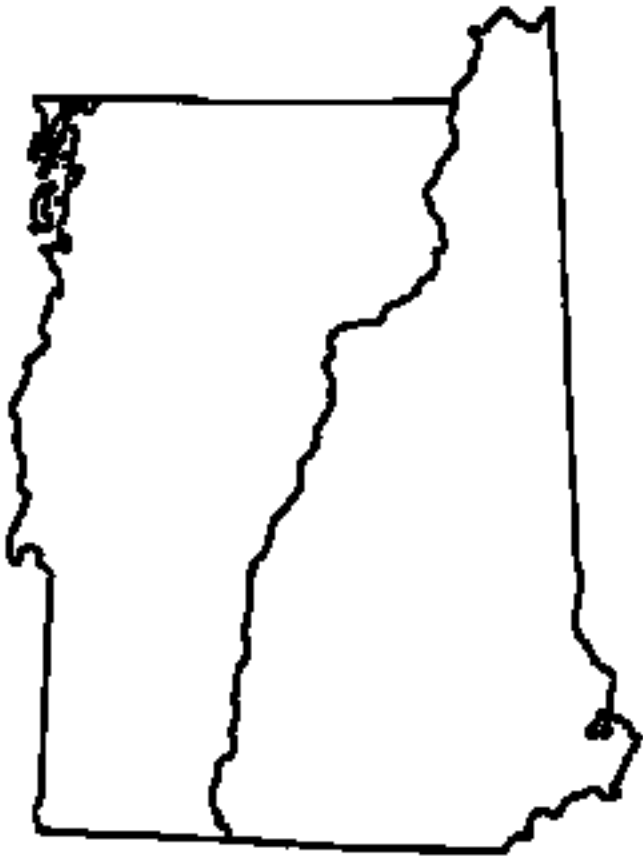
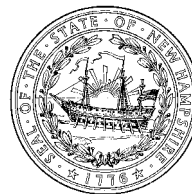


Prepared in cooperation with the
States of New Hampshire and Vermont and with other agencies

Water Resources Data New Hampshire and Vermont Water Year 2004



Water-Data Report NH-VT-04-1



Calendar for Water Year 2004

2003

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

2004

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

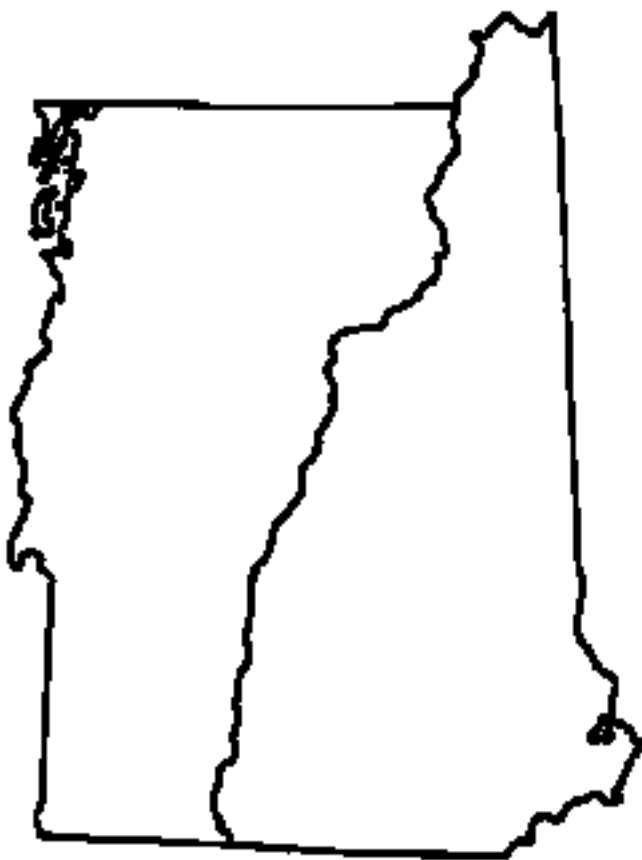
April							May							June						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3							1			1	2	3	4	5
4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12
11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19
18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26
25	26	27	28	29	30		23	24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

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

Water Resources Data New Hampshire and Vermont Water Year 2004

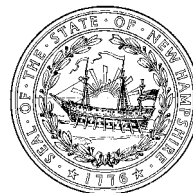
By Chandlee Keirstead, Richard G. Kiah, Sanborn L. Ward, and Gregory S. Hilgendorf

Water-Data Report NH-VT-04-1



Prepared by the New Hampshire/Vermont District office, Pembroke, N.H., in cooperation with the States of New Hampshire and Vermont and with other agencies

**U.S. Department of the Interior
U.S. Geological Survey**



U.S. Department of the Interior

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U.S. Geological Survey

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2005

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Information about the USGS, New Hampshire/Vermont District is available on the Internet at <http://nh.water.usgs.gov> or <http://vt.water.usgs.gov>

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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 U.S. Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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

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13. ABSTRACT <i>(Maximum 200 words)</i> Water-resources data for the 2004 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 93 gaging stations, stage records for 6 lakes, monthend contents for 2 lakes and reservoirs, water levels for 38 observation wells. Also included are data for 37 crest-stage partial-record stations. Additional water data were collected at various sites, which are not part of the systematic data-collection program and are published as miscellaneous measurements for gaging stations in New Hampshire and Vermont. 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		15. NUMBER OF PAGES 352 pages	16. PRICE CODE
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FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME**

NOTE: Data for miscellaneous sites for both surface-water discharge and quality are published in separate sections of the data report. See references at the end of this list for page numbers for these sections.

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

NORTH ATLANTIC SLOPE BASINS

ANDROSCOGGIN RIVER BASIN

	<u>Station No.</u>	<u>Page</u>
Umbagog Lake (head of Androscoggin River):		
Magalloway River:		
Diamond River near Wentworth Location, NH (d)	01052500	48
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Androscoggin River at Errol, NH (d)	01053500.....	50
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Saco River:		
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Piscataqua River:		
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Lamprey River near Newmarket (d)	01073500.....	70
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Winnicut River at Greenland, near Portsmouth, NH (d)	01073785.....	78

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Berry's Brook:		
Berry's Brook at Sagamore Road, near Portsmouth, NH (d)	01073810.....	80

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Little River:		
Little River at Woodland Road, near Hampton, NH (d)	01073822.....	84

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Hampton River:		
Hampton Falls River at Mill Lane, near Seabrook, NH (d)	01073848.....	88

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East Branch Pemigewasset River at Lincoln, NH (d)	01074520	92
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Baker River:		
Baker River near Rumney, NH (d)	01076000	96
Pemigewasset River at Plymouth, NH (d)	01076500	98
Smith River near Bristol, NH (d)	01078000	100
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Poorfarm Brook at Ellacoya State Park near Gilford, NH (d)	01079602	102
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Warner River at Davisville, NH (d)	01086000	120
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Stony Brook:		
Stony Brook Tributary near Temple, NH (d)	01093800	126
Souhegan River at Merrimack, NH (d)	01094000	128
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Spicket River at North Salem, NH (d)	01100505	132
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East Branch Passumpsic River near East Haven, VT (d)	01133000	148
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Sleepers River:		
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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

[a, approximately]

Station name	Station No.	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
Cochecho River at Dover, N.H.	01072880	173	1992-96
Dudley Brook near Exeter, N.H.	01073600	4.97	1962-85
MERRIMACK RIVER BASIN			
East Branch Pemigewasset River near Lincoln, N.H.	01074500	104	1928-53
Baker River at Wentworth, N.H.	01075500	58.8	1940-1952
Stevens Brook near Wentworth, N.H.	01075800	2.94	1963-98
Squam River at Ashland, N.H.	01077000	57.6	1939-95
Poorfarm Brook near Gilford, N.H.	01079600	5.0	1978-80
Nubanusit Brook 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
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	1952-87
Suncook River at North Chichester, N.H.	01089500	157	1918-27, 1928-70
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

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

Discontinued surface-water discharge stations--Continued

[a, approximately]

Station name	Station No.	Drainage area (mi ²)	Period of record (water years)
MERRIMACK RIVER BASIN--Continued			
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 (Site WLR-1) near Milford, N.H.	01093852	103	1994–96
Souhegan River (Site WLR-5) near Milford, N.H.	01093875	119	1994–96
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	1963–92
Passumpsic River at Pierces's Mill 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	1940–51
Connecticut River at Orford, N.H.	01140500	3,100	1900–21
Ompompanoosuc River at Union Village, Vt.	01141500*	130	1940–89
Mink Brook near Etna, N.H.	01141800	4.60	1962–98
White River near Bethel, Vt.	01142000	241	1931–55
Mascoma River at West Canaan, N.H.	01145000*	80.5	1939–78
Kent Brook near Sherburne, Vt.	01150800*	3.31	1964–74
Ottauquechee 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
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 below Townshend Dam near Townshend, Vt.	01155910*	282	1995–2000

Discontinued surface-water discharge stations--Continued

[a, approximately]

Station name	Station No.	Drainage area (mi ²)	Period of record (water years)
CONNECTICUT RIVER BASIN--Continued			
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
Otter Brook near Keene, N.H.	01158500	42.3	1924-58
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	1929-84
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
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
Sunny 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
Stone Bridge Brook near Georgia Plains, Vt.	04292700	8.45	1963-74, 1991-2000
Brownington Branch near Evansville, Vt.	04296200*	2.15	1963-74

**WATER RESOURCES DATA FOR NEW HAMPSHIRE AND VERMONT
DISCONTINUED SURFACE-WATER 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.

Discontinued continuous-record surface-water-quality stations

Station name	Station No.	Drainage area (mi ²)	Type of record	Period of record (water years)
Merrimack River at Concord, N.H.	01088400	2300	sc,wt	1980–82
Connecticut River at Wells River, Vt.	01138500	2644	sc,wt	1980–82
Connecticut River at N. Walpole, N.H.	01154500	5493	sc,wt	1981
Connecticut River at Walpole, N.H.	01155050	5612	sc,wt	1975–80
West River at Newfane, Vt.	01156000	308	wt	1960–65
South Branch Ashuelot River at Webb, near Marlborough, N.H.	01160000	36.0	wt, sc	1954–78
Beaver Brook at Wilmington, Vt.	01167800	6.38	wt,sc	1972–77
Winooski River above Chase Mill at Burlington, Vt.	04290550	--	wt,sc,do	1979–81
Winooski River below Chase Mill at Burlington, Vt.	04290560	--	wt,sc,do	1979–82
Black River at Coventry, Vt.	04296000	122	wt,sc	1978–81
Clyde River at Newport, Vt.	04296500	142	wt,sc	1975–78

Water Resources Data for New Hampshire and Vermont, 2004

By Chandlee Keirstead, R.G. Kiah, S.L. Ward, and G.S. Hilgendorf

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 U.S. 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 93 gaging stations; stage records for 6 lakes; month end contents for 2 lakes and reservoirs; and water levels at 38 observation wells. Also included are data for 37 crest-stage partial record stations. Locations of these sites are shown in figures 1 and 2. Additional water data were collected at various sites not involved in the systematic data-collection program and are published under miscellaneous discharge measurements for gaging stations in New Hampshire and Vermont. 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, Branch of Information Services, Federal Center, Box 25286, Denver, Colorado 80225.

Publications similar to this report are published annually by the U.S. Geological Survey for all States. These official 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 identified as “U.S. Geological Survey Water-Data Report NH-VT-04-1.” For archiving and

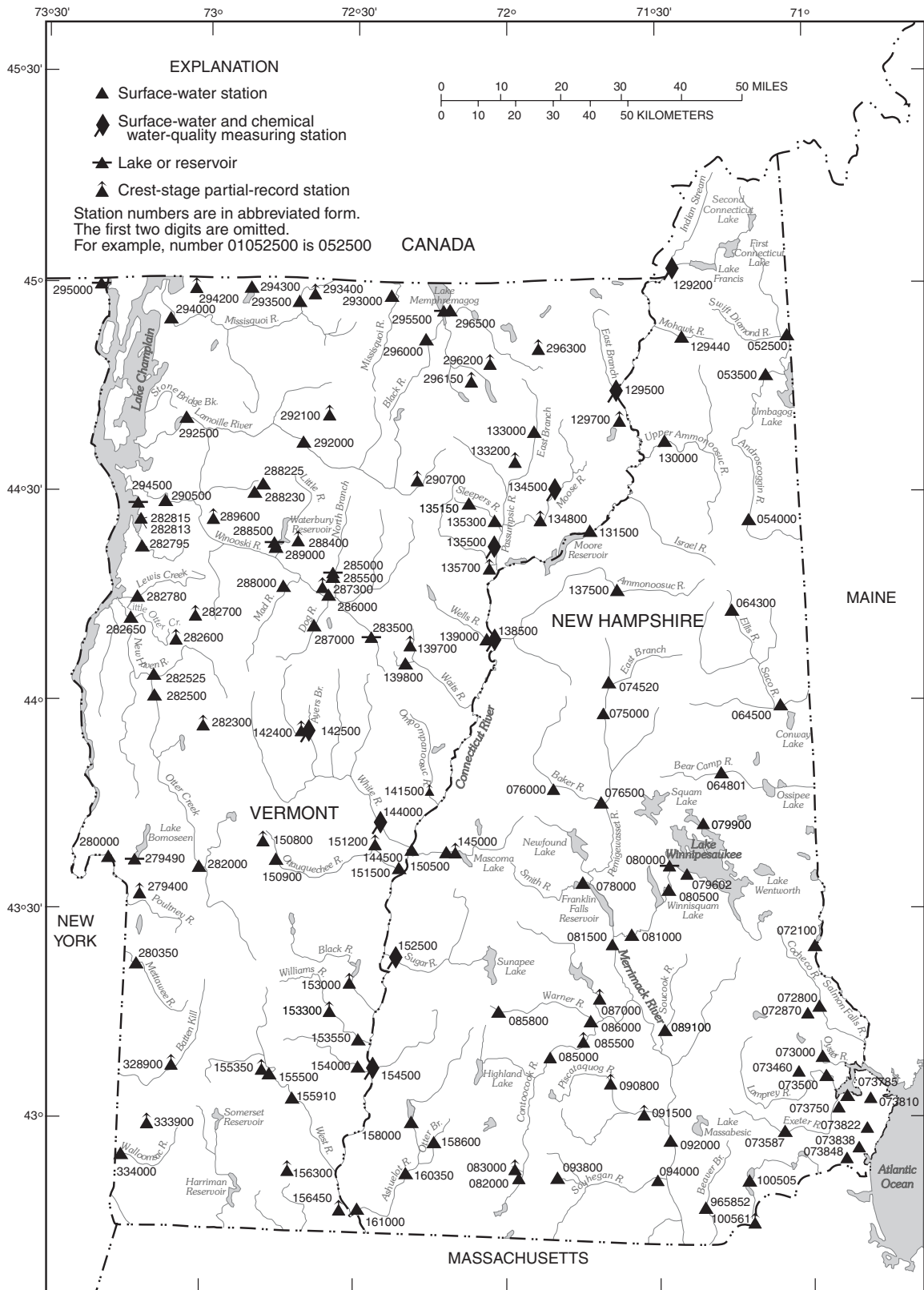


Figure 1. Location of surface-water data-collection sites.

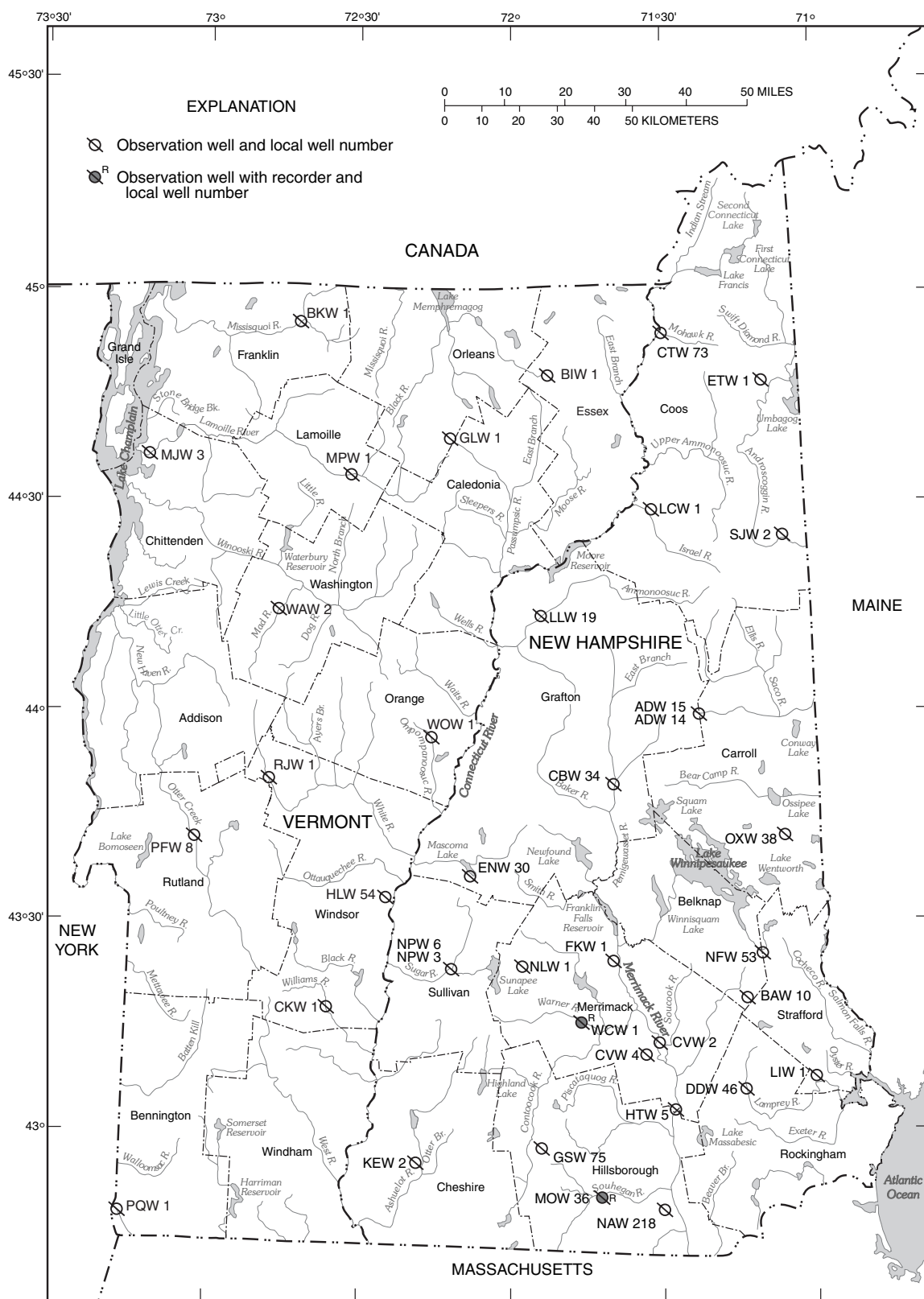


Figure 2. Location of ground-water data-collection sites.

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. Real-time and historical data from the surface-water network, as well as information about individual sites, are available through the world wide web at:

<http://waterdata.usgs.gov/nh/nwis>

<http://waterdata.usgs.gov/usa/nwis/rt>

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) 226-7800.

COOPERATION

The U.S. Geological Survey and organizations of the States of New Hampshire and Vermont have had cooperative agreements for the systematic collection of surface-water records since the early 1900's, and for groundwater records since the mid-60's. Organizations that assisted in collecting the data in this report through cooperative agreements with the U.S. Geological Survey are:

New Hampshire Department of
Environmental Services, Michael Nolin,
Commissioner

Vermont Department of Environmental
Conservation, Jeffrey Wennberg,
Commissioner

City of Keene, John A. MacLean,
City Manager

City of Rochester, Gary Stenhouse,
City Manager

Assistance in the form of funds or services was provided by the Corps of Engineers, U.S. Army, in the collection of records for 20 gaging stations published in this report. Organizations supplying data are acknowledged in the station descriptions.

The following organizations contributed funds and services through the requirements of the Federal Energy Regulatory Commission:

Green Mountain Power Company

Citizens Utilities Company

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 2004 water year was characterized by normal to above normal flows throughout New Hampshire and Vermont, (below normal refers to the lower quartile of record, above normal refers to the upper quartile of record, and normal refers to the two middle quartiles). The basis of the above-normal, normal, and below-normal ranges is a 30-year reference period (October 1971 through September 2000). Figure 3 shows annual runoff in the above normal range for 35 of 52 streamflow-gaging sites having long-term records primarily in the Androscoggin, Saco, Connecticut, Hudson, and St. Lawrence River Basins. Runoff was in the normal range at 17 sites, primarily within the Merrimack and Piscataqua River Basins.

The 2004 monthly and annual mean discharges and the monthly and annual median discharges for the reference period of 1971–2000 are shown in figure 4 for stations on the Pemigewasset River at Plymouth, New Hampshire, and Dog River at Northfield Falls, Vermont. These stations recorded 2004 water-year runoff of 118 and 129 percent of median, respectively (compared to 85 and 80 percent a year ago for each site) and were used with other stations as indicators of monthly runoff across both states.

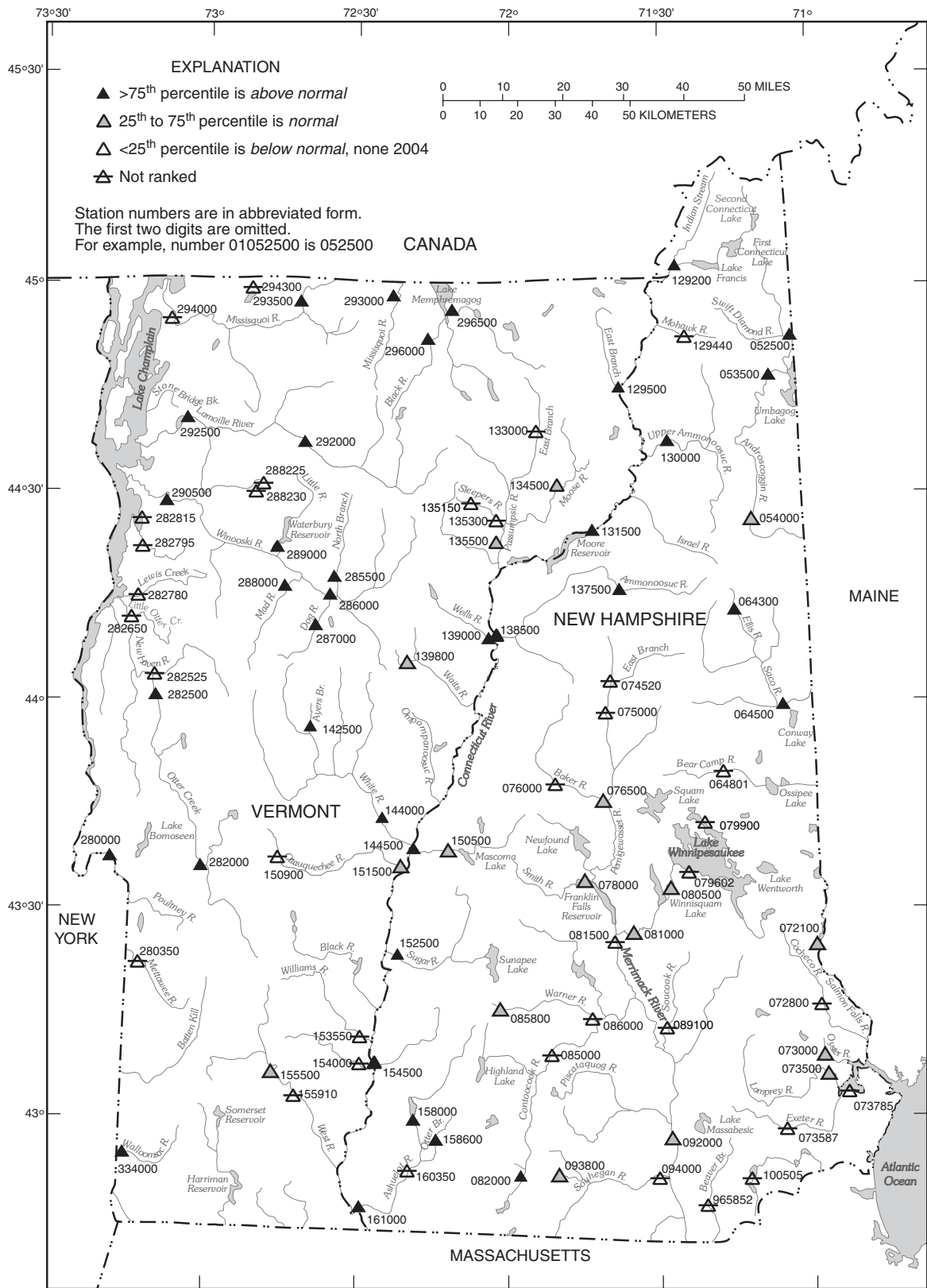


Figure 3. Location of surface-water data-collection sites and annual runoff at selected sites for water year 2004.

DISCHARGE, IN CUBIC FEET PER SECOND

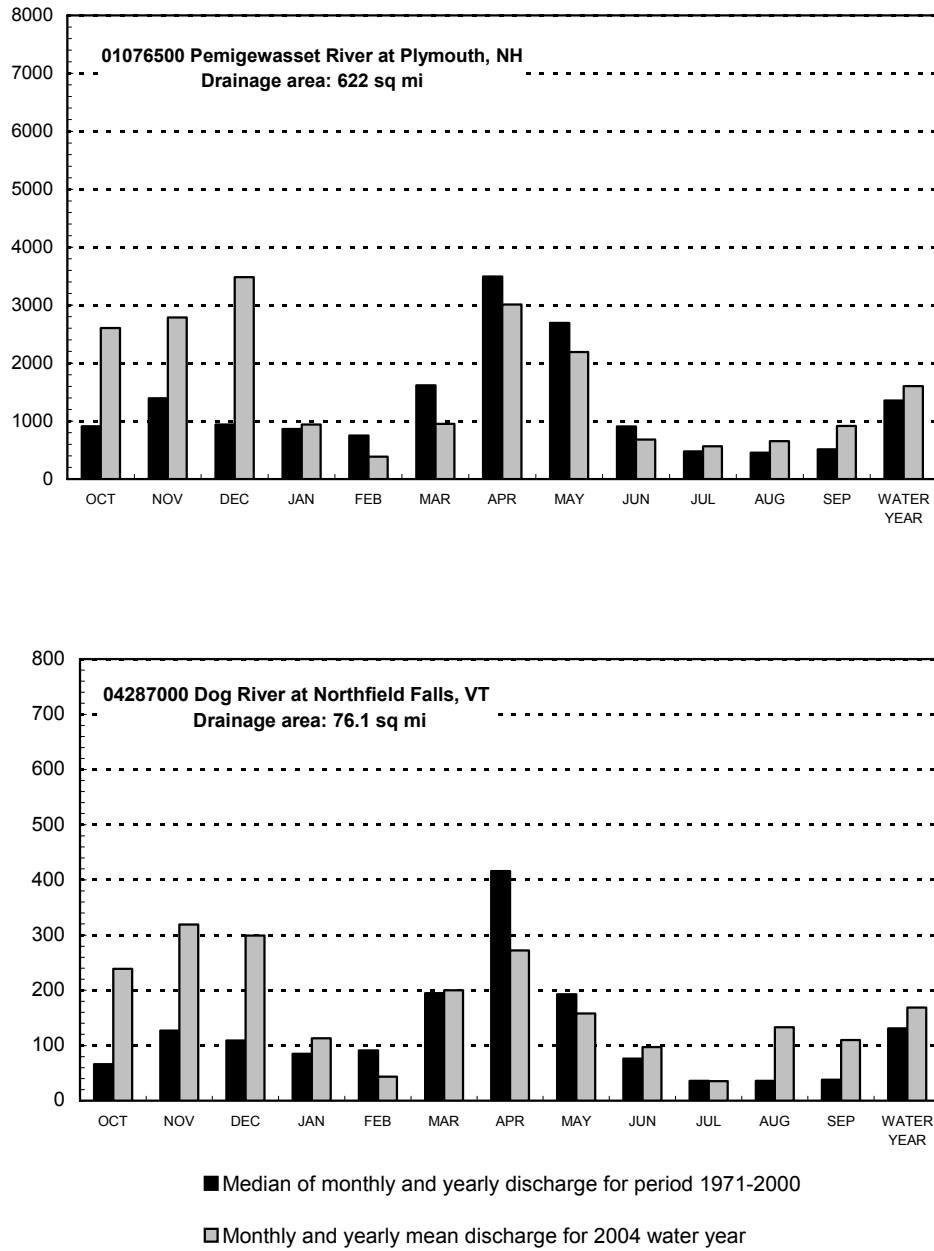


Figure 4. Comparison of discharge at two long-term index-gaging stations during the 2004 water year with median discharge for 1971–2000.

Additional statistics for each streamflow-gaging station in this report are provided in the tables of daily mean discharges. Monthly flow hydrographs from the network are also available through the World Wide Web at:

<http://vt.water.usgs.gov/WaterData/curr.htm>

Floods and Droughts

No significant, widespread flooding occurred in New Hampshire or Vermont during the 2004 water year. The recurrence interval of the annual peak discharges at most streamflow-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 more than a 1.1-year to less than a 25-year recurrence interval throughout the water year.

Localized flooding occurred April 1–4, 2004, across the Contoocook, Souhegan, and Lamprey River basins in south-central New Hampshire. Peak flows ranged from greater than a 5-year to less than a 25-year recurrence interval. The Contoocook River at Peterborough, New Hampshire recorded a new maximum discharge for the period of record of 3,120 ft³/s on April 2, 2004.

Minimum streamflows occurred during October, 2003, March and the summer months of July, August and September, 2004. The 1-day low-flow recurrence interval (the time interval between daily flows equal to or less than a given flow) was analyzed at 21 non-regulated sites with at least 30 years of record. Minimum flows ranged from greater than a 1-year to less than or equal to a 1.25-year recurrence interval at 19 sites, from greater than a 1.25-year to less than a 2-year recurrence interval at 1 site, and greater than a 2-year to less than a 5-year recurrence interval at 1 site.

Reservoir Storage

The total combined usable storage of five major reservoirs in both States is 22,436 million cubic feet. Variations in month-end average usable capacity for the five major reservoirs is shown in figure 5. At the beginning of the water year, the

actual usable storage from these reservoirs was 16,402 million cubic feet or 73 percent of capacity. Average reservoir storage rose to 87 percent of capacity through November, then followed a steady seasonal decline to a minimum capacity for the water year of 44 percent by the end of February. Average reservoir storage then increased.

Ground-Water Levels

The ground-water observation-well network consisted of 26 wells in New Hampshire, and 12 wells in Vermont, during the 2004 water year. Most observation wells are of small diameter and located in sandy material.

The monthend observations are organized in table 1. Well locations are referenced by well name and are found on figure 2. Ground-water levels summarized in table 1 are based on levels from observation wells across New Hampshire and Vermont from October 2003 to September 2004.

Ground-water conditions in the central New Hampshire regions were generally in the above normal range during the months of November through January. The central and southern areas were above normal during September. Conditions were generally below normal in the northern regions and in the lower Connecticut River valley during the months of March and April. The other parts of the state were generally in the normal range throughout the year.

Ground-water conditions in Vermont were generally above normal in the central mountain region during August through September. The lower Connecticut River valley was in the below normal range during March and April. The other parts of the state were generally in the normal range throughout the year.

No new extreme water levels were established during the 2004 water year for wells with long periods of record available dating back into the 1960s.

Hydrographs for each of the ground-water-station records contained in this report provide

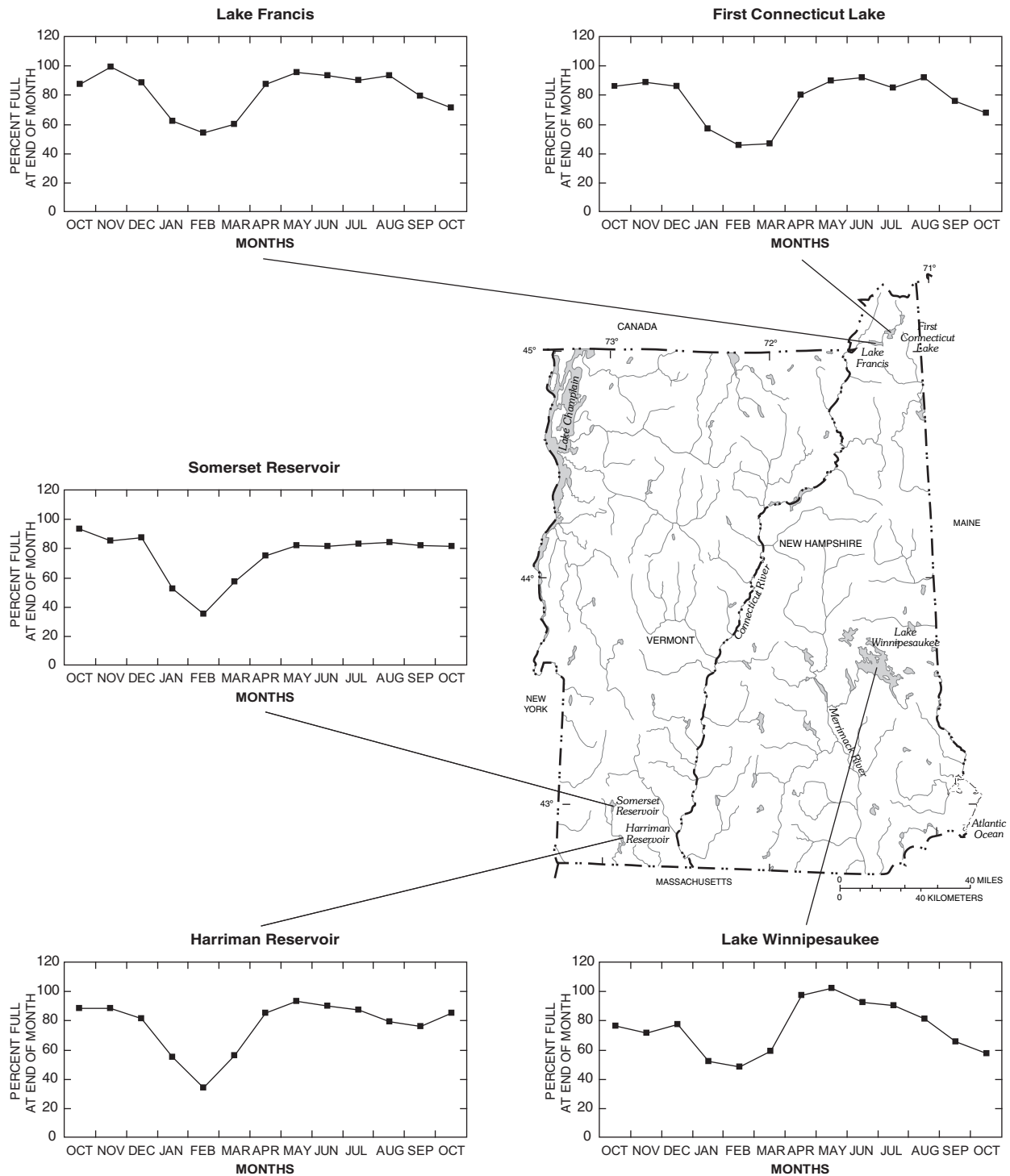


Figure 5. Location of selected lakes or reservoirs and corresponding monthend contents graphs.

Table 1. Monthend ground-water conditions as measured in 37 wells in New Hampshire and Vermont.

[+, above normal, within the highest 25 percent pf record for this month; -, below normal, within the lowest 25 percent of record for this month; N, normal within the 25- to -75 percentile range; -----, no data; Values are compared to the period of record for each well in the table below. See figure 2 for well locations.]

Ground-water well number	Location	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
New Hampshire ground-water wells													
ADW-14	Albany	+	+	+	N	N	-	-	N	-	N	N	+
ADW-15	Albany	+	+	+	N	N	-	-	-	-	-	N	N
BAW-10	Barnstead	+	-----	-----	-----	-----	-----	-	+	N	+	+	+
CBW-34	Campton	+	+	+	+	N	-	-	N	N	N	N	N
CTW-7	Colebrook	N	+	N	+	-	-	N	N	-	-----	+	N
CVW-2	Concord	N	N	N	N	N	N	N	N	N	N	N	N
CVW-4	Concord	N	+	N	N	N	N	N	N	N	N	N	+
DDW-46	Deerfield	N	+	+	+	N	N	+	+	+	+	+	+
ENW-30	Enfield	N	+	+	+	N	N	N	+	N	N	-	N
ETW-1	Errol	-	-----	-----	N	+	-	-	-----	-	-----	-----	-----
FKW-1	Franklin	N	+	+	+	+	N	N	N	N	N	N	+
GSW-75	Greenfield	N	N	N	N	+	N	N	N	N	N	N	N
HTW-5	Hooksett	+	N	N	N	N	-	N	N	N	N	N	+
KEW-2	Keene	+	+	+	N	N	-	N	N	N	+	+	+
LCW-1	Lancaster	-----	N	+	-----	-----	-	-	+	-	-	+	+
LIW-1	Lee	+	N	+	N	-	-	N	+	N	N	+	+
LLW-19	Lisbon	N	+	+	N	-	-	N	+	-	N	N	+
NAW-218	Nashua	+	+	+	+	N	N	+	+	N	N	N	+
NFW-53	New Durham	N	N	+	N	N	N	N	+	N	N	+	+
NLW-1	New London	+	+	+	N	N	N	N	N	N	N	+	+
NPW-3	Newport	N	+	+	+	N	-	N	+	-	N	N	+
NPW-6	Newport	N	+	+	N	N	-	N	N	-	N	N	+
OXW-38	Ossipee	+	N	+	+	N	-----	N	N	N	N	N	N
SJW-2	Shelburne	N	+	+	+	+	N	+	N	-	N	N	N
WCW-1	Warner	+	+	+	+	+	N	N	N	N	N	N	+
Vermont ground-water wells													
BIW-1	Brighton	+	+	-----	+	N	+	-	+	+	+	+	+
BKW-1	Berkshire	N	+	+	N	-	+	-	-	-	N	+	-
CKW-1	Chester	N	+	+	-	-	-	-	N	-	N	N	+
GLW-1	Glover	N	+	+	+	+	+	N	N	N	N	+	+
HLW-54	Hartland	N	+	+	N	N	-	-	N	N	-----	N	N
MJW-3	Milton	N	N	+	+	+	+	+	N	N	N	N	+
MPW-1	Morristown	+	+	+	+	N	N	N	N	N	+	+	+
PFW-8	Pittsford	-----	N	+	+	N	N	N	N	N	N	+	+
PQW-1	Pownal	+	+	+	+	-	N	N	N	N	N	+	+
RJW-1	Rochester	+	+	+	N	-	N	-	N	N	+	+	+
WAW-2	Waitsfield	+	+	+	N	N	+	N	+	N	+	+	N
WOW-1	West Fairlee	+	+	+	+	N	N	-	N	N	-----	+	+

additional information on water-level trends. Monthly conditions data from the network are also available through the World Wide Web at:

<http://nh.water.usgs.gov/WaterData/curr.htm>

DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list composed of both types of stations. Gaps are consecutive. The complete 8-digit (or 10-digit) number for each station such as 01076500, which appears just to the left of the station name, includes a 2-digit part number "01" plus the 6-digit (or 8-digit) downstream order number "076500." In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The USGS well and miscellaneous site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as "01," "02," and so forth, would be assigned as one would for wells (see fig. 6). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

A local well number 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 2.

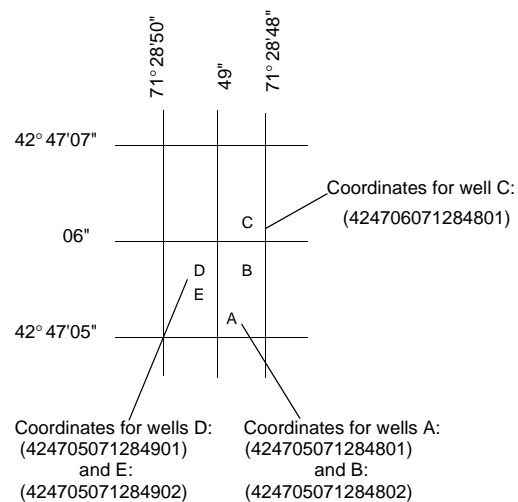


Figure 6. System for numbering wells and miscellaneous sites (latitude and longitude).

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program may be accessed from <http://water.usgs.gov/hbn/>.

National Stream-Quality Accounting Network (NASQAN) is a network of sites used to monitor the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment (NAWQA) Program; (3) to characterize processes unique to large-river systems such as storage and remobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and

other chemicals. Additional information about the NASQAN Program may be accessed from <http://water.usgs.gov/nasqan/>.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) is a network of monitoring sites that provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as data from the individual sites, may be accessed from <http://bqs.usgs.gov/acidrain/>.

The USGS National Water-Quality Assessment (NAWQA) Program is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 study units (major watersheds 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 is 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 inform-

ation for water-resources managers to use in making decisions and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and Federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key Federal, State, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. Additional information about the NAWQA Program may be accessed from <http://water.usgs.gov/nawqa/>.

The USGS National Streamflow Information Program (NSIP) is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from <http://water.usgs.gov/nsip/>.

EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

Data Collection and Computation

The base data collected at gaging stations (fig. 1) consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or

similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with a current meter or acoustic Doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters A1 through A19 and Book 8, Chapters A2 and B2, which may be accessed from <http://water.usgs.gov/pubs/twri/>. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standardization (ISO).

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

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence 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 at some distance from the base gage.

An index velocity is measured using ultrasonic or acoustic instruments at some stream-gaging stations and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

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

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

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some stream-gaging stations, periods of time occur when no gage-height record is obtained or the recorded gage height is faulty and cannot be used to compute daily discharge or contents. Such a situation can happen when the recorder stops or otherwise fails to operate properly, the intakes are

plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records from other stations in the same or nearby basins. Likewise, lake or reservoir volumes may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

Data Presentation

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) 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; and (5) a hydrograph of discharge.

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

LOCATION.—Location information is obtained from the most accurate maps available. The location of the gaging station 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 term indicates the time period for which records have been published 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 its flow reasonably can be considered equivalent to flow at the present station.

REVISED RECORDS.—If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

GAGE.—The type of gage in current use, the datum of the current gage referred to a standard datum, 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 either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented 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, the outlet works and spillway, and the purpose and use of the reservoir.

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.—Information here documents 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 USGS.

REVISIONS.—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (<http://water.usgs.gov/nwis/nwis>). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations 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 revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. 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 stage-capacity table when daily volumes are given.

Peak Discharge Greater than Base Discharge

Tables of peak discharge above base discharge are included for some stations where secondary instantaneous peak discharge data are used in flood-frequency studies of highway and bridge design, flood-control structures, and other flood-related projects. The base discharge value is selected so an average of three peaks a year will be reported. This base discharge value has a

recurrence interval of approximately 1.1 years or a 91-percent chance of exceedence in any 1 year.

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 arithmetic 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 is expressed in cubic feet per second per square mile (line headed CF5M); or in inches (line headed IN); or in acre-feet (line headed AC-FT). Values for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if extensive regulation or diversion is in effect or if the drainage area includes large noncontributing areas. At some stations, monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir volumes are given. These values are identified by a symbol and a corresponding footnote.

Statistics of Monthly Mean Data

A tabular summary of the mean (line headed MEAN), maximum (MAX), and minimum (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 values. 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. The designated period will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are 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 records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are 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 designated 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 the dates of occurrence do not fall within the selected water years listed in the heading, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration-curve statistics and runoff data also are given. Runoff data may be omitted if extensive regulation or diversion of flow is in effect in the drainage basin.

The following summary statistics data are provided with each continuous record of discharge. Comments that 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.

ANNUAL MEAN.—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

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.

MAXIMUM PEAK FLOW.—The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

MAXIMUM PEAK STAGE.—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the

maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, 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 equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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

Inches (INCHES) indicate 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 table lists annual maximum stage and discharge at crest-stage stations, and the second table lists 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 often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a 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. This identification is shown either by flagging individual daily values with the letter “e” and noting in a table footnote, “e—Estimated,” or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of Field Data and Computed Results

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

The degree of accuracy of the records is stated in the REMARKS in the station description. “Excellent” indicates that about 95 percent of the daily discharges are within 5 percent of the true value; “good” within 10 percent; and “fair,” within 15 percent. “Poor” indicates that daily discharges have less than “fair” accuracy. Different accuracies may be attributed to different parts of a given record.

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

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, values 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 Data Records Available

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

Information on the availability of unpublished data or statistical analyses may be obtained from the District office (see address that is shown on the back of the title page of this report).

EXPLANATION OF PRECIPITATION RECORDS

Data Collection and Computation

Rainfall data generally are collected using electronic data loggers that measure the rainfall in 0.01-inch increments every 15 minutes using either a tipping-bucket rain gage or a collection well gage. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight of the previous day to midnight of the current day. Snowfall-affected data can result during cold weather when snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to errors. Missing values are indicated by this symbol “---” in the table.

Data Presentation

Precipitation records collected at surface-water gaging stations are identified with the same station number and name as the stream-gaging station. Where a surface-water daily-record station is not available, the precipitation record is published with its own name and latitude-longitude identification number.

Information pertinent to the history of a precipitation station is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, and general remarks.

The following information is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

INSTRUMENTATION.—Information on the type of rainfall collection system is given.

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

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

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

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

For ground-water records, no descriptive statements are given; however, the well number, depth of well, sampling date, or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRI, which may be accessed from <http://water.usgs.gov/pubs/twri/>.

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

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between 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 and minimum values (and sometimes mean or median values) for each constituent measured, and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

SURFACE-WATER-QUALITY RECORDS

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data are useful in the interpretation of surface-water quality. Records of surface-water

quality in this report 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 *continuous-record station* is a site where data are collected on a regularly scheduled basis. Frequency may be one 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 continuous- or partial-record station, where 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 *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. 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 4.

Rating classifications for continuous water-quality records.

[\leq , less than or equal to; \pm plus or minus value shown; $^{\circ}$ C, degree Celsius; $>$, greater than; %, percent; mg/L, milligram per liter; pH unit, standard pH unit]

Measured physical property	Rating			
	Excellent	Good	Fair	Poor
Water temperature	$\leq \pm 0.2^{\circ}$ C	$> \pm 0.2$ to 0.5° C	$> \pm 0.5$ to 0.8° C	$> \pm 0.8^{\circ}$ C
Specific conductance	$\leq \pm 3\%$	$> \pm 3$ to 10%	$> \pm 10$ to 15%	$> \pm 15\%$
Dissolved oxygen	$\leq \pm 0.3$ mg/L	$> \pm 0.3$ to 0.5 mg/L	$> \pm 0.5$ to 0.8 mg/L	$> \pm 0.8$ mg/L
pH	$\leq \pm 0.2$ unit	$> \pm 0.2$ to 0.5 unit	$> \pm 0.5$ to 0.8 unit	$> \pm 0.8$ unit
Turbidity	$\leq \pm 5\%$	$> \pm 5$ to 10%	$> \pm 10$ to 15%	$> \pm 15\%$

Accuracy of the Records

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

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 is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must 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 on-site measurements and for collecting, treating, and shipping samples are given in TWRI Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1–A9. Most of the methods used for collecting and analyzing water

samples are described in the TWRI, which may be accessed from <http://water.usgs.gov/pubs/twri/>. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS District office (see address that is shown on the back of title page in this report).

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, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

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 section.

During periods of rapidly changing flow or rapidly changing concentration, samples may be 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.

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

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. The TWRI publications may be accessed from <http://water.usgs.gov/pubs/twri/>. 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 gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information 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 information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

DRAINAGE AREA.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—This indicates the time periods for which published water-quality records for the station are available. 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 USGS by a cooperating organization are identified here.

EXTREMES.—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (<http://waterdata.usgs.gov/nwis>). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

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	Value is estimated.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
M	Presence of material verified, but not quantified.
N	Presumptive evidence of presence of material.
U	Material specifically analyzed for, but not detected.
A	Value is an average.
V	Analyte was detected in both the environmental sample and the associated blanks.
S	Most probable value.

Water-Quality Control Data

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDLs) and laboratory reporting levels (LRLs). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. Falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a non-detection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as less than LRL for samples in which the analyte was either not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E." These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this District office are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples. These data are not presented in this report but are available from the District office.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated in the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. Many types of blank samples are possible; each is designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this district are:

Field blank—A blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank—A blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank—A blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

Sampler blank—A blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Filter blank—A blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank—A blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank—A blank solution that is treated with the sampler preservatives used for an environmental sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory. The reference material composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. Many types of replicate samples are possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are:

Concurrent samples—A type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating the collection of samples into two or more compositing containers.

Sequential samples—A type of replicate sample in which the samples are collected one after the other, typically over a short time.

Split sample—A type of replicate sample in which a sample is split into subsamples, each subsample contemporaneous in time and space.

Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine

the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Generally, only ground-water-level data from selected wells with continuous recorders from a basic network of observation wells are published in this report. This basic network contains observation wells located so that the most significant data are obtained from the fewest wells in the most important aquifers.

Site Identification Numbers

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

Data Collection and Computation

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

Most methods for collecting and analyzing water samples are described in the TWRI's referred to in the On-site Measurements and Sample Collection and the Laboratory Measurements sections in this report. In addition, TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRI's Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1 through A9. The TWRI publications may be accessed from <http://water.usgs.gov/pubs/twri/>. The values in this report represent water-quality conditions at the time of sampling, as much as possible, and that are

consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. Trained personnel collected all samples. The wells sampled were pumped long enough to ensure 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.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). 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 above sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported daily.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth of water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Data Presentation

Water-level data are presented in alphabetical order by county. The primary identification number for a given well is the 15-digit site identification number that appears in the upper left corner of the table. The secondary identification number is the local or county well number. Well locations are shown in figure 2; each well is identified on the map by its local well or county well number.

Each well record consists of three parts: the well description, the data table of water levels

observed during the water year, and, for most wells, a hydrograph following the data table. Well descriptions are presented in the headings preceding the tabular data.

The following comments clarify information presented in these various headings.

LOCATION.—This paragraph follows the well-identification number and reports the hydrologic-unit number and a geographic point of reference. Latitudes and longitudes used in this report are reported as North American Datum of 1927 unless otherwise specified.

AQUIFER.—This entry designates by name and geologic age the aquifer that the well taps.

WELL CHARACTERISTICS.—This entry describes the well in terms of depth, casing diameter and depth or screened interval, method of construction, use, and 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 continuous, monthly, or some other frequency of measurement.

DATUM.—This entry describes both the measuring point and the land-surface elevation at the well. The altitude of the land-surface datum is described in feet above the altitude datum; it is reported with a precision depending on the method of determination. The measuring point is described physically (such as top of casing, top of instrument shelf, and so forth), 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 National Geodetic Vertical Datum of 1929 (NGVD 29); 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, when various methods of measurement were begun, and the network (climatic, terrane, local, or areal effects) or the special project to which the well belongs.

PERIOD OF RECORD.—This entry indicates the time period for which records are published for the well, the month and year at the start of publication of water-level records by the USGS, and the words “to current year” if the records are to be continued into the following year. Time periods for which water-level records are available, but are not published by the USGS, may be noted.

EXTREMES FOR PERIOD OF RECORD.—This entry contains the highest and lowest instantaneously recorded or measured water levels of the period of published record, with respect to land-surface datum or sea level, and the dates of occurrence.

Water-Level Tables

A table of water levels follows the well description for each well. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum (l_{sd}). Missing records are indicated by dashes in place of the water-level value.

For wells not equipped with recorders, water-level measurements were obtained periodically by steel or electric tape. Tables of periodic water-level measurements in these wells show the date of measurement and the measured water-level value.

Hydrographs

Hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, current water year and, when appropriate, period-of-record hydrographs are shown. Hydrographs that display periodic water-level measurements show points that may be connected with a dashed line from one measurement to the next. Hydrographs that display recorder data show a solid line representing the mean water level recorded for each day. Missing data are indicated by a blank space or break in a hydrograph. Missing data may occur as a result of recorder malfunctions, battery failures, or mechanical problems related to the response of the recorder’s float mechanism to water-level fluctuations in a well.

GROUND-WATER-QUALITY DATA

Data Collection and Computation

The ground-water-quality data in this report were obtained as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some wells within a county but not for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide.

Most methods for collecting and analyzing water samples are described in the TWRI, which may be accessed from <http://water.usgs.gov/pubs/twri/>. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRI, Book 1, Chapter D2; Book 5, Chapters A1, A3, and A4 and Book 9, Chapters A1–A6. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS District office (see address shown on back of title page in this report).

Laboratory Measurements

Analysis for sulfide and measurement of alkalinity, pH, water temperature, specific conductance, and dissolved oxygen are performed on site. All other sample analyses are performed at the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used by the USGS laboratory are given in TWRI, Book 1, Chapter D2; and Book 5, Chapters A1, A3, and A4, which may be accessed from <http://water.usgs.gov/pubs/twri/>.

ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed from <http://water.usgs.gov>.

Provisional current (monthly) conditions and real time (telemetry) information for New Hampshire and Vermont can be obtained at the following www addresses:

<http://nh.water.usgs.gov>

<http://vt.water.usgs.gov>

<http://nh.waterdata.usgs.gov/nwis/current/?type=flow>

<http://nh.water.usgs.gov/WaterData/curr.htm>

Information about the availability of other provisional, specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (See address on the back of the title page.)

Water-quality data and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each Water Discipline District Office (See address that is shown on the back of the title page of this report.)

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from <http://water.usgs.gov/glossaries.html>.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an “unfiltered” sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also “Annual runoff”)

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

Adjusted discharge is discharge data that have been mathematically adjusted (for example, to remove the effects of a daily tide cycle or reservoir storage).

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample. (See also “Biomass” and “Dry weight”)

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a “filtered” sample.

Annual runoff is the total quantity of water that is discharged (“runs off”) from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1–March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. 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.)

Aroclor is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

Artificial substrate is a device that purposely is 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 collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection. (See also “Substrate”)

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

Aspect is the direction toward which a slope faces with respect to the compass.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas 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.

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also "Peak flow")

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bed material is the sediment mixture of which a stream-bed, lake, pond, reservoir, or estuary bottom is composed. (See also "Bedload" and "Sediment")

Bedload is material in transport that primarily is supported by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to the top of the bedload sampler nozzle (an elevation ranging from 0.25 to 0.5 foot). These particles are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also "Bedload," "Dry weight," "Sediment," and "Suspended-sediment discharge")

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

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 microorganisms, such as bacteria.

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

Biomass pigment ratio is an indicator of the total proportion of periphyton that are autotrophic (plants). This also is called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton and periphyton organisms with a blue pigment in addition to a green pigment called chlorophyll. Blue-green algae can cause nuisance water-quality conditions in lakes and slow-flowing rivers; however, they are found commonly in streams throughout the year. The abundance of blue-green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also "Phytoplankton" and "Periphyton")

Bottom material (See "Bed material")

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved-solids content of the pore water, and the lithology and porosity of the rock.

Canadian Geodetic Vertical Datum 1928 is a geodetic datum derived from a general adjustment of Canada's first order level network in 1928.

Cell volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are used frequently in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of

their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } \frac{4}{3} \pi r^3 \quad \text{cone } \frac{1}{3} \pi r^2 h \quad \text{cylinder } \pi r^2 h.$$

pi (π) is the ratio of the circumference to the diameter of a circle; $\pi = 3.14159\dots$

From cell volume, total algal biomass expressed as biovolume ($\mu\text{m}^3/\text{mL}$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

Cells/volume refers to the number of cells of any organism that 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 volume, and generally are reported as cells or units per milliliter (mL) or liter (L).

Cfs-day (See “Cubic foot per second-day”)

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

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 BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also “Biochemical oxygen demand (BOD)”]

***Clostridium perfringens* (*C. perfringens*)** is a spore-forming bacterium that is common in the feces of human and other warmblooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and the presence of microorganisms that are resistant to disinfection and environmental stresses. (See also “Bacteria”)

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

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.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

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.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, 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 saltwater.

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term “second-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, $[(\text{ft}^3/\text{s})/\text{d}]$) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables numerically are equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, $(\text{ft}^3/\text{s})/\text{mi}^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (See also “Annual runoff”)

Daily mean suspended-sediment concentration is the time-weighted mean concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also “Sediment” and “Suspended-sediment concentration”)

Daily record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to data collection on a daily or near-daily basis.

Data collection platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and(or) landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data usually are downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and(or) horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or Universal Transverse Mercator (UTM) coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

Diatoms (*Bacillariophyta*) are unicellular or colonial algae with a siliceous cell wall. The abundance of diatoms in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of diatoms in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or flow, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, and so forth, within a given

period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of “dissolved” constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It 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, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4917 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L CaCO₃) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index (H) (Shannon index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = - \sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n} ,$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth's surface that contains a drainage system with a common outlet for its surface runoff. (See "Drainage area")

Dry mass refers to the mass of residue present after drying in an oven at 105°C, 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. (See also "Ash mass," "Biomass," and "Wet mass")

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65°C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also "Wet weight")

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also "Substrate embeddedness class")

Enterococcus bacteria commonly are found in the feces of humans and other warmblooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41°C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus faecalis*, *Streptococcus faecium*, *Streptococcus avium*, and their variants. (See also "Bacteria")

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that generally are considered pollution sensitive; the index usually decreases with pollution.

Escherichia coli (*E. coli*) are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of

indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5°C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Estimated (E) value of a concentration is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an E code will be reported with the value. If the analyte is identified qualitatively as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an E code even though the measured value is greater than the MDL. A value reported with an E code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<). For bacteriological data, concentrations are reported as estimated when results are based on non-ideal colony counts.

Euglenoids (*Euglenophyta*) are a group of algae that usually are free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also "Phytoplankton")

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediment.

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are 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°C plus or minus 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Fecal streptococcal bacteria are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-

positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Filtered pertains to constituents in a water sample passed through a filter of specified pore diameter, most commonly 0.45 micrometer or less for inorganic analytes and 0.7 micrometer for organic analytes.

Filtered, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that has passed through a filter has been extracted. Complete recovery is not achieved by the extraction procedure and thus the analytical determination represents something less than 95 percent of the total constituent concentration in the sample. To achieve comparability of analytical data, equivalent extraction procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

Fire algae (*Pyrrhophyta*) are free-swimming unicells characterized by a red pigment spot. (See also “Phytoplankton”)

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum is not an actual physical object, the datum is usually defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations

above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term “stage,” although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and(or) computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

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

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

Green algae (*Chlorophyta*) are unicellular or colonial algae with chlorophyll pigments similar to those in terrestrial green plants. Some forms of green algae produce mats or floating “moss” in lakes. The abundance of green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat typically are made over a wider geographic scale than are measurements of species distribution.

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

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

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. See NOAA Web site: <http://www.csc.noaa.gov/text/glossary.html> (see “High water”)

Hilsenhoff’s Biotic Index (HBI) is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = \frac{\sum (n)(a)}{N} ,$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See “Datum”)

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

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

Inch (IN., in.), in reference to streamflow, as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were distributed uniformly on it. (See also “Annual runoff”)

Instantaneous discharge is the discharge at a particular instant of time. (See also “Discharge”)

International Boundary Commission Survey Datum refers to a geodetic datum established at numerous monuments along the United States-Canada boundary by the International Boundary Commission.

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year, on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) generally is equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a “less than” (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. The LRL replaces the term ‘non-detection value’ (NDV).

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

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_0 e^{-\lambda L} ,$$

where I_0 is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_0} .$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Long-term method detection level (LT-MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike-sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. *See NOAA Web site:*
<http://www.csc.noaa.gov/text/glossary.html>
(see “Low water”)

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also “Daily mean suspended-sediment concentration” and “Suspended-sediment concentration”)

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period. (See also “Discharge”)

Mean high or low tide is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the

name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also “Datum”)

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

Megahertz is a unit of frequency. One megahertz equals one million cycles per second.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

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.

Method code is a one-character code that identifies the analytical or field method used to determine a value stored in the National Water Information System (NWIS).

Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

Method of Cubatures is a method of computing discharge in tidal estuaries based on the conservation of mass equation.

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

Micrograms per gram (UG/G, µg/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 kilogram (UG/KG, $\mu\text{g}/\text{kg}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, $\mu\text{g}/\text{L}$) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

Microsiemens per centimeter (US/CM, $\mu\text{S}/\text{cm}$) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent 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.

Minimum reporting level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and(or) water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hard-board plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD 29) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It formerly was called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. *See NOAA Web site:* <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88> (See "North American Vertical Datum of 1988")

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

Nekton are the consumers in the aquatic environment and consist of large, free-swimming organisms that are capable of sustained, directed mobility.

Nonfilterable refers to the portion of the total residue retained by a filter.

North American Datum of 1927 (NAD 27) is the horizontal control datum for the United States that was defined by a location and azimuth on the Clarke spheroid of 1866.

North American Datum of 1983 (NAD 83) is the horizontal control datum for the United States, Canada, Mexico, and Central America that is based on the adjustment of 250,000 points including 600 satellite Doppler stations that constrain the system to a geocentric origin. NAD 83 has been officially adopted as the legal horizontal datum for the United States by the Federal government.

North American Vertical Datum of 1988 (NAVD 88) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States first-order terrestrial leveling networks.

Open or screened interval is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or **volatile mass** of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also “Ash mass,” “Biomass,” and “Dry mass”)

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m²), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method uses the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) 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, as used in this report, agrees with the recommendation 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/sieve
Gravel	>2.0 – 64.0	Sieve
Cobble	>64 – 256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, 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.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of stream-flows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

Percent composition or **percent of total** 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, weight, mass, or volume.

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. Although primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

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

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed “acidic,” and solutions with a pH greater than 7.0 are termed “basic.” Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

Phytoplankton is the plant part of the plankton. They usually are 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 commonly are known as algae. (See also “Plankton”)

Picocurie (PC, pCi) is one-trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 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. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

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

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

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 (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [$\text{mgC}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg C}/(\text{m}^3/\text{time})$] for phytoplankton. The carbon method defines 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 with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [$\text{mg O}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg O}/(\text{m}^3/\text{time})$] for phytoplankton. The oxygen method defines 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. (See also “Primary productivity”)

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference

arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable is the amount of a given constituent that is in solution after a representative water sample has been extracted or digested. Complete recovery is not achieved by the extraction or digestion and thus the determination represents something less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also “Bed material”)

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms “return period” and “recurrence interval” do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half

occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period (See “Recurrence interval”)

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged (“runs off”) from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also “Annual runoff”)

Salinity is the total quantity of dissolved salts, measured by weight in parts per thousand. Values in this report are calculated from specific conductance and temperature. Seawater has an average salinity of about 35 parts per thousand (for additional information, refer to: Miller, R.L., Bradford, W.L., and Peters, N.E., 1988, Specific conductance: theoretical considerations and application to analytical quality control: U.S. Geological Survey Water-Supply Paper 2311, 16 p.)

Sea level, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as “fluvial sediment.” Sediment 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 affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also “Annual 7-day minimum” and “Recurrence interval”)

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

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. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105°C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

Specific electrical conductance (conductivity) is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific electrical

conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 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.

Stable isotope ratio (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage (See “Gage height”)

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

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.

