55	31	18	19
11	31	65	236	45	45	e84	635	175	48	26	17	18
12	29	62	167	44	43	e76	642	167	54	23	16	18
13	47	57	167	43	43	e68	1140	154	99	22	16	21
14	43	57	127	43	42	e68	1660	136	102	20	39	35
15	33	63	122	40	40	e72	1560	125	76	23	29	25
16	32	59	122	e40	40	e84	2140	222	57	21	21	24
17	32	55	97	e40	38	e80	1140	294	49	20	18	20
18	33	76	105	e38	39	e80	734	217	43	21	153	19
19	31	68	95	e38	40	e72	672	182	77	21	97	18
20	31	68	86	e38	e50	e76	684	157	46	24	51	17
21	51	60	e90	e37	e165	e72	535	138	47	19	71	17
22	90	56	e113	e37	e215	e84	431	126	46	82	94	20
23	64	54	e80	36	e126	e92	387	114	38	52	57	34
24	53	52	e70	e35	e113	e139	469	103	37	33	43	67
25	42	38	e84	34	e101	e189	557	99	40	28	35	39
26	37	37	e76	34	e90	e165	696	241	40	23	32	33
27	36	45	e64	e34	e80	e157	620	307	41	20	32	32
28	36	327	e78	e43	e84	149	500	188	89	29	30	68
29	34	357	e76	e90	---	145	358	152	69	35	28	51
30	33	185	e76	e96	---	135	307	137	51	25	23	52
31	36	---	e74	e70	---	135	---	118	---	22	23	---
TOTAL	1222	2732	3300	1463	1913	2904	20450	6363	2002	949	1180	855
MEAN	39.4	91.1	106	47.2	68.3	93.7	682	205	66.7	30.6	38.1	28.5
MAX	90	357	236	96	215	189	2140	513	121	82	153	68
MIN	27	37	64	34	38	60	151	99	37	19	16	17
CFSM	.52	1.20	1.40	.62	.90	1.23	8.96	2.70	.88	.40	.50	.37
IN.	.60	1.34	1.61	.72	.94	1.42	10.00	3.11	.98	.46	.58	.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1994, BY WATER YEAR (WY)

	MEAN	71.3	105	111	84.5	87.1	208	426	195	80.9	39.6	36.0	38.6
MAX	301	242	349	241	439	831	785	463	357	176	219	259	
(WY)	1978	1960	1984	1935	1981	1936	1969	1972	1947	1973	1976	1938	
MIN	8.19	19.0	28.7	21.5	18.6	37.0	132	57.5	19.7	8.96	8.77	9.19	
(WY)	1964	1954	1948	1940	1940	1940	1946	1941	1965	1965	1965	1963	

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1935 - 1994

ANNUAL TOTAL	38437	45333	123	
ANNUAL MEAN	105	124	205	1976
HIGHEST ANNUAL MEAN			51.6	1965
LOWEST ANNUAL MEAN			4390	Mar 18 1936
HIGHEST DAILY MEAN	1320	Apr 17	16	Sep 7 1942
LOWEST DAILY MEAN	11	Jul 20	19	Aug 7 1965
ANNUAL SEVEN-DAY MINIMUM	12	Jul 15	6.1	Jul 31 1965
INSTANTANEOUS PEAK FLOW			a 3340	Apr 16
INSTANTANEOUS PEAK STAGE			6.49	Apr 16
INSTANTANEOUS LOW FLOW			12	Sep 6
ANNUAL RUNOFF (CFSM)	1.38	1.63	b 4.3	Aug 31 1942
ANNUAL RUNOFF (INCHES)	18.79	22.16	1.62	
10 PERCENT EXCEEDS	234	251	270	
50 PERCENT EXCEEDS	47	57	62	
90 PERCENT EXCEEDS	17	23	17	

a From rating curve extended above 1,500 ft³/s on basis of flow over dam at gage height 8.49 ft.

b Also occurred on Sept. 7, 1942.

e Estimated

LOCATION.--Lat 44°16'42", long 72°44'37", Washington County, Hydrologic Unit 02010003, on left bank at downstream side of highway bridge, 2.4 mi downstream from Moretown, and 3.8 mi upstream from mouth.

PERIOD OF RECORD: --Discharge: July to November 1910, October 1928 to current year. October 1928 monthly discharge only, published in WSP 1307. Water-quality records: Water years 1954-55, 1957, 1967-74.

REVISED RECORDS.--WSP 744: Drainage area. WSP 854: 1934 (M). WSP 1114: 1929, 1930 (M), 1936-37.

GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1933. Datum of gage is 543.93 ft above sea level (levels by Vermont Department of Highway). July 6 to Nov. 4, 1910, nonrecording gage at same site at different datum. Nov. 20, 1928, to Sept. 27, 1930, nonrecording gage at same site at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional diurnal fluctuation at low flow; much greater regulation prior to 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 23,000 ft³/s, Nov. 3, 1927, gage height, 19.4 ft, from floodmarks, by computation of peak flow over dam.

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	165	279	e140	e155	e220	e350	1030	323	123	e37	65
2	92	153	309	e130	e150	e210	e390	940	271	95	e35	58
3	294	136	264	e125	e145	e205	e410	663	284	91	e35	47
4	185	162	248	e123	e140	e195	e625	543	225	65	e35	43
5	314	320	275	e120	e135	e185	707	482	191	56	e100	39
6	192	833	270	e120	e130	e180	1600	439	167	52	e80	41
7	149	472	241	e114	e130	e170	1940	416	220	55	e45	50
8	128	305	228	e108	e130	e170	974	558	192	65	e40	70
9	115	243	191	e104	e128	e180	740	587	156	62	e37	55
10	123	213	202	e100	e125	e200	1100	476	132	74	e33	42
11	108	189	586	e100	e128	e250	1290	410	114	53	e32	42
12	105	176	362	e98	e125	e210	1090	367	124	44	e30	44
13	186	162	371	e96	e125	e190	1670	347	234	39	e29	70
14	145	165	311	e96	e125	e200	2480	306	293	35	e68	217
15	124	249	257	e98	e125	e225	2270	273	213	37	e54	121
16	112	230	269	e96	e125	e220	3690	439	153	41	e40	81
17	111	190	238	e96	e122	e215	2230	700	121	e35	e35	72
18	132	247	291	e96	e118	e210	1310	527	103	e36	e190	64
19	116	202	191	e96	e120	e205	1080	420	90	e36	e160	56
20	104	190	170	e94	e250	e210	1220	347	79	e39	e90	50
21	205	166	185	e92	e450	e220	936	299	80	e36	e135	46
22	334	153	246	e90	e400	e245	759	265	84	e140	e280	43
23	206	146	e170	e88	e350	e325	640	241	73	e100	e120	101
24	165	139	e155	e86	e310	e405	669	218	64	e70	e105	281
25	144	127	e190	e86	e260	e520	967	197	71	e50	95	168
26	127	139	e165	e88	e240	e400	1290	524	78	e45	78	131
27	120	141	e145	e92	e230	e365	1290	767	64	e35	88	116
28	142	631	e155	e130	e225	e330	1170	468	128	e45	76	218
29	130	745	e160	e265	---	e310	725	351	112	e60	63	199
30	116	401	e170	e220	---	e300	608	299	85	e45	52	268
31	119	---	e155	e185	---	e315	---	253	---	e40	47	---
TOTAL	4744	7790	7449	3572	5196	7785	36220	14152	4524	1799	2344	2898
MEAN	153	260	240	115	186	251	1207	457	151	58.0	75.6	96.6
MAX	334	833	586	265	450	520	3690	1030	323	140	280	281
MIN	92	127	145	86	118	170	350	197	64	35	29	39
CFSM	1.10	1.87	1.73	.83	1.34	1.81	8.69	3.28	1.08	.42	.54	.69
IN.	1.27	2.08	1.99	.96	1.39	2.08	9.69	3.79	1.21	.48	.63	.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1994, BY WATER YEAR (WY)

MEAN	175	257	232	178	174	382	808	437	176	96.2	95.4	103
MAX	675	582	705	472	956	1324	1415	1114	840	273	734	588
(WY)	1978	1984	1974	1978	1981	1936	1969	1940	1947	1976	1976	1938
MIN	22.1	65.5	73.0	35.9	40.8	76.9	318	142	46.2	22.8	22.9	22.5
(WY)	1964	1954	1948	1981	1931	1956	1946	1941	1965	1933	1942	1963

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1929 - 1994

ANNUAL TOTAL	86074		98473				
ANNUAL MEAN	236		270			259	
HIGHEST ANNUAL MEAN						430	1976
LOWEST ANNUAL MEAN						133	1965
HIGHEST DAILY MEAN	2740	Apr 17	3690	Apr 16		6410	Jun 3 1947
LOWEST DAILY MEAN	19	Jul 20	29	Aug 13		2.9	Aug 18 1929
ANNUAL SEVEN-DAY MINIMUM	22	Jul 15	35	Aug 7		4.6	Aug 17 1929
INSTANTANEOUS PEAK FLOW			a 5690	Apr 16		a 18400	Sep 22 1938
INSTANTANEOUS PEAK STAGE			8.80	Apr 16		a 16.34	Sep 22 1938
INSTANTANEOUS LOW FLOW			b 26	Aug 13		1.4	Oct 1 1930
ANNUAL RUNOFF (CFSM)	1.70		1.94			1.86	
ANNUAL RUNOFF (INCHES)	23.04		26.35			25.34	
10 PERCENT EXCEEDS	474		586			587	
50 PERCENT EXCEEDS	149		156			133	
90 PERCENT EXCEEDS	46		47			38	

a From floodmarks, from rating curve extended above 2,700 ft³/s on basis of computations of flow over dam at gage heights 9.98 ft, 11.51 ft, 16.34 ft, 19.4 ft.

b Discharge obtained from indicator clip.

b Discharge
e Estimated

ST. LAWRENCE RIVER BASIN

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04288500 WATERBURY RESERVOIR NEAR WATERBURY, VT

LOCATION.--Lat 44°22'54", long 72°46'13", Washington County, Hydrologic Unit 02010003, at dam on Little River 2.7 mi upstream from mouth and 3.5 mi north of Waterbury.

DRAINAGE AREA.--109 mi².

PERIOD OF RECORD.--Elevation: September 1937 to current year. September 1937 to September 1938 monthend contents only, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Corps of Engineers). Prior to Dec. 10, 1938, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam completed by U.S. Army Corps of Engineers during summer of 1937 for flood control and storage of water for power. Usable capacity for storage of water for power, 1.58 billion ft³ between elevations 500.0 ft and 592.0 ft, sill of taintor gate; for flood control, 1.23 billion ft³, between elevations 592.0 ft and 617.5 ft, crest of spillway; total usable capacity, 2.81 billion ft³.

Capacity table (elevation, in feet, and contents, in millions of cubic feet)			
500.0	0	560.0	658.8
510.0	34.8	570.0	891.9
520.0	92.6	580.0	1,168.5
530.0	180.8	590.0	1,505.0
540.0	302.7	600.0	1,913.4
550.0	461.7		

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 613.45 ft, May 4, 1940; minimum observed, 501.30 ft, Oct. 16, 1938, July 3, 12, 13, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 594.60 ft, Apr. 28; minimum elevation, 532.58 ft, Mar. 22.

ELEVATION (SEA LEVEL), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

INSTANTANEOUS OBSERVATION AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	588.45	590.78	591.05	579.65	567.30	558.60	545.50	593.40	589.50	589.21	589.37	588.65
2	588.85	589.87	590.85	579.25	566.75	557.55	545.40	592.90	589.50	589.36	589.47	588.75
3	589.50	589.37	590.87	578.88	566.38	556.63	545.25	592.35	589.58	589.64	589.39	588.83
4	589.71	588.95	591.15	578.48	566.03	555.70	547.30	591.98	589.80	589.76	589.47	588.90
5	589.83	589.02	591.53	577.95	566.30	554.10	549.65	591.68	589.90	589.32	590.18	588.96
6	589.51	590.04	591.35	577.30	566.35	552.50	555.50	591.30	589.63	589.13	589.90	588.74
7	589.13	589.99	591.30	576.69	565.94	550.90	561.20	590.95	590.08	589.03	589.86	588.28
8	588.77	590.06	590.95	576.46	565.55	549.35	563.58	591.00	589.68	588.95	589.50	588.08
9	588.52	590.19	590.50	576.24	565.20	547.74	565.55	590.83	589.12	589.15	589.42	588.15
10	588.34	589.89	589.90	575.60	564.80	546.07	567.75	590.55	588.73	589.37	589.34	588.20
11	587.87	589.21	589.82	575.82	564.18	545.48	569.85	590.03	589.04	589.32	589.39	588.31
12	587.77	588.73	589.25	575.31	564.40	545.61	571.38	589.65	589.50	589.24	589.42	588.50
13	587.66	588.65	588.60	574.78	564.42	546.18	574.30	589.05	589.70	588.63	589.53	588.60
14	587.48	588.50	587.95	574.60	563.72	545.50	578.52	588.30	589.90	588.69	589.80	589.90
15	587.28	588.93	587.60	574.28	562.98	544.85	582.37	588.10	590.23	588.52	589.92	589.70
16	587.23	589.08	587.22	573.70	562.30	544.05	589.89	589.04	590.48	588.58	589.67	589.30
17	587.69	589.29	587.65	573.18	561.68	542.35	592.10	589.60	589.95	588.63	589.56	588.90
18	587.76	589.18	586.05	572.70	561.03	540.93	592.55	589.98	590.02	588.70	589.31	588.70
19	587.61	589.03	585.38	572.01	560.40	538.85	593.10	590.00	590.16	588.77	589.26	588.10
20	587.37	588.79	584.78	571.37	559.98	536.63	593.15	589.85	589.98	588.83	589.36	587.80
21	587.51	589.16	584.94	570.75	560.60	534.32	592.75	589.75	589.46	588.89	590.70	587.90
22	588.19	589.45	585.69	570.20	561.62	532.90	592.30	589.63	589.43	589.28	590.52	588.10
23	588.75	589.20	585.42	569.68	562.00	534.50	591.98	589.44	589.53	589.59	589.78	588.00
24	589.21	588.92	584.87	569.88	562.65	536.70	592.48	589.30	589.41	589.84	589.26	588.30
25	589.36	589.10	584.65	569.00	561.95	539.05	593.10	589.33	589.54	589.81	589.21	588.50
26	589.70	588.70	584.30	567.93	561.10	540.81	593.87	591.00	589.67	589.89	588.89	588.40
27	590.00	588.90	583.50	567.25	560.20	542.25	594.57	591.46	589.38	589.83	588.50	588.20
28	590.38	590.75	582.59	566.90	559.45	543.45	593.68	591.20	589.41	589.98	588.54	587.80
29	590.69	591.63	581.69	567.55	---	544.65	592.80	590.57	589.39	589.67	588.67	588.20
30	590.96	591.18	580.50	568.10	---	545.65	592.40	590.02	589.28	589.64	588.80	588.50
31	591.23	---	580.05	567.76	---	545.85	---	589.52	---	589.69	588.92	---
MEAN	588.78	589.48	587.16	573.20	563.40	545.15	577.13	590.38	589.63	589.26	589.45	588.51
MAX	591.23	591.63	591.53	579.65	567.30	558.60	594.57	593.40	590.48	589.98	590.70	589.90
MIN	587.23	588.50	580.05	566.90	559.45	532.90	545.25	588.10	588.73	588.52	588.50	587.80
(†)	1552.7	1550.7	1170	837.6	647.4	391.6	1598.3	1488	1479.4	1494	1467.1	1453.6
(‡)	-0.77	-142	-124	-78.6	-95.5	-466	-41.2	-3.32	+5.45	-10.0	-5.21	-0.14

CAL YR 1993 MEAN 582.70 MAX 593.34 MIN 544.44 (†) -5.84
WTR YR 1994 MEAN 581.05 MAX 594.57 MIN 532.90 (†) -0.14

(†) Contents, in millions of cubic feet, at end of month.

(‡) Change in contents, equivalent in cubic feet per second.

Data for period Sept. 13-30 furnished by Green Mountain Power Co.

LOCATION.--Lat 44°22'12", long 72°46'11", Washington County, Hydrologic Unit 02010003, on right bank 1 mi downstream from Waterbury Reservoir, 1.7 mi upstream from mouth, and 2.5 mi north of Waterbury.

DRAINAGE AREA. - - 111 mi².

PERIOD OF RECORD.--July to October 1910 (gage heights only), October 1935 to current year. October, November 1935 monthly discharge only, published in WSP 1307. Prior to October 1962, published as Waterbury River near Waterbury.

REVISED RECORDS. - WSP 824: 1936.

GAGE.--Water-stage recorder. Concrete control since Dec. 8, 1937. Datum of gage is 428.00 ft above sea level (levels by U.S. Army Corps of Engineers). July 7 to Oct. 31, 1910, nonrecording gage at site 2 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Waterbury Reservoir (station 04288500). Maximum discharge, 6,520 ft³/s, Mar. 18, 1936, gage height, 19.38 ft; minimum daily, 0.6 ft³/s several times during summers of 1938-39, 1941, and 1944. Maximum discharge since construction of Waterbury Reservoir in 1937, 4,080 ft³/s, Dec. 9, 1937, gage height, 14.88 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	387	308	242	218	303	240	848	591	115	196	187
2	18	565	285	244	240	312	242	1000	483	20	19	18
3	184	366	278	237	179	315	244	778	315	20	107	16
4	184	375	153	243	176	313	134	641	136	20	24	15
5	248	346	118	277	17	410	21	591	134	249	91	15
6	343	488	318	298	62	409	35	583	349	154	250	143
7	338	435	261	299	180	404	35	580	458	108	91	251
8	324	247	348	177	168	401	27	584	569	107	213	142
9	252	173	346	161	171	396	28	582	562	23	93	15
10	267	341	479	291	171	391	316	580	357	23	75	15
11	339	486	482	19	230	218	474	579	22	100	19	15
12	234	380	481	248	18	81	421	579	22	84	18	15
13	338	206	483	236	66	18	556	537	250	303	19	219
14	267	256	485	148	242	187	565	564	119	21	21	387
15	242	271	399	184	256	231	573	379	22	113	20	360
16	167	253	407	252	236	237	581	215	21	20	166	278
17	18	139	394	255	220	379	560	519	360	19	92	317
18	292	270	407	221	221	288	575	290	53	20	264	219
19	280	263	403	285	223	370	557	320	20	20	127	313
20	269	272	406	259	225	365	788	339	153	19	19	211
21	358	19	230	246	228	360	838	283	354	19	225	13
22	156	30	26	228	21	311	702	278	105	80	487	13
23	19	268	151	227	89	20	614	280	21	20	488	97
24	19	251	307	18	20	20	607	228	122	19	340	14
25	111	18	239	286	278	21	796	271	20	81	108	14
26	18	268	267	392	324	20	1130	279	20	18	285	149
27	18	19	364	247	322	20	1310	399	214	65	299	207
28	19	32	481	203	282	21	1450	540	101	19	71	301
29	18	292	478	21	---	22	1000	561	87	204	13	16
30	17	525	477	18	---	22	764	589	124	78	4.6	323
31	18	---	291	205	---	149	---	589	---	91	6.4	---
TOTAL	5565	8241	10552	6667	5083	7014	16183	15385	6164	2252	4251.0	4298
MEAN	180	275	340	215	182	226	539	496	205	72.6	137	143
MAX	358	565	485	392	324	410	1450	1000	591	303	488	387
MIN	17	18	26	18	17	18	21	215	20	18	4.6	1.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1994, BY WATER YEAR (WY)

MEAN	182	212	229	210	252	309	462	401	215	138	148	143
MAX	749	462	477	476	527	1121	1111	954	646	433	421	375
(WY)	1946	1991	1974	1991	1947	1936	1976	1940	1973	1973	1962	1938
MIN	18.9	10.4	9.39	16.8	53.3	12.0	72.4	28.8	1.31	31.4	34.8	30.4
(WY)	1942	1941	1939	1938	1936	1938	1940	1938	1938	1977	1970	1984

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1936 - 1994

ANNUAL TOTAL	87138.9		91655.0				
ANNUAL MEAN	239		251			242	
HIGHEST ANNUAL MEAN						456	1976
LOWEST ANNUAL MEAN						146	1965
HIGHEST DAILY MEAN	969	Apr 26	1450	Apr 28		4830	Mar 18 1936
LOWEST DAILY MEAN	6.9	Jul 14	4.6	Aug 30		b .60	Jul 10 1938
ANNUAL SEVEN-DAY MINIMUM	13	Jul 13	21	Mar 23		b .70	Jul 13 1938
INSTANTANEOUS PEAK FLOW			1640	Apr 28		4830	Mar 18 1936
INSTANTANEOUS PEAK STAGE			9.58	Apr 28		19.38	Mar 18 1936
INSTANTANEOUS LOW FLOW			a 4.2	Aug 30		b .60	Jul 10 1938
10 PERCENT EXCEEDS	482		558			558	
50 PERCENT EXCEEDS	242		237			187	
90 PERCENT EXCEEDS	18		19			7.8	

a Also on Aug. 31.

b See Remarks.

04290500 WINOOSKI RIVER NEAR ESSEX JUNCTION, VT.

LOCATION.--Lat 44°28'44", long 73°08'21", Chittenden County, Hydrologic Unit 02010003, on right bank 0.5 mi downstream from Muddy Brook and 2 mi southwest of Essex Junction.

DRAINAGE AREA.--1,044 mi².

PERIOD OF RECORD.--Discharge: October 1928 to current year. Water-quality records: Water years 1953, 1976-79.

REVISED RECORDS.--WSP 714: 1930(M). WSP 894: Drainage area. WSP 1307: 1929(M).

GAGE.--Water-stage recorder. Elevation of gage is 185 ft above sea level, from topographic map; prior to Oct. 1, 1964, datum was 1.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by powerplants upstream, by Peacham Pond and Mollys Falls Reservoir, combined usable capacity, 492 million ft³ by Waterbury Reservoir (station 04288500) since 1937, and by East Barre and Wrightsville Detention Reservoirs (Reservoirs in Winooski River basin) since 1935. See table with station 04286000 for monthend contents in Peacham Pond and Mollys Falls Reservoir.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 113,000 ft³/s, Nov. 4, 1927, gage height, 50.4 ft, present datum, from floodmarks, from rating curve extended above 27,000 ft³/s by method explained above.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	725	995	2190	e1240	e1300	e1460	2290	5420	2720	729	432	392
2	799	1630	1710	e1090	e1190	e1390	2470	6810	2470	637	519	603
3	1220	1440	1650	e900	e1100	e1400	2720	4760	2170	655	454	462
4	1380	1370	1430	e900	e980	e1400	4480	3620	1820	592	398	407
5	1370	1720	1580	e1070	e870	e1400	4770	3160	1350	596	1320	373
6	1580	4390	1920	e975	e780	e1470	6810	2940	1030	710	1480	398
7	1160	3590	1840	e950	e790	e1450	11700	2730	1670	546	866	494
8	890	2430	1740	e1000	e850	1530	8240	2970	2030	677	526	595
9	1050	1930	1580	e1000	e820	1580	6230	3600	1790	640	568	441
10	1160	1380	1600	e860	e830	1610	6400	3080	1390	616	488	378
11	1170	1420	2390	e900	e800	1660	8580	2740	1130	616	404	367
12	1180	1340	2690	e850	e740	1470	7890	2530	895	598	380	351
13	1150	1220	2040	e920	e670	1250	8960	2360	1340	554	332	431
14	1490	1220	1980	e1000	e780	1200	15700	2150	1560	582	425	1420
15	1110	1600	1930	e850	e890	1540	13700	1980	1500	494	826	1630
16	1120	1650	1850	e950	e880	1650	18400	1740	1020	412	622	1070
17	856	1230	1630	e950	e820	1840	22300	4120	995	402	541	781
18	916	1400	1210	e940	e900	1830	e16200	3340	1080	371	693	798
19	1100	1440	1530	e900	e1000	1730	e8200	2680	734	376	1890	609
20	1030	1350	1530	e970	e1500	1620	e9400	2220	648	363	972	771
21	1010	1510	1400	e930	e2300	1490	e8700	2010	660	368	1300	415
22	1970	1180	1920	e880	e2600	1860	e7200	1700	1050	405	2870	346
23	1490	735	1690	e860	e1900	1720	e6200	1560	663	725	1910	363
24	1230	1110	1020	e680	e1650	2060	e5600	1530	602	693	1390	749
25	1030	1090	1350	e600	e1650	2880	e7000	1370	585	485	771	884
26	1010	679	1330	e970	e1670	2790	e9000	1860	559	429	744	635
27	795	881	1050	e820	e1600	2370	e8500	6110	569	418	851	888
28	688	1170	e1200	e930	e1550	2160	8160	4130	771	411	704	893
29	1040	4940	e1380	e1250	---	2140	5810	2970	868	460	541	1510
30	820	3060	e1490	e1650	---	1950	4720	2560	813	669	461	845
31	720	---	e1290	e1320	---	2080	---	2310	---	480	395	---
TOTAL	34259	51100	51140	30105	33410	53980	256330	93060	36482	16709	26073	20299
MEAN	1105	1703	1650	971	1193	1741	8544	3002	1216	539	841	677
MAX	1970	4940	2690	1650	2600	2880	22300	6810	2720	729	2870	1630
MIN	688	679	1020	600	670	1200	2290	1370	559	363	332	346

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1994, BY WATER YEAR (WY)

	MEAN	1119	1570	1483	1255	1222	2582	5208	2820	1301	745	696	699
MAX	4587	3525	4549	2793	4266	9642	9256	6826	5027	3368	3284	3095	
(WY)	1946	1984	1974	1935	1981	1936	1933	1972	1947	1973	1976	1938	
MIN	245	389	378	350	337	554	2038	846	364	297	225	231	
(WY)	1964	1954	1930	1931	1940	1940	1946	1965	1938	1965	1934	1963	

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1929 - 1994
ANNUAL TOTAL	583367	702947	
ANNUAL MEAN	1598	1926	1724
HIGHEST ANNUAL MEAN			2751
LOWEST ANNUAL MEAN			832
HIGHEST DAILY MEAN	12800	Apr 11	41600
LOWEST DAILY MEAN	272	Jul 27	24
ANNUAL SEVEN-DAY MINIMUM	280	Jul 18	54
INSTANTANEOUS PEAK FLOW			a 45300
INSTANTANEOUS PEAK STAGE			15.59
INSTANTANEOUS LOW FLOW			248
10 PERCENT EXCEEDS	3060	3610	3990
50 PERCENT EXCEEDS	1050	1220	990
90 PERCENT EXCEEDS	411	492	352

a From rating curve extended above 27,000 ft³/s on basis of computations of flow over dam at gage heights 19.72, 24.54, and 51.4 ft, and slope-area measurements at gage height 51.4 ft, all at present datum.

e Estimated

ST. LAWRENCE RIVER BASIN

04292000 LAMOILLE RIVER AT JOHNSON, VT.

LOCATION.--Lat 44°37'22", long 72°40'50", Lamoille County, Hydrologic Unit 02010003, on right bank above falls, 0.7 mi upstream from bridge in Johnson and 0.8 mi upstream from Gihon River.

DRAINAGE AREA.--310 mi².

PERIOD OF RECORD.--Discharge: July to December 1910, June 1911 to December 1913 (monthly discharge only, January to March 1912, February 1913), September 1928 to current year. Water-quality records: Water year 1953.

REVISED RECORDS.--WSP 894: Drainage area. WSP 1114: 1933, 1934(M). WSP 1237: 1912(M), 1930, 1932(M).

GAGE.--Water-stage recorder. Elevation of gage is 495 ft above sea level, from topographic map. Prior to Dec. 31, 1913, nonrecording gage at bridge 0.7 mi downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation by powerplant upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	312	507	e205	e240	e265	e410	2210	778	192	229	168
2	367	376	386	e220	e210	e250	e415	2340	696	185	202	129
3	830	361	511	e230	e205	e240	e435	1510	651	243	203	126
4	774	387	520	e210	e195	e230	e560	1100	616	270	169	134
5	805	656	514	e205	e188	e228	e1020	771	546	230	366	135
6	639	1650	512	e203	e185	e225	e1720	759	407	203	388	200
7	456	1190	516	e200	e180	e223	e3300	742	1530	194	271	198
8	498	732	468	e200	e175	e220	2660	884	1350	203	173	126
9	503	535	404	e198	e163	e220	1830	1030	822	200	185	179
10	578	369	400	e195	e160	e218	1770	845	571	790	175	194
11	553	332	1030	e197	e158	e218	2500	746	435	626	135	132
12	444	459	743	e197	e155	e220	2390	667	406	424	119	140
13	551	378	540	e198	e155	e223	2890	649	560	232	69	411
14	476	392	529	e200	e155	e235	5240	585	572	226	141	989
15	408	530	525	e195	e155	e260	4810	533	527	170	306	605
16	374	661	527	e187	e157	e310	7260	659	396	166	208	464
17	376	572	371	e182	e158	e285	6980	1460	345	164	179	281
18	611	434	317	e180	e160	e265	3290	997	320	163	273	219
19	474	402	e305	e177	e165	e255	2470	754	280	179	313	250
20	359	422	e310	e175	e180	e250	3240	563	261	190	172	307
21	612	421	e320	e170	e355	e255	2340	443	220	166	1220	192
22	873	403	e385	e165	e885	e268	1860	438	220	398	1090	157
23	670	380	e500	e160	e650	e300	1560	385	221	431	622	150
24	516	348	391	e158	e475	e365	1990	268	208	214	379	171
25	505	309	313	e155	e400	e430	2700	326	188	160	184	222
26	459	195	e355	e155	e350	e405	3820	904	188	187	239	293
27	336	158	e350	e152	e310	e400	3780	2880	196	158	300	283
28	357	593	e250	e215	e275	e400	3630	1320	222	140	280	257
29	353	1500	e220	e270	---	e400	2040	917	192	248	239	349
30	391	777	e205	e340	---	e402	1540	798	189	135	229	494
31	256	---	e200	e260	---	e405	---	662	---	267	225	---
TOTAL	15726	16234	13424	6154	7199	8870	80450	29145	14113	7754	9283	7955
MEAN	507	541	433	199	257	286	2682	940	470	250	299	265
MAX	873	1650	1030	340	885	430	7260	2880	1530	790	1220	989
MIN	256	158	200	152	155	218	410	268	188	135	69	126
CFSM	1.64	1.75	1.40	.64	.83	.92	8.65	3.03	1.52	.81	.97	.86
IN.	1.89	1.95	1.61	.74	.86	1.06	9.65	3.50	1.69	.93	1.11	.95

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1994, BY WATER YEAR (WY)

	393	504	456	356	337	716	1652	802	415	256	241	258
MEAN	393	504	456	356	337	716	1652	802	415	256	241	258
MAX	1481	1173	1390	845	1624	2711	2868	1903	1344	1028	843	655
(WY)	1991	1991	1991	1978	1981	1936	1933	1972	1973	1973	1990	1938
MIN	84.1	139	162	93.0	114	157	674	245	123	102	101	93.6
(WY)	1964	1954	1948	1948	1934	1940	1946	1965	1988	1991	1987	1978

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1912 - 1994
ANNUAL TOTAL	180124	216307	
ANNUAL MEAN	493	593	532
HIGHEST ANNUAL MEAN			819
LOWEST ANNUAL MEAN			305
HIGHEST DAILY MEAN	4880	7260	10700
LOWEST DAILY MEAN	59	69	16
ANNUAL SEVEN-DAY MINIMUM	71	142	50
INSTANTANEOUS PEAK FLOW		a 9880	a 14400
INSTANTANEOUS PEAK STAGE		14.42	17.33
INSTANTANEOUS LOW FLOW		66	11
ANNUAL RUNOFF (CFSM)	1.59	1.91	1.72
ANNUAL RUNOFF (INCHES)	21.61	25.96	23.34
10 PERCENT EXCEEDS	941	1200	1170
50 PERCENT EXCEEDS	320	340	290
90 PERCENT EXCEEDS	140	165	133

a From rating curve extended above 8,500 ft³/s on basis of computation of flow over dam at gage height 16.48 ft.

e Estimated

ST. LAWRENCE RIVER BASIN

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04292500 LAMOILLE RIVER AT EAST GEORGIA, VT.

LOCATION.--Lat 44°40'45", long 73°04'23", Franklin County, Hydrologic Unit 02010005, on right bank at East Georgia, 0.5 mi upstream from railroad bridge, and 1 mi downstream from Beaver Meadow Brook.

DRAINAGE AREA.--686 mi².

PERIOD OF RECORD.--Discharge: August 1929 to current year. Prior to October 1937, published as "near Milton".

Water-quality records: Water years 1955, 1967-74.

REVISED RECORDS.--WSP 894: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 285 ft above sea level, from topographic map. Prior to Dec. 1, 1937, at site 3.5 mi downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Low flow regulated by powerplants upstream. Maximum gage height, 21.64 ft, Mar. 6, 1979 (ice jam).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	936	799	1490	e550	e700	e720	e1050	3490	2470	507	531	457
2	750	955	1080	e560	e650	e675	e1080	5000	1950	334	438	431
3	1810	910	1130	e600	e600	e640	e1130	3320	1840	632	553	383
4	1990	1080	1330	e575	e560	e620	e1500	2450	1400	537	446	302
5	2610	1740	1750	e545	e530	e600	e3000	1950	1200	458	1500	320
6	1680	3970	1440	e520	e520	e590	e4650	1690	1030	408	1280	346
7	1170	3280	1400	e515	e495	e585	e8500	1970	3380	391	730	383
8	991	2010	1250	e520	e480	e580	e5600	1870	3760	543	530	481
9	1030	1370	1030	e515	e475	e580	e4600	2270	2280	1350	412	277
10	1770	1160	997	e520	e450	e575	e5100	1860	1470	2220	404	352
11	1330	958	1530	e525	e440	e580	6810	1650	1060	1360	389	385
12	1130	918	1580	e525	e440	e590	6020	1400	971	840	366	414
13	1700	965	1070	e540	e435	e600	6550	1360	1170	594	313	701
14	1370	906	1080	e535	e430	e620	9580	1240	1180	450	351	2530
15	1080	1540	1220	e530	e435	e675	10800	1090	1130	417	993	1760
16	934	1890	1200	e510	e425	e820	13500	1170	913	399	669	1010
17	897	1540	1070	e500	e430	e760	17500	3120	744	385	479	783
18	1260	1280	1510	e485	e430	e700	9370	2690	698	324	529	611
19	1330	1110	1080	e475	e490	e650	4960	1860	533	419	860	527
20	961	1040	e860	e465	e1000	e635	5870	1460	609	444	606	609
21	1170	1010	e880	e465	e1400	e665	4960	1120	439	395	1610	435
22	2580	945	e945	e460	e2400	e730	3860	989	443	387	3840	411
23	1730	948	e1140	e455	e1700	e800	3060	833	435	745	1630	377
24	1350	767	e950	e440	e1450	e950	3330	770	496	530	1020	385
25	1110	742	e820	e425	e1100	e1150	4840	735	393	397	656	424
26	1020	527	e800	e415	e950	e1080	6040	1110	355	368	543	454
27	886	698	e760	e410	e860	e1040	7870	4380	380	399	640	508
28	909	835	e710	e510	e795	e1020	7750	3160	427	383	663	479
29	886	4140	e615	e700	---	e1000	4880	1970	452	380	545	524
30	849	2410	e560	e900	---	e1020	3350	1610	408	380	473	799
31	791	---	e540	e775	---	e1040	---	1440	---	476	457	---
TOTAL	40010	42443	33817	16465	21070	23290	177110	61027	34016	17852	24456	17858
MEAN	1291	1415	1091	531	752	751	5904	1969	1134	576	789	595
MAX	2610	4140	1750	900	2400	1150	17500	5000	3760	2220	3840	2530
MIN	750	527	540	410	425	575	1050	735	355	324	313	277
CFSM	1.88	2.06	1.59	.77	1.10	1.10	8.61	2.87	1.65	.84	1.15	.87
IN.	2.17	2.30	1.83	.89	1.14	1.26	9.60	3.31	1.84	.97	1.33	.97

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1994, BY WATER YEAR (WY)

	MEAN	979	1285	1096	852	790	1632	3693	1862	967	593	582	629
MAX	3330	2695	3076	2103	4101	5622	6211	4022	2545	2072	1885	1987	
(WY)	1946	1984	1974	1978	1981	1936	1933	1940	1973	1973	1976	1938	
MIN	237	306	405	224	293	399	1669	638	293	223	198	218	
(WY)	1954	1954	1948	1948	1962	1940	1946	1987	1988	1991	1934	1978	

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1929 - 1994
ANNUAL TOTAL	449979	509414	
ANNUAL MEAN	1233	1396	1246
HIGHEST ANNUAL MEAN			1776
LOWEST ANNUAL MEAN			791
HIGHEST DAILY MEAN	9610	Apr 11	21700
LOWEST DAILY MEAN	169	Jul 26	74
ANNUAL SEVEN-DAY MINIMUM	212	Jul 16	122
INSTANTANEOUS PEAK FLOW			18800
INSTANTANEOUS PEAK STAGE		11.25	Apr 17
INSTANTANEOUS LOW FLOW		215	Jun 21
ANNUAL RUNOFF (CFSM)	1.80	2.03	1.82
ANNUAL RUNOFF (INCHES)	24.40	27.62	24.68
10 PERCENT EXCEEDS	2590	3080	2790
50 PERCENT EXCEEDS	814	840	700
90 PERCENT EXCEEDS	354	413	295

a From rating curve extended above 21,700 ft³/s on basis of computation of flow over dam at gage height 11.76 ft.
e Estimated

ST. LAWRENCE RIVER BASIN

04292700 STONE BRIDGE BROOK NEAR GEORGIA PLAINS, VT.

LOCATION.--Lat 44°42'13", long 73°10'54", Franklin County, Hydrologic Unit 02010005, on left bank 20 ft upstream from culvert on gravel road and 1.5 mi southwest of Georgia Plains.