Substrate embeddedness class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2 mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0	no gravel or larger substrate	3	26–50 percent
1	> 75 percent	4	5–25 percent
2	51–75 percent	5	< 5 percent

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

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

Surrogate is an analyte that behaves similarly to a target analyte, but that is highly unlikely to occur in a sample. A surrogate is added to a sample in known amounts before extraction and is measured with the same laboratory procedures used to measure the target analyte. Its purpose is to monitor method performance for an individual sample.

Suspended is the amount (concentration) of undissolved material in a water-sediment mixture. Most commonly refers to that 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-micrometer filter has been extracted or digested. Complete recovery is not achieved by the extraction or digestion procedures and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also “Suspended”)

Suspended sediment is sediment carried in suspension by the turbulent components of the fluid or by the Brownian movement (a law of physics). (See also “Sediment”)

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also “Sediment” and “Suspended sediment”)

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) \times discharge (ft³/s) \times 0.0027. (See also “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also “Sediment”)

Suspended solids, total residue at 105°C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. 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 directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also “Suspended”)

Synoptic studies are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

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:	<i>Hexagenia</i>
Species:	<i>Hexagenia limbata</i>

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term “temperature recorder” is used in the table descriptions 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 resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric ton per day.

Total is the amount of a given constituent in a representative whole-water (unfiltered) 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 sedi-

ment mixture and that the analytical method determined at least 95 percent of the constituent in the sample.)

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35° C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35° C plus or minus 1.0° C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also “Bacteria”)

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as “total sediment discharge,” “total chloride discharge,” and so on.

Total in bottom material is the amount of a given constituent in a representative sample of bottom material. 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 judge when the results should be reported as “total in bottom material.”

Total length (fish) is the straight-line distance from the anterior point of a fish specimen’s snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also “Organism count/volume”)

Total recoverable is the amount of a given constituent in a whole-water sample after a 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, and 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 for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also “Bed-load,” “Bedload discharge,” “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Total sediment load or **total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also “Sediment,” “Suspended-sediment load,” and “Total load”)

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is an expression of the optical properties of a liquid that causes light rays to be scattered and absorbed rather than transmitted in straight lines through water. Turbidity, which can make water appear cloudy or muddy, is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms, organic acids, and dyes (ASTM International, 2003, D1889–00 Standard test method for turbidity of water, *in* ASTM International, Annual Book of ASTM Standards, Water and Environmental Technology, v. 11.01: West Conshohocken, Pennsylvania, 6 p.). The color of water, whether resulting from dissolved compounds or suspended particles, can affect a turbidity measurement. To ensure that USGS turbidity data can be understood and interpreted properly within the context of the instrument used and site conditions encountered, data from each instrument type are stored and reported in the National

Water Information System (NWIS) using parameter codes and measurement reporting units that are specific to the instrument type, with specific instruments designated by the method code. The respective measurement units, many of which also are in use internationally, fall into two categories: (1) the designations NTU, NTRU, BU, AU, and NTMU signify the use of a broad spectrum incident light in the wavelength range of 400–680 nanometers (nm), but having different light detection configurations; (2) The designations FNU, FNRU, FBU, FAU, and FNMU generally signify an incident light in the range between 780–900 nm, also with varying light detection configurations. These reporting units are equivalent when measuring a calibration solution (for example, formazin or polymer beads), but their respective instruments may not produce equivalent results for environmental samples. Specific reporting units are as follows:

NTU (Nephelometric Turbidity Units): white or broadband [400–680 nm] light source, 90 degree detection angle, one detector.

NTRU (Nephelometric Turbidity Ratio Units): white or broadband [400–680 nm] light source, 90 degree detection angle, multiple detectors with ratio compensation.

BU (Backscatter Units): white or broadband [400–680 nm] light source, 30 ± 15 degree detection angle (backscatter).

AU (Attenuation Units): white or broadband [400–680 nm] light source, 180 degree detection angle (attenuation).

NTMU (Nephelometric Turbidity Multibeam Units): white or broadband [400–680 nm] light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

FNU (Formazin Nephelometric Units): near infrared [780–900 nm] or monochrome light source, 90 degree detection angle, one detector.

FNRU (Formazin Nephelometric Ratio Units): near infrared [780–900 nm] or monochrome light source, 90 degree detection angle, multiple detectors, ratio compensation.

FBU (Formazin Backscatter Units): near infrared [780–900 nm] or monochrome light source, 30 ± 15 degree detection angle.

FAU (Formazin Attenuation Units): near infrared [780–900 nm] light source, 180 degree detection angle.

FNMU (Formazin Nephelometric Multibeam Units): near infrared [780–900 nm] or monochrome light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

For more information please see http://water.usgs.gov/owq/FieldManual/Chapter6/6.7_contents.html.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of path length of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See “Water-table aquifer”)

Unfiltered pertains to the constituents in an unfiltered, representative water-suspended sediment sample.

Unfiltered, recoverable is the amount of a given constituent in a representative water-suspended sediment sample that has been extracted or digested. Complete recovery is not achieved by the extraction or digestion treatment and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

Vertical datum (See “Datum”)

Volatile organic compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and, subsequently, analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They often are components of fuels, solvents, hydraulic fluids, paint thinners, and dry-cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human-health concern because many are toxic and are known or suspected human carcinogens.

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which the water table is found.

Water year in USGS 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, 2002, is called the “2002 water year.”

Watershed (See “Drainage basin”)

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.

Wet mass is the mass of living matter plus contained water. (See also “Biomass” and “Dry mass”)

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also “Dry weight”)

WSP is used as an acronym for “Water-Supply Paper” in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are 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 zooplankton community is dominated by small crustaceans and rotifers. (See also “Plankton”)

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY

The USGS publishes a series of manuals, the Techniques of Water-Resources Investigations, 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.

Reports in the Techniques of Water-Resources Investigations series, which are listed below, are online at <http://water.usgs.gov/pubs/twri/>. Printed copies are for sale by the USGS, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office), telephone 1-888-ASK-USGS. Please telephone 1-888-ASK-USGS for current prices, and refer to the title, book number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations." Products can then be ordered by telephone, or online at <http://www.usgs.gov/sales.html>, or by FAX to (303) 236-4693 of an order form available online at <http://mac.usgs.gov/isb/pubs/forms/>. Prepayment by major credit card or by a check or money order payable to the "U.S. Geological Survey" is required.

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

- 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, chap. D1. 1975. 65 p.
- 1–D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS–TWRI book 1, chap. D2. 1976. 24 p.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

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- 2–D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 p.

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Section F. Drilling and Sampling Methods

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Book 3. Applications of Hydraulics

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- 3–A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS–TWRI book 3, chap. A1. 1967. 30 p.
- 3–A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS–TWRI book 3, chap. A2. 1967. 12 p.
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- 3–A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS–TWRI book 3, chap. A6. 1968. 13 p.
- 3–A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A7. 1968. 28 p.
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- 3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS-TWRI book 3, chap. B1. 1971. 26 p.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G.D. Bennett: USGS-TWRI book 3, chap. B2. 1976. 172 p.
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- 4–A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS–TWRI book 4, chap. A1. 1968. 39 p.
- 4–A2. *Frequency curves*, by H.C. Riggs: USGS–TWRI book 4, chap. A2. 1968. 15 p.
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Book 5. Laboratory Analysis**Section A. Water Analysis**

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- 6–A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS–TWRI book 6, chap. A1. 1988. 586 p.
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- 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, chap. A5. 1993. 243 p.
- 6–A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler: USGS–TWRI book 6, chap. A6. 1996. 125 p.
- 6–A7. *User's guide to SEAWAT: A computer program for simulation of three-dimensional variable-density ground-water flow*, by Weixing Guo and Christian D. Langevin: USGS–TWRI book 6, chap. A7. 2002. 77 p.

Book 7. Automated Data Processing and Computations**Section C. Computer Programs**

- 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, chap. C1. 1976. 116 p.
- 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, chap. C2. 1978. 90 p.
- 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, chap. C3. 1981. 110 p.

Book 8. Instrumentation**Section A. Instruments for Measurement of Water Level**

- 8–A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS–TWRI book 8, chap. A1. 1968. 23 p.
- 8–A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 p.

Section B. Instruments for Measurement of Discharge

- 8–B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 8, chap. B2. 1968. 15 p.

Book 9. Handbooks for Water-Resources Investigations**Section A. National Field Manual for the Collection of Water-Quality Data**

- 9–A1. *National field manual for the collection of water-quality data: Preparations for water sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.

9–A2. *National field manual for the collection of water-quality data: Selection of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.

9–A3. *National field manual for the collection of water-quality data: Cleaning of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.

9–A4. *National field manual for the collection of water-quality data: Collection of water samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A4. 1999. 156 p.

9–A5. *National field manual for the collection of water-quality data: Processing of water samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A5. 1999. 149 p.

9–A6. *National field manual for the collection of water-quality data: Field measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI book 9, chap. A6. 1998. Variously paginated.

9–A7. *National field manual for the collection of water-quality data: Biological indicators*, edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.

9–A8. *National field manual for the collection of water-quality data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI book 9, chap. A8. 1998. 48 p.

9–A9. *National field manual for the collection of water-quality data: Safety in field activities*, by S.L. Lane and R.G. Fay: USGS–TWRI book 9, chap. A9. 1998. 60 p.

01052500 DIAMOND RIVER NEAR WENTWORTH LOCATION, NH

LOCATION.--Lat 44° 52'39", long 71° 03'27" (corrected), 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.--

DISCHARGE: July 1941 to current year.

CHEMICAL ANALYSES: Water year 1954.

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

GAGE.--Water-stage recorder. Elevation of gage is 1,259.48 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except for periods of ice effect, Dec. 2-18, Dec. 28 to Apr. 4, and period of no gage-height record, June 1, which are fair. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,800 ft³/s, Mar. 31, 1998, gage height, 12.11 ft, from rating curve extended above 7,500 ft³/s; maximum gage height, 12.23 ft, Feb. 21, 1981 (backwater from ice); minimum discharge, 6.8 ft³/s, Aug. 27-28, 1949, Sept. 1, 1952, gage height, 0.81 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0215	4,720	8.34	Apr 20	0545	*5,130	*8.42
Nov 20	1115	4,110	7.94				

Minimum discharge, 50 ft³/s, July 5, gage height, 2.02 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	587	577	e418	e99	e57	e1,040	798	e344	56	89	485
2	76	450	e399	e345	e96	e61	e1,380	709	787	91	82	282
3	75	389	e278	e340	e96	e96	e1,170	615	731	82	160	217
4	85	401	e282	e380	e95	e142	e953	783	434	60	325	183
5	254	349	e253	e361	e92	e114	961	693	323	52	154	156
6	209	434	e210	e303	e88	e181	618	729	260	79	104	140
7	149	362	e190	e244	e83	e250	490	575	225	75	135	131
8	114	290	e241	e182	e81	e173	466	421	201	81	121	129
9	93	228	e245	e159	e79	e137	551	342	191	425	107	979
10	80	232	e283	e148	e77	e123	556	297	311	606	84	1,390
11	73	221	e277	e157	e76	e118	415	291	184	338	73	648
12	68	226	e851	e217	e73	e124	390	267	151	180	84	371
13	64	748	e581	e216	e73	e119	506	235	133	159	642	271
14	60	812	e357	e205	e72	e107	1,370	214	119	119	815	220
15	154	434	e323	e189	e68	e105	1,450	195	165	111	351	193
16	372	341	e295	e177	e65	e98	1,240	196	214	124	314	171
17	263	288	e416	e173	e63	e94	1,230	179	137	171	826	156
18	210	275	e2,810	e171	e62	e91	2,190	183	107	133	332	160
19	171	402	2,180	e167	e61	e90	2,960	479	176	183	236	152
20	145	2,830	1,120	e158	e61	e87	4,440	257	196	188	927	137
21	954	2,450	638	e151	e61	e90	2,120	265	121	156	658	124
22	1,360	909	565	e144	e61	e88	1,400	237	96	113	865	118
23	579	612	493	e139	e61	e85	1,640	289	115	251	390	107
24	382	483	461	e133	e61	e81	1,150	778	96	560	300	95
25	294	419	1,440	e128	e60	e80	881	1,330	82	235	232	89
26	289	348	1,500	e122	e59	e115	963	924	83	153	190	100
27	2,110	303	862	e117	e56	e386	955	673	72	119	164	98
28	3,850	298	e551	e112	e56	e779	830	558	64	109	151	85
29	2,410	1,380	e478	e109	e56	e617	601	679	59	99	143	80
30	2,230	1,050	e500	e105	---	e497	683	429	59	86	779	75
31	894	---	e485	e102	---	e547	---	319	---	79	820	---
TOTAL	18,163	18,551	20,141	6,072	2,091	5,732	35,599	14,939	6,236	5,273	10,653	7,542
MEAN	586	618	650	196	72.1	185	1,187	482	208	170	344	251
MAX	3,850	2,830	2,810	418	99	779	4,440	1,330	787	606	927	1,390
MIN	60	221	190	102	56	57	390	179	59	52	73	75
CFSM	3.85	4.07	4.27	1.29	0.47	1.22	7.81	3.17	1.37	1.12	2.26	1.65
IN.	4.45	4.54	4.93	1.49	0.51	1.40	8.71	3.66	1.53	1.29	2.61	1.85

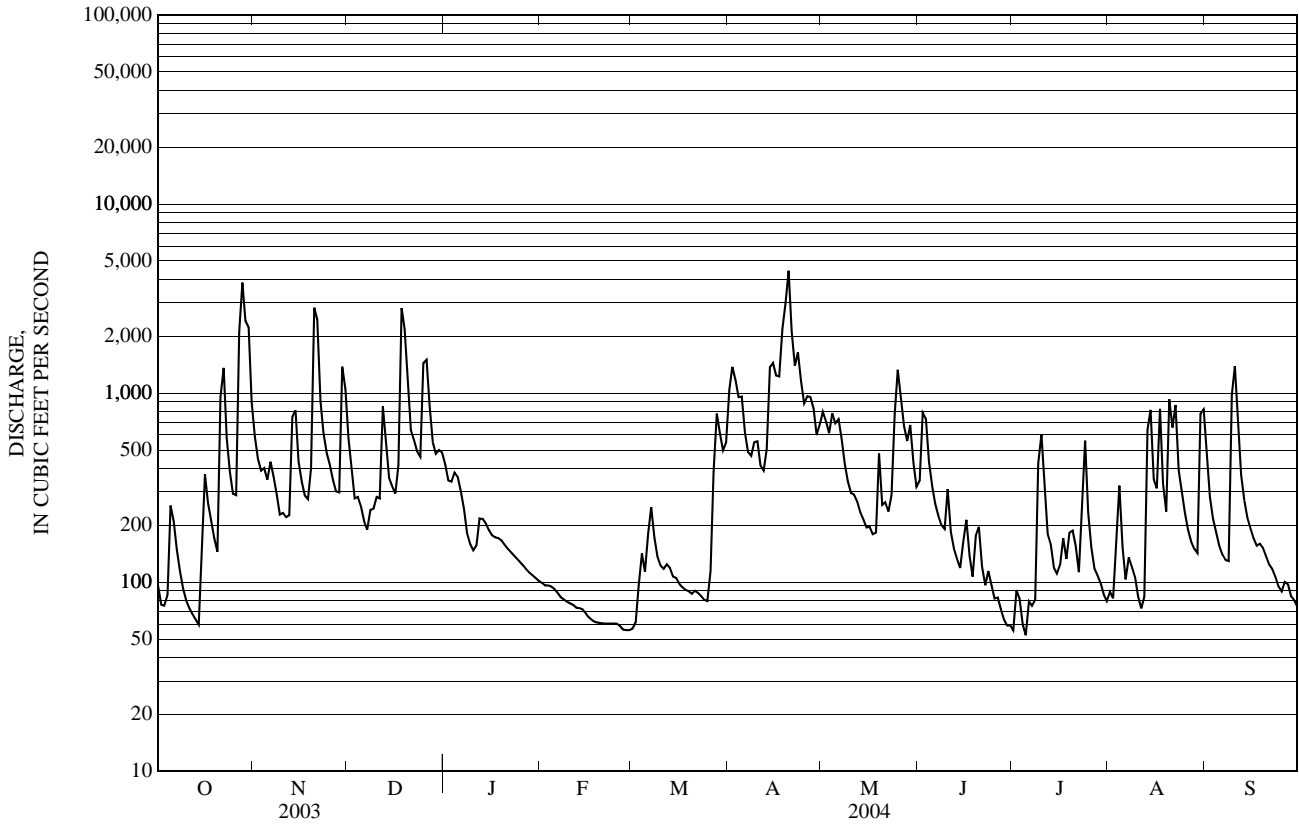
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2004, BY WATER YEAR (WY)

MEAN	266	336	233	166	145	288	1,082	908	319	170	138	149
MAX	869	733	739	575	783	936	1,754	2,115	804	703	492	836
(WY)	(1991)	(1964)	(1974)	(1995)	(1981)	(1998)	(2002)	(1972)	(1943)	(1996)	(1988)	(1954)
MIN	40.9	83.2	53.4	53.9	43.4	54.6	402	297	105	35.1	15.0	16.8
(WY)	(1953)	(1979)	(1979)	(1948)	(1942)	(1967)	(1972)	(1998)	(1963)	(1952)	(1952)	(1952)

e Estimated.

01052500 DIAMOND RIVER NEAR WENTWORTH LOCATION, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1941 - 2004	
ANNUAL TOTAL	129,392		150,992		350	
ANNUAL MEAN	354		413		225	
HIGHEST ANNUAL MEAN					524	1996
LOWEST ANNUAL MEAN					225	1965
HIGHEST DAILY MEAN	4,060	Apr 16	4,440	Apr 20	9,900	Mar 31, 1998
LOWEST DAILY MEAN	26	Sep 13	52	Jul 5	6.8	Aug 28, 1949
ANNUAL SEVEN-DAY MINIMUM	28	Sep 9	58	Feb 24	9.0	Sep 11, 1952
MAXIMUM PEAK FLOW			5,130	Apr 20	12,800	Mar 31, 1998
MAXIMUM PEAK STAGE			8.42	Apr 20	12.23	Feb 21, 1981
INSTANTANEOUS LOW FLOW			50	Jul 5	6.8	Aug 27, 1949
ANNUAL RUNOFF (CFSM)	2.33		2.71		2.31	
ANNUAL RUNOFF (INCHES)	31.67		36.95		31.33	
10 PERCENT EXCEEDS	868		935		844	
50 PERCENT EXCEEDS	150		215		158	
90 PERCENT EXCEEDS	46		76		52	



01053500 ANDROSCOGGIN RIVER AT ERROL, NH

LOCATION.--Lat 44° 46'57", long 71° 07'43" (corrected), Coos County, Hydrologic Unit 01040001, on right bank 0.4 mi downstream from Errol Dam, 0.4 mi northeast of Errol, and 0.6 mi upstream from Clear Stream.

DRAINAGE AREA.--1,046 mi².

PERIOD OF RECORD.--

DISCHARGE: January 1905 to current year. November and December 1912, monthly discharges only, published in WSP 1301. Prior to 1922, published as "at Errol Dam." Records for water years 1923-44 have not been published but are available in the files of the U.S. Geological Survey.

CHEMICAL ANALYSES: Water years 1955, 1958.

REVISED RECORDS.--WDR ME-81-1: Drainage area. WDR ME-97-1: 1906-43(M) 1978-84(M).

GAGE.--Water-stage recorder. Datum of gage is 1,227.30 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 8, 1943, nonrecording gage at Errol Dam at datum 5.0 ft higher.

REMARKS.--Records good, except for periods of doubtful gage-height record, Aug. 6-13, Sept. 19, 26-28, and period of no gage-height record, Dec. 22-23, which are fair. Flow regulated by Rangeley, Mooselookmeguntic, Richardson, Aziscohos, and Umbagog Lakes, combined usable capacity about 28.1 billion ft³, with final regulation at Errol Dam, 0.4 mi upstream. Telephone and satellite telemeters at station. Gage is operated in conjunction with a co-located precipitation gage (station 444657071074601). Records for precipitation are located in the Quantity of Precipitation section in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s, May 22, 1969, gage height 9.40 ft; minimum daily discharge, leakage only at various times when gates in dam were closed in water years 1918, 1919, 1923, 1924, 1928, and 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,430 ft³/s, Dec. 20, gage height, 6.27 ft; minimum daily discharge, 992 ft³/s, Mar. 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,580	3,170	3,420	2,530	3,350	3,430	1,010	1,400	1,560	1,370	1,230	1,770
2	1,580	2,600	2,800	2,530	3,360	3,430	1,300	1,400	1,640	1,390	1,220	1,720
3	1,590	2,600	2,580	2,530	2,930	3,430	1,710	1,440	1,890	1,360	1,230	1,620
4	1,580	2,400	2,580	2,540	2,910	3,430	1,860	1,430	1,680	1,360	1,230	1,660
5	1,580	2,240	2,580	2,530	3,380	3,420	1,870	1,680	1,440	1,360	1,230	1,620
6	1,580	2,110	2,580	2,530	3,490	3,410	1,870	1,830	1,370	1,370	e1,230	1,690
7	1,580	2,030	2,640	2,520	3,500	3,400	1,870	1,820	1,370	1,370	e1,230	1,840
8	1,580	2,030	2,790	2,510	3,500	3,390	1,870	1,820	1,270	1,370	e1,230	1,910
9	1,580	2,020	2,760	2,510	3,500	2,850	1,860	1,820	1,250	1,560	e1,230	1,910
10	1,580	2,020	2,820	2,510	3,500	2,520	1,860	1,700	1,310	1,940	e1,230	1,600
11	1,590	2,160	2,670	2,510	3,490	2,520	1,860	1,630	1,320	2,330	e1,230	1,540
12	1,590	2,230	2,570	2,770	3,490	2,520	1,850	1,560	1,320	2,070	e1,230	1,620
13	1,580	2,240	3,020	3,190	3,490	2,480	2,300	1,280	1,320	1,790	e1,470	1,630
14	1,580	2,250	3,560	3,170	3,490	2,450	2,530	1,380	1,330	1,350	1,630	1,630
15	1,520	2,240	4,830	3,170	3,480	2,430	2,520	1,480	1,330	1,270	1,630	1,860
16	1,250	2,230	5,670	3,170	3,480	2,400	2,530	1,470	1,330	1,240	1,630	2,010
17	1,250	2,230	5,590	3,170	3,470	2,390	2,540	1,470	1,360	1,250	1,660	2,010
18	1,390	2,250	6,660	3,150	3,470	2,180	2,540	1,350	1,370	1,250	1,660	2,010
19	1,470	2,240	7,460	3,110	3,450	2,040	3,500	1,230	1,370	1,250	1,660	e2,010
20	1,480	3,670	8,100	3,110	3,440	2,040	5,550	1,230	1,370	1,250	1,640	1,980
21	1,210	4,570	8,370	3,150	3,440	2,040	6,680	1,230	1,370	1,250	1,640	1,980
22	1,070	4,560	e8,260	3,200	3,510	2,040	4,580	1,220	1,370	1,250	1,650	1,980
23	1,070	4,010	e7,720	3,180	3,450	2,040	2,540	1,220	1,370	1,250	1,650	1,970
24	1,410	3,700	7,410	3,180	3,460	2,040	2,550	1,220	1,370	1,250	1,650	1,970
25	1,810	3,700	7,290	3,180	3,450	2,040	2,560	1,800	1,370	1,240	1,640	1,970
26	2,680	3,460	6,900	3,180	3,450	2,030	2,550	2,120	1,360	1,250	1,640	e1,970
27	3,840	3,960	6,180	3,180	3,580	1,800	2,560	2,400	1,360	1,240	1,640	e1,970
28	6,330	4,320	5,890	2,790	3,440	1,620	2,310	2,540	1,360	1,230	1,640	e1,970
29	7,050	4,370	5,860	2,850	3,440	1,310	1,940	2,140	1,360	1,230	1,640	1,910
30	7,000	4,040	4,090	3,340	---	992	1,550	1,700	1,360	1,230	1,730	1,880
31	5,180	---	2,640	3,350	---	997	---	1,550	---	1,230	1,810	---
TOTAL	69,160	87,650	148,290	90,340	99,390	75,109	74,620	49,560	41,850	43,150	46,060	55,210
MEAN	2,231	2,922	4,784	2,914	3,427	2,423	2,487	1,599	1,395	1,392	1,486	1,840
MAX	7,050	4,570	8,370	3,350	3,580	3,430	6,680	2,540	1,890	2,330	1,810	2,010
MIN	1,070	2,020	2,570	2,510	2,910	992	1,010	1,220	1,250	1,230	1,220	1,540

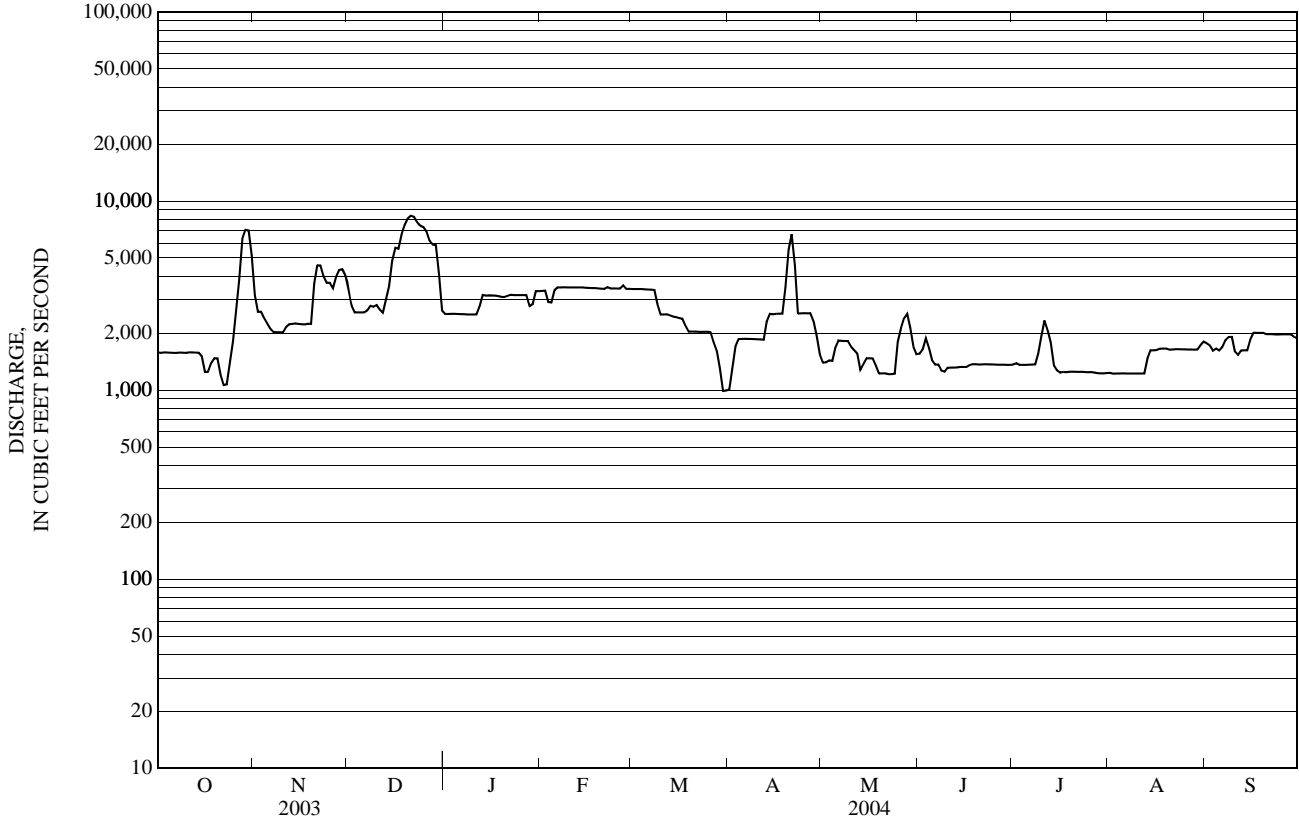
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 2004, BY WATER YEAR (WY)

MEAN	1,589	1,554	1,721	1,792	1,862	1,856	2,169	3,062	2,252	1,770	1,675	1,683
MAX	3,949	3,745	4,784	3,589	3,644	5,454	4,736	8,192	7,129	4,621	2,265	4,738
(WY)	(1955)	(1908)	(2004)	(1970)	(1996)	(1936)	(1913)	(1974)	(1917)	(1996)	(1990)	(1954)
MIN	921	759	844	760	718	592	770	1,027	763	808	840	902
(WY)	(1922)	(1922)	(1909)	(1909)	(1911)	(1948)	(1940)	(1941)	(1911)	(1915)	(1915)	(1911)

e Estimated.

01053500 ANDROSCOGGIN RIVER AT ERROL, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1905 - 2004	
ANNUAL TOTAL	714,905		880,389			
ANNUAL MEAN	1,959		2,405		1,914	
HIGHEST ANNUAL MEAN					3,117	1996
LOWEST ANNUAL MEAN					1,046	1911
HIGHEST DAILY MEAN	8,370	Dec 21	8,370	Dec 21	16,100	May 22, 1969
LOWEST DAILY MEAN	886	Aug 7	992	Mar 30	0.00	Oct 31, 1917
ANNUAL SEVEN-DAY MINIMUM	1,010	May 28	1,230	Jul 28	152	Mar 21, 1948
MAXIMUM PEAK FLOW			8,430	Dec 20	16,500	May 22, 1969
MAXIMUM PEAK STAGE			6.27	Dec 20	9.40	May 22, 1969
10 PERCENT EXCEEDS	3,380		3,520		2,630	
50 PERCENT EXCEEDS	1,500		1,970		1,680	
90 PERCENT EXCEEDS	1,230		1,250		1,130	



01054000 ANDROSCOGGIN RIVER NEAR GORHAM, NH

LOCATION.--Lat 44°26'09", long 71°11'25" (corrected), 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.--

DISCHARGE: October 1913 to current year. October 1922 to September 1928, monthly discharge only, published in WSP 1301. Discharges for Deceember 1917 not used in long-term statistics because of unknown discharge on Dec. 25, 1917. Prior to October 1928, published as "at Berlin."

REVISED RECORDS.--WDR ME-81-1: Drainage area. WDR ME-97-1: 1913-28(M)

GAGE.--Water-stage recorder. Datum of gage is 832.88 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1922, nonrecording gage showing head and tailwater elevations at site 3 mi upstream at different datum.

REMARKS.--Records good, including periods of no gage-height record, July 1-7 and 28. Flow regulated by Rangeley, Mooselookmeguntic, Richardson, Azischohos, and Umbagog Lakes, combined usable capacity about 28.1 billion ft³, with final regulation at Errol Dam 35 mi upstream. Diurnal fluctuations caused by power plant 0.8 mi upstream. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,900 ft³/s, estimated, Apr. 30, 1923; minimum daily discharge, leakage only, Dec. 25, 1917, when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,600 ft³/s, Oct. 30, gage height, 7.93 ft; minimum daily discharge, 944 ft³/s, July 2.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,700	4,970	4,610	3,270	3,220	3,370	3,020	1,860	1,960	e1,290	1,520	2,610
2	1,740	3,580	3,590	3,100	3,370	3,390	4,220	1,850	2,150	e944	1,500	2,260
3	1,650	3,430	2,930	3,120	3,310	3,480	4,710	2,090	2,740	e1,540	1,410	1,910
4	1,660	3,470	2,790	3,140	2,590	3,510	4,260	2,790	2,300	e1,410	1,400	1,850
5	1,780	3,130	2,690	3,080	3,080	3,500	3,970	2,860	1,890	e1,370	1,360	1,830
6	1,780	2,830	2,570	2,990	3,420	3,660	3,390	2,770	1,770	e1,410	1,330	1,760
7	1,720	2,590	2,390	2,770	3,430	3,800	2,910	2,490	1,600	e1,460	1,330	1,860
8	1,680	2,500	2,770	2,410	3,400	3,760	2,840	2,340	1,680	1,490	1,570	1,990
9	1,670	2,380	2,970	2,740	3,180	3,580	2,980	2,270	1,500	2,170	1,510	2,420
10	1,650	2,300	2,950	2,700	3,470	2,860	3,100	2,120	1,770	3,220	1,470	3,700
11	1,650	2,350	3,250	2,670	3,510	2,770	2,840	1,930	1,660	2,700	1,400	2,880
12	1,640	2,490	4,230	2,890	3,390	2,800	2,740	2,040	1,560	2,660	1,360	2,230
13	1,620	2,770	4,000	3,170	3,390	2,730	3,030	1,780	1,480	2,110	1,950	2,050
14	1,610	3,180	3,810	3,070	3,400	2,660	4,540	1,550	1,280	1,770	3,000	1,910
15	2,340	2,810	4,480	3,240	3,370	2,620	5,140	1,690	1,480	1,510	2,370	1,880
16	2,510	2,600	5,990	3,310	3,330	2,520	4,560	1,840	1,410	1,440	1,890	2,120
17	1,870	2,540	6,120	3,240	3,340	2,430	4,140	1,840	1,350	1,500	2,050	2,140
18	1,690	2,500	8,460	3,230	3,350	2,390	4,390	1,760	1,430	1,490	2,050	2,300
19	1,780	2,540	9,690	3,260	3,370	2,180	5,000	1,580	1,480	1,450	1,860	2,440
20	1,760	5,500	9,250	3,250	3,350	2,170	7,660	1,580	1,510	1,440	1,840	2,280
21	3,220	8,030	9,190	3,210	3,390	2,130	7,980	1,520	1,480	1,470	1,960	2,160
22	4,360	6,320	8,900	3,220	3,380	2,090	7,100	1,470	1,430	1,360	2,390	2,160
23	2,730	5,360	8,060	3,290	3,420	2,120	4,320	1,550	1,460	1,430	2,180	2,180
24	2,120	4,420	8,170	3,220	3,370	2,080	3,580	2,150	1,440	1,970	1,950	2,060
25	2,360	4,280	9,280	3,180	3,360	2,100	3,400	3,060	1,430	1,790	1,900	2,040
26	2,680	4,090	9,630	3,150	3,340	2,190	3,410	3,360	1,430	1,530	1,790	2,100
27	4,490	3,980	8,140	3,180	3,440	2,690	3,570	3,120	1,420	1,460	1,730	2,100
28	9,650	4,620	7,030	3,210	3,370	3,180	3,390	3,120	1,410	e1,420	1,750	2,110
29	10,100	5,530	6,430	2,600	3,360	3,180	2,940	2,990	1,410	1,410	1,780	2,080
30	10,800	5,700	4,980	2,910	---	2,640	2,480	2,370	1,390	1,360	2,200	1,920
31	8,380	---	3,640	3,230	---	2,800	---	1,890	---	1,350	2,760	---
TOTAL	96,390	112,790	172,990	95,050	96,700	87,380	121,610	67,630	48,300	50,924	56,560	65,330
MEAN	3,109	3,760	5,580	3,066	3,334	2,819	4,054	2,182	1,610	1,643	1,825	2,178
MAX	10,800	8,030	9,690	3,310	3,510	3,800	7,980	3,360	2,740	3,220	3,000	3,700
MIN	1,610	2,300	2,390	2,410	2,590	2,080	2,480	1,470	1,280	944	1,330	1,760

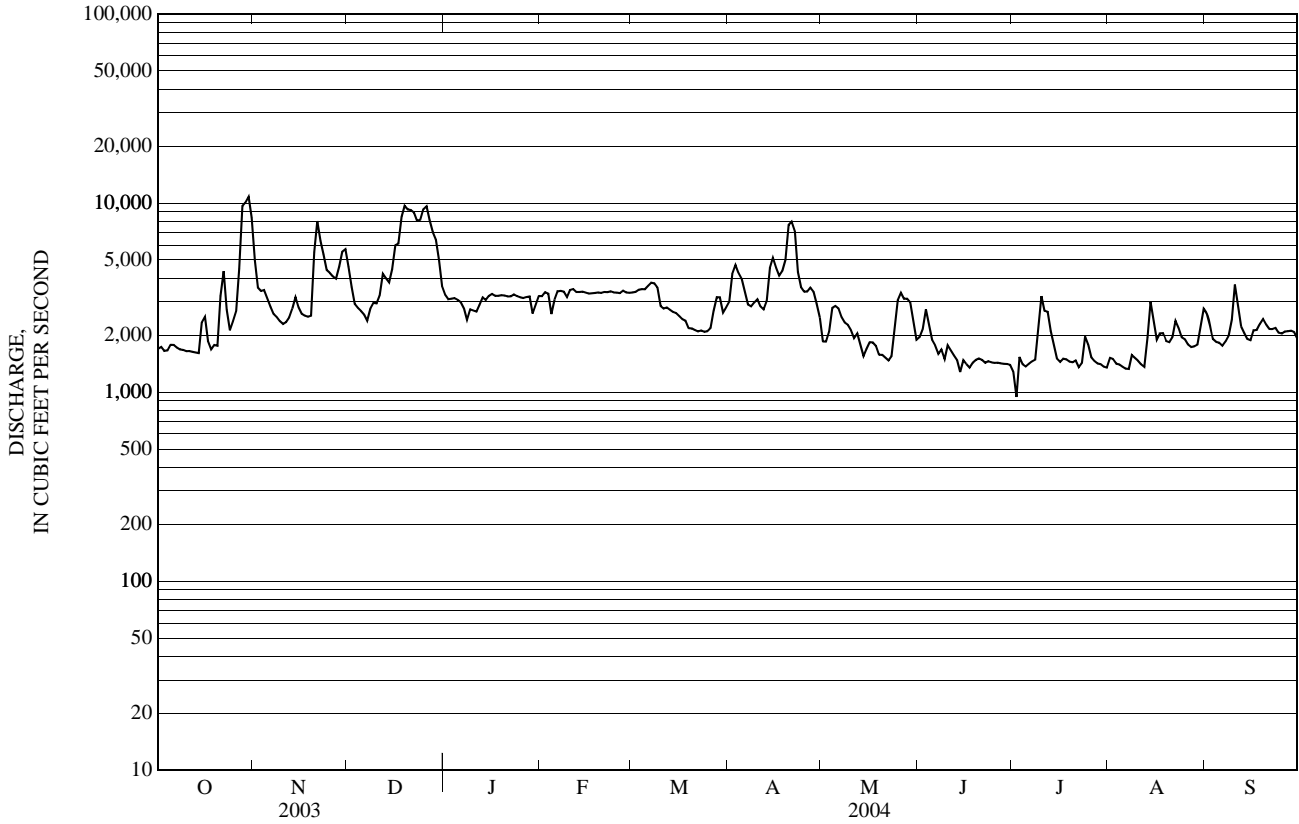
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2004, BY WATER YEAR (WY)

MEAN	2,049	2,106	2,164	2,142	2,164	2,494	3,954	4,217	2,779	2,067	1,919	1,969
MAX	4,894	4,292	5,811	4,044	4,294	7,684	6,474	10,050	10,560	5,840	2,792	6,387
(WY)	(1955)	(1991)	(1974)	(1970)	(1996)	(1936)	(1976)	(1937)	(1917)	(1996)	(1990)	(1954)
MIN	1,374	1,365	1,257	1,276	1,299	1,376	1,755	1,746	1,545	1,424	1,462	1,330
(WY)	(1942)	(2002)	(1953)	(1953)	(1922)	(1922)	(1965)	(1941)	(1915)	(2003)	(1995)	(1995)

e Estimated.

01054000 ANDROSCOGGIN RIVER NEAR GORHAM, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1914 - 2004	
ANNUAL TOTAL	874,320		1,071,654			
ANNUAL MEAN	2,395		2,928		2,506	
HIGHEST ANNUAL MEAN					4,147	
LOWEST ANNUAL MEAN					1,689	
HIGHEST DAILY MEAN	10,800	Oct 30	10,800	Oct 30	20,000	Jun 18, 1917
LOWEST DAILY MEAN	1,260	Mar 15	944	Jul 2	795	Mar 15, 1948
ANNUAL SEVEN-DAY MINIMUM	1,310	Mar 11	1,330	Jun 26	866	Mar 10, 1948
MAXIMUM PEAK FLOW			11,600		21,900	Apr 30, 1923
MAXIMUM PEAK STAGE			7.93		Oct 30	
10 PERCENT EXCEEDS	4,380		4,500		3,750	
50 PERCENT EXCEEDS	1,610		2,600		2,000	
90 PERCENT EXCEEDS	1,340		1,470		1,580	



SACO RIVER BASIN

01064300 ELLIS RIVER NEAR JACKSON, NH

LOCATION.--Lat 44° 13'08", long 71° 14'59", 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.--Discharge records: December 1963 to September 2004 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,500 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to October 14, 1969, at site 0.3 mi downstream at different datum.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 15	1100	1,110	4.70	Dec 11	2000	1,050	4.60
Oct 27	2130	1,440	5.25	Dec 18	0130	*1,770	*5.79
Nov 20	0715	1,410	5.20	Aug 31	0015	915	4.35

Minimum discharge, 6.6 ft³/s, Mar. 22, gage height, 0.85 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	56	47	37	14	e9.7	e100	86	36	16	25	40
2	29	48	e37	e35	14	11	80	105	51	18	17	29
3	28	50	e34	e40	14	e13	52	155	43	15	15	24
4	40	49	e32	e42	14	11	48	192	36	14	15	21
5	48	46	e31	36	13	10	36	63	30	15	14	20
6	34	45	e30	e33	13	26	28	49	27	15	13	19
7	30	38	e28	e29	13	19	22	54	26	13	13	18
8	28	33	e28	e24	13	13	22	40	24	18	13	18
9	27	29	e27	e21	12	12	22	34	25	30	12	187
10	26	29	e26	e21	12	11	21	32	24	25	12	204
11	25	28	249	e22	12	11	19	45	21	20	12	60
12	25	28	e160	e25	11	11	19	40	20	17	13	44
13	26	91	e57	e27	11	10	34	34	19	16	113	36
14	23	e45	e41	e26	11	e9.8	311	34	18	17	68	31
15	287	e36	e34	e25	11	9.5	79	38	18	18	30	28
16	90	e30	e29	23	10	9.0	47	42	17	17	29	26
17	58	29	e220	21	10	9.0	49	32	16	16	44	24
18	49	28	479	20	10	8.7	120	30	16	15	28	44
19	43	52	e70	19	10	8.5	176	55	17	16	24	33
20	38	453	e52	18	9.9	8.5	186	33	16	19	21	27
21	68	97	e44	17	9.9	8.6	60	31	15	17	38	25
22	58	59	e39	17	9.7	e8.4	72	31	16	15	33	23
23	45	48	37	16	9.5	e8.2	68	57	16	15	25	21
24	39	43	159	16	9.3	8.1	51	134	15	16	22	20
25	36	38	241	15	9.2	8.3	38	86	14	14	19	19
26	38	34	85	14	9.0	13	77	69	15	14	18	19
27	406	32	55	14	8.9	160	68	53	15	14	17	18
28	237	41	47	15	8.9	49	49	52	14	15	16	17
29	314	265	44	14	8.9	34	40	48	16	14	16	17
30	124	62	49	14	---	30	77	37	15	13	34	16
31	68	---	43	14	---	e35	---	32	---	13	174	---
TOTAL	2,418	1,962	2,554	710	321.2	593.3	2,071	1,823	651	510	943	1,128
MEAN	78.0	65.4	82.4	22.9	11.1	19.1	69.0	58.8	21.7	16.5	30.4	37.6
MAX	406	453	479	42	14	160	311	192	51	30	174	204
MIN	23	28	26	14	8.9	8.1	19	30	14	13	12	16
CFSM	7.16	6.00	7.56	2.10	1.02	1.76	6.33	5.40	1.99	1.51	2.79	3.45
IN.	8.25	6.70	8.72	2.42	1.10	2.02	7.07	6.22	2.22	1.74	3.22	3.85

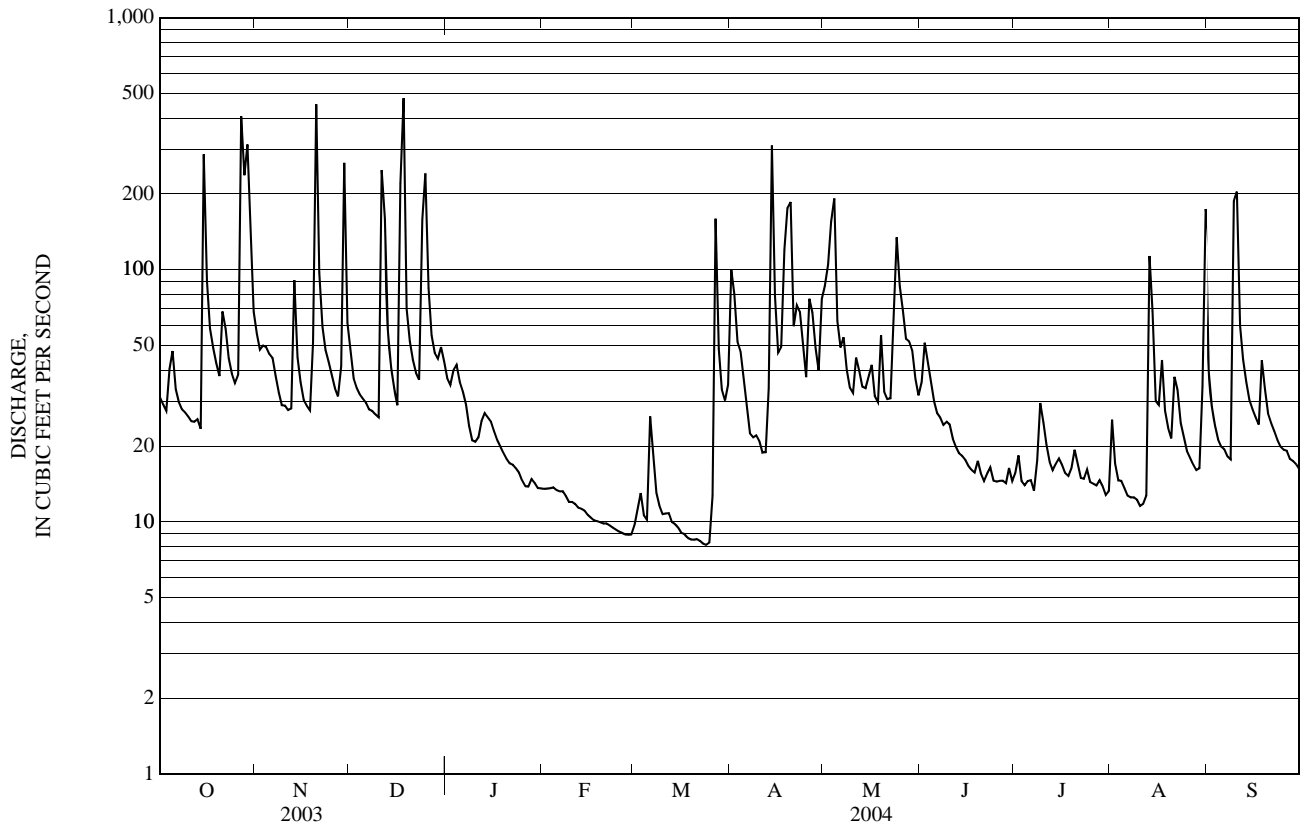
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

MEAN	30.6	36.5	26.2	17.7	15.1	26.8	69.5	82.5	42.0	22.6	19.9	20.0
MAX	80.9	90.1	104	57.6	109	75.6	150	159	123	60.5	62.5	65.0
(WY)	(1996)	(1970)	(1974)	(1986)	(1981)	(1998)	(1987)	(1984)	(1998)	(1996)	(1990)	(1999)
MIN	9.15	9.29	6.54	4.34	3.07	6.05	23.1	45.7	16.1	10.0	7.46	6.98
(WY)	(1970)	(1979)	(1979)	(1977)	(1977)	(1969)	(1995)	(1993)	(1970)	(2001)	(1980)	(1978)

01064300 ELLIS RIVER NEAR JACKSON, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	15,008.5		15,684.5		34.3	
ANNUAL MEAN	41.1		42.9		21.6	
HIGHEST ANNUAL MEAN					53.0	1996
LOWEST ANNUAL MEAN					21.6	1965
HIGHEST DAILY MEAN	479	Dec 18	479	Dec 18	1,160	Jun 30, 1973
LOWEST DAILY MEAN	e 4.6	Mar 14	8.1	Mar 24	a 2.2	Mar 2, 1980
ANNUAL SEVEN-DAY MINIMUM	4.7	Mar 10	8.4	Mar 19	2.3	Mar 1, 1980
MAXIMUM PEAK FLOW			b 1,770	Dec 18	b 4,500	Nov 3, 1966
MAXIMUM PEAK STAGE			5.79	Dec 18	c 18.90	Nov 3, 1966
INSTANTANEOUS LOW FLOW			d 6.6	Mar 22	f	
ANNUAL RUNOFF (CFSM)	3.77		3.93		3.15	
ANNUAL RUNOFF (INCHES)	51.22		53.53		42.79	
10 PERCENT EXCEEDS	69		77		69	
50 PERCENT EXCEEDS	28		26		18	
90 PERCENT EXCEEDS	7.5		11		8.2	

- a Also occurred on March 3, 4, 1980.
- b From rating curve extended above 390 ft³/s on basis of slope-area measurements at gage height 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 Result of freezeup.
- e Estimated.
- f Not determined, occurred during ice effect in March 1980.



SACO RIVER BASIN
01064500 SACO RIVER NEAR CONWAY, NH

LOCATION.--Lat 43°59'27", long 71°05'26" (corrected), Carroll County, Hydrologic Unit 01060002, on left bank at Odell Falls, and 1.8 mi downstream from Swift River and Conway.

DRAINAGE AREA.--385 mi².

PERIOD OF RECORD.--

DISCHARGE: October 1903 to December 1909, February 1929 to current year. Monthly discharge only for some periods, published in WSP 1301. Prior to 1912 published as "at Center Conway".

GAGE HEIGHT: August to September 1903, January 1910 to June 1912.

REVISED RECORDS.--WSP 1301: 1908-09. WDR ME-81-1: Drainage area. WDR 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 National Geodetic Vertical Datum of 1929. Aug. 26, 1903 to June 30, 1912, nonrecording gage at site 0.8 mi downstream at different datum.

REMARKS.--Records good, except for periods of ice effect, Dec. 3-11, 14-17, Jan. 7 to Mar. 25, periods of doubtful gage-height record, Dec. 18, Jan. 11-26, Feb. 4-23, Apr. 14-23, and period of no gage-height record, May 1-6, which are fair. Satellite 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 (backwater from ice); minimum discharge, 40 ft³/s, Mar. 16, 1932, gage height, 1.61 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 15	1815	12,900	9.17	Nov 20	1545	11,500	8.82
Oct 28	0500	14,600	9.60	Dec 12	0415	10,600	8.58
Oct 29	2100	13,200	9.24	Dec 18	Unknown	*28,400 ^a	*12.86

Minimum discharge, 183 ft³/s, Aug. 11, gage height, 2.35 ft.

^a Estimated daily discharge.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	768	2,600	2,180	1,690	e406	e250	2,440	e1,470	988	298	328	1,060
2	702	2,130	1,770	1,490	e394	e317	4,660	e1,590	1,230	314	410	685
3	645	2,080	e1,420	1,430	e389	e414	3,480	e3,200	1,210	313	313	527
4	639	2,020	e1,260	1,500	e385	e427	2,760	e3,890	1,070	267	282	448
5	1,100	1,830	e1,150	1,380	e377	e385	2,490	e2,450	914	259	262	388
6	867	1,960	e1,070	1,260	e368	e516	1,790	e1,680	815	291	233	357
7	721	1,630	e1,020	e1,080	e360	e704	1,480	1,450	756	269	221	340
8	647	1,430	e969	e875	e342	e580	1,360	1,300	701	292	216	324
9	595	1,270	e937	e716	e325	e444	1,320	1,140	634	598	207	1,570
10	554	1,190	e913	e662	e319	e393	1,260	1,050	625	816	194	3,790
11	528	1,140	e1,740	e678	e316	e384	1,150	1,010	561	505	191	1,720
12	522	1,100	6,900	e750	e307	e411	1,070	992	508	387	300	1,120
13	694	1,990	2,620	e816	e303	e411	1,190	865	477	323	622	885
14	595	1,970	e1,830	e769	e296	e366	6,400	800	451	308	2,040	727
15	5,180	1,390	e1,520	e729	e284	e381	4,060	778	450	328	854	634
16	4,080	1,210	e1,360	e681	e276	e355	2,640	889	442	346	594	566
17	2,080	1,130	e1,970	e653	e268	e342	2,100	860	396	316	1,060	517
18	1,530	1,070	e18,100	e621	e261	e331	2,480	734	370	349	829	724
19	1,290	1,130	5,620	e589	e255	e323	2,570	842	361	558	605	1,120
20	1,130	6,250	3,510	e567	e252	e315	3,810	811	354	554	524	764
21	1,210	4,250	2,580	e544	e245	e322	2,330	679	328	627	522	617
22	1,590	2,610	2,270	e527	e241	e314	1,790	711	315	445	908	551
23	1,200	2,040	1,970	e509	e237	e268	2,030	1,160	349	371	637	496
24	1,050	1,740	1,940	e493	e233	e323	1,640	2,200	331	489	507	450
25	941	1,570	6,820	e482	e231	e309	1,410	2,440	316	431	444	423
26	890	1,400	4,690	e469	e224	339	1,500	1,870	310	354	393	409
27	2,500	1,300	3,000	e457	e220	852	1,800	1,600	326	316	360	387
28	9,100	1,300	2,380	e444	e229	1,630	1,530	1,490	282	317	334	366
29	7,180	5,600	2,090	e432	e225	1,220	1,250	1,510	314	313	328	355
30	6,870	3,100	1,990	e428	---	1,080	1,240	1,220	381	283	343	336
31	3,510	---	1,890	e419	---	1,040	---	1,060	---	259	2,090	---
TOTAL	60,908	61,430	89,479	24,140	8,568	15,746	67,030	43,741	16,565	11,896	17,151	22,656
MEAN	1,965	2,048	2,886	779	295	508	2,234	1,411	552	384	553	755
MAX	9,100	6,250	18,100	1,690	406	1,630	6,400	3,890	1,230	816	2,090	3,790
MIN	522	1,070	913	419	220	250	1,070	679	282	259	191	324
CFSM	5.10	5.32	7.50	2.02	0.77	1.32	5.80	3.66	1.43	1.00	1.44	1.96
IN.	5.89	5.94	8.65	2.33	0.83	1.52	6.48	4.23	1.60	1.15	1.66	2.19

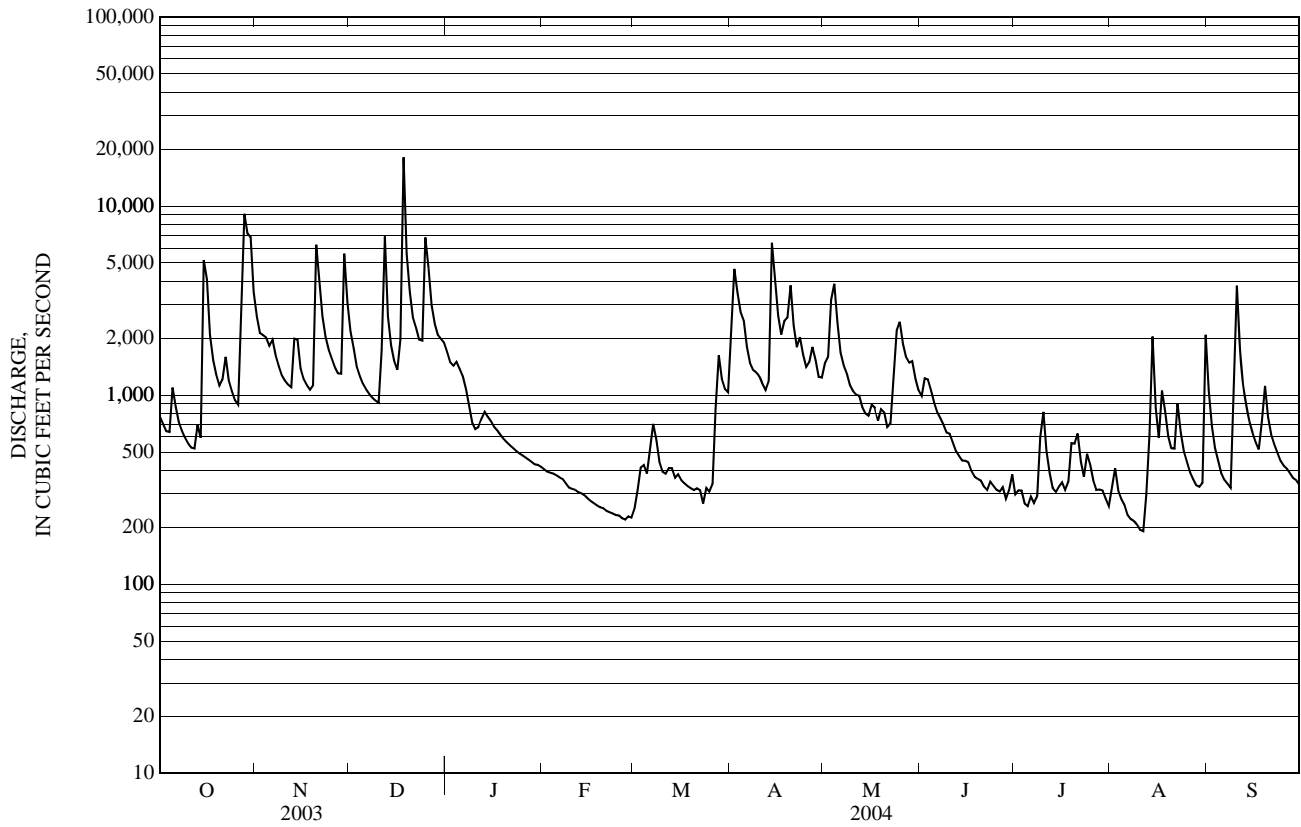
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2004, BY WATER YEAR (WY)

MEAN	651	958	782	568	502	963	2,615	2,202	841	434	363	397
MAX	2,369	2,493	2,886	1,887	3,170	5,986	4,564	4,609	3,644	2,043	1,685	1,794
(WY)	(1978)	(1908)	(2004)	(1986)	(1981)	(1936)	(1987)	(1940)	(1998)	(1973)	(1990)	(1954)
MIN	114	211	152	144	124	146	871	614	300	158	120	102
(WY)	(1948)	(1909)	(1956)	(1940)	(1940)	(1940)	(1995)	(1941)	(1964)	(1991)	(2001)	(1948)

e Estimated.

01064500 SACO RIVER NEAR CONWAY, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1904 - 2004	
ANNUAL TOTAL	439,735		439,310			
ANNUAL MEAN	1,205		1,200		940	
HIGHEST ANNUAL MEAN					1,463	1973
LOWEST ANNUAL MEAN					489	1965
HIGHEST DAILY MEAN	18,100	Dec 18	18,100	Dec 18	33,900	Mar 19, 1936
LOWEST DAILY MEAN	170	Jul 31	191	Aug 11	66	Aug 4, 1959
ANNUAL SEVEN-DAY MINIMUM	199	Mar 1	218	Aug 5	74	Aug 3, 1959
MAXIMUM PEAK FLOW			28,400	Dec 18	47,200	Mar 27, 1953
MAXIMUM PEAK STAGE			12.86	Dec 18	19.03	Mar 7, 1979
INSTANTANEOUS LOW FLOW			183	Aug 11	40	Mar 16, 1932
ANNUAL RUNOFF (CF5M)	3.13		3.12		2.44	
ANNUAL RUNOFF (INCHES)	42.49		42.45		33.19	
10 PERCENT EXCEEDS	2,450		2,440		2,170	
50 PERCENT EXCEEDS	790		714		460	
90 PERCENT EXCEEDS	216		302		185	



01064801 BEARCAMP RIVER AT SOUTH TAMWORTH, NH

LOCATION.--Lat 43° 49'48", long 71° 17'18", Carroll County, Hydrologic Unit 01060002, on right bank, 0.7 mi upstream of Sanger Brook, 0.8 mi east of South Tamworth, 1.0 mi downstream of Cold Brook, and 1.1 mi west of Whittier.

DRAINAGE AREA.--67.6 mi².

PERIOD OF RECORD.--Discharge records: April 1993 to current year. Published as "near South Tamworth" prior to October 1995.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 490 ft above National Geodetic Vertical Datum of 1929, from topographic map. Formerly published as Bear Camp River.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0145	2,920	7.48	Dec 18	0415	*4,770	8.82
Oct 29	1930	2,260	7.06	Jan 17	2100	ice jam	*9.70

Minimum discharge, 14 ft³/s, July 4, 5, gage height 3.38 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	365	328	205	e39	34	807	139	144	19	37	30
2	100	281	238	180	e38	45	1,260	130	166	19	57	24
3	87	301	e175	173	e37	e90	905	163	174	17	42	21
4	80	342	e155	197	e37	e100	605	623	158	15	40	19
5	124	342	e145	180	e38	e93	454	408	124	15	35	17
6	100	383	e135	160	e40	e140	317	294	101	27	28	17
7	82	293	e120	128	e40	e200	243	220	87	24	25	17
8	72	226	e110	88	e39	e160	205	172	76	30	23	16
9	64	182	e110	e68	e38	e125	185	146	66	121	21	116
10	59	158	e135	e72	39	e105	169	129	59	111	19	267
11	55	145	e450	e85	39	e100	151	119	51	65	19	130
12	54	154	e1,000	e100	37	e110	137	106	45	44	24	81
13	101	363	e530	e105	36	102	167	94	40	34	54	59
14	98	369	e390	e90	36	88	1,170	83	37	31	195	45
15	679	260	e300	e87	35	83	674	76	35	31	92	38
16	501	198	256	e85	33	77	403	85	32	39	65	34
17	303	168	402	e83	31	70	292	83	28	35	106	31
18	208	149	2,720	e81	31	65	264	73	26	33	84	93
19	159	177	1,000	e78	30	61	242	74	25	83	63	171
20	131	714	583	e72	30	58	263	63	24	78	64	105
21	126	534	e390	e65	30	e59	195	59	21	56	66	76
22	134	355	298	e60	31	e59	169	65	20	42	112	61
23	121	259	237	e57	31	57	160	154	23	39	74	49
24	108	208	265	e53	31	55	147	442	21	152	54	40
25	96	182	1,020	e48	30	55	122	459	21	90	42	35
26	91	159	726	e46	30	71	203	358	21	60	35	32
27	715	143	465	e45	30	364	281	286	25	53	31	29
28	1,780	153	333	e44	30	423	215	404	19	53	28	27
29	1,440	797	267	e43	31	319	171	414	21	50	26	26
30	1,130	480	247	e42	---	246	148	276	24	40	26	24
31	562	---	231	e41	---	229	---	186	---	34	32	---
TOTAL	9,478	8,840	13,761	2,861	997	3,843	10,724	6,383	1,714	1,540	1,619	1,730
MEAN	306	295	444	92.3	34.4	124	357	206	57.1	49.7	52.2	57.7
MAX	1,780	797	2,720	205	40	423	1,260	623	174	152	195	267
MIN	54	143	110	41	30	34	122	59	19	15	19	16
CFSM	4.52	4.36	6.57	1.37	0.51	1.83	5.29	3.05	0.85	0.73	0.77	0.85
IN.	5.22	4.86	7.57	1.57	0.55	2.11	5.90	3.51	0.94	0.85	0.89	0.95

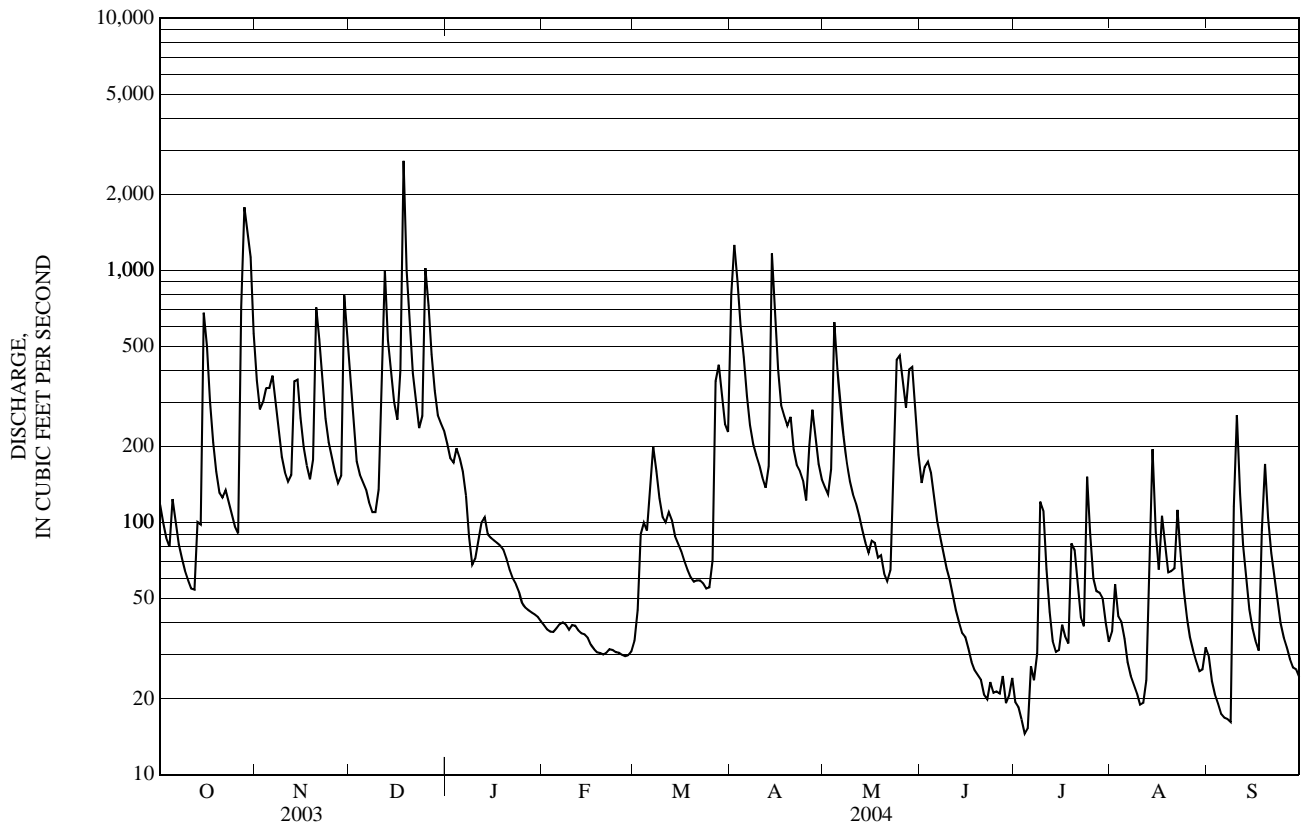
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2004, BY WATER YEAR (WY)

MEAN	116	162	169	113	101	228	416	192	131	61.5	47.1	56.8
MAX	306	302	444	331	242	436	632	398	811	178	191	243
(WY)	(2004)	(1996)	(2004)	(1996)	(1997)	(1998)	(1993)	(1996)	(1998)	(1996)	(2003)	(1999)
MIN	23.5	35.6	60.3	34.2	34.4	86.7	129	77.4	34.7	14.2	4.63	9.43
(WY)	(2002)	(2002)	(1998)	(2002)	(2004)	(2001)	(1995)	(1993)	(1999)	(2003)	(2002)	(2002)

01064801 BEARCAMP RIVER AT SOUTH TAMWORTH, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1993 - 2004	
ANNUAL TOTAL	69,118.1		63,490		150	
ANNUAL MEAN	189		173		217	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	2,720	Dec 18	2,720	Dec 18	5,370	Jun 14, 1998
LOWEST DAILY MEAN	8.4	Jul 10	a 15	Jul 4	b 2.1	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	9.7	Jul 4	19	Jun 29	b 2.5	Sep 8, 2002
MAXIMUM PEAK FLOW			4,770	Dec 18	6,150	Jun 14, 1998
MAXIMUM PEAK STAGE			c 9.70	Jan 17	c 9.70	Jan 17, 2004
INSTANTANEOUS LOW FLOW			a 14	Jul 4	d 2.0	Sep 13, 2002
ANNUAL RUNOFF (CFSM)	2.80		2.57		2.21	
ANNUAL RUNOFF (INCHES)	38.04		34.94		30.08	
10 PERCENT EXCEEDS	458		394		343	
50 PERCENT EXCEEDS	96		88		69	
90 PERCENT EXCEEDS	18		27		17	

- a Also occurred on July 5.
- b Also occurred on September 13, 14, 2002.
- c Ice jam.
- d Also occurred on September 14, 2002.
- e Estimated.



PISCATAQUA RIVER BASIN

01072100 SALMON FALLS RIVER AT MILTON, NH

LOCATION.--Lat 43° 24'48", long 70° 59'15", Strafford County, Hydrologic Unit 01060003, on right bank, just downstream from Milton Pond at Milton, 4.2 mi east of Farmington, and 7.4 mi north of Rochester.

DRAINAGE AREA.--108 mi².

PERIOD OF RECORD.--Discharge records: October 1968 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 405 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Flow regulated by Great East and Lovell Lakes and Horn, Wilson, and Milton (also controls Northeast and Town House) Ponds. These reservoirs have a combined usable capacity of about 1.28 billion ft³.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,280 ft³/s, Apr. 3, gage height, 4.64 ft; minimum daily discharge, 36 ft³/s, June 22, 24, 25, August 6, 10.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	615	e295	292	82	43	338	241	241	67	61	100
2	221	528	341	293	59	44	953	218	182	44	89	84
3	220	494	336	294	41	49	1,210	179	213	44	95	96
4	219	489	232	294	43	66	997	251	246	42	91	100
5	220	487	170	295	44	93	586	479	249	42	58	87
6	185	e381	170	294	45	117	412	479	238	43	36	79
7	134	303	171	289	47	140	277	295	149	41	38	63
8	133	302	172	217	48	148	237	228	119	42	38	60
9	132	300	171	115	48	108	245	216	124	46	37	e148
10	132	299	172	93	53	91	235	203	148	45	36	206
11	132	297	215	101	55	92	220	194	120	45	43	203
12	132	298	e558	123	48	92	199	156	100	43	57	184
13	156	298	e955	138	48	94	e205	142	92	43	353	182
14	172	296	727	139	48	93	566	140	77	44	402	184
15	227	296	541	137	48	93	906	137	66	44	202	97
16	372	294	453	130	e48	96	729	153	65	44	109	44
17	421	291	435	124	e45	99	522	179	63	44	158	45
18	376	290	463	122	42	66	417	191	63	43	175	e108
19	326	288	611	122	41	47	270	229	62	45	165	e230
20	291	288	626	120	41	47	222	221	59	46	154	e258
21	276	290	549	117	42	47	218	178	43	47	213	238
22	269	290	484	114	43	48	212	156	36	46	374	212
23	268	289	449	111	44	48	209	176	37	45	415	189
24	283	246	436	107	45	48	214	354	36	46	348	132
25	291	216	438	101	45	48	204	697	36	45	267	88
26	289	215	473	96	44	49	227	684	47	43	216	88
27	299	214	499	93	43	53	305	499	51	42	188	87
28	305	213	471	90	43	101	351	425	53	47	e163	87
29	442	215	450	87	43	165	314	420	76	50	140	87
30	685	219	364	85	---	229	275	391	89	53	e116	86
31	723	---	288	84	---	269	---	353	---	53	118	---
TOTAL	8,515	9,541	12,715	4,817	1,366	2,823	12,275	8,864	3,180	1,414	4,955	3,852
MEAN	275	318	410	155	47.1	91.1	409	286	106	45.6	160	128
MAX	723	615	955	295	82	269	1,210	697	249	67	415	258
MIN	132	213	170	84	41	43	199	137	36	41	36	44

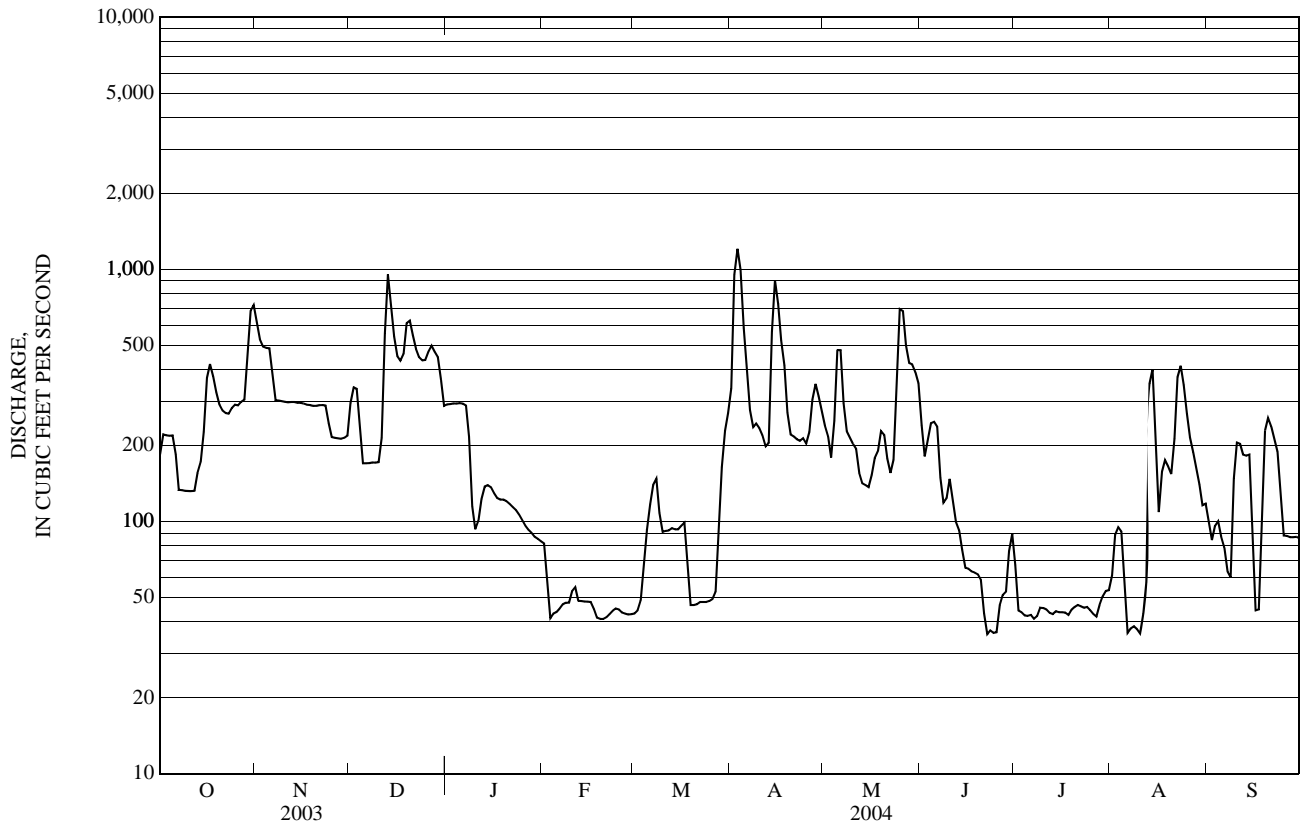
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2004, BY WATER YEAR (WY)

MEAN	178	198	223	171	178	306	430	225	134	64.9	62.7	75.3
MAX	499	487	604	384	439	720	908	431	650	181	165	162
(WY)	(1978)	(1996)	(1984)	(1978)	(1970)	(1979)	(1969)	(1984)	(1998)	(1996)	(1982)	(1999)
MIN	81.1	62.7	27.7	27.1	47.1	91.1	103	55.4	35.5	23.5	19.8	15.0
(WY)	(2003)	(2002)	(2002)	(2002)	(2004)	(2004)	(1985)	(1985)	(1999)	(2003)	(2002)	(2002)

01072100 SALMON FALLS RIVER AT MILTON, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1969 - 2004	
ANNUAL TOTAL	72,392		74,317		187	
ANNUAL MEAN	198		203		307	
HIGHEST ANNUAL MEAN					307	1984
LOWEST ANNUAL MEAN					94.7	2002
HIGHEST DAILY MEAN	1,160	Mar 31	1,210	Apr 3	3,220	Mar 15, 1977
LOWEST DAILY MEAN	a 17	Jul 14	b 36	Jun 22	c 14	Sep 19, 2002
ANNUAL SEVEN-DAY MINIMUM	18	Jul 9	41	Aug 6	14	Sep 16, 2002
MAXIMUM PEAK FLOW			1,280	Apr 3	4,000	Apr 6, 1984
MAXIMUM PEAK STAGE			4.64	Apr 3	6.70	Apr 6, 1984
10 PERCENT EXCEEDS	462		439		396	
50 PERCENT EXCEEDS	134		156		131	
90 PERCENT EXCEEDS	30		44		37	

...
 a Also occurred on July 15.
 b Also occurred on June 22, 24, 25, August 6, 10.
 c Also occurred September 20-22 and October 2-3, 2002.
 e Estimated.



PISCATAQUA RIVER BASIN

01072800 COCHECO RIVER NEAR ROCHESTER, NH

LOCATION.--Lat 43° 16'06", long 70° 58'27", Strafford County, Hydrologic Unit 01060003, on right bank, directly behind Rochester Country Club, 0.6 mi south by southeast of Gonic, 2.5 mi south of Rochester City Hall, approximately 3.3 mi upstream from mouth of Isinglass River, and approximately 12.6 mi above mouth.

DRAINAGE AREA.--85.7 mi².

REVISED RECORDS.--WDR NH-VT-97-1: Drainage area.

PERIOD OF RECORD.--Discharge records: March 1995 to current year. Published as "at Rochester" prior to October 1996.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 125 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation by small hydro plants, Sunrise and Baxter Lakes, City Dam No. 1, and the Rochester Reservoirs. Low flows diverted from Berrys River (tributary to Isinglass River) to Rochester Reservoir (head of Howard Brook) then into the Rochester City water supply system. Unknown amount of diverted flow enters the Cocheco River Basin above the gage.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 12	1945	1,500	9.43	Apr 14	2245	1,160	8.17
Apr 2	2215	*1,980	*11.11	May 25	1230	857	6.99

Minimum daily discharge, 11 ft³/s, July 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	271	201	186	e39	e48	448	179	192	46	33	55
2	58	215	161	171	e38	61	1,560	155	184	45	44	47
3	51	200	e115	162	e36	89	1,430	143	234	41	43	40
4	53	252	e100	172	e45	118	699	260	320	37	35	36
5	59	232	e80	189	e50	116	e530	422	233	33	31	33
6	54	225	88	175	e48	e125	e460	304	177	31	27	31
7	54	209	92	e145	e47	157	e350	227	148	28	22	29
8	51	153	e95	e128	e47	136	e275	184	128	32	21	27
9	51	127	e90	e109	e46	103	237	149	113	62	20	137
10	49	112	e90	e97	e45	88	210	130	112	41	18	257
11	52	104	159	e90	e45	87	188	120	100	37	18	163
12	49	104	963	e90	e43	92	172	110	85	34	25	108
13	36	114	834	e92	e41	97	187	98	76	32	120	80
14	32	134	462	e88	e41	84	732	87	69	36	112	64
15	153	118	321	e76	e40	83	886	83	63	33	88	53
16	376	103	302	e71	e38	84	560	138	60	30	86	46
17	264	93	265	e67	e36	78	393	235	58	28	138	43
18	174	87	379	e67	e34	72	302	190	57	26	130	199
19	140	84	573	e66	e34	70	249	276	55	48	90	494
20	121	91	422	e65	e33	64	215	213	53	46	74	326
21	109	126	307	e61	e35	75	185	156	50	44	132	188
22	102	138	239	e59	e38	87	166	149	46	42	309	138
23	110	120	206	e57	e41	77	166	250	44	38	255	110
24	107	106	195	e52	e42	77	174	e400	41	20	155	87
25	101	112	326	e48	e40	79	158	791	40	11	111	74
26	97	119	447	e45	e38	102	199	570	45	18	84	66
27	112	113	364	e43	e38	210	395	405	49	21	68	58
28	172	113	264	e42	e40	293	405	362	49	34	58	54
29	280	186	219	e42	45	222	270	413	51	64	53	54
30	547	260	200	e42	---	174	207	323	48	51	61	52
31	433	---	197	e39	---	162	---	230	---	38	59	---
TOTAL	4,108	4,421	8,756	2,836	1,183	3,410	12,408	7,752	2,980	1,127	2,520	3,149
MEAN	133	147	282	91.5	40.8	110	414	250	99.3	36.4	81.3	105
MAX	547	271	963	189	50	293	1,560	791	320	64	309	494
MIN	32	84	80	39	33	48	158	83	40	11	18	27

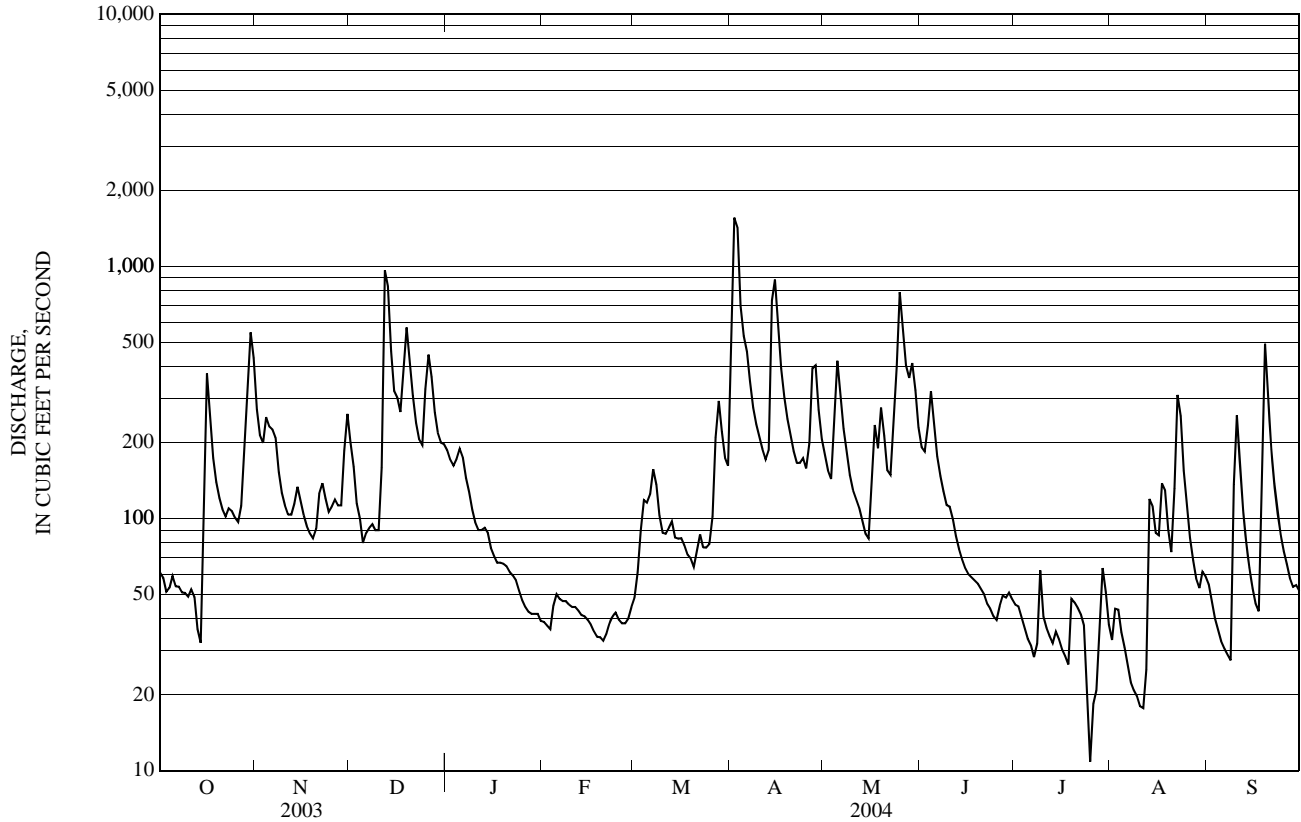
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

MEAN	87.5	125	147	129	138	267	311	165	120	51.4	27.8	36.4
MAX	286	329	409	359	295	415	508	268	568	161	81.3	112
(WY)	(1997)	(1996)	(1997)	(1996)	(1996)	(1998)	(1997)	(1996)	(1998)	(1996)	(2004)	(1999)
MIN	13.0	13.3	26.7	28.4	40.8	110	127	66.5	18.8	11.6	4.58	4.85
(WY)	(2002)	(2002)	(2002)	(2002)	(2004)	(2004)	(1999)	(2001)	(1999)	(1995)	(2002)	(1995)

01072800 COCHECO RIVER NEAR ROCHESTER, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1995 - 2004	
ANNUAL TOTAL	51,858.1		54,650			
ANNUAL MEAN	142		149		138	
HIGHEST ANNUAL MEAN					197 1996	
LOWEST ANNUAL MEAN					70.2 2002	
HIGHEST DAILY MEAN	963	Dec 12	1,560	Apr 2	2,940	Jun 15, 1998
LOWEST DAILY MEAN	8.7	Sep 14	11	Jul 25	a 2.0	Sep 14, 2002
ANNUAL SEVEN-DAY MINIMUM	9.6	Sep 9	22	Aug 6	2.5	Sep 1, 1995
MAXIMUM PEAK FLOW			1,980	Apr 2	3,700	Jun 15, 1998
MAXIMUM PEAK STAGE			11.11	Apr 2	15.51	Jun 15, 1998
10 PERCENT EXCEEDS	321		320		320	
50 PERCENT EXCEEDS	88		92		76	
90 PERCENT EXCEEDS	18		36		13	

a Also occurred September 15, 2002.
 e Estimated.



01072870 ISINGLASS RIVER AT ROCHESTER NECK ROAD, NEAR DOVER, NH

LOCATION.--Lat 43° 14'05", long 70° 57'25", Strafford County, Hydrologic Unit 01060003, 600 ft upstream of bridge on Rochester Neck Road, 0.7 mi upstream from mouth on Cochecho River, 2.5 mi northeast of Calef Highway (NH 125) and Littleworth Road intersection in East Barrington, 4.9 mi south of South Main Street (NH 125), North Main Street (NH 202A), and Wakefield Street (NH 125) intersection in Rochester, and 4.9 mi northwest of Post Office in Dover.

DRAINAGE AREA.--73.6 mi².

PERIOD OF RECORD.--Discharge records: December 2002 to current year. Miscellaneous discharge measurements: Water years 1975, 1978, 1979, 1982.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 115 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 23	0315	752	9.35	Mar 31	0845	*862	*9.97

Minimum discharge, 3.5 ft³/s, July 31, Aug. 1.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

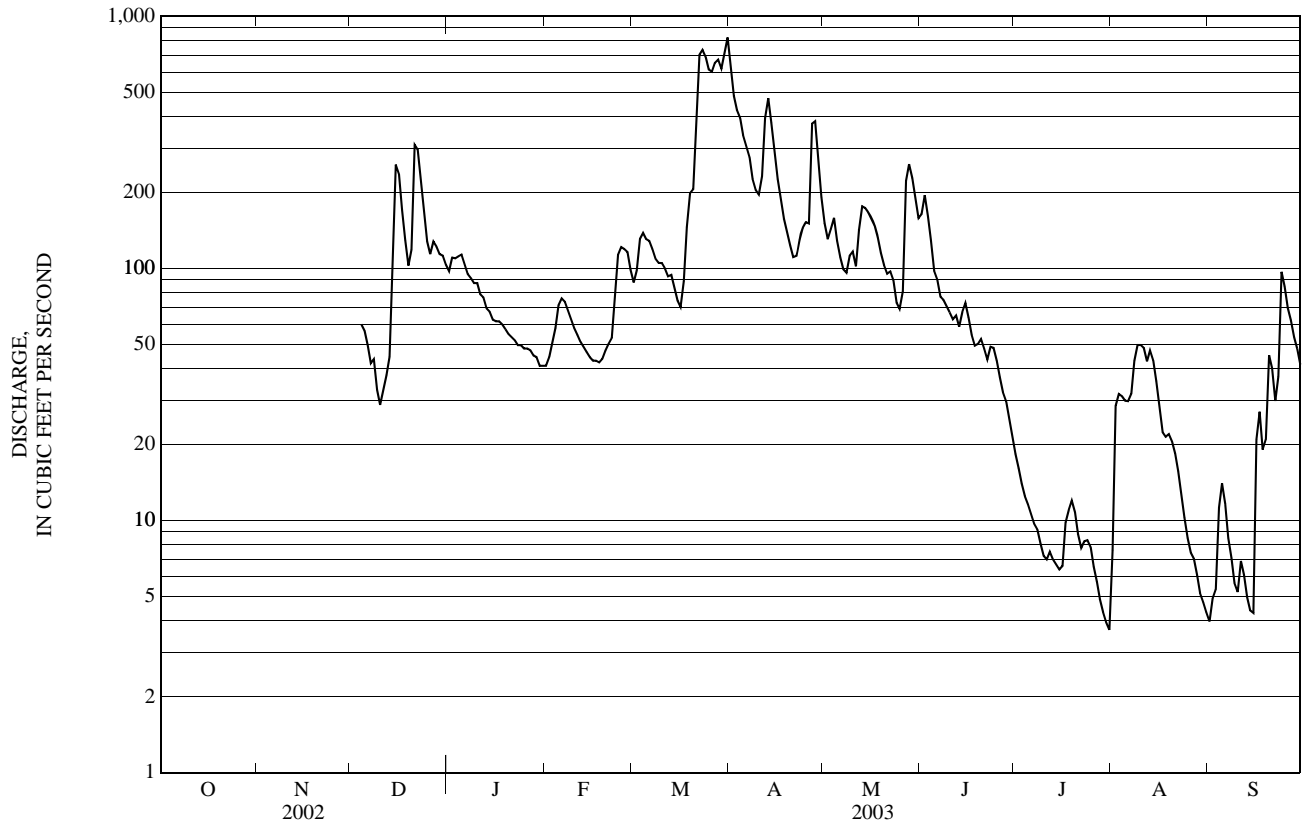
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	98	e41	88	638	151	164	18	7.6	4.0
2	---	---	---	110	e44	98	484	131	195	16	29	4.9
3	---	---	---	110	e50	e131	426	143	161	14	32	5.3
4	---	---	e60	112	e58	e138	396	159	129	13	31	11
5	---	---	57	114	e71	e131	337	129	98	12	30	14
6	---	---	50	103	e76	e128	305	111	91	11	30	12
7	---	---	42	95	e74	e119	276	99	77	9.7	32	8.5
8	---	---	44	e91	e68	e109	226	96	75	9.2	e43	7.1
9	---	---	33	e88	e63	e105	205	112	71	8.1	e50	5.6
10	---	---	29	e88	e58	e105	196	116	67	7.3	e50	5.2
11	---	---	33	e79	e55	100	232	102	63	7.0	e48	6.9
12	---	---	38	e77	e51	93	395	142	65	7.5	43	6.1
13	---	---	45	e69	e49	94	474	176	59	e7.0	47	5.0
14	---	---	93	e67	e47	84	378	174	67	6.7	43	4.4
15	---	---	258	e63	e44	75	287	166	73	6.4	36	4.3
16	---	---	237	e62	e43	70	226	157	64	6.6	28	e21
17	---	---	171	e62	e43	89	190	148	55	9.8	22	e27
18	---	---	129	e60	e42	e146	158	132	49	e11	22	19
19	---	---	103	e57	e44	e199	140	115	50	12	22	21
20	---	---	119	e55	e47	e206	123	103	53	11	21	45
21	---	---	309	e53	e50	e355	111	95	48	8.8	18	40
22	---	---	296	e52	e53	706	112	97	44	7.8	16	30
23	---	---	229	e50	e76	737	130	90	49	8.3	13	37
24	---	---	174	e50	e113	690	145	73	48	8.4	10	97
25	---	---	e128	e48	e122	615	152	69	43	7.8	8.5	85
26	---	---	e114	e48	e119	603	151	81	37	6.6	7.5	70
27	---	---	e128	e47	116	654	375	223	32	5.7	7.1	62
28	---	---	e122	e45	99	674	383	259	30	4.9	6.1	54
29	---	---	e114	e44	---	621	264	229	25	4.3	5.1	48
30	---	---	112	e41	---	711	192	190	22	4.0	4.7	42
31	---	---	104	e41	---	825	---	158	---	3.7	4.3	---
TOTAL	---	---	---	2,179	1,816	9,499	8,107	4,226	2,104	273.6	766.9	802.3
MEAN	---	---	---	70.3	64.9	306	270	136	70.1	8.83	24.7	26.7
MAX	---	---	114	122	825	638	259	195	18	50	97	---
MIN	---	---	41	41	70	111	69	22	3.7	4.3	4.0	---
CFSM	---	---	---	0.96	0.88	4.16	3.67	1.85	0.95	0.12	0.34	0.36
IN.	---	---	---	1.10	0.92	4.80	4.10	2.14	1.06	0.14	0.39	0.41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2003, BY WATER YEAR (WY)

MEAN	---	---	---	70.3	64.9	306	270	136	70.1	8.83	24.7	26.7
MAX	---	---	---	70.3	64.9	306	270	136	70.1	8.83	24.7	26.7
(WY)	---	---	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	---	---	---	70.3	64.9	306	270	136	70.1	8.83	24.7	26.7
(WY)	---	---	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)

e Estimated.

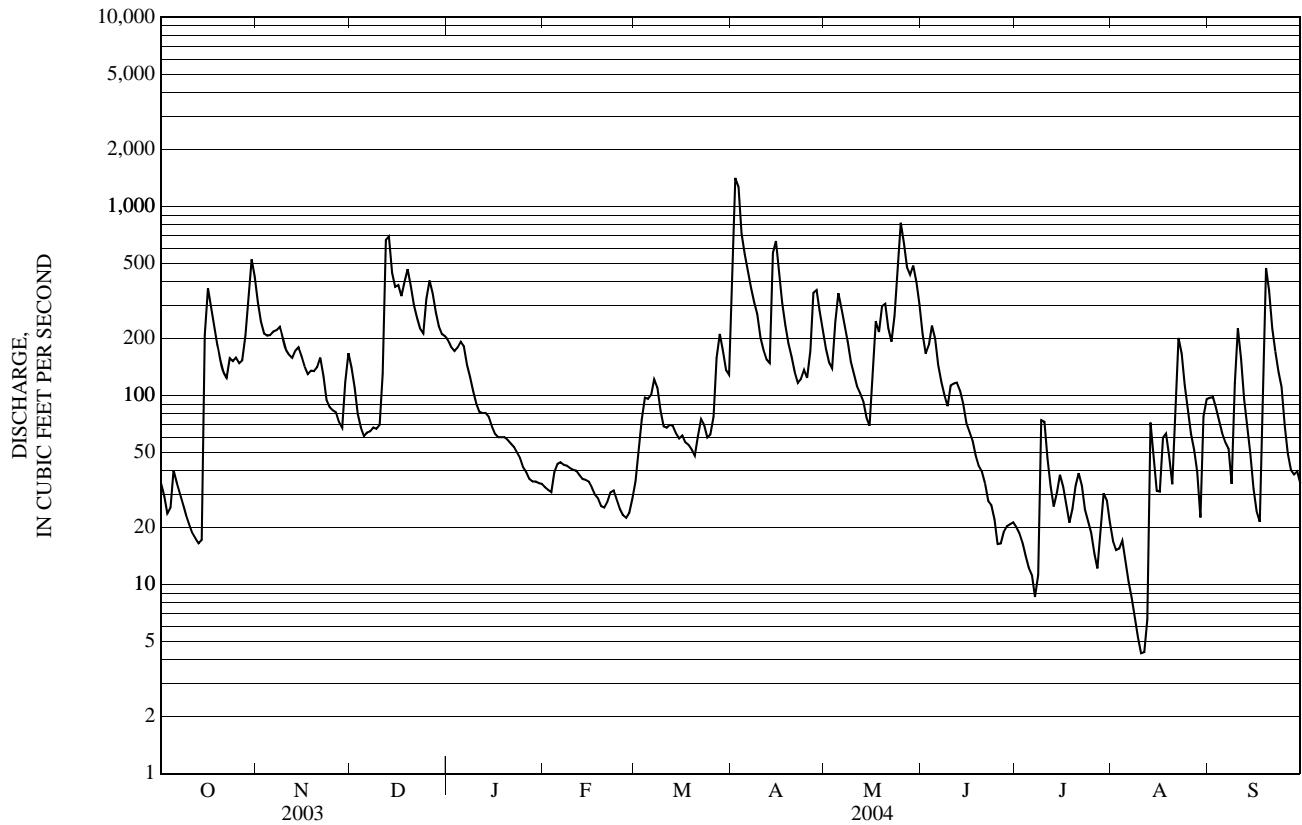
01072870 ISINGLASS RIVER AT ROCHESTER NECK ROAD, NEAR DOVER, NH—Continued



01072870 ISINGLASS RIVER AT ROCHESTER NECK ROAD, NEAR DOVER, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2003 - 2004	
ANNUAL TOTAL	46,972.8		51,145.2		140	
ANNUAL MEAN	129		140		140	
HIGHEST ANNUAL MEAN					140 2004	
LOWEST ANNUAL MEAN					140 2004	
HIGHEST DAILY MEAN	825	Mar 31	1,420	Apr 2	1,420	Apr 2, 2004
LOWEST DAILY MEAN	3.7	Jul 31	4.3	Aug 10	3.7	Jul 31, 2003
ANNUAL SEVEN-DAY MINIMUM	4.9	Aug 28	6.5	Aug 6	4.9	Aug 28, 2003
MAXIMUM PEAK FLOW			1,740	Apr 2	1,740	Apr 2, 2004
MAXIMUM PEAK STAGE			14.09	Apr 2	14.09	Apr 2, 2004
INSTANTANEOUS LOW FLOW			3.7	Aug 11	a 3.5	Jul 31, 2003
ANNUAL RUNOFF (CFSM)	1.75		1.90		1.90	
ANNUAL RUNOFF (INCHES)	23.74		25.85		25.80	
10 PERCENT EXCEEDS	329		337		337	
50 PERCENT EXCEEDS	77		81		81	
90 PERCENT EXCEEDS	8.5		21		21	

a Also occurred on August 1, 2003.
 e Estimated.



PISCATAQUA RIVER BASIN

01073000 OYSTER RIVER NEAR DURHAM, NH

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

DRAINAGE AREA.--12.1 mi².

PERIOD OF RECORD.--Discharge records: 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 National Geodetic Vertical Datum of 1929, from topographic map. Prior to October 1, 1964, at datum 1.00 ft higher.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 170 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 2	0900	*521	*4.91	No other peak greater than base discharge.			

Minimum daily discharge, 0.66 ft³/s, Aug. 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	39	16	25	e3.8	8.0	142	29	18	e4.4	1.8	3.2
2	5.4	31	14	22	e3.5	11	432	23	17	e3.5	1.6	2.8
3	4.1	28	12	21	e3.4	15	190	22	19	e3.4	1.4	2.4
4	5.0	26	10	24	e7.3	18	111	52	e19	e3.0	1.2	2.2
5	10	26	9.2	31	e7.0	17	105	38	e17	e2.9	1.1	1.8
6	7.3	31	8.9	e25	e6.1	21	79	28	e14	e2.9	1.0	1.6
7	5.5	25	9.4	e19	e5.4	21	63	22	e13	e2.6	0.90	1.4
8	4.7	21	9.8	e17	e5.4	17	50	e17	e12	e3.2	0.78	1.5
9	4.3	19	9.6	e12	5.3	13	40	e15	e12	e6.1	0.71	31
10	3.8	17	9.3	e11	5.1	12	34	e14	e15	e6.3	0.69	24
11	3.4	16	43	e9.7	5.0	12	30	e14	e14	e4.9	0.66	13
12	3.1	16	106	e12	4.6	13	27	e13	e11	e3.3	2.0	9.4
13	3.5	18	55	12	4.5	12	39	e11	e8.8	e3.1	49	7.5
14	3.2	16	34	9.2	4.5	11	128	e9.5	e7.6	e5.0	15	5.8
15	30	14	25	e7.2	4.2	12	93	e11	e7.2	4.4	9.6	4.5
16	21	13	27	e5.6	3.9	12	62	35	e7.2	3.7	9.0	3.9
17	15	12	27	e5.6	e3.6	10	46	29	e7.5	2.8	16	3.7
18	12	12	54	e5.8	3.3	9.6	38	18	e13	2.3	8.8	35
19	9.0	11	47	e5.7	3.1	8.7	33	26	e13	3.2	5.5	32
20	7.2	13	36	e5.5	2.8	8.6	28	16	e8.1	8.8	4.6	19
21	8.2	16	28	e5.2	3.7	19	24	14	e6.4	6.7	29	14
22	13	15	24	e5.1	4.5	22	22	17	e5.8	3.2	34	10
23	10	13	21	e4.8	5.7	e16	29	57	e5.3	2.5	16	11
24	9.3	12	25	e4.5	5.2	e16	31	90	e4.5	2.6	9.6	11
25	7.6	11	55	e3.9	4.5	e18	25	107	e4.2	2.5	6.4	8.9
26	6.4	11	49	e3.8	4.1	e25	51	65	e5.2	2.1	5.3	7.2
27	15	11	37	e3.5	4.3	45	84	51	e7.0	1.9	4.6	6.1
28	33	11	29	e3.8	5.0	41	64	57	e4.3	3.6	4.1	6.2
29	77	21	25	e4.0	6.0	33	44	61	e4.9	3.3	3.5	7.1
30	84	18	26	e4.0	---	28	34	34	e5.2	2.4	3.3	6.1
31	54	---	27	e3.9	---	35	---	22	---	2.1	3.6	---
TOTAL	481.9	543	908.2	331.8	134.8	559.9	2,178	1,017.5	306.2	112.7	250.74	293.3
MEAN	15.5	18.1	29.3	10.7	4.65	18.1	72.6	32.8	10.2	3.64	8.09	9.78
MAX	84	39	106	31	7.3	45	432	107	19	8.8	49	35
MIN	3.1	11	8.9	3.5	2.8	8.0	22	9.5	4.2	1.9	0.66	1.4
CFSM	1.28	1.50	2.42	0.88	0.38	1.49	6.00	2.71	0.84	0.30	0.67	0.81
IN.	1.48	1.67	2.79	1.02	0.41	1.72	6.70	3.13	0.94	0.35	0.77	0.90

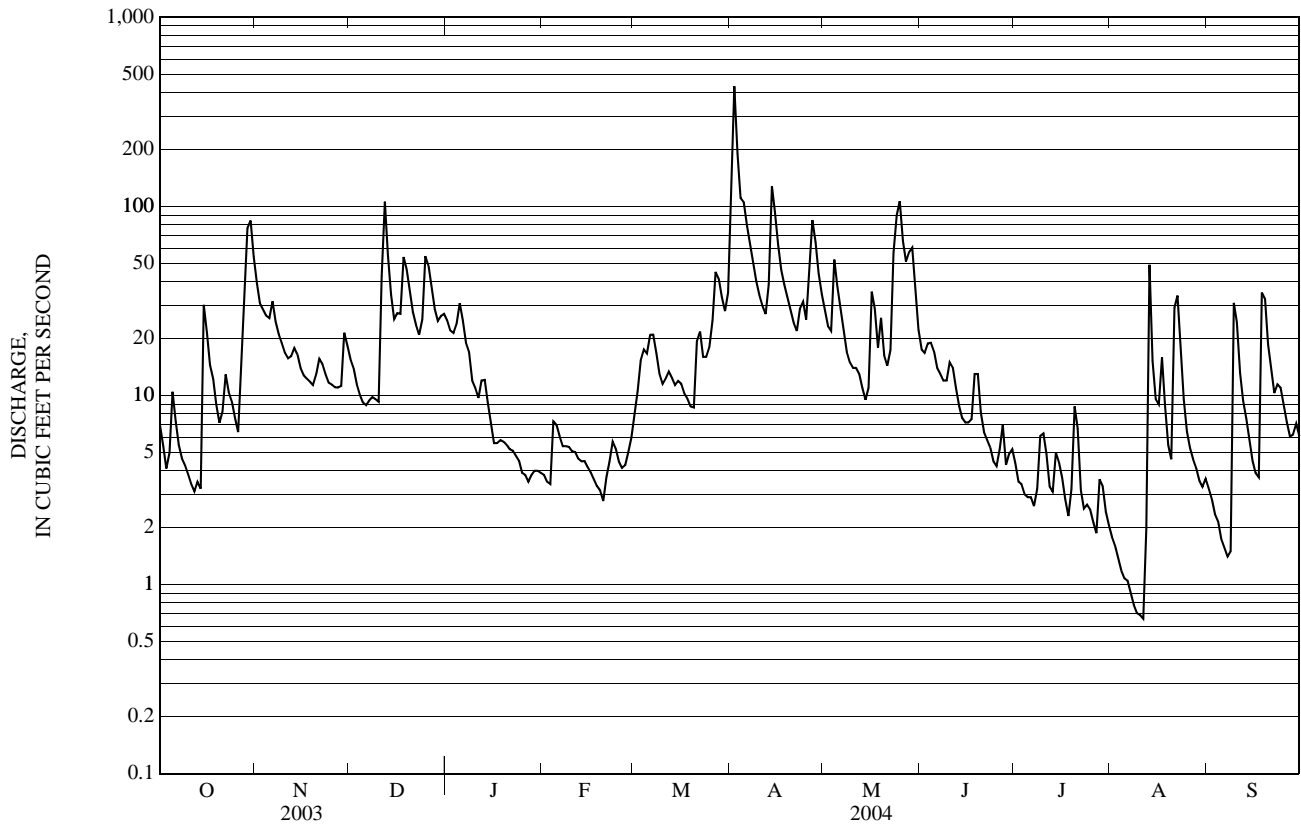
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2004, BY WATER YEAR (WY)

MEAN	7.50	17.7	21.9	18.8	21.3	47.5	48.8	24.6	12.4	4.89	3.45	4.33
MAX	65.2	62.7	55.6	58.1	84.5	122	104	97.5	71.1	33.7	22.7	52.6
(WY)	(1997)	(1952)	(1997)	(1958)	(1981)	(1936)	(1956)	(1954)	(1998)	(1938)	(1991)	(1954)
MIN	0.55	0.93	2.73	2.25	3.47	13.5	13.7	6.51	2.07	0.65	0.52	0.40
(WY)	(2002)	(2002)	(1966)	(1981)	(1980)	(1967)	(1999)	(2001)	(1936)	(1949)	(1999)	(2002)

01073000 OYSTER RIVER NEAR DURHAM, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1935 - 2004	
ANNUAL TOTAL	7,062.30		7,118.04			
ANNUAL MEAN	19.3		19.4		19.4	
HIGHEST ANNUAL MEAN					32.3	1952
LOWEST ANNUAL MEAN					8.89	2002
HIGHEST DAILY MEAN	147	Mar 22	432	Apr 2	856	Oct 21, 1996
LOWEST DAILY MEAN	0.30	Jul 31	0.66	Aug 11	0.01	Sep 6, 1999
ANNUAL SEVEN-DAY MINIMUM	0.61	Aug 24	0.83	Aug 5	0.04	Sep 2, 1999
MAXIMUM PEAK FLOW			521	Apr 2	1,160	Oct 21, 1996
MAXIMUM PEAK STAGE			4.91	Apr 2	8.45	Mar 19, 1936
INSTANTANEOUS LOW FLOW					a 0.01	Sep 6, 1999
ANNUAL RUNOFF (CFSM)	1.60		1.61		1.60	
ANNUAL RUNOFF (INCHES)	21.71		21.88		21.77	
10 PERCENT EXCEEDS	43		42		47	
50 PERCENT EXCEEDS	12		11		9.8	
90 PERCENT EXCEEDS	1.3		3.2		1.2	

a Also occurred September 7, 1999.
 e Estimated.



PISCATAQUA RIVER BASIN

01073500 LAMPREY RIVER NEAR NEWMARKET, NH

LOCATION.--Lat 43°06'09", long 70°57'11", Rockingham County, Hydrologic Unit 01060003, on right bank, 200 ft upstream from Packers Falls and Packer Falls Road, 1.8 mi northwest of Newmarket Town Hall, 2.6 mi southwest of Durham, and 4.6 mi upstream from mouth.

DRAINAGE AREA.--183 mi².

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

REVISED RECORDS.--WSP 1231: 1936-37. WDR NH-VT-97-1: 1997 (datum correction).

GAGE.--Water-stage recorder. Datum of gage is 38.28 ft above National Geodetic Vertical Datum of 1929.

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. Occasional diversion upstream from station for municipal supply of Durham.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,690 ft³/s, Apr. 3, gage height, 11.54 ft; minimum daily discharge, 18 ft³/s, Aug. 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	788	328	456	e71	103	1,020	512	587	69	52	66
2	77	578	298	428	e69	131	3,080	446	490	59	46	59
3	67	468	e255	404	e66	182	4,550	395	453	53	41	56
4	66	446	e230	415	85	227	3,820	509	438	48	36	51
5	77	420	e205	430	97	243	2,460	571	400	44	32	45
6	75	421	197	424	102	256	1,730	593	344	43	29	40
7	66	396	189	e345	97	280	1,360	509	292	39	27	36
8	61	368	207	e300	96	277	975	413	255	39	24	34
9	58	325	203	e250	93	246	695	341	227	55	21	161
10	55	284	211	e210	91	213	561	293	252	68	20	229
11	50	306	292	e190	90	200	475	263	255	73	18	176
12	47	321	699	e180	87	202	418	243	236	63	23	134
13	44	317	827	e175	82	199	429	217	198	54	230	103
14	79	313	803	e175	80	e185	970	192	165	57	166	81
15	182	340	616	e160	79	181	1,150	175	144	61	113	68
16	315	324	514	e145	74	181	1,170	299	129	70	107	59
17	392	287	510	137	67	170	949	439	109	59	112	52
18	350	264	658	133	62	164	756	437	141	52	96	184
19	277	247	729	132	60	154	631	427	163	52	92	458
20	221	261	807	131	59	146	550	370	135	58	68	515
21	189	282	727	e125	61	195	474	327	110	58	132	418
22	196	280	586	121	67	262	412	288	94	56	260	296
23	201	275	496	e115	75	247	422	467	86	56	243	227
24	188	255	460	106	79	229	469	792	75	53	193	181
25	173	237	579	93	78	228	459	1,090	67	50	140	142
26	153	220	710	e83	76	250	525	1,110	66	44	108	115
27	175	242	784	e76	75	378	780	1,020	88	39	86	94
28	289	247	704	75	76	473	914	955	71	56	73	83
29	514	295	589	76	86	473	870	1,010	68	69	61	93
30	789	319	517	75	---	417	685	934	72	67	57	98
31	879	---	484	74	---	386	---	766	---	62	67	---
TOTAL	6,392	10,126	15,414	6,239	2,280	7,478	33,759	16,403	6,210	1,726	2,773	4,354
MEAN	206	338	497	201	78.6	241	1,125	529	207	55.7	89.5	145
MAX	879	788	827	456	102	473	4,550	1,110	587	73	260	515
MIN	44	220	189	74	59	103	412	175	66	39	18	34
CFSM	1.13	1.84	2.72	1.10	0.43	1.32	6.15	2.89	1.13	0.30	0.49	0.79
IN.	1.30	2.06	3.13	1.27	0.46	1.52	6.86	3.33	1.26	0.35	0.56	0.89

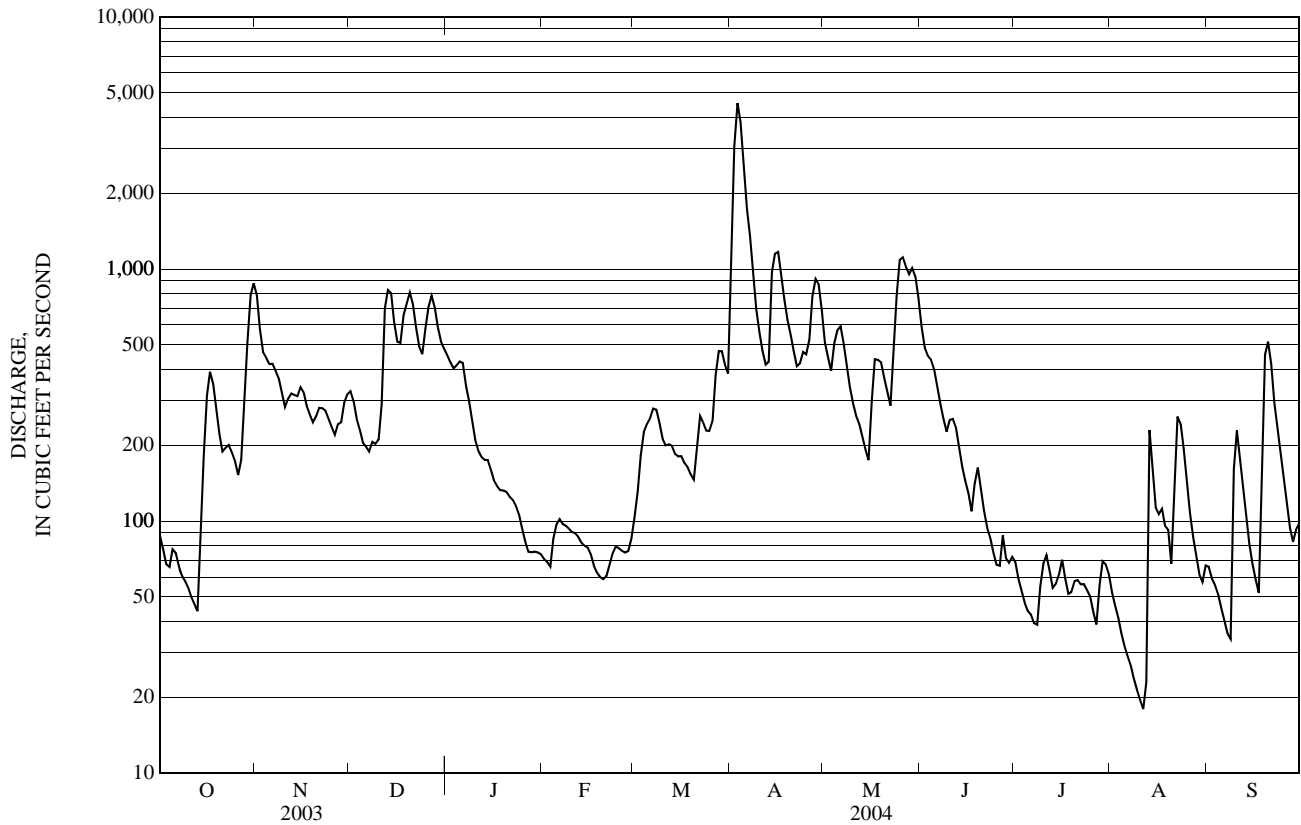
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2004, BY WATER YEAR (WY)

	128	260	330	281	300	605	694	351	192	91.5	70.5	70.8
MEAN	128	260	330	281	300	605	694	351	192	91.5	70.5	70.8
MAX	879	742	851	796	811	1,866	1,756	1,400	1,117	599	621	650
(WY)	(1997)	(1952)	(1997)	(1956)	(1970)	(1936)	(1987)	(1954)	(1998)	(1938)	(1938)	(1954)
MIN	11.1	15.9	45.9	46.4	49.7	210	170	90.2	27.0	12.2	4.79	3.44
(WY)	(1948)	(1942)	(1942)	(1944)	(1980)	(1989)	(1985)	(2001)	(1999)	(1993)	(1999)	(1957)

01073500 LAMPREY RIVER NEAR NEWMARKET, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1934 - 2004	
ANNUAL TOTAL	110,581		113,154			
ANNUAL MEAN	303		309		281	
HIGHEST ANNUAL MEAN					441 1984	
LOWEST ANNUAL MEAN					137 1965	
HIGHEST DAILY MEAN	2,050	Mar 31	4,550	Apr 3	7,360	Apr 7, 1987
LOWEST DAILY MEAN	11	Jul 31	18	Aug 11	a 0.66	Jul 27, 1994
ANNUAL SEVEN-DAY MINIMUM	15	Jul 26	23	Aug 6	2.0	Sep 10, 1995
MAXIMUM PEAK FLOW			4,690	Apr 3	7,570	Apr 7, 1987
MAXIMUM PEAK STAGE			11.54	Apr 3	15.14	Apr 7, 1987
ANNUAL RUNOFF (CFSM)	1.66		1.69		1.53	
ANNUAL RUNOFF (INCHES)	22.48		23.00		20.83	
10 PERCENT EXCEEDS	676		696		650	
50 PERCENT EXCEEDS	211		194		168	
90 PERCENT EXCEEDS	29		56		23	

a During refilling after repairs at Wiswall Dam.
 e Estimated.



PISCATAQUA RIVER BASIN

01073587 EXETER RIVER AT HAIGH ROAD NEAR BRENTWOOD, NH

LOCATION.--Lat 42° 59'04", long 71° 02'20", Rockingham County, Hydrologic Unit 01060003, on right bank, 10 ft downstream of Haigh Road bridge, 0.8 mi upstream from mouth of the Little River, 1.3 mi southwest of Marshall Corner, 1.8 mi east of Brentwood, and 3.4 mi north of Kingston.

DRAINAGE AREA.--63.5 mi².

PERIOD OF RECORD.--Discharge records: June 27, 1996 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 60.16 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional regulation by power plant upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 2	2315	*1,960	*9.95	No other peak greater than base discharge			

Minimum daily discharge, 5.3 ft³/s, June 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	154	83	146	e28	58	420	178	171	39	17	35
2	23	151	78	136	e28	71	1,660	156	164	35	15	31
3	21	136	e70	129	e28	93	1,660	139	150	32	13	26
4	21	125	e65	133	e50	105	1,190	156	148	28	11	22
5	25	114	e55	138	e65	e100	881	175	135	25	11	19
6	24	124	55	e132	e62	e110	640	163	117	24	10	17
7	21	118	57	e115	e60	122	455	143	95	22	9.3	16
8	19	105	58	e100	e57	115	344	125	90	20	8.2	16
9	19	93	e58	e85	e54	101	286	108	82	32	7.1	40
10	18	84	57	e70	e55	e94	247	92	84	42	6.5	59
11	16	79	78	e60	e54	e96	217	89	81	35	5.9	48
12	16	77	192	e65	e52	93	181	94	69	28	9.9	38
13	17	81	273	e72	e51	88	182	83	63	24	97	31
14	15	83	e265	e67	e51	82	349	69	57	27	104	26
15	40	77	215	e59	e49	87	452	64	54	32	27	23
16	66	72	188	e51	e47	81	352	78	49	32	29	21
17	67	69	168	e49	e44	e75	296	121	79	28	53	20
18	65	66	196	e49	43	e75	252	122	96	24	47	67
19	57	62	251	e49	43	74	216	111	122	24	40	154
20	48	62	229	e47	42	e70	179	106	97	30	39	143
21	42	67	e200	e45	43	91	151	98	75	30	103	103
22	41	66	171	e44	48	115	140	102	64	26	154	87
23	38	63	146	e43	51	108	146	150	58	22	126	74
24	34	62	139	e39	51	107	171	247	35	21	97	63
25	30	60	180	e36	47	100	174	321	5.3	21	85	54
26	28	55	236	e32	45	101	179	306	29	18	72	47
27	53	56	229	e31	44	128	254	277	47	17	59	39
28	55	57	e200	e31	45	155	277	295	45	21	52	36
29	133	73	e180	e30	51	146	235	300	42	25	48	53
30	224	84	161	e30	---	132	203	269	44	23	42	61
31	222	---	154	e29	---	136	---	213	---	20	37	---
TOTAL	1,522	2,575	4,687	2,142	1,388	3,109	12,389	4,950	2,447.3	827	1,434.9	1,469
MEAN	49.1	85.8	151	69.1	47.9	100	413	160	81.6	26.7	46.3	49.0
MAX	224	154	273	146	65	155	1,660	321	171	42	154	154
MIN	15	55	55	29	28	58	140	64	5.3	17	5.9	16

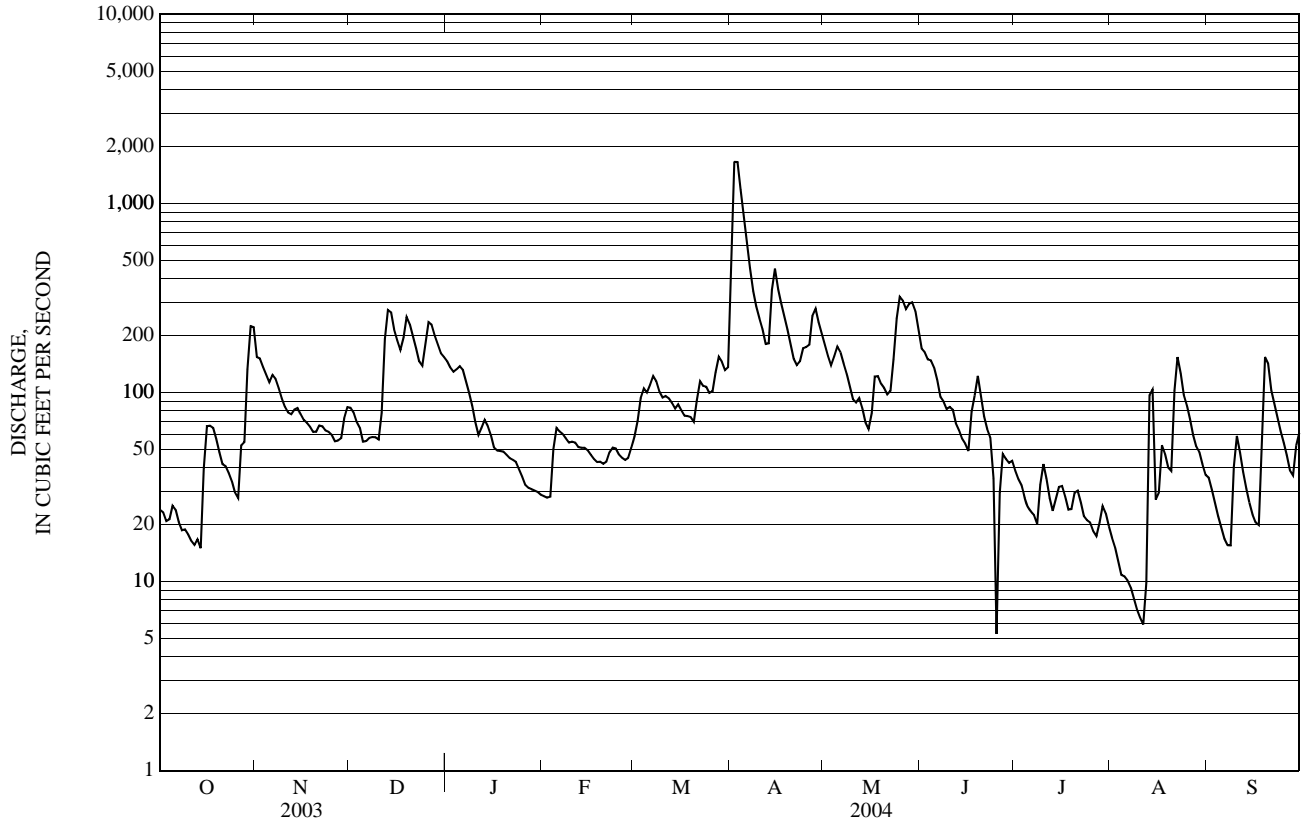
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

MEAN	61.9	58.9	106	85.3	112	227	236	119	100	25.6	13.8	17.1
MAX	335	132	304	133	252	376	413	169	361	80.4	46.3	55.4
(WY)	(1997)	(1997)	(1997)	(1998)	(1998)	(2001)	(2004)	(1998)	(1998)	(1998)	(2004)	(1999)
MIN	1.94	4.26	12.5	16.9	37.2	91.6	80.2	42.5	12.8	5.60	1.47	1.58
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1999)	(2001)	(1999)	(1999)	(1997)	(1997)

01073587 EXETER RIVER AT HAIGH ROAD NEAR BRENTWOOD, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1996 - 2004	
ANNUAL TOTAL	36,857.8		38,940.2		96.7	
ANNUAL MEAN	101		106		46.4	
HIGHEST ANNUAL MEAN					142	1997
LOWEST ANNUAL MEAN					46.4	2002
HIGHEST DAILY MEAN	750	Mar 23	a 1,660	Apr 2	2,630	Oct 22, 1996
LOWEST DAILY MEAN	2.2	Jul 31	5.3	Jun 25	0.73	Sep 10, 1997
ANNUAL SEVEN-DAY MINIMUM	3.0	Sep 9	8.1	Aug 6	0.77	Sep 4, 1997
MAXIMUM PEAK FLOW			1,960	Apr 2	3,060	Oct 22, 1996
MAXIMUM PEAK STAGE			9.95	Apr 2	11.44	Oct 22, 1996
10 PERCENT EXCEEDS	220		214		223	
50 PERCENT EXCEEDS	67		66		55	
90 PERCENT EXCEEDS	7.2		22		3.0	

a Also occurred on April 3.
 e Estimated.



PISCATAQUA RIVER BASIN

01073750 MILL BROOK NEAR NH 108, AT STRATHAM, NH

LOCATION.--Lat 43° 01' 24", long 70° 55' 04", Rockingham County, Hydrologic Unit 01060003, at downstream-most culvert of the Stratham traffic circle, 0.3 mi west of Stratham, 1.5 mi southeast of Newfields, 3.2 mi northeast of Exeter, and 1.3 mi upstream from mouth.

DRAINAGE AREA.--2.30 mi².

PERIOD OF RECORD.--Discharge records: May 2003 to current year. Peak streamflow only: Water years 1973 to 1978. Miscellaneous discharge measurements: Water years 1976 and 1978.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those below 0.80 ft³/s and those for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 27	0105	*50	*6.80	No other peak greater than base discharge.			