DRAINAGE AREA.--8.45 mi².

PERIOD OF RECORD.--Discharge: February 1963 to September 1974, March 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 150 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	5.7	21	e5.8	e5.3	e7.5	e22	15	6.3	12	1.3	2.1
2	3.0	7.3	7.8	e5.5	e5.8	e7.0	e32	20	5.6	10	1.7	1.9
3	3.7	7.4	7.4	e5.3	e5.3	e6.8	55	15	7.0	5.6	1.8	1.8
4	4.8	8.7	8.2	e5.1	e5.0	e6.3	82	11	5.4	4.2	1.3	1.6
5	6.2	15	17	e4.9	e4.6	e6.0	74	9.1	4.0	3.1	3.3	1.4
6	4.9	24	20	e4.8	e4.7	e5.5	75	8.1	4.0	2.4	2.5	1.5
7	4.3	19	16	e4.8	e4.5	e5.8	61	7.8	8.6	3.0	2.8	1.4
8	3.6	13	13	e4.6	11	e5.6	60	10	11	4.5	2.2	1.2
9	3.7	9.3	10	e4.5	e4.5	e5.8	52	10	5.8	4.6	1.3	1.2
10	6.8	6.8	9.3	e4.5	e4.4	e6.3	104	9.0	3.6	17	1.2	1.2
11	6.0	6.0	8.6	e4.2	e4.2	e7.5	101	8.6	2.6	16	.98	1.2
12	5.5	5.5	9.1	e4.1	e4.0	e7.0	64	7.3	3.3	6.5	.76	1.2
13	5.4	5.2	11	e4.1	e4.0	e6.3	63	6.1	3.2	3.6	1.1	2.1
14	4.9	5.6	5.4	e4.0	e4.0	e6.3	72	5.3	3.9	2.9	5.6	7.7
15	4.6	9.4	5.6	e3.9	e3.8	e7.0	57	5.0	3.3	2.6	5.4	6.6
16	3.8	12	7.7	e3.9	e3.7	e8.0	92	13	2.5	2.8	5.0	5.4
17	4.0	11	9.8	e3.8	e3.7	e7.4	97	38	1.9	2.4	2.9	3.6
18	4.7	9.0	5.7	e3.8	e3.7	e7.0	50	23	1.6	2.3	3.9	2.8
19	5.0	7.9	4.1	e3.8	e4.2	e6.8	34	13	1.9	2.2	4.3	2.3
20	4.7	7.0	4.5	e3.7	e5.0	e6.8	28	9.0	1.4	1.9	3.6	2.1
21	6.5	6.2	6.4	e3.7	e10	e7.0	22	7.0	1.1	1.8	7.2	1.9
22	11	5.9	11	e3.6	e20	e7.5	19	6.6	.93	4.4	9.5	1.7
23	8.4	5.3	e8.8	e3.5	e13	e8.8	15	5.2	1.1	3.7	7.7	1.8
24	6.1	5.1	e6.8	e3.3	e11	e12	10	4.6	.93	3.1	4.7	2.2
25	4.6	5.2	e8.0	e3.2	e10	e17	9.9	5.4	1.0	2.3	3.1	2.1
26	4.0	4.0	e7.3	e3.2	e9.0	e16	16	13	1.1	1.7	2.4	2.2
27	3.7	4.0	e6.5	e3.4	e8.0	e15	22	32	7.1	1.5	3.4	2.8
28	4.1	7.3	e6.8	e5.1	e7.8	e14	16	21	19	1.7	3.0	3.0
29	4.3	19	e7.2	e7.5	---	e13	12	11	15	1.7	2.6	3.3
30	4.2	17	e6.6	e9.0	---	e12	10	8.5	7.6	1.6	2.1	3.3
31	3.8	---	e6.2	e7.2	---	e16	---	7.0	---	1.7	1.7	---
TOTAL	153.3	273.8	282.8	141.8	184.2	271.0	1426.9	364.6	141.76	134.8	100.34	74.6
MEAN	4.95	9.13	9.12	4.57	6.58	8.74	47.6	11.8	4.73	4.35	3.24	2.49
MAX	11	24	21	9.0	20	17	104	38	19	17	9.5	7.7
MIN	3.0	4.0	4.1	3.2	3.7	5.5	9.9	4.6	.93	1.5	.76	1.2
CFSM	.59	1.08	1.08	.54	.78	1.03	5.63	1.39	.56	.51	.38	.29
IN.	.67	1.21	1.24	.62	.81	1.19	6.28	1.61	.62	.59	.44	.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1994, BY WATER YEAR (WY)

	6.08	9.23	9.60	5.44	4.84	14.1	24.9	10.1	4.92	4.46	4.11	3.17
MEAN	6.08	9.23	9.60	5.44	4.84	14.1	24.9	10.1	4.92	4.46	4.11	3.17
MAX	22.0	18.0	30.5	11.5	7.71	25.3	47.6	21.9	19.1	18.3	11.9	9.95
(WY)	1991	1991	1974	1973	1970	1966	1994	1974	1973	1990	1973	1973
MIN	1.79	2.95	3.78	2.79	1.75	2.64	10.6	3.93	1.23	.81	1.35	.88
(WY)	1965	1967	1967	1967	1964	1965	1966	1965	1963	1966	1993	1964

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1963 - 1994

ANNUAL TOTAL	3459.64	3549.90	
ANNUAL MEAN	9.48	9.73	8.32
HIGHEST ANNUAL MEAN			12.6
LOWEST ANNUAL MEAN			4.15
HIGHEST DAILY MEAN	160 Mar 30	104 Apr 10	255 Jul 5 1990
LOWEST DAILY MEAN	.60 Aug 19	.76 Aug 12	.28 Aug 5 1965
ANNUAL SEVEN-DAY MINIMUM	.74 Aug 13	1.1 Jun 20	.32 Jul 31 1965
INSTANTANEOUS PEAK FLOW		a 156 Apr 16	a 412 Jul 5 1990
INSTANTANEOUS PEAK STAGE		b 5.66 Mar 24	6.31 Jul 5 1990
INSTANTANEOUS LOW FLOW		.66 Aug 12	.22 Aug 5 1965
ANNUAL RUNOFF (CFSM)	1.12	1.15	.98
ANNUAL RUNOFF (INCHES)	15.23	15.63	13.38
10 PERCENT EXCEEDS	19	17	18
50 PERCENT EXCEEDS	4.8	5.5	4.6
90 PERCENT EXCEEDS	1.6	1.8	1.4

a From rating curve extended above 75 ft³/s.

b Ice jam.

e Estimated

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LOCATION.--Lat 44°58'22", long 72°23'15", Orleans County, Hydrologic Unit 02010007, on right bank 200 ft upstream from Big Jay Branch, and 2.2 mi upstream from North Troy.

DRAINAGE AREA. - - 131 mi²

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

REVISED RECORDS.--WSP 924: 1940. WSP 1114: 1933(M), 1936- 39.

GAGE.--Water-stage recorder. Elevation of gage is 580 ft above sea level, from topographic map.

REMARKS. --Records good except those for estimated daily discharges, which are fair. Occasional regulation at low flow caused by small powerplant upstream; greater regulation prior to 1967.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	154	189	e92	e83	e125	e190	1210	406	154	90	73
2	165	163	175	e83	e80	e120	e205	991	290	155	64	77
3	508	155	222	e80	e76	e112	e240	570	290	262	68	58
4	451	199	257	e78	e73	e110	e300	489	203	111	57	50
5	535	567	248	e74	e70	e105	e510	470	156	87	189	46
6	257	1350	253	e72	e69	e100	e890	422	146	55	170	54
7	179	571	207	e74	e66	e98	1300	373	703	60	88	63
8	157	319	186	e70	e63	e95	872	482	548	63	65	98
9	199	251	152	e70	e60	e98	620	481	283	80	56	97
10	519	215	158	e70	e56	e100	925	399	185	293	73	102
11	254	190	591	e68	e55	e102	1480	335	148	141	56	204
12	232	196	354	e68	e54	e102	1240	307	139	93	46	176
13	486	188	223	e66	e54	e104	1440	365	230	70	59	432
14	263	204	215	e65	e54	e106	2640	258	276	59	157	417
15	195	373	222	e63	e52	e108	2880	210	234	52	123	215
16	159	505	218	e62	e51	e120	4240	415	150	66	82	134
17	156	320	147	e61	e50	e134	3040	1020	124	63	65	120
18	375	308	128	e60	e52	e125	1120	495	87	50	131	112
19	265	244	141	e60	e53	e118	1040	339	93	61	166	90
20	189	251	142	e59	e66	e112	1450	257	87	62	92	78
21	470	226	136	e58	e200	e110	901	211	73	49	297	70
22	800	195	179	e56	e375	e120	653	184	67	160	471	65
23	360	188	e138	e55	e250	e130	589	169	74	112	181	61
24	263	171	e110	e54	e200	e140	1250	153	59	68	109	73
25	211	99	e135	e54	e160	e235	1590	153	65	53	82	72
26	175	103	e120	e53	e150	e270	2470	375	58	46	70	73
27	156	119	e107	e54	e140	e240	2590	1190	61	58	81	71
28	164	216	e112	e60	e130	e220	1980	417	73	59	79	74
29	164	853	e120	e100	---	e200	812	273	81	90	64	86
30	146	368	e105	e155	---	e190	673	266	72	66	55	249
31	132	---	e98	e110	---	e180	---	216	---	147	53	---
TOTAL	8710	9261	5788	2204	2842	4229	40130	13495	5461	2945	3439	3590
MEAN	281	309	187	71.1	101	136	1338	435	182	95.0	111	120
MAX	800	1350	591	155	375	270	4240	1210	703	293	471	432
MIN	125	99	98	53	50	95	190	153	58	46	46	46
CFSM	2.14	2.36	1.43	.54	.77	1.04	10.2	3.32	1.39	.73	.85	.91
IN.	2.47	2.63	1.64	.63	.81	1.20	11.40	3.83	1.55	.84	.98	1.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1994, BY WATER YEAR (WY)

MEAN	219	283	225	155	139	366	884	419	186	110	108	135
MAX	653	630	585	448	796	1225	1522	991	626	356	454	421
(WY)	1946	1960	1974	1937	1981	1936	1933	1940	1978	1958	1976	1945
MIN	51.3	97.6	60.9	53.9	34.0	57.0	438	143	43.7	32.0	19.7	31.5
(WY)	1949	1979	1956	1940	1980	1941	1946	1977	1933	1934	1934	1953

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1931 - 1994

ANNUAL TOTAL	92540		102094			
ANNUAL MEAN	254		280		269	
HIGHEST ANNUAL MEAN					385	1974
LOWEST ANNUAL MEAN					168	1965
HIGHEST DAILY MEAN	2680	Apr 17	4240	Apr 16	6710	Apr 18 1982
LOWEST DAILY MEAN	36	Jul 20	a 46	Jul 26	11	Aug 28 1949
ANNUAL SEVEN-DAY MINIMUM	42	Jul 14	52	Feb 13	15	Aug 22 1934
INSTANTANEOUS PEAK FLOW			5280	Apr 16	b 8290	Apr 18 1982
INSTANTANEOUS PEAK STAGE			10.43	Apr 16	13.21	Apr 18 1982
INSTANTANEOUS LOW FLOW			30	Jul 6	9.4	Aug 28 1949
ANNUAL RUNOFF (CFSM)	1.94		2.14		2.05	
ANNUAL RUNOFF (INCHES)	26.28		28.99		27.86	
10 PERCENT EXCEEDS	602		568		628	
50 PERCENT EXCEEDS	136		146		125	
90 PERCENT EXCEEDS	58		59		45	

a Also occurred on Aug. 12, Sept. 5.

b From rating curve extended above 5,500 ft³/s on basis of computation of flow over dam at gage height 11.70 ft.

e Estimated

04293500 MISSISQUOI RIVER NEAR EAST BERKSHIRE, VT.

LOCATION.--Lat 44°57'30", long 72°41'55", Franklin County, Hydrologic Unit 02010007, on left bank 1.7 mi north of intersection of State Highways 105 and 118 in East Berkshire, 1.7 mi upstream from Trout River, 3 mi south of Richford, and 3.8 mi downstream from North Branch.

DRAINAGE AREA.--479 mi².

PERIOD OF RECORD.--Discharge: July 1911 to September 1923, October 1928 to current year. Monthly discharge only for some periods, published in WSP 1307. Prior to October 1977, published as "near Richford."
Water-quality records: Water years 1954, 1967-74.

REVISED RECORDS.--WSP 784: Drainage area. WSP 1237: 1913- 14(M), 1922(M), 1923, 1929-30. WSP 1307: 1916(M). WSP 1437: 1912.

GAGE.--Water-stage recorder. Elevation of gage is 410 ft above sea level, from topographic map. Prior to Aug. 1, 1915, nonrecording gage at site 0.2 mi downstream at datum 4.35 ft lower. Aug. 1, 1915, to Sept. 30, 1923, water-stage recorder at present site and datum. Oct. 1, 1928, to Sept. 30, 1929, nonrecording gage at former site at datum 4.6 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation at low flow prior to 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 45,000 ft³/s during flood of November 1927, gage height, 23.1 ft, from floodmarks, from rating curve extended above 9,300 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	545	636	944	e445	e450	e560	e1000	2960	1310	653	385	174
2	730	733	771	e400	e410	e530	e1100	3810	1220	855	287	185
3	2140	702	949	e365	e380	e505	e1250	2640	1070	1610	311	174
4	2290	898	1000	e340	e365	e485	e1400	1850	874	953	323	157
5	2620	1930	1250	e330	e350	e465	e2000	1580	652	620	541	139
6	1520	3780	1130	e330	e340	e455	e3000	1370	573	486	624	150
7	1060	3020	962	e325	e330	e465	e3200	1210	1960	371	419	159
8	945	1780	837	e315	e325	e480	e3500	1200	2250	324	278	182
9	998	1290	693	e310	e315	e500	e3700	1390	1360	308	230	230
10	2040	1060	651	e310	e310	e560	e4000	1200	928	465	210	240
11	1470	915	1380	e310	e300	e620	e4150	1060	685	616	201	379
12	1120	827	1340	e305	e290	e535	e4400	963	588	475	180	473
13	1750	779	1060	e305	e285	e510	e4850	1040	574	358	201	762
14	1390	781	1090	e295	e280	e505	e6000	890	1210	280	512	907
15	1020	1020	1010	e290	e275	e520	e7000	717	1080	226	463	675
16	839	1480	987	e285	e270	e580	12600	1070	708	244	306	410
17	809	1250	e785	e280	e270	e520	12200	3180	528	231	233	325
18	1200	1100	e680	e285	e270	e485	8150	2540	440	206	219	286
19	1220	1000	e600	e280	e275	e465	5180	1600	386	183	350	253
20	908	896	e535	e275	e400	e455	4980	1180	367	175	310	215
21	1270	851	e600	e260	e1040	e460	4250	940	303	178	440	191
22	2950	737	e780	e253	e1600	e570	3100	765	290	691	1040	175
23	2000	688	e635	e245	e1200	e660	2360	650	314	576	664	164
24	1390	623	e545	e240	e800	e860	2850	578	258	408	372	161
25	1100	510	e515	e240	e700	e1020	4050	516	237	375	262	172
26	906	1090	e500	e245	e630	e1040	5290	680	241	360	216	176
27	769	1110	e490	e260	e590	e990	7080	2360	282	301	222	169
28	760	820	e500	e295	e585	e930	7000	1870	556	270	231	170
29	748	2280	e550	e450	---	e850	4950	1140	434	273	204	205
30	663	1490	e500	e740	---	e820	2970	1000	389	264	175	366
31	592	---	e460	e600	---	e890	---	934	---	331	171	---
TOTAL	39762	36076	24729	10208	13635	19290	137560	44883	22067	13666	10580	8424
MEAN	1283	1203	798	329	487	622	4585	1448	736	441	341	281
MAX	2950	3780	1380	740	1600	1040	12600	3810	2250	1610	1040	907
MIN	545	510	460	240	270	455	1000	516	237	175	171	139
CFSM	2.68	2.51	1.67	.69	1.02	1.30	9.57	3.02	1.54	.92	.71	.59
IN.	3.09	2.80	1.92	.79	1.06	1.50	10.68	3.49	1.71	1.06	.82	.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1994, BY WATER YEAR (WY)

	MEAN	778	1024	842	608	509	1346	3018	1311	677	391	349	419
MAX	2295	2385	2330	2034	2439	4013	4882	3187	2129	1671	1528	1365	
(WY)	1978	1984	1984	1990	1981	1936	1969	1940	1978	1974	1976	1954	
MIN	87.4	241	270	157	115	240	1494	453	178	86.0	63.3	57.5	
(WY)	1949	1954	1956	1918	1980	1941	1981	1977	1988	1991	1934	1921	

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1915 - 1994
ANNUAL TOTAL	398405	380880	
ANNUAL MEAN	1092	1044	937
HIGHEST ANNUAL MEAN			1415
LOWEST ANNUAL MEAN			580
HIGHEST DAILY MEAN	10600	12600	17800
LOWEST DAILY MEAN	127	139	28
ANNUAL SEVEN-DAY MINIMUM	148	163	39
INSTANTANEOUS PEAK FLOW		a 14600	a 21200
INSTANTANEOUS PEAK STAGE		14.27	18.92
INSTANTANEOUS LOW FLOW		136	8.0
ANNUAL RUNOFF (CFSM)	2.28	2.18	1.96
ANNUAL RUNOFF (INCHES)	30.94	29.58	26.59
10 PERCENT EXCEEDS	2830	2280	2220
50 PERCENT EXCEEDS	623	600	460
90 PERCENT EXCEEDS	252	231	141

a From rating curve extended above 9,300 ft³/s on basis of computation of peak flow over dam at gage height 14.70 ft., slope area measurement at gage height 12.90 ft, and study of discharge per foot of width at measuring section.

e Estimated

ST. LAWRENCE RIVER BASIN

129

04294000 MISSISQUOI RIVER AT SWANTON, VT.

LOCATION.--Lat 44°54'00", long 73°06'00", Franklin County, Hydrologic Unit 02010007, on left bank at dam in Swanton, Vt.
 DRAINAGE AREA.--850 mi².

PERIOD OF RECORD.--Discharge: March 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 105 ft above sea level, from topographic map. Prior to Oct. 24, 1990, nonrecording gage at same site and datum.

REMARKS.--Records fair. Flow regulated by powerplants upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	670	1270	2050	e545	e630	e680	e1200	e4000	1770	547	e335	196
2	396	1270	1330	e520	e565	e650	e1490	e4700	1990	960	235	148
3	2550	1290	1500	e475	e500	e630	e1680	e3500	1950	1690	325	253
4	2620	1570	1800	e450	e475	e600	e2500	3060	1600	1690	319	147
5	4900	2710	2600	e440	e450	e575	e3100	2530	1160	843	642	211
6	2790	6160	2400	e430	e440	e560	e3600	2120	927	757	919	168
7	1820	5600	2100	e425	e425	e570	e4150	2180	1960	509	600	124
8	1370	3630	1810	e415	e415	e600	e5200	2040	3660	406	365	175
9	1080	2390	1580	e410	e395	e670	e6200	2230	2170	466	e300	239
10	2990	2090	1170	e405	e385	e700	e7500	2120	1750	1090	250	194
11	2640	1580	2000	e400	e370	e725	e8400	1900	1100	1240	e220	366
12	1840	1370	2310	e395	e360	e640	e9600	1640	935	705	e180	664
13	2220	1220	1730	e390	e355	e650	e11000	1380	895	430	154	1360
14	2290	1240	1430	e385	e350	e690	e13000	1330	1150	457	637	1890
15	1680	1470	1740	e380	e340	e720	e13800	1300	1820	395	812	1250
16	1190	2480	1690	e365	e325	e780	e18000	1460	1120	239	481	722
17	1080	2330	1220	e360	e310	e700	e17000	5090	862	315	290	411
18	1540	1980	800	e360	e280	e630	e10000	4690	608	295	251	409
19	1870	1920	1060	e355	e275	e600	e7000	2920	444	316	365	295
20	1610	1500	1040	e350	e540	e600	e5800	2150	494	256	526	262
21	1270	1500	1050	e340	e1000	e640	e5000	1660	505	179	648	119
22	3650	1370	1510	e330	e2390	e760	e4000	1290	408	624	1760	200
23	3560	1140	1250	e320	e1300	e930	e4000	1100	349	930	1330	137
24	2240	1080	e850	e310	e960	e1100	e4500	1030	403	474	648	219
25	1960	767	e795	e310	e820	e1320	e5800	921	336	420	386	138
26	1560	556	e820	e320	e780	e1490	e7200	980	235	389	309	262
27	1220	599	e760	e340	e730	e1290	e8600	3220	348	381	247	191
28	994	838	e660	e380	e700	e1200	e8300	3620	834	457	305	193
29	1190	4330	e630	e600	---	e1100	e4500	2160	541	442	259	238
30	1040	3610	e610	e1000	---	e1040	e3600	1600	518	e420	201	389
31	863	---	e570	e800	---	e1000	---	1580	---	e520	220	---
TOTAL	58693	60860	42865	13305	16865	24840	205720	71501	32842	18842	14519	11570
MEAN	1893	2029	1383	429	602	801	6857	2306	1095	608	468	386
MAX	4900	6160	2600	1000	2390	1490	18000	5090	3660	1690	1760	1890
MIN	396	556	570	310	275	560	1200	921	235	179	154	119

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994
MEAN	1752	1876	1487	881	683
MAX	2507	2335	2631	1192	1316
(WY)	1991	1991	1991	1991	1990
MIN	933	1024	596	429	317
(WY)	1993	1992	1993	1994	1993

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1990 - 1994
ANNUAL TOTAL	583004	572422	
ANNUAL MEAN	1597	1568	1501
HIGHEST ANNUAL MEAN			1726
LOWEST ANNUAL MEAN			1256
HIGHEST DAILY MEAN	12700	18000	21000
LOWEST DAILY MEAN	127	119	74
ANNUAL SEVEN-DAY MINIMUM	158	175	88
INSTANTANEOUS PEAK FLOW		ab 19700	ab 25000
INSTANTANEOUS PEAK STAGE		7.16	
10 PERCENT EXCEEDS	4370	3600	3700
50 PERCENT EXCEEDS	800	843	807
90 PERCENT EXCEEDS	230	286	226

a From rating curve extended above 10,000 ft³/s.

b Estimated record from comparison of discharge with peak from upstream site at East Berkshire.

e Estimated

ST. LAWRENCE RIVER BASIN

04294500 LAKE CHAMPLAIN AT BURLINGTON, VT.

LOCATION.--Lat 44°28'52", long 73°13'27", Chittenden County, Hydrologic Unit 02010003, 50 ft south of Gulf Oil Co. dock at Burlington, 0.1 mi north of Burlington Water Department pumping station, and 0.5 mi north of railroad station.

PERIOD OF RECORD.--Gage heights: May 1907 to current year. Water-quality records: Water year 1971.

REVISED RECORDS.--WSP 684: 1912-29 (datum correction). WSP 1207: 1938 (datum correction).

GAGE.--Water-stage recorder. Datum of gage is 92.86 ft above sea level. Prior to July 20, 1937, nonrecording gage at site 0.7 mi south, and July 20, 1937, to Sept. 7, 1939, nonrecording gage at site 0.1 mi south, both at present datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 9.00 ft Apr. 27, 1993; minimum observed, -0.25 ft Dec. 4, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.49 ft, Apr.21,22,28,29, May 1, affected by seiche; minimum, 1.60 ft Oct. 2, affected by seiche.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.79	2.19	2.56	2.46	2.37	2.72	3.87	8.33	6.00	4.08	3.12	3.03
2	1.70	2.15	2.49	2.45	2.37	2.72	3.95	8.32	5.94	4.03	3.11	2.99
3	1.77	2.10	2.51	2.44	2.37	2.75	4.05	8.28	5.87	4.02	3.13	2.95
4	1.75	2.11	2.56	2.45	2.38	2.80	4.20	8.19	5.79	3.98	3.09	2.90
5	1.85	2.14	2.64	2.45	2.37	2.79	4.41	8.08	5.68	3.90	3.08	2.86
6	1.90	2.24	2.69	2.43	2.37	2.78	4.65	7.96	5.58	3.85	3.12	2.82
7	1.87	2.36	2.72	2.41	2.37	2.75	4.97	7.85	5.57	3.82	3.10	2.78
8	1.93	2.38	2.74	2.43	2.36	2.73	5.24	7.77	5.52	3.82	3.04	2.73
9	1.94	2.41	2.71	2.44	2.37	2.73	5.42	7.66	5.45	3.78	2.98	2.70
10	1.99	2.45	2.64	2.43	2.36	2.80	5.57	7.55	5.38	3.76	2.96	2.67
11	1.99	2.42	2.70	2.40	2.35	2.82	5.83	7.44	5.28	3.72	2.93	2.64
12	1.94	2.44	2.75	2.42	2.33	2.83	6.07	7.28	5.18	3.67	2.87	2.61
13	2.04	2.35	2.75	2.40	2.31	2.84	6.30	7.21	5.10	3.61	2.82	2.60
14	2.04	2.34	2.76	2.40	2.30	2.87	6.59	7.08	5.07	3.56	2.86	2.63
15	2.06	2.42	2.77	2.40	2.29	2.87	6.98	6.95	5.02	3.51	2.86	2.64
16	2.02	2.44	2.77	2.37	2.28	2.91	7.36	6.88	4.94	3.45	2.84	2.61
17	2.01	2.45	2.74	2.32	2.26	2.93	7.86	6.94	4.86	3.40	2.79	2.59
18	2.04	2.48	2.71	2.37	2.26	2.94	8.22	6.95	4.78	3.35	2.83	2.57
19	2.09	2.43	2.70	2.35	2.23	2.95	8.32	6.93	4.70	3.30	2.90	2.55
20	2.09	2.47	2.66	2.32	2.23	2.95	8.41	6.85	4.60	3.27	2.89	2.49
21	2.01	2.43	2.70	2.32	2.29	2.95	8.46	6.76	4.47	3.22	2.96	2.47
22	2.08	2.41	2.73	2.33	2.39	2.99	8.46	6.63	4.37	3.22	3.08	2.43
23	2.14	2.45	2.76	2.33	2.47	3.03	8.38	6.53	4.31	3.23	3.17	2.42
24	2.12	2.44	2.70	2.34	2.58	3.10	8.33	6.42	4.23	3.25	3.16	2.41
25	2.15	2.42	2.69	2.34	2.64	3.16	8.30	6.31	4.16	3.26	3.11	2.40
26	2.11	2.37	2.68	2.33	2.67	3.28	8.29	6.30	4.10	3.23	3.13	2.37
27	2.08	2.28	2.65	2.31	2.68	3.42	8.34	6.30	4.06	3.20	3.17	2.35
28	2.11	2.33	2.62	2.30	2.71	3.55	8.44	6.26	4.11	3.22	3.12	2.35
29	2.06	2.42	2.57	2.33	---	3.61	8.41	6.22	4.11	3.19	3.08	2.36
30	2.06	2.54	2.55	2.35	---	3.69	8.37	6.15	4.09	3.17	3.07	2.35
31	2.08	---	2.50	2.36	---	3.75	---	6.04	---	3.16	3.05	---
MEAN	1.99	2.36	2.67	2.38	2.39	3.00	6.73	7.11	4.94	3.52	3.01	2.61
MAX	2.15	2.54	2.77	2.46	2.71	3.75	8.46	8.33	6.00	4.08	3.17	3.03
MIN	1.70	2.10	2.49	2.30	2.23	2.72	3.87	6.04	4.06	3.16	2.79	2.35

CAL YR 1993 MEAN 3.33 MAX 8.98 MIN 1.70
WTR YR 1994 MEAN 3.56 MAX 8.46 MIN 1.70

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY
(National stream-quality accounting network station)

LOCATION.--Lat 44 59'46", long 73 21'37", Clinton County, Hydrologic Unit 02010006, on left bank at outlet of Lake Champlain in Rouses Point, and 1.0 mi south of Fort Montgomery ruins. Water-quality sampling site at stage station.

DRAINAGE AREA.--8,277 mi².

WATER-STAGE RECORDS

PERIOD OF RECORD.--October 1863 to December 1870 (maximum and minimum monthly gage heights at St. Johns, Quebec, published in WSP 97) and March 1871 to current year (daily gage heights prior to October 1970, elevations thereafter: those for 1871-1907 published in WSP 894). Gage heights prior to October 1, 1925, published as "Richelieu River at Fort Montgomery, Rouses Point". Discharge records for January 1875 to September 1916 at "Chambly, Quebec," published in WSP 65, 82, 97, 129, 170, 206, 424, and 1307 have been found to be unreliable and should not be used. Daily discharge record for "Richelieu River at Fryers Rapids, Quebec," published in Water Survey of Canada annual reports.

GAGE.--Water-stage recorder. Datum of gage is sea level. March 1871 to May 1923, nonrecording gage located in Fort Montgomery and May 1923 to October 1938, nonrecording gage at present site. Prior to October 1970, at datum 93.00 ft higher.

REMARKS.--Area of lake surface about 490 mi². Total volume below 92.5 ft elevation, reported by Lake Champlain Studies Center, 902.2 billion ft³. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 101.88 ft, Apr. 25, 1993; minimum observed, 92.17 ft, Oct. 23, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known since at least 1827, 102.1 ft, May 4, 1869, from marks at railroad bridge near present gage, according to data published on p. 428 of the Report of the Board of Engineers on Deep Waterways, 1900: U.S. 56th Cong., 2d sess. H. Doc. 149.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 101.62 ft, Apr. 29; minimum, 94.41 ft, Oct. 4.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94.98	94.79	95.51	95.42	95.22	95.56	96.73	101.24	98.87	97.00	96.12	95.84
2	94.90	94.99	95.67	95.25	95.23	95.56	96.85	101.16	98.80	97.01	96.03	95.83
3	94.71	95.14	95.43	95.25	95.25	95.56	96.93	101.15	98.73	96.91	96.00	95.80
4	94.83	95.05	95.43	95.21	95.24	95.63	97.08	101.06	98.65	96.86	96.07	95.75
5	94.72	95.11	95.36	95.29	95.23	95.63	97.28	100.94	98.59	96.99	95.93	95.65
6	94.84	95.08	95.50	95.25	95.21	95.63	97.47	100.85	98.50	96.76	95.94	95.63
7	94.92	95.19	95.54	95.22	95.19	95.63	97.82	100.73	98.43	96.75	95.95	95.70
8	94.71	95.43	95.55	95.27	95.18	95.59	98.11	100.60	98.35	96.71	96.00	95.66
9	94.79	95.38	95.69	95.26	95.18	95.58	98.31	100.57	98.33	96.74	95.98	95.64
10	94.80	95.30	95.86	95.27	95.19	95.63	98.45	100.45	98.25	96.68	95.83	95.53
11	94.94	95.39	95.41	95.33	95.17	95.64	98.66	100.39	98.20	96.61	95.81	95.44
12	95.10	95.25	95.51	95.24	95.16	95.67	98.93	100.27	98.20	96.63	95.83	95.44
13	94.84	95.58	95.53	95.24	95.16	95.70	99.16	99.97	98.07	96.50	95.83	95.45
14	94.96	95.29	95.50	95.22	95.14	95.70	99.48	99.91	97.97	96.44	95.84	95.47
15	94.94	95.22	95.45	95.21	95.13	95.72	99.82	99.85	97.90	96.48	95.78	95.51
16	95.06	95.28	95.34	95.21	95.11	95.74	100.22	99.78	97.84	96.38	95.77	95.62
17	95.07	95.33	95.57	95.25	95.12	95.77	100.72	99.75	97.76	96.32	95.78	95.52
18	94.93	95.30	95.60	95.18	95.09	95.79	101.05	99.72	97.68	96.36	95.72	95.43
19	94.91	95.58	95.52	95.19	95.12	95.79	101.26	99.70	97.51	96.27	95.77	95.39
20	94.97	95.31	95.57	95.23	95.12	95.79	101.26	99.69	97.49	96.20	95.93	95.48
21	95.33	95.47	95.46	95.23	95.12	95.80	101.30	99.62	97.63	96.20	95.90	95.37
22	94.99	95.32	95.56	95.18	95.20	95.84	101.29	99.51	97.24	96.22	95.89	95.39
23	94.97	95.20	95.53	95.18	95.30	95.87	101.33	99.36	97.20	96.28	95.97	95.28
24	95.19	95.10	95.71	95.17	95.42	95.93	101.20	99.28	97.14	96.24	96.07	95.27
25	94.95	95.22	95.58	95.15	95.49	96.01	101.12	99.20	97.09	96.19	96.15	95.26
26	95.21	95.20	95.50	95.13	95.50	96.13	101.25	98.97	97.04	96.24	96.07	95.29
27	95.12	95.36	95.45	95.16	95.53	96.28	101.27	99.09	96.92	96.15	96.05	95.37
28	94.97	95.23	95.43	95.21	95.55	96.38	101.20	99.20	97.06	96.10	96.20	95.33
29	95.08	95.29	95.45	95.15	---	96.47	101.39	99.11	97.06	96.12	96.03	95.28
30	94.90	95.31	95.38	95.16	---	96.56	101.20	99.06	97.03	96.09	95.95	95.18
31	94.77	---	95.43	95.19	---	96.67	---	99.02	---	96.10	95.90	---
MEAN	94.95	95.26	95.52	95.22	95.23	95.85	99.60	99.97	97.85	96.47	95.94	95.49
MAX	95.33	95.58	95.86	95.42	95.55	96.67	101.39	101.24	98.87	97.01	96.20	95.84
MIN	94.71	94.79	95.34	95.13	95.09	95.56	96.73	98.97	96.92	96.09	95.72	95.18

CAL YR 1993 MEAN 96.20 MAX 101.81 MIN 94.66
WTR YR 1994 MEAN 96.45 MAX 101.39 MIN 94.71

ST. LAWRENCE RIVER BASIN

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-67, 1969-72, 1974 to current year.

CHEMICAL DATA: 1966-67 (a), 1969 (b), 1970 (c), 1971-72 (b), 1974-82 (c), 1983-86 (b), 1987 (c), 1988 (d), 1989 (c), 1990-94 (b).

MINOR ELEMENTS DATA: 1974-86 (b), 1987 (c), 1988 (d), 1989 (c), 1990-94 (b).

PESTICIDE DATA: 1976-79 (b), 1980 (a), 1982 (b).

ORGANIC DATA: OC--1974 (a), 1975-77 (b), 1978 (a), 1979-81 (c).

PCB--1978-79 (b), 1980 (a), 1982 (b).

NUTRIENT DATA: 1970 (c), 1971-72 (b), 1974 (b), 1975-82 (c), 1983-86 (b), 1987-89 (c), 1990-94 (b).

BIOLOGICAL DATA:

Bacteria--1974 (a), 1975-82 (c), 1983-89 (b), 1990-94 (b).

Phytoplankton--1974 (a), 1975-78 (c), 1979 (b), 1980-81 (c).

Periphyton--1975 (c), 1976-80 (b).

SEDIMENT DATA: 1975-82 (c), 1983-94 (b).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	
		(US/CM)										
OCT 20...	0930	156	7.3	10.0	0.80	773	10.5	92	K8	K2	63	
MAY 18...	0915	135	8.1	8.0	0.70	764	12.5	105	K1	<1	54	
JUN 22...	0945	130	8.3	20.0	0.90	758	7.4	82	K2	<1	57	
AUG 10...	0915	152	8.1	22.0	0.30	770	8.7	99	380	K2	59	
DATE		CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)
OCT 20...	18	4.3	7.2	1.3	64	78	ND	11	11	<0.10	1.1	
MAY 18...	16	3.5	6.5	1.3	46	57	ND	10	11	<0.10	1.8	
JUN 22...	17	3.6	6.5	1.4	47	57	ND	11	11	0.10	0.45	
AUG 10...	17	3.9	6.8	1.1	52	64	ND	11	11	<0.10	1.6	
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIIUM, DIS- SOLVED (UG/L AS BA)
OCT 20...	94	93	--	0.096	0.030	0.30	<0.010	<0.010	<0.010	<10	8	
MAY 18...	87	79	0.240	0.250	0.030	0.30	<0.010	<0.010	<0.010	10	6	
JUN 22...	79	80	--	0.075	0.030	0.30	0.030	<0.010	<0.010	20	8	
AUG 10...	88	84	--	<0.050	0.010	0.30	<0.010	<0.010	<0.010	<10	8	

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

ST. LAWRENCE RIVER BASIN

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)
OCT 20...	<3	7	<4	4	<10	<1	<1	<1.0	82	<6
MAY 18...	<3	23	<4	2	<10	<1	<1	<1.0	77	<6
JUN 22...	<3	12	<4	4	<10	1	<1	<1.0	81	<6
AUG 10...	<3	19	<4	2	<10	<1	<1	<1.0	85	<6

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	SEDI- MENT, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 20...	0930	3	59
MAY 18...	0915	1	95
JUN 22...	0945	5	85
AUG 10...	0915	6	70

- a 1 or 2 samples per year.
b 3 to 5 samples per year.
c 6 to 9 samples per year.
d 10 to 20 samples per year.
e more than 20 samples per year.