Minimum discharge, 0.27 ft³/s, Aug. 30, 31, Sept. 1, 13, gage height, 4.93 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

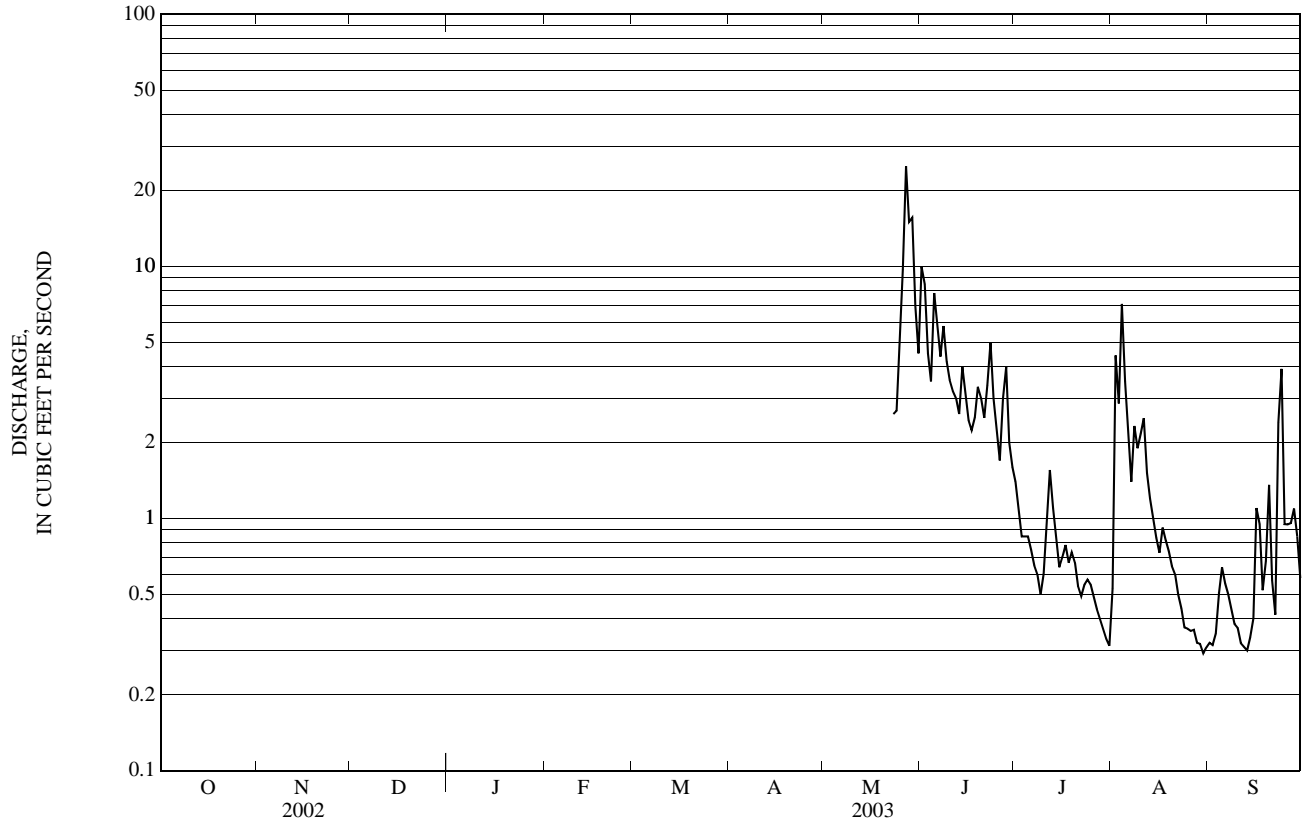
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	10	e1.4	0.53	e0.32
2	---	---	---	---	---	---	---	---	e8.5	e1.1	4.4	0.32
3	---	---	---	---	---	---	---	---	e4.5	e0.85	2.9	e0.35
4	---	---	---	---	---	---	---	---	e3.5	e0.85	7.1	0.51
5	---	---	---	---	---	---	---	---	7.8	e0.85	e3.5	e0.64
6	---	---	---	---	---	---	---	---	e6.0	e0.75	e2.2	e0.55
7	---	---	---	---	---	---	---	---	4.4	e0.65	e1.4	e0.50
8	---	---	---	---	---	---	---	---	e5.8	e0.60	2.3	e0.43
9	---	---	---	---	---	---	---	---	e4.2	e0.50	1.9	e0.38
10	---	---	---	---	---	---	---	---	e3.5	e0.60	2.2	e0.37
11	---	---	---	---	---	---	---	---	e3.2	1.0	e2.5	e0.32
12	---	---	---	---	---	---	---	---	e3.0	e1.6	1.5	e0.31
13	---	---	---	---	---	---	---	---	e2.6	e1.1	e1.2	e0.30
14	---	---	---	---	---	---	---	---	e4.0	0.85	e1.0	e0.34
15	---	---	---	---	---	---	---	---	e3.2	e0.64	e0.84	e0.40
16	---	---	---	---	---	---	---	---	e2.5	e0.71	e0.73	1.1
17	---	---	---	---	---	---	---	---	e2.2	e0.78	e0.92	e0.95
18	---	---	---	---	---	---	---	---	2.5	e0.67	e0.82	e0.52
19	---	---	---	---	---	---	---	---	e3.3	e0.74	e0.74	0.68
20	---	---	---	---	---	---	---	---	e3.0	e0.67	e0.65	1.4
21	---	---	---	---	---	---	---	---	e2.5	e0.54	e0.60	e0.57
22	---	---	---	---	---	---	---	---	3.4	e0.49	e0.50	e0.42
23	---	---	---	---	---	---	---	2.6	e5.0	e0.55	e0.44	2.4
24	---	---	---	---	---	---	---	2.7	e3.0	e0.57	e0.37	3.9
25	---	---	---	---	---	---	---	5.6	e2.2	e0.55	e0.37	e0.95
26	---	---	---	---	---	---	---	9.7	e1.7	e0.49	e0.36	0.95
27	---	---	---	---	---	---	---	e25	e3.0	e0.44	e0.36	0.96
28	---	---	---	---	---	---	---	e15	e4.0	e0.40	e0.32	1.1
29	---	---	---	---	---	---	---	e16	e2.0	e0.37	e0.32	0.85
30	---	---	---	---	---	---	---	e7.0	e1.6	e0.33	e0.29	0.58
31	---	---	---	---	---	---	---	e4.5	---	e0.31	e0.31	---
TOTAL	---	---	---	---	---	---	---	---	116.1	21.95	43.57	23.37
MEAN	---	---	---	---	---	---	---	---	3.87	0.71	1.41	0.78
MAX	---	---	---	---	---	---	---	---	10	1.6	7.1	3.9
MIN	---	---	---	---	---	---	---	---	1.6	0.31	0.29	0.30
CFSM	---	---	---	---	---	---	---	---	1.68	0.31	0.61	0.34
IN.	---	---	---	---	---	---	---	---	1.88	0.36	0.70	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2003, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	3.87	0.71	1.41	0.78
MAX	---	---	---	---	---	---	---	---	3.87	0.71	1.41	0.78
(WY)	---	---	---	---	---	---	---	---	(2003)	(2003)	(2003)	(2003)
MIN	---	---	---	---	---	---	---	---	3.87	0.71	1.41	0.78
(WY)	---	---	---	---	---	---	---	---	(2003)	(2003)	(2003)	(2003)

e Estimated.

01073750 MILL BROOK NEAR NH 108, AT STRATHAM, NH—Continued



01073750 MILL BROOK NEAR NH 108, AT STRATHAM, NH

LOCATION.--Lat 43° 01' 24", long 70° 55' 04", Rockingham County, Hydrologic Unit 01060003, at downstream-most culvert of the Stratham traffic circle, 0.3 mi west of Stratham, 1.5 mi southeast of Newfields, 3.2 mi northeast of Exeter, and 1.3 mi upstream from mouth.

DRAINAGE AREA.--2.30 mi².

PERIOD OF RECORD.--Discharge records: May 2003 to September 2004 (discontinued). Peak streamflow only: Water years 1973 to 1978. Miscellaneous discharge measurements: Water years 1976 and 1978.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those below 0.80 ft³/s and those for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 2	0335	*161	*8.87	Sep 9	1135	54	6.88
Apr 14	0340	63	7.10				

Minimum discharge, 0.08 ft³/s, Nov. 5, gage height, 4.88 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.46	2.4	2.1	3.6	0.50	2.1	52	e4.0	4.2	e1.2	0.62	1.3
2	0.45	2.2	1.6	3.2	0.60	2.9	90	e3.9	e3.7	e1.2	0.58	0.87
3	0.40	2.2	1.3	3.7	0.79	3.8	21	4.0	e4.0	e1.1	0.50	0.76
4	0.81	2.0	1.1	4.9	e5.4	2.8	13	12	e3.3	e0.95	0.44	0.69
5	1.9	1.1	1.0	4.5	3.1	2.4	17	5.9	e2.7	0.98	0.50	0.59
6	0.75	3.5	1.3	3.7	1.8	4.5	e9.5	e4.2	2.5	e0.97	0.50	0.59
7	0.58	2.9	1.5	e2.8	2.3	3.7	e7.7	e3.5	e2.4	e0.92	0.42	0.52
8	0.56	2.0	1.6	e2.0	1.6	2.5	e6.5	2.7	e2.3	0.90	0.42	2.0
9	0.54	1.6	1.6	1.3	1.3	1.9	e5.6	2.7	e2.6	2.1	0.38	23
10	0.57	1.8	1.7	0.97	1.5	1.9	e4.7	2.5	3.7	1.3	0.36	7.5
11	0.52	1.7	10	0.91	1.7	2.3	e4.0	e2.3	e2.1	1.0	0.36	2.7
12	1.1	2.2	17	1.1	1.4	2.6	3.8	e2.1	e1.8	0.88	0.38	1.8
13	2.8	3.5	4.9	1.5	1.4	2.1	8.0	2.0	e1.6	0.90	5.2	1.4
14	1.1	2.4	2.6	1.5	1.4	1.8	33	1.8	e1.5	2.1	1.6	1.2
15	12	1.6	3.2	e1.2	1.3	2.2	e13	e2.0	e1.5	1.7	1.6	1.0
16	3.8	1.4	3.1	e1.0	0.90	2.0	e7.6	5.7	e1.3	1.4	1.5	0.99
17	1.6	1.4	4.1	0.87	0.78	1.9	e5.9	4.0	e1.2	1.1	1.6	1.1
18	1.2	1.6	16	e0.92	0.92	1.7	e5.3	e3.1	13	0.94	0.92	16
19	1.0	1.7	9.2	e0.88	1.4	1.6	e4.7	7.6	e4.2	1.1	1.2	9.5
20	1.0	3.0	5.2	e0.83	1.1	1.8	e4.0	e3.0	e2.2	1.1	2.1	3.4
21	3.2	3.7	3.8	e0.78	2.1	6.4	e3.2	e3.0	e1.5	0.95	10	2.3
22	1.3	2.3	3.3	e0.78	2.2	4.5	e3.3	3.1	e1.5	0.79	7.6	2.0
23	1.2	1.7	3.3	e0.75	1.8	2.5	8.3	19	e1.4	0.69	2.4	1.7
24	0.95	1.6	5.3	e0.64	1.5	2.6	7.2	13	e1.2	1.3	1.5	1.5
25	0.73	1.8	17	0.52	1.4	3.0	4.1	11	e1.2	1.3	1.1	1.5
26	1.1	1.6	10	e0.37	1.2	4.5	10	6.2	e1.4	0.88	0.92	1.3
27	3.5	1.5	5.9	e0.38	1.2	11	16	9.5	e1.4	0.71	0.84	1.2
28	6.1	2.1	4.5	e0.49	1.4	6.6	8.0	11	e1.2	1.2	0.79	1.5
29	9.9	5.4	4.1	e0.52	1.7	4.3	5.1	11	e1.6	1.1	0.74	3.9
30	6.5	2.6	4.5	e0.52	---	3.7	e4.4	e4.8	e1.4	0.86	0.66	2.4
31	4.1	---	4.3	e0.51	---	5.8	---	e4.0	---	0.72	2.2	---
TOTAL	71.72	66.5	156.1	47.64	45.69	103.4	385.9	174.6	75.6	34.34	49.93	96.21
MEAN	2.31	2.22	5.04	1.54	1.58	3.34	12.9	5.63	2.52	1.11	1.61	3.21
MAX	12	5.4	17	4.9	5.4	11	90	19	13	2.1	10	23
MIN	0.40	1.1	1.0	0.37	0.50	1.6	3.2	1.8	1.2	0.69	0.36	0.52
CFSM	1.01	0.96	2.19	0.67	0.69	1.45	5.59	2.45	1.10	0.48	0.70	1.39
IN.	1.16	1.08	2.52	0.77	0.74	1.67	6.24	2.82	1.22	0.56	0.81	1.56

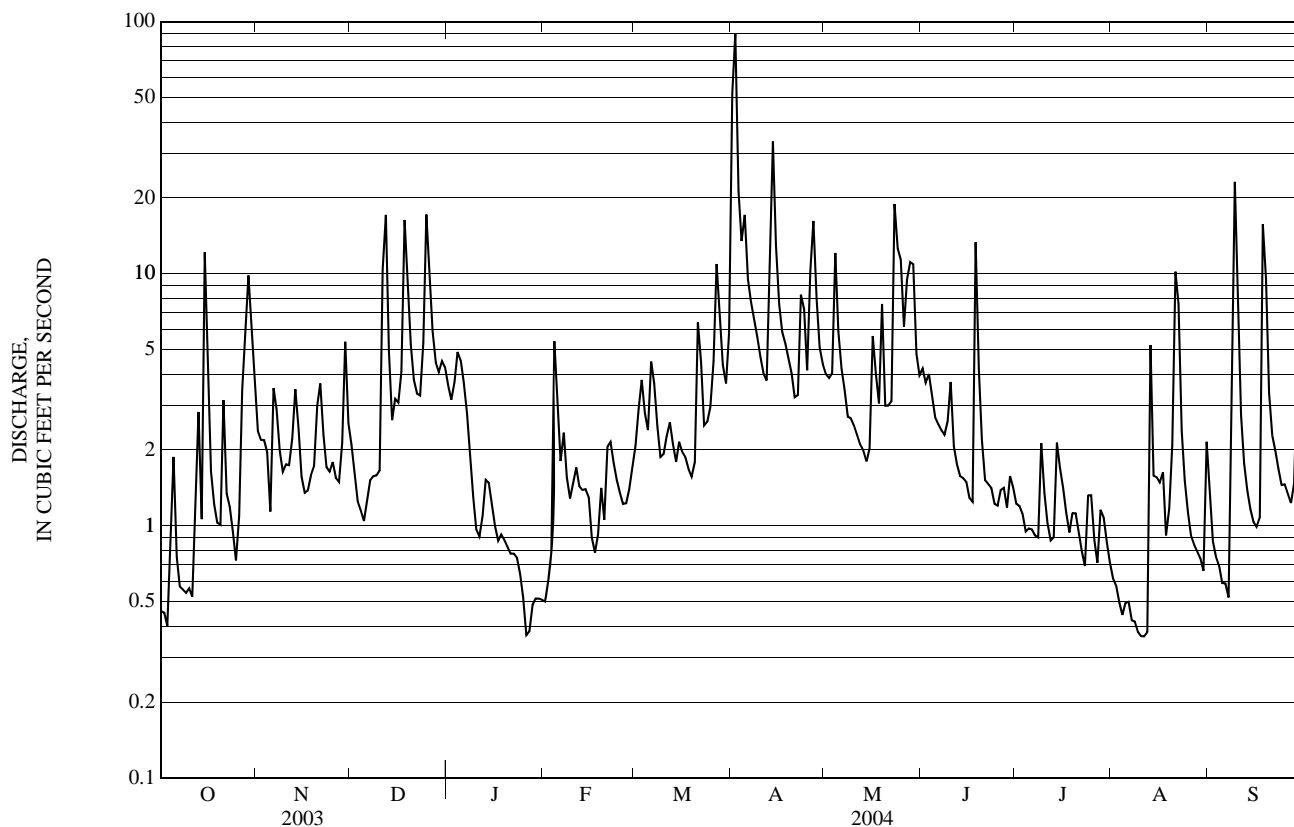
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2004, BY WATER YEAR (WY)

MEAN	2.31	2.22	5.04	1.54	1.58	3.34	12.9	5.63	3.20	0.91	1.51	1.99
MAX	2.31	2.22	5.04	1.54	1.58	3.34	12.9	5.63	3.87	1.11	1.61	3.21
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2004)	(2004)	(2004)
MIN	2.31	2.22	5.04	1.54	1.58	3.34	12.9	5.63	2.52	0.71	1.41	0.78
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2003)	(2003)

01073750 MILL BROOK NEAR NH 108, AT STRATHAM, NH—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 2003 - 2004	
ANNUAL TOTAL	1,307.63			
ANNUAL MEAN	3.57		3.57	
HIGHEST ANNUAL MEAN			3.57	2004
LOWEST ANNUAL MEAN			3.57	2004
HIGHEST DAILY MEAN	90	Apr 2	90	Apr 2, 2004
LOWEST DAILY MEAN	a 0.36	Aug 10	0.29	Aug 30, 2003
ANNUAL SEVEN-DAY MINIMUM	0.40	Aug 6	0.32	Aug 28, 2003
MAXIMUM PEAK FLOW	161	Apr 2	161	Apr 2, 2004
MAXIMUM PEAK STAGE	8.87	Apr 2	8.87	Apr 2, 2004
INSTANTANEOUS LOW FLOW	0.08	Nov 5	b 0.08	Nov 5, 2003
ANNUAL RUNOFF (CFSM)	1.55		1.55	
ANNUAL RUNOFF (INCHES)	21.15		21.11	
10 PERCENT EXCEEDS	7.6		7.6	
50 PERCENT EXCEEDS	1.8		1.8	
90 PERCENT EXCEEDS	0.70		0.70	

a Also occurred on August 11.
 b About. During refilling after dredging at upstream pond.
 c Estimated.



PISCATAQUA RIVER BASIN

01073785 WINNICUT RIVER AT GREENLAND, NEAR PORTSMOUTH, NH

LOCATION.--Lat 43°02'12", long 70°50'55", Rockingham County, Hydrologic Unit 01060003, on left bank, 20 ft upstream of State Fish and Game Department dam, 150 ft downstream from Portsmouth Avenue (NH 33), 0.8 mi west of Portsmouth Ave. and Post Road (NH 151) intersection in Greenland, and 5.1 mi southwest of State Street and Middle Street (US 1) intersection in Portsmouth.

DRAINAGE AREA.--14.1 mi².

PERIOD OF RECORD.--Discharge records: July 2002 to current year. Miscellaneous discharge measurements: Water years 1999-2000.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those below 2.0 ft³/s and estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 190 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 2	0600	*708	*5.64	Apr 14	0700	270	4.72

Minimum discharge, 1.4 ft³/s, Aug. 12, 13, gage height, 3.15 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	e30	13	22	2.2	9.0	223	31	26	5.8	3.4	12
2	9.8	e25	11	20	2.2	12	534	27	27	5.4	2.9	7.4
3	5.9	e20	9.4	22	2.2	19	220	26	23	3.9	3.3	5.7
4	4.3	e21	7.7	27	19	19	142	59	23	3.1	3.2	4.6
5	5.3	e21	6.8	27	11	18	134	38	18	3.0	2.5	3.6
6	4.5	e30	6.7	24	6.1	24	89	30	15	3.2	2.3	2.9
7	3.4	e27	6.9	20	5.7	27	68	27	13	2.7	2.3	2.4
8	2.7	24	6.9	18	5.5	23	56	21	16	2.5	2.1	2.2
9	2.4	18	6.6	15	4.6	20	48	18	12	3.5	2.0	60
10	e2.1	16	6.6	9.0	4.6	18	43	17	21	4.1	1.9	51
11	e2.0	e14	25	7.2	5.0	17	38	16	15	3.4	1.7	34
12	e2.2	e14	81	8.0	4.6	17	36	14	10	3.6	1.5	27
13	e10	e14	31	8.9	4.3	17	49	12	7.0	3.8	18	21
14	e8.0	12	21	8.6	4.4	14	176	11	6.5	6.3	15	22
15	e20	9.4	22	e6.5	4.4	13	89	11	7.2	6.5	12	16
16	e30	8.1	22	e5.2	3.6	12	63	21	6.2	5.4	12	12
17	e20	7.4	24	5.1	2.9	11	49	20	4.5	4.3	15	12
18	e15	7.0	99	5.0	2.7	9.8	44	16	61	3.9	12	54
19	e10	6.8	57	5.0	2.9	9.0	39	32	30	3.8	9.8	63
20	e8.5	7.9	44	4.5	2.9	8.8	34	19	21	3.3	7.5	27
21	e8.5	18	34	4.2	5.1	25	32	19	15	2.7	31	42
22	e8.0	17	29	4.0	9.8	30	31	19	14	2.4	44	27
23	e8.0	e13	26	3.8	7.6	20	47	84	12	2.2	20	22
24	e7.5	e11	31	3.3	6.8	18	48	73	10	2.4	30	15
25	e7.0	11	78	2.8	6.2	20	32	84	8.5	3.2	20	20
26	e7.0	10	56	2.5	5.8	24	51	62	9.2	2.9	16	11
27	e10	9.2	40	2.4	5.5	51	85	66	11	3.6	14	9.0
28	e15	10	32	2.4	5.8	43	58	61	7.5	11	8.8	17
29	e45	20	27	2.5	7.2	33	43	65	7.2	10	6.8	21
30	e55	16	26	2.4	---	29	37	39	6.9	10	5.4	18
31	e35	---	25	2.3	---	34	---	29	---	5.3	13	---
TOTAL	377.0	467.8	911.6	300.6	160.6	644.6	2,638	1,067	463.7	137.2	339.4	641.8
MEAN	12.2	15.6	29.4	9.70	5.54	20.8	87.9	34.4	15.5	4.43	10.9	21.4
MAX	55	30	99	27	19	51	534	84	61	11	44	63
MIN	2.0	6.8	6.6	2.3	2.2	8.8	31	11	4.5	2.2	1.5	2.2
CFSM	0.86	1.11	2.09	0.69	0.39	1.47	6.24	2.44	1.10	0.31	0.78	1.52
IN.	0.99	1.23	2.41	0.79	0.42	1.70	6.96	2.82	1.22	0.36	0.90	1.69

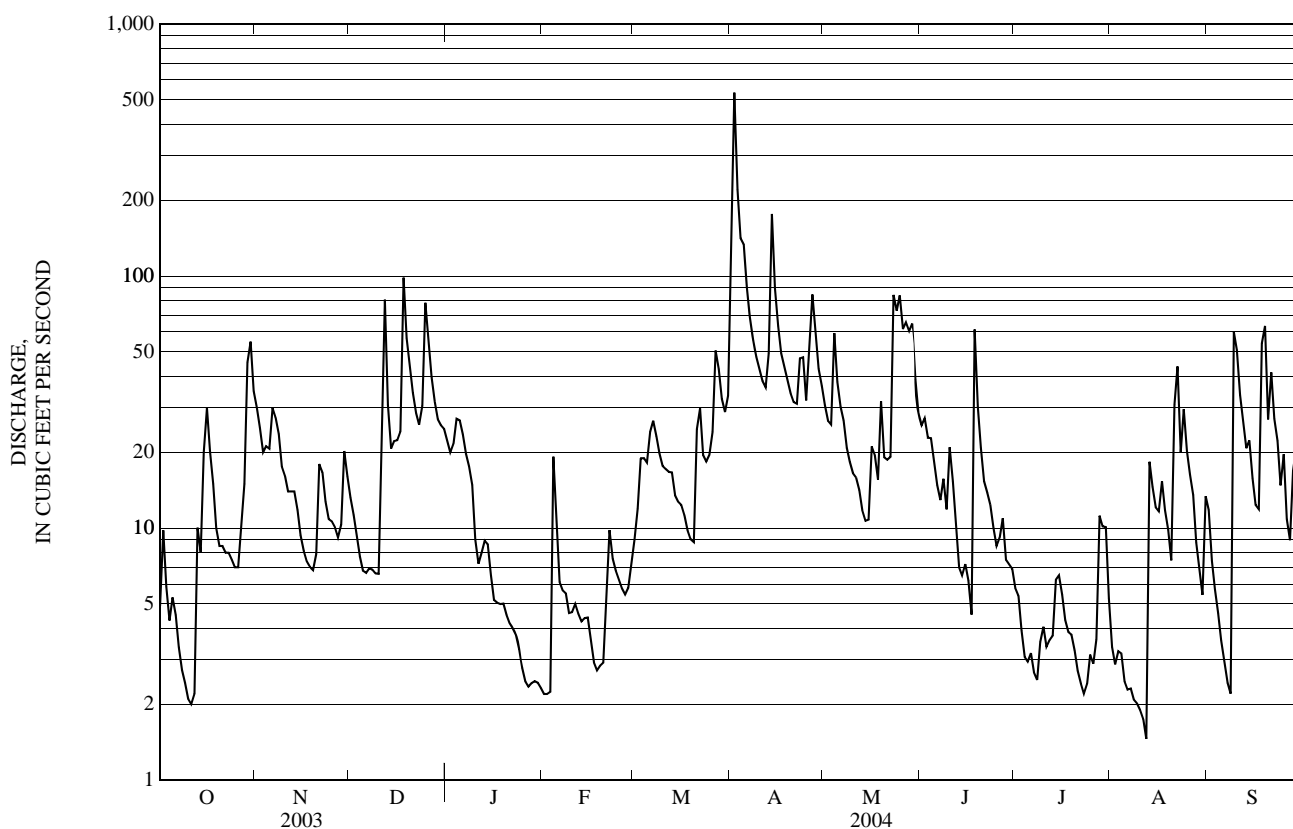
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	7.64	19.6	31.7	12.3	11.7	45.8	70.3	32.9	20.5	5.23	6.30	8.25
MAX	12.2	23.7	33.9	15.0	18.2	70.7	87.9	34.4	25.6	6.04	10.9	21.4
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2004)	(2004)	(2003)	(2003)	(2004)	(2004)
MIN	3.11	15.6	29.4	9.70	5.54	20.8	52.7	31.4	15.5	4.43	0.41	0.36
(WY)	(2003)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2003)	(2004)	(2004)	(2002)	(2002)

01073785 WINNICUT RIVER AT GREENLAND, NEAR PORTSMOUTH, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	8,755.20		8,149.3		23.3	
ANNUAL MEAN	24.0		22.3		24.3	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					2004	
HIGHEST DAILY MEAN	168	Mar 22	534	Apr 2	534	Apr 2, 2004
LOWEST DAILY MEAN	0.80	Sep 15	1.5	Aug 12	a 0.30	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	1.1	Sep 13	2.0	Aug 6	0.30	Sep 13, 2002
MAXIMUM PEAK FLOW			708	Apr 2	708	Apr 2, 2004
MAXIMUM PEAK STAGE			5.64	Apr 2	5.64	Apr 2, 2004
INSTANTANEOUS LOW FLOW			b 1.4	Aug 12	c 0.30	Aug 22, 2002
ANNUAL RUNOFF (CFSM)	1.70		1.58		1.65	
ANNUAL RUNOFF (INCHES)	23.10		21.50		22.42	
10 PERCENT EXCEEDS	52		48		51	
50 PERCENT EXCEEDS	16		13		14	
90 PERCENT EXCEEDS	2.0		2.9		2.2	

- a Also occurred on August 28, September 13-15, 18-22, 2002.
- b Also occurred on August 13.
- c Also occurred on August 24, 27-29, September 12-23, 2002.
- e Estimated.



BERRYS BROOK BASIN

01073810 BERRYS BROOK AT SAGAMORE ROAD, NEAR PORTSMOUTH, NH

LOCATION.--Lat 43° 02'10", long 70° 44'59", Rockingham County, Hydrologic Unit 01060003, on right bank, at Sagamore Road, 0.7 mi south of Pioneer Road (NH 1A) and Sagamore Road intersection at Foyers Corner, 0.8 mi northeast of Wallis Road and Sagamore Road intersection at Langs Corner, and 2.8 mi south of Islington Street, Middle Street (US 1), Congress Street (US 1), and Maplewood Street intersection in Portsmouth.

DRAINAGE AREA.--5.38 mi².

PERIOD OF RECORD.--Discharge records: May 2003 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 28	0700	*47	*2.52	No other peak greater than base discharge.			

Minimum daily discharge, e0.08 ft³/s, Sept. 12-15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

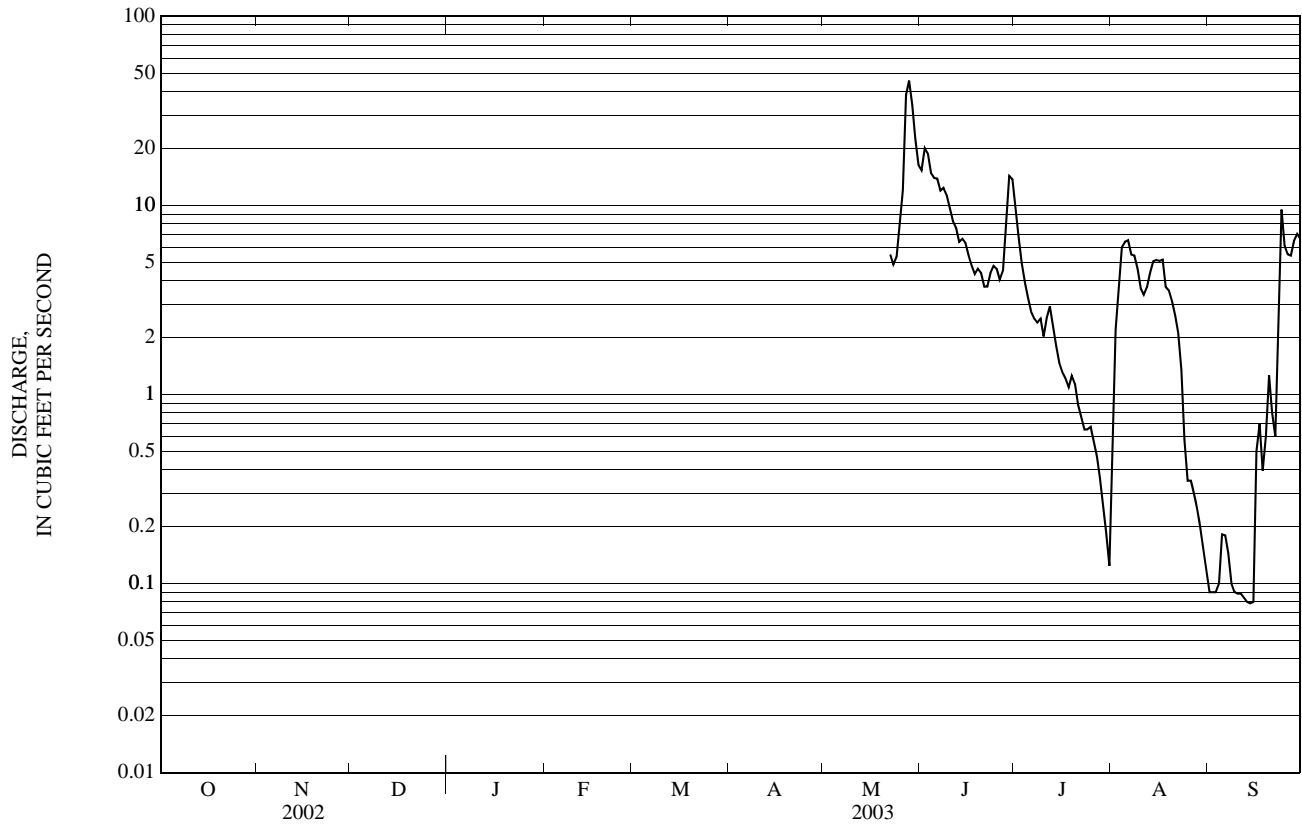
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	15	10	0.49	e0.09
2	---	---	---	---	---	---	---	---	20	6.8	2.2	e0.09
3	---	---	---	---	---	---	---	---	19	5.0	3.5	e0.09
4	---	---	---	---	---	---	---	---	15	3.9	6.0	e0.10
5	---	---	---	---	---	---	---	---	14	3.3	6.4	e0.18
6	---	---	---	---	---	---	---	---	14	2.7	6.5	e0.18
7	---	---	---	---	---	---	---	---	12	2.5	5.5	e0.14
8	---	---	---	---	---	---	---	---	12	2.4	5.4	e0.10
9	---	---	---	---	---	---	---	---	11	2.5	4.6	e0.09
10	---	---	---	---	---	---	---	---	9.8	2.0	3.6	e0.09
11	---	---	---	---	---	---	---	---	8.3	2.6	3.4	e0.09
12	---	---	---	---	---	---	---	---	7.6	2.9	3.7	e0.08
13	---	---	---	---	---	---	---	---	6.4	2.3	4.4	e0.08
14	---	---	---	---	---	---	---	---	6.7	1.8	5.1	e0.08
15	---	---	---	---	---	---	---	---	6.4	1.5	5.1	e0.08
16	---	---	---	---	---	---	---	---	5.4	1.3	5.1	e0.50
17	---	---	---	---	---	---	---	---	4.8	1.2	5.2	e0.70
18	---	---	---	---	---	---	---	---	4.3	1.1	3.7	e0.40
19	---	---	---	---	---	---	---	---	4.6	1.3	3.6	e0.60
20	---	---	---	---	---	---	---	---	4.4	1.1	3.1	e1.3
21	---	---	---	---	---	---	---	---	3.7	0.89	2.6	e0.80
22	---	---	---	---	---	---	---	e5.5	3.7	0.76	2.1	e0.60
23	---	---	---	---	---	---	---	4.9	4.4	0.65	1.3	e2.5
24	---	---	---	---	---	---	---	5.4	4.8	0.65	0.58	9.5
25	---	---	---	---	---	---	---	7.9	4.6	0.67	e0.35	e6.1
26	---	---	---	---	---	---	---	12	4.1	0.57	e0.35	5.5
27	---	---	---	---	---	---	---	38	4.5	0.47	e0.30	5.4
28	---	---	---	---	---	---	---	46	8.7	0.36	e0.25	6.5
29	---	---	---	---	---	---	---	34	14	0.25	e0.20	7.1
30	---	---	---	---	---	---	---	22	14	0.19	e0.15	6.7
31	---	---	---	---	---	---	---	16	---	0.12	e0.12	---
TOTAL	---	---	---	---	---	---	---	---	267.2	63.78	94.89	55.76
MEAN	---	---	---	---	---	---	---	---	8.91	2.06	3.06	1.86
MAX	---	---	---	---	---	---	---	---	20	10	6.5	9.5
MIN	---	---	---	---	---	---	---	---	3.7	0.12	0.12	0.08
CFSM	---	---	---	---	---	---	---	---	1.66	0.38	0.57	0.35
IN.	---	---	---	---	---	---	---	---	1.85	0.44	0.66	0.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2003, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	8.91	2.06	3.06	1.86
MAX	---	---	---	---	---	---	---	---	8.91	2.06	3.06	1.86
(WY)	---	---	---	---	---	---	---	---	(2003)	(2003)	(2003)	(2003)
MIN	---	---	---	---	---	---	---	---	8.91	2.06	3.06	1.86
(WY)	---	---	---	---	---	---	---	---	(2003)	(2003)	(2003)	(2003)

e Estimated.

01073810 BERRYS BROOK AT SAGAMORE ROAD, NEAR PORTSMOUTH, NH—Continued



01073810 BERRYS BROOK AT SAGAMORE ROAD, NEAR PORTSMOUTH, NH

LOCATION.--Lat 43° 02'10", long 70° 44'59", Rockingham County, Hydrologic Unit 01060003, on right bank, at Sagamore Road, 0.7 mi south of Pioneer Road (NH 1A) and Sagamore Road intersection at Foyers Corner, 0.8 mi northeast of Wallis Road and Sagamore Road intersection at Langs Corner, and 2.8 mi south of Islington Street, Middle Street (US 1), Congress Street (US 1), and Maplewood Street intersection in Portsmouth.

DRAINAGE AREA.--5.38 mi².

PERIOD OF RECORD.--Discharge records: May 2003 to September 2004 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 2	2200	*239	*4.67	May 25	0645	44	2.50
Apr 15	1845	43	2.49	Sep 19	2135	44	2.50

Minimum daily discharge, 0.25 ft³/s, Aug. 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	e16	7.8	e9.0	e0.78	e3.7	25	13	12	1.4	1.8	5.8
2	6.8	e13	7.5	8.2	e0.78	e5.1	166	10	10	1.2	1.7	3.7
3	e5.7	e11	6.1	7.5	e0.81	e7.1	195	8.5	9.7	0.95	1.2	2.6
4	e4.7	11	4.6	8.1	e2.6	e8.2	98	13	9.0	0.77	0.84	2.0
5	e6.6	8.7	3.4	9.0	e2.9	e7.3	56	19	7.5	0.77	0.82	1.5
6	e5.3	10	2.7	9.0	e2.8	e8.8	40	18	6.1	e0.90	0.70	1.3
7	e4.1	10	2.6	8.5	e2.7	e11	30	14	5.1	e0.82	0.56	1.2
8	3.3	8.3	2.6	7.7	e2.4	11	22	10	4.4	e0.75	0.47	1.1
9	3.0	6.7	2.6	6.0	e2.0	9.8	17	7.8	4.1	e1.6	0.39	16
10	e2.5	5.4	2.5	4.1	e2.0	8.2	13	6.2	5.3	e1.2	0.30	37
11	e2.0	4.8	4.4	e2.8	e2.3	7.1	11	5.2	4.3	e0.80	0.26	37
12	e3.0	4.8	14	2.4	e2.1	6.7	9.5	4.4	3.6	e0.60	0.25	28
13	e8.0	5.1	19	2.0	e1.8	6.1	10	3.6	2.9	0.70	10	19
14	e7.0	5.5	19	1.6	e2.0	5.8	27	3.1	2.4	2.1	16	12
15	e17	5.9	17	1.5	e2.0	5.6	41	2.4	2.1	2.7	14	7.2
16	16	5.3	16	e1.4	e1.6	5.0	36	4.1	1.8	3.6	14	4.9
17	15	4.7	16	e1.4	e1.4	4.1	25	5.6	1.5	3.1	12	3.7
18	14	4.1	24	e1.6	e1.2	3.8	18	5.3	6.1	2.5	9.5	15
19	11	3.9	29	e1.3	e1.4	3.8	14	8.4	13	2.1	7.2	40
20	8.9	4.2	28	1.1	e1.4	e3.9	11	9.0	15	1.9	5.9	41
21	7.5	5.5	23	1.2	e2.4	5.7	9.2	8.3	11	2.4	14	30
22	6.0	6.0	18	1.1	e3.5	8.4	7.9	8.5	6.6	2.9	30	19
23	e4.5	6.0	14	e1.1	e3.6	9.3	9.1	18	4.4	2.6	31	14
24	e3.9	5.7	11	e1.1	e2.9	9.0	12	33	3.0	3.0	23	11
25	3.7	5.5	15	e0.92	e2.5	8.2	12	43	2.4	3.2	14	8.0
26	e3.8	5.1	17	e0.79	e2.3	8.2	14	35	2.0	2.7	8.4	5.8
27	e5.5	4.7	18	e0.75	e2.3	11	23	26	1.8	2.2	5.7	4.1
28	e10	4.6	15	e0.76	e2.4	15	27	23	1.5	2.7	7.0	3.1
29	23	6.6	e13	e0.83	e3.1	15	23	26	1.5	2.5	6.2	5.4
30	35	7.8	e12	e0.81	---	12	17	20	1.6	2.2	4.2	6.5
31	e20	---	e9.8	e0.78	---	10	---	15	---	2.0	7.3	---
TOTAL	273.2	205.9	394.6	104.34	61.97	243.9	1,018.7	426.4	161.7	58.86	248.69	386.9
MEAN	8.81	6.86	12.7	3.37	2.14	7.87	34.0	13.8	5.39	1.90	8.02	12.9
MAX	35	16	29	9.0	3.6	15	195	43	15	3.6	31	41
MIN	2.0	3.9	2.5	0.75	0.78	3.7	7.9	2.4	1.5	0.60	0.25	1.1
CFSM	1.64	1.28	2.37	0.63	0.40	1.46	6.31	2.56	1.00	0.35	1.49	2.40
IN.	1.89	1.42	2.73	0.72	0.43	1.69	7.04	2.95	1.12	0.41	1.72	2.68

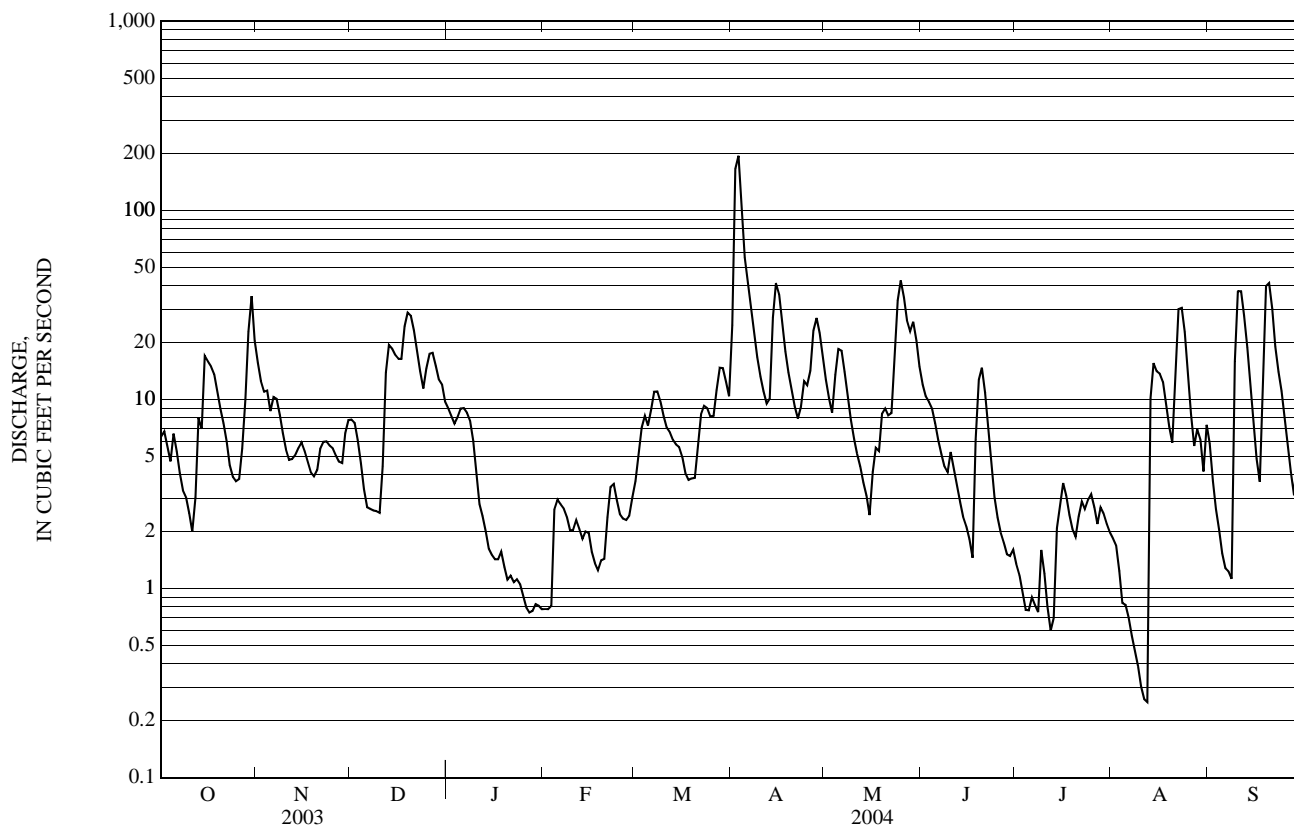
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2004, BY WATER YEAR (WY)

	8.81	6.86	12.7	3.37	2.14	7.87	34.0	13.8	7.15	1.98	5.54	7.38
MEAN	8.81	6.86	12.7	3.37	2.14	7.87	34.0	13.8	8.91	2.06	8.02	12.9
MAX	8.81	6.86	12.7	3.37	2.14	7.87	34.0	13.8	8.91	2.06	8.02	12.9
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2003)	(2004)	(2004)
MIN	8.81	6.86	12.7	3.37	2.14	7.87	34.0	13.8	5.39	1.90	3.06	1.86
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2003)

01073810 BERRYS BROOK AT SAGAMORE ROAD, NEAR PORTSMOUTH, NH—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 2003 - 2004	
ANNUAL TOTAL	3,585.16			
ANNUAL MEAN	9.80		9.80	
HIGHEST ANNUAL MEAN			9.80	2004
LOWEST ANNUAL MEAN			9.80	2004
HIGHEST DAILY MEAN	195	Apr 3	195	Apr 3, 2004
LOWEST DAILY MEAN	0.25	Aug 12	ae 0.08	Sep 12, 2003
ANNUAL SEVEN-DAY MINIMUM	0.42	Aug 6	0.08	Sep 9, 2003
MAXIMUM PEAK FLOW	b 239	Apr 2	b 239	Apr 2, 2004
MAXIMUM PEAK STAGE	4.67	Apr 2	4.67	Apr 2, 2004
ANNUAL RUNOFF (CF5M)	1.82		1.82	
ANNUAL RUNOFF (INCHES)	24.79		24.74	
10 PERCENT EXCEEDS	21		21	
50 PERCENT EXCEEDS	5.8		5.8	
90 PERCENT EXCEEDS	1.2		1.2	

a Also occurred on September 13-15, 2003.
 b From rating curve extended above 40 ft³/s.
 e Estimated.



01073822 LITTLE RIVER AT WOODLAND ROAD, NEAR HAMPTON, NH

LOCATION.--Lat 42° 57' 53", long 70° 47' 51", Rockingham County, Hydrologic Unit 01060003, on left bank, at Woodland Road, 0.1 mi north of Woodland Road and Atlantic Avenue (NH 111) intersection, 0.2 mi downstream from the from mouth of Oliver Brook, 1.2 mi west of Ocean Boulevard (NH 1A) and Atlantic Avenue (NH 111) intersection, and 2.8 mi northeast of Lafayette Road (US 1) and Winnacunnet Road (NH 101E) intersection in Hampton.

DRAINAGE AREA.--6.12 mi².

PERIOD OF RECORD.--Discharge records: November 2002 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 15	0430	*122	*3.42	Mar 30	1900	82	2.69
Mar 21	unknown	82	2.69	May 27	0715	84	2.73

Minimum daily discharge, 0.37 ft³/s, July 31.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

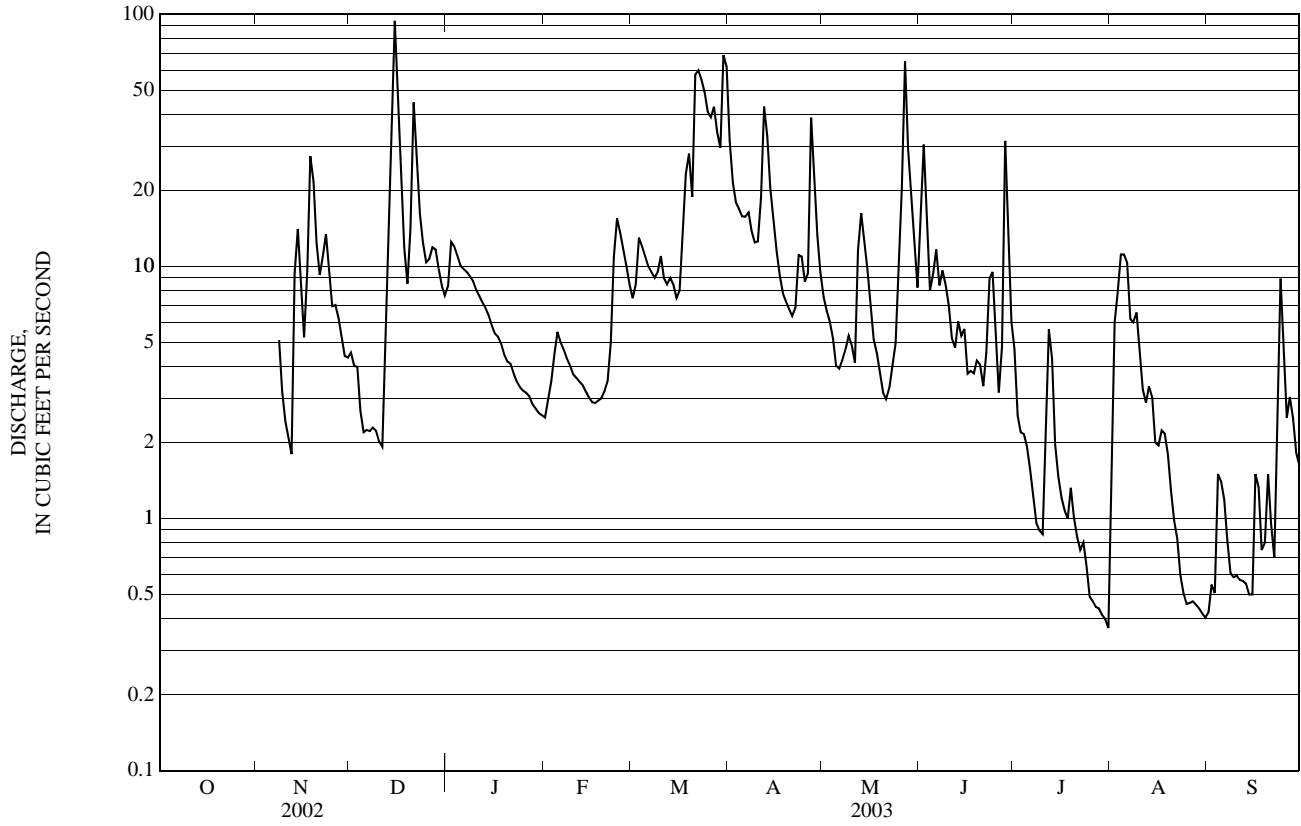
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	4.6	8.4	e2.5	e7.5	31	7.6	16	4.7	e1.0	0.43
2	---	---	4.0	13	e3.0	e8.5	21	6.7	30	2.6	e6.0	0.55
3	---	---	4.0	e12	e3.5	e13	18	6.0	14	2.2	e8.0	0.51
4	---	---	2.7	e11	e4.5	e12	17	5.2	8.0	e2.2	e11	1.5
5	---	---	2.2	10	e5.5	e11	16	4.0	9.4	e1.9	e11	1.4
6	---	---	2.2	9.8	e5.0	e10	16	3.9	12	e1.6	e10	1.2
7	---	---	2.2	9.5	e4.7	e9.5	16	4.2	8.4	e1.2	e6.2	0.83
8	---	e5.1	2.3	9.1	e4.3	e9.0	14	4.7	9.6	e0.96	e6.0	0.61
9	---	e3.2	2.2	8.8	e4.0	e9.5	12	5.3	8.4	e0.90	6.6	0.59
10	---	e2.4	2.0	8.1	e3.7	e11	13	4.9	7.0	e0.87	4.7	0.59
11	---	e2.1	1.9	7.7	e3.6	e9.0	19	4.1	5.2	e1.8	3.3	0.57
12	---	e1.8	5.9	7.2	e3.5	e8.5	43	12	4.8	5.6	2.9	0.57
13	---	9.4	12	6.8	e3.4	e9.0	33	16	6.1	e4.3	3.3	e0.55
14	---	14	36	6.4	e3.2	e8.5	20	13	5.3	e2.0	3.0	e0.50
15	---	8.2	94	e5.8	e3.0	e7.5	15	9.7	5.7	e1.5	2.0	e0.50
16	---	5.2	39	e5.4	e2.9	e8.0	11	7.1	3.8	e1.2	2.0	e1.5
17	---	9.6	20	e5.3	e2.9	e13	9.2	5.1	3.8	e1.1	2.2	e1.3
18	---	27	12	e4.9	e2.9	e23	7.8	4.5	3.8	e1.0	2.2	e0.75
19	---	22	8.5	e4.5	e3.0	e28	7.3	3.8	4.2	e1.3	1.8	e0.80
20	---	12	14	e4.2	e3.2	e19	6.8	3.2	4.1	e1.0	1.3	e1.5
21	---	9.2	45	e4.1	e3.5	e58	6.4	3.0	3.4	e0.85	0.98	e0.95
22	---	11	26	e3.8	e5.0	e60	6.9	3.3	4.6	e0.75	0.84	e0.70
23	---	13	16	e3.5	e11	e55	11	4.0	8.9	e0.80	0.59	e2.5
24	---	9.4	12	e3.3	e15	e49	11	5.0	9.5	e0.65	0.51	8.9
25	---	6.9	10	e3.2	e14	e41	8.7	11	5.8	e0.49	0.46	5.3
26	---	7.0	11	e3.2	e12	e39	9.4	20	3.2	e0.47	0.46	e2.5
27	---	6.3	12	e3.1	e10	e43	39	65	4.8	e0.45	0.47	e3.0
28	---	5.2	12	e2.8	e8.5	34	23	29	31	e0.44	0.45	e2.5
29	---	4.4	9.8	e2.7	---	30	13	19	13	e0.41	e0.44	e1.8
30	---	4.3	8.4	e2.6	---	69	9.5	12	6.0	e0.40	e0.42	e1.6
31	---	---	7.7	e2.6	---	62	---	8.2	---	e0.37	0.40	---
TOTAL	---	---	441.6	192.8	151.3	774.5	484.0	310.5	259.8	46.01	100.52	46.50
MEAN	---	---	14.2	6.22	5.40	25.0	16.1	10.0	8.66	1.48	3.24	1.55
MAX	---	---	94	13	15	69	43	65	31	5.6	11	8.9
MIN	---	---	1.9	2.6	2.5	7.5	6.4	3.0	3.2	0.37	0.40	0.43
CFSM	---	---	2.33	1.02	0.88	4.08	2.64	1.64	1.42	0.24	0.53	0.25
IN.	---	---	2.68	1.17	0.92	4.71	2.94	1.89	1.58	0.28	0.61	0.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2003, BY WATER YEAR (WY)

MEAN	---	---	14.2	6.22	5.40	25.0	16.1	10.0	8.66	1.48	3.24	1.55
MAX	---	---	14.2	6.22	5.40	25.0	16.1	10.0	8.66	1.48	3.24	1.55
(WY)	---	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	---	---	14.2	6.22	5.40	25.0	16.1	10.0	8.66	1.48	3.24	1.55
(WY)	---	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)

e Estimated.

01073822 LITTLE RIVER AT WOODLAND ROAD, NEAR HAMPTON, NH—Continued



01073822 LITTLE RIVER AT WOODLAND ROAD, NEAR HAMPTON, NH

LOCATION.--Lat 42° 57' 53", long 70° 47' 51", Rockingham County, Hydrologic Unit 01060003, on left bank, at Woodland Road, 0.1 mi north of Woodland Road and Atlantic Avenue (NH 111) intersection, 0.2 mi downstream from the from mouth of Oliver Brook, 1.2 mi west of Ocean Boulevard (NH 1A) and Atlantic Avenue (NH 111) intersection, and 2.8 mi northeast of Lafayette Road (US 1) and Winnacunnet Road (NH 101E) intersection in Hampton.

DRAINAGE AREA.--6.12 mi².

PERIOD OF RECORD.--Discharge records: November 2002 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 2	0600	*320	*6.58	Sep 19	0145	77	2.61
Apr 14	1000	76	2.58				

Minimum daily discharge, 0.40 ft³/s, Jan. 27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.3	7.9	6.7	7.4	e0.45	3.9	86	7.7	7.3	1.7	0.82	4.6
2	e1.0	6.0	5.0	6.5	e0.44	6.1	239	6.4	9.2	1.5	0.71	2.9
3	e0.90	5.6	3.3	6.6	e0.45	e9.6	94	6.7	7.9	1.7	0.63	2.1
4	e1.0	6.0	2.5	8.5	2.1	e9.3	40	21	7.0	1.2	0.65	e1.7
5	e1.0	6.3	2.2	9.8	3.0	e7.5	38	19	5.5	0.91	0.76	e1.4
6	e1.3	9.3	e2.3	8.6	2.7	10	28	11	4.2	0.92	0.69	e1.2
7	e1.1	8.6	e2.4	6.5	1.9	14	19	7.8	3.7	0.89	0.64	e1.0
8	e0.95	6.2	2.4	4.1	1.9	9.9	14	6.0	4.0	0.89	0.60	e1.3
9	e0.70	4.5	2.5	2.5	1.7	7.0	12	4.9	3.5	2.1	0.56	35
10	e0.65	3.6	2.6	1.9	1.6	5.8	9.8	4.1	6.0	2.1	0.53	41
11	e0.60	3.5	8.1	1.5	1.6	5.5	8.6	3.9	6.2	1.6	e0.57	15
12	e0.90	4.1	38	1.4	1.6	5.8	7.9	3.7	3.9	1.0	e0.75	7.6
13	e4.0	5.7	21	1.5	1.4	5.6	12	3.1	2.7	1.4	13	5.0
14	e3.0	5.8	10	1.7	1.5	4.9	60	2.7	2.2	6.3	13	3.5
15	e8.0	4.6	12	e1.4	1.5	4.5	37	2.9	2.0	7.9	6.9	2.4
16	e10	3.6	14	e1.1	1.4	5.0	21	7.6	1.9	4.9	7.2	2.2
17	e5.1	3.1	16	e1.0	1.3	4.0	14	10	1.6	3.0	7.4	2.3
18	e3.6	2.9	45	e1.0	0.85	3.4	11	7.3	36	1.9	5.5	28
19	3.4	2.7	31	e0.90	1.3	3.2	9.2	13	26	1.6	3.3	53
20	2.4	3.5	18	e0.80	1.0	3.3	8.0	9.5	11	1.6	3.2	19
21	2.3	5.8	12	e0.65	2.7	8.1	6.7	6.9	6.0	1.3	33	9.8
22	2.0	6.5	8.9	e0.65	3.5	16	6.1	7.5	4.7	0.99	52	6.6
23	2.1	4.8	8.1	e0.65	3.2	10	11	44	2.9	0.99	19	4.7
24	1.9	4.1	9.7	e0.58	2.4	7.7	19	41	2.3	1.4	9.8	3.5
25	1.8	3.7	24	e0.52	2.0	8.3	11	36	2.1	1.5	5.6	3.0
26	1.7	3.4	26	e0.45	2.0	11	16	21	2.0	1.3	e3.7	2.5
27	2.9	3.1	16	e0.40	2.0	24	36	17	1.9	1.3	e2.7	2.2
28	8.7	3.6	11	e0.43	2.2	24	24	16	1.5	1.9	2.2	2.7
29	22	10	8.4	e0.47	2.7	14	13	19	2.0	1.8	e1.7	7.5
30	28	10	7.9	e0.47	---	9.7	9.2	12	1.9	1.6	e1.6	10
31	13	---	8.0	e0.46	---	9.2	---	7.8	---	1.2	3.3	---
TOTAL	137.30	158.5	385.0	80.43	52.39	270.3	920.5	386.5	179.1	60.39	202.01	282.7
MEAN	4.43	5.28	12.4	2.59	1.81	8.72	30.7	12.5	5.97	1.95	6.52	9.42
MAX	28	10	45	9.8	3.5	24	239	44	36	7.9	52	53
MIN	0.60	2.7	2.2	0.40	0.44	3.2	6.1	2.7	1.5	0.89	0.53	1.0
CFSM	0.72	0.86	2.03	0.42	0.30	1.42	5.01	2.04	0.98	0.32	1.06	1.54
IN.	0.83	0.96	2.34	0.49	0.32	1.64	5.60	2.35	1.09	0.37	1.23	1.72

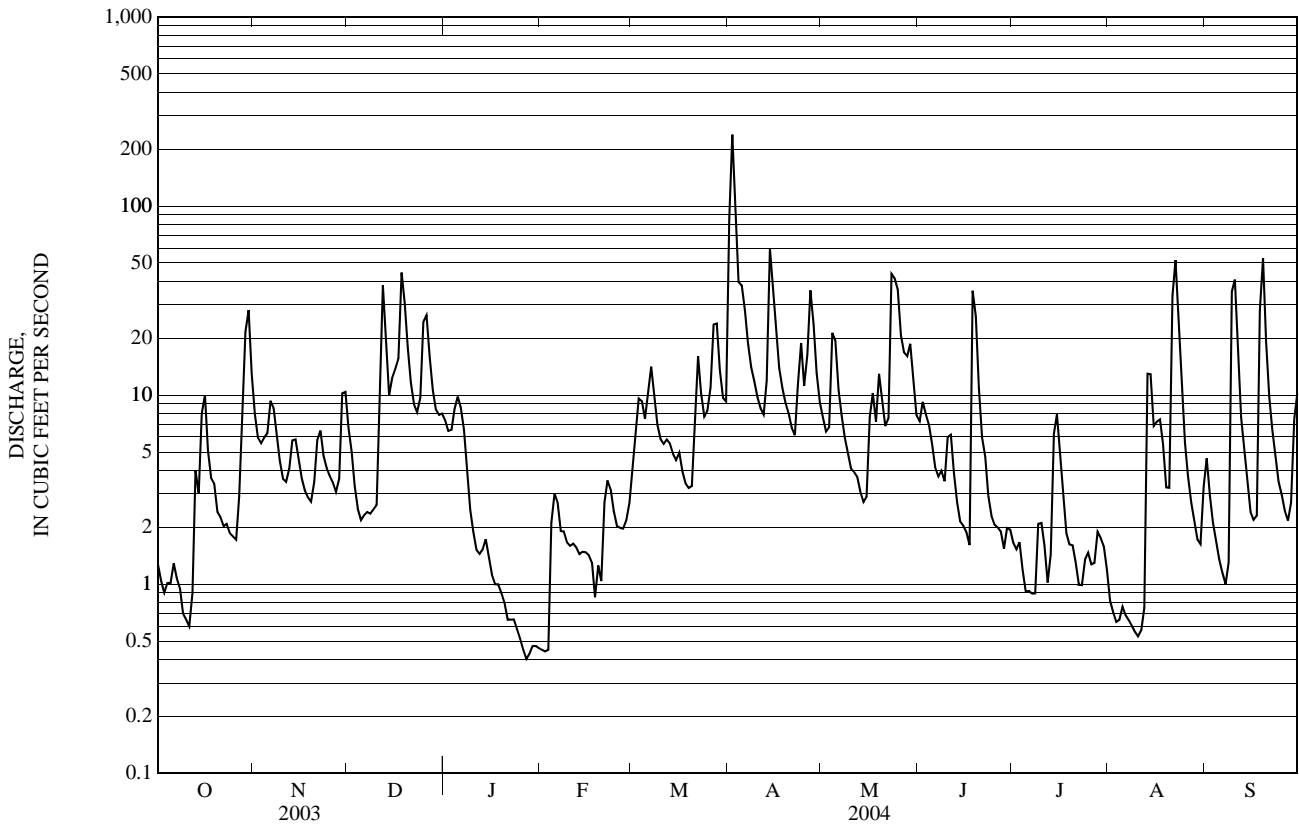
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2004, BY WATER YEAR (WY)

MEAN	4.43	5.28	13.3	4.41	3.57	16.9	23.4	11.2	7.31	1.72	4.88	5.49
MAX	4.43	5.28	14.2	6.22	5.40	25.0	30.7	12.5	8.66	1.95	6.52	9.42
(WY)	(2004)	(2004)	(2003)	(2003)	(2003)	(2003)	(2004)	(2004)	(2003)	(2004)	(2004)	(2004)
MIN	4.43	5.28	12.4	2.59	1.81	8.72	16.1	10.0	5.97	1.48	3.24	1.55
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2003)	(2004)	(2003)	(2003)	(2003)

01073822 LITTLE RIVER AT WOODLAND ROAD, NEAR HAMPTON, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2003 - 2004	
ANNUAL TOTAL	3,046.73		3,115.12			
ANNUAL MEAN	8.35		8.51		8.51	
HIGHEST ANNUAL MEAN					8.51 2004	
LOWEST ANNUAL MEAN					8.51 2004	
HIGHEST DAILY MEAN	69	Mar 30	239	Apr 2	239	Apr 2, 2004
LOWEST DAILY MEAN	e 0.37	Jul 31	e 0.40	Jan 27	e 0.37	Jul 31, 2003
ANNUAL SEVEN-DAY MINIMUM	0.43	Jul 25	0.45	Jan 27	0.43	Jul 25, 2003
MAXIMUM PEAK FLOW			a 320	Apr 2	a 320	Apr 2, 2004
MAXIMUM PEAK STAGE			6.58	Apr 2	6.58	Apr 2, 2004
ANNUAL RUNOFF (CFSM)	1.36		1.39		1.39	
ANNUAL RUNOFF (INCHES)	18.52		18.94		18.90	
10 PERCENT EXCEEDS	18		19		19	
50 PERCENT EXCEEDS	4.9		4.0		4.0	
90 PERCENT EXCEEDS	0.82		0.91		0.91	

a From rating curve extended above 90 ft³/s.
 e Estimated.