ST. LAWRENCE RIVER BASIN

04295500 LAKE MEMPHREMAGOG AT NEWPORT, VT.

LOCATION.--Lat 44°56'15", long 72°12'21", Orleans County, Hydrologic Unit 01110000, on west side of bridge on U.S. Highway 5 at Newport.

PERIOD OF RECORD.--Gage heights: May 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is 673.00 ft above sea level. Prior to July 21, 1934, nonrecording gage on highway bridge 0.1 mi southeast at same datum. July 21, 1934, to Aug. 22, 1961, nonrecording gage on east side, and Aug. 23, 1961, to Oct. 18, 1966, on west side of bridge at present site and datum.

REMARKS.--Records good. Elevation of lake regulated by powerplant and gates at Magog, Quebec.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 12.92 ft Apr. 20, 1933; minimum recorded, 6.48 ft, Nov. 2, 1968, affected by seiche; but may have been lower during period of use of nonrecording gage.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 11.89 ft, Apr. 20-21, affected by seiche; minimum gage height, 7.01 ft, Mar. 21, 23, 26, affected by seiche.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.92	9.43	8.76	8.75	8.08	7.53	7.10	11.29	10.29	9.03	9.12	9.08
2	8.90	9.33	8.71	8.74	8.03	7.50	7.07	11.23	10.25	9.03	9.13	9.05
3	8.99	9.22	8.71	8.74	7.99	7.49	7.11	11.08	10.15	9.18	9.15	9.02
4	9.03	9.18	8.71	8.75	7.93	7.51	7.24	10.90	9.98	9.20	9.10	8.99
5	9.12	9.17	8.75	8.75	7.89	7.45	7.33	10.72	9.79	9.16	9.18	8.98
6	9.15	9.28	8.74	8.73	7.84	7.40	7.49	10.52	9.70	9.22	9.15	8.97
7	9.15	9.35	8.72	8.70	7.78	7.36	7.72	10.36	9.75	9.20	9.13	8.90
8	9.20	9.32	8.74	8.70	7.75	7.35	7.94	10.22	9.85	9.20	9.10	8.89
9	9.21	9.32	8.73	8.68	7.73	7.33	8.16	10.08	9.86	9.19	9.07	8.88
10	9.31	9.33	8.73	8.68	7.65	7.38	8.38	10.03	9.85	9.27	9.07	8.88
11	9.31	9.27	8.86	8.66	7.61	7.36	8.61	10.06	9.74	9.31	9.00	8.88
12	9.32	9.27	8.95	8.65	7.54	7.32	8.88	10.10	9.63	9.27	8.97	8.85
13	9.42	9.18	8.97	8.63	7.49	7.30	9.16	10.24	9.57	9.26	8.95	8.86
14	9.40	9.15	9.02	8.62	7.45	7.27	9.50	10.20	9.54	9.22	8.98	8.87
15	9.41	9.16	9.07	8.60	7.41	7.23	9.96	10.16	9.48	9.17	8.97	8.86
16	9.37	9.15	9.11	8.52	7.35	7.21	10.57	10.19	9.38	9.19	8.95	8.83
17	9.36	9.12	9.11	8.49	7.33	7.17	11.34	10.29	9.28	9.17	8.92	8.86
18	9.42	9.15	9.11	8.48	7.31	7.14	11.71	10.30	9.19	9.12	8.94	8.87
19	9.41	9.07	9.10	8.45	7.28	7.10	11.78	10.25	9.16	9.12	8.94	8.84
20	9.37	9.07	9.07	8.39	7.29	7.05	11.86	10.15	9.06	9.10	8.91	8.78
21	9.40	9.00	9.10	8.33	7.37	7.02	11.85	10.03	8.97	9.09	8.96	8.79
22	9.60	8.93	9.11	8.29	7.38	7.02	11.75	9.92	9.07	9.18	9.08	8.76
23	9.69	8.94	9.14	8.25	7.41	7.02	11.58	9.87	9.05	9.23	9.12	8.77
24	9.65	8.94	9.09	8.21	7.52	7.03	11.45	9.85	9.02	9.26	9.11	8.76
25	9.69	8.85	9.05	8.18	7.58	7.05	11.35	9.84	8.99	9.25	9.11	8.74
26	9.59	8.78	9.01	8.17	7.60	7.04	11.30	9.93	8.98	9.19	9.12	8.71
27	9.57	8.72	8.95	8.10	7.58	7.07	11.41	10.10	9.00	9.18	9.15	8.68
28	9.55	8.70	8.90	8.10	7.55	7.07	11.52	10.17	8.96	9.14	9.10	8.69
29	9.47	8.75	8.86	8.09	---	7.07	11.46	10.26	8.96	9.12	9.13	8.71
30	9.44	8.79	8.79	8.09	---	7.09	11.38	10.31	8.98	9.11	9.10	8.73
31	9.39	---	8.77	8.09	---	7.11	---	10.28	---	9.15	9.07	---
MEAN	9.35	9.10	8.92	8.47	7.60	7.23	9.80	10.29	9.45	9.18	9.06	8.85
MAX	9.69	9.43	9.14	8.75	8.08	7.53	11.86	11.29	10.29	9.31	9.18	9.08
MIN	8.90	8.70	8.71	8.09	7.28	7.02	7.07	9.84	8.96	9.03	8.91	8.68

WTR YR 1994 MEAN 8.95 MAX 11.86 MIN 7.02

135

LOCATION.--Lat 44°52'08", long 72°16'14", Orleans County, Hydrologic Unit 01110000, on right bank 15 ft downstream from highway bridge, 800 ft upstream from Stony Brook, and 0.4 mi northwest of Coventry.

DRAINAGE AREA.--122 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 725 ft above sea level, from topographic map.

REMARKS.-Records good except those for estimated daily discharges, which are fair. Occasional diurnal fluctuation at low flow by mill upstream prior to 1960.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	125	211	e84	e92	e105	e175	741	301	72	71	61
2	93	142	159	e96	e84	e101	e190	711	294	82	61	64
3	278	139	149	e92	e82	e100	e202	619	242	148	56	57
4	322	149	157	e90	e79	e98	e300	518	194	121	52	51
5	345	290	170	e90	e77	e93	e500	393	154	81	96	47
6	237	668	186	e89	e74	e92	e660	319	138	68	145	49
7	158	531	164	e89	e73	e92	1070	275	358	64	99	53
8	123	350	148	e88	e72	e92	891	284	463	63	67	63
9	124	232	e145	e88	e70	e91	798	322	402	76	57	62
10	279	197	132	e87	e70	e90	952	278	243	116	57	56
11	215	178	365	e87	e67	e92	1070	249	164	114	51	53
12	153	171	308	e86	e65	e91	1030	216	150	81	45	51
13	257	166	e245	e84	e64	e90	1210	210	180	65	44	85
14	226	156	e220	e82	e64	e90	1730	191	206	56	68	178
15	156	207	193	e81	e64	e92	2080	161	199	51	136	164
16	129	256	195	e79	e65	e100	2710	213	151	52	92	97
17	124	220	187	e77	e64	e110	2690	486	128	49	67	79
18	226	198	167	e75	e64	e102	1850	399	112	47	79	78
19	218	171	127	e74	e63	e98	1240	279	114	58	121	67
20	151	174	120	e72	e72	e97	1210	209	97	69	94	58
21	191	178	122	e70	e210	e99	1050	171	88	59	284	54
22	512	151	e160	e68	e360	e102	887	149	84	154	559	47
23	358	140	e195	e65	e210	e118	750	137	79	229	358	46
24	240	134	e210	e66	e170	e145	770	126	72	118	177	52
25	188	149	e135	e66	e150	e174	823	128	68	76	103	59
26	155	113	e155	e65	e130	e210	1140	320	68	61	83	58
27	138	94	e138	e64	e125	e225	1220	779	70	53	78	55
28	136	174	e115	e65	e118	e190	1210	544	72	54	74	61
29	134	443	e98	e90	---	e185	952	418	71	64	66	79
30	122	352	e90	e140	---	e180	766	265	69	71	60	94
31	113	---	e88	e105	---	e170	---	226	---	68	58	---
TOTAL	6213	6648	5254	2554	2898	3714	32126	10336	5031	2540	3458	2078
MEAN	200	222	169	82.4	103	120	1071	333	168	81.9	112	69.3
MAX	512	668	365	140	360	225	2710	779	463	229	559	178
MIN	93	94	88	64	63	90	175	126	68	47	44	46
CFSM	1.64	1.82	1.39	.68	.85	.98	8.78	2.73	1.37	.67	.91	.57
IN.	1.89	2.03	1.60	.78	.88	1.13	9.80	3.15	1.53	.77	1.05	.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1994, BY WATER YEAR (WY)

MEAN	152	193	173	115	120	268	665	286	147	89.3	87.1	90.7
MAX	512	421	473	286	534	611	1164	709	412	405	334	280
(WY)	1991	1960	1984	1973	1981	1976	1969	1972	1973	1973	1976	1977
MIN	28.4	54.6	58.1	43.4	29.1	63.1	321	90.5	43.9	29.1	34.2	19.9
(WY)	1954	1979	1979	1954	1980	1956	1981	1987	1988	1991	1953	1953

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1952 - 1994

ANNUAL TOTAL	65530		82850			
ANNUAL MEAN	180		227		199	
HIGHEST ANNUAL MEAN					301	1973
LOWEST ANNUAL MEAN					113	1965
HIGHEST DAILY MEAN	1300	Apr 11	2710	Apr 16	3300	Apr 2 1976
LOWEST DAILY MEAN	27	Jul 20	44	Aug 13	11	Aug 29 1953
ANNUAL SEVEN-DAY MINIMUM	30	Jul 15	53	Sep 21	11	Aug 28 1953
INSTANTANEOUS PEAK FLOW			3330	Apr 16	3740	Apr 2 1976
INSTANTANEOUS PEAK STAGE			7.62	Apr 16	7.91	Apr 2 1976
INSTANTANEOUS LOW FLOW			42	Aug 12		
ANNUAL RUNOFF (CFSM)	1.47		1.86		1.63	
ANNUAL RUNOFF (INCHES)	19.98		25.26		22.11	
10 PERCENT EXCEEDS	424		492		459	
50 PERCENT EXCEEDS	109		124		104	
90 PERCENT EXCEEDS	40		61		40	

e Estimated

ST. LAWRENCE RIVER BASIN

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

(National stream quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to current year (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1977 to September 1981.

WATER TEMPERATURES: November 1977 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	
NOV 18...	0930	193	157	7.3	5.0	3.0	1.1	741	13.2	101	
JAN 20...	0945	74	212	7.6	-10.0	0.0	0.70	750	10.6	74	
MAR 24...	1030	155	196	7.5	--	0.5	1.8	735	11.7	84	
MAY 26...	1000	165	194	8.0	15.0	13.5	1.0	731	8.6	86	
JUL 13...	0915	63	230	7.6	24.0	21.0	0.60	737	--	--	
SEP 08...	0815	60	240	8.2	15.0	13.5	--	737	10.3	103	
DATE		COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCHI KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
NOV 18...	K18	K13	71	23	3.2	3.4	1.0	73	0	60	
JAN 20...	K17	22	96	31	4.6	4.2	0.90	121	0	99	
MAR 24...	60	150	78	25	3.7	6.3	1.2	93	0	76	
MAY 26...	210	66	85	28	3.7	3.9	1.1	104	0	86	
JUL 13...	77	63	98	32	4.4	4.6	1.1	127	0	104	
SEP 08...	170	K21	--	--	--	--	--	137	0	112	
DATE		SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
NOV 18...	9.2	5.3	0.10	5.0	87	87	0.010	0.200	0.200	0.020	
JAN 20...	11	6.9	<0.10	7.6	122	128	0.020	0.460	0.460	0.080	
MAR 24...	9.2	11	<0.10	5.9	105	110	<0.010	0.380	0.380	0.170	
MAY 26...	9.0	6.0	<0.10	3.3	111	107	<0.010	0.160	0.160	0.040	
JUL 13...	9.0	7.4	<0.10	4.1	127	126	<0.010	0.130	0.130	0.020	
SEP 08...	--	--	--	--	--	--	<0.010	0.059	0.059	0.020	

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994, continued

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHOPHOS- PHATE SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 18...	<0.20	<0.010	<0.010	<0.010	20	15	<3	150	<4	29
JAN 20...	<0.20	<0.010	<0.010	<0.010	--	--	--	--	--	--
MAR 24...	0.40	0.050	<0.010	<0.010	20	16	<3	120	<4	48
MAY 26...	<0.20	<0.010	<0.010	<0.010	30	17	<3	180	<4	39
JUL 13...	<0.20	0.010	<0.010	<0.010	20	19	<3	180	<4	69
SEP 08...	0.30	0.050	<0.010	<0.010	--	--	--	--	--	--

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	SEDI- MENT, DIS- SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 18...	<10	<1	<1	<1.0	110	<6	4	2.1	80
JAN 20...	--	--	--	--	--	--	3	0.60	100
MAR 24...	<10	<1	<1	<1.0	120	<6	16	6.7	75
MAY 26...	<10	<1	<1	<1.0	140	<6	9	4.0	63
JUL 13...	<10	<1	<1	<1.0	170	<6	7	1.2	78
SEP 08...	--	--	--	--	--	--	12	1.9	89

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

LOCATION...Lat 44°56'22", long 72°11'23", Orleans County, Hydrologic Unit 01110000, on right bank in Newport, just downstream from small right-bank tributary, and 1 mi upstream from mouth.

DRAINAGE AREA. - - 142 mi².

PERIOD OF RECORD: -- Discharge: May 1909 to September 1919; May 1920 to August 1922, October 1922 to September 1924, November 1928 to May 1936, September 1938 to current year. Prior to November 1928, published as "at West Derby."
Water-quality records: Water years 1975-77.

REVISED RECORDS.--WSP 744: 1913(M), drainage area. WSP 924: 1940. WSP 1307: 1913-15(M).

GAGE.--Water-stage recorder and since Mar. 6, 1957, records of power generation. Datum of gage is 682.36 ft above sea level. May 25, 1909, to Sept. 20, 1915, nonrecording gage, and Sept. 21, 1915, to Sept. 30, 1924, Nov. 16, 1928, to May 4, 1936, water-stage recorder, at site 0.65 mi upstream at different datum.

REMARKS:--Records fair. No estimated daily discharges. Flow regulated by powerplant and reservoirs upstream and, since Mar. 6, 1957, by diversion around station through canal and penstock of Newport No. 11 powerplant. Diversion computed from relation of kilowatt-hour output and measured discharge, discharge computed by adding flow over control to flow diverted through powerplant. Dam for diversion canal breached May 11, 1994 and total daily flows are provided solely from discharge past gate after this date. No peak stage or discharge listed because of diversion around station.

EXTREMES FOR PERIOD OF RECORD. Maximum discharge, 3,900 ft³/s, Mar. 20, 1936, gage height, 5.76 ft, site and datum then in use, from rating curve extended above 2,800 ft³/s on basis of computation of peak flow over dam; maximum daily, 2,680 ft³/s, May 4, 1940; minimum daily, 2.6 ft³/s, June 18, 1956.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	205	219	155	147	156	224	1310	446	91	143	148
2	207	255	270	108	130	131	168	1200	448	97	156	274
3	217	273	229	126	159	131	260	1120	453	127	191	183
4	225	224	289	141	127	144	262	1020	426	275	198	90
5	267	126	216	129	168	112	300	910	389	226	109	90
6	284	248	199	103	110	90	398	816	366	111	137	88
7	285	241	246	114	150	144	427	740	377	275	207	85
8	282	280	213	111	94	120	428	689	383	186	89	94
9	276	403	215	163	120	127	433	652	383	200	110	98
10	275	361	208	55	111	101	452	626	342	229	90	98
11	282	241	205	128	105	101	714	595	296	193	205	98
12	274	376	217	149	112	229	840	552	296	224	88	138
13	255	227	263	114	116	74	925	502	295	150	91	199
14	282	201	309	115	121	147	1130	459	292	264	208	199
15	285	203	293	98	94	98	1380	426	278	159	90	199
16	285	289	274	77	90	116	1840	421	243	210	90	199
17	283	316	245	99	86	139	2260	432	208	162	125	199
18	223	253	298	111	111	141	2250	454	207	198	144	199
19	232	250	217	121	95	131	1930	452	213	89	153	186
20	242	239	178	97	79	138	1630	448	209	164	193	177
21	285	237	198	87	114	153	1410	427	208	166	198	177
22	261	241	194	123	159	129	1240	411	208	132	199	177
23	281	228	206	93	189	137	1100	407	207	92	199	128
24	287	225	205	96	145	174	998	410	205	264	281	106
25	285	222	198	92	173	228	955	412	205	138	337	177
26	281	209	150	95	176	259	1050	371	204	186	334	177
27	286	202	158	113	119	282	1290	381	202	190	306	116
28	288	229	181	99	154	237	1520	423	202	275	331	142
29	293	235	195	167	---	224	1590	428	197	252	301	179
30	234	194	178	84	---	272	1470	436	145	122	224	115
31	223	---	151	72	---	156	---	441	---	231	134	---
TOTAL	8046	7433	6817	3435	3554	4821	30874	18371	8533	5678	5661	4535
MEAN	260	248	220	111	127	156	1029	593	284	183	183	151
MAX	293	403	309	167	189	282	2260	1310	453	275	337	274
MIN	81	126	150	55	79	74	168	371	145	89	88	85
CFSM	1.83	1.74	1.55	.78	.89	1.10	7.25	4.17	2.00	1.29	1.29	1.06
IN.	2.11	1.95	1.79	.90	.93	1.26	8.09	4.81	2.24	1.49	1.48	1.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 1994, BY WATER YEAR (WY)

MEAN	180	232	222	179	156	279	696	499	243	146	128	130
MAX	576	560	599	363	477	1136	1192	1042	545	464	369	523
(WY)	1946	1919	1984	1978	1981	1936	1933	1972	1978	1973	1976	1924
MIN	50.7	79.5	80.4	62.9	19.1	72.8	186	179	74.0	47.2	39.6	41.9
(WY)	1962	1923	1923	1948	1979	1911	1979	1941	1988	1991	1909	1984

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1909 - 1994

ANNUAL TOTAL	90203		107758				
ANNUAL MEAN	247		295			256	
HIGHEST ANNUAL MEAN						394	1974
LOWEST ANNUAL MEAN						153	1979
HIGHEST DAILY MEAN	1380	Apr 19	2260	Apr 17	3610		Mar 20 1936
LOWEST DAILY MEAN	27	Feb 21	55	Jan 10	2.6		Jun 18 1956
ANNUAL SEVEN-DAY MINIMUM	55	Jul 21	92	Sep 4	14		Oct 9 1961
ANNUAL RUNOFF (CFSM)	1.74		2.08			1.80	
ANNUAL RUNOFF (INCHES)	23.63		28.23			24.48	
10 PERCENT EXCEEDS	432		452			528	
50 PERCENT EXCEEDS	207		206			179	
90 PERCENT EXCEEDS	72		98			62	

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
MERRIMACK RIVER BASIN								
Pemigewasset River at Wood- stock, N.H. (01075000)	Lat 43°58'34", Long 71°40'48", Grafton County, Hydrologic Unit 01070001, 0.2 mi east of Wood- stock and 0.7 mi upstream from Eastman Brook. Drainage area is 193 mi ² .	1940-77†, 1978-80, 1985-94	4-16-94	8.60	8,260	10-24-59	16.13	47,000
Baker River near Rumney N.H. (01076000)	Lat 43°47'46", Long 71°50'42", Grafton County, Hydrologic Unit 01070001, 0.3 mi upstream from Halls Brook, and 1.8 mi southwest of Rumney. Drainage area is 143 mi ² .	1929-77†, 1978-81, 1985-94	unknown	unknown	unknown	6-15-42	15.50	21,400
Merrimack River at Franklin Junc- tion, N.H. (01081500)	Lat 43°25'26", Long 71°50'12", Merri- mack County, Hydrologic Unit 01070002, 1 mi downstream from confluence of Pemigewasset and Winnepesaukee Rivers. Drainage area is 1,507 mi ² .	1903-78†, 1983-94	4-17-94	13.73	17,460	3-19-36	36.4	83,000
Contoocook River at Peterborough, N.H. (01082000)	Lat 42°51'45", Long 71°57'55", Hills- borough County, Hydrologic Unit 01070003, 1 mi south of Peterbor- ough, and 1.5 mi upstream from Nubanusit Brook. Drainage area is 68.1 mi ² .	1964-77†, 1978-94	4-7-94	4.22	989	11-26-50	6.35	2,640
Nubanusit Brook near Peterbor- ough, N.H. (01083000)	Lat 42°53'10", Long 71°58'24", Hills- borough County, Hydrologic Unit 01070003, on left bank 1.2 mi downstream from Edward Macdowell Reservoir, 1.3 mi northwest of Peterborough, and 1.5 mi upstream from mouth. Drainage area is 46.9 mi ² .	1920-31†, 1945-94	4-8-94	4.09	586	4-16-87	5.59	722
Contoocook River near Henniker, N.H. (01085000)	Lat 43°09'10", Long 71°51'24", Merri- mack County, Hydrologic Unit 01070003, 0.6 mi downstream from Sand Brook and 2.5 mi southwest of Henniker. Drainage area is 368 mi ² .	1939-77†, 1988-94	4-8-94	10.19	4,410	4-14-87	a 16.0	a 16,000

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
MERRIMACK RIVER BASIN								
Contoocook River below Hopkinton Dam, at West Hop- kinton, N.H. (01085500)	Lat 43°11'31", Long 71°44'51", Merri- mack County, Hydrologic Unit 01070003, on right bank 400 ft downstream from covered bridge at West Hopkinton, 0.2 mi downstream from Hopkinton Dam, and 5.9 mi upstream from Warner River. Drainage area is 427 mi ² .	1903-07+, 1963-89+, 1990-94	4-8-94	7.96	4,640	4-8-87	10.89	7,530
Blackwater River near Webster, N.H. (01087000)	Lat 43°17'45", Long 71°41'46", Merri- mack County, Hydrologic Unit 01070003, on left bank 0.2 mi west of Dingit corner, 2.4 mi downstream from Blackwater Dam, 2.5 mi southeast of Webster, and 6.5 mi upstream from mouth. Drainage area is 129 mi ² .	1918-20+, 1927-89+, 1990-94	4-15-94	6.58	1,810	3-19-36	11.78	11,000
Piscataquog River below Everett Dam near East Weare, N.H. (01090800)	Lat 43°05'29", Long 71°39'36", Hills- borough County, Hydrologic Unit 01070002, on right bank 500 ft downstream from Everett Dam and 1.4 mi southeast of East Weare. Drainage area is 63.1 mi ² .	1963-89+, 1990-94	4-19-94	8.26	1,210	6-12-84	9.09	1,770
Piscataquog River near Goffstown, N.H. (01091500)	Lat 43°00'58", Long 71°33'03", Hills- borough County, Hydrologic Unit 01070002, 0.2 mi upstream from Harry Brook, 0.9 mi downstream from Glen Lake, and 2.5 mi east of Goffstown, N.H. Drainage area is 202 mi ² .	1939-78+, 1983-94	4-8-94	7.05	2,050	4-5-60	10.85	6,840
Souhegan River at Merrimack, N.H. (01094000)	Lat 42°51'27", Long 71°30'24", Hills- borough County, Hydrologic Unit 01070002, at head of Wildcat Falls, 1.5 mi upstream from mouth. Drainage area is 171 mi ² .	1909-76+, 1979-94	12-22-93	5.71	1,640	3-19-36	16.2	16,900
CONNECTICUT RIVER BASIN								
Ompompanoosuc River at Union Vil- lage, Vt. (01141500)	Lat 43°47'23", Long 72°15'19", Orange County, Hydrologic Unit 01080103, on right bank 100 ft upstream from covered bridge at Union Vil- lage, 0.2 mi downstream from Avery Brook, 0.3 mi downstream from Union Village Reservoir, and 3.8 mi upstream from mouth. Drainage area is 130 mi ² .	1940-89+, 1990-94	4-14-94	7.82	2,290	6-3-47	9.65	4,800
Mascoma River at West Canann, N.H. (01145000)	Lat 43°39'00", Long 72°04'50", Grafton County, Hydrologic Unit 01080104, on right bank 45 ft downstream from Boston and Maine Railroad bridge, 0.9 mi east of West Canaan, 1.2 mi downstream from Indian River, 3.5 mi west of Canann and at mile 19.3. Drainage area is 80.5 mi ² .	1939-78+, 1985-94	4-17-94	5.91	1,570	3-27-53	8.94	3,780

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
CONNECTICUT RIVER BASIN								
Black River at North Spring- field, Vt. (0115300)	Lat 43°20'00", Long 72°30'55", Wind- sor County, Hydrologic Unit 01080106, on right bank of North Springfield, 800 ft downstream from North Springfield Dam, 1,300 ft upstream from Great Brook, and 8.1 mi upstream from mouth. Drainage area is 158 mi ² .	1929-89†, 1990-94	4-18-94	7.47	3,560	9-22-38	17.68	15,500
West River at Jamaica, Vt. (01155500)	Lat 43°06'32", Long 72°46'33", Windham County, Hydrologic Unit 01080107, on left bank, 0.2 mi upstream from highway bridge at Jamaica, 0.4 mi upstream from Ball Mountain Brook, and 2.8 mi downstream from Ball Mountain Dam and at mile 26.2. Drainage area is 179 mi ² .	1946089†, 1990-94	4-18-94	9.21	4,510	12-31-48	14.87	29,500
West River at Newfane, Vt. (01156000)	Lat 42°59'43", Long 72°38'13", Windam County, Hydrologic Unit 01080107, on left bank, 400 ft downstream from highway bridge, 1 mi north- east of Newfane, and at mile 12.7. Drainage area is 308 mi ² .	1919-23†, 1928-89†, 1990-94	4-18-94	9.44	8,420	9-31-38	22.81	52,300
Ashuelot River below Surry Moun- tain near Keene, N.H. (01158000)	Lat 42°59'40", Long 72°18'40", Cheshire County, Hydrologic Unit 01080201, on right bank 600 ft downstream from Surry Mountain Dam, 2.5 mi upstream from Stur- tevent Brook, 4.5 mi north of Keene, and at mile 34.0. Drainage area is 101 mi ² .	1945-89†, 1990-94	4-18-94	8.78	1,150	4-7-87	11.78	2,260
Otter Brook below Otter Brook Dam, near Keene, N.H. (01158600)	Lat 42°56'45", Long 72°14'14", Cheshire County, Hydrologic Unit 01080201, on right bank 450 ft downstream from Otter Brook Dam, 2 mi northeast of Keene, 2.4 mi northeast of Keene, 2.4 mi upstream from Minnewawa Brook, and 4.9 mi upstream from mouth. Drainage area is 47.2 mi ² .	1958-89†, 1990-94	4-18-94	8.64	720	4-9-87	8.62	b 752

†Operated as a continuous-record gaging station.

a From outside gage reading taken when gage site was closed down.

b Includes bypass flow around gage through emergency spillway.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Miscellaneous Sites

Discharge measurements in the following table were made at miscellaneous sites throughout New Hampshire and Vermont.

Discharge measurements made at miscellaneous sites during water year 1994

Stream	Tributary to	Location	Drainage area (mi ²)	Measured pre-viously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
MERRIMACK RIVER BASIN						
01075000 Pemigewasset River	Merrimack River	Lat 43°58'29", Long 71°40'51", Grafton County, Hydrologic Unit 01070001, 0.6 mi upstream from Eastman Brook, 0.34 mi southeast of Woodstock, N.H.	193	1940-77+, 1978-94	5-17-94 8-10-94 9-21-94	1,320 100 156
01076000 Baker River	Pemigewasset River	Lat 43°47'46", Long 71°50'42", Grafton County, Hydrologic Unit 01070001, 0.3 mi upstream from Halls Brook, and 1.8 mi southwest of Rumney, N.H.	143	1929-77+, 1978-94	5-20-94 7-11-94 7-12-94 8-11-94 9-26-94	298 133 84.1 31.1 182
01077510 Newfound River	Pemigewasset River	Lat 43°37'05", Long 71°44'25", Grafton County, Hydrologic Unit 01070001, below outlet of Newfound Lake, 1.7 mi north of Bristol, N.H. off State Highway 3.	--	1983-87, 1991-94	10-18-93 4-6-94 5-23-94	122 357 195
01081500 Merrimack River	Atlantic Ocean	Lat 43°25'26", Long 71°50'12", Merri- mack County at Franklin Junction, N.H., Hydrologic Unit 01070001, 1 mi downstream from confluence of Pemigewasset and Winnepesaukee Rivers.	1,507	1903-78+, 1979-94	12-8-93 4-19-94	2620 14,900
01082000 Contoocook River	Merrimack River	Lat 42°51'45", Long 71°57'55", Hills- borough County, Hydrologic Unit 01070003, 1 mi south of Peterbor- ough, N.H., and 1.5 mi upstream from Nubanusit Brook.	68.1	1964-77+, 1978-94	11-4-93 11-5-93 12-16-93 3-15-94 4-21-94 6-16-94 9-13-94	81.9 71.0 175 235 211 28.6 16.6
01083000 Nubanusit Brook	Contoocook River	Lat 42°53'10", Long 71°58'24", Hills- borough County, Hydrologic Unit 01070003, on left bank 1.2 mi downstream from Edward MacDowell Reservoir, 1.3 mi northwest of Peterborough, N.H. and 1.5 mi upstream from mouth.	46.9	1920-31+, 1945-89+, 1990-94	11-5-93 12-14-93 3-15-94 4-21-94 6-26-94 8-29-94	50.2 104 274 164 21.0 12.1
01085000 Contoocook River	Merrimack River	Lat 43°09'10", Long 71°51'24", Merri- mack County, Hydrologic Unit 01070003, 0.6 mi downstream from Sand Brook and 2.5 mi southwest of Henniker, N.H.	368	1939-77+, 1978-94	12-17-93 7-8-94 9-15-94	1210 116 70.5
01085500 Contoocook River	Merrimack River	Lat 43°11'31", Long 71°44'05", Merri- mack County, Hydrologic Unit 01070003, on right bank 400 ft downstream from covered bridge at West Hopkinton, N.H., 0.2 mi down- stream from Hopkinton, 0.2 mi downstream from Hopkinton Dam, and 5.9 mi upstream from Warner River.	427	1903-07+, 1963-89+, 1990-94	7-8-94	154

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Discharge measurements made at miscellaneous sites during water year 1994

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
MERRIMACK RIVER BASIN						
01087000 Blackwater River	Merrimack River	Lat 43°17'45", Long 71°41'46", Merrimack County, Hydrologic Unit 01070003, on left bank 0.2 mi west of Dingit Corner, N.H., 2.4 mi downstream from Blackwater Dam, 2.5 mi southeast of Webster, and 6.5 mi upstream from mouth.	129	1927-89†, 1990-94	10-26-93 4-7-94 5-20-94 7-6-94 9-15-94	55.1 920 457 63.1 20.1
01090800 Piscataquog River	Merrimack River	Lat 43°05'29", Long 71°39'36", Hillsborough County, Hydrologic Unit 01070002, on right bank 500 ft downstream from Everett Dam and 1.4 mi southeast of East Weare, N.H.	63.1	1963-89†, 1990-94	11-8-93 12-17-93 2-10-94 4-1-94 7-8-94 9-16-94 9-16-94	29.2 130 21.4 254 11.3 3.58 3.85
01091500 Piscataquog River	Merrimack River	Lat 43°00'58", Long 71°33'03", Hillsborough County, Hydrologic Unit 01070002, 0.2 mi upstream from Harry Brook, 0.9 mi downstream from Glen Lake, and 2.5 mi east of Goffstown, N.H.	202	1939-78†, 1979-94	3-31-94 9-1-94 9-2-94	1010 22.7 26.5
01094000 Souhegan River	Merrimack River	Lat 42°51'27", Long 71°30'24", Hillsborough County, Hydrologic Unit 01070002, at head of Wildcat Falls, N.H., 1.5 mi upstream from mouth.	171	1909-76†, 1977-94	3-28-94 7-11-94 9-2-94	1240 81.6 55.3
CONNECTICUT RIVER BASIN						
01141500 Ompompanoosuc River	Connecticut River	Lat 44°47'23", Long 71°15'19", Coos County, Hydrologic Unit 01080103, on right bank 100 ft upstream from covered bridge at Union Village, Vt., 0.2 mi downstream from Avery Brook, 0.3 mi downstream from Union Village Reservoir, and 3.8 mi upstream from mouth.	130	1940-89†, 1990-94	11-1-93 12-22-93 2-7-94 3-21-94 4-20-94 5-9-94 8-11-94	145 376 81.2 80.7 1500 384 26.7
01145000 Mascoma River	Connecticut River	Lat 43°39'00", Long 72°04'50", Grafton County, Hydrologic Unit 01080104, on right bank 45 ft downstream from Boston and Maine Railroad bridge, 0.9 mi east of West Canaan, 1.2 mi downstream from Indian River, 3.5 mi west of Canaan and at mile 19.3.	80.5	1939-78†, 1985-94	10-29-93 4-11-94 7-14-94	50.3 626 21.2
01152010 Sugar River	Connecticut River	Lat 43°23'10", Long 72°05'30", Sullivan County, Hydrologic Unit 01080107, on left bank below outlet of Lake Sunapee, 800 ft downstream from State Highway 11 and behind Crutch Factory at Sunapee, N.H.	--	1983-87 1991-1994	10-27-93 4-12-94 7-5-94 9-16-94	44.8 108 50.1 21.0
01153000 Black River	Connecticut River	Lat 43°20'00", Long 72°30'55", Windsor County, Hydrologic Unit 01080106, on right bank of North Springfield, Vt., 800 ft downstream from North Springfield Dam, 1,300 ft upstream from Great Brook and 8.1 mi upstream from mouth.	158	1929-89†, 1990-94	11-2-93 12-10-93 3-28-94 5-9-94 8-16-94	124 124 485 807 62.3

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1994

Stream	Tributary to	Location	Drainage area (mi ²)	Measured pre-viously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
CONNECTICUT RIVER BASIN						
01155500 West River	Connecticut River	Lat 43°06'32", Long 72°46'33", Windham County, Hydrologic Unit 01080107, on left bank 0.2 mi upstream from highway bridge at Jamaica, 0.4 mi upstream from Ball Mountain Brook and 2.8 mi downstream from Ball Mountain Dam, and at mile 26.2. [^]	179	1946-89+, 1990-94	11-8-93 4-25-94 6-13-94 9-19-94	383 1760 445 27.5
01156000 West River	Connecticut River	Lat 43°59'43", Long 72°38'13", Windham County, Hydrologic Unit 01080107, on left bank 400 ft downstream from highway bridge, 1.0 mi northeast of Newfane, Vt., and at mile 12.7.	308	1919-23+, 1928-89+, 1990-94	11-12-93 12-13-93 1-31-94 4-22-94 6-13-94 9-19-94	251 543 353 1860 118 43.8
01158000 Ashuelot River	Connecticut River	Lat 42°59'40", Long 72°18'40", Cheshire County, Hydrologic Unit 01080201, on right bank 600 ft downstream from Surry Mountain Dam, 2.5 mi upstream from Sturtevant Brook, 4.5 mi north of Keene, N.H., and at mile 34.0.	101	1945-89+, 1990-94	10-8-93 11-4-93 12-15-93 2-2-94 3-16-94 6-15-94 8-25-94	49.8 111 255 163 424 52.5 72.8
01158600 Otter Brook	Ashuelot River	Lat 42°56'45", Long 72°14'14", Cheshire County, Hydrologic Unit 01080201, on right bank 450 ft downstream from Otter Brook Dam, 2.0 mi upstream from Minnewawa Brook, and 4.9 mi upstream from mouth, at Keene, N.H.	47.2	1958-89+, 1990-94	11-4-93 12-15-93 2-2-94 3-17-94 6-15-94	43.2 70.0 86.5 139 17.6

†Operated as a continuous-record gaging station.

DATE	TIME	DIS-		SPE-		DIS-		SPE-	
		CHARGE,		CIFIC		CHARGE,		CIFIC	
		INST.		CON-		INST.		CON-	
		CUBIC	TEMPER-	DUCT-		CUBIC	TEMPER-	DUCT-	
		FEET	ATURE	ANCE			FEET	ATURE	ANCE
		PER	WATER				PER	WATER	
		SECOND	(DEG C)	(US/CM)			SECOND	(DEG C)	(US/CM)
		(00061)	(00010)	(00095)			(00061)	(00010)	(00095)

ANDROSCOGGIN RIVER BASIN

01052500 DIAMOND RIVER. NEAR WENTWORTH LOCATION, NH (LAT 44 52 40N LONG 071 03 25W)

JAN 1994					MAY 1994				
12...	1615	153	0.0	37	10...	0840	1290	6.5	20
MAR					SEP				
09...	1530	97	0.0	38	14...	0815	272	12.5	33

01053500 ANDROSCOGGIN RIVER AT ERROL, NH (LAT 44 46 57N LONG 071 07 46W)

MAY 1994					SEP 1994				
09...	1740	1970	7.0	22	13...	1615	1680	15.0	29

01054000 ANDROSCOGGIN RIVER NEAR GORHAM, NH (LAT 44 26 10N LONG 071 11 27W)

MAY 1994				
10...	1400	3980	10.0	62

SACO RIVER BASIN

01064300 ELLIS RIVER NEAR JACKSON, NH (LAT 44 13 12N LONG 071 15 00W)

OCT 1993					MAY 1994				
19...	1010	15	5.5	39	18...	0845	68	4.5	28
NOV					JUL				
30...	0915	60	0.5	36	07...	1035	16	18.0	39
JAN 1994					AUG				
21...	1200	10	0.0	44	09...	0900	9.8	14.5	38
FEB					SEP				
23...	1045	17	0.0	63	22...	0815	11	12.5	33
APR									
04...	0930	18	1.0	82					

01064500 SACO RIVER NEAR CONWAY, NH (LAT 43 59 27N LONG 071 05 29W)

FEB 1994					JUL 1994				
02...	1200	496	--	48	13...	0640	378	22.0	50
MAR					SEP				
09...	1046	515	0.0	61	23...	1330	198	14.5	58
APR									
15...	1230	5000	4.0	27					

01064801 BEAR CAMP RIVER NR. SOUTH TAMWORTH, N.H. (LAT 43 49 48N LONG 071 17 18W)

OCT 1993					MAY 1994				
19...	1214	51	9.5	31	18...	1215	234	9.0	25
NOV					JUL				
29...	1330	834	3.5	24	07...	1345	18	29.5	40
30...	1320	449	3.0	26	AUG				
JAN 1994					09...	1240	20	25.5	30
18...	1410	51	0.0	35	SEP				
FEB					22...	1130	12	19.5	42
15...	1115	42	0.0	23					
APR									
04...	1245	377	3.0	33					
08...	0840	786	1.0	26					
15...	1215	1050	5.5	25					

PISCATAQUA RIVER BASIN

01072100 SALMON FALLS RIVER AT MILTON, NH (LAT 43 24 50N LONG 070 59 15W)

NOV 1993					MAR 1994				
10...	0655	80	5.5	64	24...	0845	693	1.5	73
DEC					JUN				
22...	0915	778	2.5	67	29...	0720	36	23.0	85
FEB 1994					SEP				
07...	0930	168	1.0	41	06...	1215	22	20.5	77

DATE	TIME	DIS-	TEMPER-	SPE-	DATE	TIME	DIS-	TEMPER-	SPE-
		CHARGE,		CIFIC			CHARGE,		CIFIC
		INST.		CON-			INST.		CON-
		CUBIC	ATURE	DUCT-			CUBIC	ATURE	DUCT-
		FEET	WATER	ANCE			FEET	WATER	ANCE
		PER	(DEG C)	(US/CM)			PER	(DEG C)	(US/CM)
		SECOND	(00010)	(00095)			SECOND	(00010)	(00095)
PISCATAQUA RIVER BASIN									
01072880		COCHECO RIVER AT DOVER, NH (LAT 43 12 21N LONG 070 53 47W)							
NOV 1993					APR 1994				
09...	0945	205	5.0	75	20...	0715	490	8.5	81
DEC					JUL				
22...	1330	2590	3.0	58	06...	0820	14	18.5	196
MAR 1994					06...	0830	26	23.5	185
31...	0755	950	3.5	72					
01073000		OYSTER RIVER NEAR DURHAM, NH (LAT 43 08 55N LONG 070 57 56W)							
NOV 1993					JUN 1994				
09...	1330	5.5	3.0	103	28...	1100	2.4	22.5	230
MAR 1994					JUL				
29...	0820	120	2.5	75	06...	1115	1.2	25.0	250
APR					AUG				
20...	1100	24	10.0	124	31...	1315	0.74	20.0	280
01073500		LAMPREY RIVER NEAR NEWMARKET, NH (LAT 43 06 09N LONG 070 57 11W)							
NOV 1993					JUN 1994				
10...	1210	157	3.5	81	28...	0825	34	22.0	180
DEC					JUL				
23...	0910	1710	1.0	79	27...	1505	0.67	29.0	197
MAR 1994					AUG				
25...	0735	2230	0.0	78	31...	0930	14	23.5	199
MERRIMACK RIVER BASIN									
01074520		EAST BRANCH PEMIGEWASSET RIVER AT LINCOLN, N.H. (LAT 44 02 51N LONG 071 39 37)							
OCT 1993					APR 1994				
18...	1200	173	9.5	30	05...	0845	198	1.5	47
NOV					14...	0800	1810	1.5	27
15...	1055	298	6.0	28	MAY				
29...	0900	1310	2.5	23	19...	0800	659	7.0	23
DEC					JUN				
01...	0830	529	0.0	25	27...	1440	145	21.5	31
JAN 1994					JUL				
11...	1115	118	0.0	34	20...	1100	104	24.0	32
12...	1100	112	0.0	33	AUG				
26...	1225	76	0.0	34	10...	0910	82	22.5	32
FEB					SEP				
10...	1200	85	0.0	34	21...	0915	108	14.5	30
MAR									
09...	0950	124	0.0	38					
01075000		PEMIGEWASSET RIVER AT WOODSTOCK, NH (LAT 43 58 34N LONG 071 40 48W)							
MAY 1994					SEP 1994				
17...	1115	1320	7.0	28	21...	1200	156	17.5	52
01075800		STEVENS BROOK NEAR WENTWORTH, NH (LAT 43 50 12N LONG 071 53 07W)							
OCT 1993					MAY 1994				
25...	0946	2.4	6.0	28	19...	1240	5.1	9.5	24
DEC					JUL				
03...	0835	4.9	1.0	24	06...	1015	0.19	19.0	42
JAN 1994					AUG				
14...	0945	1.4	0.0	30	11...	1020	0.16	15.0	46
MAR					SEP				
03...	0700	1.9	0.0	31	26...	0730	2.6	15.0	29
APR									
12...	1000	21	--	21					

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)

MERRIMACK RIVER BASIN

01076000 BAKER RIVER NEAR RUMNEY, NH (LAT 43 47 46N LONG 071 50 42W)

MAY 1994					AUG 1994				
20...	0710	298	9.0	42	11...	1115	31	18.5	79
JUL					SEP				
11...	1000	133	23.5	51	26...	0845	182	16.5	46

01076500 PEMIGEWASSET RIVER AT PLYMOUTH, NH (LAT 43 45 33N LONG 071 41 10W)

OCT 1993					JUL 1994				
01...	0725	782	--	49	11...	1135	708	26.0	49
26...	1215	727	13.0	48	27...	1010	354	27.0	75
JAN 1994					AUG				
10...	1415	419	0.0	65	11...	1250	214	22.5	88
FEB					30...	1510	319	20.0	71
24...	1125	686	0.0	53	SEP				
					26...	1015	883	17.0	44

01077000 SQUAM RIVER AT ASHLAND, NH (LAT 43 42 19N LONG 071 37 49W)

JAN 1994					JUL 1994				
12...	1345	117	2.0	45	05...	0830	16	27.5	51
FEB					AUG				
22...	1155	85	2.0	49	10...	1250	64	20.0	46
MAY									
20...	1100	167	12.0	48					

01078000 SMITH RIVER NEAR BRISTOL, NH (LAT 43 34 04N LONG 071 44 54W)

OCT 1993					MAY 1994				
26...	0800	38	4.0	63	23...	1200	122	17.5	51
DEC					JUL				
01...	1330	204	0.5	41	05...	1145	26	23.5	74
JAN 1994					AUG				
14...	1030	64	0.0	63	08...	1240	21	21.5	58
MAR					SEP				
09...	1330	142	0.0	53	23...	0620	16	15.5	84
APR									
05...	1240	557	1.5	34					
15...	0845	1260	3.5	26					

01081000 WINNIPESAUKEE RIVER AT TILTON, NH (LAT 43 26 31N LONG 071 35 20W)

DEC 1993					MAY 1994				
02...	1015	550	3.0	83	23...	0720	1020	14.5	84
JAN 1994					AUG				
13...	1225	1010	2.0	85	12...	1245	260	29.5	83
APR					SEP				
06...	1240	1240	2.0	78	28...	1340	414	21.0	89

01082000 CONTOOCOOK RIVER AT PETERBOROUGH, NH (LAT 42 51 45N LONG 071 57 35W)

NOV 1993					APR 1994				
04...	1405	82	5.5	71	21...	1140	211	8.5	75
05...	1045	71	5.5	71	JUN				
DEC					16...	1140	29	19.5	105
16...	0905	175	1.0	70	SEP				
MAR 1994					13...	1015	16	17.0	121
15...	1145	235	1.0	87					

DATE	TIME	DIS-	TEMPER-	SPE-	DATE	TIME	DIS-	TEMPER-	SPE-
		CHARGE,		CIFIC			CHARGE,		CIFIC
		INST.		CON-			INST.		CON-
		CUBIC		DUCT-			CUBIC		DUCT-
FEET	ATURE	FEET	ATURE	FEET	ATURE				
PER	WATER	PER	WATER	PER	WATER				
SECOND	(DEG C)	SECOND	(DEG C)	SECOND	(DEG C)				
(00061)	(00010)	(00095)	(US/CM)	(00061)	(00010)	(00095)	(US/CM)	(00095)	(US/CM)

MERRIMACK RIVER BASIN

01083000 NUBANUSIT BROOK NEAR PETERBOROUGH, NH (LAT 42 53 10N LONG 071 58 24W)

NOV 1993

05... 0755 50 4.5 55

DEC

14... 1035 104 1.0 48

MAR 1994

15... 0830 274 0.0 51

APR 1994

21... 1015 164 7.5 43

JUN

16... 0735 21 22.0 65

AUG

29... 0915 12 20.5 64

01091500 PISCATAQUOG RIVER NEAR GOFFSTOWN, NH (LAT 43 00 58N LONG 071 33 03W)

MAR 1994

31... 1230 1010 2.5 77

SEP 1994

01... 0900 23 23.5 102

01092000 MERRIMACK RIVER NEAR GOFFS FALLS, BELOW MANCHESTER, NH (LAT 42 56 54N LONG 071 27 52)

APR 1994

18... 1100 25000 6.0 50

01093800 STONY BROOK TRIBUTARY NEAR TEMPLE, NH (LAT 42 51 36N LONG 071 50 00W)

NOV 1993

05... 1245 3.9 5.5 32

DEC

21... 1440 124 4.0 24

FEB 1994

04... 1145 6.7 0.0 89

MAR

15... 1340 11 0.5 26

17... 1410 15 1.0 24

APR 1994

21... 0715 9.7 3.5 22

JUN

21... 0800 0.89 16.5 26

AUG

30... 0955 0.70 15.0 29

01094000 SOUHEGAN RIVER AT MERRIMACK, NH (LAT 42 51 27N LONG 071 30 24W)

MAR 1994

28... 1000 1240 1.5 88

JUL

11... 1025 82 23.5 127

SEP 1994

02... 0850 55 16.5 151

010965852 BEAVER BROOK AT N. PELHAM, NH (LAT 42 46 59N LONG 071 21 14W)

NOV 1993

08... 0940 25 4.0 247

DEC

13... 1215 121 1.0 272

JAN 1994

31... 1300 124 0.0 439

MAR

14... 1240 221 0.0 254

APR 1994

25... 0900 73 11.5 280

JUN

20... 1000 9.3 22.5 360

AUG

30... 1630 6.4 19.5 360

CONNECTICUT RIVER BASIN

01129200 CONNECTICUT RIVER BELOW INDIAN STREAM NEAR PITTSBURG, NH (LAT 45 02 25N LONG 071 26 37)

AUG 1994

01... 0925 390 17.0 40

DATE	TIME	DIS-		SPE-	DATE	TIME	DIS-		SPE-
		CHARGE,		CIFIC			CHARGE,		CIFIC
		INST.					INST.		
		CUBIC	TEMPER-	CON-			CUBIC	TEMPER-	CON-
		FEET	ATURE	DUCT-			FEET	ATURE	DUCT-
		PER	WATER	ANCE			PER	WATER	ANCE
		SECOND	(DEG C)	(US/CM)			SECOND	(DEG C)	(US/CM)
		(00061)	(00010)	(00095)			(00061)	(00010)	(00095)

CONNECTICUT RIVER BASIN

01129440 MOHAWK RIVER NEAR COLEBROOK NH (LAT 44 52 28N LONG 071 24 38W)

OCT 1993					JUN 1994				
29...	0715	46	3.0	106	22...	0655	213	13.0	71
NOV					AUG				
30...	1040	76	0.0	77	01...	1240	23	21.0	140
JAN 1994					SEP				
11...	1340	25	0.0	86	19...	1500	31	13.5	135
MAY									
16...	1030	74	7.0	89					

01129500 CONNECTICUT RIVER AT NORTH STRATFORD, NH (LAT 44 44 56N LONG 071 37 50W)

APR 1994					AUG 1994				
22...	0940	3560	3.0	53	02...	0630	767	21.0	70
JUN					SEP				
22...	1225	2380	19.0	56	20...	0730	910	14.0	63

01130000 UPPER AMMONOOSUC RIVER NEAR GROVETON, NH (LAT 44 37 30N LONG 071 28 10W)

NOV 1993					MAY 1994				
02...	1025	278	2.0	39	16...	1340	832	9.0	30
30...	1355	460	0.0	35	JUN				
MAR 1994					23...	1150	282	21.0	35
02...	1100	148	0.0	50	AUG				
APR					02...	1025	95	25.0	50
19...	1120	1940	--	27	SEP				
20...	1030	2000	--	24	20...	1130	119	14.5	35

01131500 CONNECTICUT RIVER NEAR DALTON, NH (LAT 44 24 36N LONG 071 43 16W)

APR 1994					JUN 1994				
21...	1020	11100	3.5	39	30...	1145	2530	19.5	60

01134500 MOOSE RIVER AT VICTORY, VT (LAT 44 30 42N LONG 071 50 13W)

OCT 1993					AUG 1994				
28...	0855	92	4.0	35	11...	1500	65	17.0	19
NOV					SEP				
29...	1415	433	0.0	29	15...	1235	99	12.5	37
JUN 1994									
10...	1050	123	13.5	32					

01135150 POPE BROOK (SITE W-3) NR. N. DANVILLE, VT. (LAT 44 28 35N LONG 072 07 33W)

APR 1994					AUG 1994				
14...	1250	35	2.0	100	01...	1230	1.7	17.0	389
JUN					SEP				
16...	0915	3.7	18.0	368	14...	0930	7.7	13.5	158

DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)					TEMPER-ATURE WATER (DEG C) (00010)		SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)		DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)					TEMPER-ATURE WATER (DEG C) (00010)		SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	
DATE	TIME								DATE	TIME							
CONNECTICUT RIVER BASIN																	
01135300 SLEEPERS RIVER (SITE W-5) NR. ST. JOHNSBURY, VT. (LAT 44 26 04N LONG 072 02 22)																	
OCT 1993									MAY 1994								
06...	1300	32		9.0		248			05...		1000	129		7.0		382	
NOV									10...		1415	112		10.0		179	
18...	0730	56		2.5		235			JUN								
DEC									02...		1000	64		12.5		422	
14...	0730	47		3.0		244			17...		0915	31		20.0		446	
JAN 1994									22...		1120	32		19.0		252	
20...	0915	20		0.0		266			JUL								
MAR									12...		1410	37		22.5		241	
02...	1045	24		0.0		257			AUG								
APR									01...		0930	16		19.5		402	
06...	1000	183		0.0		198			09...		0930	17		15.5		308	
14...	1100	458		1.5		108			30...		0920	14		13.5		298	
19...	1315	270		4.5		155			SEP								
									27...		0930	23		14.5		281	
01135500 PASSUMPSIC RIVER AT PASSUMPSIC, VT (LAT 44 21 56N LONG 072 02 23W)																	
OCT 1993									JUN 1994								
27...	1245	386		5.0		174			22...		1330	726		20.5		214	
MAR 1994									AUG								
01...	1055	241		0.0		208			12...		1310	381		20.0		104	
01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, NH (LAT 44 16 08N LONG 071 37 52W)																	
OCT 1993									MAY 1994								
07...	0900	154		7.0		40			10...		1100	591		6.5		20	
NOV									17...		0815	528		5.0		24	
09...	1420	126		2.0		34			JUN								
18...	1200	154		3.0		37			22...		0820	306		14.0		36	
DEC									27...		1130	73		21.0		41	
02...	1115	178		0.0		27			JUL								
14...	1300	153		3.0		38			12...		1050	66		18.0		37	
JAN 1994									AUG								
19...	1315	84		0.0		49			03...		1015	61		19.0		45	
20...	1115	67		0.0		67			08...		1330	50		20.5		43	
FEB									29...		1245	--		17.5		41	
28...	1040	57		0.0		47			SEP								
MAR									21...		0715	83		11.0		36	
02...	0815	72		0.0		48			26...		1130	104		13.5		30	
APR																	
06...	0815	633		0.5		65											
19...	1100	626		2.0		26											
01138500 CONNECTICUT RIVER AT WELLS RIVER, VT (LAT 44 09 13N LONG 072 02 34W)																	
JUN 1994									SEP 1994								
09...	1530	8760		14.0		65			18...		1120	3300		17.0		86	
01139000 WELLS RIVER AT WELLS RIVER, VT (LAT 44 09 03N LONG 072 03 55W)																	
NOV 1993									JUN 1994								
03...	1135	82		2.0		126			10...		1430	80		18.5		132	
DEC									JUL								
01...	0910	69		0.0		101			27...		1400	60		23.5		69	
APR 1994									SEP								
08...	1045	669	--			82			09...		1120	41		15.0		151	
18...	1300	896	--			62											

DATE	TIME	DIS-	TEMPER-	SPE-	DATE	TIME	DIS-	TEMPER-	SPE-
		CHARGE,		CIFIC			CHARGE,		CIFIC
		INST.		CON-			INST.		CON-
		CUBIC		DUCT-			CUBIC		DUCT-
		FEE	ATURE				FEE	ATURE	
		PER	WATER	ANCE			PER	WATER	ANCE
		SECOND	(DEG C)	(US/CM)			SECOND	(DEG C)	(US/CM)
		(00061)	(00010)	(00095)			(00061)	(00010)	(00095)

CONNECTICUT RIVER BASIN

01139800 EAST ORANGE BRANCH AT EAST ORANGE, VT (LAT 44 05 34N LONG 072 20 10W)

OCT 1993					MAY 1994				
04...	1155	5.9	9.0	246	24...	1235	18	14.5	194
NOV					JUL				
15...	1210	12	8.0	218	05...	1325	4.3	18.0	114
JAN 1994					AUG				
04...	1250	15	0.0	142	22...	1215	13	15.0	219
APR									
04...	1315	20	2.0	188					

01141500 OMPOMPANOOSUC RIVER AT UNION VILLAGE, VT (LAT 43 47 23N LONG 072 15 19W)

NOV 1993					APR 1994				
01...	1450	145	3.5	136	20...	1237	1500	5.0	103
DEC					MAY				
22...	1055	376	1.0	141	09...	0915	384	8.5	130
FEB 1994					AUG				
07...	1100	81	0.0	199	11...	1443	27	20.0	247
MAR									
21...	1145	81	0.0	134					

01141800 MINK BROOK NEAR ETNA, NH (LAT 43 42 08N LONG 072 11 15W)

OCT 1993					MAY 1994				
29...	1040	1.8	5.0	92	24...	0825	4.1	11.5	76
DEC					JUN				
07...	1100	7.7	2.5	67	29...	1250	2.4	20.5	99
JAN 1994					AUG				
25...	1350	2.2	0.0	79	15...	0920	0.60	15.5	122
MAR					SEP				
08...	1100	10	0.0	81	28...	1000	11	15.0	91
APR									
11...	0945	37	1.5	51					

01142500 AYERS BROOK AT RANDOLPH, VT (LAT 43 56 04N LONG 072 39 30W)

NOV 1993					MAY 1994				
09...	0940	25	1.0	225	03...	1330	122	8.5	161
DEC					JUN				
21...	0935	35	0.0	208	28...	0900	32	16.5	242
FEB 1994					AUG				
08...	1200	19	0.0	71	02...	1000	10	19.5	252
MAR					SEP				
18...	1010	24	0.0	230	23...	0950	8.6	14.5	258
APR									
20...	0945	270	3.5	129					

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)

CONNECTICUT RIVER BASIN

01144000 WHITE RIVER AT WEST HARTFORD, VT (LAT 43 42 51N LONG 072 25 07W)

OCT 1993					MAY 1994				
06...	0700	1210	11.0	180	04...	0905	2670	9.5	121
27...	0835	394	6.5	149	11...	0830	1840	10.0	120
NOV					JUN				
17...	1400	--	5.5	118	06...	1130	740	18.0	150
DEC					16...	1200	608	24.0	158
21...	1422	848	1.0	136	23...	0810	400	20.5	172
28...	1050	547	0.0	157	28...	1740	741	21.0	197
JAN 1994					29...	1700	1080	19.0	110
26...	1345	510	0.0	164	JUL				
FEB					13...	0820	248	23.5	200
09...	1220	264	0.0	158	AUG				
MAR					09...	1230	338	22.5	159
01...	1145	1050	0.0	129	09...	1300	324	23.0	156
APR					30...	1300	480	19.0	149
05...	1145	3300	2.0	107	SEP				
20...	0730	6960	3.5	90	26...	1050	691	15.5	149
21...	0737	5120	4.0	100	27...	1250	620	15.0	147

01144500 CONNECTICUT RIVER AT WEST LEBANON, NH (LAT 43 38 47N LONG 072 18 46W)

OCT 1993					MAY 1994				
28...	1000	3370	8.5	110	04...	1320	17800	6.5	63
DEC					JUN				
23...	0950	4790	1.0	87	29...	0940	9900	19.5	108
MAR 1994					30...	0745	1810	19.0	98
25...	0900	6950	0.0	122	AUG				
APR					12...	0700	1120	21.5	118
21...	1055	31900	3.5	63					

01145000 MASCOMA RIVER AT WEST CANAAN, NH (LAT 43 39 00N LONG 072 04 50W)

OCT 1993					JUL 1994				
29...	1225	50	9.0	67	14...	1100	21	21.0	62
APR 1994									
11...	1145	626	3.0	40					

01150500 MASCOMA RIVER AT MASCOMA, NH (LAT 43 39 01N LONG 072 11 05W)

OCT 1993					MAY 1994				
29...	0805	227	8.5	66	24...	0700	119	12.5	54
DEC					JUN				
07...	0845	341	3.0	59	29...	1010	76	26.5	61
JAN 1994					AUG				
25...	0845	95	1.5	67	15...	0720	30	24.5	65
MAR					SEP				
08...	0900	100	1.0	73	28...	0830	145	19.0	66
APR									
11...	0730	1010	1.5	57					

01150900 OTTAUQUECHEE RIVER NEAR WEST BRIDGEWATER, VT (LAT 43 37 20N LONG 072 45 34W)

NOV 1993					APR 1994				
10...	1430	39	3.0	151	07...	1100	692	0.0	121
DEC					MAY				
15...	1525	60	2.0	140	03...	0945	113	5.0	107
FEB 1994					JUN				
08...	1545	22	0.0	187	17...	1045	19	19.0	171
MAR					AUG				
17...	1630	39	0.0	230	03...	1215	38	18.0	151

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)
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CONNECTICUT RIVER BASIN

01151500 OTTAUQUECHEE RIVER AT NORTH HARTLAND, VT (LAT 43 36 09N LONG 072 21 17W)

OCT 1993					AUG 1994				
26...	1110	23	9.0	220	09...	0950	23	21.0	190

01152500 SUGAR RIVER AT WEST CLAREMONT, NH (LAT 43 23 15N LONG 072 21 45W)

DEC 1993					JUL 1994				
06...	0850	760	2.5	82	05...	1050	117	19.0	126
JAN 1994					18...	0839	104	19.0	151
24...	1123	187	0.0	113	19...	1215	134	--	--
MAR					SEP				
07...	1000	209	0.0	129	16...	0820	48	13.5	168

01153000 BLACK RIVER AT NORTH SPRINGFIELD, VT (LAT 43 20 00N LONG 072 30 55W)

NOV 1993					MAY 1994				
02...	1300	124	4.5	134	09...	1555	807	12.5	83
FEB 1994					AUG				
10...	1340	124	0.0	122	16...	0912	62	19.0	151
MAR									
28...	1300	485	0.0	111					

01153550 WILLIAMS RIVER NEAR ROCKINGHAM, VT (LAT 43 11 30N LONG 072 29 08W)

NOV 1993					MAY 1994				
12...	1125	46	4.0	138	10...	1000	299	11.5	78
FEB 1994					JUL				
11...	1115	64	0.0	109	22...	1420	34	28.0	148
APR					AUG				
08...	1225	928	4.0	70	24...	0850	51	16.5	128

01154500 CONNECTICUT RIVER AT NORTH WALPOLE, NH (LAT 43 07 34N LONG 072 26 14W)

OCT 1993					JUN 1994				
29...	1710	2930	9.0	106	30...	1010	2280	22.5	121
NOV					JUL				
16...	1115	8410	6.0	97	12...	1045	3830	24.5	119
MAR 1994					AUG				
23...	1030	11600	0.0	130	18...	1220	10300	20.0	117
MAY									
11...	1145	17200	11.0	88					
25...	1130	11500	15.5	93					

01155500 WEST RIVER AT JAMAICA, VT (LAT 43 06 32N LONG 072 46 33W)

NOV 1993					JUN 1994				
08...	1400	383	5.0	58	13...	1256	445	19.0	60
APR 1994					SEP				
25...	1115	1760	7.0	34	19...	1515	28	17.0	87

01156000 WEST RIVER AT NEWFANE, VT (LAT 42 59 43N LONG 072 38 13W)

NOV 1993					APR 1994				
12...	1555	251	4.5	67	22...	0945	1860	5.5	61
DEC					JUN				
13...	1125	543	0.0	60	13...	0820	118	20.0	83
JAN 1994					SEP				
31...	1440	353	0.0	74	19...	0900	44	17.0	116

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)

CONNECTICUT RIVER BASIN

01158000 ASHUELOT RIVER BL SURRY MT DAM, NR KEENE, NH (LAT 42 59 40N LONG 072 18 40W)

OCT 1993					MAR 1994				
08...	1010	50	14.0	74	16...	1345	424	0.0	53
NOV					JUN				
04...	0815	111	4.5	48	15...	0720	53	22.0	55
DEC					AUG				
15...	1250	255	0.5	44	25...	1300	73	23.5	57
FEB 1994									
02...	1440	163	0.5	85					

01158600 OTTER BROOK BELOW OTTER BROOK DAM, NR KEENE, NH (LAT 42 56 45N LONG 072 14 14)

NOV 1993					MAR 1994				
04...	1130	43	5.5	71	17...	0940	139	0.0	67
DEC					APR				
15...	1100	70	1.5	55	13...	1330	139	5.5	71
FEB 1994					JUN				
02...	1200	86	0.0	67	15...	0910	18	22.0	60

01161000 ASHUELOT RIVER AT HINSDALE, NH (LAT 42 47 07N LONG 072 29 12W)

OCT 1993					APR 1994				
01...	1140	200	12.0	131	19...	0715	2960	6.5	47
NOV					JUN				
02...	0935	493	5.5	72	14...	0815	248	20.5	117
DEC					27...	1000	245	21.0	115
21...	1015	809	2.0	89	AUG				
MAR 1994					24...	0945	430	21.5	89
16...	1000	1600	0.0	71					

HUDSON RIVER BASIN

01334000 WALLOOMSAC RIVER NEAR NORTH BENNINGTON, VT (LAT 42 54 47N LONG 073 15 25W)

NOV 1993					APR 1994				
03...	0900	146	4.0	205	26...	0835	590	7.5	105
DEC					JUL				
14...	0947	247	0.5	167	26...	1235	91	22.0	238
FEB 1994					SEP				
01...	0935	109	0.0	171	20...	0730	58	12.5	263
MAR									
15...	0915	245	2.0	267					

ST. LAWRENCE RIVER BASIN

04280000 POULTNEY RIVER BELOW FAIR HAVEN, VT (LAT 43 37 27N LONG 073 18 43W)

NOV 1993					JUN 1994				
05...	1020	225	7.0	219	15...	1455	173	20.0	207
DEC					SEP				
17...	1118	295	0.0	193	21...	1225	71	16.0	290
APR 1994									
14...	0905	2620	5.0	122					
27...	0904	338	10.0	190					

04280350 METTAWEE RIVER NEAR PAWLET, VT (LAT 43 22 14N LONG 073 13 00W)

NOV 1993					APR 1994				
03...	1440	56	6.0	230	13...	1410	1030	5.5	115
DEC					21...	1605	121	9.0	186
14...	1400	160	2.0	181	26...	1220	250	10.0	163
FEB 1994					JUN				
01...	1500	110	0.0	130	14...	1345	258	16.0	155
MAR					JUL				
15...	1250	197	3.0	177	27...	0905	124	18.5	196
					SEP				
					20...	1245	29	16.0	258

DATE	TIME	DIS-CHARGE, INST.		TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	DATE	TIME	DIS-CHARGE, INST.		TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (US/CM)
		CUBIC FEET PER SECOND (00061)	CUBIC FEET PER SECOND (00061)					CUBIC FEET PER SECOND (00061)	CUBIC FEET PER SECOND (00061)		
ST. LAWRENCE RIVER BASIN											
04282000		OTTER CREEK AT CENTER RUTLAND, VT (LAT 43 36 13N LONG 073 00 49W)									
NOV 1993						APR 1994					
10...	0915	329		3.0	180	14...	1448	5300		5.0	100
DEC						27...	1530	1830		9.5	182
15...	1117	624		0.0	159	JUN					
FEB 1994						15...	0900	924		17.5	183
04...	1030	482		0.0	195	JUL					
MAR						29...	1030	636		18.5	218
16...	1400	757		1.0	307	SEP					
						21...	0720	229		13.5	180
04282500		OTTER CREEK AT MIDDLEBURY, VT (LAT 44 00 47N LONG 073 10 06W)									
NOV 1993						APR 1994					
04...	1110	622		5.0	243	28...	0935	3360		11.0	126
DEC						JUN					
16...	1020	1030		-0.5	183	16...	0830	1520		20.0	147
MAR 1994						SEP					
17...	1125	1340		0.0	225	22...	0840	376		15.5	250
04282525		NEW HAVEN RIVER AT BROOKSVILLE NR. MIDDLEBURY, VT (LAT 44 03 42N LONG 073 10 16)									
NOV 1993						JUN 1994					
04...	1725	164		6.0	165	16...	1510	140		26.5	134
DEC						JUL					
20...	1500	128		2.0	131	28...	1300	53		19.5	198
FEB 1994						SEP					
03...	1344	118		0.0	132	22...	1253	54		16.5	185
APR											
15...	0853	1130		4.0	66						
28...	1518	462		9.5	77						
04282650		LITTLE OTTER CREEK AT FERRISBURG, VT. (LAT 44 11 53N LONG 073 14 58W)									
OCT 1993						JUN 1994					
12...	1220	10		8.0	429	15...	1025	28		25.5	346
NOV						JUL					
24...	1415	16		2.5	401	19...	1145	3.3		25.0	196
MAR 1994						AUG					
01...	1415	45		0.0	323	31...	1045	7.0		18.0	361
APR											
26...	1035	52		10.5	267						
04282780		LEWIS CREEK AT NORTH FERRISBURG, VT. (LAT 44 14 57N LONG 073 13 44W)									
OCT 1993						JUN 1994					
12...	1500	46		8.0	211	15...	1235	66		26.0	211
JAN 1994						JUL					
10...	1515	55		0.0	126	20...	1035	15		25.0	126
MAR						AUG					
01...	1150	100		0.0	221	31...	1210	26		17.0	235
APR											
26...	1315	193		10.0	178						
04282795		LAPLATTE RIVER AT SHELBURNE FALLS, VT. (LAT 44 22 12N LONG 073 13 00W)									
OCT 1993						JUN 1994					
25...	1215	20		10.0	401	14...	1215	25		23.0	370
NOV						JUL					
19...	1300	36		5.0	374	20...	1435	4.9		30.0	405
JAN 1994						AUG					
07...	1510	19		0.0	441	31...	1330	4.9		16.5	561
APR											
27...	0920	84		11.5	286						

156 SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS IN NEW HAMPSHIRE AND VERMONT

DATE	TIME	DIS-	TEMPER-	SPE-	DATE	TIME	DIS-	TEMPER-	SPE-
		CHARGE,		CIFIC			CHARGE,		CIFIC
		INST.		CON-			INST.		CON-
		CUBIC FEET PER SECOND (00061)		ATURE WATER (DEG C) (00010)			DUCT- ANCE (US/CM) (00095)		CUBIC FEET PER SECOND (00061)
ST. LAWRENCE RIVER BASIN									
04290500		WINOOSKI RIVER NEAR ESSEX JUNCTION, VT (LAT 44 28 44N LONG 073 08 21W)							
OCT 1993					SEP 1994				
05...	1040	1670	11.0	135	02...	1330	519	20.0	233
APR 1994									
27...	1400	8250	7.0	85					
04292000		LAMOILLE RIVER AT JOHNSON, VT (LAT 44 37 22N LONG 072 40 50W)							
OCT 1993					JUN 1994				
07...	0950	436	10.0	122	03...	1440	645	16.5	120
NOV					JUL				
23...	1330	383	4.0	135	18...	1535	163	20.5	90
APR 1994					AUG				
25...	1555	2430	7.0	70	30...	1200	220	19.5	166
04292500		LAMOILLE RIVER AT EAST GEORGIA, VT (LAT 44 40 45N LONG 073 04 23W)							
OCT 1993					MAY 1994				
14...	1115	1390	6.0	97	05...	1050	2040	11.0	94
NOV					JUL				
23...	1045	1110	3.5	118	21...	1105	404	27.0	78
JAN 1994									
13...	1100	556	0.0	143					
04292700		STONE BRIDGE BROOK NEAR GEORGIA PLAINS, VT (LAT 44 42 14N LONG 073 10 55W)							
OCT 1993					APR 1994				
14...	1340	4.9	7.0	295	06...	1255	70	1.5	160
NOV					JUN				
30...	1530	17	3.0	232	02...	1240	6.6	16.5	276
JAN 1994					JUL				
11...	1350	6.7	0.0	324	21...	1425	1.5	28.5	156
FEB					SEP				
25...	1235	10	0.5	291	14...	1145	7.6	18.0	303
04293000		MISSISQUOI RIVER NEAR NORTH TROY, VT (LAT 44 58 22N LONG 072 23 09W)							
OCT 1993					AUG 1994				
18...	0940	400	10.0	97	02...	0930	67	21.5	58
NOV					SEP				
18...	1420	328	5.0	75	08...	1045	91	14.0	132
JAN 1994									
12...	1530	86	0.0	111					
04293500		MISSISQUOI RIVER NEAR EAST BERKSHIRE, VT (LAT 44 57 36N LONG 072 41 49W)							
OCT 1993					MAY 1994				
18...	1535	1240	10.0	89	03...	1100	2800	7.0	58
JAN 1994					JUN				
13...	1440	306	0.0	59	01...	1420	1270	17.5	79
FEB					SEP				
17...	1225	270	0.0	129	07...	1330	160	17.0	136
04294000		MISSISQUOI RIVER AT SWANTON, VT (LAT 44 55 00N LONG 073 07 44W)							
OCT 1993					JUN 1994				
13...	1145	2490	6.0	91	16...	1045	1450	22.0	110
25...	1600	1830	6.0	103	SEP				
DEC					16...	1150	868	16.0	106
01...	1240	2020	1.0	93					

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)
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ST. LAWRENCE RIVER BASIN

04296000

BLACK RIVER AT COVENTRY, VT (LAT 44 52 08N LONG 072 16 14W)

OCT 1993					APR 1994				
15...	1355	150	7.0	166	07...	0900	1070	0.5	99
NOV					MAY				
18...	0930	193	3.0	157	04...	1550	510	12.0	132
18...	1120	191	4.0	157	26...	1000	165	13.5	194
JAN 1994					26...	1200	168	13.0	192
12...	1130	87	0.0	199	JUL				
20...	0945	74	0.0	212	13...	0915	63	21.0	230
MAR					SEP				
24...	1030	155	0.5	196	08...	0815	60	13.5	240

04296500

CLYDE RIVER AT NEWPORT, VT (LAT 44 56 22N LONG 072 11 23W)

OCT 1993					JUN 1994				
15...	1005	17	8.0	154	03...	1120	456	14.5	115
NOV					AUG				
30...	0900	18	3.0	157	02...	1440	88	24.0	73
MAY 1994					SEP				
04...	1020	1100	7.5	82	08...	1200	95	16.0	150

CHESHIRE COUNTY

425543072175801. Local number, KEW 2.

LOCATION.--Lat 42°55'43", long 72°17'58", Hydrologic Unit 01080201, east side of State Highway 12, about 0.5 mi north of State Highway 9, and 1.1 mi southwest of the center of Keene.