01073848 HAMPTON FALLS RIVER AT MILL LANE, NEAR SEABROOK, NH

LOCATION.--Lat 42° 54'11", long 70° 54'05", Rockingham County, Hydrologic Unit 01060003, on right bank, 100 ft north of Mill Lane and Weare Road (NH 107) intersection, 500 ft upstream from Mill Lane, 0.2 mi downstream from mouth of Winkley Brook, 1.6 mi northwest of Lafayette Road (US 1) and East NH 101 intersection in Seabrook, and 4.0 mi southwest of Lafayette Road (US 1) and Winnacunnet Road (NH 101E) intersection in Hampton.

DRAINAGE AREA.--3.61 mi².

PERIOD OF RECORD.--Discharge records: December 2002 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 55 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 21	1815	55	7.50	May 26	2345	*59	*7.57

Minimum discharge, 0.26 ft³/s, July 31, Aug. 1, 28, 29, gage height, 4.52 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

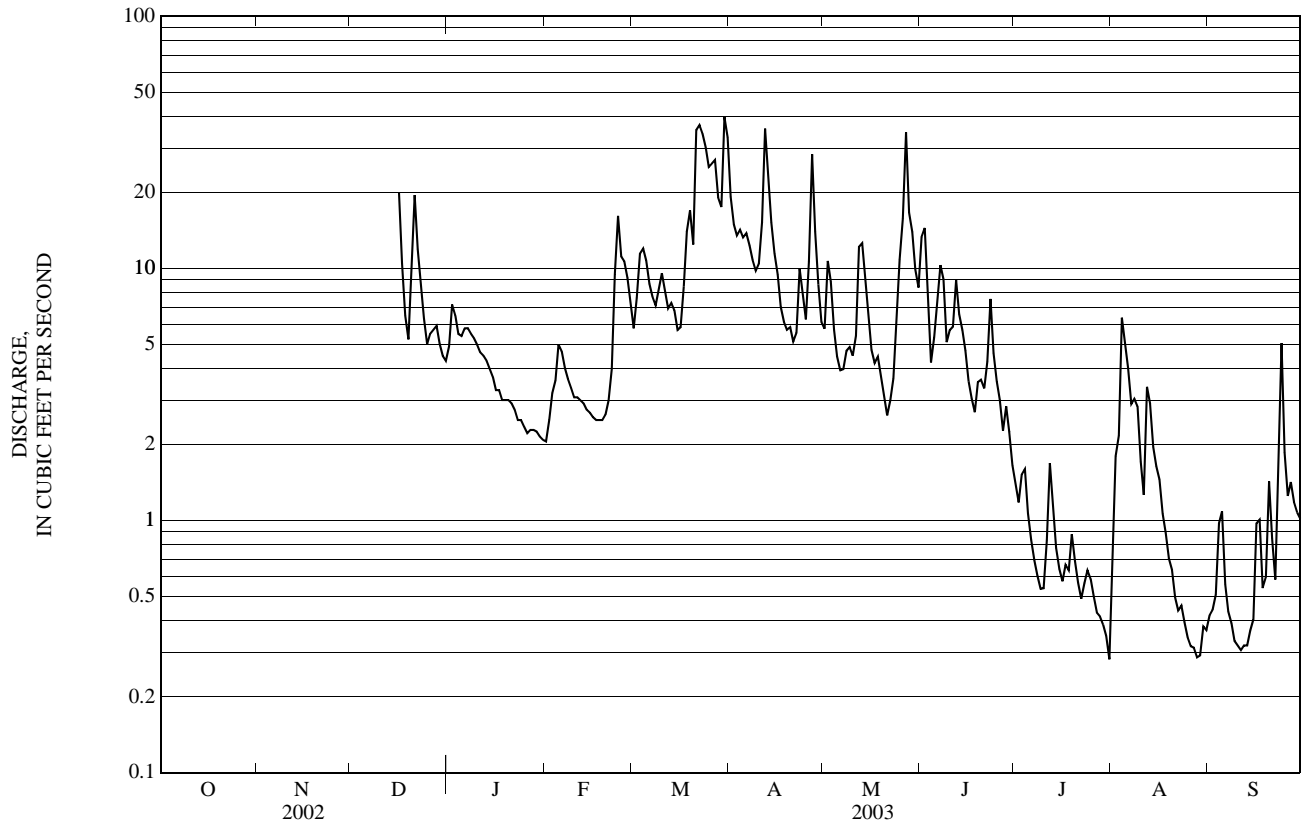
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	4.9	e2.1	5.8	19	5.8	13	1.4	0.78	0.42
2	---	---	---	e7.2	e2.5	7.6	15	11	14	1.2	1.8	0.44
3	---	---	---	e6.5	e3.2	11	14	8.9	7.0	1.5	2.2	0.51
4	---	---	---	e5.5	e3.6	e12	14	5.7	4.2	1.6	6.4	0.98
5	---	---	---	5.4	e5.0	11	13	4.5	5.3	1.1	5.0	1.1
6	---	---	---	5.8	e4.7	8.7	14	3.9	7.4	0.84	4.0	0.56
7	---	---	---	5.8	e4.0	7.7	12	4.0	10	0.69	2.9	0.44
8	---	---	---	5.5	e3.6	7.1	11	4.7	9.1	0.61	3.0	0.39
9	---	---	---	5.3	e3.4	8.2	9.8	4.9	5.1	0.54	2.8	0.33
10	---	---	---	5.0	e3.1	9.6	10	4.5	5.7	0.54	1.7	0.32
11	---	---	---	4.7	e3.1	8.2	15	5.4	5.9	0.84	1.3	0.31
12	---	---	---	4.5	e3.0	6.9	36	12	9.0	1.7	3.4	0.32
13	---	---	---	4.3	e2.9	e7.3	23	13	6.6	1.1	2.9	0.32
14	---	---	---	e4.0	e2.8	6.8	15	9.0	5.7	0.78	2.0	0.37
15	---	---	---	e3.7	e2.7	e5.7	11	6.5	4.7	0.64	1.6	0.41
16	---	---	e20	e3.3	e2.6	5.8	9.4	4.8	3.6	0.57	1.5	0.97
17	---	---	10	e3.3	e2.5	e8.5	7.0	4.2	3.1	0.67	1.1	1.0
18	---	---	e6.5	e3.0	e2.5	e14	6.1	4.5	2.7	0.63	0.89	0.54
19	---	---	5.2	e3.0	e2.5	17	5.7	3.8	3.5	0.88	0.71	0.60
20	---	---	10	e3.0	e2.6	e12	5.8	3.1	3.6	0.69	0.64	1.4
21	---	---	20	e2.9	e3.0	35	5.1	2.6	3.3	0.57	0.49	0.85
22	---	---	12	e2.7	e4.0	e37	5.5	3.0	4.3	0.49	0.44	0.58
23	---	---	8.4	e2.5	e9.5	34	10	3.7	7.6	0.57	0.46	1.5
24	---	---	6.3	e2.5	16	30	7.9	6.3	4.6	0.64	0.40	5.1
25	---	---	e5.0	e2.4	11	25	6.3	11	3.6	0.59	0.34	1.9
26	---	---	e5.5	e2.2	11	26	11	16	3.0	0.50	0.32	1.3
27	---	---	e5.7	e2.3	9.2	27	28	35	2.3	0.43	0.31	1.4
28	---	---	5.9	e2.3	7.2	19	14	17	2.8	0.42	0.29	1.2
29	---	---	5.0	e2.3	---	18	8.6	14	2.2	0.39	0.29	1.1
30	---	---	4.5	e2.2	---	40	6.1	9.9	1.7	0.35	0.38	1.0
31	---	---	e4.3	e2.1	---	33	---	8.4	---	0.28	0.37	---
TOTAL	---	---	---	120.1	133.3	504.9	368.3	251.1	164.6	23.75	50.71	27.66
MEAN	---	---	---	3.87	4.76	16.3	12.3	8.10	5.49	0.77	1.64	0.92
MAX	---	---	---	7.2	16	40	36	35	14	1.7	6.4	5.1
MIN	---	---	---	2.1	2.1	5.7	5.1	2.6	1.7	0.28	0.29	0.31
CFSM	---	---	---	1.07	1.32	4.51	3.40	2.24	1.52	0.21	0.45	0.26
IN.	---	---	---	1.24	1.37	5.20	3.80	2.59	1.70	0.24	0.52	0.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2003, BY WATER YEAR (WY)

MEAN	---	---	---	3.87	4.76	16.3	12.3	8.10	5.49	0.77	1.64	0.92
MAX	---	---	---	3.87	4.76	16.3	12.3	8.10	5.49	0.77	1.64	0.92
(WY)	---	---	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	---	---	---	3.87	4.76	16.3	12.3	8.10	5.49	0.77	1.64	0.92
(WY)	---	---	---	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)

e Estimated.

01073848 HAMPTON FALLS RIVER AT MILL LANE, NEAR SEABROOK, NH—Continued



01073848 HAMPTON FALLS RIVER AT MILL LANE, NEAR SEABROOK, NH

LOCATION.--Lat 42° 54'11", long 70° 54'05", Rockingham County, Hydrologic Unit 01060003, on right bank, 100 ft north of Mill Lane and Weare Road (NH 107) intersection, 500 ft upstream from Mill Lane, 0.2 mi downstream from mouth of Winkley Brook, 1.6 mi northwest of Lafayette Road (US 1) and East NH 101 intersection in Seabrook, and 4.0 mi southwest of Lafayette Road (US 1) and Winnacunnet Road (NH 101E) intersection in Hampton.

DRAINAGE AREA.--3.61 mi².

PERIOD OF RECORD.--Discharge records: December 2002 to September 2004 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 55 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 2	0315	*248	*9.10	Aug 21	1800	68	7.70
Apr 14	0330	58	7.54				

Minimum discharge, 0.38 ft³/s, Aug. 9, 10, 11, gage height, 4.56 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.83	4.3	3.3	5.8	e0.72	4.5	85	6.5	4.8	1.7	0.66	3.3
2	0.75	3.8	2.9	5.4	e0.72	6.1	148	5.9	5.3	1.5	0.59	1.9
3	0.64	3.9	2.3	6.5	e0.75	8.7	54	6.1	4.8	1.6	0.56	1.4
4	0.70	5.3	1.9	8.0	e8.0	7.5	38	15	4.9	1.3	0.50	1.1
5	1.5	5.5	e1.7	7.5	e5.5	6.2	32	11	4.0	1.1	0.53	0.89
6	1.4	8.5	e1.8	6.1	e4.0	7.7	21	7.4	3.5	1.2	0.53	0.96
7	1.0	5.3	e1.9	e4.7	e3.5	9.5	16	5.8	3.4	1.2	0.45	0.77
8	0.86	3.6	e1.9	4.3	e3.0	6.5	13	4.7	3.3	1.0	0.43	0.99
9	0.76	3.2	e1.8	2.9	e2.5	4.7	9.1	4.2	2.9	3.3	0.43	24
10	0.68	3.0	e2.1	e1.8	e2.6	4.3	7.1	3.9	4.3	2.4	0.41	15
11	0.61	2.7	10	e1.9	e2.7	4.6	6.4	3.8	3.5	1.5	0.42	6.5
12	1.00	3.2	29	e2.2	e2.5	4.6	5.6	3.6	2.6	1.1	0.50	3.8
13	4.1	3.8	e13	e2.6	e2.3	4.4	10	3.3	2.0	1.1	7.5	3.5
14	2.4	3.7	e7.5	e2.3	e2.5	e3.8	43	3.0	1.8	3.5	4.1	2.2
15	14	3.0	e9.0	e1.5	e2.3	3.8	21	3.0	1.7	3.4	3.3	1.6
16	8.0	2.6	9.9	e1.3	e1.9	3.7	14	7.6	1.5	2.7	3.9	1.5
17	4.0	2.5	9.3	e1.3	e1.8	3.1	9.2	9.1	1.3	2.0	3.7	1.5
18	3.0	2.5	25	e1.3	e1.7	e3.4	7.4	5.7	22	1.4	2.7	23
19	2.6	2.3	16	e1.3	e1.8	e3.3	6.4	8.8	14	1.2	1.8	23
20	1.9	3.0	e10	e1.2	e1.9	e3.2	5.9	6.0	7.5	1.4	3.6	10
21	1.8	5.2	e7.0	e1.1	e3.0	8.0	7.3	5.3	4.1	1.2	40	5.2
22	1.2	4.0	5.8	e1.1	3.9	e12	9.3	5.7	3.1	1.0	26	3.8
23	1.2	3.0	5.2	e1.1	3.7	e6.1	15	16	2.9	0.90	9.1	3.4
24	e1.3	2.9	7.3	e0.95	3.4	5.5	14	14	2.7	1.1	5.4	2.9
25	1.3	3.1	20	e0.81	3.2	5.6	8.9	16	2.2	1.4	3.1	2.7
26	1.2	2.4	15	e0.72	3.1	8.6	13	9.6	2.1	1.0	2.3	2.2
27	2.2	1.7	9.9	e0.72	3.0	15	23	9.6	2.8	0.83	1.7	1.9
28	4.7	2.0	6.5	e0.73	3.2	13	16	9.3	2.0	1.2	1.4	2.2
29	17	5.7	5.5	e0.76	3.7	8.0	10	11	2.1	1.3	1.3	8.1
30	13	4.2	5.8	e0.76	---	5.5	7.7	6.9	2.3	1.00	1.2	7.2
31	7.3	---	6.1	e0.76	---	6.3	---	5.4	---	0.79	3.0	---
TOTAL	102.93	109.9	254.4	79.41	82.89	197.2	676.3	233.2	125.4	47.32	131.11	166.51
MEAN	3.32	3.66	8.21	2.56	2.86	6.36	22.5	7.52	4.18	1.53	4.23	5.55
MAX	17	8.5	29	8.0	8.0	15	148	16	22	3.5	40	24
MIN	0.61	1.7	1.7	0.72	0.72	3.1	5.6	3.0	1.3	0.79	0.41	0.77
CFSM	0.92	1.01	2.27	0.71	0.79	1.76	6.24	2.08	1.16	0.42	1.17	1.54
IN.	1.06	1.13	2.62	0.82	0.85	2.03	6.97	2.40	1.29	0.49	1.35	1.72

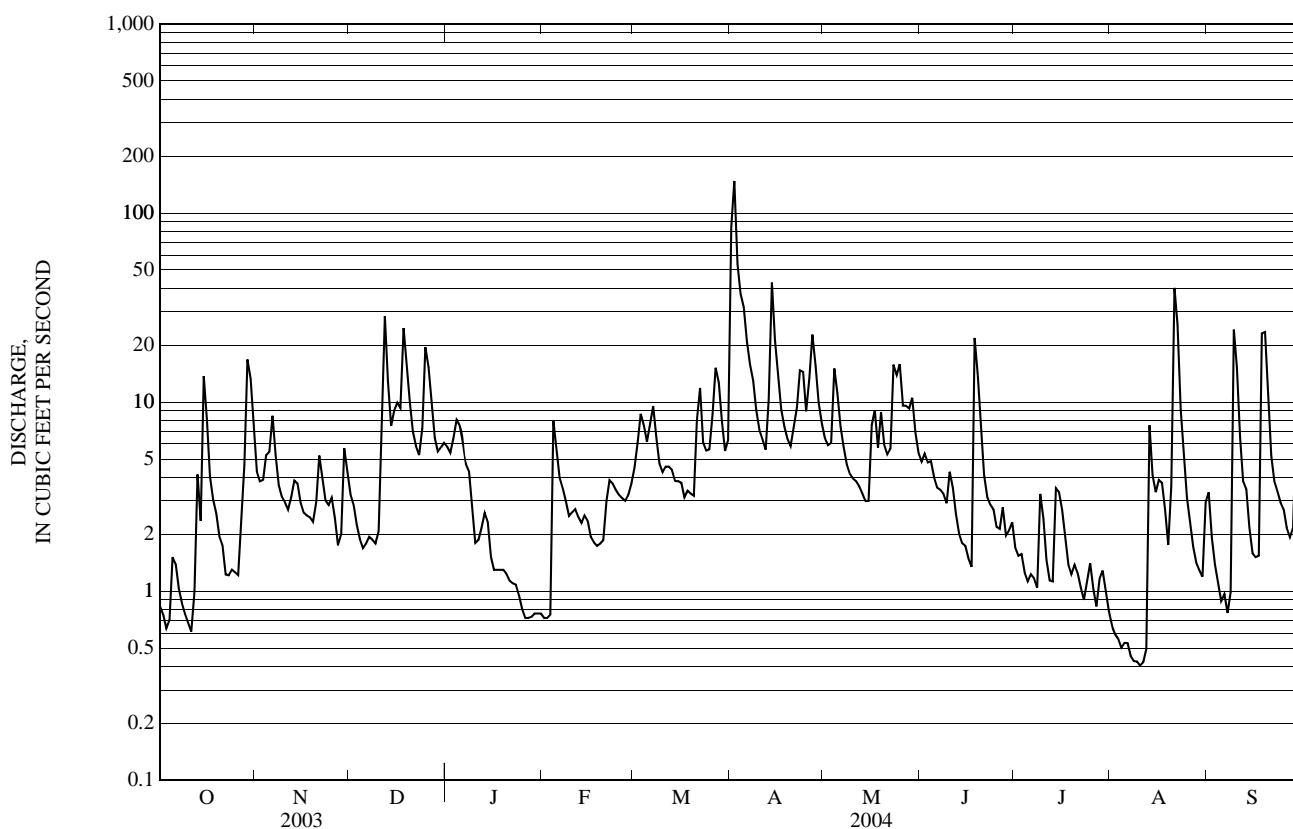
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2004, BY WATER YEAR (WY)

	3.32	3.66	8.21	3.22	3.79	11.3	17.4	7.81	4.83	1.15	2.93	3.24
MEAN	3.32	3.66	8.21	3.22	3.79	11.3	17.4	7.81	4.83	1.15	2.93	3.24
MAX	3.32	3.66	8.21	3.87	4.76	16.3	22.5	8.10	5.49	1.53	4.23	5.55
(WY)	(2004)	(2004)	(2004)	(2003)	(2003)	(2003)	(2004)	(2003)	(2003)	(2004)	(2004)	(2004)
MIN	3.32	3.66	8.21	2.56	2.86	6.36	12.3	7.52	4.18	0.77	1.64	0.92
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2004)	(2004)	(2003)	(2003)	(2003)

01073848 HAMPTON FALLS RIVER AT MILL LANE, NEAR SEABROOK, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2003 - 2004	
ANNUAL TOTAL	2,111.65		2,206.57		6.03	
ANNUAL MEAN	5.79		6.03		6.03	
HIGHEST ANNUAL MEAN					6.03	2004
LOWEST ANNUAL MEAN					6.03	2004
HIGHEST DAILY MEAN	40	Mar 30	148	Apr 2	148	Apr 2, 2004
LOWEST DAILY MEAN	0.28	Jul 31	0.41	Aug 10	0.28	Jul 31, 2003
ANNUAL SEVEN-DAY MINIMUM	0.33	Aug 25	0.45	Aug 6	0.33	Aug 25, 2003
MAXIMUM PEAK FLOW			a 248	Apr 2	a 248	Apr 2, 2004
MAXIMUM PEAK STAGE			9.10	Apr 2	9.10	Apr 2, 2004
INSTANTANEOUS LOW FLOW			b 0.38	Aug 9	c 0.26	Jul 31, 2003
ANNUAL RUNOFF (CFSM)	1.60		1.67		1.67	
ANNUAL RUNOFF (INCHES)	21.76		22.74		22.69	
10 PERCENT EXCEEDS	14		13		13	
50 PERCENT EXCEEDS	3.6		3.3		3.3	
90 PERCENT EXCEEDS	0.57		0.96		0.96	

- a From rating curve extended above 60 ft³/s.
- b Also occurred on August 10, 11.
- c Also occurred on August 1, 28, 29, 2003.
- e Estimated.



01074520 EAST BRANCH PEMIGEWASSET RIVER AT LINCOLN, NH

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", 800 ft upstream of bridge, 1,900 ft downstream of Pollard Brook, 1.8 mi above mouth, east of the center of Lincoln.

DRAINAGE AREA.--115 mi².

PERIOD OF RECORD.--Discharge records: March 1993 to current year. Records for November 1928 to March 1953 at site 2.7 mi upstream published as "near Lincoln" (station 01074500) are not equivalent because of difference in drainage areas.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 830 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to August 17, 2001, at datum 5.00 ft higher.

REMARKS.--Records good except those above 1,000 ft³/s, which are fair, and those for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 19, 1936, reached a stage of 9.80 ft, former site and datum, discharge, 17,000 ft³/s. Flood in October 1959 reached a discharge of 24,200 ft³/s, by computation of peak flow over dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 15	1215	6,490	10.76	Nov 20	0900	8,260	11.33
Oct 27	2300	7,700	11.16	Dec 18	0200	*14,900	*12.93
Oct 29	1500	4,010	9.74	Dec 25	0000	4,300	9.88

Minimum discharge, 39 ft³/s, Mar. 23.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	212	651	500	450	e125	68	728	779	413	94	284	403
2	195	556	422	400	e122	74	984	787	523	104	169	281
3	181	567	339	406	e120	106	684	943	474	94	124	229
4	193	539	334	427	e115	86	649	1,350	432	81	135	198
5	384	503	303	371	105	79	552	789	363	91	111	177
6	241	521	e290	335	99	133	441	704	321	116	99	164
7	197	437	e300	263	e97	162	361	655	293	96	93	153
8	176	384	285	187	e92	106	330	553	262	146	92	148
9	165	336	e250	e175	e88	90	318	477	244	782	89	628
10	156	316	e245	e185	e86	84	301	430	241	514	80	1,170
11	148	300	769	e205	e84	79	264	411	206	293	80	584
12	141	294	1,050	e220	e80	77	240	393	187	217	88	428
13	139	529	460	e225	e80	74	290	353	173	185	356	352
14	128	434	345	e215	e79	e72	1,750	323	163	170	389	295
15	1,830	329	369	e210	e77	70	972	332	178	180	199	258
16	852	297	e335	e207	e75	68	730	483	154	172	172	231
17	528	279	1,270	e205	e74	67	643	379	141	150	370	213
18	423	263	4,560	e200	e74	66	924	330	131	140	223	399
19	357	421	1,010	e197	e74	64	1,240	622	134	180	174	375
20	312	3,070	736	e188	e74	64	1,680	413	125	161	157	270
21	527	1,100	599	e180	e74	e64	912	357	115	146	323	229
22	550	761	552	e170	72	e66	868	444	120	121	398	207
23	408	611	484	e165	72	e60	888	707	140	123	239	187
24	342	529	958	e155	69	e61	734	1,260	112	205	212	173
25	300	482	2,100	e150	69	63	614	966	108	144	175	164
26	306	423	1,070	e145	68	79	733	758	108	125	155	162
27	2,380	383	787	e143	67	550	754	639	105	115	141	147
28	2,630	385	664	e142	65	644	673	587	97	121	129	138
29	2,130	1,200	585	e137	69	334	546	556	146	113	132	133
30	1,320	621	543	e135	---	296	661	468	120	101	222	126
31	833	---	500	e130	---	307	---	417	---	96	853	---
TOTAL	18,684	17,521	23,014	6,923	2,445	4,213	21,464	18,665	6,329	5,376	6,463	8,622
MEAN	603	584	742	223	84.3	136	715	602	211	173	208	287
MAX	2,630	3,070	4,560	450	125	644	1,750	1,350	523	782	853	1,170
MIN	128	263	245	130	65	60	240	323	97	81	80	126
CFSM	5.24	5.08	6.46	1.94	0.73	1.18	6.22	5.24	1.83	1.51	1.81	2.50
IN.	6.04	5.67	7.44	2.24	0.79	1.36	6.94	6.04	2.05	1.74	2.09	2.79

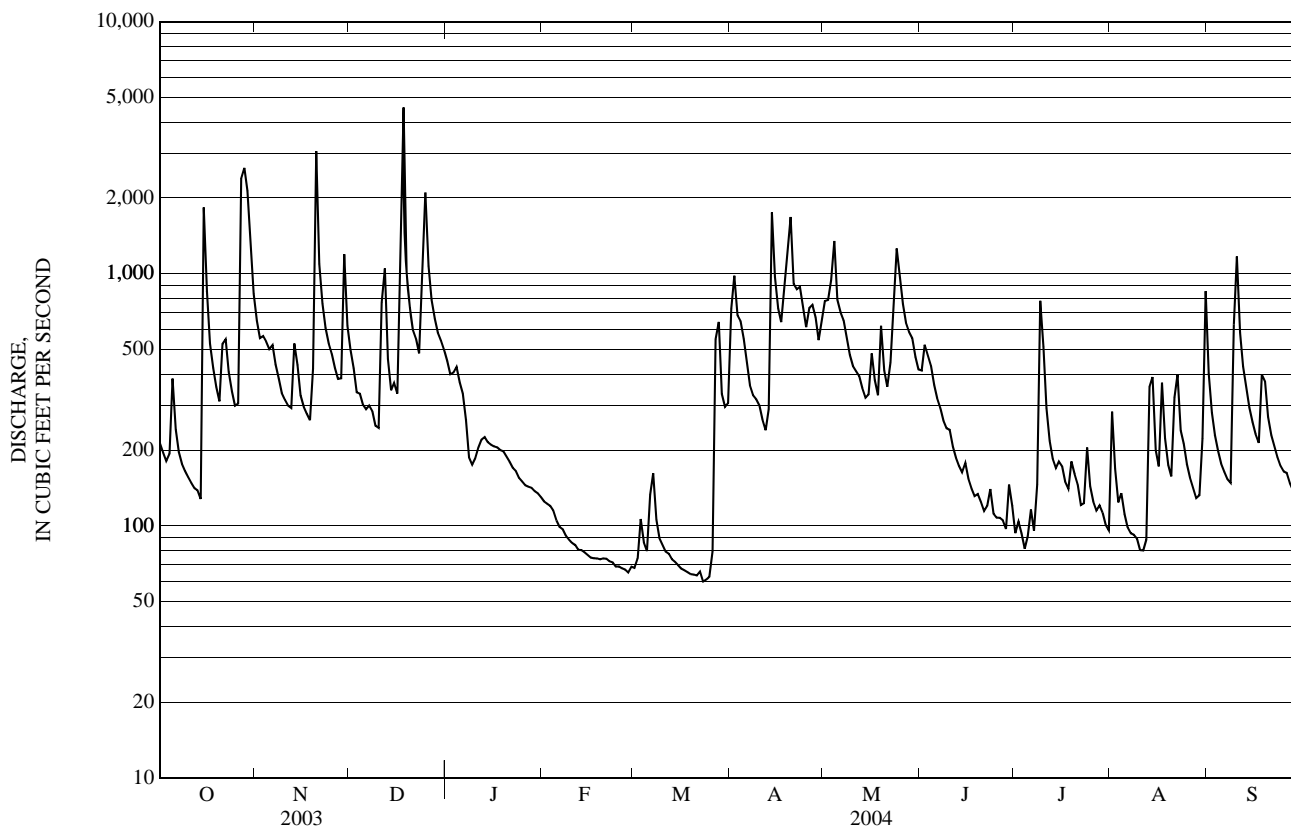
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2004, BY WATER YEAR (WY)

MEAN	286	361	287	224	133	240	783	692	305	179	140	173
MAX	740	760	742	564	389	535	1,319	1,323	646	525	404	655
(WY)	(1996)	(1996)	(2004)	(1996)	(1996)	(1998)	(2002)	(1996)	(1998)	(1996)	(2003)	(1999)
MIN	78.7	139	83.5	65.0	54.8	52.8	264	412	179	67.0	31.3	59.0
(WY)	(2002)	(1995)	(1998)	(2002)	(2003)	(2001)	(1995)	(1993)	(1999)	(2001)	(2001)	(2002)

01074520 EAST BRANCH PEMIGEWASSET RIVER AT LINCOLN, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1993 - 2004	
ANNUAL TOTAL	131,264		139,719		318	
ANNUAL MEAN	360		382		507	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					202	
HIGHEST DAILY MEAN	4,560	Dec 18	4,560	Dec 18	9,090	Apr 14, 2002
LOWEST DAILY MEAN	a 37	Mar 14	e 60	Mar 23	25	Sep 18, 2001
ANNUAL SEVEN-DAY MINIMUM	39	Mar 10	63	Mar 19	26	Sep 14, 2001
MAXIMUM PEAK FLOW			b 14,900	Dec 18	b 16,900	Apr 14, 2002
MAXIMUM PEAK STAGE			12.93	Dec 18	c 11.07	Oct 22, 1995
INSTANTANEOUS LOW FLOW			d 39	Mar 23	f 25	Sep 18, 2001
ANNUAL RUNOFF (CFSM)	3.13		3.32		2.77	
ANNUAL RUNOFF (INCHES)	42.46		45.20		37.59	
10 PERCENT EXCEEDS	742		780		688	
50 PERCENT EXCEEDS	237		241		170	
90 PERCENT EXCEEDS	54		80		66	

- a Also occurred on March 15, 16, 2003.
- b From rating curve extended above 5,800 ft³/s.
- c At datum then in use.
- d Result of freezeup.
- e Estimated.
- f Also occurred on September 19, 20, 2001.



MERRIMACK RIVER BASIN

01075000 PEMIGEWASSET RIVER AT WOODSTOCK, NH

LOCATION.--Lat 43° 58'34", long 71° 40'48", Grafton County, Hydrologic Unit 01070001, on right bank 300 ft upstream of southern State Highway 175 bridge, 0.2 mi east of Woodstock, 0.7 mi upstream from Eastman Brook, and 4.8 mi south of Town Hall in Lincoln.

DRAINAGE AREA.--193 mi².

PERIOD OF RECORD.--Discharge records: October 1939 to 1977, October 2001 to current year. Partial-record station: October 1977 to September 2001. Peak streamflow: Water years 1940 to 1980, 1985 to current year. Miscellaneous discharge measurements only: Water years 1978 to 2001. Water-quality records: Water years 1970-73.

REVISED RECORDS.--WSP 1701: 1942(M).

GAGE.--Water-stage recorder. Elevation of gage is 615 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Prior to 1978, some diurnal fluctuation caused by power plants upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 15	1330	7,360	8.14	Nov 20	1015	12,000	9.71
Oct 28	0015	13,300	10.08	Dec 18	0230	*15,900	*10.75
Oct 29	1630	7,560	8.22	Dec 25	0130	7,770	8.30

Minimum daily discharge, 89 ft³/s, Mar. 23.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	373	1,130	856	641	e187	e110	1,440	1,140	564	132	399	667
2	328	923	683	552	e184	139	1,980	1,140	890	132	272	422
3	303	995	534	557	e178	e190	1,310	1,540	817	126	200	332
4	305	963	507	606	e170	e155	1,090	2,750	706	110	202	284
5	584	866	444	530	e162	e145	910	1,410	543	121	173	251
6	402	926	423	467	e150	e235	648	1,190	459	189	151	232
7	324	729	442	373	e145	e290	530	1,070	409	145	142	221
8	287	613	412	e280	e135	205	484	829	365	219	137	216
9	262	520	350	e250	e130	161	482	674	331	1,940	134	1,000
10	243	480	335	e275	e125	141	459	595	332	1,090	123	2,390
11	229	452	1,190	e300	e125	142	404	556	284	494	120	950
12	218	451	2,770	e330	e120	148	366	526	255	345	138	607
13	211	1,090	863	e335	e120	137	476	471	233	282	580	474
14	198	869	578	e325	e115	123	3,840	425	218	255	771	392
15	2,360	575	e595	e315	e110	123	1,910	416	243	265	353	344
16	1,380	487	553	e308	e110	114	1,160	700	212	274	287	310
17	735	445	1,450	e305	e110	110	951	538	186	234	736	285
18	562	413	7,210	e300	e115	107	1,560	437	171	212	406	576
19	476	637	1,860	e292	e110	106	1,930	852	173	251	296	599
20	414	5,670	1,170	e282	e110	102	2,960	570	165	233	264	399
21	696	2,220	863	e270	e110	107	1,410	470	149	222	531	326
22	849	1,330	788	e255	e110	105	1,120	645	152	187	746	291
23	586	999	677	e248	e108	89	1,350	1,300	188	184	399	261
24	486	825	1,370	e230	e105	e100	1,040	2,730	149	316	332	238
25	423	723	4,800	e225	e103	104	831	1,950	134	234	273	225
26	425	623	2,160	e217	e102	142	1,120	1,360	131	196	239	223
27	4,480	553	1,310	e213	e101	e820	1,250	1,060	132	176	219	206
28	5,380	563	1,010	e210	e100	e860	1,000	934	121	181	204	195
29	4,250	3,160	865	e205	e103	703	747	931	184	174	209	189
30	2,920	1,310	801	e200	---	e580	885	698	178	156	472	178
31	1,560	---	733	e195	---	566	---	574	---	145	1,660	---
TOTAL	32,249	31,540	38,602	10,091	3,653	7,159	35,643	30,481	9,074	9,220	11,168	13,283
MEAN	1,040	1,051	1,245	326	126	231	1,188	983	302	297	360	443
MAX	5,380	5,670	7,210	641	187	860	3,840	2,750	890	1,940	1,660	2,390
MIN	198	413	335	195	100	89	366	416	121	110	120	178
CFSM	5.39	5.45	6.45	1.69	0.65	1.20	6.16	5.09	1.57	1.54	1.87	2.29
IN.	6.22	6.08	7.44	1.95	0.70	1.38	6.87	5.88	1.75	1.78	2.15	2.56

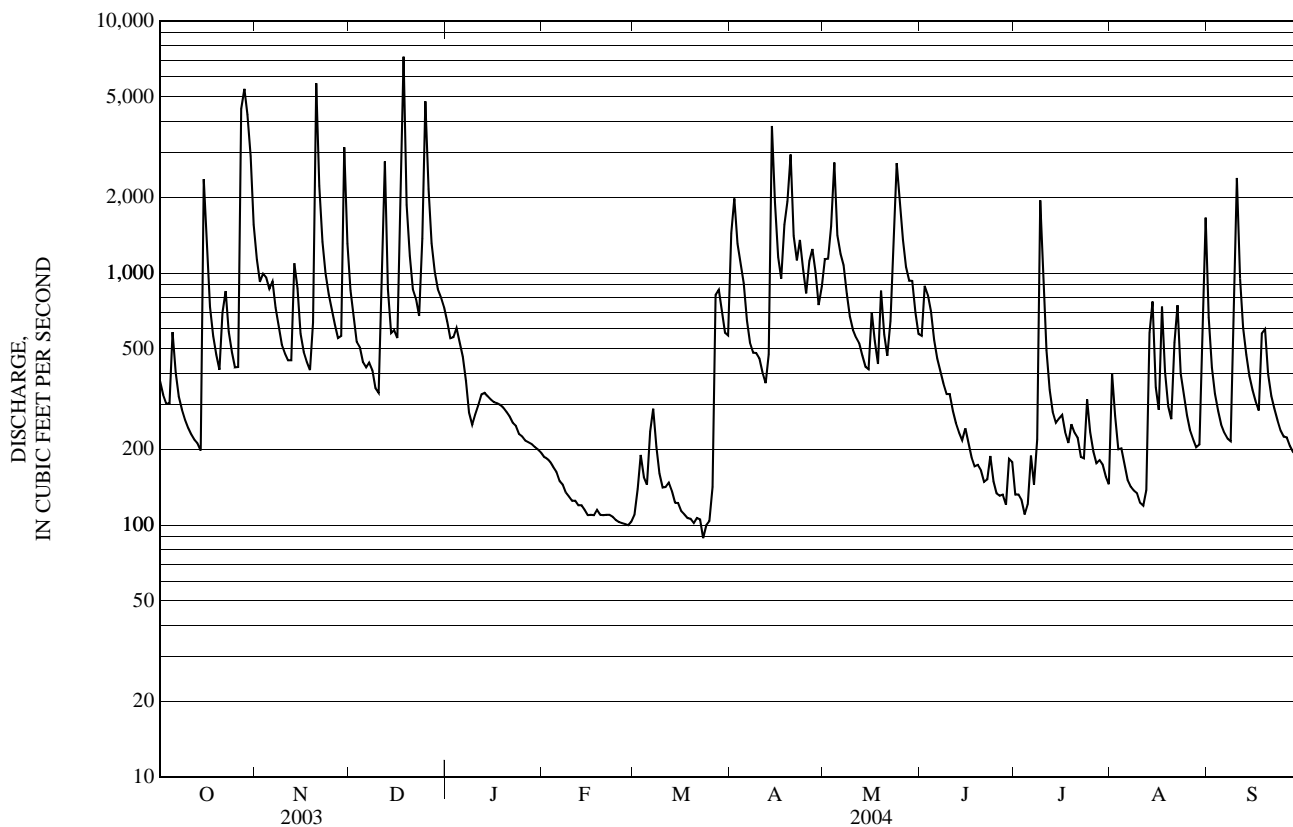
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1977, 2002 - 2004, BY WATER YEAR (WY)

MEAN	374	556	435	245	208	429	1,327	1,345	492	262	217	261
MAX	1,192	1,428	1,693	671	670	1,699	2,087	2,448	1,263	668	696	1,212
(WY)	(1960)	(1960)	(1974)	(1949)	(1973)	(1953)	(2002)	(1972)	(1973)	(1973)	(2003)	(1954)
MIN	65.9	122	77.7	55.9	57.3	65.7	554	403	159	94.8	76.1	64.4
(WY)	(1948)	(1948)	(1948)	(1948)	(1940)	(1940)	(1965)	(1941)	(1953)	(1953)	(1942)	(1948)

01075000 PEMIGEWASSET RIVER AT WOODSTOCK, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 77, 2002 - 04	
ANNUAL TOTAL	234,046		232,163			
ANNUAL MEAN	641		634		513	
HIGHEST ANNUAL MEAN					703 1973	
LOWEST ANNUAL MEAN					335 1965	
HIGHEST DAILY MEAN	7,210	Dec 18	7,210	Dec 18	16,900	Oct 24, 1959
LOWEST DAILY MEAN	77	Feb 26	89	Mar 23	37	Sep 10, 2002
ANNUAL SEVEN-DAY MINIMUM	81	Mar 10	102	Mar 19	40	Sep 5, 2002
MAXIMUM PEAK FLOW			15,900		a 47,000	
MAXIMUM PEAK STAGE			10.75		16.13	
ANNUAL RUNOFF (CFSM)	3.32		3.29		2.66	
ANNUAL RUNOFF (INCHES)	45.11		44.75		36.12	
10 PERCENT EXCEEDS	1,370		1,320		1,220	
50 PERCENT EXCEEDS	390		366		245	
90 PERCENT EXCEEDS	97		124		94	

a From rating curve extended above 14,000 ft³/s on basis of contracted-opening measurement of peak flow.
 e Estimated.



MERRIMACK RIVER BASIN

01076000 BAKER RIVER NEAR RUMNEY, NH

LOCATION.--Lat 43° 47' 44", Long 71° 50' 45" (revised), Grafton County, Hydrologic Unit 01070001, on right bank, 200 ft upstream from small right bank tributary, 0.3 mi upstream from Halls Brook, 1.8 mi southeast of West Rumney, and 1.8 mi southwest of Rumney.

DRAINAGE AREA.--143 mi².

PERIOD OF RECORD.--Discharge records: October 1928 to September 1977, October 2001 to current year. October 1928 monthly discharge only, published in WSP 1301. Partial-record station: October 1977 to September 2001. Peak streamflow: Water years 1928 to 1977, 1985 to 1993, 1995 to current year. Miscellaneous discharge measurements only: Water years 1978 to 1988, 1990 to 2001. Water quality records: Water years 1953-54.

REVISED RECORDS.--WSP 726: Drainage area. WSP 781: 1934(M). WSP 1231: 1929-33(M), 1934.

GAGE.--Water-stage recorder. Concrete control September 10, 1938 to June 12, 1976. Elevation of gage is 495 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. High flow slightly affected by retarding reservoirs since 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since valley was settled about 1766, 25,900 ft³/s, November 3, 1927, gage height 17.4 ft, from flood marks, from rating extended above 3,800 ft³/s on the basis of slope-area measurements at gage heights 13.03 ft, 14.49 ft, and 15.50 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 18	0415	*3,720	*6.43	No other peak greater than base discharge.			

Minimum discharge, 27 ft³/s, Aug. 11, gage height, 0.29 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	293	717	527	379	91	74	1,330	274	266	56	54	162
2	242	578	422	335	88	e83	1,820	256	320	48	52	110
3	205	626	326	324	87	e130	1,300	279	338	44	44	84
4	180	588	283	333	87	e160	1,020	879	294	40	59	68
5	217	534	235	318	90	141	888	673	235	40	59	58
6	187	537	e205	290	91	e210	658	526	193	50	46	51
7	162	436	e220	240	94	e310	537	417	165	46	38	46
8	145	359	e225	e180	92	258	475	332	143	51	35	43
9	129	302	205	e135	87	208	452	280	126	333	32	135
10	116	268	211	e150	89	177	415	247	132	312	29	309
11	108	249	764	e170	89	168	360	231	114	160	28	193
12	102	248	1,730	e195	85	178	320	210	100	110	29	132
13	96	452	879	208	86	167	392	184	90	87	37	101
14	90	477	638	179	84	149	1,540	164	82	75	61	79
15	931	351	559	e175	e77	142	956	153	83	71	51	67
16	752	293	472	175	e73	134	659	220	82	76	44	59
17	451	265	568	173	75	128	517	189	69	66	181	54
18	343	245	2,420	169	77	120	530	165	66	59	118	178
19	273	259	1,180	165	78	114	495	167	61	54	86	294
20	222	1,290	831	155	77	110	563	139	61	53	72	177
21	249	936	628	144	79	112	373	128	53	51	95	123
22	320	639	e530	137	78	108	308	137	51	44	176	97
23	271	493	448	132	77	97	304	423	64	40	112	81
24	244	403	573	124	e73	103	265	1,170	55	65	89	67
25	219	356	1,910	118	e72	103	236	989	47	58	69	60
26	225	316	1,220	111	e70	133	400	709	51	48	57	56
27	755	283	850	109	e68	843	499	563	51	43	49	50
28	1,920	287	652	108	e72	1,010	382	540	44	43	44	45
29	1,880	1,080	538	103	e70	865	303	568	68	43	41	44
30	1,520	705	473	100	---	755	275	405	74	40	93	42
31	957	---	423	97	---	735	---	314	---	36	266	---
TOTAL	13,804	14,572	21,145	5,731	2,356	8,025	18,572	11,931	3,578	2,342	2,246	3,065
MEAN	445	486	682	185	81.2	259	619	385	119	75.5	72.5	102
MAX	1,920	1,290	2,420	379	94	1,010	1,820	1,170	338	333	266	309
MIN	90	245	205	97	68	74	236	128	44	36	28	42
CFSM	3.11	3.40	4.77	1.29	0.57	1.81	4.33	2.69	0.83	0.53	0.51	0.71
IN.	3.59	3.79	5.50	1.49	0.61	2.09	4.83	3.10	0.93	0.61	0.58	0.80

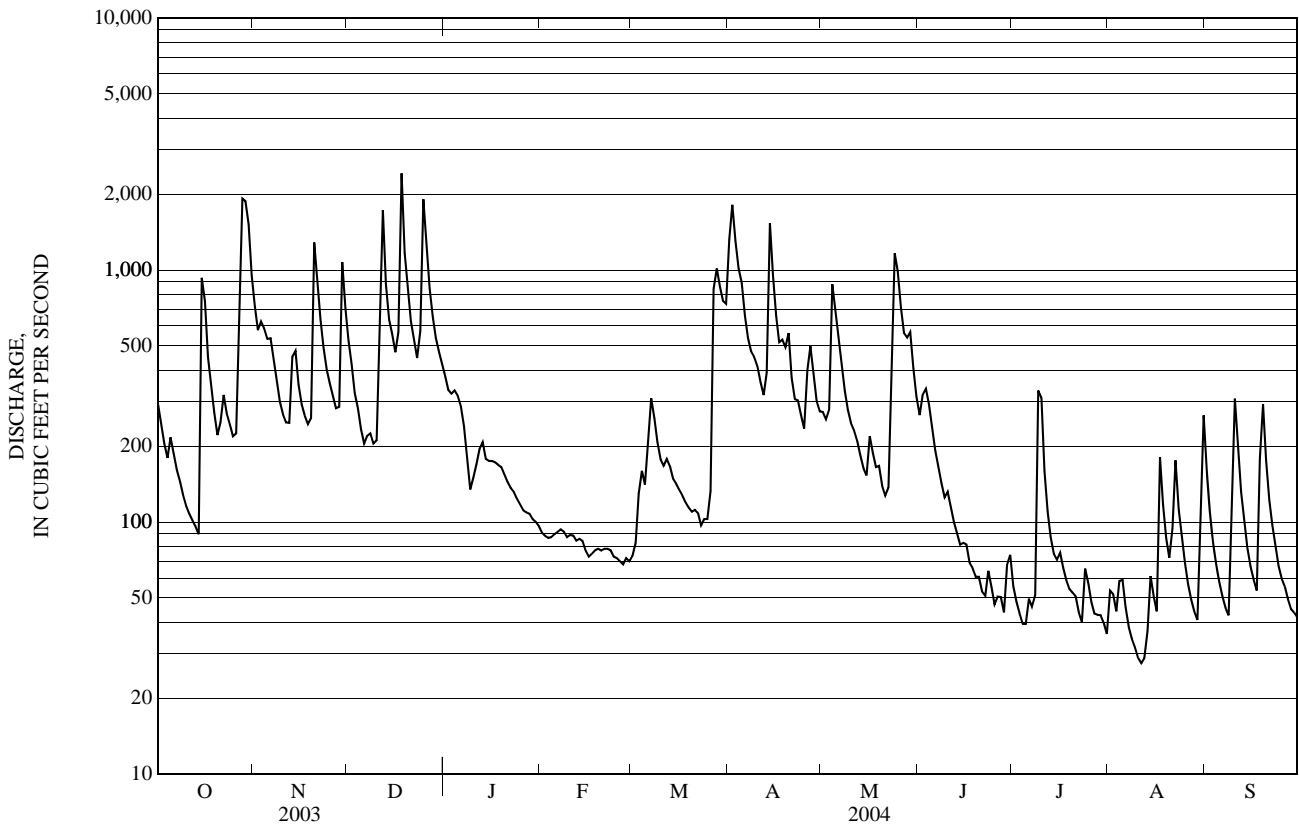
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1977, 2002 - 2004, BY WATER YEAR (WY)

MEAN	142	237	229	150	131	362	862	455	193	100	73.9	93.9
MAX	588	739	714	434	402	2,473	1,575	962	619	518	324	816
(WY)	(1960)	(1960)	(1974)	(1935)	(1970)	(1936)	(1969)	(1940)	(1973)	(1973)	(1943)	(1938)
MIN	18.2	59.1	34.6	26.0	37.8	52.9	390	141	47.4	21.8	15.2	17.6
(WY)	(1948)	(1953)	(1948)	(1948)	(1948)	(1940)	(1957)	(1941)	(1964)	(1933)	(2002)	(1963)

01076000 BAKER RIVER NEAR RUMNEY, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 77, 2002 - 04	
ANNUAL TOTAL	118,515		107,367		253	
ANNUAL MEAN	325		293		121	
HIGHEST ANNUAL MEAN					388 1973	
LOWEST ANNUAL MEAN					121 1965	
HIGHEST DAILY MEAN	2,420	Dec 18	2,420	Dec 18	12,600	Mar 19, 1936
LOWEST DAILY MEAN	a 23	Jul 9	28	Aug 11	9.3	Sep 11, 2002
ANNUAL SEVEN-DAY MINIMUM	25	Jul 4	33	Aug 7	11	Sep 5, 2002
MAXIMUM PEAK FLOW			3,720	Dec 18	b 21,400	Jun 15, 1942
MAXIMUM PEAK STAGE			6.43	Dec 18	15.50	Jun 15, 1942
INSTANTANEOUS LOW FLOW			27	Aug 11	c 6.5	Dec 4, 1947
ANNUAL RUNOFF (CFSM)	2.27		2.05		1.77	
ANNUAL RUNOFF (INCHES)	30.83		27.93		24.05	
10 PERCENT EXCEEDS	784		706		606	
50 PERCENT EXCEEDS	205		167		111	
90 PERCENT EXCEEDS	51		51		33	

- a Also occurred on July 10, 2003.
- b From rating curve extended above 3,800 ft³/s on basis of slope-area measurements as explained above.
- c Result of freezeup.
- e Estimated.



MERRIMACK RIVER BASIN

01076500 PEMIGEWASSET RIVER AT PLYMOUTH, NH

LOCATION.--Lat 43° 45'33", long 71° 41'10", Grafton County, Hydrologic Unit 01070001, on right bank, 150 ft downstream from Holderness Road bridge in Plymouth, 0.1 mi northeast of Plymouth Town Hall, and 0.3 mi downstream from Baker River.

DRAINAGE AREA.--622 mi².

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

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 National Geodetic Vertical Datum of 1929. Prior to January 1, 1910, nonrecording gage at sites 150 ft and 200 ft upstream at present datum or datum 1.1 ft lower. January 1, 1910, to September 30, 1926, nonrecording gage at site 200 ft upstream at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Stage-discharge relationship at times is affected by variable slope. Some diurnal fluctuation during period 1940-52 caused by power plants upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 15	1800	12,900	9.08	Dec 18	0215	e17,700	ice jam
Oct 28	0515	*19,600	12.24	Dec 18	1000	ice jam	*17.50
Nov 20	1515	16,500	10.67	Dec 25	0700	14,400	10.12
Dec 12	0530	e12,800	ice jam				

Minimum discharge, 193 ft³/s, Aug. 11, gage height, 0.33 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,290	3,730	2,710	1,970	e493	e340	5,000	1,890	1,380	322	490	1,820
2	1,090	2,930	2,080	1,710	e482	e395	6,970	1,900	1,730	281	582	1,030
3	972	3,100	e1,650	1,640	e471	e575	5,690	2,240	1,960	269	399	758
4	879	3,060	e1,400	1,730	e465	e645	4,070	5,580	1,630	230	422	617
5	1,210	2,730	e1,250	1,620	e463	e575	3,440	4,170	1,300	218	386	521
6	1,070	2,950	e1,100	1,450	e450	e825	2,410	3,020	1,080	338	298	454
7	893	2,350	e1,140	1,210	e443	e1,200	1,940	2,450	955	322	260	417
8	797	1,930	e1,150	e940	e425	e1,050	1,680	1,940	853	310	241	397
9	728	1,630	e1,050	e720	e410	e805	1,610	1,590	769	2,180	226	1,030
10	668	1,440	e1,000	e750	e405	e710	1,510	1,390	754	2,810	213	3,990
11	620	1,330	e2,550	e830	e400	670	1,360	1,290	668	1,140	199	2,090
12	594	1,310	e8,700	e925	e385	694	1,220	1,200	595	761	219	1,270
13	617	2,490	4,230	e975	e390	657	1,340	1,070	543	593	587	985
14	570	2,920	e2,400	e910	e380	565	7,350	973	496	513	1,260	806
15	5,140	1,850	e2,100	e885	e355	564	5,570	902	490	500	711	702
16	5,570	1,490	e1,950	e865	e345	520	3,420	1,180	488	564	508	629
17	2,620	1,350	e2,600	e857	e350	493	2,560	1,140	413	491	1,210	576
18	1,810	1,250	e13,800	e843	e360	461	2,970	939	376	418	947	1,040
19	1,460	1,300	e6,850	e820	e360	442	3,120	1,160	356	447	647	1,910
20	1,240	9,100	e3,900	e780	e355	424	4,830	1,060	359	445	556	1,130
21	1,240	6,900	e2,900	e745	e355	e430	2,980	891	316	406	590	858
22	1,980	3,970	e2,400	e710	e355	e420	2,140	921	301	345	1,430	722
23	1,480	2,880	e2,050	e680	e350	e395	2,380	2,330	371	323	865	628
24	1,280	2,290	2,720	e645	e340	e400	1,940	5,150	334	690	649	549
25	1,140	1,990	11,700	e613	e330	400	1,650	5,380	279	551	536	506
26	1,100	1,730	7,270	e590	e325	463	2,150	3,650	287	401	445	489
27	4,440	1,530	4,540	e573	e320	2,460	3,180	2,910	306	341	395	442
28	13,500	1,480	3,350	e565	e325	4,140	2,380	2,820	264	343	357	407
29	9,930	6,270	2,760	e548	e325	3,040	1,800	3,120	320	336	334	395
30	9,660	4,340	2,440	e535	---	2,430	1,630	2,100	468	295	524	378
31	5,170	---	2,230	e517	---	2,240	---	1,600	---	263	3,800	---
TOTAL	80,758	83,620	107,970	29,151	11,212	29,428	90,290	67,956	20,441	17,446	20,286	27,546
MEAN	2,605	2,787	3,483	940	387	949	3,010	2,192	681	563	654	918
MAX	13,500	9,100	13,800	1,970	493	4,140	7,350	5,580	1,960	2,810	3,800	3,990
MIN	570	1,250	1,000	517	320	340	1,220	891	264	218	199	378
CFSM	4.19	4.48	5.60	1.51	0.62	1.53	4.84	3.52	1.10	0.90	1.05	1.48
IN.	4.83	5.00	6.46	1.74	0.67	1.76	5.40	4.06	1.22	1.04	1.21	1.65

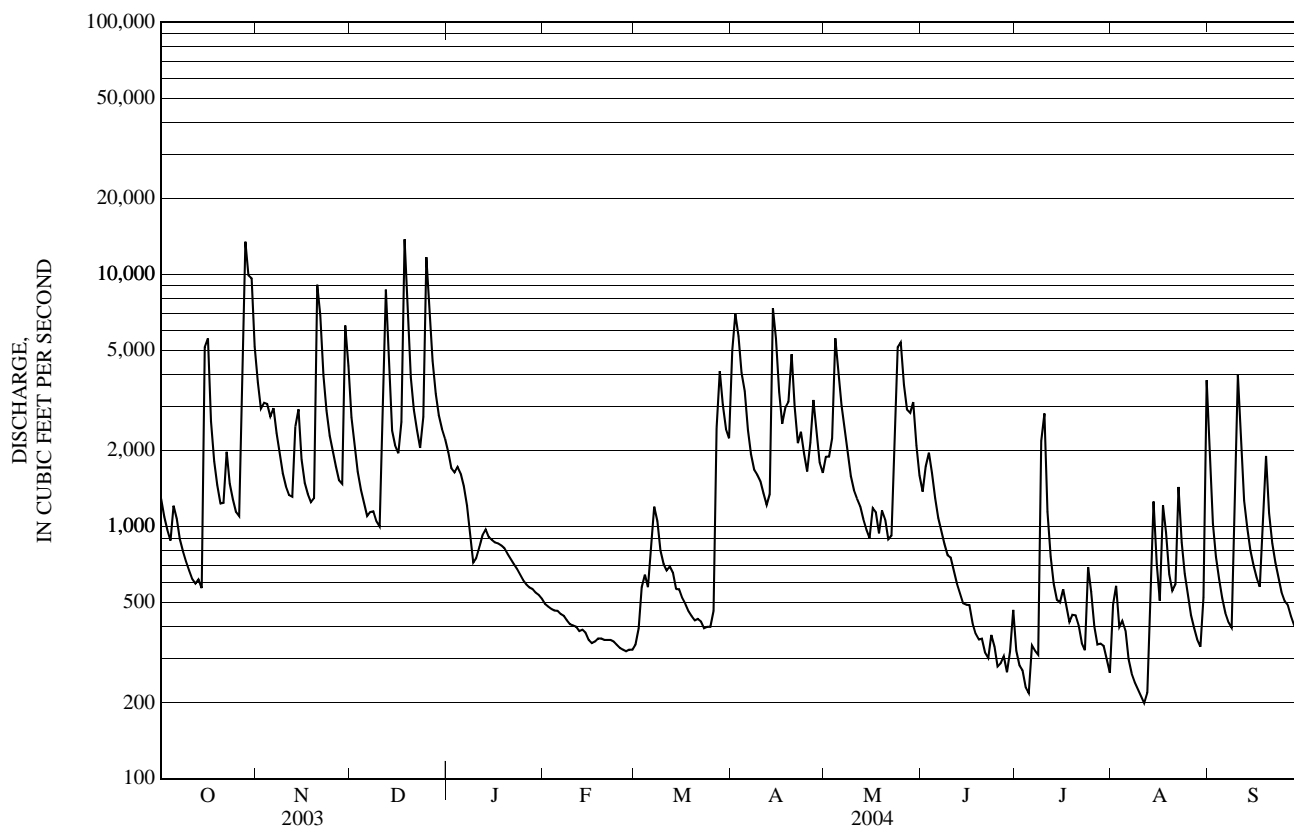
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2004, BY WATER YEAR (WY)

	969	1,342	1,152	869	726	1,721	3,924	2,756	1,147	634	515	598
MEAN												
MAX	3,423	4,578	4,588	3,191	4,379	9,266	7,206	5,304	3,878	3,103	3,345	3,813
(WY)	(1978)	(1928)	(1974)	(1996)	(1981)	(1936)	(1969)	(1940)	(1917)	(1973)	(1990)	(1938)
MIN	129	308	216	148	138	205	1,222	806	283	160	111	107
(WY)	(1948)	(1979)	(1948)	(1931)	(1931)	(1940)	(1995)	(1921)	(1921)	(1923)	(1923)	(1923)

01076500 PEMIGEWASSET RIVER AT PLYMOUTH, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1904 - 2004	
ANNUAL TOTAL	620,601		586,104		1,363	
ANNUAL MEAN	1,700		1,601		735	
HIGHEST ANNUAL MEAN					2,156 1996	
LOWEST ANNUAL MEAN					735 1965	
HIGHEST DAILY MEAN	e 13,800	Dec 18	e 13,800	Dec 18	57,300	Mar 19, 1936
LOWEST DAILY MEAN	177	Jul 10	199	Aug 11	45	Sep 20, 1923
ANNUAL SEVEN-DAY MINIMUM	191	Jul 4	237	Aug 6	66	Oct 11, 1923
MAXIMUM PEAK FLOW			a 19,600	Oct 28	65,400	Mar 19, 1936
MAXIMUM PEAK STAGE			b 17.50	Dec 18	c 29.00	Mar 19, 1936
INSTANTANEOUS LOW FLOW			193	Aug 11	d 39	Oct 1, 1948
ANNUAL RUNOFF (CFSM)	2.73		2.57		2.19	
ANNUAL RUNOFF (INCHES)	37.12		35.05		29.78	
10 PERCENT EXCEEDS	3,930		3,500		3,170	
50 PERCENT EXCEEDS	1,030		923		678	
90 PERCENT EXCEEDS	275		342		236	

- a Discharge affected by variable slope.
- b Ice jam.
- c From floodmarks.
- d Also occurred on October 3, 1948.
- e Estimated.



01078000 SMITH RIVER NEAR BRISTOL, NH

LOCATION.--Lat 43° 34'04", long 71° 44'54", Merrimack County, Hydrologic Unit 01070001, on right bank, 0.6 mi upstream of Borough Road bridge, 1.5 mi upstream from mouth, 1.7 mi southwest of Post Office in Bristol, and 3.8 mi northwest of Hill.

DRAINAGE AREA.--85.8 mi².

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

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 National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to November 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 March 19, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 2	1815	*1,350	*6.14	No other peak greater than base discharge.			

Minimum discharge, 13 ft³/s, Sept. 7, 8, gage height, 1.42 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	390	307	244	57	54	750	133	179	34	54	26
2	93	276	228	215	56	e64	1,240	125	180	33	47	23
3	76	288	e160	198	55	e105	1,120	122	185	36	38	19
4	65	304	148	202	58	e135	774	302	174	30	32	17
5	67	307	129	210	60	e125	579	347	146	28	27	15
6	62	352	e110	193	60	e160	422	247	124	29	24	14
7	54	292	e115	150	63	e225	321	184	109	30	22	13
8	50	225	e125	e115	e61	e205	266	150	100	28	20	15
9	45	176	122	104	e60	153	234	133	91	81	19	74
10	42	158	120	e100	60	128	211	123	123	80	17	122
11	40	147	313	e97	60	122	185	130	111	53	17	91
12	37	145	790	e102	59	e125	168	130	88	39	19	58
13	47	190	625	e105	58	e120	216	111	74	33	33	41
14	50	240	400	96	58	e115	679	95	66	34	32	31
15	264	177	293	e91	e55	107	638	89	60	39	26	26
16	392	148	252	e90	e54	101	410	110	55	64	25	23
17	227	134	274	e92	53	94	287	107	49	57	35	21
18	149	127	860	98	53	89	235	91	45	43	34	99
19	118	129	825	96	53	84	204	119	42	42	28	232
20	98	343	696	91	52	e77	178	106	38	49	24	134
21	90	511	507	86	52	e80	159	88	34	41	40	89
22	89	353	346	82	52	e75	148	84	32	33	67	62
23	88	246	281	80	52	e72	148	190	37	37	52	47
24	86	192	293	73	52	e70	166	623	36	221	36	38
25	79	170	710	64	51	78	150	858	31	141	27	32
26	80	156	758	58	50	109	182	706	37	83	22	28
27	369	144	602	56	49	435	279	472	42	62	19	24
28	734	154	405	58	49	630	230	374	35	128	18	23
29	903	441	312	59	51	511	171	424	37	130	17	25
30	862	436	278	59	---	383	146	330	40	92	17	22
31	643	---	263	58	---	362	---	231	---	65	27	---
TOTAL	6,121	7,351	11,647	3,422	1,603	5,193	10,896	7,334	2,400	1,895	915	1,484
MEAN	197	245	376	110	55.3	168	363	237	80.0	61.1	29.5	49.5
MAX	903	511	860	244	63	630	1,240	858	185	221	67	232
MIN	37	127	110	56	49	54	146	84	31	28	17	13
CFSM	2.30	2.86	4.38	1.29	0.64	1.95	4.23	2.76	0.93	0.71	0.34	0.58
IN.	2.65	3.19	5.05	1.48	0.70	2.25	4.72	3.18	1.04	0.82	0.40	0.64

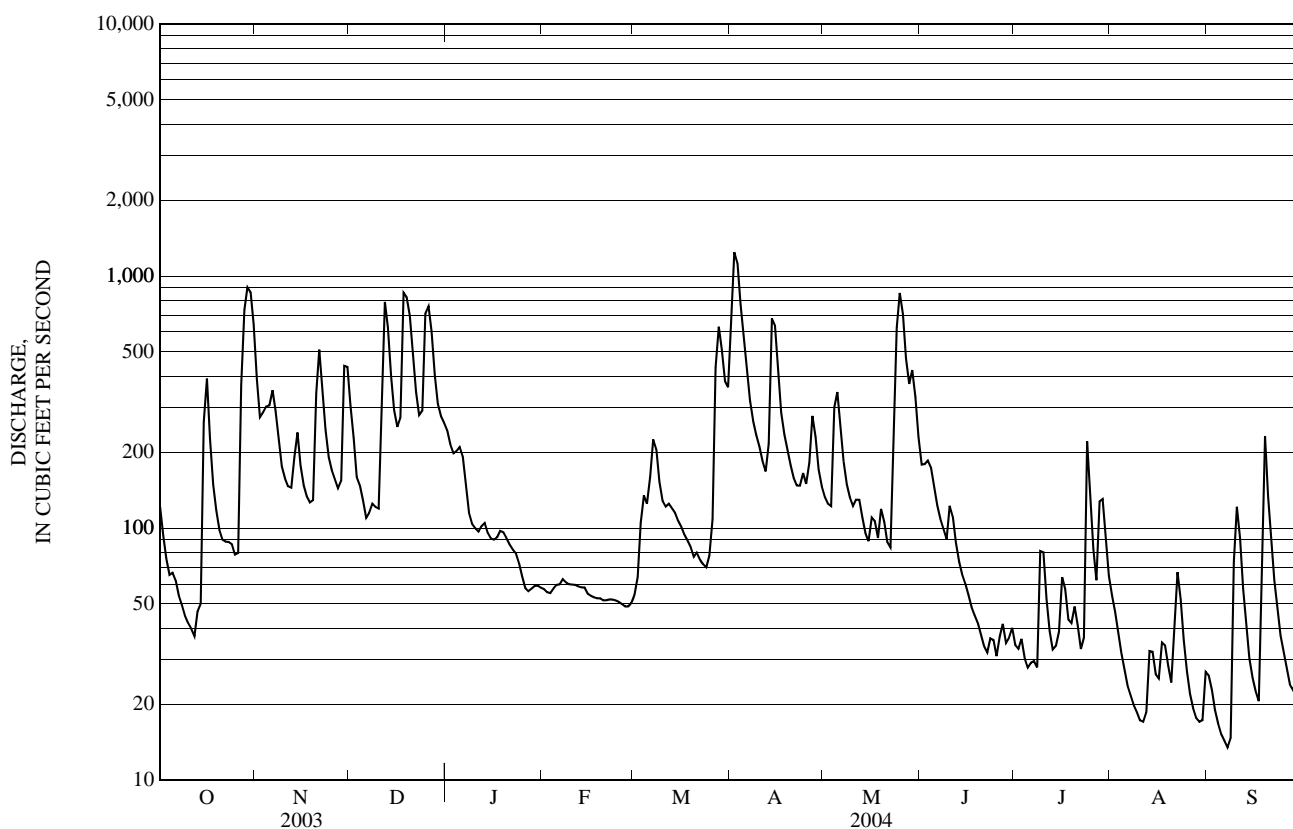
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 2004, BY WATER YEAR (WY)

MEAN	73.5	130	134	100	96.8	251	480	225	104	52.7	37.1	41.2
MAX	279	379	393	300	578	1,242	1,077	504	391	387	340	457
(WY)	(1997)	(1928)	(1974)	(1996)	(1981)	(1936)	(1969)	(1954)	(1998)	(1973)	(1990)	(1938)
MIN	8.45	20.1	22.3	19.2	20.6	29.7	134	71.5	20.5	9.00	4.54	7.36
(WY)	(1948)	(2002)	(1923)	(1940)	(1980)	(1940)	(1995)	(1941)	(1964)	(1965)	(1965)	(2002)

01078000 SMITH RIVER NEAR BRISTOL, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR			FOR 2004 WATER YEAR			WATER YEARS 1918 - 2004	
ANNUAL TOTAL	63,362			60,261				
ANNUAL MEAN	174			165			144	
HIGHEST ANNUAL MEAN							240	
LOWEST ANNUAL MEAN							64.7	
HIGHEST DAILY MEAN	1,130	Mar 30		1,240	Apr 2		6,890	Mar 19, 1936
LOWEST DAILY MEAN	11	Jul 7		13	Sep 7		2.7	Aug 2, 1933
ANNUAL SEVEN-DAY MINIMUM	12	Jul 4		17	Sep 2		3.2	Sep 20, 1939
MAXIMUM PEAK FLOW				1,350	Apr 2		a 8,100	Mar 19, 1936
MAXIMUM PEAK STAGE				6.14	Apr 2		b 16.09	Mar 19, 1936
INSTANTANEOUS LOW FLOW				c 13	Sep 7		2.7	Aug 2, 1933
ANNUAL RUNOFF (CFSM)	2.02			1.92			1.67	
ANNUAL RUNOFF (INCHES)	27.47			26.13			22.75	
10 PERCENT EXCEEDS	446			391			348	
50 PERCENT EXCEEDS	82			96			67	
90 PERCENT EXCEEDS	18			28			17	

- a From rating extended above 2,700 ft³/s on basis of contracted-opening measurement of peak flow.
- b From floodmarks.
- c Also occurred on September 8.
- e Estimated.



01079602 POORFARM BROOK AT ELLACOYA STATE PARK NEAR GILFORD, NH

LOCATION.--Lat 43° 34'22", long 71° 21'20", Belknap County, Hydrologic Unit 01070002, on right bank at Old Highway 11 bridge, 250 ft downstream from State Highway 11 bridge, 950 ft upstream from mouth, 3.1 mi northeast of Gilford, and 5.9 mi southeast of Weirs Beach.

DRAINAGE AREA.--6.38 mi².

PERIOD OF RECORD.--Discharge records: June 1998 to September 2004 (discontinued). Peak streamflow: Water years 1998 to 2004 (discontinued). Water-quality discrete samples: Water years 1998, 1999.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 515 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 12, 2004, at site 100 ft upstream at same datum.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 110 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1530	139	2.40	Apr 2	0400	225	2.90
Dec 11	2015	ice jam	*3.08	Apr 14	0245	227	2.91
Dec 18	0430	*238	2.96				

Minimum discharge, 0.89 ft³/s, Aug. 10, 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	21	12	18	e1.7	3.1	87	18	15	1.9	3.7	1.9
2	4.1	18	e9.5	16	e1.9	4.1	151	17	15	1.8	2.9	1.7
3	3.8	21	e7.0	15	2.0	7.7	e63	17	15	1.5	2.5	1.5
4	4.2	22	e6.0	17	2.1	7.2	e48	42	14	1.3	2.6	1.2
5	4.3	22	e5.5	16	2.1	6.8	e50	25	13	1.4	1.9	1.1
6	4.3	19	e5.0	12	2.1	e11	e32	21	12	1.4	1.6	1.1
7	4.5	15	e5.0	e9.0	2.2	e8.0	e27	19	12	1.2	1.4	0.97
8	4.5	14	e5.5	e5.0	2.0	e6.0	e26	18	11	1.8	1.3	1.0
9	4.3	14	e4.5	e3.7	1.9	e4.4	e25	17	10	2.7	1.1	11
10	4.1	12	e4.0	e3.0	2.0	e4.1	e24	16	7.8	1.7	0.97	9.9
11	4.1	12	e30	e3.0	2.1	e4.1	e21	16	5.7	1.4	0.96	5.5
12	4.9	12	e65	e3.3	2.2	e4.0	e21	15	4.9	1.2	0.99	3.9
13	8.4	13	e28	e3.6	2.2	e3.8	e37	14	4.3	1.1	4.5	3.0
14	6.4	13	e25	e3.1	2.3	e3.3	132	13	4.0	1.7	5.6	2.5
15	31	11	e23	e2.6	e2.5	e3.3	63	9.4	3.8	3.4	3.5	2.0
16	22	9.9	e21	e2.5	e2.5	e3.1	e37	10	3.3	5.0	4.2	1.9
17	16	9.6	e45	e2.6	e2.5	e2.9	e29	8.9	2.8	2.9	7.8	1.7
18	13	9.3	152	e2.7	2.6	e2.7	e28	7.9	2.6	2.1	5.1	20
19	11	9.5	46	e2.7	2.6	e2.6	e28	7.8	2.6	5.8	3.7	21
20	9.9	18	28	e2.6	2.6	e2.6	28	6.2	2.3	4.9	3.3	17
21	10	19	e20	e2.5	2.6	e2.7	24	6.3	2.0	3.6	8.1	7.8
22	10	15	20	e2.3	2.9	e2.5	23	6.8	2.2	2.6	10	5.8
23	12	13	18	e2.1	2.6	e2.2	24	14	2.4	2.9	8.5	4.6
24	10	12	26	e2.0	2.6	e2.4	22	28	2.0	3.2	9.0	3.7
25	9.2	11	72	e1.9	2.6	e2.7	20	25	2.0	2.1	3.9	3.2
26	8.9	9.5	46	e1.7	2.6	e5.6	26	19	4.1	1.8	3.3	2.9
27	12	9.7	32	e1.6	2.5	e20	27	18	3.2	2.0	2.9	2.7
28	23	11	25	e1.6	2.7	19	22	20	2.2	14	2.6	2.8
29	81	17	23	e1.6	2.7	16	20	18	2.8	9.2	2.3	2.8
30	52	14	22	e1.6	---	14	19	16	2.3	5.1	2.1	2.6
31	28	---	21	e1.6	---	22	---	15	---	3.7	2.1	---
TOTAL	425.1	426.5	852.0	163.9	67.9	203.9	1,184	504.3	186.3	96.4	114.42	148.77
MEAN	13.7	14.2	27.5	5.29	2.34	6.58	39.5	16.3	6.21	3.11	3.69	4.96
MAX	81	22	152	18	2.9	22	151	42	15	14	10	21
MIN	3.8	9.3	4.0	1.6	1.7	2.2	19	6.2	2.0	1.1	0.96	0.97
CFSM	2.15	2.23	4.31	0.83	0.37	1.03	6.19	2.55	0.97	0.49	0.58	0.78
IN.	2.48	2.49	4.97	0.96	0.40	1.19	6.90	2.94	1.09	0.56	0.67	0.87

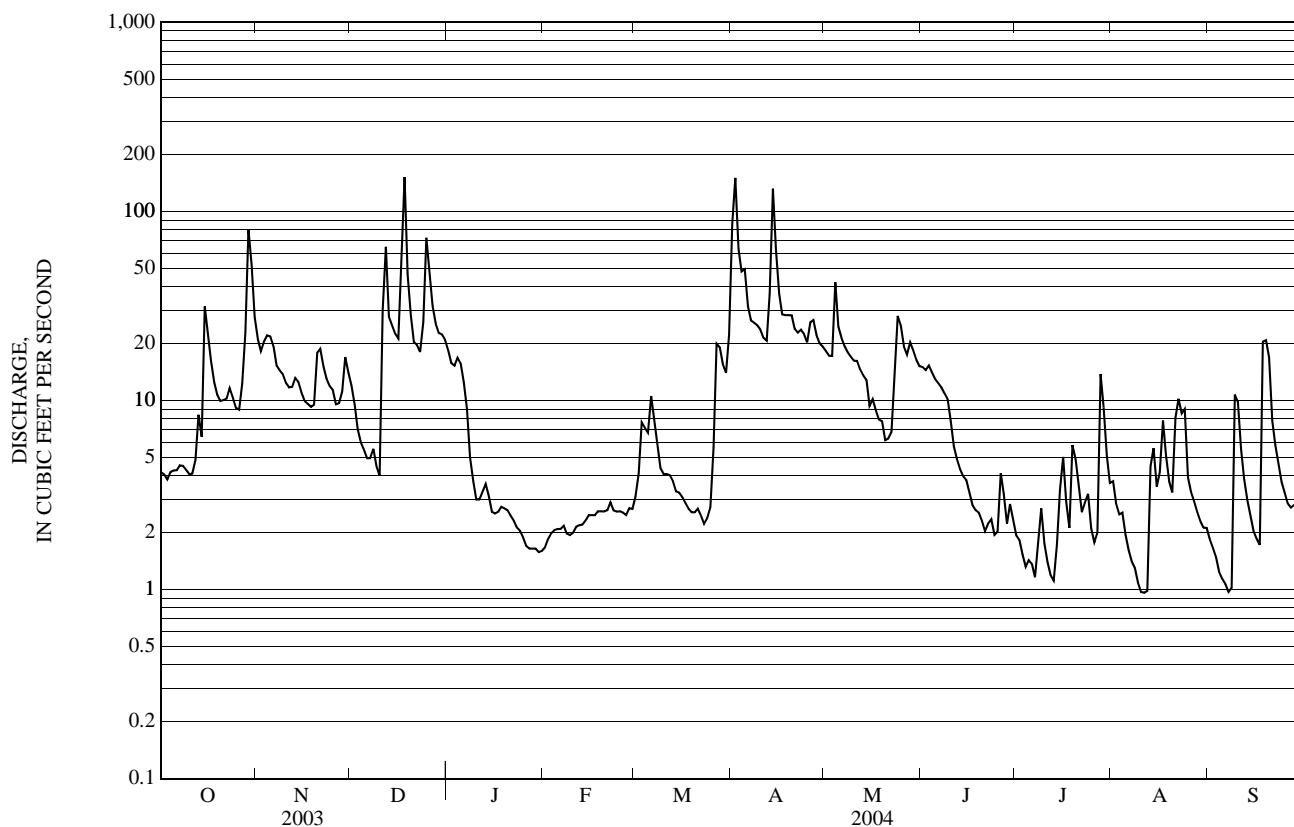
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

MEAN	6.68	7.40	9.78	5.40	5.81	20.0	33.1	14.7	13.1	3.87	4.53	6.19
MAX	13.7	14.2	27.5	12.5	12.6	30.9	50.2	20.2	52.0	13.9	17.8	29.1
(WY)	(2004)	(2004)	(2004)	(1999)	(1999)	(2003)	(2001)	(2003)	(1998)	(1998)	(2003)	(1999)
MIN	0.85	0.52	0.87	1.21	2.34	3.84	22.1	7.15	1.88	0.73	0.23	0.45
(WY)	(2002)	(2002)	(2002)	(2002)	(2004)	(2001)	(1999)	(1999)	(1999)	(2003)	(2002)	(2002)

01079602 POORFARM BROOK AT ELLACOYA STATE PARK NEAR GILFORD, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL TOTAL	5,399.06		4,373.49		10.3	
ANNUAL MEAN	14.8		11.9		11.9	
HIGHEST ANNUAL MEAN					11.9	2004
LOWEST ANNUAL MEAN					6.60	2002
HIGHEST DAILY MEAN	152	Dec 18	152	Dec 18	e 398	Jun 14, 1998
LOWEST DAILY MEAN	0.22	Jul 31	0.96	Aug 11	0.09	Aug 19, 2002
ANNUAL SEVEN-DAY MINIMUM	0.32	Jul 25	1.2	Aug 6	0.10	Aug 15, 2002
MAXIMUM PEAK FLOW			238	Dec 18	e 730	Jun 14, 1998
MAXIMUM PEAK STAGE			a 3.08	Dec 11	b 7.33	Sep 16, 1999
INSTANTANEOUS LOW FLOW			c 0.89	Aug 10	d 0.07	Aug 15, 2002
ANNUAL RUNOFF (CFSM)	2.32		1.87		1.61	
ANNUAL RUNOFF (INCHES)	31.48		25.50		21.94	
10 PERCENT EXCEEDS	34		25		27	
50 PERCENT EXCEEDS	6.4		5.5		4.5	
90 PERCENT EXCEEDS	1.9		1.9		0.59	

- a Ice jam.
- b Maximum observed gage height.
- c Also occurred on August 11.
- d Also occurred on August 17-21, 28, 2002.
- e Estimated.



01079900 SHANNON BROOK NEAR MOULTONBOROUGH, NH

LOCATION.--Lat 43° 43'49", long 71° 21'28", Carroll County, Hydrologic Unit 01070002, on left bank 20 ft downstream from State Highway 109 bridge, 1.4 mi upstream from mouth, 2.5 mi southeast of Moultonborough, and 4.0 mi northwest of Melvin Village.

DRAINAGE AREA.--6.99 mi².

PERIOD OF RECORD.--Discharge records: August 1998 to September 2004 (discontinued). Peak streamflow: Water years 1999 to 2004. Water-quality discrete samples: Water years 1998, 1999. Discharge measurements only: Water year 1991.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 545 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those discharges below 1 ft³/s, which are fair, and those for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 120 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1845	120	5.81	Apr 2	0815	133	5.92
Dec 12	0145	133	5.92	Apr 14	0715	*261	*6.82
Dec 18	0545	223	6.58	May 24	1445	120	5.81

Minimum discharge, 0.64 ft³/s, Sept. 6, 8, 9, gage height, 3.73 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	20	14	16	e2.9	e3.5	75	11	13	1.6	1.9	1.3
2	2.5	18	12	14	e2.9	e5.1	105	9.8	14	1.4	1.8	1.1
3	2.5	25	9.0	13	e2.9	11	59	10	14	1.2	1.5	0.91
4	2.5	29	8.2	14	e2.9	6.7	45	62	13	0.99	1.3	0.81
5	3.3	29	7.1	14	e3.0	7.2	40	33	9.3	1.4	1.0	0.80
6	2.7	34	6.5	12	e3.2	15	27	23	7.9	2.3	0.93	0.72
7	2.4	23	7.6	e10	e3.2	13	21	18	7.2	1.5	0.87	0.74
8	2.2	17	8.3	6.8	3.2	7.6	19	14	6.2	3.3	0.80	0.75
9	2.0	14	7.4	e7.5	3.2	5.5	17	12	5.2	5.5	0.79	2.8
10	1.9	12	7.0	e7.9	2.9	5.4	16	11	4.7	3.0	0.82	4.1
11	1.8	11	35	e7.4	2.9	6.2	14	11	4.0	1.9	1.0	2.3
12	2.3	12	81	e8.5	2.7	6.7	13	8.8	3.5	1.5	1.9	1.7
13	5.8	19	e31	e7.5	2.7	6.1	19	7.4	3.2	1.3	4.5	1.4
14	3.7	16	e20	e6.6	2.7	e5.0	158	6.6	3.0	1.4	5.2	1.2
15	26	12	17	e6.0	2.7	5.0	62	6.2	2.9	1.5	2.7	1.0
16	21	11	15	e5.5	2.5	4.6	37	8.5	2.5	1.9	2.4	0.95
17	11	10	25	e5.2	2.5	4.2	28	7.8	2.3	2.0	6.4	0.94
18	8.3	9.2	144	e5.4	2.3	4.0	23	6.2	2.2	1.5	3.6	7.9
19	6.7	11	52	e5.1	2.3	3.8	20	5.8	2.4	2.0	2.8	8.3
20	5.7	29	32	e4.7	2.3	3.9	17	4.6	2.4	2.7	2.4	3.9
21	5.9	27	25	e4.2	2.4	4.6	15	4.6	2.0	1.9	4.4	2.7
22	5.7	18	19	e3.8	2.5	e4.3	13	6.0	1.9	1.4	6.6	2.3
23	5.6	15	17	e3.6	2.4	e3.5	13	22	2.6	2.7	4.0	1.9
24	5.1	13	22	e3.4	2.3	3.7	12	80	1.9	4.9	3.0	1.5
25	4.4	12	78	e3.2	2.2	4.0	10	51	1.7	2.5	2.4	1.4
26	4.2	11	54	e3.1	2.2	7.7	22	30	3.6	1.8	2.1	1.3
27	41	9.7	32	e3.1	2.2	42	24	23	3.1	1.6	1.8	1.3
28	71	12	25	e3.2	2.5	31	18	33	2.0	5.7	1.6	1.3
29	75	28	20	e3.1	2.9	21	14	30	2.4	3.7	1.4	1.3
30	55	18	20	e3.1	---	16	12	19	2.1	2.3	1.3	1.2
31	29	---	18	e3.0	---	20	---	15	---	1.8	1.4	---
TOTAL	418.9	524.9	869.1	213.9	77.5	287.3	968	590.3	146.2	70.19	74.61	59.82
MEAN	13.5	17.5	28.0	6.90	2.67	9.27	32.3	19.0	4.87	2.26	2.41	1.99
MAX	75	34	144	16	3.2	42	158	80	14	5.7	6.6	8.3
MIN	1.8	9.2	6.5	3.0	2.2	3.5	10	4.6	1.7	0.99	0.79	0.72
CFSM	1.93	2.50	4.01	0.99	0.38	1.33	4.62	2.72	0.70	0.32	0.34	0.29
IN.	2.23	2.79	4.63	1.14	0.41	1.53	5.15	3.14	0.78	0.37	0.40	0.32

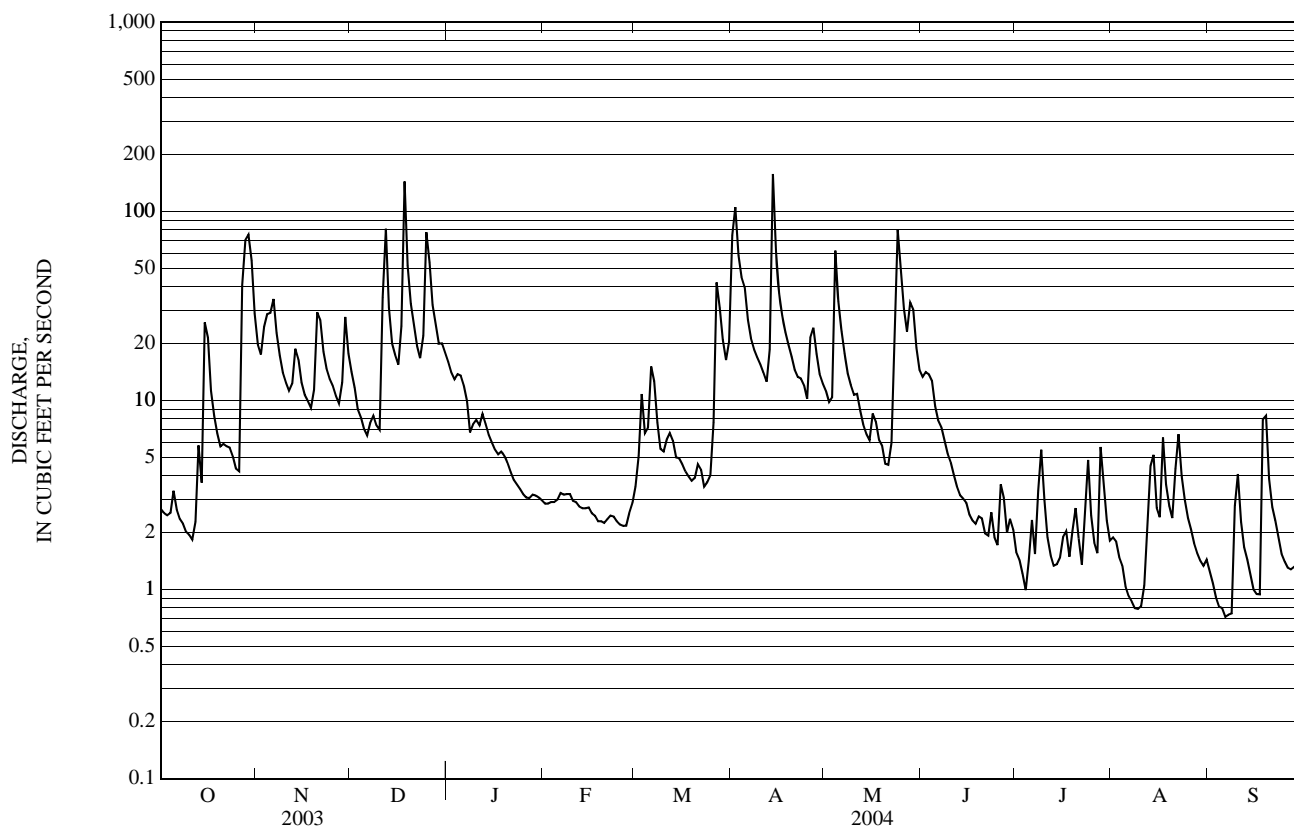
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

	1998	1999	2000	2001	2002	2003	2004
MEAN	6.64	9.60	11.3	6.41	7.13	22.9	31.6
MAX	13.5	17.5	28.0	13.8	13.0	34.8	62.6
(WY)	(2004)	(2004)	(2004)	(1999)	(1999)	(2000)	(2001)
MIN	0.74	0.97	3.39	2.33	2.67	8.56	14.6
(WY)	(2002)	(2002)	(2002)	(2002)	(2004)	(2001)	(1999)

01079900 SHANNON BROOK NEAR MOULTONBOROUGH, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL TOTAL	4,738.57		4,300.72			
ANNUAL MEAN	13.0		11.8		10.3	
HIGHEST ANNUAL MEAN					12.4	2000
LOWEST ANNUAL MEAN					7.09	2002
HIGHEST DAILY MEAN	144	Dec 18	158	Apr 14	190	Sep 17, 1999
LOWEST DAILY MEAN	0.30	Sep 12	0.72	Sep 6	ab 0.00	Aug 28, 2002
ANNUAL SEVEN-DAY MINIMUM	0.34	Sep 9	0.83	Sep 2	0.00	Sep 9, 2002
MAXIMUM PEAK FLOW			261	Apr 14	333	Sep 17, 1999
MAXIMUM PEAK STAGE			6.82	Apr 14	7.22	Sep 17, 1999
INSTANTANEOUS LOW FLOW			c 0.64	Sep 6	bd 0.00	Aug 27, 2002
ANNUAL RUNOFF (CFSM)	1.86		1.68		1.47	
ANNUAL RUNOFF (INCHES)	25.22		22.89		19.97	
10 PERCENT EXCEEDS	29		28		25	
50 PERCENT EXCEEDS	5.4		5.3		4.9	
90 PERCENT EXCEEDS	0.81		1.4		0.60	

- a Also occurred on September 11-15, 2002.
- b Discharge < 0.01 ft³/s but may have been > 0.00 ft³/s.
- c Also occurred on September 8, 9.
- d Also occurred on August 28, 29, September 10-15, 2002.
- e Estimated.



MERRIMACK RIVER BASIN

01080000 LAKE WINNIPESAUKEE AT WEIRS BEACH, NH

LOCATION.--Lat 43°36'27", long 71°27'34", Belknap County, Hydrologic Unit 01070002, 600 ft east of Weirs Beach Post Office, 1,600 ft north of US Highway 3 bridge across Paugus Bay at Weirs Beach, 4.7 mi southeast of Meredith, and 5.3 mi north of Laconia Post Office.

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

PERIOD OF RECORD.--Gage heights: September 1933 to current year. Prior to November 1937, month end 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). WDR NH-VT-99-1: 1998. WDR NH-VT-02-1: 1988-2001 (datum correction).

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above National Geodetic Vertical Datum of 1929. Prior to November 1937, nonrecording gage at lake outlet at Lakeport at datum 0.55 ft higher. November 24, 1937 to November 7, 1965, water-stage recorder at site 500 ft southeast at datum 0.08 ft lower. November 7, 1965 to September 1987, at water-stage recorder at present site at datum 0.08 ft lower.

REMARKS.--Lake used for recreation and conservation for development of water power. Usable capacity, 7.21 billion ft³ between elevations 500.57 ft and 504.24 ft above National Geodetic Vertical Datum of 1929. Stage regulated at outlet and by Wentworth, Merrymeeting, and other lakes. Capacities given herein are computed from gage height at midnight on last day of month.

Capacity table
furnished by State of New Hampshire, Department of Environmental Services

Gage-height, in feet	Contents, in millions of cubic feet
2.0	13,840
3.0	15,810
4.0	17,800
5.0	19,810

EXTREMES FOR PERIOD OF RECORD.--Maximum daily gage height, 5.94 ft (datum then in use), June 4, 1984; minimum daily gage height, 0.63 ft (datum then in use), December 11, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum daily gage height, 4.44 ft, May 28; minimum daily gage height, 2.46 ft, Feb. 28, 29, Mar. 1-3

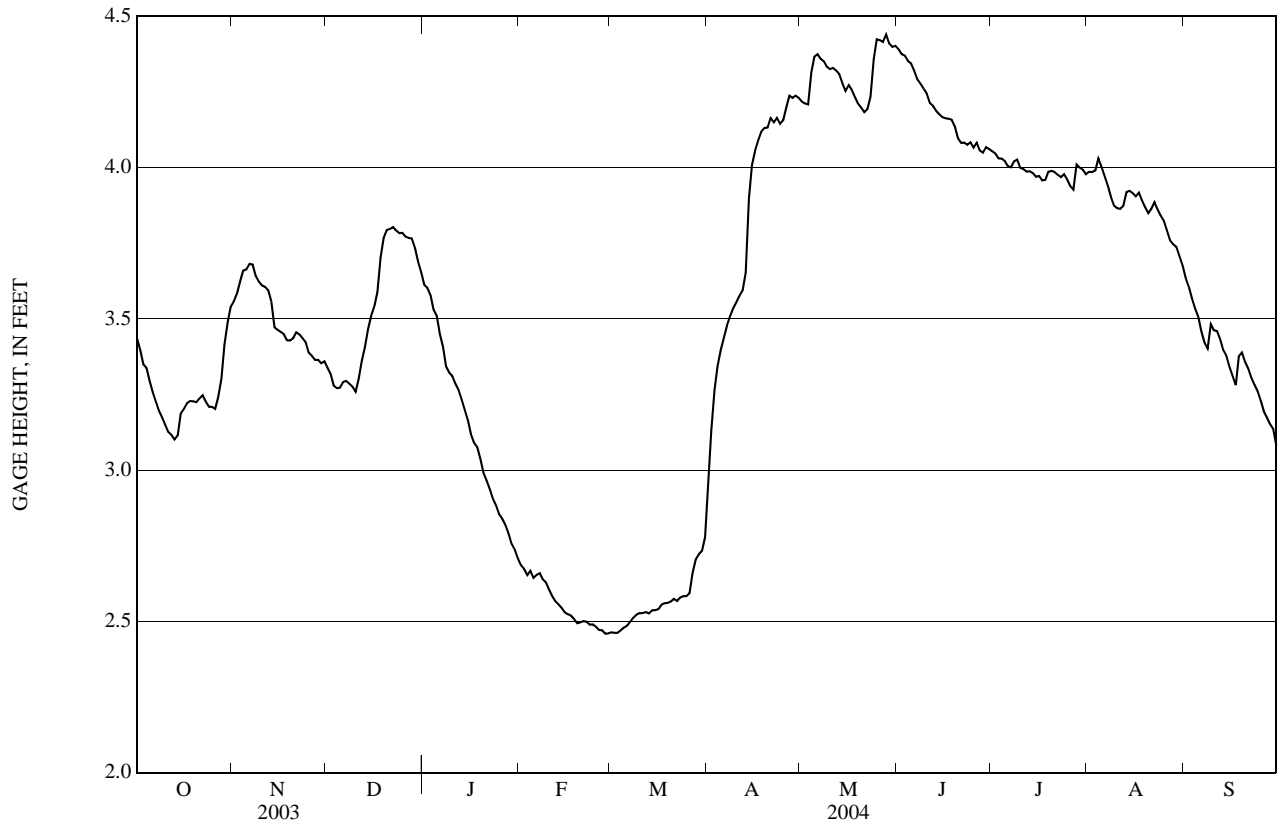
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.43	3.56	3.34	3.61	2.69	2.46	2.96	4.22	4.39	4.05	3.99	3.63
2	3.40	3.58	3.32	3.60	2.67	2.46	3.13	4.21	4.37	4.05	3.99	3.61
3	3.35	3.62	3.28	3.58	2.65	2.46	3.26	4.21	4.37	4.03	3.99	3.57
4	3.34	3.66	3.27	3.53	2.67	2.47	3.34	4.31	4.35	4.03	4.03	3.53
5	3.30	3.66	3.27	3.51	2.64	2.48	3.40	4.37	4.34	4.02	4.00	3.51
6	3.26	3.68	3.29	3.45	2.65	2.49	3.44	4.37	4.32	4.00	3.97	3.46
7	3.23	3.68	3.29	3.41	2.66	2.50	3.48	4.36	4.29	4.00	3.94	3.42
8	3.20	3.64	3.29	3.34	2.64	2.51	3.51	4.35	4.28	4.02	3.90	3.40
9	3.18	3.62	3.28	3.32	2.63	2.52	3.53	4.33	4.26	4.03	3.87	3.48
10	3.15	3.61	3.26	3.31	2.61	2.53	3.55	4.33	4.25	4.00	3.87	3.46
11	3.13	3.61	3.30	3.29	2.58	2.53	3.58	4.33	4.21	4.00	3.86	3.46
12	3.12	3.59	3.36	3.27	2.57	2.53	3.59	4.32	4.20	3.99	3.87	3.43
13	3.10	3.56	3.41	3.23	2.56	2.53	3.65	4.31	4.19	3.99	3.92	3.40
14	3.11	3.47	3.47	3.20	2.55	2.54	3.90	4.28	4.18	3.98	3.92	3.38
15	3.19	3.46	3.51	3.16	2.53	2.54	4.01	4.25	4.17	3.97	3.92	3.34
16	3.20	3.46	3.54	3.12	2.52	2.54	4.06	4.27	4.16	3.97	3.91	3.31
17	3.22	3.45	3.59	3.09	2.52	2.55	4.09	4.26	4.16	3.96	3.92	3.28
18	3.23	3.43	3.70	3.08	2.51	2.56	4.12	4.23	4.16	3.96	3.89	3.38
19	3.23	3.43	3.77	3.04	2.49	2.56	4.13	4.21	4.14	3.99	3.87	3.39
20	3.22	3.44	3.79	2.99	2.50	2.57	4.13	4.20	4.10	3.99	3.85	3.36
21	3.24	3.46	3.80	2.97	2.50	2.57	4.16	4.18	4.08	3.98	3.86	3.34
22	3.25	3.45	3.80	2.94	2.50	2.57	4.15	4.19	4.08	3.98	3.89	3.31
23	3.23	3.44	3.79	2.91	2.49	2.58	4.16	4.23	4.08	3.97	3.86	3.28
24	3.21	3.42	3.78	2.88	2.49	2.58	4.14	4.36	4.08	3.98	3.84	3.26
25	3.21	3.39	3.78	2.85	2.48	2.58	4.16	4.42	4.07	3.96	3.82	3.23
26	3.20	3.38	3.77	2.84	2.47	2.59	4.20	4.42	4.08	3.94	3.79	3.19
27	3.24	3.36	3.77	2.82	2.47	2.66	4.24	4.42	4.06	3.93	3.76	3.17
28	3.30	3.36	3.77	2.79	2.46	2.71	4.23	4.44	4.05	4.01	3.75	3.15
29	3.41	3.35	3.74	2.76	2.46	2.72	4.24	4.41	4.07	4.00	3.74	3.14
30	3.49	3.36	3.69	2.74	---	2.73	4.23	4.40	4.06	3.99	3.71	3.08
31	3.54	---	3.66	2.71	---	2.78	---	4.40	---	3.98	3.68	---
MEAN	3.26	3.51	3.54	3.14	2.56	2.56	3.83	4.31	4.19	3.99	3.88	3.37
MAX	3.54	3.68	3.80	3.61	2.69	2.78	4.24	4.44	4.39	4.05	4.03	3.63
MIN	3.10	3.35	3.26	2.71	2.46	2.46	2.96	4.18	4.05	3.93	3.68	3.08
(†) 16,900	16,600	17,000	15,230	14,780	15,590	18,280	118,620	17,960	17,780	17,140	15,980	
(‡) 60	-116	149	-661	-180	302	1,038	127	-255	-67	-239	-448	
CAL YR 2003	MEAN 3.45	MAX 4.28	MIN 2.22	(†) 52								
WTR YR 2004	MEAN 3.51	MAX 4.44	MIN 2.46	(†)-24								

(†) Capacity in millions of cubic feet at midnight of last day of the month.

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

01080000 LAKE WINNIPESAUKEE AT WEIRS BEACH, NH—Continued



01080500 LAKE WINNIPESAUKEE OUTLET AT LAKEPORT, NH

LOCATION.--Lat 43° 32'57", long 71° 27'54", Belknap County, Hydrologic Unit 01070002, on right bank, 100 ft upstream from Elm Street bridge across Paugus Bay, 150 ft upstream of dam across Paugus Bay, 0.2 mi northwest of Elm Street and US 3 intersection in Lakeport, and 1.4 mi north of Laconia Post Office.

DRAINAGE AREA.--363 mi².

PERIOD OF RECORD.--Discharge records: January 1860 to December 1911 (monthly gage heights only, published in WSP 301), June 1933 to September 1983, October 1987 to September 2004 (discontinued). Precipitation Records: January 1860 to December 1911 (yearly total only, published in WSP 301). Water-quality discrete samples: Water years 1954, 1955, 1978 to 1980, 1998, 1999. Discharge measurements only: Water years 1984 to 1986.

GAGE.--Acoustic velocity meter and measuring flume. Datum of gage is 500.55 ft above National Geodetic Vertical Datum of 1929. January 1860 to December 1911, nonrecording gage at site 150 ft downstream at same datum. June 1, 1933 to September 30, 1936, nonrecording gage and continuous-recording current meter at present site and datum. October 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 to September 1983, record obtained from water-stage recorder, deflection meter, and measuring flume.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow completely regulated by Winnepesaukee (station 01080000), Wentworth, Merrymeeting, and other lakes. Daily discharge computed from the acoustic flowmeter.

COOPERATION.--Records were provided by New Hampshire Department of Environmental Services.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,740 ft³/s, Dec. 25, 26; minimum daily discharge, 24 ft³/s, Oct. 19-21.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	741	592	822	1,710	718	254	99	951	e1,140	255	e296	616
2	740	591	725	1,710	635	254	98	949	e1,140	253	e267	617
3	740	672	727	1,710	572	253	99	813	e1,140	251	151	615
4	740	728	728	1,700	578	246	102	735	e1,140	253	212	613
5	741	726	854	1,580	569	229	158	871	1,120	248	263	610
6	739	734	922	1,480	580	231	226	948	1,080	251	262	612
7	673	737	908	1,480	571	230	231	956	865	254	264	613
8	745	723	913	1,230	570	229	232	961	605	255	264	611
9	746	723	920	1,070	572	232	231	966	795	256	263	607
10	655	728	925	1,080	572	231	231	959	794	255	265	611
11	600	859	927	1,080	569	230	231	859	564	252	263	610
12	594	935	823	1,080	441	144	227	971	348	256	262	610
13	596	936	730	1,080	369	229	224	967	347	253	485	695
14	210	925	733	1,070	368	233	227	987	273	249	613	748
15	30	925	860	1,070	364	232	444	998	261	254	612	752
16	27	926	938	1,070	364	229	588	1,000	261	256	615	757
17	28	928	1,230	1,070	363	228	591	1,000	261	255	618	764
18	27	933	1,340	1,070	278	231	590	871	259	253	617	758
19	24	932	1,350	1,070	252	230	683	792	257	250	616	750
20	24	927	1,350	1,060	255	232	740	694	253	260	616	757
21	24	932	1,350	1,060	252	230	741	643	259	262	614	763
22	199	932	1,450	853	254	227	741	639	256	263	616	761
23	373	929	1,620	722	254	232	740	689	257	263	616	757
24	373	930	1,730	721	254	232	736	868	259	258	617	758
25	377	932	1,740	720	254	230	735	1,060	257	255	618	754
26	376	933	1,740	722	252	231	738	1,140	255	257	620	750
27	489	928	1,730	723	253	232	741	1,140	255	258	621	752
28	579	925	1,730	723	252	230	848	1,140	255	259	621	750
29	573	928	1,730	720	255	165	948	e1,050	253	263	611	744
30	586	929	1,730	720	---	105	952	e1,140	253	264	618	637
31	590	---	1,720	718	---	103	---	e1,140	---	266	617	---
TOTAL	13,959	25,478	36,995	33,872	11,840	6,824	14,172	28,897	15,462	7,937	14,613	20,752
MEAN	450	849	1,193	1,093	408	220	472	932	515	256	471	692
MAX	746	936	1,740	1,710	718	254	952	1,140	1,140	266	621	764
MIN	24	591	725	718	252	103	98	639	253	248	151	607

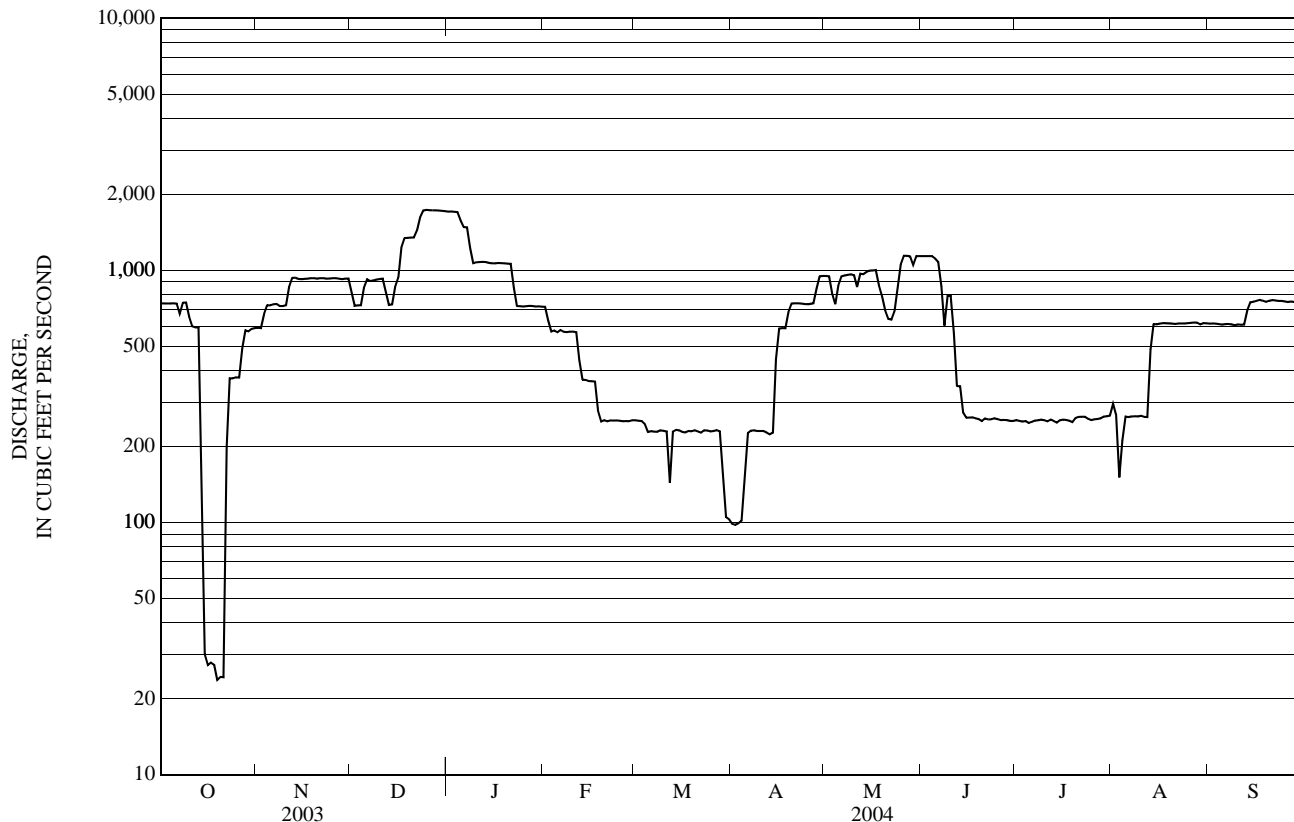
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2004, BY WATER YEAR (WY)

MEAN	329	398	524	695	755	650	707	740	540	391	366	364
MAX	909	993	1,245	1,671	1,672	1,550	2,596	2,074	1,548	1,612	783	868
(WY)	(1978)	(1982)	(1955)	(1955)	(1958)	(1951)	(1936)	(1996)	(1954)	(1998)	(1967)	(1951)
MIN	79.8	149	49.3	40.6	34.2	33.2	92.8	75.2	148	161	185	202
(WY)	(2001)	(1942)	(1942)	(2002)	(2002)	(1942)	(1942)	(1957)	(1957)	(1957)	(1957)	(1957)

01080500 LAKE WINNIPESAUKEE OUTLET AT LAKEPORT, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1933 - 2004	
ANNUAL TOTAL	213,635		230,801		537	
ANNUAL MEAN	585		631		174	
HIGHEST ANNUAL MEAN					858 1973	
LOWEST ANNUAL MEAN					174 1942	
HIGHEST DAILY MEAN	1,740	Dec 25	a 1,740	Dec 25	2,890	Mar 31, 1936
LOWEST DAILY MEAN	b 24	Oct 19	b 24	Oct 19	c 0.00	Sep 29, 1962
ANNUAL SEVEN-DAY MINIMUM	26	Oct 15	26	Oct 15	2.0	Oct 13, 1988
10 PERCENT EXCEEDS	937		1,080		1,080	
50 PERCENT EXCEEDS	564		616		362	
90 PERCENT EXCEEDS	253		231		226	

a Also occurred on December 26.
 b Also occurred on October 20, 21.
 c Dam closed.
 e Estimated.



01081000 WINNIPESAUKEE RIVER AT TILTON, NH

LOCATION.--Lat 43° 26'30", long 71° 35'17", Belknap County, Hydrologic Unit 01070002, on right bank, 150 ft upstream of Bridge/School Street bridge, 300 ft south of Town Hall in Tilton, and 0.3 mi upstream from Packer Brook.

DRAINAGE AREA.--471 mi².

PERIOD OF RECORD.--Discharge records: January 1937 to current year. Water-quality discrete samples: Water years 1953, 1975 to 1978, 1980 to 1999.

REVISED RECORDS.--WSP 1901: 1960.

GAGE.--Water-stage recorder. Datum of gage is 441.87 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by power plants prior to 1967 and by Winnepesaukee (station 01080000), Winnisquam 4.5 mi upstream, Wentworth, Merrymeeting, and other lakes upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,590 ft³/s, Dec. 18, gage height, 6.48 ft; minimum daily discharge, 245 ft³/s, Aug. 10.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	789	1,030	1,120	2,050	771	293	939	1,060	1,350	262	277	577
2	779	964	1,090	2,020	712	306	1,220	1,060	1,260	260	277	586
3	773	971	1,070	2,010	611	331	1,150	1,060	1,270	257	269	605
4	771	991	1,050	1,990	608	341	953	1,310	1,280	254	261	612
5	770	1,000	1,050	1,920	607	336	790	1,640	1,260	256	256	609
6	769	1,030	1,060	1,800	611	348	673	1,430	1,240	254	253	606
7	768	998	1,060	1,740	614	367	468	1,220	1,180	250	251	610
8	765	956	1,050	1,600	e610	378	429	1,070	997	259	250	614
9	763	934	1,060	e1,250	609	416	419	1,050	870	282	248	642
10	761	934	1,060	e1,150	607	409	410	1,050	873	279	245	675
11	758	1,050	1,110	e1,130	606	406	406	1,050	714	265	247	766
12	772	1,080	1,290	1,140	527	376	448	1,050	380	256	247	752
13	825	1,090	1,280	1,170	406	319	596	1,040	335	254	e330	746
14	549	1,070	1,160	e1,180	397	305	936	1,030	327	258	499	756
15	267	1,060	1,210	e1,170	e395	301	1,040	1,030	307	298	524	754
16	324	1,060	1,410	e1,160	e393	302	1,030	1,050	274	345	529	751
17	364	1,060	1,530	e1,150	e388	301	958	1,040	273	303	554	750
18	307	1,060	2,300	1,150	356	295	918	1,050	272	284	592	856
19	285	1,060	2,430	1,150	300	294	891	1,080	272	296	608	943
20	264	1,110	2,200	1,150	296	292	877	979	269	295	612	869
21	257	1,140	1,980	1,140	297	297	865	806	264	282	639	815
22	246	1,110	1,920	1,020	296	302	845	795	263	270	684	790
23	261	1,090	1,890	e815	295	294	856	835	263	269	664	778
24	291	1,080	1,940	e805	292	294	872	1,030	260	276	627	770
25	295	1,070	2,160	e800	290	297	863	1,440	261	272	611	766
26	292	1,070	2,270	e785	289	318	962	1,720	275	265	597	762
27	408	1,070	2,210	783	287	406	1,160	1,760	274	324	573	757
28	785	1,080	2,140	781	287	447	1,150	1,670	267	565	569	759
29	1,240	1,130	2,110	779	288	455	1,100	1,510	266	600	571	758
30	1,530	1,140	2,090	778	---	457	1,080	1,450	265	459	569	684
31	1,350	---	2,070	773	---	541	---	1,400	---	294	568	---
TOTAL	19,378	31,488	49,370	38,339	13,045	10,824	25,304	36,765	17,661	9,343	14,001	21,718
MEAN	625	1,050	1,593	1,237	450	349	843	1,186	589	301	452	724
MAX	1,530	1,140	2,430	2,050	771	541	1,220	1,760	1,350	600	684	943
MIN	246	934	1,050	773	287	292	406	795	260	250	245	577

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2004, BY WATER YEAR (WY)

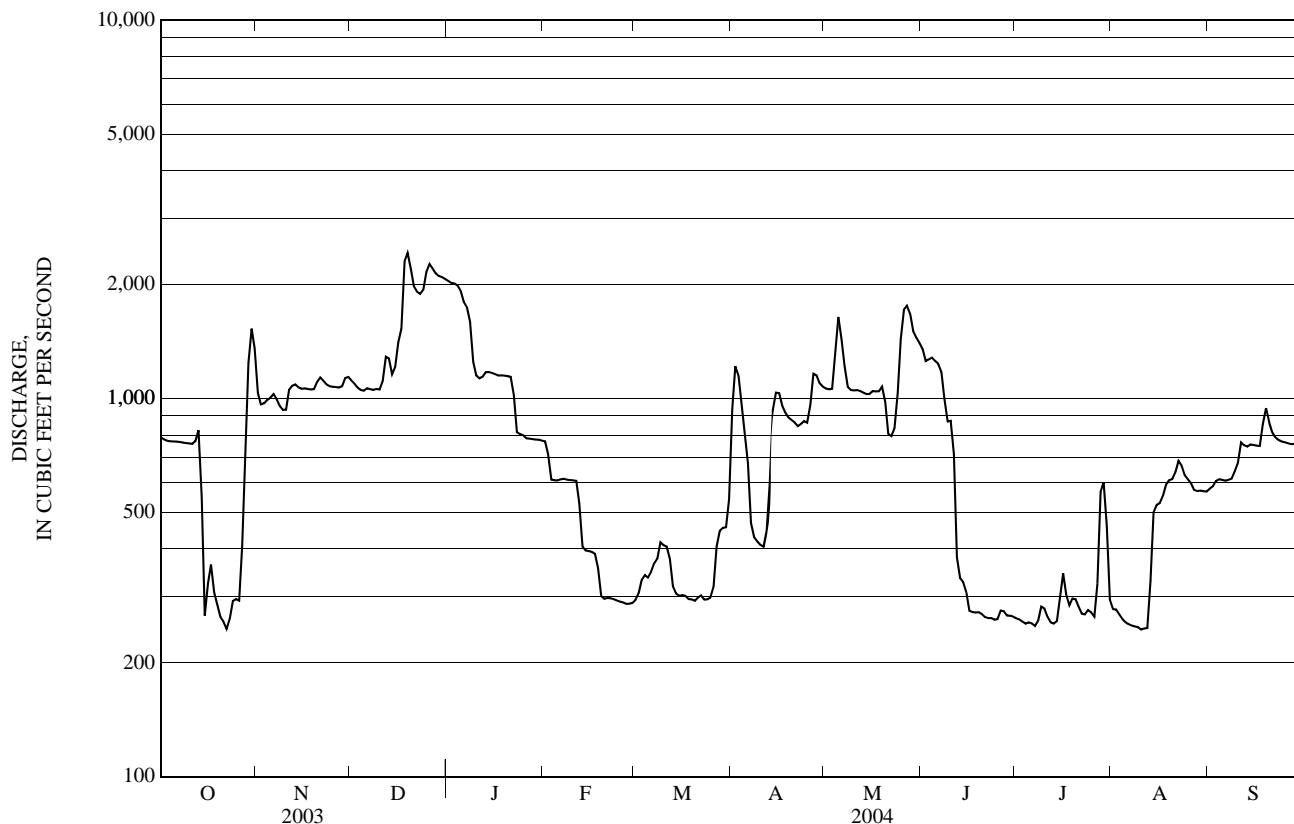
MEAN	419	520	715	840	903	945	1,151	967	707	457	408	406
MAX	1,257	1,304	2,209	1,855	1,889	2,043	2,745	2,605	2,821	1,922	897	954
(WY)	(1978)	(1976)	(1984)	(1952)	(1958)	(1983)	(1953)	(1954)	(1984)	(1998)	(1986)	(1938)
MIN	201	205	136	90.5	89.8	337	376	217	201	179	181	182
(WY)	(2002)	(2002)	(1942)	(2002)	(2002)	(2002)	(2002)	(1957)	(1957)	(1957)	(1957)	(1957)

01081000 WINNIPESAUKEE RIVER AT TILTON, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1937 - 2004	
ANNUAL TOTAL	275,154		287,236			
ANNUAL MEAN	754		785		699	
HIGHEST ANNUAL MEAN					1,229	1984
LOWEST ANNUAL MEAN					304	1965
HIGHEST DAILY MEAN	2,430	Dec 19	2,430	Dec 19	4,480	May 31, 1984
LOWEST DAILY MEAN	212	Jul 21	245	Aug 10	a 48	Aug 31, 1941
ANNUAL SEVEN-DAY MINIMUM	215	Jul 25	249	Aug 6	52	Oct 26, 2000
MAXIMUM PEAK FLOW			2,590	Dec 18	4,580	May 31, 1984
MAXIMUM PEAK STAGE			6.48	Dec 18	8.68	May 31, 1984
10 PERCENT EXCEEDS	1,240		1,320		1,410	
50 PERCENT EXCEEDS	683		758		528	
90 PERCENT EXCEEDS	246		269		261	

a Also occurred on November 9, 2000.

e Estimated.



01081500 MERRIMACK RIVER AT FRANKLIN JUNCTION, NH

LOCATION.--Lat 43° 25' 22", long 71° 39' 12", Merrimack County, Hydrologic Unit 01070002, on right bank at Franklin Junction, 1 mi downstream from confluence of Pemigewasset and Winnepesaukee Rivers, 1.5 mi south of Post Office in Franklin, and 3.5 mi southwest of southwest of Town Hall in Tilton.

DRAINAGE AREA.--1,507 mi².

PERIOD OF RECORD.--Discharge: August 1903 to December 1903, April 1904 to September 1904, November 1904, April 1905 to September 1978, October 2001 to current year. Partial-record station: October 1978 to September 2001. Peak streamflow: Water years 1904 to 1978, 1983 to current year. Miscellaneous discharge measurements only: Water years 1979 to 1984, 1990 to 2001. Water-quality records: Water years 1954-55.

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

GAGE.--Water-stage recorder. Datum of gage is 250.4 ft above National Geodetic Vertical Datum of 1929, unadjusted. Prior to September 13, 1923, nonrecording gage at bridge 350 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by power plants, by Franklin Falls Reservoir (4 mi upstream) since 1942, and by Squam, Little Squam, Newfound, Winnepesaukee, Winnisquam, Wentworth, Merrymeeting, and other lakes and reservoirs in the Merrimack River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 83,000 ft³/s, March 19, 1936, gage height 36.4 ft, from floodmarks, from rating curve extended above 30,000 ft³/s on basis of slope-area measurement and computation of flow over dam at gage height 29.5 ft and velocity-area study; minimum daily, 150 ft³/s, October 4, 1903. Maximum discharge since construction of Franklin Falls Reservoir in 1942, 22,400 ft³/s, April 4, 1951, gage height 16.34 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,600 ft³/s, Oct. 30, gage height, 12.87 ft; minimum daily discharge, 651 ft³/s, Aug. 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,100	8,880	6,210	5,900	e1,650	836	6,610	3,490	3,880	814	1,030	3,880
2	2,620	6,090	4,950	5,860	e1,500	889	7,820	3,790	3,830	839	1,440	2,040
3	2,370	5,600	4,290	5,160	1,440	1,330	7,850	3,940	4,110	821	1,000	1,890
4	2,410	5,680	3,660	4,900	1,450	1,870	9,750	6,140	4,210	809	1,130	1,310
5	2,420	5,630	3,460	5,130	1,330	1,690	10,200	7,820	3,860	763	885	1,310
6	2,660	5,620	3,170	4,870	1,370	1,660	6,560	6,300	3,230	727	795	1,220
7	2,030	5,470	3,030	4,430	1,420	2,040	4,380	5,170	2,910	878	884	1,190
8	2,160	4,730	3,100	e3,900	1,440	2,050	3,840	4,370	2,470	827	805	1,180
9	1,930	4,190	e3,100	e2,850	e1,350	2,100	3,230	3,930	2,230	1,530	709	1,930
10	1,760	3,710	2,950	e3,350	1,510	1,710	3,210	3,640	2,300	4,020	661	3,640
11	1,740	3,610	3,470	e2,900	1,460	1,610	3,040	3,030	2,090	2,550	651	4,530
12	1,770	3,520	9,070	3,070	e1,300	1,300	2,970	3,080	1,440	1,420	670	2,750
13	1,940	3,750	11,000	2,050	1,210	1,550	3,290	2,790	1,480	1,010	1,440	2,080
14	1,910	5,420	6,830	e2,800	1,300	1,550	6,320	2,640	1,320	1,180	2,200	1,650
15	2,920	4,270	4,920	e2,650	e1,050	1,220	9,890	2,610	1,200	1,090	1,770	1,680
16	7,450	3,880	5,160	e2,500	e980	1,480	7,380	2,620	977	1,300	1,160	1,500
17	5,470	3,620	5,530	e2,500	e1,050	1,270	5,550	3,000	1,030	1,050	1,700	1,410
18	3,640	3,450	11,200	e2,550	e1,000	1,220	4,850	2,630	994	1,090	2,240	2,910
19	3,170	3,630	15,100	e2,500	e970	1,210	5,150	2,520	949	1,130	1,470	3,170
20	2,430	5,730	14,200	e2,500	944	1,170	5,360	2,800	888	1,160	1,380	2,720
21	1,900	11,000	11,500	e2,450	1,080	1,210	5,760	2,260	953	1,060	1,710	2,150
22	2,900	8,610	8,200	e2,300	1,090	1,220	4,410	2,020	896	1,000	2,070	1,710
23	2,630	5,930	6,950	e2,100	994	1,180	3,960	3,110	852	959	2,200	1,730
24	2,530	4,920	6,740	e2,000	893	1,200	4,120	5,870	894	1,350	1,460	1,730
25	2,150	4,540	9,910	e1,950	895	1,190	3,610	9,710	950	1,520	1,270	1,340
26	2,190	4,090	14,300	e1,900	887	1,210	3,630	8,560	1,040	1,150	1,260	1,680
27	4,120	3,700	11,800	e1,800	e840	2,410	5,190	7,130	869	1,700	1,330	1,370
28	10,500	3,720	8,880	e1,600	806	5,800	4,950	6,170	855	1,770	1,080	1,430
29	13,800	5,980	7,430	e1,650	847	5,380	4,340	6,250	917	1,260	1,130	1,410
30	15,000	8,480	6,800	e1,700	---	4,070	3,710	5,900	946	1,300	1,180	1,260
31	12,900	---	6,070	e1,700	---	5,510	---	4,720	---	1,050	3,030	---
TOTAL	126,520	157,450	222,980	93,520	34,056	60,135	160,930	138,010	54,370	39,127	41,740	59,800
MEAN	4,081	5,248	7,193	3,017	1,174	1,940	5,364	4,452	1,812	1,262	1,346	1,993
MAX	15,000	11,000	15,100	5,900	1,650	5,800	10,200	9,710	4,210	4,020	3,030	4,530
MIN	1,740	3,450	2,950	1,600	806	836	2,970	2,020	852	727	651	1,180
CFSM	2.71	3.48	4.77	2.00	0.78	1.29	3.56	2.95	1.20	0.84	0.89	1.32
IN.	3.12	3.89	5.50	2.31	0.84	1.48	3.97	3.41	1.34	0.97	1.03	1.48

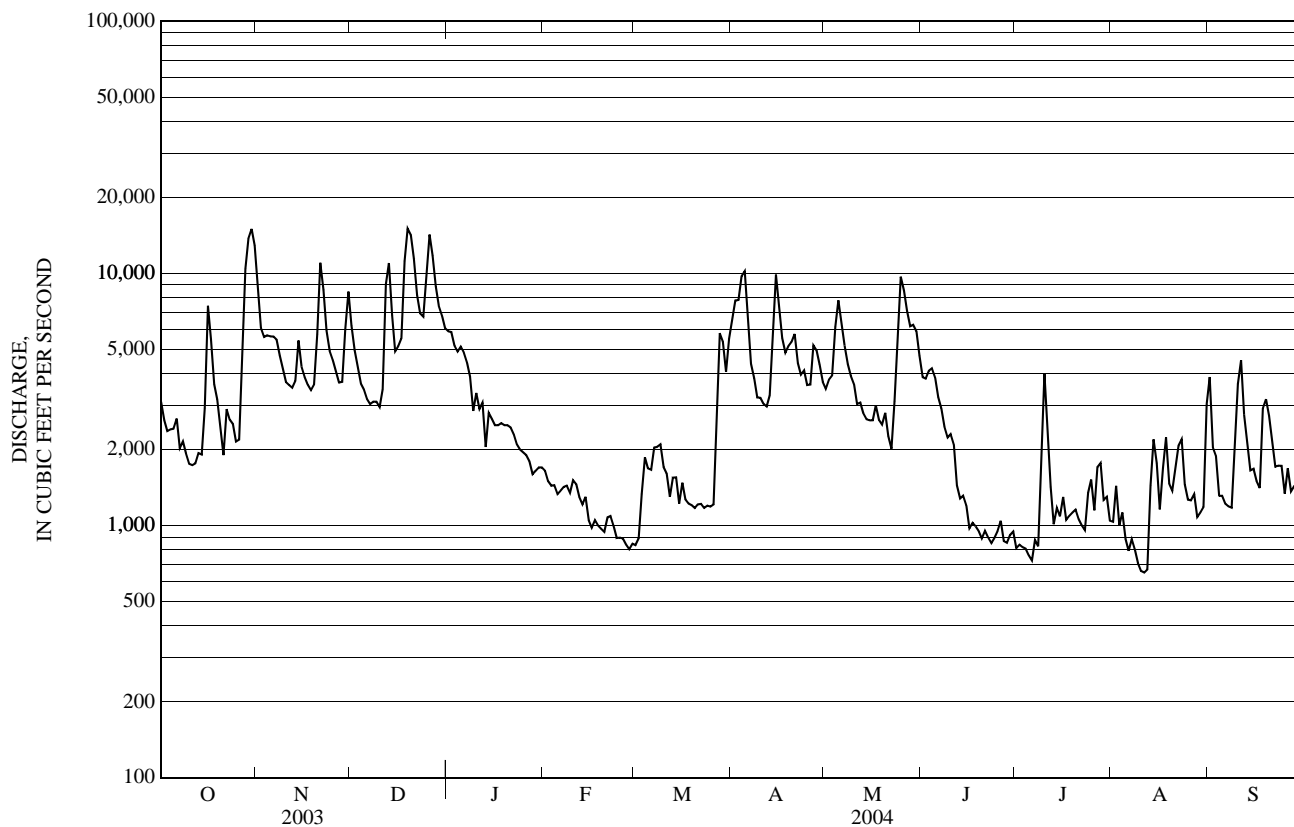
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1978, 2002 - 2004, BY WATER YEAR (WY)

MEAN	1,805	2,394	2,433	2,113	2,041	3,439	7,043	4,987	2,521	1,566	1,319	1,457
MAX	5,919	7,416	7,193	5,085	4,834	15,650	12,960	9,898	7,709	7,938	3,133	6,810
(WY)	(1978)	(1928)	(2004)	(1978)	(1970)	(1936)	(1969)	(1937)	(1922)	(1973)	(1915)	(1938)
MIN	545	806	759	637	754	921	3,255	1,665	947	713	517	523
(WY)	(1962)	(1953)	(1948)	(2002)	(1940)	(1940)	(1957)	(1941)	(1964)	(1953)	(1965)	(2002)

01081500 MERRIMACK RIVER AT FRANKLIN JUNCTION, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1903 - 78, 2003 - 04	
ANNUAL TOTAL	1,213,343		1,188,638		2,759	
ANNUAL MEAN	3,324		3,248		4,184	
HIGHEST ANNUAL MEAN					1,381	
LOWEST ANNUAL MEAN					1,381	
HIGHEST DAILY MEAN	15,100	Dec 19	15,100	Dec 19	73,700	Mar 19, 1936
LOWEST DAILY MEAN	577	Jul 10	651	Aug 11	150	Oct 4, 1903
ANNUAL SEVEN-DAY MINIMUM	632	Jul 5	739	Aug 6	406	Oct 8, 1964
MAXIMUM PEAK FLOW			15,600	Oct 30	a 83,000	Mar 19, 1936
MAXIMUM PEAK STAGE			12.87	Oct 30	b 36.40	Mar 19, 1936
ANNUAL RUNOFF (CFSM)	2.21		2.16		1.83	
ANNUAL RUNOFF (INCHES)	29.95		29.34		24.88	
10 PERCENT EXCEEDS	7,100		6,580		5,820	
50 PERCENT EXCEEDS	2,300		2,340		1,780	
90 PERCENT EXCEEDS	850		957		869	

a From rating curve extended above 30,000 ft³/s as explained above.
 b From floodmarks.
 e Estimated.