Owner: New Hampshire Department of Transportation.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in, depth 18 ft.

DATUM.--Altitude of land-surface datum is 470 ft. Measuring point: Top of casing, 4.5 ft above land-surface datum.

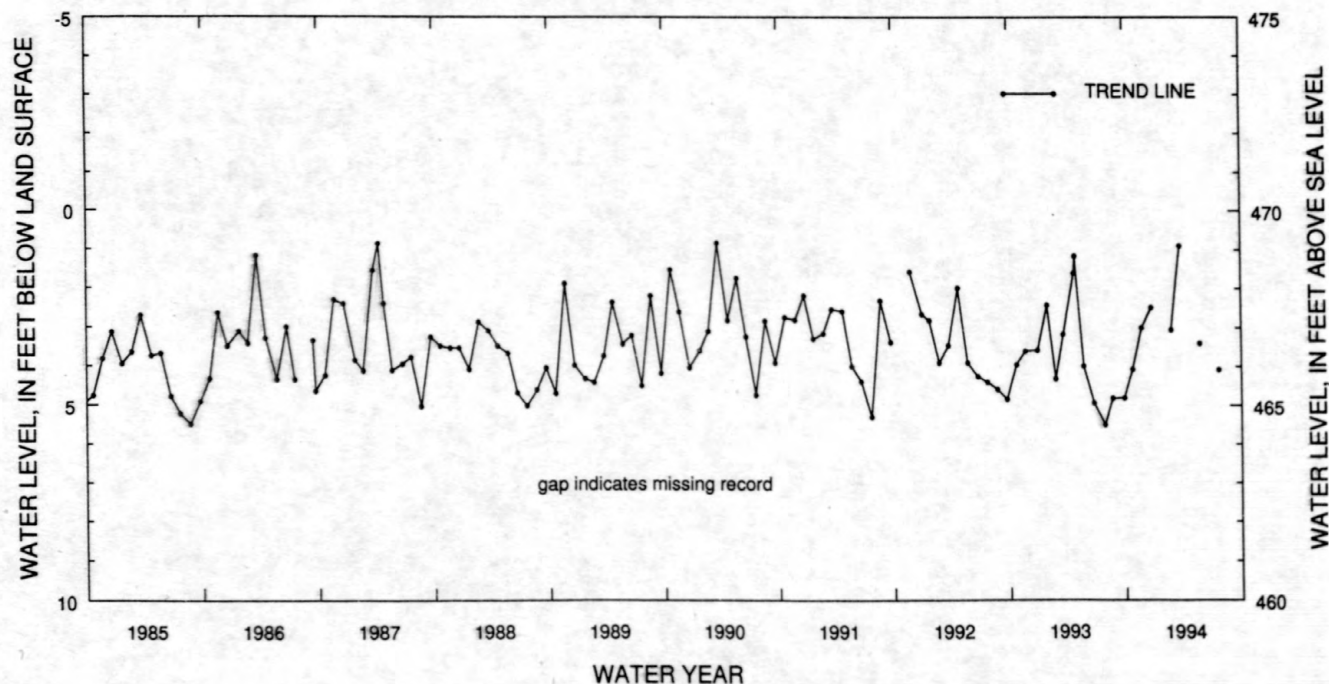
PERIOD OF RECORD.--August 1963 to current year. Prior to January 1973, published in New Hampshire Hydrologic-Data Report No. 3.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.17 ft below land-surface datum, May 31, 1984; lowest measured, 6.23 ft below land-surface datum, Sept. 27, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	4.07	DEC 23	2.48	MAR 24	0.89	JUL 23	4.08
NOV 22	3.00	FEB 24	3.05	MAY 24	3.40		

WATER YEAR 1994 HIGHEST 0.89 MAR. 24, 1994 LOWEST 4.08 JULY 23, 1994



COOS COUNTY

444733071094901. Local number, ETW 1.

LOCATION.--Lat 44°47'33", long 71°09'49", Hydrologic Unit 01040001, southwest side of State Highway 26, 1.8 mi northwest of the center of Errol.

Owner: U.S. Geological Survey.

AQUIFER.--Very fine sand and silt of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 1.25 in, depth 30 ft.

DATUM.--Altitude of land-surface datum is 1,245 ft. Measuring point: Top of casing, 3.00 ft above land-surface datum.

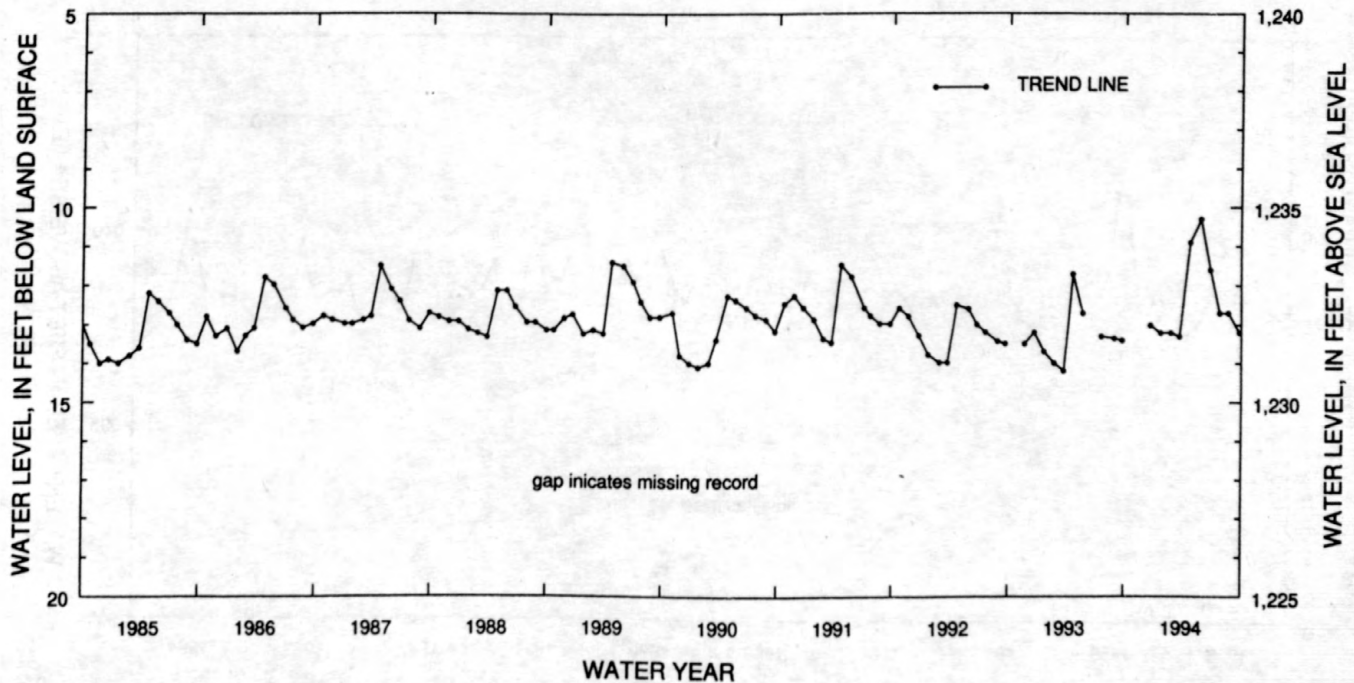
PERIOD OF RECORD.--November 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.4 ft below land-surface datum, May 22, 1969; lowest measured, 14.2 ft below land-surface datum, Mar. 24, 1993.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 20	13.0	MAR 21	13.3	JUN 26	11.6	SEP 25	13.2
JAN 21	13.2	APR 24	10.9	JUL 25	12.7		
FEB 22	13.2	MAY 27	10.3	AUG 21	12.7		

WATER YEAR 1994 HIGHEST 10.3 MAY 27, 1994 LOWEST 13.3 MAR. 21, 1994



GROUND-WATER LEVELS IN NEW HAMPSHIRE

COOS COUNTY

442830071321001. Local number, LCW 1.

LOCATION.--Lat 44°28'30", long 71°32'10", Hydrologic Unit 01080101, in gravel pit about 1,100 ft southwest of Middle Street, 2.2 mi southeast of U.S. Highway 3, and 2.0 mi southeast of the center of Lancaster.

Owner: Forbes Farm Partnership.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven, unused test well, diameter 2.5 in, depth 30 ft.

DATUM.--Altitude of land-surface datum is 940 ft. Measuring point: Top of casing, 1.0 ft above land-surface datum.

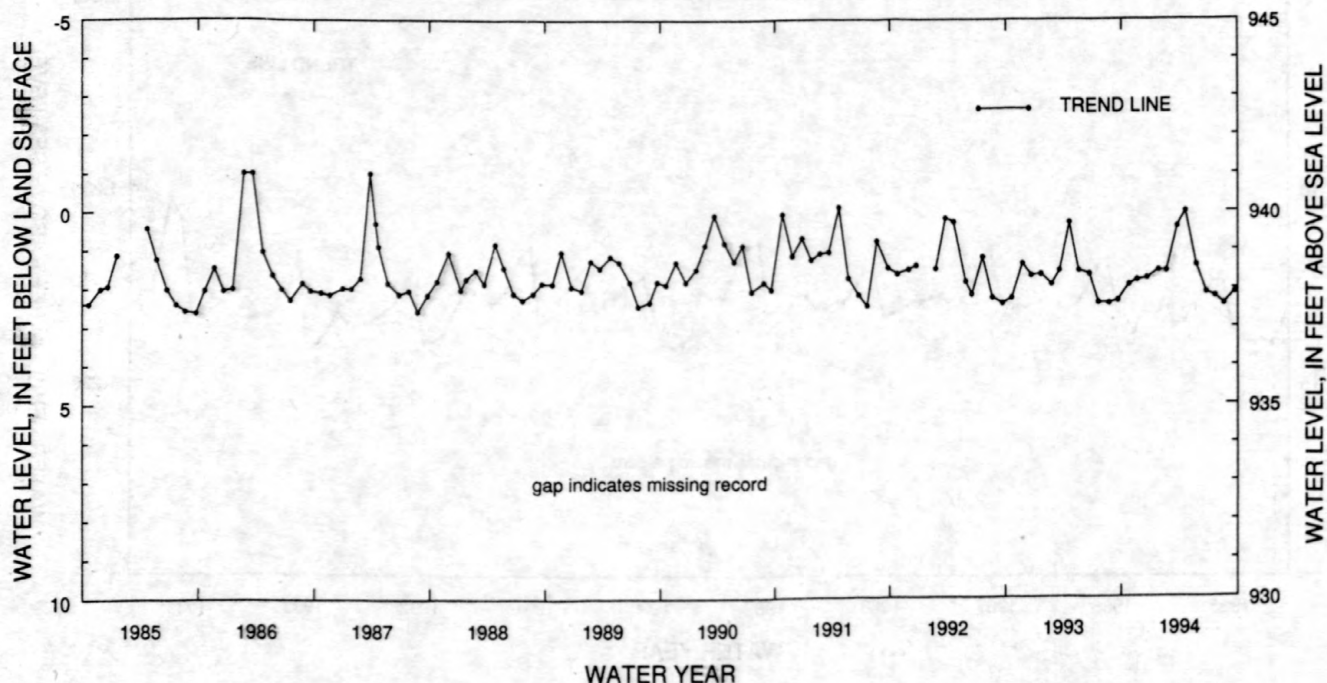
PERIOD OF RECORD.--November 1966 to May 1980, April 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, flowing at 1.0 ft above land-surface datum, April 26, 1970, Apr. 28, 1972, Dec. 21, 1982, Feb. 21, Mar. 21, 1986, Mar. 27, 1987; lowest measured, 2.67 ft below land-surface datum, Sept. 24, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	1.90	JAN 25	1.53	APR 20	0.00	JUL 22	2.20
NOV 19	1.78	FEB 19	1.55	MAY 24	1.40	AUG 19	2.40
DEC 20	1.73	MAR 25	0.40	JUN 24	2.10	SEP 22	2.10

WATER YEAR 1994 HIGHEST 0.00 APR. 20, 1994 LOWEST 2.40 AUG. 19, 1994



HILLSBOROUGH COUNTY

425024071413001. Local number, MOW 36.

LOCATION.--Lat 42°50'24", long 71°41'30", Hydrologic Unit 01070002, 85 ft from north side of Old Wilton Road, about 550 ft west of the intersection of State Highway 101, and 2.2 mi west of the center of Milford.

Owner: Leonard Cushing.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug, unused water-table well, diameter 36 in, depth 14.6 ft, lined with concrete.

DATUM.--Altitude of land-surface datum is 262.74 ft above sea level (levels by U.S. Geological Survey). Measuring point: Top of concrete casing on south side of well, 1.60 ft above land-surface datum.

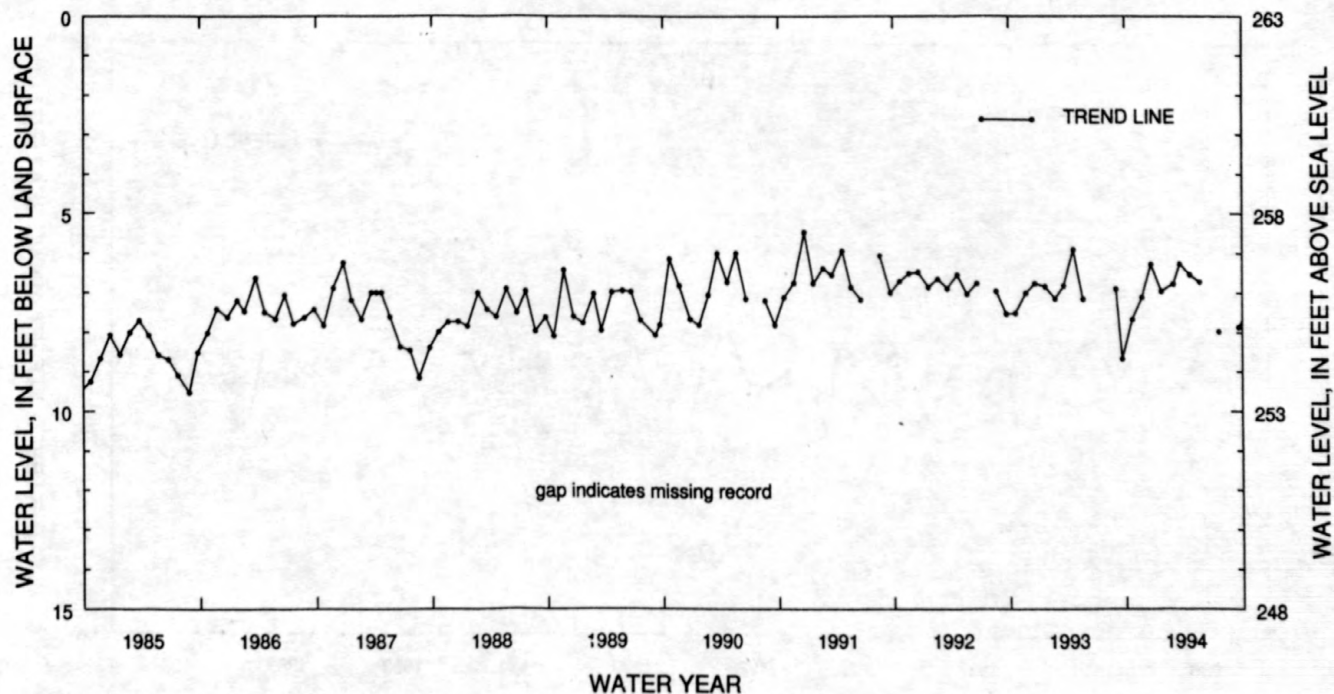
PERIOD OF RECORD.--January 1962 to current year. Prior to May 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.50 ft below land-surface datum, Dec. 24, 1990; lowest measured, 12.30 ft below land-surface datum, Nov. 18, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	7.66	JAN 22	6.95	APR 21	6.53	SEP 20	7.86
NOV 22	7.10	MAR 01	6.77	MAY 22	6.72		
DEC 21	6.27	MAR 21	6.26	JUL 20	7.97		

WATER YEAR 1994 HIGHEST 6.26 MAR. 21, 1994 LOWEST 7.97 JULY 20, 1994



GROUND-WATER LEVELS IN NEW HAMPSHIRE

HILLSBOROUGH COUNTY

424800071295301. Local number, NAW 218.

LOCATION.--Lat 42°48'00", long 71°29'53", Hydrologic Unit 01070002, 57 ft east of edge of pavement of northbound lane of Everett Turnpike, about 0.63 mi north of Tinker Road overpass, and 2.8 mi northwest of the center of Nashua.

Owner: New Hampshire Department of Transportation.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in, depth 42.5 ft.

DATUM.--Altitude of land-surface datum is 205 ft. Measuring point: Top of casing, 3.1 ft above land-surface datum.

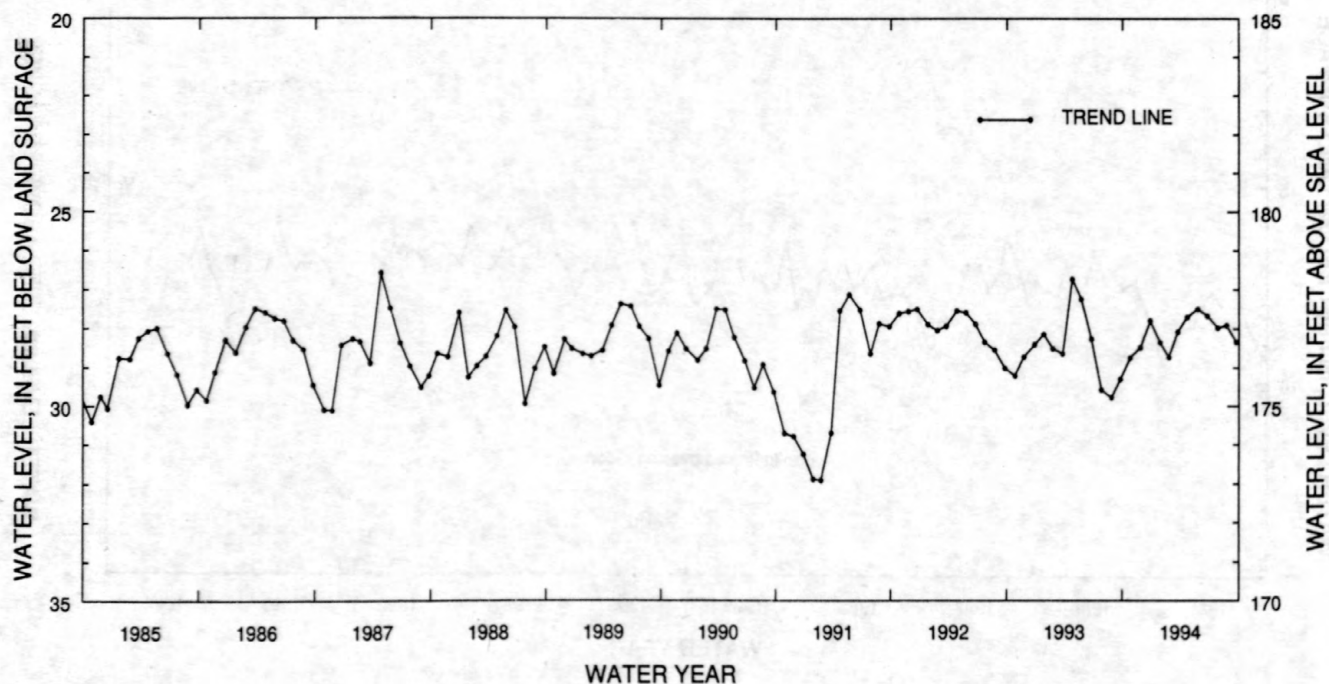
PERIOD OF RECORD.--October 1964 to current year. Prior to June 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.10 ft below land-surface datum, June 5, 1984; lowest measured, 33.10 ft below land-surface datum, Nov. 25, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	28.74	JAN 27	28.34	APR 22	27.70	JUL 27	27.97
NOV 26	28.47	FEB 24	28.72	MAY 25	27.49	AUG 24	27.91
DEC 27	27.79	MAR 24	28.07	JUN 24	27.67	SEP 23	28.33

WATER YEAR 1994 HIGHEST 27.49 MAY 25, 1994 LOWEST 28.74 OCT. 25, 1993



MERRIMACK COUNTY

431224071303601. Local number, CVW 2.

LOCATION.--Lat 43°12'24", long 71°30'36", Hydrologic Unit 01070002, about 100 ft north of the Federal Aeronautics Administration Building at Concord Municipal Airport.

Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in, depth 60 ft.

DATUM.--Altitude of land-surface datum is 340 ft. Measuring point: Top of casing, 3.00 ft above land-surface datum.

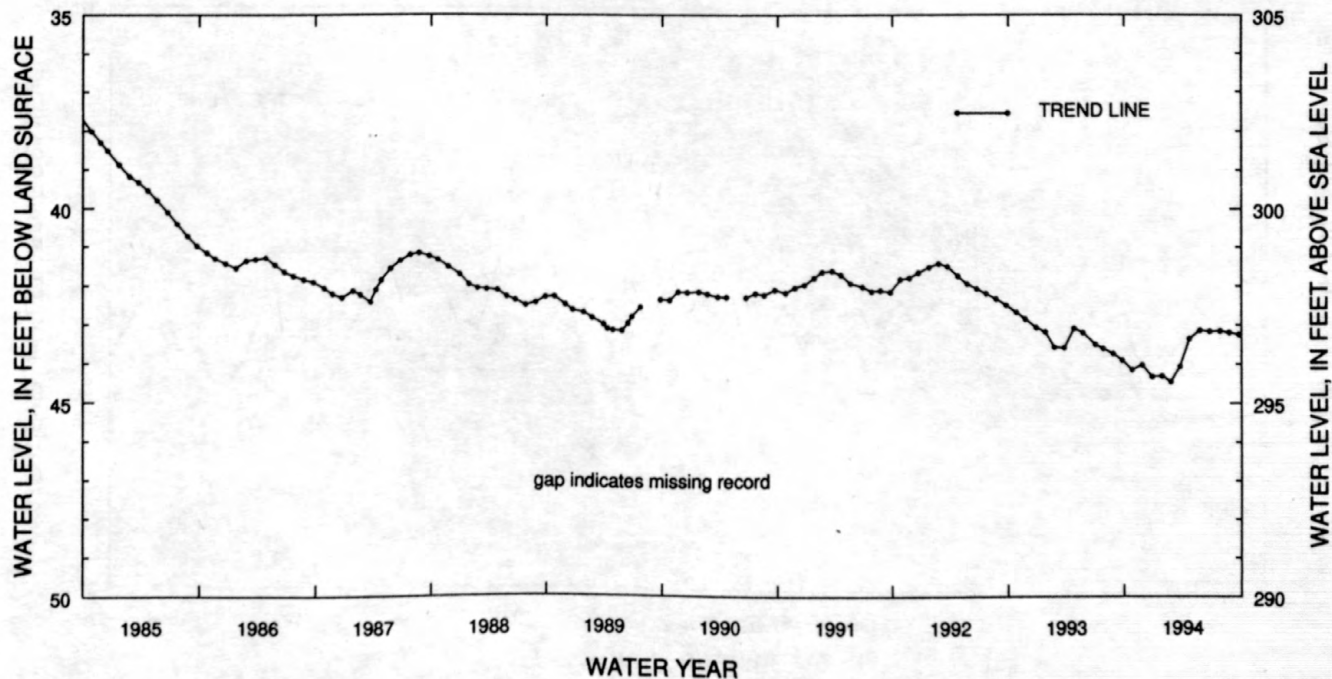
PERIOD OF RECORD.--August 1963 to May 1965, August 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.85 ft below land-surface datum, Aug. 27, 1973; lowest measured, 44.62 ft below land-surface datum, Aug. 1, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS
OCT 25	44.14	JAN 27	44.30	APR 22	43.34	JUL 27	43.15
NOV 26	44.02	FEB 24	44.45	MAY 25	43.13	AUG 24	43.19
DEC 27	44.32	MAR 24	44.05	JUN 24	43.16	SEP 23	43.24

WATER YEAR 1994 HIGHEST 43.13 MAY 25, 1994 LOWEST 44.45 FEB. 24, 1994



GROUND-WATER LEVELS IN NEW HAMPSHIRE

MERRIMACK COUNTY

431049071324301. Local number, CVW 4.

LOCATION.--Lat 43°10'49", long 71°32'43", Hydrologic Unit 01070002, north side of Iron Works Road, about 700 ft west of South Street, and 1.8 mi southwest of the State House in Concord.

Owner: U.S. Geological Survey.

AQUIFER.--Lacustrine silty fine sands and clays of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 1.25 in, depth 40.71 ft.

DATUM.--Altitude of land-surface datum is 285 ft. Measuring point: Top of casing, 3.8 ft above land-surface datum.

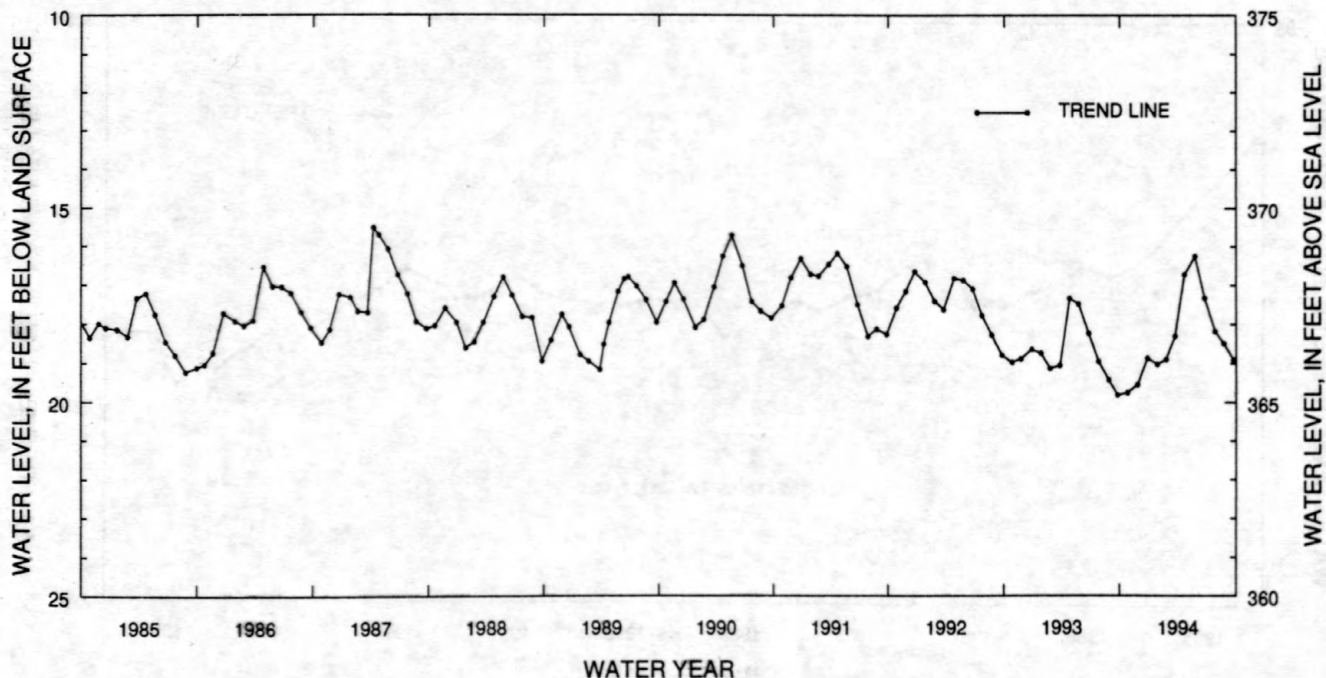
PERIOD OF RECORD.--November 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.94 ft below land-surface datum, June 5, 1984; lowest measured, 20.30 ft below land-surface datum, Jan. 26, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	19.75	JAN 27	19.02	APR 22	16.71	JUL 27	18.17
NOV 26	19.54	FEB 24	18.89	MAY 25	16.25	AUG 24	18.48
DEC 27	18.86	MAR 24	18.29	JUN 24	17.32	SEP 23	18.90

WATER YEAR 1994 HIGHEST 16.25 MAY 25, 1994 LOWEST 19.75 OCT. 25, 1993



MERRIMACK COUNTY

432428071390701. Local number, FWK 1.

LOCATION.--Lat 43°24'31", long 71°39'12", Hydrologic Unit 01070002, about 700 ft northeast of U.S. Highway 3, and entrance to Holy Cross Convent, and 2.5 mi south of Franklin.

Owner: Holy Cross Convent.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Unused water-table well, diameter 2.5 in, depth 52.3 ft.

DATUM.--Altitude of land-surface datum is 290 ft. Measuring point: Top of casing, 1.80 ft above land-surface datum.

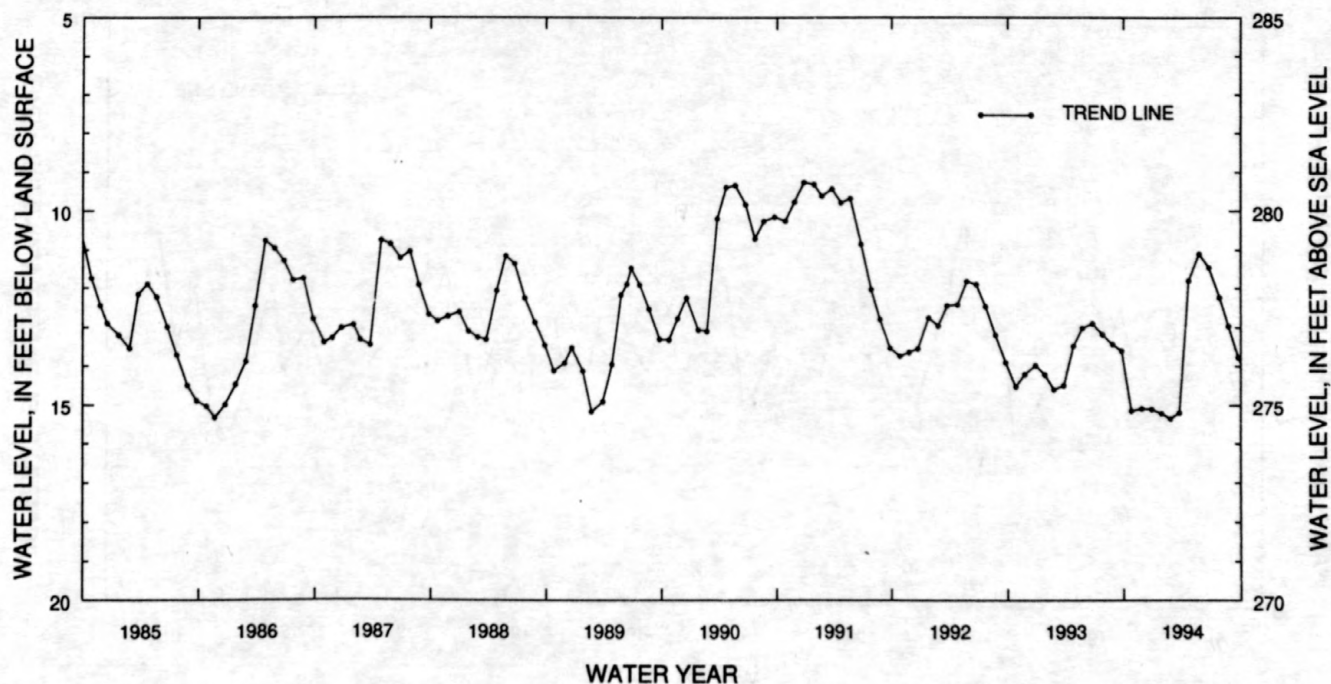
PERIOD OF RECORD.--October 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.18 ft below land-surface datum, June 5, 1984; lowest measured, 16.27 ft below land-surface datum, Jan. 26, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	15.14	JAN 27	15.21	APR 22	11.80	JUL 27	12.23
NOV 26	15.08	FEB 24	15.35	MAY 25	11.10	AUG 24	12.96
DEC 27	15.10	MAR 24	15.19	JUN 24	11.46	SEP 23	13.77

WATER YEAR 1994 HIGHEST 11.10 MAY 25, 1994 LOWEST 15.35 FEB. 24, 1994



GROUND-WATER LEVELS IN NEW HAMPSHIRE

MERRIMACK COUNTY

430235071275501. Local number, HTW 5.

LOCATION.--Lat 43°02'35", long 71°27'55", Hydrologic Unit 01070002, within southeastern cloverleaf of intersection of U.S. Highway 3A and Interstate Highway 93, 3.7 mi south of the center of Hooksett.
Owner: New Hampshire Department of Transportation.

AQUIFER.--Crystalline rock of Devonian age.

WELL CHARACTERISTICS.--Drilled, unused bedrock well, diameter 6 in, depth 102.73 ft.

DATUM.--Land-surface datum is 258.93 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

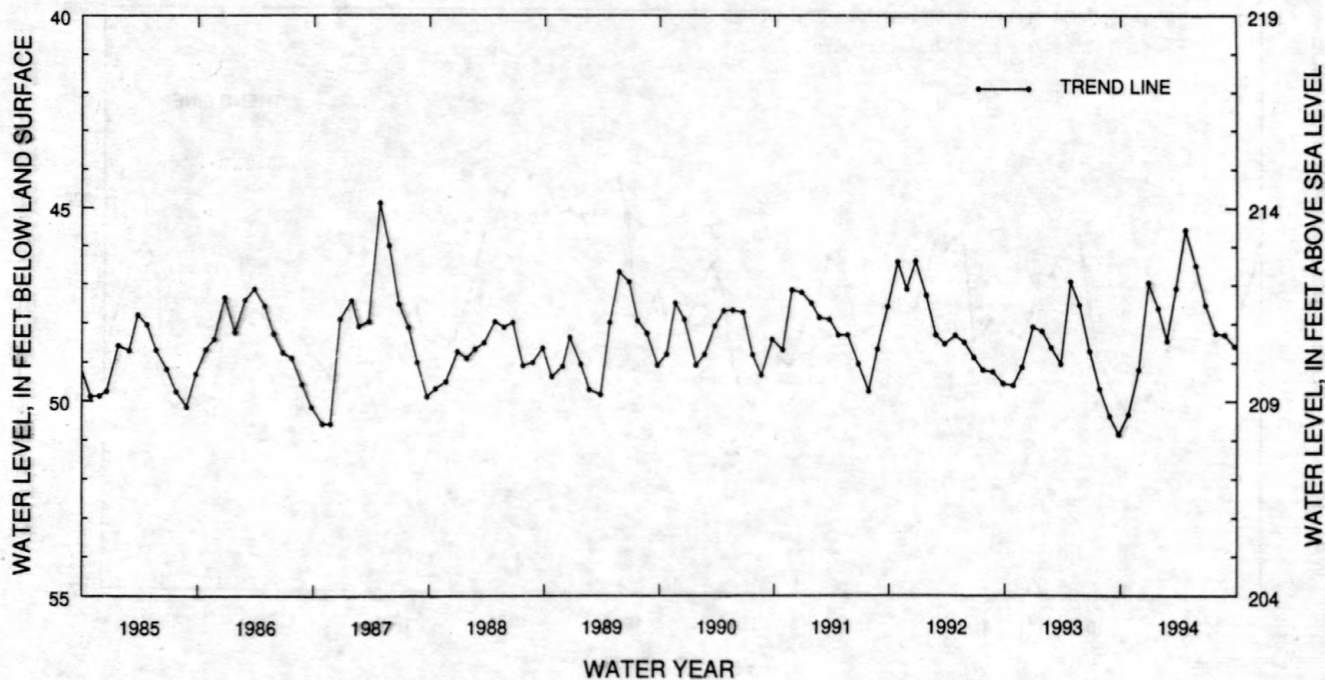
PERIOD OF RECORD.--April 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.69 ft below land-surface datum, Apr. 28, 1967; lowest measured, 51.96 ft below land-surface datum, Feb. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	50.35	JAN 27	47.60	APR 22	45.56	JUL 27	48.24
NOV 26	49.18	FEB 24	48.43	MAY 25	46.50	AUG 24	48.28
DEC 27	46.94	MAR 24	47.08	JUN 24	47.52	SEP 23	48.57

WATER YEAR 1994 HIGHEST 45.56 APR 22, 1994 LOWEST 50.35 OCT. 25, 1993



MERRIMACK COUNTY

432343071570901. Local number, NLW 1.

LOCATION.--Lat 43°23'43", long 71°57'09", Hydrologic Unit 01070003, at north side of Golf Course Road, about 500 ft east of intersection of State Highway 114 and Golf Course Road, and 2.1 mi southeast of New London.

Owner: Peter Danforth.

AQUIFER.--Sandy till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in, depth 21 ft, lined with stone to 21 ft, open end.

DATUM.--Altitude of land-surface datum is 1,020 ft. Measuring point: Edge of 0.75-in hole in wooden cover, 2.9 ft above land-surface datum.