01082000 CONTOOCOOK RIVER AT PETERBOROUGH, NH

LOCATION.--Lat 42°51'45", long 71°57'35", Hillsborough County, Hydrologic Unit 01070003, on left bank, 1,200 ft downstream from mill dam, 0.3 mi northwest of Noone, 1.2 mi south of Town Hall in Peterborough, and 1.3 mi upstream from Nubanusit Brook.

DRAINAGE AREA.--68.1 mi².

PERIOD OF RECORD.--Discharge records: July 1945 to September 1977, October 2001 to current year. Partial-record station: October 1978 to September 2001. Peak streamflow: Water years 1938, 1946 to current. Water-quality discrete samples: Water years 1974 to 1977, 1985 to 1999. Miscellaneous discharge measurements only: Waters years 1978, 1980 to 1986, 1989 to 2001.

GAGE.--Water-stage recorder. Elevation of gage is 720 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated discharges, which are poor. Flow slightly regulated by mill and reservoirs upstream; regulation greater prior to 1965.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,860 ft³/s, April 6, 1987, gage height 6.62 ft; maximum gage height, 6.82 ft, from peak-stage indicator, about January 29, 1976 (ice jam); minimum daily discharge, 0.8 ft³/s, September 15, 16, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1938 reached a stage of about 15 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1715	792	3.74	Apr 14	0715	927	3.92
Dec 18	0445	1,060	4.19	Sep 18	1515	940	3.94
Apr 2	0230	*3,210	*6.13				

Minimum daily discharge, 5.8 ft³/s, Aug. 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	272	133	201	e53	73	1,190	178	133	21	29	24
2	84	206	115	182	e42	71	2,460	158	124	29	27	22
3	52	205	101	178	e66	123	1,280	152	122	27	24	21
4	41	194	93	193	59	146	827	240	94	24	22	20
5	60	180	e88	200	46	150	643	224	107	33	36	18
6	51	203	80	188	65	156	455	188	70	28	21	16
7	44	188	e94	e161	e67	202	349	160	79	16	18	15
8	41	151	e95	e149	60	182	287	135	70	16	16	16
9	46	127	e92	e131	53	149	240	122	68	55	15	59
10	41	117	92	e122	65	126	205	119	160	39	14	77
11	25	e108	147	e112	64	118	179	98	120	35	9.7	49
12	33	109	320	e111	63	99	160	96	95	30	5.8	53
13	53	124	e239	e113	54	100	213	87	64	28	10	52
14	28	125	e185	e109	42	94	819	85	77	28	14	47
15	99	109	e185	e102	67	82	721	83	58	28	17	17
16	122	98	176	e94	e60	73	516	154	e49	26	22	13
17	107	92	e250	e89	e49	94	372	107	44	24	45	26
18	62	86	e905	e87	24	78	290	96	47	22	35	535
19	70	87	e700	e83	e42	63	240	225	46	31	28	515
20	79	147	e500	e82	56	65	202	129	42	35	27	344
21	56	183	e340	e77	52	87	175	103	39	28	155	215
22	43	168	e240	e76	46	91	157	93	38	25	138	158
23	50	147	e190	e74	23	81	177	98	38	22	92	123
24	56	131	e293	e67	e26	77	197	170	35	22	75	95
25	52	123	e402	e65	e49	83	167	362	e22	21	e55	80
26	51	112	e448	e59	e44	118	241	293	38	19	48	67
27	74	98	e393	e43	e23	284	405	312	38	18	40	56
28	202	98	e303	e50	40	319	337	276	30	43	35	60
29	529	112	e255	e55	60	252	255	235	46	39	31	115
30	554	129	e240	e40	---	205	209	183	35	32	28	119
31	396	---	224	e51	---	256	---	150	---	28	27	---
TOTAL	3,290	4,229	7,918	3,344	1,460	4,097	13,968	5,111	2,028	872	1,159.5	3,027
MEAN	106	141	255	108	50.3	132	466	165	67.6	28.1	37.4	101
MAX	554	272	905	201	67	319	2,460	362	160	55	155	535
MIN	25	86	80	40	23	63	157	83	22	16	5.8	13
CFSM	1.56	2.07	3.75	1.58	0.74	1.94	6.84	2.42	0.99	0.41	0.55	1.48
IN.	1.80	2.31	4.33	1.83	0.80	2.24	7.63	2.79	1.11	0.48	0.63	1.65

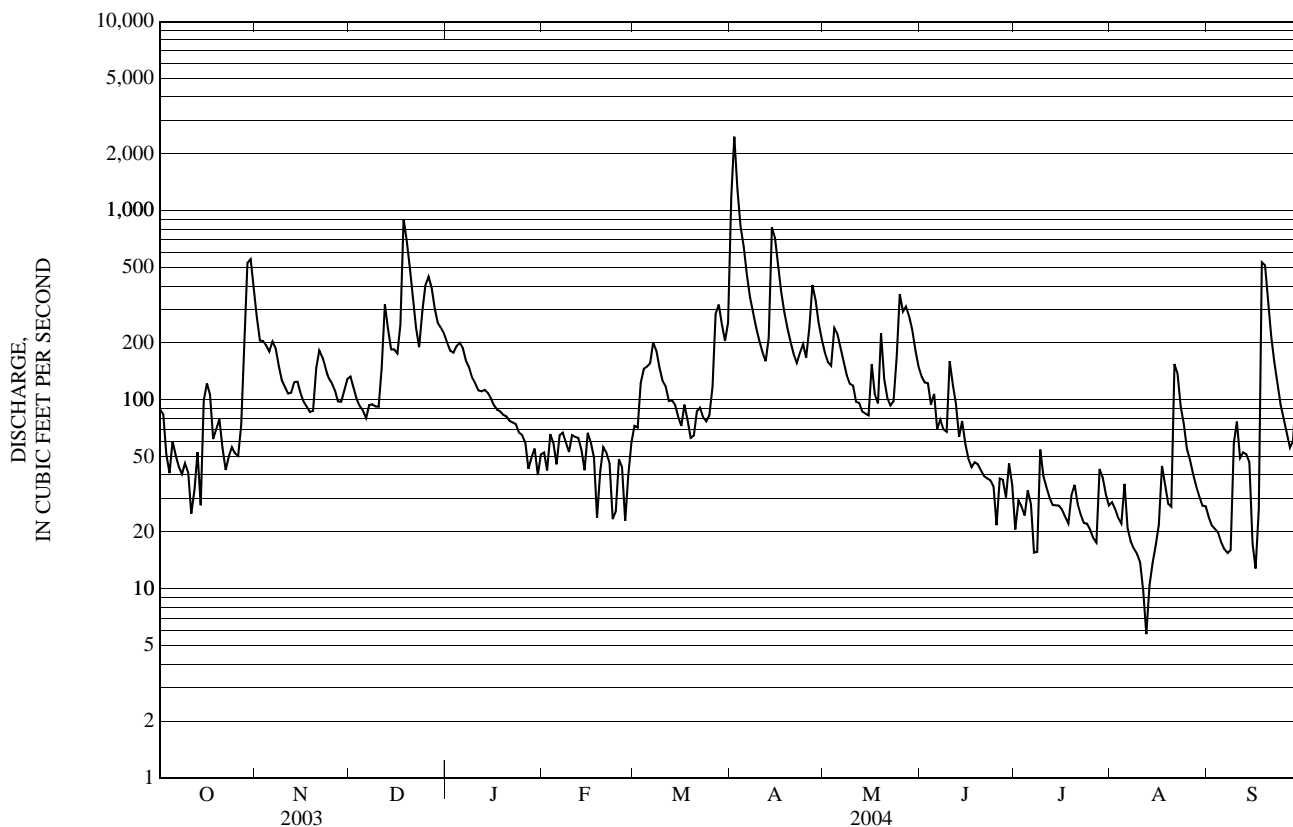
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1977, 2002 - 2004, BY WATER YEAR (WY)

	53.4	98.7	120	106	110	200	335	164	92.7	42.7	37.5	42.9
MEAN												
MAX	266	317	335	306	334	419	601	294	215	120	127	203
(WY)	(1956)	(1956)	(1974)	(1956)	(1970)	(1953)	(1960)	(1967)	(1948)	(1973)	(1969)	(1954)
MIN	9.79	13.5	29.4	24.1	29.6	45.1	139	50.7	18.1	13.0	7.73	7.65
(WY)	(1964)	(1965)	(1965)	(1977)	(1965)	(1965)	(1965)	(1965)	(1964)	(1966)	(1957)	(2002)

01082000 CONTOOCOOK RIVER AT PETERBOROUGH, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1945 - 77, 2002 - 04	
ANNUAL TOTAL	54,715		50,503.5		117	
ANNUAL MEAN	150		138		184	
HIGHEST ANNUAL MEAN					1960	
LOWEST ANNUAL MEAN					34.1	
HIGHEST DAILY MEAN	1,140	Mar 30	2,460	Apr 2	2,460	Apr 2, 2004
LOWEST DAILY MEAN	14	Jul 14	5.8	Aug 12	a 0.80	Sep 15, 1953
ANNUAL SEVEN-DAY MINIMUM	16	Jul 10	12	Aug 8	4.7	Sep 20, 1953
MAXIMUM PEAK FLOW			3,210	Apr 2	3,210	Apr 2, 2004
MAXIMUM PEAK STAGE			6.13	Apr 2	bc 6.82	Jan 29, 1976
ANNUAL RUNOFF (CFSM)	2.20		2.03		1.71	
ANNUAL RUNOFF (INCHES)	29.89		27.59		23.27	
10 PERCENT EXCEEDS	322		278		274	
50 PERCENT EXCEEDS	95		87		69	
90 PERCENT EXCEEDS	21		24		15	

- a Also occurred on September 16, 1953.
- b From peak-stage indicator.
- c About. Ice jam.
- e Estimated.



01085500 CONTOOCOOK RIVER BELOW HOPKINTON DAM, AT WEST HOPKINTON, NH

LOCATION.--Lat 43° 11'34", long 71° 44'52", Merrimack County, Hydrologic Unit 01070003, on right bank, 400 ft downstream from covered bridge at West Hopkinton, 0.2 mi downstream from Hopkinton Dam, 2.6 mi southwest of State Highways 103 and 127 intersection in Contoocook, 3.6 mi west of State Highway 103 and US 202 intersection in Hopkinton, and 6.0 mi upstream from Warner River.

DRAINAGE AREA.--427 mi².

PERIOD OF RECORD.--Discharge records: August 1903 to April 1907 (monthly discharges only, no winter records, published as "at West Hopkinton"), August 1963 to September 1989, October 2001 to current year. Partial-record station: October 1989 to September 30, 2001. Peak streamflow: Water years 1964 to current year. Miscellaneous discharge measurements only: Water years 1990-2001. Water-quality discrete samples: Water years 1965, 1967 to 1970, 1975 to 1999.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 355 ft above National Geodetic Vertical Datum of 1929, from topographic map. August 1903 to April 1907, nonrecording gage at site 400 ft upstream at different datum.

REMARKS.--Records fair. Flow regulated by power plants and by Nubanusit Lake, Edward Macdowell Reservoir since 1950, Highland Lake, Lake Franklin Pierce, Hopkinton Lake since 1962 (Reservoirs in Merrimack River basin), and other reservoirs upstream. Diversion from Hopkinton Lake to Everett Lake on Piscataquog River during periods of high flow in March 1968, April 1969, March 1977, March 1979, May-June 1984, April 1987, and March-April 2003.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,530 ft³/s, April 8, 1987, gage height, 10.89 ft; minimum daily discharge, 15 ft³/s, July 22, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,820 ft³/s, Apr. 4, gage height, 9.00 ft; minimum daily discharge, 56 ft³/s, Aug. 2.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	437	1,900	841	1,560	284	271	1,840	953	1,100	187	379	139
2	400	1,650	878	1,450	285	374	1,650	802	839	238	427	119
3	448	1,480	855	1,350	353	405	3,610	700	711	231	404	120
4	372	1,360	719	1,330	369	517	5,240	788	665	193	319	115
5	340	1,310	587	1,370	358	664	5,760	1,020	698	121	378	91
6	321	1,290	546	1,360	354	770	5,570	1,040	576	116	250	91
7	299	1,280	543	e1,230	357	1,020	5,280	873	505	101	126	96
8	289	1,200	629	e960	286	1,210	4,900	680	485	96	114	201
9	359	1,040	682	e980	294	1,090	4,340	550	464	164	90	257
10	230	830	664	e920	285	859	2,600	473	405	308	82	682
11	273	832	713	916	277	712	2,060	453	486	299	78	480
12	198	811	1,390	907	276	664	1,780	436	529	251	56	367
13	223	807	1,840	884	368	686	1,710	390	440	251	79	393
14	312	731	1,630	e800	340	533	3,140	412	314	254	78	404
15	457	617	1,540	661	265	518	3,830	401	371	254	113	358
16	977	574	1,410	518	249	477	3,560	360	273	243	102	287
17	774	515	1,330	621	175	569	2,940	329	255	197	180	406
18	567	503	2,940	580	151	451	2,320	429	258	117	176	809
19	415	463	3,700	549	258	500	1,850	477	289	101	159	2,080
20	377	654	3,700	534	257	447	1,520	488	261	198	202	2,320
21	422	1,180	3,460	449	332	444	1,220	477	272	283	311	1,770
22	476	967	2,720	447	257	519	1,020	450	279	249	858	1,680
23	439	850	2,170	428	251	453	933	540	231	231	867	1,240
24	441	882	1,840	396	227	427	1,090	1,000	175	175	460	902
25	423	771	1,780	375	163	416	1,150	1,460	138	118	585	719
26	402	679	2,390	385	152	461	1,060	1,820	140	105	483	630
27	399	617	2,690	456	220	760	1,390	1,830	147	103	269	424
28	634	583	2,760	382	269	1,500	1,650	1,870	142	362	257	336
29	954	704	2,650	372	252	1,690	1,600	1,940	149	500	268	423
30	2,200	862	2,350	376	---	1,640	1,320	1,760	141	479	256	401
31	2,450	---	1,860	368	---	1,480	---	1,320	---	388	225	---
TOTAL	17,308	27,942	53,807	23,914	7,964	22,527	77,933	26,521	11,738	6,913	8,631	18,340
MEAN	558	931	1,736	771	275	727	2,598	856	391	223	278	611
MAX	2,450	1,900	3,700	1,560	369	1,690	5,760	1,940	1,100	500	867	2,320
MIN	198	463	543	368	151	271	933	329	138	96	56	91

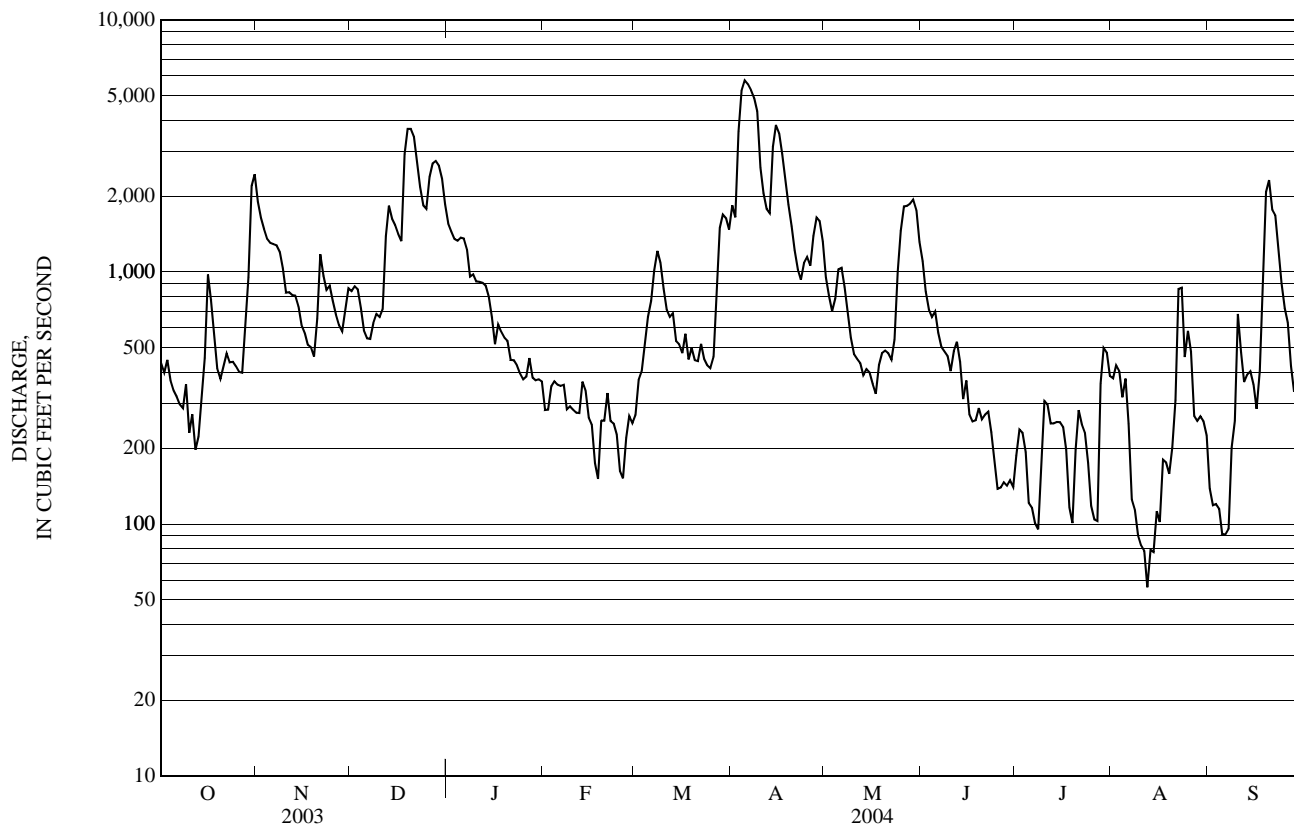
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1989, 2002 - 2004, BY WATER YEAR (WY)

MEAN	353	593	771	566	680	1,240	1,987	988	556	271	219	215
MAX	1,415	1,322	1,856	1,555	2,016	2,724	3,596	1,839	1,468	1,036	798	611
(WY)	(1976)	(1976)	(1974)	(1978)	(1984)	(1979)	(1987)	(1972)	(1984)	(1973)	(1986)	(2004)
MIN	61.0	88.8	175	110	163	363	521	330	105	61.4	43.0	48.4
(WY)	(1965)	(1965)	(1965)	(1981)	(1977)	(1965)	(1985)	(1985)	(1964)	(1978)	(1983)	(1983)

01085500 CONTOOCCOOK RIVER BELOW HOPKINTON DAM, AT WEST HOPKINTON, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1963 - 89, 2002 - 04	
ANNUAL TOTAL	306,193		303,538			
ANNUAL MEAN	839		829		702	
HIGHEST ANNUAL MEAN					1,067	1973
LOWEST ANNUAL MEAN					229	1965
HIGHEST DAILY MEAN	6,050	Apr 3	5,760	Apr 5	7,500	Apr 9, 1987
LOWEST DAILY MEAN	37	Jul 31	56	Aug 12	15	Jul 22, 1965
ANNUAL SEVEN-DAY MINIMUM	62	Jul 26	82	Aug 9	24	Jul 12, 1965
MAXIMUM PEAK FLOW			5,820	Apr 4	7,530	Apr 8, 1987
MAXIMUM PEAK STAGE			9.00	Apr 4	10.89	Apr 8, 1987
10 PERCENT EXCEEDS	2,030		1,840		1,750	
50 PERCENT EXCEEDS	480		478		417	
90 PERCENT EXCEEDS	107		164		98	

e Estimated.



01085800 WEST BRANCH WARNER RIVER NEAR BRADFORD, NH

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 Fairgrounds Road bridge, 3.5 mi west of Bradford, 4.0 mi west of State Highway 103 and 114 intersection near Bradford, and 4.3 mi south of Newbury.

DRAINAGE AREA.--5.75 mi².

PERIOD OF RECORD.--Discharge records: May 1962 to September 2004 (discontinued).

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 935 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those below 1 ft³/s, which are fair, and those for Oct. 1-14 and estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 15	0930	171	6.37	Dec 17	2345	354	7.40
Oct 27	2315	183	6.45	Apr 2	0115	314	7.21
Oct 29	1215	*358	*7.42	Apr 14	0115	273	7.00
Dec 11	2030	196	6.54				

Minimum discharge, 0.56 ft³/s, July 8 and Sept. 7, gage height, 3.50 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	22	19	19	e3.4	e3.4	166	10	9.5	1.1	8.2	0.85
2	6.4	18	16	17	e3.4	6.7	156	9.5	10	2.2	4.9	0.78
3	5.4	21	13	17	e3.3	15	55	9.6	8.9	1.3	2.7	0.71
4	5.2	20	13	24	e3.6	12	46	23	8.0	1.0	3.0	0.69
5	6.1	25	11	23	e3.8	11	46	16	6.4	1.2	1.8	0.67
6	4.9	27	11	19	e3.7	27	26	13	5.4	1.4	1.4	0.68
7	4.4	19	e10	15	e3.9	e24	21	10	5.0	1.0	1.2	0.69
8	3.8	16	e10	13	e3.9	14	18	8.6	4.2	1.2	1.1	1.6
9	3.4	13	10	11	e3.6	9.7	16	7.9	4.3	4.1	0.95	34
10	3.1	13	10	11	e3.6	8.0	14	7.4	7.9	2.0	0.82	19
11	3.0	12	71	10	e3.6	e7.9	12	7.8	4.6	1.3	0.90	8.2
12	3.1	13	76	11	e3.4	e8.1	11	6.6	3.4	1.1	1.2	4.9
13	4.2	15	29	e9.6	e3.5	7.7	49	5.7	2.9	1.4	2.0	3.4
14	3.8	13	21	e8.1	e3.5	6.8	127	5.0	2.7	2.1	2.6	2.6
15	64	11	e20	e7.1	e3.3	6.9	39	4.7	2.5	2.9	1.6	2.2
16	31	10	18	e6.6	e3.2	6.5	23	5.1	2.1	3.8	3.2	2.0
17	18	10	65	e6.4	e3.1	6.1	17	4.5	2.0	2.2	4.7	1.9
18	14	9.9	153	e6.6	e3.0	5.6	15	4.8	2.0	1.5	2.5	55
19	13	13	42	e6.4	e3.1	5.3	13	10	1.9	2.6	1.9	28
20	12	50	28	e5.9	e3.0	5.2	13	5.9	1.6	2.7	1.6	13
21	13	26	22	e5.4	e3.1	e5.4	11	4.6	1.4	1.7	7.6	8.4
22	15	18	20	e5.2	e3.0	e5.4	9.9	4.4	1.4	1.2	7.5	6.1
23	14	15	19	e4.9	e2.9	e5.3	12	18	1.6	1.5	3.6	4.5
24	13	14	48	e4.5	e2.9	5.3	12	46	1.1	2.2	2.4	3.5
25	12	14	92	e4.0	e2.9	6.4	9.6	40	1.1	1.4	1.8	3.1
26	13	12	43	e3.7	e2.8	18	26	26	3.0	1.0	1.5	2.7
27	61	12	28	e3.6	e2.8	95	28	23	2.3	1.7	1.3	2.3
28	69	14	23	e3.7	e3.0	59	18	29	1.4	13	1.1	2.8
29	152	56	21	e3.8	e3.4	35	13	23	1.7	5.9	1.0	3.4
30	52	25	24	e3.7	---	26	11	14	1.4	3.3	0.91	2.8
31	28	---	23	e3.6	---	46	---	10	---	2.3	0.89	---
TOTAL	658.5	556.9	1,009	292.8	95.7	503.7	1,033.5	413.1	111.7	73.3	77.87	220.47
MEAN	21.2	18.6	32.5	9.45	3.30	16.2	34.5	13.3	3.72	2.36	2.51	7.35
MAX	152	56	153	24	3.9	95	166	46	10	13	8.2	55
MIN	3.0	9.9	10	3.6	2.8	3.4	9.6	4.4	1.1	1.0	0.82	0.67
CFSM	3.69	3.23	5.66	1.64	0.57	2.83	5.99	2.32	0.65	0.41	0.44	1.28
IN.	4.26	3.60	6.53	1.89	0.62	3.26	6.69	2.67	0.72	0.47	0.50	1.43

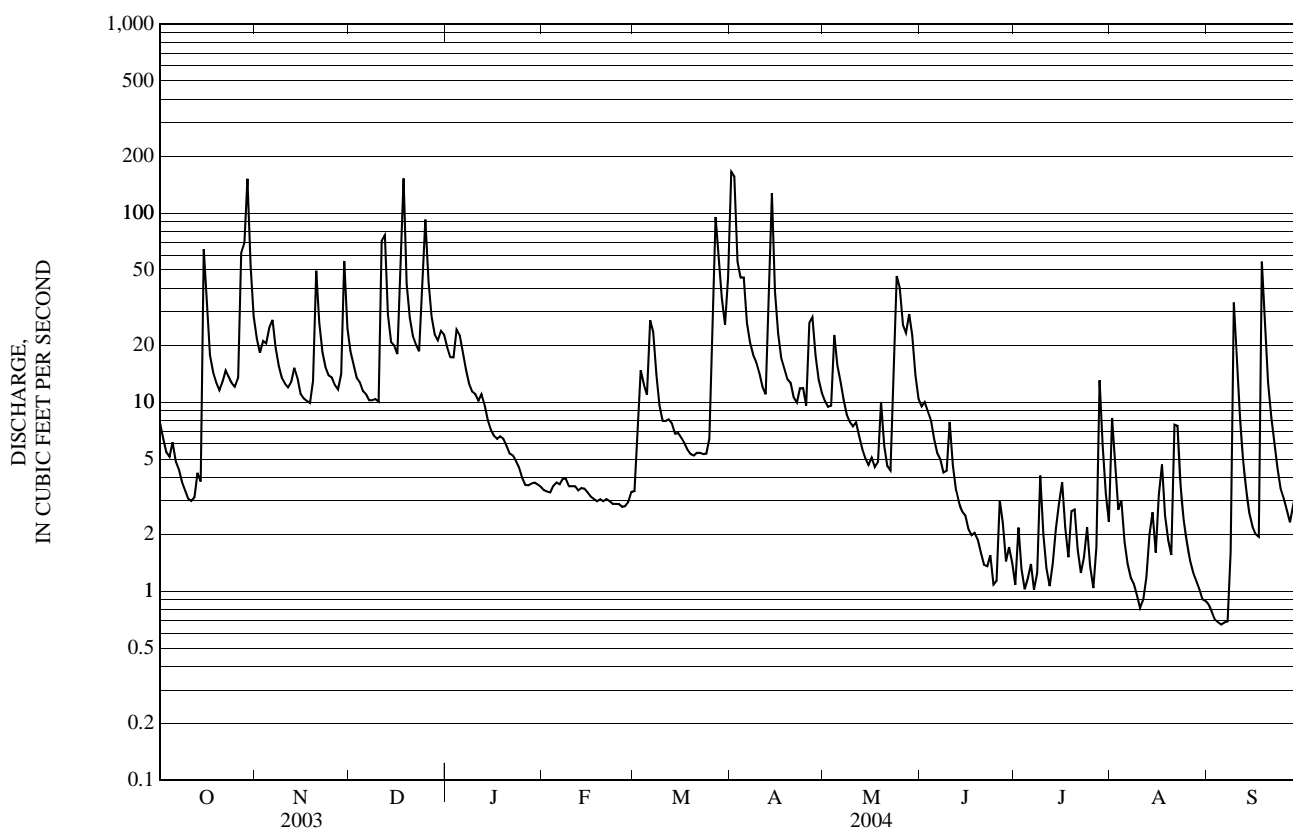
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

MEAN	7.79	12.2	12.0	8.54	9.31	22.1	36.3	17.5	7.73	3.11	2.96	2.67
MAX	30.9	29.7	33.4	33.3	45.9	46.9	93.7	41.1	32.9	13.6	26.1	16.2
(WY)	(1976)	(1996)	(1997)	(1978)	(1981)	(1977)	(1969)	(1984)	(1998)	(1996)	(1990)	(1999)
MIN	0.49	0.87	2.64	1.87	0.95	4.57	10.5	5.01	1.04	0.26	0.17	0.17
(WY)	(1964)	(2002)	(2002)	(1977)	(1980)	(2001)	(1995)	(1965)	(1965)	(1965)	(1965)	(1964)

01085800 WEST BRANCH WARNER RIVER NEAR BRADFORD, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004	
ANNUAL TOTAL	5,929.13		5,046.54		11.9	
ANNUAL MEAN	16.2		13.8		4.60	
HIGHEST ANNUAL MEAN					18.6	1996
LOWEST ANNUAL MEAN					4.60	1965
HIGHEST DAILY MEAN	180	Aug 12	166	Apr 1	351	Oct 21, 1996
LOWEST DAILY MEAN	0.47	Jul 31	0.67	Sep 5	0.07	Aug 7, 1965
ANNUAL SEVEN-DAY MINIMUM	0.69	Jul 4	0.72	Sep 1	0.09	Sep 16, 1964
MAXIMUM PEAK FLOW			358	Oct 29	a 881	Aug 12, 2003
MAXIMUM PEAK STAGE			7.42	Oct 29	9.19	Aug 12, 2003
INSTANTANEOUS LOW FLOW			b 0.56	Jul 8	c 0.06	Sep 20, 1964
ANNUAL RUNOFF (CFSM)	2.83		2.40		2.06	
ANNUAL RUNOFF (INCHES)	38.36		32.65		28.05	
10 PERCENT EXCEEDS	41		28		28	
50 PERCENT EXCEEDS	7.1		6.6		5.0	
90 PERCENT EXCEEDS	1.6		1.4		0.67	

- a From rating curve extended above 300 ft³/s.
- b Also occurred on September 7.
- c About.
- e Estimated.



01086000 WARNER RIVER AT DAVISVILLE, NH

LOCATION.--Lat 43° 15'03", long 71° 43'59", Merrimack County, Hydrologic Unit 01070003, on left bank, 60 ft downstream from bridge on State Highway 127 at Davisville, 2.2 mi northwest of State Highways 103 and 127 intersection in Contoocook, 2.3 mi upstream from mouth, and 4.8 mi southeast of Warner.

DRAINAGE AREA.--146 mi².

PERIOD OF RECORD.--Discharge records: October 1939 to September 1978, October 2001 to current year. Partial-record station: October 1998 to September 2001. Peak streamflow: Water years 1938, 1940 to 1978, 1999 to current. Water-quality discrete samples: Water years 1954, 1975 to 1978, 1999. Miscellaneous discharge measurements only: Water years 1991, 1999 to 2001.

REVISED RECORDS.--WSP 1901: 1960.

GAGE.--Water-stage recorder. Elevation of gage is 380 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to December 22, 1939, chain gage at bridge 60 ft upstream at same datum.

REMARKS.--Records good except those for estimated discharges, which are fair, and those for the period of April 26 to May 24, which are poor. Prior to 1948, slight diurnal fluctuation at low flow caused by mill upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1938 reached a stage of 12.8 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 30	0415	1,430	6.99	Apr 2	1500	*2,980	*8.58
Dec 18	1645	1,900	7.54	Apr 14	1530	1,640	7.25
Dec 25	1845	1,290	6.80				

Minimum discharge, 20 ft³/s, Sept. 7, gage height, 3.32 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	259	768	463	522	103	95	1,030	e327	311	42	e187	35
2	203	611	400	477	100	117	2,630	e295	293	39	e161	31
3	171	530	e342	444	98	177	2,370	e276	278	36	134	27
4	151	512	e310	439	101	240	1,710	e388	253	33	99	26
5	147	498	e274	460	104	246	1,330	e449	221	29	78	24
6	142	520	236	440	104	e270	1,040	e368	188	28	64	22
7	129	494	221	e399	108	e350	817	e308	161	28	55	21
8	116	431	255	e340	109	e350	660	e265	144	27	47	23
9	105	370	257	e305	107	305	555	e232	131	51	42	90
10	100	323	250	e280	105	263	480	e218	153	58	37	202
11	99	292	273	265	104	246	425	e207	148	51	33	168
12	99	277	722	256	101	252	383	e182	125	43	31	120
13	177	281	764	247	100	247	388	e158	107	53	36	87
14	157	283	546	221	99	223	1,300	e145	95	46	48	67
15	280	259	453	200	98	216	1,260	e120	84	49	42	56
16	605	233	446	180	93	211	936	e177	75	78	47	49
17	452	219	455	171	90	200	733	e200	68	84	64	44
18	329	208	1,380	176	88	188	600	e174	64	68	54	166
19	266	204	1,490	176	88	178	510	e293	59	62	45	454
20	232	342	1,160	167	87	168	442	e307	55	80	40	371
21	218	572	936	155	87	172	387	e236	49	66	68	243
22	222	479	759	149	89	189	346	e190	70	53	144	177
23	215	401	640	e140	88	171	323	e194	60	45	110	139
24	206	348	568	e130	87	167	332	e310	50	58	82	112
25	187	313	1,080	e120	84	172	318	e570	43	60	64	94
26	174	284	1,190	e116	84	201	e372	525	45	52	57	82
27	193	263	974	110	81	375	e578	459	54	49	46	71
28	422	253	781	109	82	640	e560	443	48	195	40	65
29	794	e377	645	112	86	589	e449	565	55	224	36	68
30	1,330	535	573	111	---	504	e376	482	48	164	34	64
31	986	---	552	108	---	483	---	377	---	e118	37	---
TOTAL	9,166	11,480	19,395	7,525	2,755	8,205	23,640	9,440	3,535	2,069	2,062	3,198
MEAN	296	383	626	243	95.0	265	788	305	118	66.7	66.5	107
MAX	1,330	768	1,490	522	109	640	2,630	570	311	224	187	454
MIN	99	204	221	108	81	95	318	120	43	27	31	21
CFSM	2.03	2.62	4.29	1.66	0.65	1.81	5.40	2.09	0.81	0.46	0.46	0.73
IN.	2.34	2.93	4.94	1.92	0.70	2.09	6.02	2.41	0.90	0.53	0.53	0.81

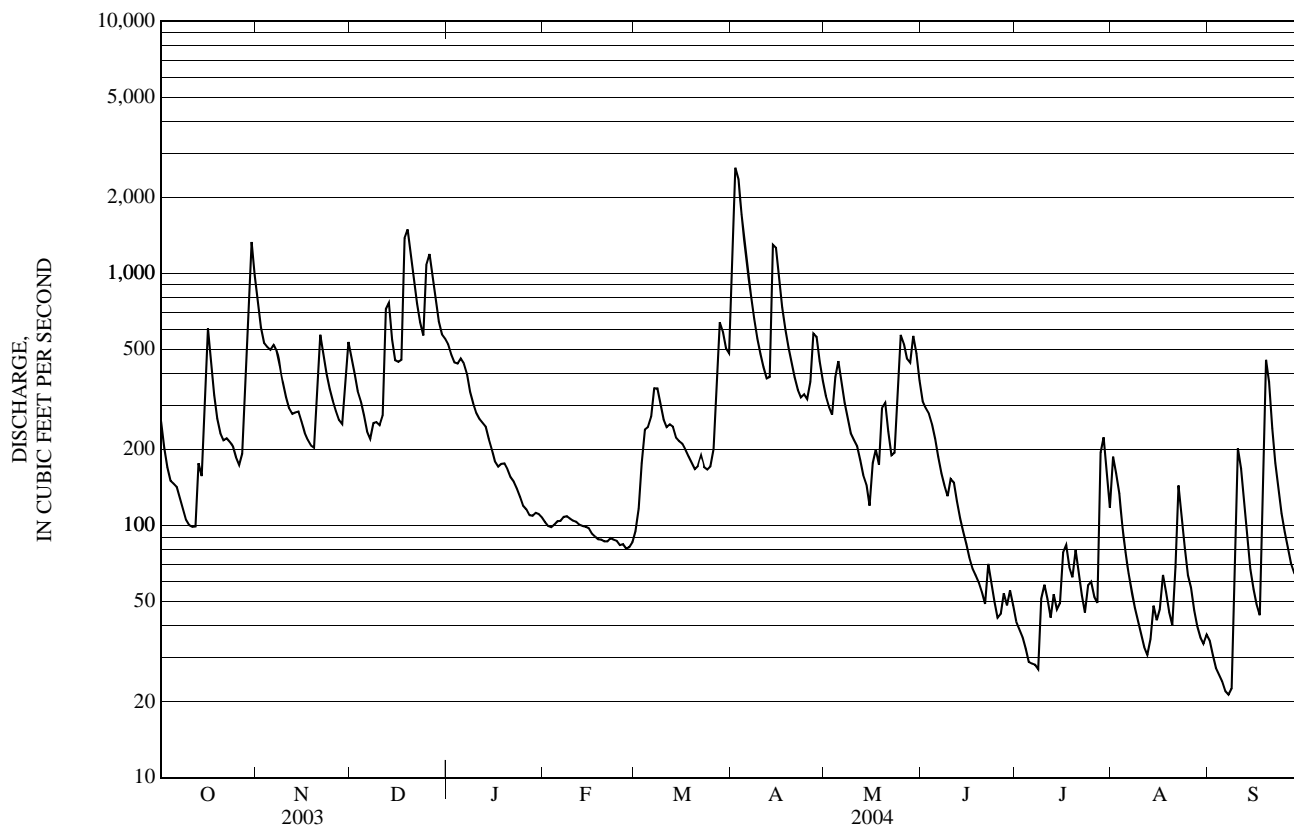
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

MEAN	87.5	195	237	187	191	416	806	386	175	65.5	46.2	49.2
MAX	467	580	626	497	587	1,214	1,779	855	468	306	297	302
(WY)	(1978)	(1952)	(2004)	(1978)	(1970)	(1953)	(1969)	(1954)	(1940)	(1973)	(2003)	(1954)
MIN	6.37	19.5	49.0	44.0	40.3	60.1	298	112	30.5	9.80	3.74	6.00
(WY)	(1965)	(2002)	(1965)	(1940)	(1940)	(1940)	(1946)	(1941)	(1964)	(1965)	(1965)	(1965)

01086000 WARNER RIVER AT DAVISVILLE, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	115,598		102,470			
ANNUAL MEAN	317		280		236	
HIGHEST ANNUAL MEAN					366 1960	
LOWEST ANNUAL MEAN					82.0 1965	
HIGHEST DAILY MEAN	1,820	Mar 30	2,630	Apr 2	3,980	Mar 27, 1953
LOWEST DAILY MEAN	17	Jul 10	21	Sep 7	2.8	Aug 7, 1965
ANNUAL SEVEN-DAY MINIMUM	22	Jul 5	25	Sep 2	3.3	Aug 14, 1965
MAXIMUM PEAK FLOW			2,980	Apr 2	4,510	Mar 27, 1953
MAXIMUM PEAK STAGE			8.58	Apr 2	9.88	Aug 17, 1965
INSTANTANEOUS LOW FLOW			20	Sep 7	a 2.6	Aug 17, 1965
ANNUAL RUNOFF (CFSM)	2.17		1.92		1.62	
ANNUAL RUNOFF (INCHES)	29.45		26.11		21.99	
10 PERCENT EXCEEDS	768		572		590	
50 PERCENT EXCEEDS	182		187		119	
90 PERCENT EXCEEDS	64		47		18	

a Also occurred on August 18, 1965.
 e Estimated.



01089100 SOUCCOOK RIVER AT PEMBROKE ROAD NEAR CONCORD, NH

LOCATION.--Lat 43° 12'47", long 71° 28'49", Merrimack County, Hydrologic Unit 01070002, on left bank, 100 ft upstream of Pembroke Road bridge, 550 ft upstream of French's Brook, 770 ft east of New Hampshire Highway 106 and Pembroke Road intersection, 2.9 mi downstream from U.S. Highways 4, 202, and New Hampshire State Highway 9 bridges, 2.9 mi east of the State Capitol Building in Concord, 4.7 mi southwest of Chichester.

DRAINAGE AREA.--81.9 mi².

PERIOD OF RECORD.--Discharge records: March 1988 to current year. Records for October 1951 to September 1987, at site 0.9 mi upstream, published "near Concord" (station 01089000) are not equivalent because of difference in drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 265 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Records affected by the annual drawdown event at Shellcamp Pond 21.5 mi upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 18	2345	*1,550	*10.03	Apr 14	2130	1,200	9.14
Apr 2	1900	1,410	9.70				

Minimum discharge, 18 ft³/s, Aug. 11, gage height, 3.86 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	261	145	217	49	54	573	183	196	34	70	64
2	74	210	127	199	47	68	1,280	160	192	32	137	48
3	68	193	e105	191	46	97	968	148	196	29	78	40
4	61	199	e100	199	47	123	575	294	195	26	54	35
5	59	200	e93	205	48	119	477	342	167	24	40	30
6	65	229	e87	191	49	132	377	262	134	25	34	27
7	57	210	e94	172	50	151	304	218	109	23	29	25
8	49	179	e96	155	e52	137	266	176	99	25	25	24
9	47	154	e96	e140	50	113	237	150	92	46	22	59
10	44	137	111	e130	49	99	201	150	190	44	20	109
11	42	127	138	e125	49	97	178	126	169	37	19	82
12	42	129	488	e125	49	98	163	113	116	30	20	56
13	52	145	487	e120	48	e95	183	99	89	27	22	45
14	68	155	365	117	e48	e85	846	93	74	27	28	37
15	172	131	343	108	e46	85	817	79	67	28	31	31
16	308	112	332	101	e45	85	472	111	59	32	40	29
17	209	111	276	97	e44	79	333	118	52	36	68	28
18	160	103	1,020	97	e43	75	268	98	49	35	59	243
19	131	101	1,090	95	43	72	233	174	46	35	45	473
20	107	122	590	91	43	68	206	153	42	41	39	264
21	97	170	425	86	43	76	178	128	37	37	88	172
22	95	157	332	82	45	e80	162	108	34	32	336	122
23	96	136	278	78	45	e76	166	203	34	27	204	89
24	99	123	257	72	e44	74	185	329	32	26	127	68
25	88	116	446	66	e44	76	166	534	29	25	85	56
26	81	107	507	62	43	105	219	375	38	22	66	49
27	82	101	381	60	e43	214	400	319	44	21	59	46
28	151	102	307	59	44	262	351	329	39	51	49	45
29	305	157	268	56	48	212	259	403	42	78	98	49
30	553	172	244	54	---	174	214	285	40	59	163	44
31	345	---	230	51	---	173	---	219	---	44	93	---
TOTAL	3,892	4,549	9,858	3,601	1,344	3,454	11,257	6,479	2,702	1,058	2,248	2,489
MEAN	126	152	318	116	46.3	111	375	209	90.1	34.1	72.5	83.0
MAX	553	261	1,090	217	52	262	1,280	534	196	78	336	473
MIN	42	101	87	51	43	54	162	79	29	21	19	24
CFSM	1.53	1.85	3.88	1.42	0.57	1.36	4.58	2.55	1.10	0.42	0.89	1.01
IN.	1.77	2.07	4.48	1.64	0.61	1.57	5.11	2.94	1.23	0.48	1.02	1.13

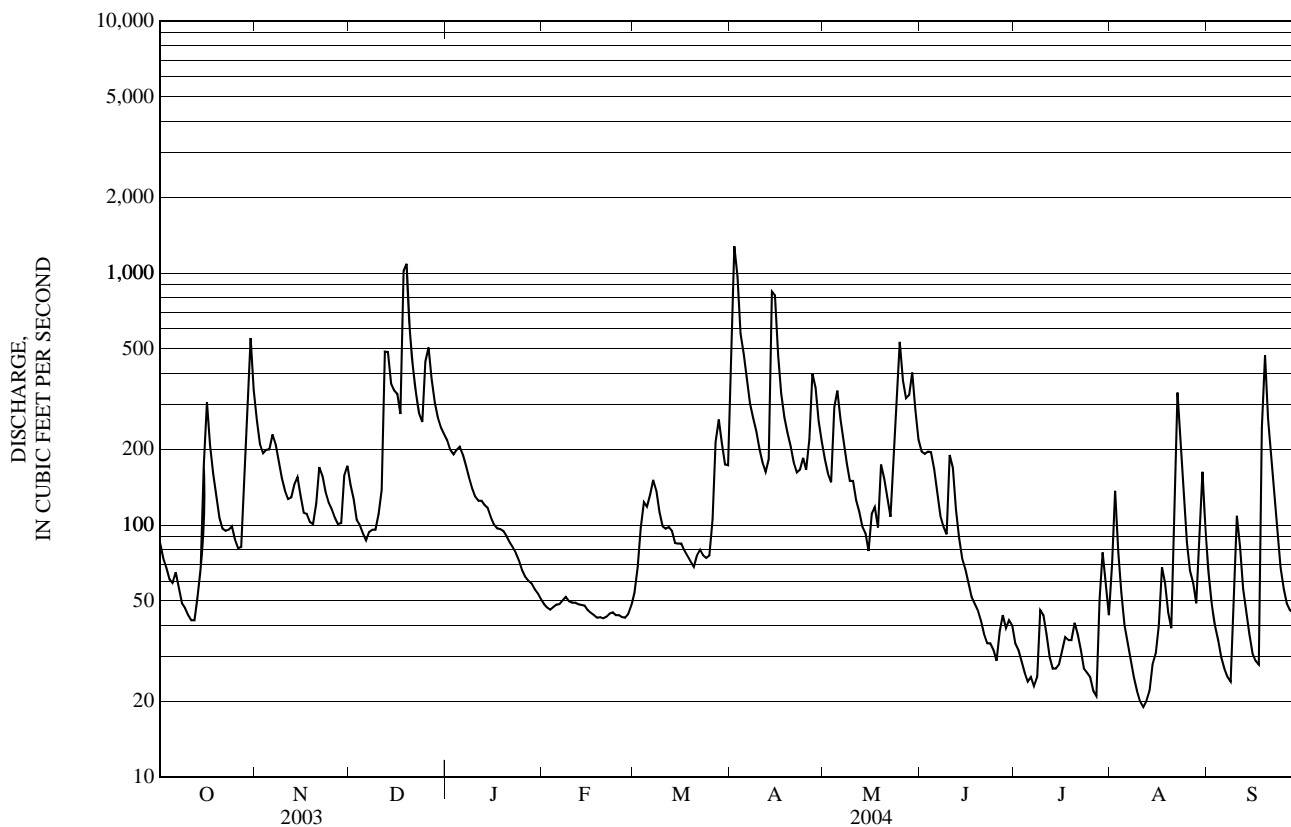
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2004, BY WATER YEAR (WY)

MEAN	76.0	120	138	117	112	221	281	165	98.9	40.8	41.6	39.7
MAX	168	289	368	420	350	417	463	333	441	127	126	140
(WY)	(1992)	(1996)	(1997)	(1996)	(1996)	(1998)	(2001)	(1996)	(1998)	(1998)	(2003)	(1999)
MIN	12.7	12.7	26.5	20.9	34.6	111	120	55.5	16.1	11.6	7.86	8.33
(WY)	(1998)	(2002)	(2002)	(2002)	(1993)	(2004)	(1999)	(1999)	(1999)	(1993)	(2002)	(1995)

01089100 SOUHOOK RIVER AT PEMBROKE ROAD NEAR CONCORD, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1988 - 2004	
ANNUAL TOTAL	55,791		52,931		121	
ANNUAL MEAN	153		145		198	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	1,090	Dec 19	1,280	Apr 2	2,020	Apr 17, 1996
LOWEST DAILY MEAN	11	Jul 31	19	Aug 11	5.8	Aug 28, 2002
ANNUAL SEVEN-DAY MINIMUM	14	Jul 26	22	Aug 8	6.2	Aug 17, 2002
MAXIMUM PEAK FLOW			1,550	Dec 18	2,320	Apr 17, 1996
MAXIMUM PEAK STAGE			10.03	Dec 18	11.59	Apr 17, 1996
INSTANTANEOUS LOW FLOW			18	Aug 11	4.9	Aug 29, 2002
ANNUAL RUNOFF (CFSM)	1.87		1.77		1.48	
ANNUAL RUNOFF (INCHES)	25.34		24.04		20.10	
10 PERCENT EXCEEDS	344		311		278	
50 PERCENT EXCEEDS	93		97		71	
90 PERCENT EXCEEDS	30		33		15	

e Estimated.



01092000 MERRIMACK RIVER NEAR GOFFS FALLS, BELOW MANCHESTER, NH

LOCATION.--Lat 42° 56' 53", long 71° 27' 50", Hillsborough County, Hydrologic Unit 01070002, on right bank, 600 ft upstream from bridge on Interstate Highway 293, 0.8 mi downstream from Bowman Brook, 1.3 mi north of Goffs Falls, 2.2 mi downstream from Piscataquog River, and 3.0 mi south of Manchester City Hall on Elm Street.

DRAINAGE AREA.--3,092 mi².

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

REVISED RECORDS.--WSP 1231: 1937. WSP 1271: 1937(M, m).

GAGE.--Water-stage recorder. Datum of gage is 109.27 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges which are fair. Flow regulated by power plants, by Franklin Falls Reservoir since 1942, and by Squam, Newfound, Winnepesaukee, Winnisquam, and other lakes and reservoirs upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1722, 150,000 ft³/s, March 20, 1936, gage height, 35.19 ft, from floodmarks, from rating curve extended above 48,000 ft³/s on basis of computation of flow over dam at gage heights 25.87 ft and 35.19 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30,000 ft³/s, Apr. 2, gage height, 10.67 ft; minimum daily discharge, 936 ft³/s, Aug. 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,470	18,700	11,400	11,600	e2,750	2,190	14,200	7,670	8,710	1,480	2,350	5,100
2	4,380	14,200	8,920	10,700	e2,720	2,350	27,300	7,130	7,590	1,690	2,770	3,600
3	4,210	10,900	7,770	10,300	e2,750	2,960	24,600	6,910	7,260	1,670	2,990	2,380
4	3,940	10,100	6,870	9,580	2,780	3,940	22,200	8,110	7,490	1,620	2,270	2,760
5	3,650	9,980	5,990	9,590	2,860	4,560	24,900	12,700	7,230	1,570	2,160	1,970
6	3,760	9,930	5,610	9,530	2,750	4,580	22,000	12,100	6,620	1,390	2,040	1,960
7	4,500	9,970	4,200	8,740	2,790	5,110	17,800	10,300	5,740	1,250	1,670	2,640
8	2,500	9,290	5,730	7,510	2,860	5,670	15,200	8,440	5,190	1,550	1,160	2,250
9	3,210	8,150	5,360	e6,480	2,770	5,460	13,500	7,320	4,400	2,150	1,440	2,610
10	3,320	7,260	5,420	e5,660	2,640	5,090	11,700	6,480	4,810	3,740	1,330	4,170
11	2,780	6,620	5,700	e5,530	e2,650	4,430	9,700	6,030	4,610	4,530	936	6,130
12	2,810	6,470	10,600	e5,250	e2,440	4,380	8,670	5,050	4,100	3,090	1,470	5,880
13	3,150	6,470	17,300	e4,980	2,610	3,980	8,450	5,110	3,410	2,500	1,690	3,930
14	3,450	7,020	15,100	e4,910	2,580	4,040	14,300	4,210	2,540	1,790	2,560	3,210
15	5,040	7,890	10,900	e4,450	2,600	3,860	21,300	4,010	2,600	2,140	2,600	3,090
16	6,910	6,640	10,500	e4,260	2,160	3,540	20,200	4,720	2,540	2,320	2,540	2,680
17	10,600	6,160	10,100	e3,950	2,140	3,780	16,500	4,940	2,190	2,230	2,500	2,560
18	7,610	5,880	15,800	e4,280	2,140	3,400	13,500	4,820	2,460	2,140	3,150	4,830
19	6,120	5,800	24,400	e4,170	2,010	3,180	11,500	4,990	2,410	2,290	2,810	8,690
20	5,600	6,080	24,300	e4,010	2,100	3,260	10,400	5,170	2,160	2,370	2,520	8,950
21	4,350	11,100	22,100	e3,960	2,140	3,280	10,000	5,090	2,270	2,540	3,020	7,730
22	3,910	14,500	18,000	e3,860	2,250	3,450	9,250	4,450	1,780	2,000	4,420	6,100
23	5,040	11,200	14,700	e3,760	2,370	3,400	7,700	5,320	1,940	2,030	5,230	5,050
24	4,280	8,770	13,100	e3,570	2,200	3,280	7,920	8,100	e2,600	2,240	4,180	4,220
25	4,220	7,890	14,500	e3,170	1,980	3,180	7,800	14,800	e1,540	2,240	3,070	3,720
26	4,030	7,180	20,500	e3,220	1,930	3,410	7,900	17,000	1,500	2,340	2,780	3,270
27	4,600	6,560	21,500	e2,930	1,900	4,560	9,940	15,400	1,690	2,140	2,550	3,330
28	7,610	6,110	18,500	e2,860	2,060	7,690	11,800	13,700	2,090	3,150	2,290	2,580
29	17,200	6,500	15,900	e2,780	1,940	11,000	10,500	13,700	1,680	3,400	2,110	3,100
30	21,600	10,400	14,100	e2,780	---	9,530	9,100	12,800	2,050	3,150	2,830	2,560
31	22,600	---	13,100	e2,780	---	9,490	---	10,700	---	3,100	3,440	---
TOTAL	192,450	263,720	397,970	171,150	69,870	142,030	419,830	257,270	113,200	71,840	78,876	121,050
MEAN	6,208	8,791	12,840	5,521	2,409	4,582	13,990	8,299	3,773	2,317	2,544	4,035
MAX	22,600	18,700	24,400	11,600	2,860	11,000	27,300	17,000	8,710	4,530	5,230	8,950
MIN	2,500	5,800	4,200	2,780	1,900	2,190	7,700	4,010	1,500	1,250	936	1,960

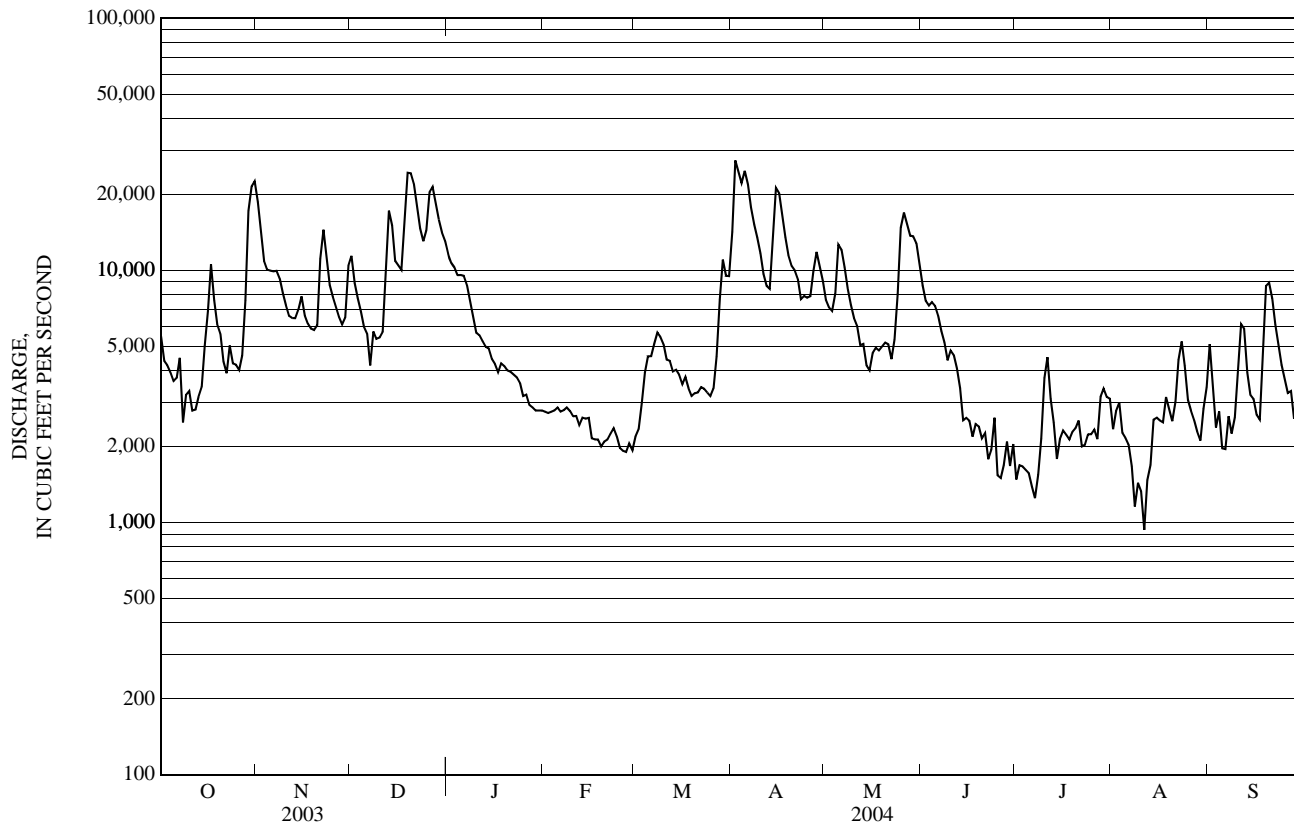
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2004, BY WATER YEAR (WY)

MEAN	3,033	4,702	5,322	4,489	4,641	7,941	13,980	8,616	4,520	2,425	1,992	2,128
MAX	10,380	12,910	13,690	10,840	11,370	18,240	25,660	18,250	16,480	11,470	8,576	14,500
(WY)	(1978)	(1996)	(1984)	(1978)	(1970)	(1953)	(1969)	(1954)	(1984)	(1973)	(1990)	(1938)
MIN	771	1,320	1,458	1,265	1,354	2,141	4,612	3,059	1,354	808	781	745
(WY)	(1965)	(2002)	(1979)	(2002)	(1980)	(1940)	(1995)	(1957)	(1964)	(1991)	(2002)	(1957)

01092000 MERRIMACK RIVER NEAR GOFFS FALLS, BELOW MANCHESTER, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1937 - 2004	
ANNUAL TOTAL	2,370,676		2,299,256			
ANNUAL MEAN	6,495		6,282		5,289	
HIGHEST ANNUAL MEAN					8,400	1984
LOWEST ANNUAL MEAN					2,248	1965
HIGHEST DAILY MEAN	25,700	Mar 31	27,300	Apr 2	94,800	Sep 23, 1938
LOWEST DAILY MEAN	917	Jul 22	936	Aug 11	98	Oct 11, 1964
ANNUAL SEVEN-DAY MINIMUM	1,050	Jul 6	1,390	Aug 7	394	Sep 25, 1964
MAXIMUM PEAK FLOW			30,000		Apr 2	a 102,000
MAXIMUM PEAK STAGE			10.67		Apr 2	25.87
10 PERCENT EXCEEDS	14,600		13,700		12,100	
50 PERCENT EXCEEDS	4,280		4,390		3,400	
90 PERCENT EXCEEDS	1,530		2,110		1,200	

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



01093800 STONY BROOK TRIBUTARY NEAR TEMPLE, NH

LOCATION.--Lat 42° 51' 36", long 71° 50' 00", Hillsborough County, Hydrologic Unit 01070002, on left bank, 450 ft downstream from Putnam Road bridge, 2.9 mi north of Temple, 5.0 mi west of Wilton, and 5.5 mi upstream from mouth.

DRAINAGE AREA.--3.60 mi².