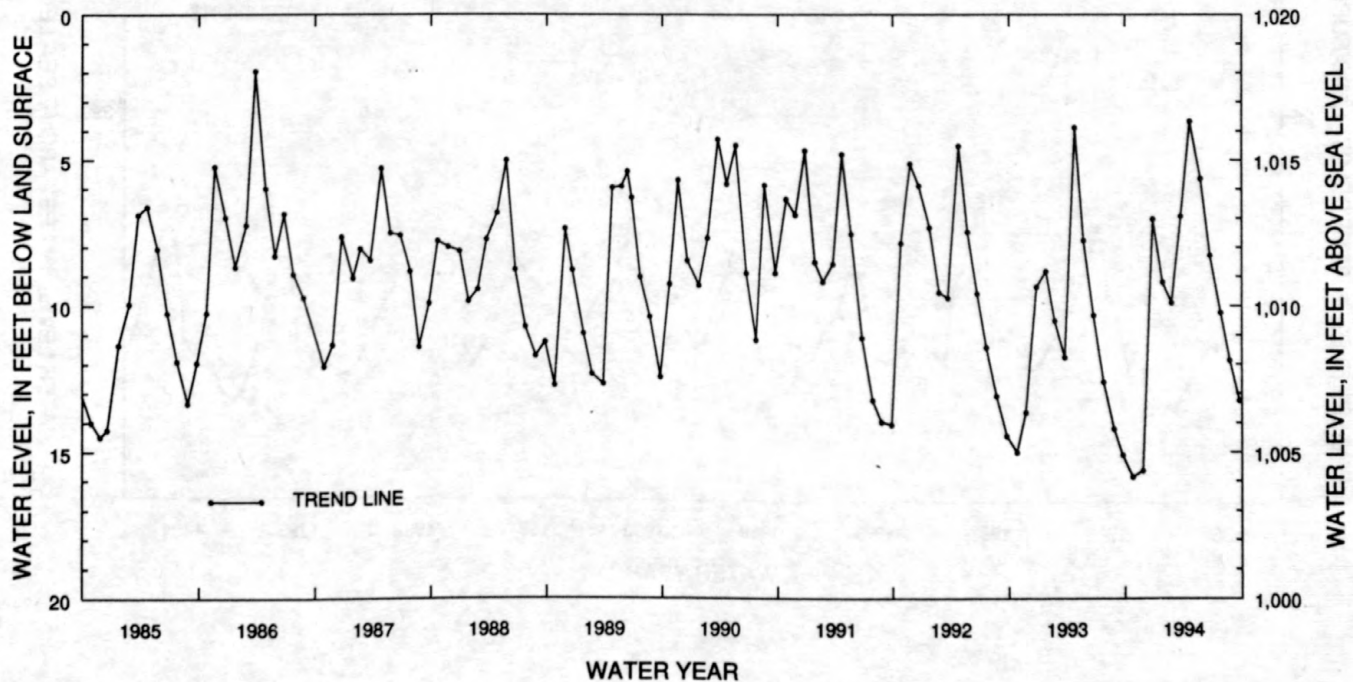
PERIOD OF RECORD.--October 1947 to current year. Prior to January 1956, published in Water Levels and Artesian Pressures in Observation Wells in the United States: Part 1. Northeastern States; U.S. Geological Survey Water-Supply Paper Series. January 1956 to November 1972, published in Ground-Water Levels in the United States, Northeastern States; U.S. Geological Survey Water-Supply Paper Series.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.80 ft below land-surface datum, Apr. 2, 1963; lowest measured, 16.90 ft below land-surface datum, Dec. 28, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
OCT 25	15.87	JAN 27	9.20	APR 22	3.67	JUL 27	10.23
NOV 26	15.65	FEB 24	9.90	MAY 25	5.63	AUG 24	11.87
DEC 27	7.03	MAR 24	6.93	JUN 24	8.28	SEP 23	13.25

WATER YEAR 1994 HIGHEST 3.67 APR 22, 1994 LOWEST 15.87 OCT. 25, 1993



GROUND-WATER LEVELS IN NEW HAMPSHIRE

MERRIMACK COUNTY

431540071452801. Local number, WCW 1.

LOCATION.--Lat 43°15'40", long 71°45'28", Hydrologic Unit 01070003, 44 ft northeast of edge of pavement of northbound lane of Interstate Highway 89, about 2 mi southeast of State Highway 103 overpass in Warner.

Owner: New Hampshire Department of Transportation.

AQUIFER.--Sand and fine gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven, unused water-table well, diameter 2 in, depth 42.8 ft.

DATUM.--Altitude of land-surface datum is 424 ft. Measuring point: Top of casing, 3.2 ft above land-surface datum.

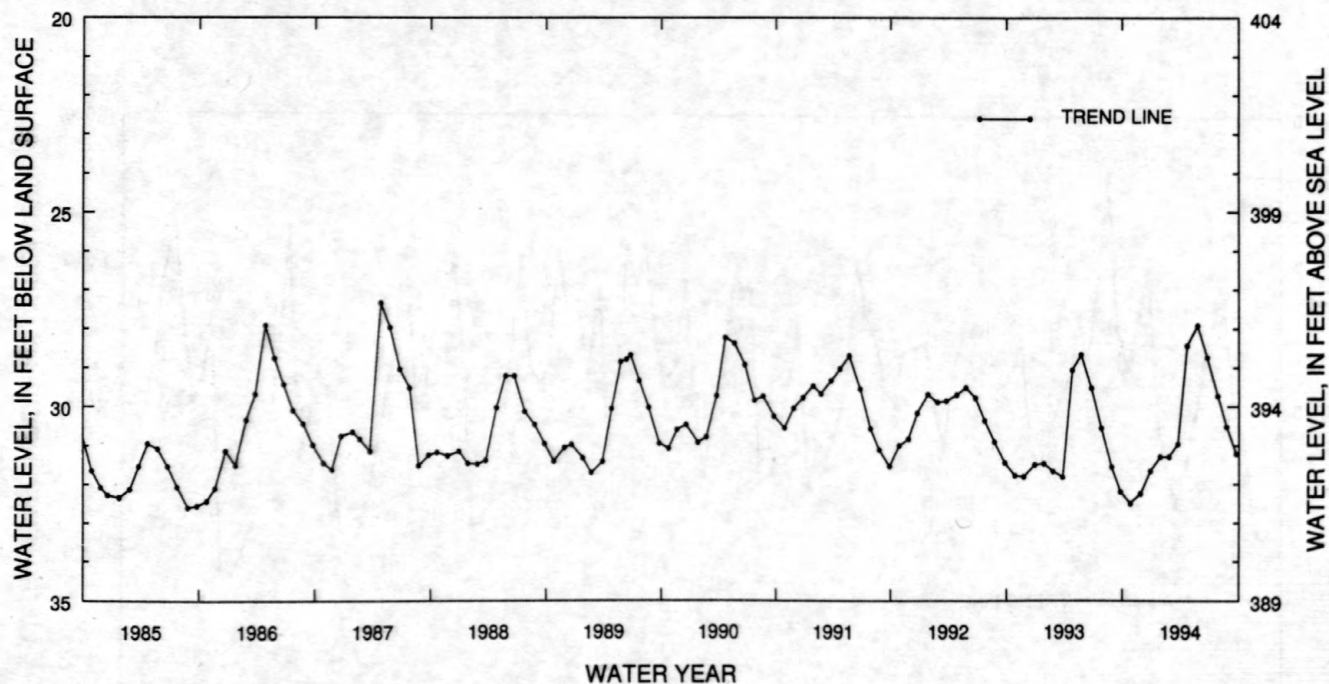
PERIOD OF RECORD.--December 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.94 ft below land-surface datum, May 5, 1969; lowest measured, 33.82 ft below land-surface datum, Dec. 17, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	32.50	JAN 27	31.29	APR 22	28.44	JUL 27	29.72
NOV 26	32.25	FEB 24	31.29	MAY 25	27.91	AUG 24	30.52
DEC 27	31.66	MAR 24	30.96	JUN 24	28.74	SEP 23	31.21

WATER YEAR 1994 HIGHEST 27.91 MAY 25, 1994 LOWEST 32.50 OCT. 25, 1993



STRAFFORD COUNTY

430721071005001. Local number, LIW 1.

LOCATION.--Lat 43°07'21", long 71°00'50", Hydrologic Unit 01060003, southwest side of Bennett Road about 200 ft from the west corner of the Lee Town Green.

Owner: Brenda Nye.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 40 in, depth 32.8 ft, lined with stone to 32.8 ft.

DATUM.--Altitude of land-surface datum is 190 ft. Measuring point: Top edge of board across well opening, 2.00 ft above land-surface datum.

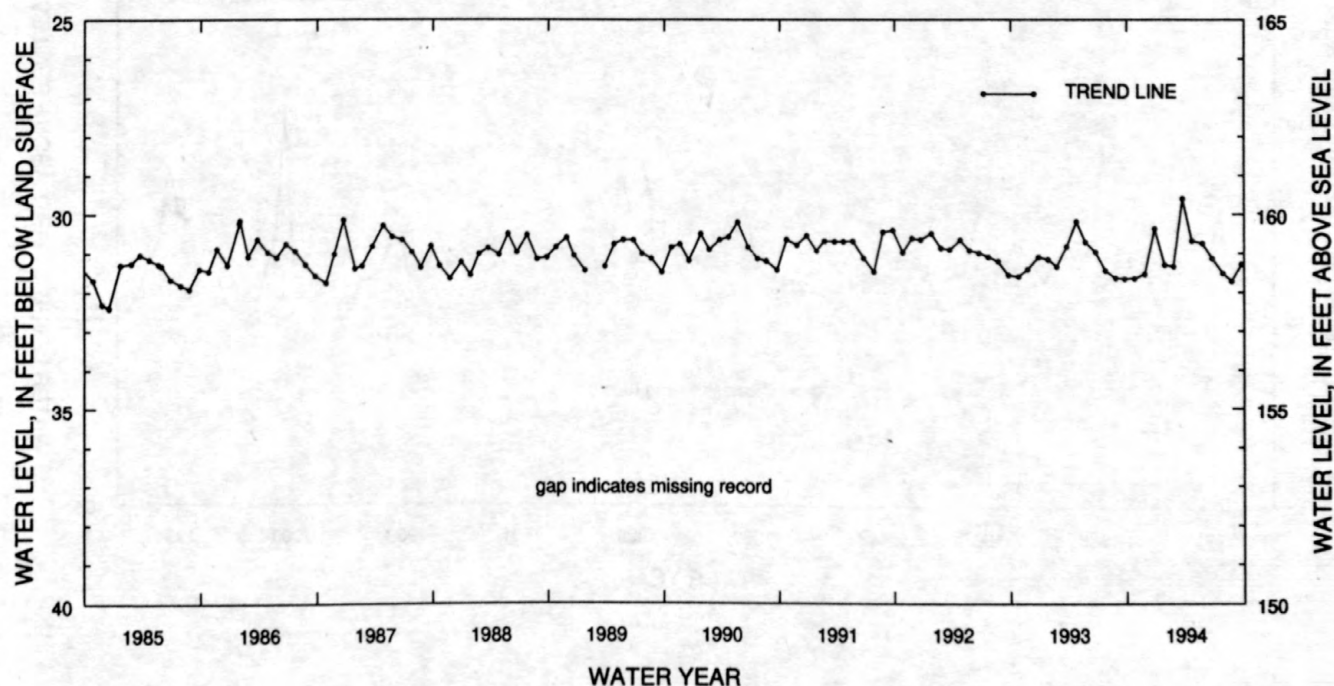
PERIOD OF RECORD.--November 1953 to current year. Prior to January 1958, published in New Hampshire Basic-Data Report No. 1, Ground-Water Series. Prior to January 1956, published in Water Levels and Artesian Pressures in Observation Wells in the United States: Part 1. Northeastern States; U.S. Geological Survey Water-Supply Paper Series. January 1956 to December 1972, published in Ground-Water Levels in the United States, Northeastern States; U.S. Geological Survey Water-Supply Paper Series.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.66 ft below land-surface datum, Mar. 22, 1983; lowest measured, 32.40 ft below land-surface datum, Dec. 18, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	31.66	JAN 27	31.30	APR 22	30.68	JUL 27	31.51
NOV 26	31.54	FEB 24	31.34	MAY 25	30.74	AUG 24	31.72
DEC 27	30.37	MAR 24	29.60	JUN 24	31.13	SEP 23	31.28

WATER YEAR 1994 HIGHEST 29.60 MAR. 24, 1994 LOWEST 31.72 AUG. 24, 1994



BENNINGTON COUNTY

424810073160401. Local number, PQW 1.

LOCATION.--Lat 42°48'10", long 73°16'04", Hydrologic Unit 02020003, in front of residence on west side of State Highway 346 and .015 mi south of post office at North Pownal.

Owner: James Burden

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in, depth 18 ft, cased with stone to 18 ft, open end.

DATUM.--Altitude of land-surface datum is 515 ft. Measuring point: Top of 0.75-in diameter hole drilled in center of 0.38-in thick steel cover at land-surface datum.

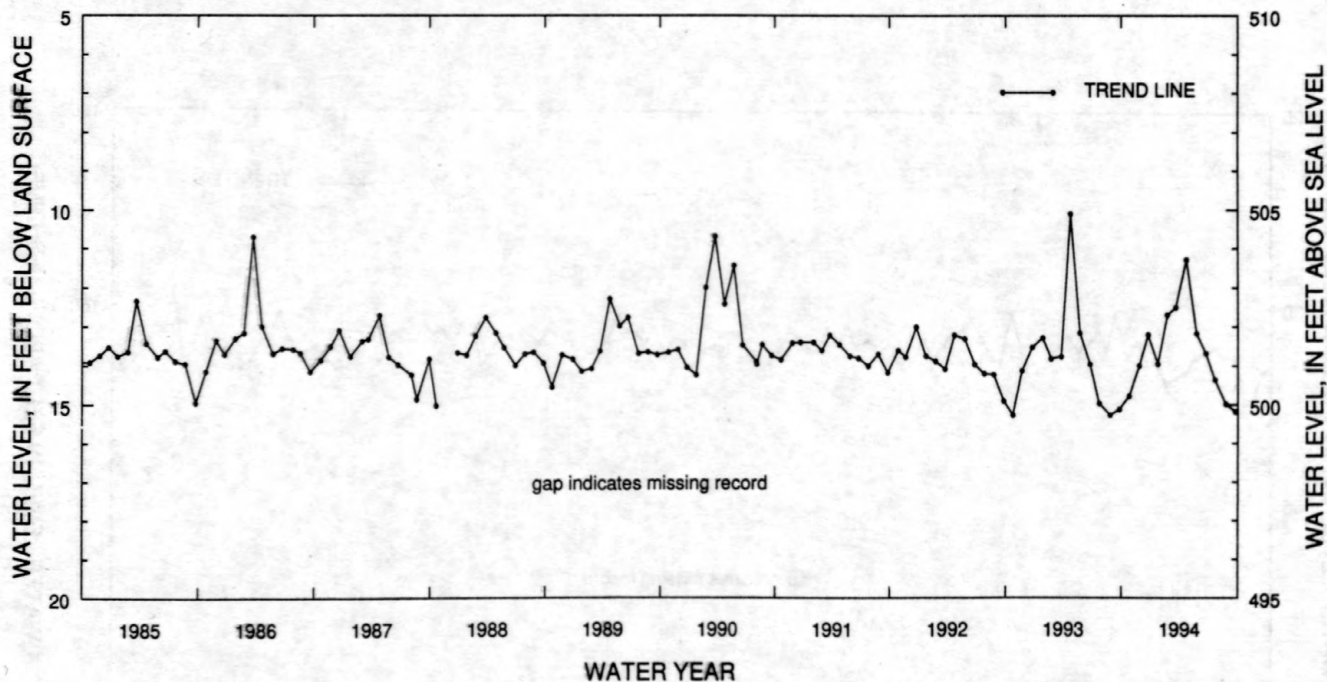
PERIOD OF RECORD.--October 1964 to current year. Prior to October 1977, published as Pownal 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.98 ft below land-surface datum, June 1, 1984; lowest measured, 16.59 ft below land-surface datum, Oct. 19, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	14.78	JAN 23	13.95	APR 23	11.27	JUL 22	14.36
NOV 26	13.99	FEB 22	12.70	MAY 25	13.17	AUG 25	14.98
DEC 24	13.20	MAR 21	12.50	JUN 23	13.68	SEP 23	15.17

WATER YEAR 1994 HIGHEST 11.27 APR. 23, 1994 LOWEST 15.17 SEPT. 23, 1994



CHITTENDEN COUNTY

443646073124901. Local number, MJW 3.

LOCATION.--Lat 44°36'46", long 73°12'49", Hydrologic Unit 02010005, about 600 ft south of manager's residence at Vermont Sandbar Waterfowl Development Area, about 400 ft west of former U.S. Highway 2, and 0.9 mi northwest of Lamoille River bridge at Milton.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in, depth 40 ft, screened 38 to 40 ft.

DATUM.--Altitude of land-surface datum is 160 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.

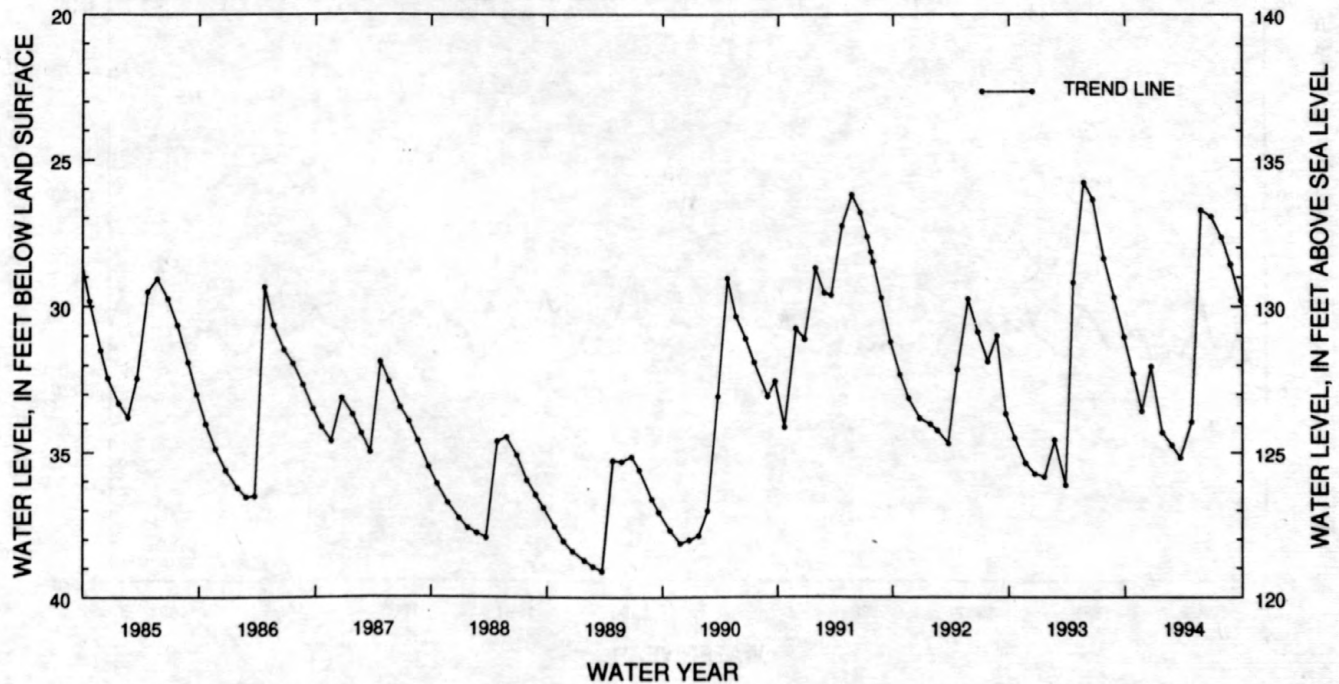
PERIOD OF RECORD.--November 1956 to current year. Prior to October 1977, published as Milton 3.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.97 ft below land-surface datum, May 29, 1974; lowest measured, 39.10 ft below land-surface datum, Mar. 23, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	32.28	JAN 25	34.31	APR 26	33.94	JUL 29	27.65
NOV 22	33.58	FEB 24	34.74	MAY 26	26.72	AUG 26	28.57
DEC 21	32.03	MAR 22	35.18	JUN 27	26.94	SEP 27	29.79

WATER YEAR 1994 HIGHEST 26.72 MAY 26, 1994 LOWEST 35.18 MAR. 22, 1994



GROUND-WATER LEVELS IN VERMONT

ESSEX COUNTY

444731071514701. Local number, BIW 1.

LOCATION.--Lat 44°47'31", long 71°51'47", Hydrologic Unit 01110000, south of road and just west of parking lot for Brighton State Park Beach at Brighton.

Owner: U.S. Geological Survey.

AQUIFER.--Medium and coarse sand of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 35 ft, screened 33 to 35 ft.

DATUM.--Altitude of land-surface datum is 1,180 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.

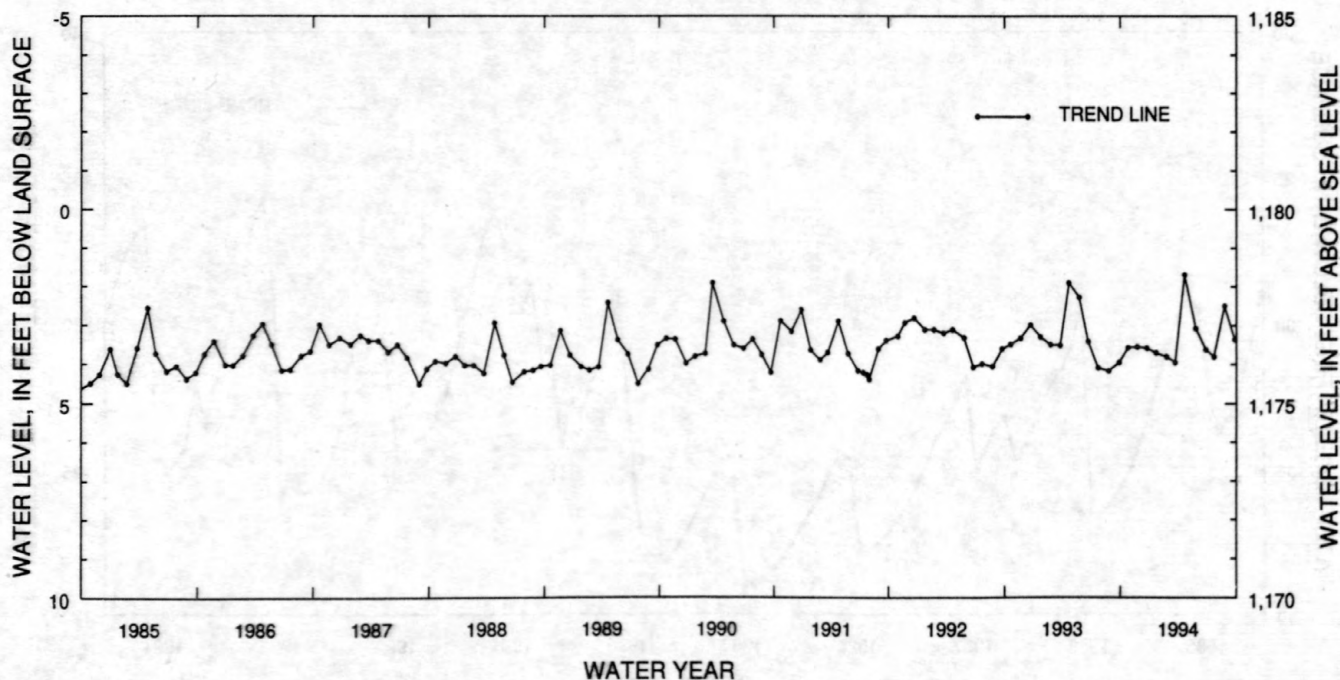
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as Brighton 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.68 ft below land-surface datum, Apr. 21, 1994; lowest measured, 4.95 ft below land-surface datum, Aug. 21, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	3.57	JAN 21	3.70	APR 21	1.68	JUL 22	3.80
NOV 23	3.55	FEB 23	3.80	MAY 26	3.07	AUG 25	2.49
DEC 23	3.58	MAR 22	3.95	JUN 27	3.62	SEP 26	3.36

WATER YEAR 1994 HIGHEST 1.68 APR. 21, 1994 LOWEST 3.95 MAR. 25, 1994



FRANKLIN COUNTY

445603072422901. Local number, BKW 1.

LOCATION.--Lat 44°56'03", long 72°42'29", Hydrologic Unit 02010007, at southeast end of State Highway 118 bridge on Missisquoi River at East Berkshire.

Owner: U.S. Geological Survey.

AQUIFER.--Fine sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in., depth 51 ft, screened 49 to 51 ft.

DATUM.--Altitude of land-surface datum is 425 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.

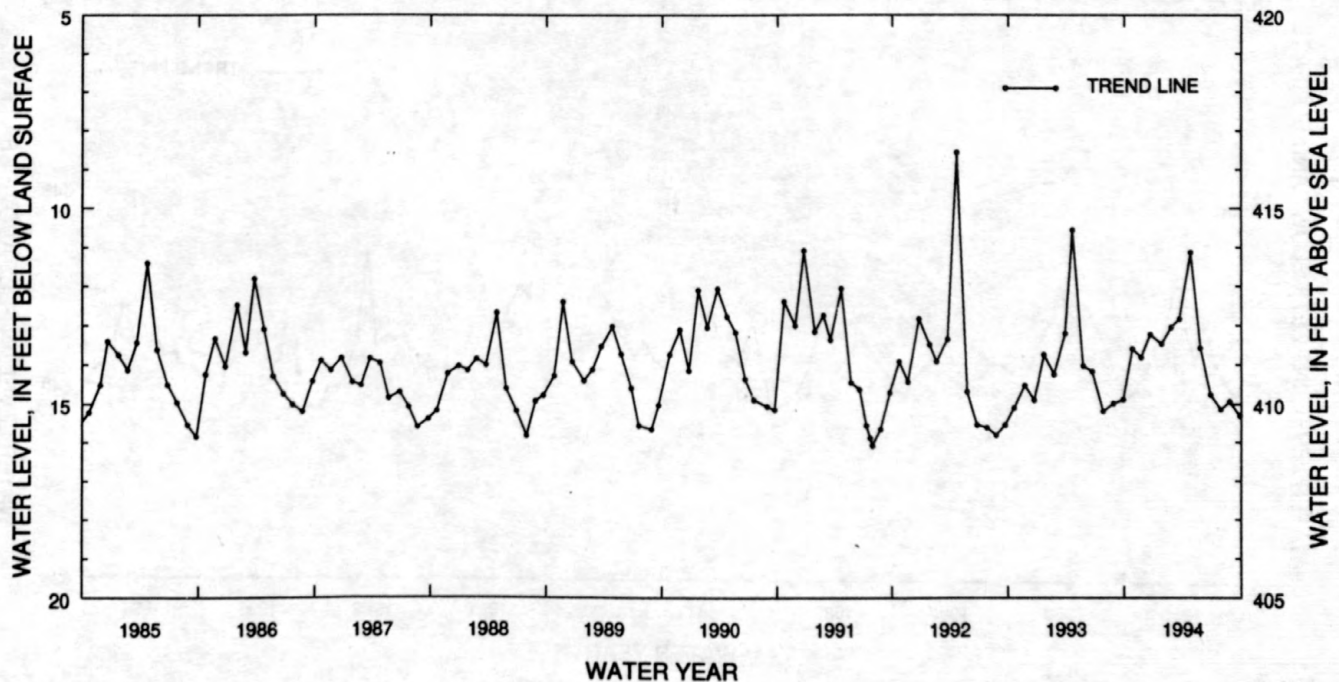
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as Berkshire 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.55 ft below land-surface datum, Apr. 23, 1992; lowest measured, 16.43 ft below land-surface datum, Aug. 26, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	13.59	JAN 25	13.46	APR 26	11.12	JUL 29	15.13
NOV 22	13.80	FEB 24	13.04	MAY 26	13.57	AUG 26	14.93
DEC 21	13.22	MAR 22	12.83	JUN 27	14.76	SEP 27	15.30

WATER YEAR 1994 HIGHEST 11.12 APR. 26, 1994 LOWEST 15.30 SEPT. 27, 1994



GROUND-WATER LEVELS IN VERMONT

LAMOILLE COUNTY

443405072323501. Local number, MPW 1.

LOCATION.--Lat 44°34'05", long 72°32'35", Hydrologic Unit 02010005, Vermont Highway Department right-of-way off State Highway 15 and 3 mi east of Morrisville.

Owner: U.S. Geological Survey.

AQUIFER.--Silty, fine to medium sand of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 50 ft, screened 48 to 50 ft.

DATUM.--Altitude of land-surface datum is 660 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.

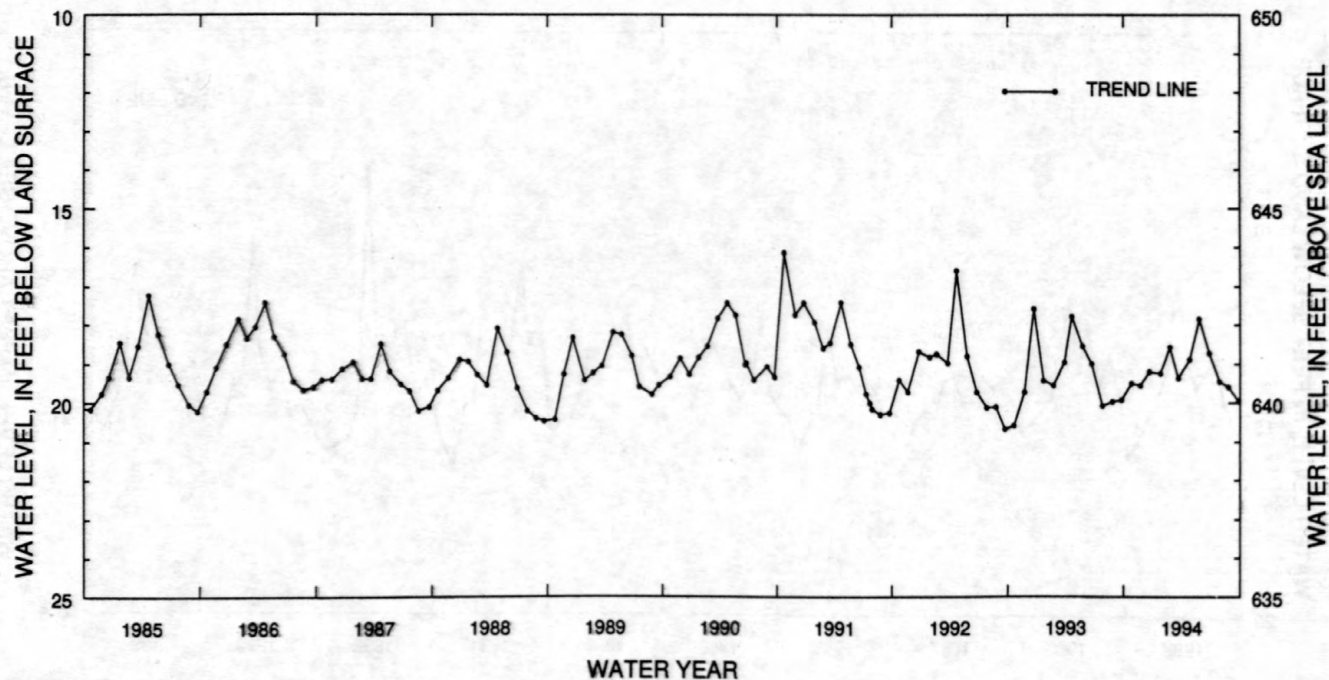
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as Morristown 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.87 ft below land-surface datum, Jan. 27, 1978; lowest measured, 20.67 ft below land-surface datum, Sept. 22, 1992.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	19.50	JAN 25	19.24	APR 26	18.88	JUL 29	19.45
NOV 22	19.56	FEB 24	18.57	MAY 26	17.84	AUG 26	19.59
DEC 21	19.20	MAR 22	19.36	JUN 27	18.72	SEP 27	19.95

WATER YEAR 1994 HIGHEST 17.84 MAY 26, 1994 LOWEST 19.95 SEPT. 27, 1994



ORANGE COUNTY

435343072151801. Local number, WOW 1.

LOCATION.--Lat 43°53'43", long 72°15'18", Hydrologic Unit 01080103, 60 ft west of salt shed and 1.3 mi south southeast of West Fairlee Village.

Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 54 ft, screened 52 to 54 ft.

DATUM.--Altitude of land-surface datum is 700 ft. Measuring point: Top of casing, 2.00 ft above land-surface datum.

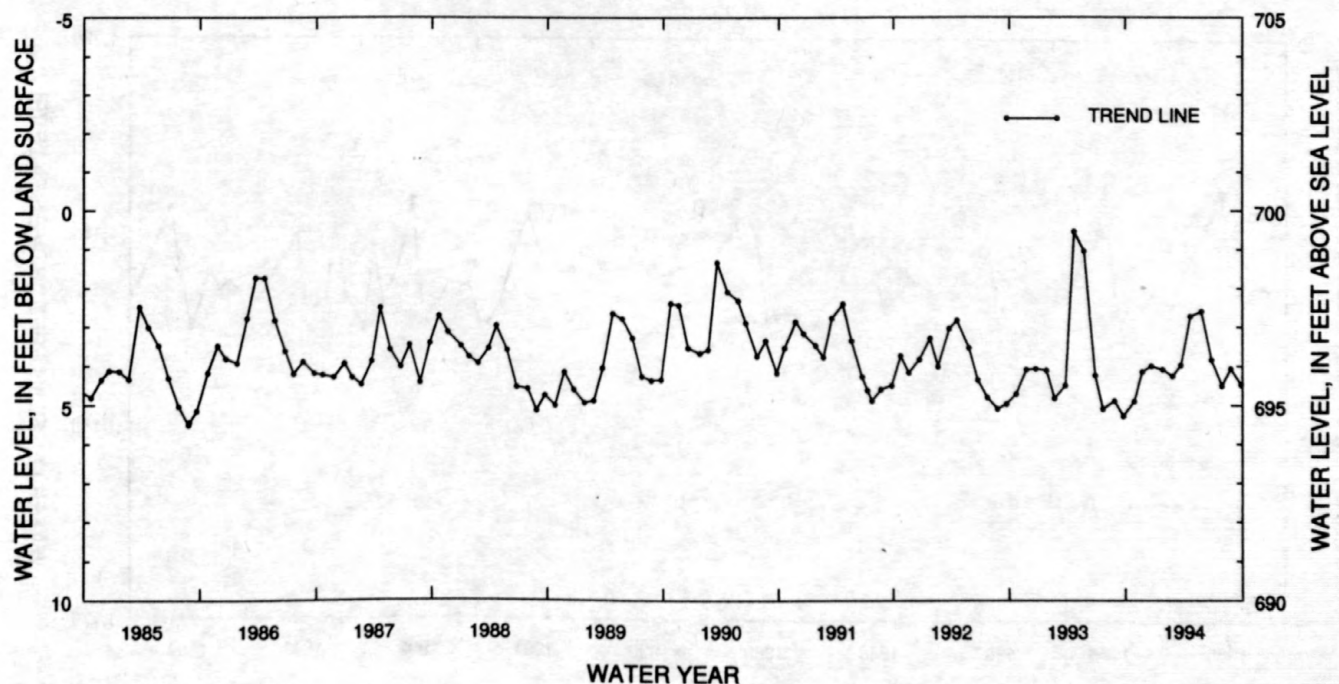
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as West Fairlee 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.53 ft below land-surface datum, Apr. 23, 1993; lowest measured, 5.51 ft below land-surface datum, Aug. 26, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	4.89	JAN 25	4.08	APR 22	2.72	JUL 29	4.50
NOV 22	4.14	FEB 25	4.25	MAY 27	2.59	AUG 26	4.06
DEC 21	3.99	MAR 23	3.97	JUN 27	3.84	SEP 27	4.47

WATER YEAR 1994 HIGHEST 2.59 MAY 27, 1994 LOWEST 4.89 OCT. 28, 1993



ORLEANS COUNTY

443952072114001. Local number, GLW 1.

LOCATION.--Lat 44°39'52", long 72°11'40", Hydrologic Unit 01110000, at Vermont Highway Department salt shed west of State Highway 16 and 3 mi south of Glover Village.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 82 ft, screened 80 to 82 ft.

DATUM.--Altitude of land-surface datum is 1,200 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.

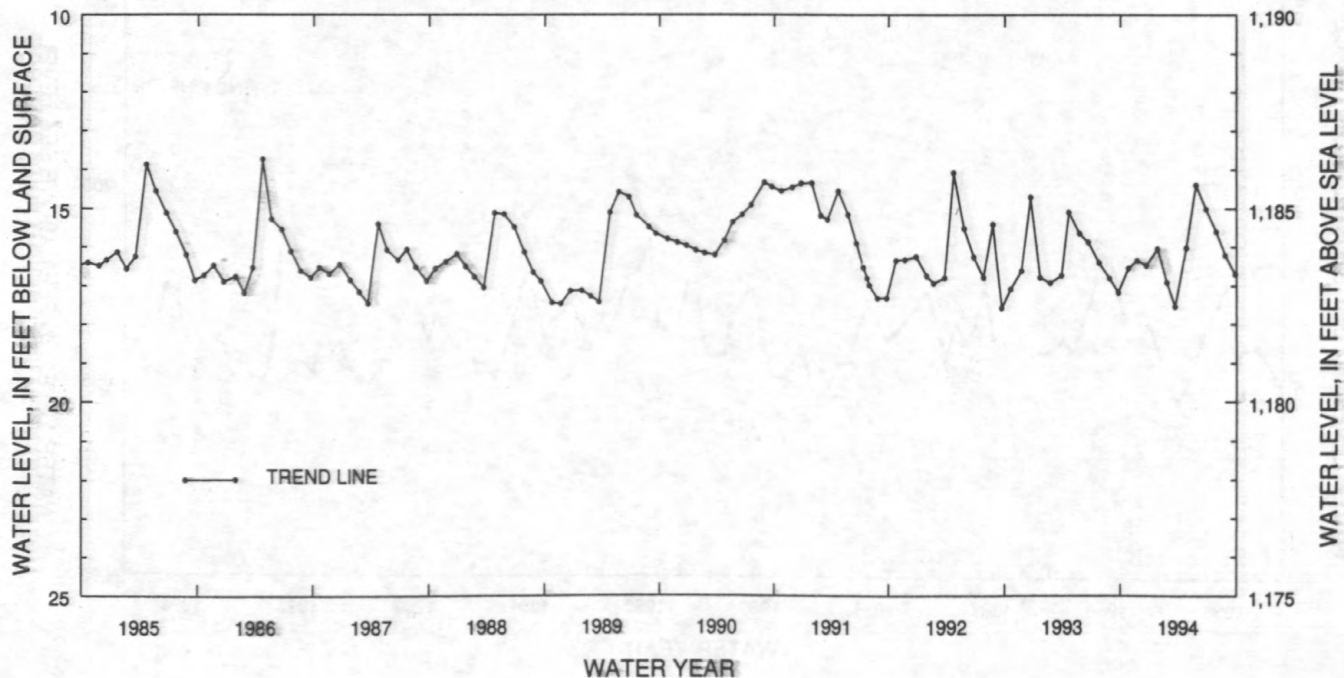
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as Glover 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.11 ft below land-surface datum, May 23, 1969; lowest measured, 18.95 ft below land-surface datum, Mar. 28, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	16.54	JAN 25	16.04	APR 26	16.02	JUL 29	15.59
NOV 22	16.34	FEB 24	16.91	MAY 26	14.39	AUG 26	16.20
DEC 21	16.47	MAR 22	17.54	JUN 27	15.01	SEP 27	16.70

WATER YEAR 1994 HIGHEST 14.39 MAY 26, 1994 LOWEST 17.54 MAR. 22, 1994



GROUND-WATER LEVELS IN VERMONT

177

RUTLAND COUNTY

434217073010601. Local number, PFW 8.

LOCATION.--Lat 43°42'17", long 73°01'06", Hydrologic Unit 02010002, 12 ft west of storage building at St. Alphonsus Cemetery at Pittsford.

Owner: U.S. Geological Survey.

AQUIFER.--Medium to fine sand of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 42 ft, screened 40 to 42 ft.

DATUM.--Altitude of land-surface datum is 490 ft. Measuring point: Top of casing, 2.00 ft above land-surface datum.

REMARKS.--Well pulled Nov. 8, 1968, point replaced, depth changed from 43 ft to 42 ft, old 3-ft point was completely encrusted.

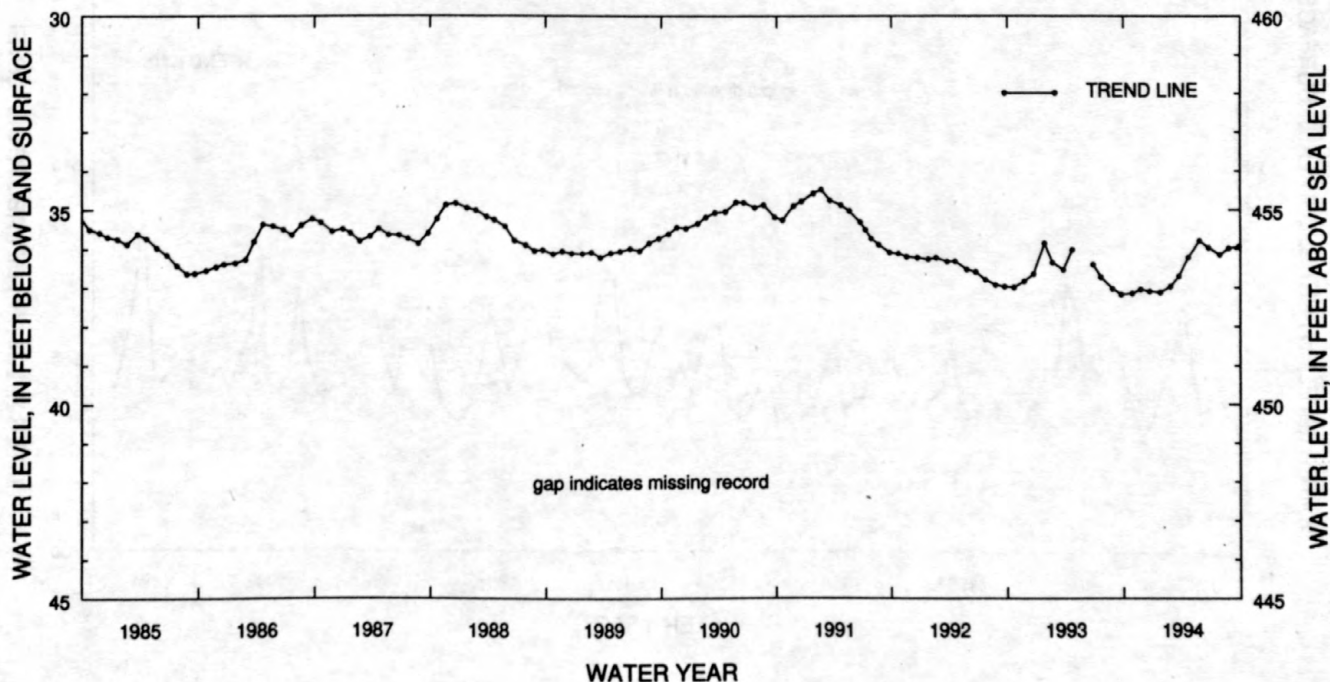
PERIOD OF RECORD.--October 1957 to current year. Prior to October 1977, published as Pittsford 8.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.17 ft below land-surface datum, May 26, 1976; lowest measured, 39.59 ft below land-surface datum, Oct. 18, 1957.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	37.14	JAN 24	37.12	APR 22	36.22	JUL 29	36.15
NOV 24	37.04	FEB 25	36.97	MAY 27	35.79	AUG 26	35.98
DEC 22	37.09	MAR 23	36.70	JUN 24	35.97	SEP 27	35.94

WATER YEAR 1994 HIGHEST 35.79 MAY 27, 1994 LOWEST 37.14 OCT. 28, 1993



GROUND-WATER LEVELS IN VERMONT

WASHINGTON COUNTY

441552072341901. Local number, MMW 2.

LOCATION.--Lat 44°15'52", long 72°34'19", Hydrologic Unit 02010003, at southeast corner of garage at Nine Winter Street in Montpelier.

Owner: U.S. Geological Survey.

AQUIFER.--Medium to coarse sand of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 26 ft, screened 24 to 26 ft.

DATUM.--Altitude of land-surface datum is 520 ft. Measuring point: Top of casing, 1.30 ft above land-surface datum.

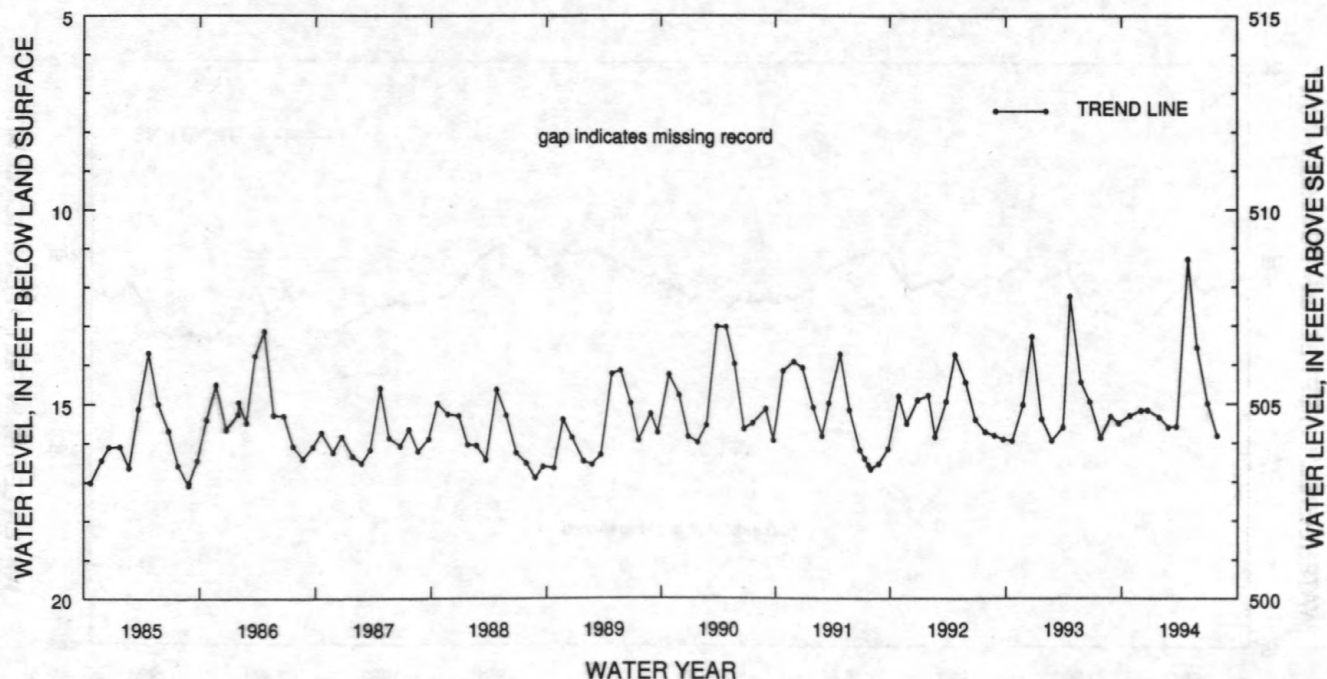
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as Montpelier 2.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.09 ft below land-surface datum, Apr. 24, 1969; lowest measured, 17.10 ft below land-surface datum, Aug. 27, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	15.30	JAN 26	15.34	APR 28	11.28	JUL 26	15.81
NOV 30	15.17	FEB 24	15.60	MAY 26	13.56	AUG 25	15.75
DEC 21	15.16	MAR 22	15.58	JUN 27	14.99	SEPT 26	15.95

WATER YEAR 1994 HIGHEST 11.28 APR. 28, 1994 LOWEST 15.95 SEPT. 26, 1994



GROUND-WATER LEVELS IN VERMONT

179

WASHINGTON COUNTY

441215072483101. Local number, WAW 2.

LOCATION.--Lat 44°12'15", long 72°48'31", Hydrologic Unit 02010003, at rest area on east side of State Highway 100 and 1.3 mi northeast of Waitsfield Village.

Owner: U.S. Geological Survey.

AQUIFER.--Silty gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drive and wash observation water-level well, diameter 1.25 in, depth 45.5 ft, screened 43.5 to 45.5 ft.

DATUM.--Altitude of land-surface datum is 685 ft. Measuring point: Top of casing, 2.00 ft above land-surface datum.

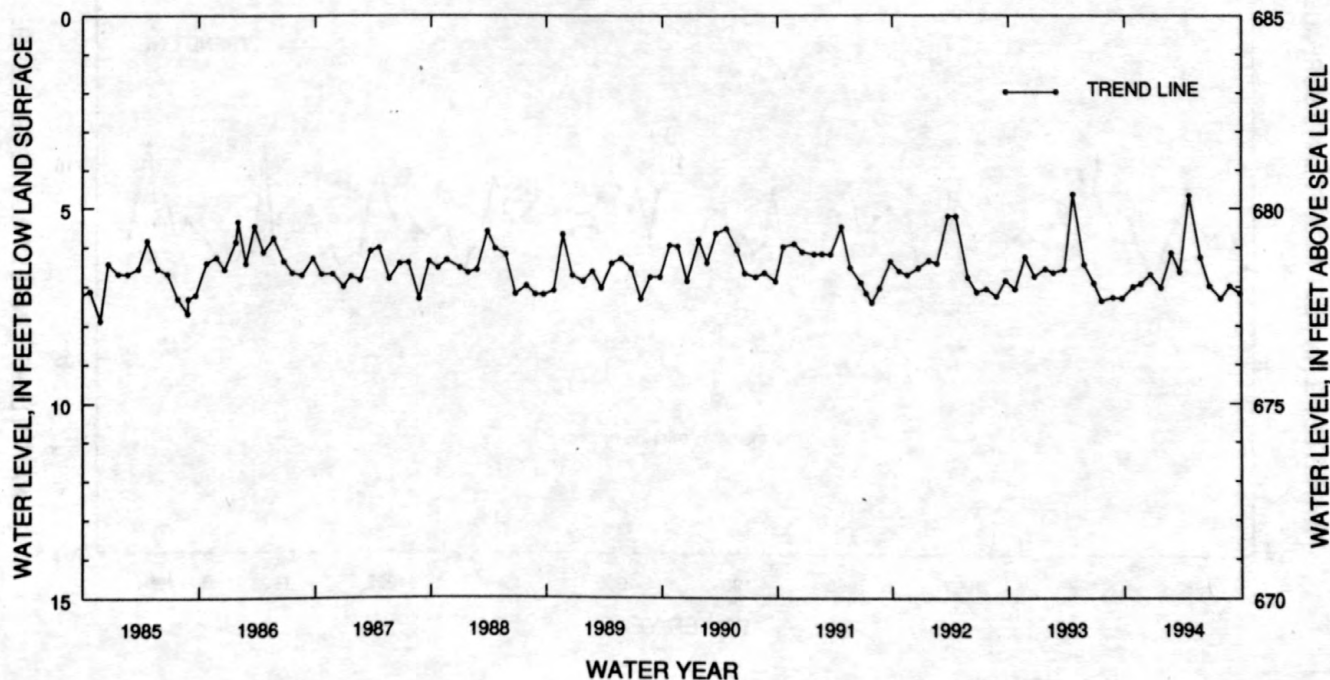
PERIOD OF RECORD.--June 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.25 ft below land-surface datum, Dec. 14, 1983; lowest measured, 7.87 ft below land-surface datum, Nov. 26, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	7.01	JAN 24	7.03	APR 22	4.67	JUL 29	7.30
NOV 22	6.93	FEB 25	6.14	MAY 27	6.25	AUG 26	6.98
DEC 22	6.69	MAR 23	6.63	JUN 24	6.98	SEP 27	7.17

WATER YEAR 1994 HIGHEST 4.67 APR. 22, 1994 LOWEST 7.30 JULY 29, 1994



GROUND-WATER LEVELS IN VERMONT

WASHINGTON COUNTY

441033072500201. Local number, WAW 3.

LOCATION.--Lat 44°10'33", long 72°50'02", Hydrologic Unit 02010003, town of Waitsfield, northwest of Vermont Highway Department salt shed on State Highway 100 and 0.5 mi southeast of Irasville Village.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drive and wash observation water-level well, diameter 1.25 in, depth 53 ft, screened 51 to 53 ft.

DATUM.--Altitude of land-surface datum is 715 ft. Measuring point: Top of casing, 3.25 ft above land-surface datum.

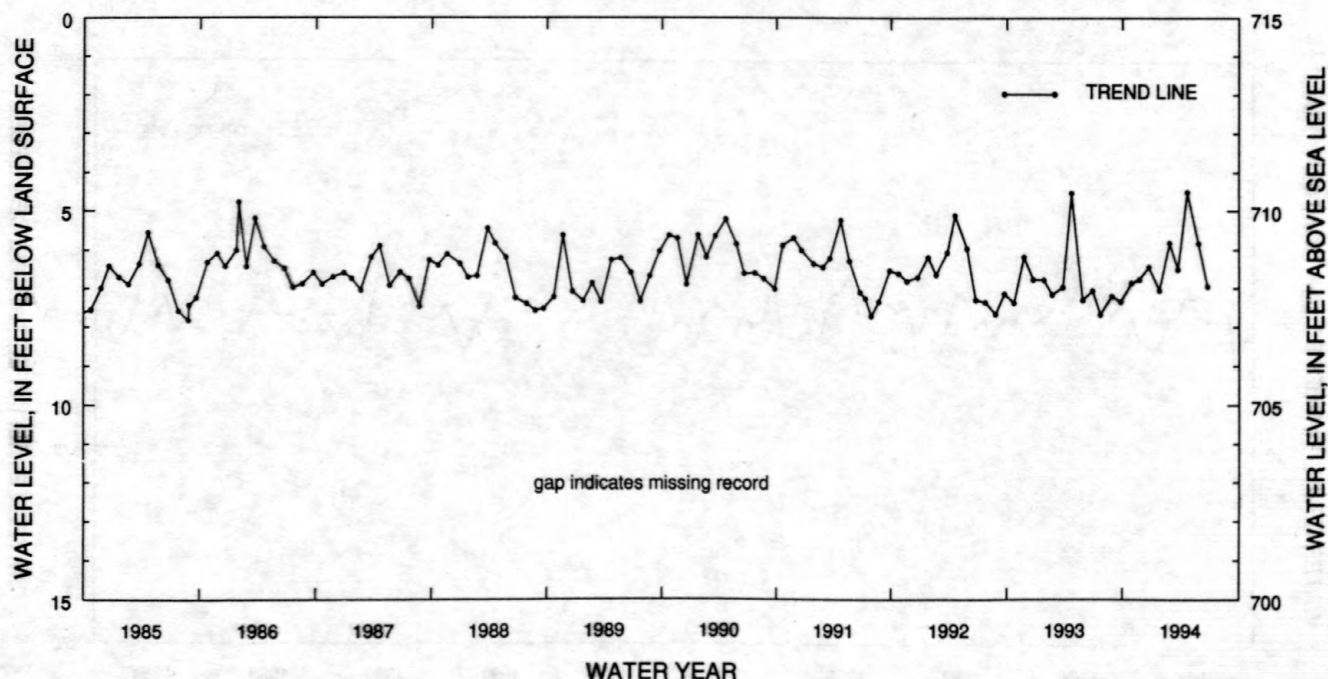
PERIOD OF RECORD.--June 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.34 ft below land-surface datum, Feb. 24, 1976; lowest measured, 8.00 ft below land-surface datum, Sept. 25, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	6.86	JAN 24	7.05	APR 22	4.51
NOV 22	6.77	FEB 25	5.82	MAY 27	5.83
DEC 22	6.45	MAR 23	6.51	JUN 24	6.95

WATER YEAR 1994 HIGHEST 4.51 APR. 22, 1994 LOWEST 7.05 JAN. 24, 1994



GROUND-WATER LEVELS IN VERMONT

181

WINDSOR COUNTY

431551072350601. Local number, CKW 1.

LOCATION.--Lat 43°15'51", long 72°35'06", Hydrologic Unit 01080107, at Vermont Highway Department salt shed on Elm Street in Chester.

Owner: U.S. Geological Survey.

AQUIFER.--Boulders, coarse gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 22 ft, screened 20 to 22 ft.

DATUM.--Altitude of land-surface datum is 580 ft. Measuring point: Top of casing, 2.00 ft above land-surface datum.

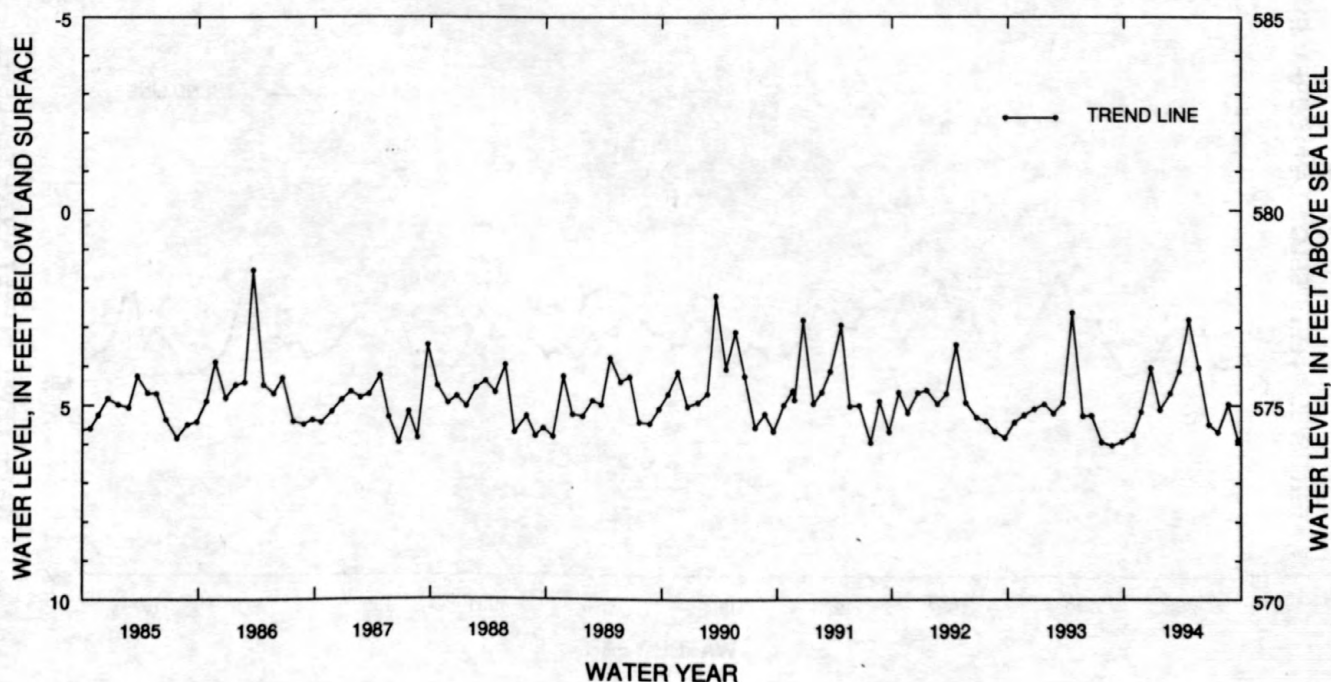
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as Chester 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.56 ft below land-surface datum, Mar. 20, 1986; lowest measured, 6.31 ft below land-surface datum, Sept. 28, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	5.75	JAN 21	5.11	APR 21	2.80	JUL 21	5.69
NOV 23	5.16	FEB 22	4.68	MAY 22	4.03	AUG 23	4.96
DEC 23	4.03	MAR 22	4.12	JUN 23	5.49	SEP 21	5.91

WATER YEAR 1994 HIGHEST 2.80 APR. 21, 1994 LOWEST 5.91 SEPT. 24, 1994



GROUND-WATER LEVELS IN VERMONT

WINDSOR COUNTY

433240072242901. Local number, HLW 54.

LOCATION.--Lat 43°32'40", long 72°24'29", Hydrologic Unit 01080104, at northeast corner of fire station in Hartland.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-level well, diameter 1.25 in, depth 51 ft, screened 49 to 51 ft.

DATUM.--Altitude of land-surface datum is 575 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.

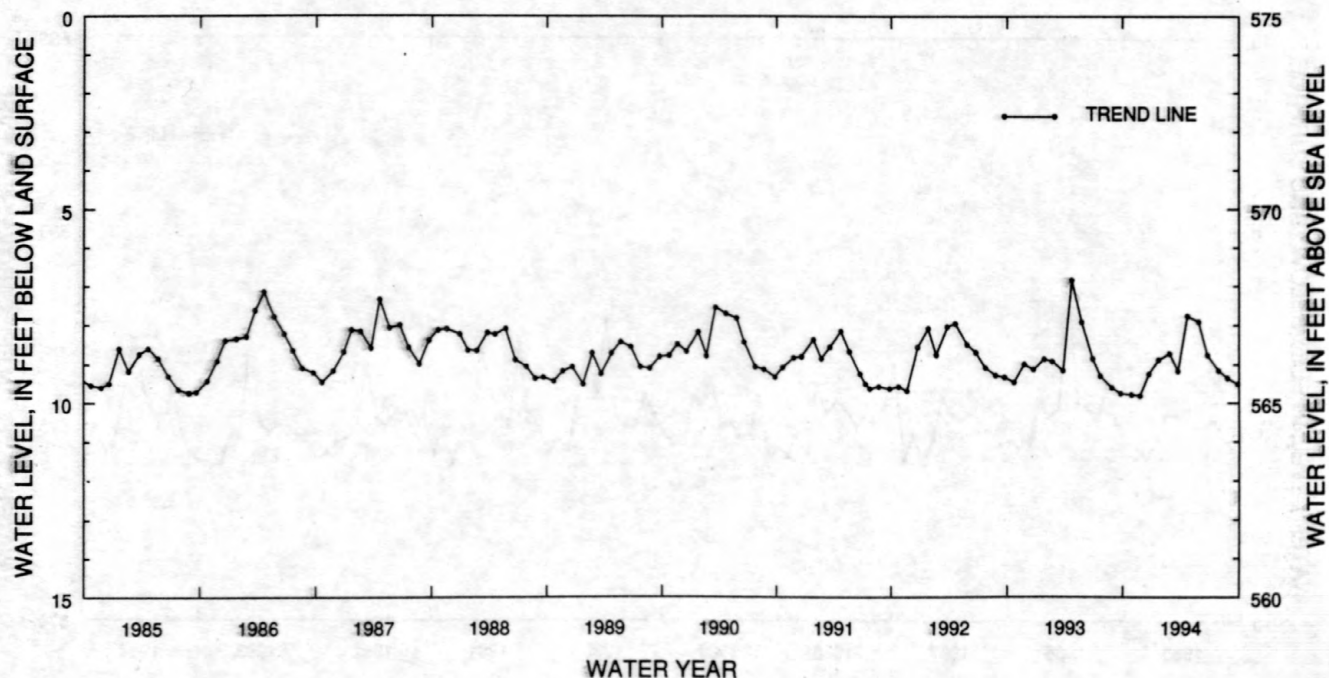
PERIOD OF RECORD.--August 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.96 ft below land-surface datum, June 1, 1984; lowest measured, 9.94 ft below land-surface datum, Oct. 22, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	9.79	JAN 21	8.88	APR 22	7.76	JUL 29	9.16
NOV 24	9.82	FEB 25	8.72	MAY 27	7.91	AUG 26	9.35
DEC 22	9.25	MAR 23	9.17	JUN 24	8.76	SEP 27	9.50

WATER YEAR 1994 HIGHEST 7.76 APR. 22, 1994 LOWEST 9.82 NOV. 24, 1993



GROUND-WATER LEVELS IN VERMONT

183

WINDSOR COUNTY

435129072483301. Local number, RJW 1.

LOCATION.--Lat 43°51'29", long 72°48'33", Hydrologic Unit 01080105, adjacent to salt shed at Vermont Highway Department garage 1.3 mi south of Rochester Village.

Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 73 ft, screened 71 to 73 ft.

DATUM.--Altitude of land-surface datum is 800 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.

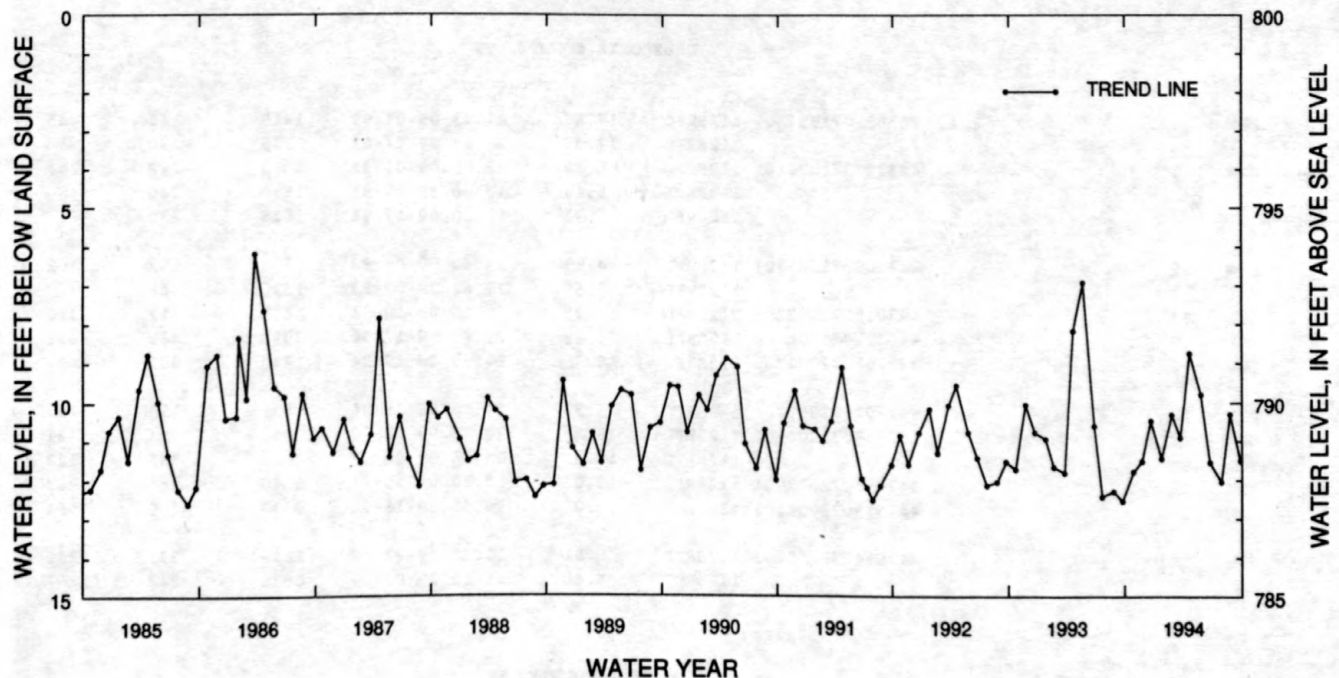
PERIOD OF RECORD.--November 1966 to current year. Prior to 1977, published as Rochester 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.50 ft below land-surface datum, Mar. 26, 1968; lowest measured, 13.05 ft below land-surface datum, Aug. 25, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	11.78	JAN 24	11.45	APR 22	8.74	JUL 29	12.04
NOV 24	11.52	FEB 25	10.31	MAY 27	9.79	AUG 26	10.30
DEC 22	10.47	MAR 23	10.91	JUN 24	11.54	SEP 27	11.50

WATER YEAR 1994 HIGHEST 8.74 APR. 22, 1994 LOWEST 12.04 JUL. 29, 1994



QUALITY OF GROUND WATER

 WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994
 NATIONAL WATER QUALITY ASSESSMENT PROGRAM

REMARKS.--An "E" before the data value for some organic compounds indicates this value is estimated, however, the compound was observed at the correct retention time and the qualifying information from the chromatographic spectra conclusively identifies the analyte.

LOCAL IDENT- I- FIER		STATION NUMBER	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (90095)	PH WATER WHOLE FIELD (STAND- ARD) UNITS) (00400)
COOS COUNTY, NH										
CFW	18	441558071301401	112SRFD	23.83	45.00	08-18-94	1055	41	36	5.41
SNW	1	443704071234801	112SRFD	21.3	40.00	08-19-94	1000	236	231	6.10
GRAFTON COUNTY, NH										
SUW	2	441451071461501	112SRFD	7.05	50.50	08-18-94	1415	153	148	6.14
SULLIVAN COUNTY, NH										
CRW	41	432413072235001	112SRFD	29.3	34.20	08-09-94	0945	420	421	6.50
CALEDONIA COUNTY, VT										
EAW	1	443855071532301	112SRFD	17.87	21.43	09-01-92	1315	40	45	6.10
			112SRFD	17.8	21.43	09-07-93	1705	38	--	6.09
LYW	1	443327071574101	112SRFD	8.40	12.00	09-01-92	1500	242	243	7.23
			112SRFD	8.49	12.00	09-07-93	1530	240	--	7.13
			112SRFD	6.91	12.00	08-17-94	1515	230	--	7.34
LYW	2	443503071585701	112SRFD	4.57	12.62	09-01-92	1620	102	102	6.06
			112SRFD	3.65	12.62	09-07-93	1330	68	--	6.47
LYW	14	443015071592201	112SRFD	7.95	27.20	08-16-94	1615	412	414	7.62
LYW	15	443017071590301	112SRFD	4.43	22.40	08-17-94	0930	465	461	7.26
LYW	16	443209072002901	112SRFD	8.35	17.80	08-17-94	1240	502	497	6.47
RYW	12	441202072095701	112SRFD	6.55	17.80	08-15-94	1515	198	189	6.73
SDW	2	442948072000601	112SRFD	13.25	23.38	09-02-92	0855	323	321	7.74
			112SRFD	13.0	23.38	09-08-93	1045	325	322	7.64
SDW	12	442439072012001	112SRFD	10.0	22.50	08-16-94	1150	964	947	7.18
SDW	13	442519072004301	112SRFD	12.0	16.60	08-16-94	0900	658	654	6.31
SJW	1	443534072055201	112SRFD	5.81	11.60	09-02-92	1045	231	231	7.1
			112SRFD	5.48	11.60	09-08-93	0835	242	--	6.60
ORANGE COUNTY, VT										
RAW	15	435523072393101	112SRFD	45.9	53.55	08-11-94	1110	420	433	7.53
RAW	16	435731072391501	112SRFD	12.4	25.30	08-11-94	1450	235	238	6.09
TFW	13	434819072110901	112SRFD	5.94	18.80	08-10-94	0930	133	136	6.37
TFW	14	434844072153101	112SRFD	9.81	14.40	08-10-94	1320	170	165	7.4
TFW	15	435332072151101	112SRFD	8.32	27.80	08-10-94	1615	390	372	7.65

QUALITY OF GROUND WATER

185

WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994 NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER		DATE	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SOLVED SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SOLVED SATUR- ATION) (00301)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
COOS COUNTY, NH											
CFW	18	08-18-94	0	7	6	7.5	722	9.40	83	0.8	0.190
SNW	1	08-19-94	0	11	9	8.0	737	5.90	52	0.8	<0.010
GRAFTON COUNTY, NH											
SUW	2	08-18-94	0	53	43	8.0	747	1.50	13	0.5	0.080
SULLIVAN COUNTY, NH											
CRW	41	08-09-94	0	44	36	8.0	755	12.3	105	0.6	<0.010
CALEDONIA COUNTY, VT											
EAW	1	09-01-92	0	17	14	8.5	738	8.40	74	--	0.010
		09-07-93	0	10	8	5.5	745	10.2	83	0.6	--
LYW	1	09-01-92	0	153	125	13.5	744	8.10	79	--	0.010
		09-07-93	0	125	102	15.0	745	7.50	76	0.9	--
		08-17-94	0	132	108	15.5	746	7.90	81	--	--
LYW	2	09-01-92	0	54	44	8.5	745	3.10	27	--	0.020
		09-07-93	0	28	23	7.5	745	1.00	9	4.0	--
LYW	14	08-16-94	0	175	143	6.5	748	9.30	77	0.5	0.030
LYW	15	08-17-94	0	278	228	7.5	747	3.80	32	0.4	0.020
LYW	16	08-17-94	0	136	111	11.5	747	0.50	5	1.9	0.050
RYW	12	08-15-94	0	114	93	13.5	740	0.70	7	5.4	0.580
SDW	2	09-02-92	0	150	123	7.5	752	9.60	81	--	0.020
		09-08-93	0	149	122	8.0	748	9.70	83	0.4	0.020
SDW	12	08-16-94	0	309	253	8.0	752	4.80	41	0.7	0.020
SDW	13	08-16-94	0	262	216	10.5	750	0.90	8	2.0	0.080
SJW	1	09-02-92	0	122	100	12.0	747	0.7	6	--	0.050
		09-08-93	0	126	103	12.0	740	0.250	2	1.1	--
ORANGE COUNTY, VT											
RAW	15	08-11-94	0	149	122	8.5	742	2.20	19	0.5	0.060
RAW	16	08-11-94	0	51	42	8.5	747	8.50	74	1.0	0.020
TFW	13	08-10-94	0	32	26	6.5	755	7.10	58	0.6	0.020
TFW	14	08-10-94	0	89	73	9.5	752	11.5	102	0.4	<0.010
TFW	15	08-10-94	0	103	84	8.0	748	1.60	14	0.8	0.030

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994
NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER		DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
COOS COUNTY, NH											
CFW	18	08-18-94	<0.010	<0.20	0.530	0.030	0.030	9	2.8	0.46	1.4
SNW	1	08-19-94	<0.010	<0.20	4.20	<0.010	0.020	81	25	4.6	5.4
GRAFTON COUNTY, NH											
SUW	2	08-18-94	<0.010	<0.20	1.50	0.010	0.010	57	19	2.2	3.1
SULLIVAN COUNTY, NH											
CRW	41	08-09-94	<0.010	<0.20	8.40	<0.010	<0.010	97	30	5.3	38
CALEDONIA COUNTY, VT											
EAW	1	09-01-92	<0.010	<0.20	0.270	<0.010	<0.010	18	6.5	0.43	1.6
		09-07-93	--	--	--	--	--	--	--	--	--
LYW	1	09-01-92	<0.010	<0.20	0.140	<0.010	<0.010	120	45	1.8	1.7
		08-17-94	--	--	--	--	--	--	--	--	--
LYW	2	09-01-92	0.020	<0.20	0.150	<0.010	<0.010	49	19	0.44	0.60
		09-07-93	--	--	--	--	--	--	--	--	--
LYW	14	08-16-94	<0.010	<0.20	0.190	<0.010	<0.010	180	66	3.3	7.1
LYW	15	08-17-94	<0.010	<0.20	0.190	<0.010	<0.010	230	84	4.1	1.5
LYW	16	08-17-94	<0.010	<0.20	0.270	<0.010	<0.010	120	43	3.0	50
RYW	12	08-15-94	<0.010	0.60	<0.050	0.030	0.030	78	29	1.4	4.0
SDW	2	09-02-92	<0.010	<0.20	5.80	<0.010	0.010	150	58	2.2	1.7
		09-08-93	<0.010	<0.20	4.30	<0.010	<0.010	150	58	2.3	1.6
SDW	12	08-16-94	<0.010	<0.20	0.950	0.010	<0.010	390	140	10	29
SDW	13	08-16-94	<0.010	<0.20	3.70	0.020	<0.010	270	97	5.8	24
SJW	1	09-02-92	<0.010	<0.20	0.110	<0.010	<0.010	87	31	2.4	3.9
		09-08-93	--	--	--	--	--	--	--	--	--
ORANGE COUNTY, VT											
RAW	15	08-11-94	<0.010	<0.20	<0.050	<0.010	<0.010	180	52	13	13
RAW	16	08-11-94	0.020	<0.20	5.20	0.020	<0.010	89	31	2.8	3.2
TFW	13	08-10-94	<0.010	<0.20	4.70	<0.010	<0.010	53	15	3.7	2.8
TFW	14	08-10-94	<0.010	<0.20	0.079	<0.010	<0.010	72	26	1.6	1.5
TFW	15	08-10-94	0.070	<0.20	20.0	<0.010	<0.010	160	58	3.2	2.5

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994 NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER		DATE	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL)	SULFATE DIS- SOLVED (MG/L) AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L) AS F)	SILICA, DIS- SOLVED (MG/L) AS SIO2)	IRON, DIS- SOLVED (UG/L) AS FE)
			(00931)	(00932)	(70301)	(00935)	(00940)	(00945)	(00950)	(00955)	(01046)
COOS COUNTY, NH											
CFW	18	08-18-94	0.2	23	29	1.1	0.50	6.7	<0.10	9.7	220
SNW	1	08-19-94	0.3	12	140	1.5	18	47	<0.10	14	7
GRAFTON COUNTY, NH											
SUW	2	08-18-94	0.2	10	95	2.6	4.8	13	<0.10	17	65
SULLIVAN COUNTY, NH											
CRW	41	08-09-94	2	45	223	2.3	63	16	<0.10	10	6
CALEDONIA COUNTY, VT											
EAW	1	09-01-92	0.2	15	35	1.0	0.20	6.5	0.10	8.6	<3
		09-07-93	--	--	--	--	--	--	--	--	--
LYW	1	09-01-92	0.1	3	147	2.9	0.80	9.1	<0.10	10	<3
		08-17-94	--	--	--	--	--	--	--	--	--
LYW	2	09-01-92	0.0	3	69	1.2	0.60	6.5	<0.10	13	53
		09-07-93	--	--	--	--	--	--	--	--	--
LYW	14	08-16-94	0.2	8	225	2.0	34	15	<0.10	11	8
LYW	15	08-17-94	0.0	1	256	4.7	0.90	11	<0.10	12	7
LYW	16	08-17-94	2	47	261	4.1	70	13	<0.10	9.4	50
RYW	12	08-15-94	0.2	10	113	1.5	5.2	1.5	<0.10	10	2700
SDW	2	09-02-92	0.1	2	200	3.3	8.1	16	<0.10	11	38
		09-08-93	0.1	2	192	2.9	5.6	18	<0.10	11	4
SDW	12	08-16-94	0.6	14	536	9.6	110	65	<0.10	16	<3
SDW	13	08-16-94	0.6	16	385	6.6	26	70	0.10	9.3	15
SJW	1	09-02-92	0.2	8	136	11	7.0	10	<0.10	7.9	6
		09-08-93	--	--	--	--	--	--	--	--	--
ORANGE COUNTY, VT											
RAW	15	08-11-94	0.4	13	250	1.0	27	55	<0.10	13	1100
RAW	16	08-11-94	0.1	7	129	4.2	24	12	<0.10	3.4	9
TFW	13	08-10-94	0.2	10	86	0.70	6.2	8.8	<0.10	12	34
TFW	14	08-10-94	0.1	4	93	2.3	0.80	8.6	<0.10	8.5	<3
TFW	15	08-10-94	0.1	3	240	3.9	7.5	17	<0.10	9.0	20

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994
NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER		DATE	MANGA-	SOLIDS,		DI-	DI-	CARBON-		CHLORO-	
			NESE,	RESIDUE	BROMIDE	BROMO-	CHLORO-	TETRA-	BROMO-	DI-	CHLORO-
			DIS-	AT 180	DIS-	METHANE	METHANE	CHLO-	FORM	BROMO-	FORM
			SOLVED	DEG. C	SOLVED	WHOLE	TOTAL	RIDE	TOTAL	METHANE	TOTAL
			(UG/L		(MG/L	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
			AS MN)		AS BR)	RECOVER					
			(01056)	(70300)	(71870)	(30217)	(32101)	(32102)	(32104)	(32105)	(32106)
COOS COUNTY, NH											
CFW	18	08-18-94	13	22	0.010	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SNW	1	08-19-94	14	128	0.020	--	--	--	--	--	--
GRAFTON COUNTY, NH											
SUW	2	08-18-94	10	98	<0.010	--	--	--	--	--	--
SULLIVAN COUNTY, NH											
CRW	41	08-09-94	8	250	0.020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
CALEDONIA COUNTY, VT											
EAW	1	09-01-92	18	28	<0.010	--	--	--	--	--	--
		09-07-93	--	--	--	--	--	--	--	--	--
LYW	1	09-01-92	<1	140	<0.010	--	--	--	--	--	--
		08-17-94	--	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
LYW	2	09-01-92	36	64	--	--	--	--	--	--	--
		09-07-93	--	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
LYW	14	08-16-94	10	240	0.020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
LYW	15	08-17-94	95	216	0.010	--	--	--	--	--	--
LYW	16	08-17-94	130	278	0.030	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
RYW	12	08-15-94	820	118	<0.010	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SDW	2	09-02-92	10	196	<0.010	--	--	--	--	--	--
		09-08-93	<1	195	<0.010	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SDW	12	08-16-94	61	570	0.070	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SDW	13	08-16-94	960	394	0.040	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SJW	1	09-02-92	2000	144	<0.010	--	--	--	--	--	--
		09-08-93	--	--	--	--	--	--	--	--	--
ORANGE COUNTY, VT											
RAW	15	08-11-94	1100	242	0.030	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
RAW	16	08-11-94	34	132	0.040	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TFW	13	08-10-94	79	96	<0.010	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TFW	14	08-10-94	21	102	<0.010	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TFW	15	08-10-94	16	280	0.020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994 NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER					CHLORO- BENZENE	CHLORO- ETHANE	ETHYL- BENZENE	METHYL- BROMIDE	METHYL- ENE CHLO- RIDE	TETRA- CHLORO- ETHYL- ENE	TRI- CHLORO- FLUORO- METHANE
		DATE	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	TOTAL (UG/L) (34301)	TOTAL (UG/L) (34311)	TOTAL (UG/L) (34371)	TOTAL (UG/L) (34413)	TOTAL (UG/L) (34423)	TOTAL (UG/L) (34475)	TOTAL (UG/L) (34488)
COOS COUNTY, NH											
CFW	18	08-18-94	0.4	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SNW	1	08-19-94	--	--	--	--	--	--	--	--	--
GRAFTON COUNTY, NH											
SUW	2	08-18-94	--	--	--	--	--	--	--	--	--
SULLIVAN COUNTY, NH											
CRW	41	08-09-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
CALEDONIA COUNTY, VT											
EAW	1	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	--	--	--	--	--	--	--	--	--
LYW	1	09-01-92	--	--	--	--	--	--	--	--	--
		08-17-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
LYW	2	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
LYW	14	08-16-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
LYW	15	08-17-94	--	--	--	--	--	--	--	--	--
LYW	16	08-17-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	0.9	<0.2
RYW	12	08-15-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SDW	2	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SDW	12	08-16-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SDW	13	08-16-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SJW	1	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	--	--	--	--	--	--	--	--	--
ORANGE COUNTY, VT											
RAW	15	08-11-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
RAW	16	08-11-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TFW	13	08-10-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TFW	14	08-10-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TFW	15	08-10-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994
NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER		DATE	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA-CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO- PROPANE TOTAL (UG/L) (34541)	1,2- TRANSDI CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)
COOS COUNTY, NH											
CFW	18	08-18-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
SNW	1	08-19-94	--	--	--	--	--	--	--	--	--
GRAPTON COUNTY, NH											
SUW	2	08-18-94	--	--	--	--	--	--	--	--	--
SULLIVAN COUNTY, NH											
CRW	41	08-09-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
CALEDONIA COUNTY, VT											
EAW	1	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	--	--	--	--	--	--	--	--	--
LYW	1	09-01-92	--	--	--	--	--	--	--	--	--
		08-17-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
LYW	2	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
LYW	14	08-16-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
LYW	15	08-17-94	--	--	--	--	--	--	--	--	--
LYW	16	08-17-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
RYW	12	08-15-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
SDW	2	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
SDW	12	08-16-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
SDW	13	08-16-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
SJW	1	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	--	--	--	--	--	--	--	--	--
ORANGE COUNTY, VT											
RAW	15	08-11-94	1.0	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
RAW	16	08-11-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
TFW	13	08-10-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
TFW	14	08-10-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
TFW	15	08-10-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994
NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER		DATE	CIS-1,2		1,1-DI	2,2-DI	1,3-DI	PSEUDO-	ISO-	BENZENE	MESIT-
			-DI-		CHLORO-	CHLORO-	CHLORO-	CUMENE	PROPYL-	N-PROPY	YLENE
			CHLORO-		PRO-	PRO-	CHLORO-	WATER	BENZENE	WATER	WATER
			ETHENE	STYRENE	PENE,	PANE	PROPANE	UNFLTRD	WATER	UNFLTRD	UNFLTRD
			WATER	WAT,WH	WAT,WH	WAT.WH	UNFLTRD	WHOLE	UNFLTRD	UNFLTRD	
			TOTAL	TOTAL	TOTAL	TOTAL	REC	REC	REC	REC	
			(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	
			(77093)	(77128)	(77168)	(77170)	(77173)	(77222)	(77223)	(77224)	(77226)
COOS COUNTY, NH											
CFW	18	08-18-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
SNW	1	08-19-94	--	--	--	--	--	--	--	--	--
GRAFTON COUNTY, NH											
SUW	2	08-18-94	--	--	--	--	--	--	--	--	--
SULLIVAN COUNTY, NH											
CRW	41	08-09-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
CALEDONIA COUNTY, VT											
EAW	1	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	--	--	--	--	--	--	--	--	--
LYW	1	09-01-92	--	--	--	--	--	--	--	--	--
		08-17-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
LYW	2	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
LYW	14	08-16-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
LYW	15	08-17-94	--	--	--	--	--	--	--	--	--
LYW	16	08-17-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
RYW	12	08-15-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
SDW	2	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
SDW	12	08-16-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
SDW	13	08-16-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
SJW	1	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	--	--	--	--	--	--	--	--	--
ORANGE COUNTY, VT											
RAW	15	08-11-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
RAW	16	08-11-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
TFW	13	08-10-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
TFW	14	08-10-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
TFW	15	08-10-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20

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[illegible]

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994
NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER		DATE	1,2,3-	1,2-	METHYL			DIBROMO			
			TRI-	DIBROMO	FREON	ETHER		BROMO-	CHLORO-	PROP-	BUTYL-
			CHLORO	ETHANE	113	TERT-	XYLENE	BENZENE	PROPANE	CHLOR,	ATE,
			BENZENE	WATER	WATER	BUTYL	WATER	WATER,	WATER	WATER,	WATER,
		WAT,WH	WHOLE	UNFLTRD	WAT UNF	UNFLTRD	WHOLE,	WHOLE	DISS,	DISS,	
		REC	TOTAL	REC	REC	REC	TOTAL	TOT.REC	REC	REC	
		(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	
		(77613)	(77651)	(77652)	(78032)	(81551)	(81555)	(82625)	(04024)	(04028)	
CCOOS COUNTY, NH											
CFW	18	08-18-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008
SNW	1	08-19-94	--	--	--	--	--	--	--	<0.02	<0.008
GRAFTON COUNTY, NH											
SUW	2	08-18-94	--	--	--	--	--	--	--	<0.02	<0.008
SULLIVAN COUNTY, NH											
CRW	41	08-09-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008
CALEDONIA COUNTY, VT											
EAW	1	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	--	--	--	--	--	--	--	--	--
LYW	1	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	--	--	--	--	--	--	--	<0.02	<0.008
		08-17-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	--	--
LYW	2	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008
LYW	14	08-16-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008
LYW	15	08-17-94	--	--	--	--	--	--	--	<0.02	<0.008
LYW	16	08-17-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008
RYW	12	08-15-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008
SDW	2	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008
SDW	12	08-16-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008
SDW	13	08-16-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008
SJW	1	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	--	--	--	--	--	--	--	<0.02	<0.008
ORANGE COUNTY, VT											
RAW	15	08-11-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008
RAW	16	08-11-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008
TFW	13	08-10-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008
TFW	14	08-10-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008
TFW	15	08-10-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994 NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER		DATE	DEETHYL								
			SI-	PRO-	ATRA-	CYANA-	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P,P' DDE DISSOLV (UG/L) (34653)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)
			MAZINE,	METON,	ZINE,	ZINE,					
			WATER, DISS, REC (UG/L) (04035)	WATER, DISS, REC (UG/L) (04037)	WATER, DISS, REC (UG/L) (04040)	WATER, DISS, REC (UG/L) (04041)					
COOS COUNTY, NH											
CFW	18	08-18-94	<0.008	<0.008	<0.007	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
SNW	1	08-19-94	<0.008	<0.008	0.008	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
GRAFTON COUNTY, NH											
SUW	2	08-18-94	<0.008	<0.008	0.03	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
SULLIVAN COUNTY, NH											
CRW	41	08-09-94	0.02	<0.008	0.08	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
CALEDONIA COUNTY, VT											
EAW	1	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	--	--	--	--	--	--	--	--	--
LYW	1	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	<0.01	<0.008	<0.02	<0.01	<0.008	<0.007	E0.002	<0.005	<0.02
		08-17-94	--	--	--	--	--	--	--	--	--
LYW	2	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	<0.01	<0.008	<0.02	<0.01	<0.008	<0.007	E0.002	<0.005	<0.02
LYW	14	08-16-94	<0.008	<0.008	<0.007	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
LYW	15	08-17-94	<0.008	<0.008	<0.007	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
LYW	16	08-17-94	<0.008	0.06	<0.007	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
RYW	12	08-15-94	<0.008	<0.008	<0.007	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
SDW	2	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	<0.01	<0.008	<0.02	<0.01	<0.008	<0.007	E0.006	<0.005	<0.02
SDW	12	08-16-94	<0.008	0.01	<0.007	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
SDW	13	08-16-94	<0.008	0.08	<0.007	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
SJW	1	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	<0.01	<0.008	<0.02	<0.01	<0.008	<0.007	E0.004	<0.005	<0.02
ORANGE COUNTY, VT											
RAW	15	08-11-94	<0.008	<0.008	<0.007	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
RAW	16	08-11-94	<0.008	<0.008	0.33	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
TFW	13	08-10-94	<0.008	<0.008	0.009	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
TFW	14	08-10-94	<0.008	<0.008	<0.007	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
TFW	15	08-10-94	<0.008	<0.008	0.42	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994
NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER		DATE	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	PARA- THION, DIS- SOLVED (UG/L) (39542)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANILINE WAT FLT GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT GF, REC (UG/L) (82661)
COOS COUNTY, NH											
CFW	18	08-18-94	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	<0.01	<0.006	<0.01
SNW	1	08-19-94	<0.009	<0.01	<0.02	<0.008	0.02	<0.009	<0.01	<0.006	<0.01
GRAFTON COUNTY, NH											
SUW	2	08-18-94	<0.009	<0.01	<0.02	<0.008	E0.01	<0.009	<0.01	<0.006	<0.01
SULLIVAN COUNTY, NH											
CRW	41	08-09-94	<0.009	<0.01	<0.02	<0.008	0.12	<0.009	<0.01	<0.006	<0.01
CALEDONIA COUNTY, VT											
EAW	1	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	--	--	--	--	--	--	--	--	--
LYW	1	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	<0.01	<0.006	<0.01
		08-17-94	--	--	--	--	--	--	--	--	--
LYW	2	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	<0.01	<0.006	<0.01
LYW	14	08-16-94	<0.009	<0.01	<0.02	<0.008	E0.005	<0.009	<0.01	<0.006	<0.01
LYW	15	08-17-94	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	<0.01	<0.006	<0.01
LYW	16	08-17-94	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	<0.01	<0.006	<0.01
RYW	12	08-15-94	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	<0.01	<0.006	<0.01
SDW	2	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	<0.009	<0.01	<0.02	<0.008	E0.001	<0.009	<0.01	<0.006	E0.004
SDW	12	08-16-94	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	<0.01	<0.006	<0.01
SDW	13	08-16-94	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	<0.01	<0.006	<0.01
SJW	1	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	<0.009	<0.01	<0.02	<0.008	E0.002	<0.009	<0.01	<0.006	E0.003
ORANGE COUNTY, VT											
RAW	15	08-11-94	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	<0.01	<0.006	<0.01
RAW	16	08-11-94	<0.009	<0.01	<0.02	<0.008	0.11	<0.009	<0.01	<0.006	<0.01
TFW	13	08-10-94	<0.009	<0.01	<0.02	<0.008	E0.01	<0.009	<0.01	<0.006	<0.01
TFW	14	08-10-94	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	<0.01	<0.006	<0.01
TFW	15	08-10-94	<0.009	<0.01	<0.02	<0.008	0.09	<0.009	<0.01	<0.006	<0.01

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994 NATIONAL WATER QUALITY ASSESSMENT PROGRAM

			DIMETH- OATE WATER FLTRD 0.7 U GG, REC (UG/L) (82662)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)
LOCAL IDENT- I- FIER		DATE									
COOS COUNTY, NH											
CFW	18	08-18-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
SNW	1	08-19-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
GRAFTON COUNTY, NH											
SUW	2	08-18-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
SULLIVAN COUNTY, NH											
CRW	41	08-09-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
CALEDONIA COUNTY, VT											
EAW	1	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	--	--	--	--	--	--	--	--	--
LYW	1	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	<0.02	<0.01	<0.02	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
		08-17-94	--	--	--	--	--	--	--	--	--
LYW	2	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	<0.02	<0.01	<0.02	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
LYW	14	08-16-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
LYW	15	08-17-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
LYW	16	08-17-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
RYW	12	08-15-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
SDW	2	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	<0.02	<0.005	<0.02	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
SDW	12	08-16-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
SDW	13	08-16-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
SJW	1	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	<0.02	<0.01	<0.02	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
ORANGE COUNTY, VT											
RAW	15	08-11-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
RAW	16	08-11-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
TFW	13	08-10-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
TFW	14	08-10-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
TFW	15	08-10-94	<0.02	<0.01	<0.01	0.33	<0.04	<0.03	<0.005	<0.009	<0.02

QUALITY OF GROUND WATER

 WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994
 NATIONAL WATER QUALITY ASSESSMENT PROGRAM

			MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)
LOCAL IDENT- I- FIER		DATE									
COOS COUNTY, NH											
CFW	18	08-18-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
SNW	1	08-19-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
GRAPTON COUNTY, NH											
SUW	2	08-18-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
SULLIVAN COUNTY, NH											
CRW	41	08-09-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
CALEDONIA COUNTY, VT											
EAW	1	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	--	--	--	--	--	--	--	--	--
LYW	1	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.02	<0.008	<0.02
		08-17-94	--	--	--	--	--	--	--	--	--
LYW	2	09-01-92	--	--	--	--	--	--	--	--	--
		09-07-93	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.02	<0.008	<0.02
LYW	14	08-16-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
LYW	15	08-17-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
LYW	16	08-17-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
RYW	12	08-15-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
SDW	2	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	<0.007	<0.01	E0.004	<0.01	<0.01	<0.009	<0.02	E0.002	<0.02
SDW	12	08-16-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
SDW	13	08-16-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
SJW	1	09-02-92	--	--	--	--	--	--	--	--	--
		09-08-93	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.02	<0.008	<0.02
ORANGE COUNTY, VT											
RAW	15	08-11-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
RAW	16	08-11-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
TFW	13	08-10-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
TFW	14	08-10-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
TFW	15	08-10-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994 NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- PIER	DATE	CAR- BARYL	THIO- BENCARB	DCPA	PENDI- METH-	NAPROP- AMIDE	PRO- PARGITE	METHYL AZIN-	PER- METHRIN
		WATER	WATER	WATER	ALIN	WATER	WATER	PHOS	CIS
		FLTRD	FLTRD	FLTRD	WAT FLT	FLTRD	FLTRD	WAT FLT	WAT FLT
		0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
		GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC
		(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
		(82680)	(82681)	(82682)	(82683)	(82684)	(82685)	(82686)	(82687)

COOS COUNTY, NH

CFW	18	08-18-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
SNW	1	08-19-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02

GRAFTON COUNTY, NH

SUW	2	08-18-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
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SULLIVAN COUNTY, NH

CRW	41	08-09-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
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CALEDONIA COUNTY, VT

EAW	1	09-01-92	--	--	--	--	--	--	--	--
		09-07-93	--	--	--	--	--	--	--	--
LYW	1	09-01-92	--	--	--	--	--	--	--	--
		09-07-93	<0.05	<0.008	<0.004	<0.02	<0.01	<0.01	<0.04	<0.02
		08-17-94	--	--	--	--	--	--	--	--
LYW	2	09-01-92	--	--	--	--	--	--	--	--
		09-07-93	<0.05	<0.008	<0.004	<0.02	<0.01	<0.01	<0.04	<0.02
LYW	14	08-16-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
LYW	15	08-17-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
LYW	16	08-17-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
RYW	12	08-15-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
SDW	2	09-02-92	--	--	--	--	--	--	--	--
		09-08-93	<0.05	<0.008	<0.002	<0.02	<0.01	<0.01	<0.04	E0.007
SDW	12	08-16-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
SDW	13	08-16-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
SJW	1	09-02-92	--	--	--	--	--	--	--	--
		09-08-93	<0.05	<0.008	<0.004	<0.02	<0.01	<0.01	<0.04	<0.005

ORANGE COUNTY, VT

RAW	15	08-11-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
RAW	16	08-11-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
TFW	13	08-10-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
TFW	14	08-10-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
TFW	15	08-10-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02

VT

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994
NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER	STATION NUMBER	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (90095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)
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WINDHAM COUNTY, VT

RKW 120	430746072263701	112SRFD	15.7	22.40	08-12-94	1015	560	548	6.78
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WINDSOR COUNTY, VT

X2W 16	432859072234201	112SRFD	-10.0	54.00	08-09-94	1300	350	331	7.6
X2W 17	432826072230901	112SRFD	19.8	27.60	08-09-94	1700	910	951	7.11
X8W 13	433607072333001	112SRFD	11.70	22.15	08-08-94	1400	172	169	7.38
X8W 14	433740072305801	112SRFD	9.02	21.30	08-08-94	1800	975	1000	7.08

LOCAL IDENT- I- FIER	DATE	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE OF HG (00025)	OXYGEN, DIS- SOLVED OXYGEN, DIS- SOLVED (MM OF MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
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WINDHAM COUNTY, VT

RKW 120	08-12-94	0	144	118	10.5	761	0.650	6	0.6	0.020
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WINDSOR COUNTY, VT

X2W 16	08-09-94	0	157	129	12.5	755	19.5	184	0.2	0.010
X2W 17	08-09-94	0	292	239	11.0	756	5.70	52	0.8	0.030
X8W 13	08-08-94	0	73	60	9.5	745	6.20	56	0.4	0.010
X8W 14	08-08-94	0	249	204	8.0	747	1.50	13	0.8	0.030

LOCAL IDENT- I- FIER	DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL AS CACO3 (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
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WINDHAM COUNTY, VT

RKW 120	08-12-94	0.030	<0.20	1.30	0.020	<0.010	170	54	8.9	35
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WINDSOR COUNTY, VT

X2W 16	08-09-94	<0.010	<0.20	0.340	<0.010	<0.010	140	47	4.4	10
X2W 17	08-09-94	0.280	<0.20	2.60	<0.010	<0.010	240	85	7.7	97
X8W 13	08-08-94	<0.010	<0.20	0.086	<0.010	<0.010	59	19	2.9	7.4
X8W 14	08-08-94	<0.010	<0.20	1.00	<0.010	<0.010	240	79	11	100

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994 NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER	DATE	SODIUM AD- SORP- TION RATIO (00931)	SODIUM PERCENT (00932)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940)	SULFATE DIS- SOLVED (MG/L) AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L) AS F) (00950)	SILICA, DIS- SOLVED (MG/L) AS SIO2) (00955)	IRON, DIS- SOLVED (UG/L) AS FE) (01046)
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WINDHAM COUNTY, VT

RKW	120	08-12-94	1	30	293	3.0	78	26	<0.10	11	4
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WINDSOR COUNTY, VT

X2W	16	08-09-94	0.4	14	182	3.0	18	13	<0.10	7.4	<3
X2W	17	08-09-94	3	46	527	5.4	130	37	0.10	9.0	5
X8W	13	08-08-94	0.4	21	91	0.90	13	7.1	<0.10	4.6	14
X8W	14	08-08-94	3	47	517	4.8	170	18	<0.10	7.7	<3

LOCAL IDENT- I- FIER	DATE	MANGA- NESE, DIS- SOLVED (UG/L) AS MN) (01056)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	BROMIDE DIS- SOLVED (MG/L) AS BR) (71870)	DI- BROMO- METHANE WHOLE RECOVER (UG/L) (30217)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L) (32101)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)
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WINDHAM COUNTY, VT

RKW	120	08-12-94	44	296	0.060	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
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WINDSOR COUNTY, VT

X2W	16	08-09-94	<1	180	0.020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
X2W	17	08-09-94	320	508	0.050	<0.2	<0.2	<0.2	<0.2	<0.2	0.3
X8W	13	08-08-94	280	78	0.010	--	--	--	--	--	--
X8W	14	08-08-94	14	540	0.060	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

LOCAL IDENT- I- FIER	DATE	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)	ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)
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WINDHAM COUNTY, VT

RKW	120	08-12-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	0.6	<0.2
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WINDSOR COUNTY, VT

X2W	16	08-09-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
X2W	17	08-09-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	0.9	<0.2
X8W	13	08-08-94	--	--	--	--	--	--	--	--	--
X8W	14	08-08-94	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994
NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER		DATE	SODIUM	SOLIDS,		POTAS-	CHLO-	SULFATE	FLUO-	SILICA,	IRON,
			AD-	SUM OF	SIUM,	RIDE,	RIDE,		DIS-	IRON,	
			SORP-	CONSTI-	DIS-	DIS-	DIS-		DIS-	DIS-	
			TION	TUENTS,	SOLVED	SOLVED	SOLVED	SOLVED	(MG/L	SOLVED	
			RATIO	DIS-	(MG/L	(MG/L	(MG/L	(MG/L	AS	(UG/L	
			SODIUM	SOLVED	AS K)	AS CL)	AS SO4)	AS F)	SIO2)	AS FE)	
			PERCENT	(MG/L)							
			(00931)	(00932)	(70301)	(00935)	(00940)	(00945)	(00950)	(00955)	(01046)
WINDHAM COUNTY, VT											
RKW	120	08-12-94	0.3	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
WINDSOR COUNTY, VT											
X2W	16	08-09-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
X2W	17	08-09-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
X8W	13	08-08-94	--	--	--	--	--	--	--	--	--
X8W	14	08-08-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
LOCAL IDENT- I- FIER		DATE	BENZENE	BENZENE	DI-			CIS		TRI-	HEXA-
			1,3-DI-	1,4-DI-	CHLORO-		TRANS-	1,3-DI-	VINYL	CHLORO-	CHLORO-
			CHLORO-	CHLORO-	DI-		1,3-DI-	1,3-DI-	CHLO-	ETHYL-	BUT-
			WATER	WATER	FLUORO-	NAPHTH-	CHLORO-	CHLORO-	CHLO-	ETHYL-	BUT-
			UNFLTRD	UNFLTRD	METHANE	ALENE	PROPENE	PROPENE	RIDE	ENE	ADIENE
			REC	REC	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
			(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
			(34566)	(34571)	(34668)	(34696)	(34699)	(34704)	(39175)	(39180)	(39702)
WINDHAM COUNTY, VT											
RKW	120	08-12-94	<0.20	<0.20	0.8	<0.2	<0.2	<0.2	<0.2	0.4	<0.2
WINDSOR COUNTY, VT											
X2W	16	08-09-94	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
X2W	17	08-09-94	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
X8W	13	08-08-94	--	--	--	--	--	--	--	--	--
X8W	14	08-08-94	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
LOCAL IDENT- I- FIER		DATE	CIS-1,2		1,1-DI	2,2-DI		ISO-			
			-DI-		CHLORO-	CHLORO-	1,3-DI-	PSEUDO-	PROPYL-	BENZENE	MESIT-
			CHLORO-		PRO-	PRO-	CHLORO-	CUMENE	BENZENE	N-PROPY	YLENE
			ETHENE		PENE,	PANE	PROPANE	WATER	WATER	WATER	WATER
			WATER	STYRENE	WAT, WH	WAT, WH	WAT, WH	UNFLTRD	WHOLE	UNFLTRD	UNFLTRD
			TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	REC	REC	REC	REC
			(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
			(77093)	(77128)	(77168)	(77170)	(77173)	(77222)	(77223)	(77224)	(77226)
WINDHAM COUNTY, VT											
RKW	120	08-12-94	0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
WINDSOR COUNTY, VT											
X2W	16	08-09-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
X2W	17	08-09-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20
X8W	13	08-08-94	--	--	--	--	--	--	--	--	--
X8W	14	08-08-94	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20

WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994
NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER	DATE	O- CHLORO- TOLUENE WATER WHOLE TOTAL (UG/L) (77275)	TOLUENE P-CHLOR WATER WHOLE UNFLTRD REC (UG/L) (77277)	METHANE BROMO CHLORO- WAT UNFLTRD REC (UG/L) (77297)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)	BENZENE SEC BUTYL- WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT- BUTYL- WATER UNFLTRD REC (UG/L) (77353)	P-ISO- PROPYL- TOLUENE WATER WHOLE REC (UG/L) (77356)	123-TRI CHLORO- PROPANE WATER WHOLE TOTAL (UG/L) (77443)	ETHANE, 1112- TETRA- CHLORO- WAT UNF REC (UG/L) (77562)		
		WINDHAM COUNTY, VT										
		RKW 120	08-12-94	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2
		WINDSOR COUNTY, VT										
X2W 16	08-09-94	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2		
X2W 17	08-09-94	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2		
X8W 13	08-08-94	--	--	--	--	--	--	--	--	--		
X8W 14	08-08-94	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2		
LOCAL IDENT- I- FIER	DATE	1,2,3- TRI- CHLORO BENZENE WAT, WH REC (UG/L) (77613)	1,2- DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) (77651)	METHYL FREON- 113 WATER UNFLTRD REC (UG/L) (77652)	ETHER TERT- BUTYL WAT UNF REC (UG/L) (78032)	XYLENE WATER UNFLTRD REC (UG/L) (81551)	BROMO- BENZENE WATER, WHOLE, TOTAL (UG/L) (81555)	DIBROMO CHLORO- PROPANE WATER WHOLE TOT.REC (UG/L) (82625)	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)		
		WINDHAM COUNTY, VT										
		RKW 120	08-12-94	<0.20	<0.2	<0.2	2.4	<0.20	<0.2	<1.0	<0.02	<0.008
		WINDSOR COUNTY, VT										
X2W 16	08-09-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008		
X2W 17	08-09-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008		
X8W 13	08-08-94	--	--	--	--	--	--	--	<0.02	<0.008		
X8W 14	08-08-94	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	<0.02	<0.008		
LOCAL IDENT- I- FIER	DATE	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	PONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P,P' DDE DISSOLV (UG/L) (34653)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)		
		WINDHAM COUNTY, VT										
		RKW 120	08-12-94	<0.008	<0.008	E0.001	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008
		WINDSOR COUNTY, VT										
X2W 16	08-09-94	<0.008	<0.008	E0.002	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008		
X2W 17	08-09-94	0.37	0.17	E0.002	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008		
X8W 13	08-08-94	<0.008	<0.008	<0.007	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008		
X8W 14	08-08-94	0.02	E0.005	<0.007	<0.01	<0.008	<0.007	<0.01	<0.005	<0.008		

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994
NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER		DATE	METO-	MALA-	PARA-	DI-	ATRA-	ALA-	METRI-	2,6-DI-	TRI-
			LACHLOR	THION,	THION,	AZINON,	ZINE,	CHLOR,	BUZIN	ETHYL	FLUR-
			WATER	DIS-	DIS-	DIS-	WATER,	WATER,	SENCOR	ANILINE	ALIN
			DISSOLV	SOLVED	SOLVED	SOLVED	DISS,	DISS,	DISSOLV	GF, REC	GF, REC
			(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
			(39415)	(39532)	(39542)	(39572)	(39632)	(46342)	(82630)	(82660)	(82661)
WINDHAM COUNTY, VT											
RKW	120	08-12-94	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	<0.01	<0.006	<0.01
WINDSOR COUNTY, VT											
X2W	16	08-09-94	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	<0.01	<0.006	<0.01
X2W	17	08-09-94	<0.009	<0.01	<0.02	<0.008	E0.002	<0.009	<0.01	<0.006	<0.01
X8W	13	08-08-94	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	<0.01	<0.006	<0.01
X8W	14	08-08-94	<0.009	<0.01	<0.02	<0.008	<0.02	<0.009	E0.002	<0.006	<0.01
LOCAL IDENT- I- FIER		DATE	DIMETH-	ETHAL-		TER-	LIN-	METHYL		PEB-	TEBU-
			OATE	FLUR-	PHORATE	BACIL	URON	PARA-	EPTC	ULATE	THIURON
			WATER	ALIN	WATER	WATER	WATER	THION	WATER	WATER	WATER
			FLTRD	WAT FLT	FLTRD	FLTRD	FLTRD	WAT FLT	FLTRD	FILTRD	FLTRD
			0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	
			GG, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC
			(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
			(82662)	(82663)	(82664)	(82665)	(82666)	(82667)	(82668)	(82669)	(82670)
WINDHAM COUNTY, VT											
RKW	120	08-12-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
WINDSOR COUNTY, VT											
X2W	16	08-09-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
X2W	17	08-09-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
X8W	13	08-08-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
X8W	14	08-08-94	<0.02	<0.01	<0.01	<0.03	<0.04	<0.03	<0.005	<0.009	<0.02
LOCAL IDENT- I- FIER		DATE	MOL-	ETHO-	BEN-	CARBO-	TER-	PRON-	DISUL-	TRIAL-	PRO-
			INATE	PROP	FLUR-	FURAN	BUFOS	AMIDE	FOTON	LATE	PANIL
			WATER	WATER	ALIN	WATER	WATER	WATER	WATER	WATER	WATER
			FLTRD	FLTRD	WAT FLD	FLTRD	FLTRD	FLTRD	FLTRD	FLTRD	FLTRD
			0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	
			GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC
			(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
			(82671)	(82672)	(82673)	(82674)	(82675)	(82676)	(82677)	(82678)	(82679)
WINDHAM COUNTY, VT											
RKW	120	08-12-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
WINDSOR COUNTY, VT											
X2W	16	08-09-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
X2W	17	08-09-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
X8W	13	08-08-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02
X8W	14	08-08-94	<0.007	<0.01	<0.01	<0.01	<0.01	<0.009	<0.008	<0.008	<0.02

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR SEPTEMBER 1992 TO SEPTEMBER 1994
NATIONAL WATER QUALITY ASSESSMENT PROGRAM

LOCAL IDENT- I- FIER	DATE	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)
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WINDHAM COUNTY, VT

RKW 120	08-12-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
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WINDSOR COUNTY, VT

X2W 16	08-09-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
X2W 17	08-09-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
X8W 13	08-08-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02
X8W 14	08-08-94	<0.05	<0.008	<0.004	<0.02	<0.01	<0.006	<0.04	<0.02

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	2.54×10^1	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^0	kilometer
<i>Area</i>		
acre	4.047×10^3	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi ²)	2.590×10^0	square kilometer
<i>Volume</i>		
gallon (gal)	3.785×10^0	liter
	3.785×10^0	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^3	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft ³)	2.832×10^1	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^3	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second
	2.832×10^1	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^1	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
<i>Mass</i>		
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey
525 Clinton Street
Bow, New Hampshire 03304