PERIOD OF RECORD.--Discharge records: May 1963 to September 2004 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 900 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 110 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1100	180	3.81	Apr 14	0130	160	3.70
Dec 17	2315	307	4.44	Sep 18	1400	169	3.75
Apr 1	1930	*491	*5.20				

Minimum discharge, 0.34 ft³/s, Sept. 6, 7, gage height, 1.91 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	11	8.6	11	2.5	4.0	180	7.2	7.5	1.3	0.88	0.53
2	2.4	9.1	7.3	9.9	3.1	5.7	136	6.7	7.6	1.4	1.3	0.45
3	2.1	12	e6.4	10	3.2	8.7	34	6.9	6.7	1.2	1.2	0.44
4	1.9	11	6.1	13	3.5	7.6	26	15	6.1	1.1	1.4	0.44
5	2.1	12	e5.9	12	3.1	6.6	21	9.5	5.2	1.1	0.97	0.40
6	1.8	13	e5.8	10	3.1	12	15	7.7	4.7	1.1	0.77	0.41
7	1.6	10	e5.7	e8.3	3.7	9.9	13	6.9	4.7	0.89	0.65	0.44
8	1.5	8.5	e5.7	e7.1	3.4	6.7	11	5.8	4.1	1.4	0.60	0.56
9	1.4	7.6	e5.9	e6.5	3.3	5.3	10	5.6	6.1	3.2	0.55	11
10	1.3	7.3	5.8	e6.2	3.3	4.7	9.4	5.4	12	1.6	0.52	6.6
11	1.3	7.1	36	e5.8	3.2	4.8	8.7	5.3	6.6	1.2	0.52	2.8
12	1.4	8.0	30	e6.4	3.1	5.0	8.9	4.8	5.9	1.0	0.56	1.8
13	1.5	10	e13	e5.9	3.2	e4.4	24	4.2	4.2	1.1	0.56	1.3
14	1.3	9.0	e11	e5.4	3.2	e4.2	64	3.9	3.6	1.6	0.55	0.95
15	20	7.5	e10	e5.0	2.9	4.1	27	9.7	3.4	1.8	0.82	0.86
16	8.6	6.9	e9.6	e4.7	2.8	e4.1	17	15	2.8	1.5	1.3	0.82
17	5.2	6.5	e65	e4.5	2.7	e4.0	13	7.9	2.7	1.1	2.4	1.4
18	4.0	6.3	83	e4.6	2.8	e3.9	11	14	3.0	0.95	1.2	59
19	3.4	6.6	21	e4.6	2.8	3.8	9.5	27	2.7	1.5	0.87	15
20	3.1	16	14	e4.3	2.7	e3.8	8.5	10	2.4	1.5	1.0	6.7
21	3.2	13	e12	e4.0	2.8	5.6	7.7	8.2	2.4	1.1	8.0	4.6
22	3.0	9.4	11	e4.0	2.8	e5.0	7.2	7.1	2.1	0.88	5.2	3.7
23	3.2	7.9	10	e3.9	2.7	e4.4	10	9.4	2.0	0.80	2.3	2.9
24	2.9	7.5	33	e3.7	2.6	e4.0	9.8	21	1.6	0.97	1.4	2.4
25	2.9	7.2	53	e3.3	2.6	5.0	8.5	34	1.7	0.75	1.0	2.3
26	3.2	6.6	23	e3.0	2.5	8.5	15	18	2.2	0.67	1.1	2.1
27	9.4	6.4	16	e3.0	2.5	17	21	22	1.8	0.66	0.83	1.8
28	24	7.5	13	e3.1	2.7	11	13	16	1.4	2.3	0.76	2.7
29	66	15	12	e3.1	3.0	8.0	9.8	12	1.9	1.5	0.67	7.9
30	21	10	15	e3.0	---	6.8	8.2	9.5	1.5	1.1	0.60	5.7
31	13	---	13	e2.9	---	15	---	8.0	---	0.87	0.58	---
TOTAL	220.5	275.9	566.8	182.2	85.8	203.6	757.2	343.7	120.6	39.14	41.06	148.00
MEAN	7.11	9.20	18.3	5.88	2.96	6.57	25.2	11.1	4.02	1.26	1.32	4.93
MAX	66	16	83	13	3.7	17	180	34	12	3.2	8.0	59
MIN	1.3	6.3	5.7	2.9	2.5	3.8	7.2	3.9	1.4	0.66	0.52	0.40
CFM	1.98	2.55	5.08	1.63	0.82	1.82	7.01	3.08	1.12	0.35	0.37	1.37
IN.	2.28	2.85	5.86	1.88	0.89	2.10	7.82	3.55	1.25	0.40	0.42	1.53

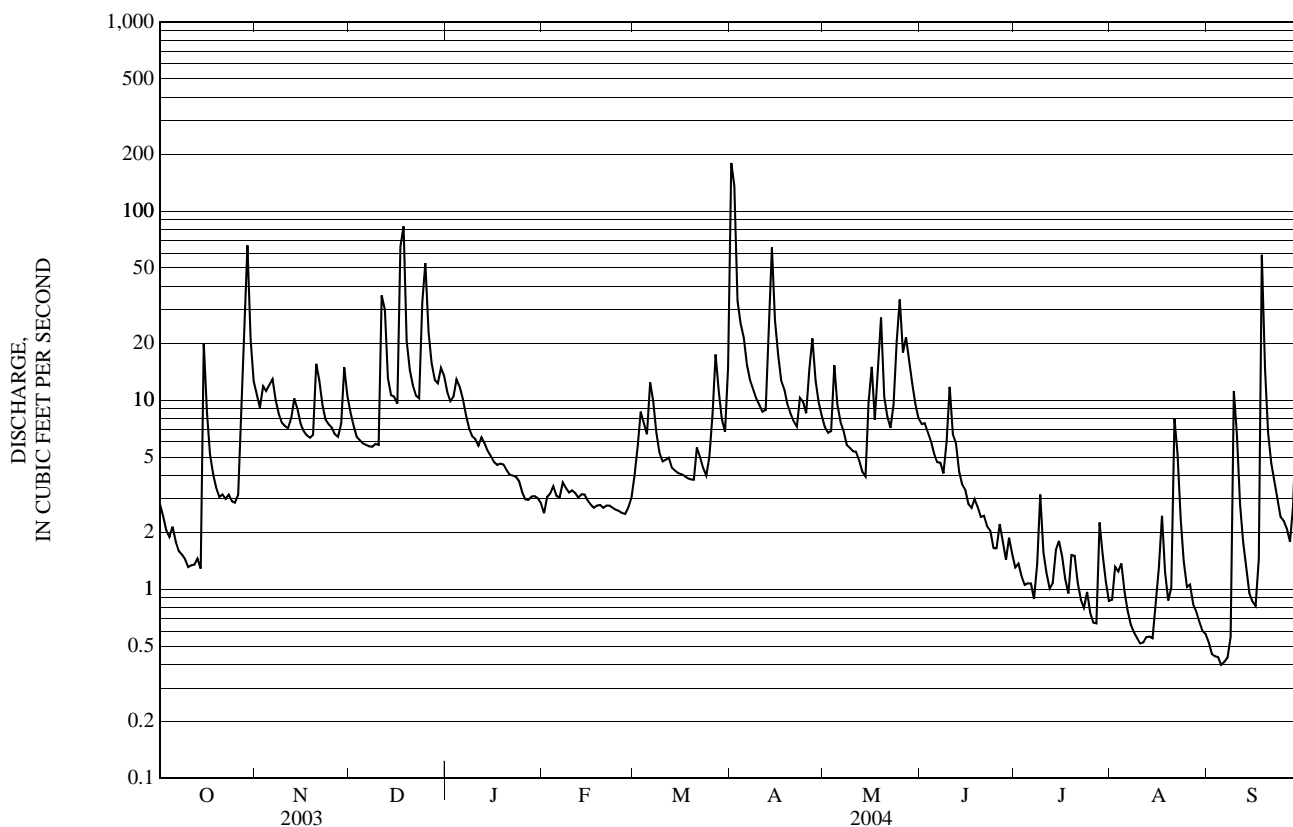
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2004, BY WATER YEAR (WY)

MEAN	4.32	7.37	8.38	6.93	6.68	13.9	18.9	9.38	5.07	1.79	1.45	1.73
MAX	22.9	18.9	29.4	37.2	19.0	30.9	38.9	28.6	17.1	7.26	6.51	10.2
(WY)	(1997)	(1996)	(1997)	(1999)	(1970)	(1983)	(1987)	(1984)	(1968)	(1968)	(1986)	(1999)
MIN	0.34	0.50	1.34	1.09	1.59	3.65	4.10	2.64	0.66	0.28	0.18	0.11
(WY)	(1965)	(2002)	(1979)	(1977)	(1977)	(1989)	(1985)	(1985)	(1964)	(1966)	(1966)	(1964)

01093800 STONY BROOK TRIBUTARY NEAR TEMPLE, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1963 - 2004	
ANNUAL TOTAL	3,150.93		2,984.50		7.17	
ANNUAL MEAN	8.63		8.15		10.9 1984	
HIGHEST ANNUAL MEAN					2.58 1965	
LOWEST ANNUAL MEAN					343 Oct 21, 1996	
HIGHEST DAILY MEAN	83	Dec 18	180	Apr 1	0.05 Aug 21, 1966	
LOWEST DAILY MEAN	0.24	Jul 31	0.40	Sep 5	0.07 Sep 14, 1964	
ANNUAL SEVEN-DAY MINIMUM	0.36	Jul 25	0.44	Sep 1	648 Oct 21, 1996	
MAXIMUM PEAK FLOW			491	Apr 1	a 7.81 Feb 3, 1970	
MAXIMUM PEAK STAGE			5.20	Apr 1	c 0.00 Sep 26, 1976	
INSTANTANEOUS LOW FLOW			b 0.34	Sep 6	1.99	
ANNUAL RUNOFF (CFSM)	2.40		2.27		27.07	
ANNUAL RUNOFF (INCHES)	32.56		30.84		17	
10 PERCENT EXCEEDS	20		15		3.5	
50 PERCENT EXCEEDS	4.3		4.7		0.46	
90 PERCENT EXCEEDS	0.63		0.96			

- a Ice jam. Also occurred on December 12, 1973.
- b Also occurred on September 7.
- c No flow for part of September 26, 1976.
- e Estimated.



01094000 SOUHEGAN RIVER AT MERRIMACK, NH

LOCATION.--Lat 42° 51'27", long 71° 30'24", Hillsborough County, Hydrologic Unit 01070002, on left bank, at head of Wildcat Falls, 0.6 mi upstream from south bound bridge on Everett Turnpike, 0.9 mi southwest of Merrimack Town Hall, 1.3 mi upstream from mouth, 1.7 mi northwest of Litchfield Town Hall.

DRAINAGE AREA.--171 mi².

PERIOD OF RECORD.--Discharge records: July 1909 to September 1976, October 2001 to current year. Partial-record station: October 1976 to September 2001. Peak streamflow: Water years 1910 to 1976, 1980, 1982 to current. Water-quality discrete samples: Water years 1953, 1967 to 1976, 1979 to 1984, 1986, 1987, 1989 to 1999. Miscellaneous discharge measurements only: Water years 1979 to 1984, 1986 to 1987, 1989 to 2001.

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

GAGE.--Water-stage recorder. Datum of gage is 160.58 ft above National Geodetic Vertical Datum of 1929. Prior to April 12, 1911, nonrecording gage at site 300 ft downstream at datum 0.38 ft lower. April 12, 1911 to October 14, 1913, nonrecording gage at present site and datum.

REMARKS.--Records good except those for periods of estimated daily discharge, which are poor. Slight diurnal fluctuation at times caused by mill upstream. Diversion to Pennichuck Brook basin for municipal supply of Nashua during periods of low flow from August 1965 to October 1966, July 1969 to November 1971, October 1972, October 1973, July to September 1974, June to August 1975, June to September 1976. High flow slightly affected by retarding reservoirs since 1963.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft³/s, March 19, 1936, gage height, 16.2 ft, from rating curve extended above 7,300 ft³/s on basis of velocity-area studies and computation of flow over dam at gage height 12.78 ft; minimum discharge, 3.8 ft³/s, August 17, September 8, October 1, 1965. Stage and discharge from the flood of March 19, 1936, are the greatest since 1830.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 2	1915	*6,100	*9.84	Apr 14	1915	2,450	6.69

Minimum discharge, 36 ft³/s, Aug. 11, 12, Sept. 8, gage height, 2.24 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	674	311	638	e129	154	1,350	467	356	79	60	e50
2	114	544	276	567	e127	188	4,570	414	333	75	54	46
3	105	471	194	513	e127	e283	3,920	383	321	75	50	43
4	91	454	203	539	e127	e420	2,350	544	303	69	59	40
5	100	436	178	594	e126	e420	1,840	633	271	64	57	38
6	85	485	181	567	e129	e397	1,470	518	222	62	52	37
7	74	463	170	e424	e134	578	1,210	441	198	60	47	37
8	64	385	e181	e377	e137	511	1,040	372	178	60	43	38
9	59	325	e187	e326	e140	398	896	326	175	104	40	82
10	55	285	e192	e228	150	330	761	305	297	113	38	201
11	52	268	250	e219	149	300	638	285	323	87	37	148
12	51	279	957	e241	142	282	542	263	244	71	40	112
13	54	302	e816	e245	142	266	548	242	197	64	42	85
14	51	318	e564	e231	145	251	1,860	222	177	66	41	71
15	158	271	516	218	138	243	1,870	219	155	75	43	61
16	389	251	e474	196	120	251	1,300	252	144	83	53	55
17	290	231	471	189	118	245	1,030	282	132	75	72	52
18	222	229	1,460	e192	117	234	866	245	124	66	79	321
19	181	224	1,700	e192	122	221	728	428	143	84	66	975
20	155	296	1,180	e191	128	210	617	444	131	102	58	571
21	128	380	922	e180	128	253	522	344	104	95	107	414
22	114	309	768	e175	128	350	464	272	95	74	260	307
23	110	262	647	e170	127	290	482	284	94	63	202	225
24	107	234	576	164	120	263	622	445	e91	58	134	164
25	113	222	1,250	148	117	258	536	827	e85	56	101	133
26	94	227	1,370	141	119	301	540	766	82	54	78	113
27	117	215	1,080	e139	117	488	845	746	96	50	68	99
28	357	215	888	e138	126	666	818	727	84	70	60	92
29	714	305	745	e138	139	566	644	677	80	128	54	164
30	1,290	354	671	e136	---	458	541	531	89	95	52	297
31	880	---	694	e133	---	429	---	419	---	70	54	---
TOTAL	6,493	9,914	20,072	8,549	3,768	10,504	35,420	13,323	5,324	2,347	2,201	5,071
MEAN	209	330	647	276	130	339	1,181	430	177	75.7	71.0	169
MAX	1,290	674	1,700	638	150	666	4,570	827	356	128	260	975
MIN	51	215	170	133	117	154	464	219	80	50	37	37
CFSM	1.22	1.93	3.79	1.61	0.76	1.98	6.90	2.51	1.04	0.44	0.42	0.99
IN.	1.41	2.16	4.37	1.86	0.82	2.29	7.71	2.90	1.16	0.51	0.48	1.10

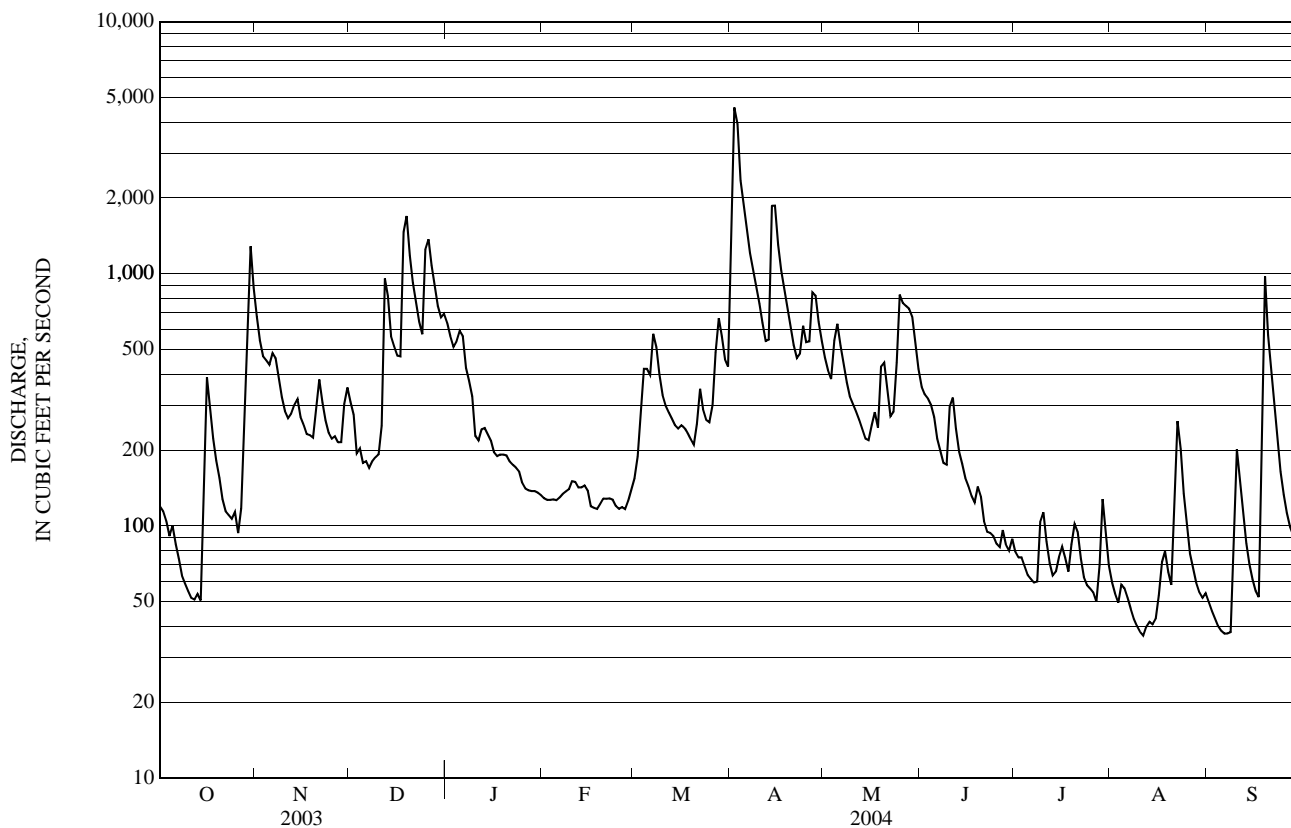
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 1976, 2002 - 2004, BY WATER YEAR (WY)

MEAN	107	225	288	267	268	623	776	382	214	100	78.1	89.1
MAX	718	824	849	752	825	2,278	1,664	916	664	405	769	799
(WY)	(1956)	(1956)	(1974)	(1956)	(1970)	(1936)	(1933)	(1954)	(1968)	(1938)	(1915)	(1938)
MIN	15.8	25.2	45.1	25.3	50.9	155	276	140	45.4	18.8	8.27	10.6
(WY)	(1965)	(1965)	(1930)	(1925)	(1911)	(1940)	(1927)	(1911)	(1964)	(1966)	(1966)	(1965)

01094000 SOUHEGAN RIVER AT MERRIMACK, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1909 - 2004	
ANNUAL TOTAL	134,340		122,986		285	
ANNUAL MEAN	368		336		430	
HIGHEST ANNUAL MEAN					1956	
LOWEST ANNUAL MEAN					97.9	
HIGHEST DAILY MEAN	2,190	Mar 27	4,570	Apr 2	14,200	Mar 19, 1936
LOWEST DAILY MEAN	a 26	Sep 13	b 37	Aug 11	4.0	Sep 8, 1965
ANNUAL SEVEN-DAY MINIMUM	28	Sep 9	40	Sep 2	4.8	Sep 26, 1965
MAXIMUM PEAK FLOW			6,100	Apr 2	c 16,900	Mar 19, 1936
MAXIMUM PEAK STAGE			9.84	Apr 2	16.20	Mar 19, 1936
INSTANTANEOUS LOW FLOW			d 36	Aug 11	f 3.8	Aug 17, 1965
ANNUAL RUNOFF (CFSM)	2.15		1.97		1.66	
ANNUAL RUNOFF (INCHES)	29.22		26.75		22.61	
10 PERCENT EXCEEDS	886		727		692	
50 PERCENT EXCEEDS	233		202		152	
90 PERCENT EXCEEDS	47		58		31	

- a Also occurred on September 14, 2003.
- b Also occurred on September 6 and 7.
- c From rating curve extended above 7,300 ft³/s as explained above.
- d Also occurred on August 12 and September 8.
- e Estimated.
- f Also occurred on September 8 and October 1, 1965.



010965852 BEAVER BROOK AT NORTH PELHAM, NH

LOCATION.--Lat 42° 46' 58", long 71° 21' 15" (revised), Rockingham County, Hydrologic Unit 01070002, on right bank, 10 ft downstream from State Highway 128 bridge at the Windham-Pelham town line, 0.7 mi north of North Pelham, 1.3 mi south of State Highways 128 and 111 intersection in West Windham, and 4.7 mi north of Pelham.

DRAINAGE AREA.--47.8 mi².

PERIOD OF RECORD.--Discharge records: October 1986 to current year. Peak streamflow: Water years 1987 to current year. Water-quality discrete samples: Water years 1988 to 2000.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records Good except those for estimated daily discharges, which are fair. Some regulation at low- and medium-flows.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 2	1415	*1,500	*12.68	No other peak greater than base discharge			

Minimum discharge, 3.8 ft³/s, Aug. 10, 11, 12, gage height, 5.54 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	108	49	104	e22	46	399	126	98	21	8.4	13
2	19	90	48	96	e22	60	1,330	93	90	23	7.9	11
3	13	85	43	96	e22	77	1,120	97	81	20	7.9	10
4	12	83	41	105	e29	78	703	150	78	16	7.7	8.8
5	14	74	e39	109	e57	73	461	157	66	15	8.1	7.6
6	13	88	e38	106	e47	77	337	133	60	15	8.0	7.0
7	11	82	40	e92	e50	83	263	119	56	14	7.6	5.5
8	13	71	43	e77	e47	77	219	102	51	14	7.2	7.8
9	12	63	42	e66	e44	71	187	82	41	20	6.3	35
10	9.0	61	43	e58	e41	64	164	74	73	21	5.6	36
11	7.6	58	e57	e52	43	65	141	67	63	20	5.1	22
12	8.7	60	202	e53	40	65	127	62	48	22	5.3	18
13	9.6	65	209	e51	38	62	141	56	44	18	9.3	15
14	9.4	61	e174	e47	38	59	345	53	40	18	14	12
15	34	52	e143	e43	36	57	342	47	38	18	11	11
16	52	48	127	e40	e31	56	285	54	36	16	15	10
17	43	45	114	e39	e29	55	221	75	27	14	17	13
18	38	42	195	e38	29	53	185	67	74	12	15	84
19	37	40	219	e39	29	50	158	139	69	17	12	143
20	31	46	183	e37	28	49	134	110	51	21	12	85
21	36	57	154	e35	29	70	112	86	40	17	36	61
22	35	56	125	e34	33	86	103	74	34	13	77	47
23	28	49	109	e33	34	76	137	83	34	11	56	37
24	28	46	111	e31	e33	70	169	113	28	12	42	30
25	27	43	201	e28	e32	69	140	188	25	10	32	25
26	27	43	218	e26	33	73	155	182	24	9.4	28	24
27	39	37	194	e24	33	94	229	183	23	8.9	21	19
28	81	35	165	e25	36	101	219	176	20	9.9	18	23
29	132	52	140	e24	41	91	186	180	24	9.8	16	47
30	208	54	124	e23	---	81	152	147	27	9.9	16	51
31	137	---	113	e22	---	91	---	114	---	8.9	15	---
TOTAL	1,188.3	1,794	3,703	1,653	1,026	2,179	8,864	3,389	1,463	474.8	547.4	918.7
MEAN	38.3	59.8	119	53.3	35.4	70.3	295	109	48.8	15.3	17.7	30.6
MAX	208	108	219	109	57	101	1,330	188	98	23	77	143
MIN	7.6	35	38	22	22	46	103	47	20	8.9	5.1	5.5
CFSM	0.80	1.25	2.50	1.12	0.74	1.47	6.18	2.29	1.02	0.32	0.37	0.64
IN.	0.92	1.40	2.88	1.29	0.80	1.70	6.90	2.64	1.14	0.37	0.43	0.71

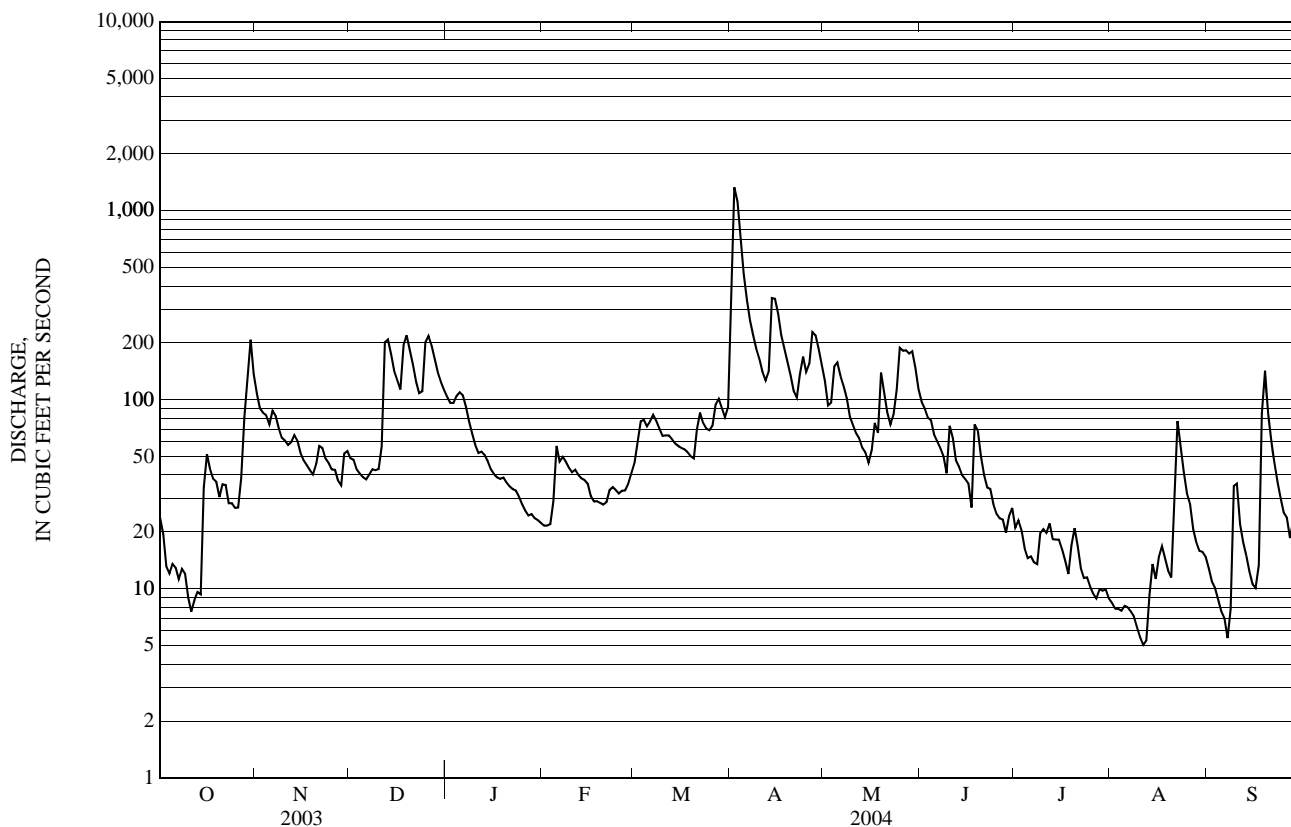
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

MEAN	39.9	65.8	89.4	76.7	83.9	149	172	92.5	55.1	19.1	20.0	19.2
MAX	185	148	228	223	181	281	406	145	241	50.2	80.1	86.5
(WY)	(1997)	(1996)	(1987)	(1996)	(1996)	(1994)	(1987)	(1989)	(1998)	(1998)	(1991)	(1991)
MIN	5.15	6.15	10.2	14.4	31.7	56.5	56.9	34.4	7.27	3.53	1.52	2.60
(WY)	(1998)	(2002)	(2002)	(2002)	(2002)	(1989)	(1999)	(1999)	(1999)	(1993)	(1999)	(2002)

010965852 BEAVER BROOK AT NORTH PELHAM, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1987 - 2004	
ANNUAL TOTAL	28,643.4		27,200.2		73.5	
ANNUAL MEAN	78.5		74.3		39.0	
HIGHEST ANNUAL MEAN					99.9	1996
LOWEST ANNUAL MEAN					39.0	2002
HIGHEST DAILY MEAN	470	Mar 23	1,330	Apr 2	1,500	Apr 6, 1987
LOWEST DAILY MEAN	3.5	Sep 3	5.1	Aug 11	0.83	Sep 4, 1999
ANNUAL SEVEN-DAY MINIMUM	4.6	Aug 29	6.4	Aug 6	0.92	Sep 2, 1999
MAXIMUM PEAK FLOW			1,500	Apr 2	1,850	Apr 6, 1987
MAXIMUM PEAK STAGE			12.68	Apr 2	12.94	Oct 22, 1996
INSTANTANEOUS LOW FLOW			a 3.8	Aug 10	b 0.60	Sep 4, 1999
ANNUAL RUNOFF (CF5M)	1.64		1.55		1.54	
ANNUAL RUNOFF (INCHES)	22.29		21.17		20.88	
10 PERCENT EXCEEDS	186		157		164	
50 PERCENT EXCEEDS	50		46		45	
90 PERCENT EXCEEDS	8.0		11		5.7	

a Also occurred on August 11, 12.
 b Also occurred on September 5, 8, 1999.
 c Estimated.



01100505 SPICKET RIVER AT NORTH SALEM, NH

LOCATION.--Lat 42° 50'57", long 71° 12'56", Rockingham County, Hydrologic Unit 01070002, on right bank, 70 ft downstream from Haverhill Road bridge, 100 ft southeast of North Main Street (old State Highway 111), Haverhill Road, and Island Pond Road intersection in Cowbell Corners, 1.0 mi north of Mill Pond Road and North Main Road intersection in North Salem, 2.4 mi southwest of Hampstead, and 4.8 mi north of Salem Town Hall.

DRAINAGE AREA.--16.5 mi².

PERIOD OF RECORD.--Discharge records: October 2000 to current year. Prior to October 2001, published in error as "at Island Pond Road". Water-quality discrete samples: Water years 1975 to 1977.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 190 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges and those below 1.5 ft³/s, which are fair. Flows regulated by Island Pond 0.7 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 192 ft³/s, Oct. 15, gage height, 5.36 ft; minimum daily discharge, 0.64 ft³/s, Aug. 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	59	17	52	9.5	10	27	25	46	4.6	0.65	1.8
2	4.3	54	18	49	9.2	12	25	24	40	4.2	0.70	1.8
3	3.7	51	17	49	9.0	14	5.7	25	7.5	4.4	0.68	1.7
4	4.3	47	16	47	11	16	23	31	8.2	3.8	0.70	1.6
5	4.9	44	16	47	11	17	98	32	9.8	3.0	0.80	1.4
6	4.6	41	16	46	11	19	102	32	11	3.0	0.70	1.2
7	4.4	38	17	43	13	21	97	31	11	2.6	0.68	1.1
8	4.1	34	17	41	12	22	90	29	11	2.4	0.67	1.1
9	3.9	30	16	e38	12	22	84	26	12	3.2	0.71	2.3
10	3.8	28	16	e35	12	22	77	25	16	2.8	0.67	1.3
11	3.6	26	20	e30	12	22	71	24	15	2.4	0.64	1.1
12	22	25	31	28	12	21	40	14	14	1.9	0.89	1.1
13	97	25	39	26	11	21	37	4.5	11	1.6	2.2	1.0
14	95	24	42	e24	11	20	143	4.6	10	2.2	1.1	0.98
15	122	22	50	e22	11	20	162	5.2	9.8	2.2	1.7	0.96
16	177	20	49	e21	10	20	96	11	9.2	2.1	2.5	1.0
17	155	19	46	e20	10	22	37	18	7.9	1.9	4.0	1.2
18	137	18	52	19	9.8	22	39	19	14	2.3	3.7	9.8
19	120	17	57	18	9.6	22	39	49	14	9.1	3.4	19
20	106	17	58	17	9.2	21	39	61	13	1.8	3.9	28
21	93	18	56	16	9.2	25	37	54	11	1.4	11	25
22	80	17	53	15	9.4	28	36	48	10	1.3	22	22
23	68	17	51	14	9.5	28	41	46	9.8	1.0	27	15
24	55	16	49	e13	9.3	29	45	46	8.6	1.2	23	3.2
25	45	17	56	e12	9.4	29	63	49	7.2	1.1	20	3.2
26	39	16	62	e11	9.3	29	107	49	6.9	0.90	17	3.1
27	39	15	65	11	9.2	32	108	51	6.1	0.78	9.2	3.0
28	40	15	63	11	9.3	32	103	43	4.7	1.3	1.9	4.9
29	54	17	61	10	9.5	32	67	38	5.6	1.0	2.1	12
30	63	17	57	10	---	28	24	56	5.5	0.84	2.0	12
31	63	---	55	9.8	---	4.0	---	50	---	0.75	2.0	---
TOTAL	1,716.4	804	1,238	804.8	299.4	682.0	1,962.7	1,020.3	365.8	73.07	168.19	182.84
MEAN	55.4	26.8	39.9	26.0	10.3	22.0	65.4	32.9	12.2	2.36	5.43	6.09
MAX	177	59	65	52	13	32	162	61	46	9.1	27	28
MIN	3.6	15	16	9.8	9.0	4.0	5.7	4.5	4.7	0.75	0.64	0.96

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

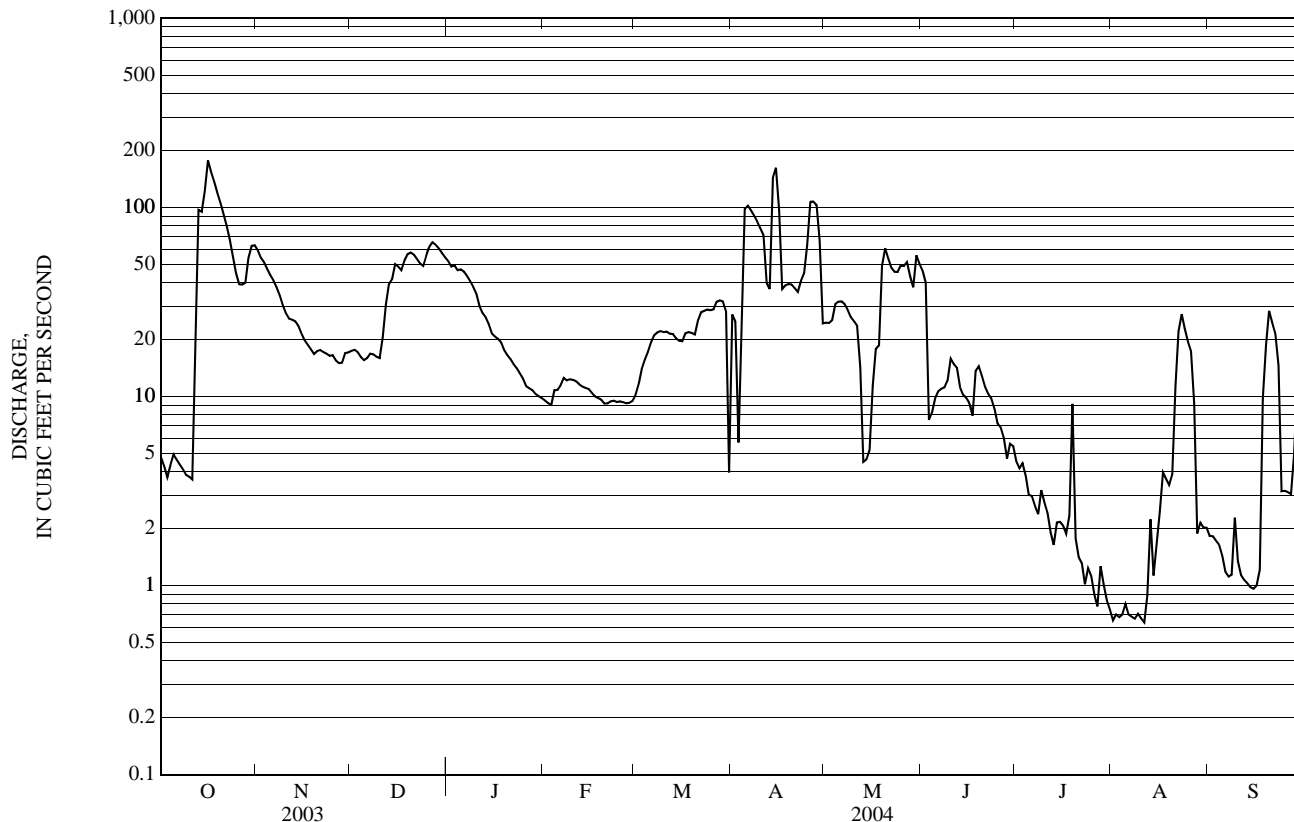
MEAN	48.8	16.0	25.0	16.9	12.8	38.3	46.7	20.1	15.9	1.65	3.90	2.67
MAX	55.4	26.8	39.9	26.0	17.6	67.9	70.8	41.4	29.9	2.36	7.48	6.09
(WY)	(2004)	(2004)	(2004)	(2004)	(2001)	(2003)	(2001)	(2002)	(2002)	(2004)	(2003)	(2004)
MIN	44.7	4.20	3.18	4.31	6.42	1.23	1.88	1.02	0.88	0.79	1.20	0.88
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)	(2001)	(2001)	(2002)	(2002)

01100505 SPICKET RIVER AT NORTH SALEM, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	9,619.21		9,317.50			
ANNUAL MEAN	26.4		25.5		20.2	
HIGHEST ANNUAL MEAN					25.5	2004
LOWEST ANNUAL MEAN					11.9	2002
HIGHEST DAILY MEAN	177	Oct 16	177	Oct 16	209	Oct 17, 2000
LOWEST DAILY MEAN	a 0.31	Jul 30	0.64	Aug 11	0.25	Jun 10, 2001
ANNUAL SEVEN-DAY MINIMUM	0.47	Jul 25	0.70	Aug 5	0.43	Oct 6, 2002
MAXIMUM PEAK FLOW			198	Oct 15	235	Oct 16, 2000
MAXIMUM PEAK STAGE			5.36	Oct 15	5.46	Oct 16, 2000
10 PERCENT EXCEEDS	74		57		52	
50 PERCENT EXCEEDS	15		17		9.2	
90 PERCENT EXCEEDS	0.89		1.5		0.82	

a Also occurred on July 31, 2003.

e Estimated.



01129200 CONNECTICUT RIVER BELOW INDIAN STREAM, NEAR PITTSBURG, NH

LOCATION.--Lat 45° 02'25", long 71° 26'40" (revised), Coos County, Hydrologic Unit 01080101, on right bank, 1,200 ft downstream from Indian Stream, 2.7 mi west of US Highway 3 and State Highway 145 intersection in Pittsburg, 3.9 mi northeast of Post Office in Beecher Falls, and at mile 376.5.

DRAINAGE AREA.--254 mi².

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Elevation of gage is 1,150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by First Connecticut and Second Connecticut Lakes and Lake Francis 3.7 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,820 ft³/s, May 11, 2000, gage height, 8.37 ft, from rating curve extended above 2,600 ft³/s; minimum daily 30 ft³/s, August 6, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,000 ft³/s, Nov. 20, gage height, 6.71 ft; minimum daily discharge, 175 ft³/s, Feb. 29.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	303	471	1,290	1,310	751	177	1,220	373	326	236	275	1,800
2	297	401	980	1,460	743	179	1,310	348	477	257	276	1,160
3	296	364	696	1,560	737	186	1,040	338	518	257	274	1,030
4	300	373	642	1,590	640	191	901	471	424	257	305	965
5	345	424	590	1,560	465	207	826	479	375	259	280	927
6	348	654	564	1,530	463	253	593	579	347	269	270	901
7	323	469	563	1,470	463	319	498	571	307	275	266	1,010
8	255	390	581	1,430	463	328	470	428	286	260	262	1,120
9	211	341	568	1,410	463	301	484	370	271	346	260	1,280
10	205	322	565	1,410	463	269	467	345	271	502	258	1,540
11	204	311	575	1,400	463	255	406	341	253	348	267	1,400
12	200	310	678	1,400	413	252	376	334	234	305	246	1,240
13	197	477	692	1,400	367	240	432	310	226	290	719	1,180
14	197	583	622	1,390	367	e227	970	293	217	282	721	1,130
15	214	427	614	1,380	e365	e224	1,030	278	226	275	366	1,110
16	340	375	604	1,210	e362	216	800	265	226	275	260	1,090
17	314	464	616	1,040	e362	214	727	257	216	297	350	1,080
18	275	527	1,100	1,030	255	215	1,020	257	211	295	364	1,070
19	252	587	1,270	1,030	181	e207	1,290	316	217	300	480	1,060
20	238	2,860	978	1,030	179	e200	1,870	290	217	315	827	774
21	742	3,250	775	1,020	178	205	833	293	210	299	965	621
22	1,350	2,940	736	1,010	180	207	644	291	207	283	1,160	617
23	521	2,720	968	1,000	183	e197	681	283	207	338	837	455
24	394	2,350	1,080	999	e181	197	538	352	207	631	771	327
25	340	1,500	1,580	980	e178	198	492	539	211	388	714	325
26	333	1,250	1,600	978	e178	235	509	485	232	324	681	337
27	1,220	1,210	1,290	975	e178	663	495	454	212	299	660	331
28	2,110	1,190	1,120	876	177	1,080	452	399	204	287	649	324
29	1,230	1,420	1,100	757	175	923	389	566	200	279	674	322
30	1,330	1,420	1,250	757	---	909	372	400	200	274	1,490	318
31	624	---	1,360	757	---	970	---	337	---	273	2,230	---
TOTAL	15,508	30,380	27,647	37,149	10,573	10,444	22,135	11,642	7,935	9,575	18,157	26,844
MEAN	500	1,013	892	1,198	365	337	738	376	264	309	586	895
MAX	2,110	3,250	1,600	1,590	751	1,080	1,870	579	518	631	2,230	1,800
MIN	197	310	563	757	175	177	372	257	200	236	246	318

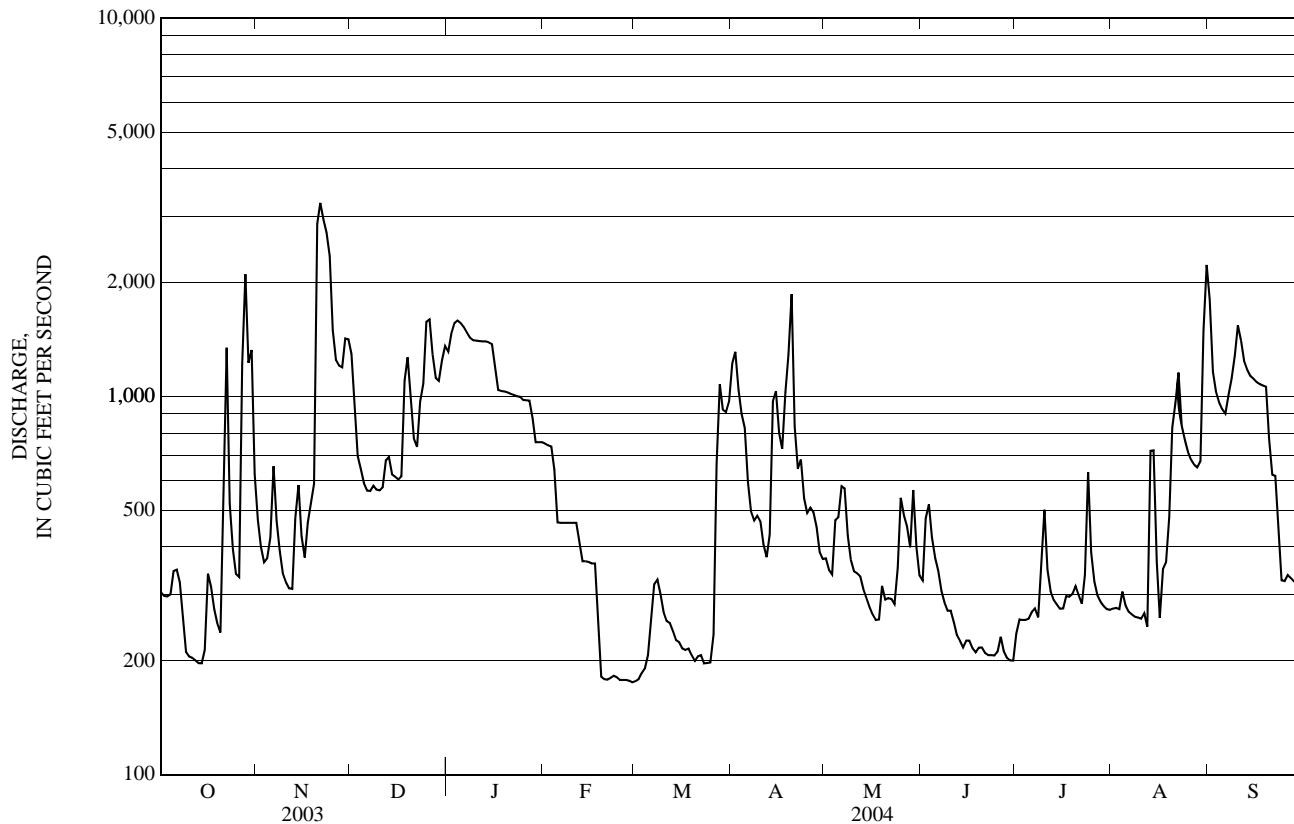
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2004, BY WATER YEAR (WY)

MEAN	538	547	722	800	748	527	645	517	384	411	436	445
MAX	1,342	1,056	1,485	1,198	1,325	1,088	1,206	1,691	863	1,187	1,043	1,095
(WY)	(1978)	(1978)	(1960)	(2004)	(1974)	(1979)	(2002)	(1974)	(1984)	(1996)	(1976)	(1963)
MIN	111	181	310	462	219	118	247	162	80.9	55.7	64.7	111
(WY)	(1969)	(1967)	(2002)	(1979)	(2003)	(2001)	(1995)	(1988)	(1962)	(1965)	(1975)	(1968)

01129200 CONNECTICUT RIVER BELOW INDIAN STREAM, NEAR PITTSBURG, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 2004	
ANNUAL TOTAL	166,682		227,989			
ANNUAL MEAN	457		623		559	
HIGHEST ANNUAL MEAN					789	1976
LOWEST ANNUAL MEAN					339	2003
HIGHEST DAILY MEAN	3,250	Nov 21	3,250	Nov 21	5,610	May 11, 2000
LOWEST DAILY MEAN	102	Jun 29	175	Feb 29	30	Aug 6, 1965
ANNUAL SEVEN-DAY MINIMUM	115	Jun 23	177	Feb 25	33	Aug 20, 1975
MAXIMUM PEAK FLOW			4,000	Nov 20	a 5,820	May 11, 2000
MAXIMUM PEAK STAGE			6.71	Nov 20	8.37	May 11, 2000
10 PERCENT EXCEEDS	972		1,300		1,020	
50 PERCENT EXCEEDS	333		426		502	
90 PERCENT EXCEEDS	152		211		157	

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



01129200 CONNECTICUT RIVER BELOW INDIAN STREAM, NEAR PITTSBURG, NH—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June 1999 to current year.

INSTRUMENTATION.--Water-temperature recorder since June 16, 1999, provides continuous recordings.

REMARKS.--Records fair.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.5	15.5	16.0	10.5	9.0	9.5	4.5	3.5	4.0	3.0	1.0	2.0
2	17.0	15.0	16.0	9.5	8.0	8.5	4.0	2.5	3.0	3.0	1.0	2.5
3	17.0	14.5	15.5	9.0	8.0	8.5	3.0	2.5	2.5	3.5	1.5	2.5
4	16.5	14.5	15.5	8.5	6.0	7.0	3.0	2.0	2.5	3.0	1.0	2.5
5	15.5	13.0	14.5	6.5	5.5	6.0	2.5	1.5	2.5	3.0	1.0	2.5
6	14.0	12.5	13.0	7.5	6.5	7.0	2.5	1.5	2.0	3.0	1.0	2.0
7	15.0	12.5	13.5	7.5	6.0	6.5	2.5	1.5	2.0	3.0	0.5	2.0
8	16.0	13.5	14.5	6.0	3.0	4.5	2.5	1.5	2.0	2.5	0.5	1.5
9	17.0	13.5	15.0	4.0	2.5	3.0	2.5	1.5	2.0	2.5	0.5	1.5
10	17.5	14.0	15.5	5.5	3.0	4.5	2.5	1.5	2.0	3.0	0.5	1.5
11	18.0	14.5	15.5	6.0	4.5	5.0	3.0	2.0	2.5	3.0	0.5	2.0
12	17.5	14.5	15.5	6.5	5.5	6.0	2.5	1.5	2.0	3.0	1.0	2.0
13	17.0	13.5	15.0	6.5	4.0	5.5	2.0	1.0	1.5	3.0	0.5	2.0
14	16.5	13.5	14.5	4.0	1.0	2.0	2.5	1.0	1.5	3.0	0.0	1.5
15	15.0	12.5	14.0	2.5	1.5	2.0	2.0	1.0	2.0	2.5	0.0	1.5
16	12.5	10.0	11.0	2.5	2.0	2.0	2.5	1.5	2.0	3.0	0.5	1.5
17	11.5	9.5	10.5	4.0	2.0	3.0	2.5	1.5	2.0	3.0	0.5	2.0
18	11.5	10.0	10.5	4.0	3.0	3.5	2.0	1.0	1.0	3.5	1.0	2.0
19	12.0	10.5	11.0	5.5	3.5	4.5	1.5	1.0	1.0	3.0	0.5	2.0
20	11.0	9.5	10.5	5.5	4.0	4.5	1.5	1.0	1.5	3.0	0.5	2.0
21	10.5	6.0	8.0	6.0	4.0	5.0	2.0	1.0	1.5	3.0	0.5	2.0
22	6.5	5.5	6.0	6.0	5.5	5.5	2.0	1.5	2.0	3.0	0.5	2.0
23	6.0	5.5	6.0	6.0	5.0	5.5	2.5	2.0	2.0	3.0	0.0	1.5
24	6.5	5.0	5.5	6.0	5.5	5.5	3.0	2.0	2.5	3.0	0.0	1.5
25	7.5	5.5	6.5	5.5	4.5	5.0	2.5	1.0	1.5	2.5	0.0	1.5
26	9.5	7.0	8.0	5.0	4.5	4.5	2.0	1.0	1.5	3.0	0.0	1.0
27	9.0	8.0	8.5	5.0	4.0	4.5	2.0	1.5	2.0	3.0	0.5	1.5
28	9.0	7.5	8.5	5.5	4.5	5.0	2.5	1.5	2.0	3.0	0.5	2.0
29	8.5	7.5	8.0	5.5	3.5	5.0	2.5	1.5	2.0	3.0	0.5	1.5
30	8.5	7.5	8.0	4.5	3.5	4.0	2.5	2.0	2.5	3.0	0.5	1.5
31	9.0	6.5	8.0	---	---	---	3.0	1.0	2.0	3.0	0.5	1.5
MONTH	18.0	5.0	11.5	10.5	1.0	5.1	4.5	1.0	2.0	3.5	0.0	1.8

01129440 MOHAWK RIVER NEAR COLEBROOK, NH

LOCATION.--Lat 44° 52' 28", long 71° 24' 38", Coos County, Hydrologic Unit 01080101, on right bank, upstream of Bungy Road bridge, south of the intersection of State Highway 26 and Bungy Road, 0.8 mi upstream of Read Brook, 1.7 mi downstream of Roaring Brook, 5 mi east of Colebrook, and 5.5 mi west of Dixville Notch.

DRAINAGE AREA.--36.7 mi².

PERIOD OF RECORD.--Discharge records: October 1986 to September 2004 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,190 ft (revised) above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 21	1230	713	6.77	Dec 11	2230	ice jam	*9.57
Oct 27	2315	1,050	7.41	Dec 18	0045	1,140	7.57
Oct 29	1400	616	6.54	Dec 25	0130	708	6.76
Nov 20	0815	*1,390	7.94	Apr 20	0300	668	6.67

Minimum discharge, 13 ft³/s, July 4, 5, Aug. 2, 3, gage height, 3.78 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	99	103	107	e28	e22	311	73	76	15	18	57
2	15	83	79	96	e27	e23	285	65	119	33	14	38
3	18	83	69	95	e27	e32	220	75	85	19	94	31
4	21	96	e66	100	e28	26	191	144	77	15	58	28
5	43	76	e60	87	e27	28	158	137	54	15	27	24
6	27	70	e60	78	e28	e70	115	150	45	26	20	26
7	22	61	e63	69	e30	e60	105	111	42	18	33	24
8	20	54	e61	e55	e29	e40	108	78	38	21	27	32
9	17	47	e56	e45	e28	e31	115	67	48	109	24	249
10	17	46	e55	e45	e27	30	100	59	58	71	17	113
11	16	46	e115	e55	e27	e30	79	58	37	49	18	64
12	15	51	218	e73	e27	31	83	51	32	28	19	46
13	15	190	108	e68	e26	29	114	46	30	32	111	38
14	16	108	e95	e58	e25	e27	351	42	29	23	90	33
15	106	76	e91	e54	e24	25	209	42	47	27	39	30
16	72	65	e89	e50	e22	e25	168	49	33	28	40	28
17	53	63	e240	e48	e21	e24	175	40	28	39	46	26
18	41	e57	626	e46	e21	e23	239	81	25	26	30	30
19	34	130	e205	e44	e22	e21	356	108	65	32	53	28
20	30	626	e140	e42	e24	e22	399	53	39	27	80	26
21	354	249	e120	e40	e23	23	185	51	28	22	145	24
22	156	156	110	e39	e22	e22	166	43	27	17	85	25
23	84	121	e98	e38	e21	e22	143	63	29	76	51	21
24	62	104	e220	e36	e21	e21	126	133	21	67	45	20
25	51	98	463	e34	e21	21	100	117	22	30	31	19
26	65	81	225	e32	e20	58	134	86	21	22	27	20
27	426	72	156	e30	e20	230	110	68	17	24	25	18
28	407	81	e135	e30	e20	166	94	105	16	24	24	17
29	358	261	e125	e29	e21	163	78	95	16	19	37	17
30	213	125	136	e29	---	183	77	63	16	16	134	17
31	125	---	125	e28	---	185	---	51	---	15	114	---
TOTAL	2,915	3,475	4,512	1,680	707	1,713	5,094	2,404	1,220	985	1,576	1,169
MEAN	94.0	116	146	54.2	24.4	55.3	170	77.5	40.7	31.8	50.8	39.0
MAX	426	626	626	107	30	230	399	150	119	109	145	249
MIN	15	46	55	28	20	21	77	40	16	15	14	17
CFSM	2.56	3.16	3.97	1.48	0.66	1.51	4.63	2.11	1.11	0.87	1.39	1.06
IN.	2.95	3.52	4.57	1.70	0.72	1.74	5.16	2.44	1.24	1.00	1.60	1.18

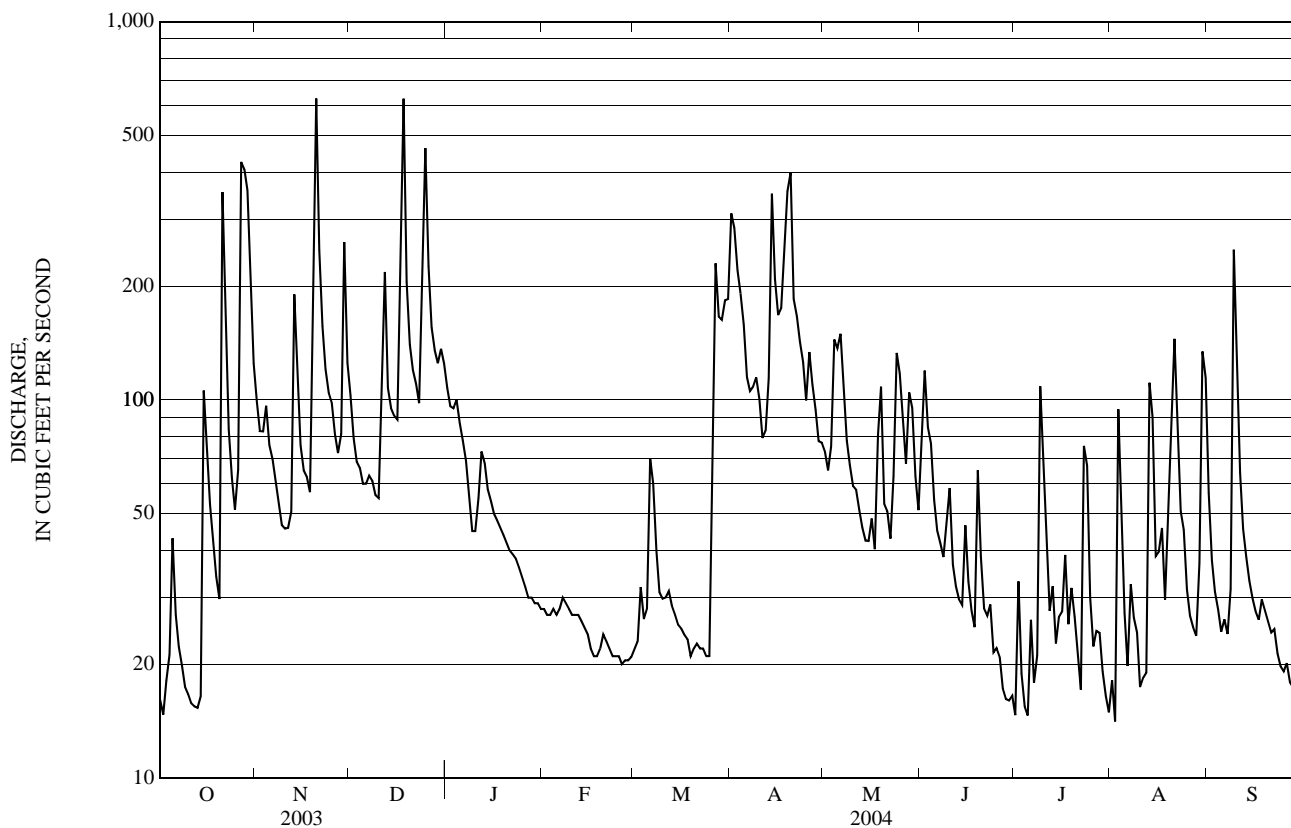
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

	54.4	69.3	61.1	47.9	33.9	85.0	203	101	57.8	37.5	30.9	30.8
MEAN	54.4	69.3	61.1	47.9	33.9	85.0	203	101	57.8	37.5	30.9	30.8
MAX	122	116	146	134	109	231	344	177	140	108	93.3	79.9
(WY)	(1991)	(2004)	(2004)	(1996)	(1996)	(1998)	(1996)	(1989)	(2002)	(1996)	(1988)	(1999)
MIN	23.0	33.0	25.9	22.1	13.4	18.8	74.2	51.3	26.7	13.0	9.91	11.1
(WY)	(2003)	(1995)	(1990)	(2002)	(1993)	(2001)	(1995)	(1998)	(1992)	(1991)	(2002)	(1995)

01129440 MOHAWK RIVER NEAR COLEBROOK, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1987 - 2004	
ANNUAL TOTAL	24,708.2		27,450		67.7	
ANNUAL MEAN	67.7		75.0		104	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					44.1	
HIGHEST DAILY MEAN	a 626	Nov 20	a 626	Nov 20	2,450	Mar 31, 1998
LOWEST DAILY MEAN	6.6	Sep 13	14	Aug 2	4.9	Sep 10, 2002
ANNUAL SEVEN-DAY MINIMUM	7.1	Sep 9	17	Oct 8	5.3	Sep 4, 2002
MAXIMUM PEAK FLOW			1,390	Nov 20	b 4,880	Mar 31, 1998
MAXIMUM PEAK STAGE			c 9.57	Dec 11	10.99	Mar 31, 1998
INSTANTANEOUS LOW FLOW			d 13	Jul 4	f 4.8	Sep 9, 2002
ANNUAL RUNOFF (CFSM)	1.84		2.04		1.85	
ANNUAL RUNOFF (INCHES)	25.04		27.82		25.08	
10 PERCENT EXCEEDS	142		157		135	
50 PERCENT EXCEEDS	33		46		39	
90 PERCENT EXCEEDS	12		20		16	

- a Also occurred on December 18.
- b From rating curve extended above 2,200 ft³/s.
- c Ice jam.
- d Also occurred on July 5, August 2, 3.
- e Estimated.
- f Also occurred on September 10, 11, 2002.



01129500 CONNECTICUT RIVER AT NORTH STRATFORD, NH

LOCATION.--Lat 44° 44'59", long 71° 37'54", Coos County, Hydrologic Unit 01080101, on left bank, at North Stratford, 400 ft downstream from Nulhegan River, 0.3 mi downstream of Vermont State Highway 105 bridge, 12.0 mi southwest of Colebrook, and at mile 344.5.

DRAINAGE AREA.--799 mi².

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 880.17 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by power plants and by First Connecticut and Second Connecticut Lakes and Lake Francis 36 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,000 ft³/s, Nov. 11, gage height, 9.48 ft; maximum gage height, 11.05, Jan. 10; minimum daily discharge, 341 ft³/s, Oct. 14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	601	2,630	3,160	2,860	e1,510	e490	5,940	1,650	1,330	376	610	5,330
2	534	2,080	2,660	2,660	e1,450	e510	6,920	1,520	2,150	e605	543	2,950
3	517	1,860	1,910	2,780	e1,310	e655	5,650	1,480	2,540	e585	674	2,130
4	518	1,860	1,800	2,910	e1,230	e705	4,680	2,130	1,880	e460	1,290	1,820
5	758	1,760	1,640	2,790	e1,150	e670	4,160	2,500	1,490	e430	834	1,620
6	785	2,160	e1,350	2,620	e1,080	e1,010	3,070	2,830	1,230	e600	607	1,510
7	659	1,870	e1,150	2,370	e1,030	e1,530	2,510	2,740	1,020	540	559	1,440
8	570	1,530	1,580	e2,080	e1,000	e1,590	2,360	2,050	913	503	576	1,600
9	451	1,260	1,690	e2,090	e965	e1,300	2,450	1,660	831	2,180	531	3,650
10	409	1,170	1,770	e2,240	e950	e1,120	2,370	1,450	1,100	2,800	482	5,040
11	389	1,110	e1,800	e2,220	e930	e910	2,000	1,390	866	2,010	472	3,800
12	371	1,130	e2,540	e2,200	e910	e975	1,810	1,290	700	1,240	512	2,710
13	356	2,100	2,420	e2,410	e885	e910	2,100	1,160	608	2,580	2,280	2,230
14	341	2,770	1,950	e2,560	e850	e825	4,880	1,040	555	1,110	3,860	1,950
15	506	1,920	1,730	e2,480	e800	e770	5,230	971	609	870	2,370	1,800
16	1,330	1,570	1,860	e2,390	e755	e820	4,060	1,000	681	843	1,470	1,690
17	1,240	1,420	2,330	e2,250	e700	e720	3,490	916	554	1,090	2,070	1,610
18	1,000	1,480	6,630	e2,170	e640	e720	4,220	891	502	895	1,350	1,580
19	826	1,820	6,150	e2,170	e560	e700	5,130	1,810	781	832	1,170	1,540
20	686	9,210	4,920	e2,180	e530	e625	6,850	1,280	916	805	2,570	1,450
21	3,300	10,900	3,590	e2,150	e525	e670	4,520	1,080	603	688	2,700	1,100
22	5,700	7,130	3,170	e2,100	e525	e655	3,120	1,030	508	592	3,800	1,060
23	2,990	5,200	2,800	e2,090	e525	e595	3,020	1,160	537	718	2,380	1,010
24	1,940	4,390	3,100	e2,060	e515	e585	2,500	2,070	489	1,820	1,940	709
25	1,510	3,470	6,990	e2,030	e505	e615	2,250	3,230	464	1,250	1,620	632
26	1,360	2,670	6,050	e1,970	e495	e755	2,500	2,720	516	865	1,400	666
27	4,070	2,400	4,340	e1,880	e490	e2,860	2,600	2,280	467	692	1,260	653
28	9,180	2,330	3,340	e1,680	e485	e5,070	2,170	1,900	421	630	1,190	603
29	7,770	4,240	3,040	e1,550	e470	e4,520	1,850	2,340	400	589	1,210	583
30	7,560	4,100	2,940	e1,550	---	4,650	1,690	1,780	389	540	3,570	562
31	4,190	---	3,100	e1,540	---	4,910	---	1,380	---	506	5,140	---
TOTAL	62,417	89,540	93,500	69,030	23,770	43,440	106,100	52,728	26,050	30,244	51,040	55,028
MEAN	2,013	2,985	3,016	2,227	820	1,401	3,537	1,701	868	976	1,646	1,834
MAX	9,180	10,900	6,990	2,910	1,510	5,070	6,920	3,230	2,540	2,800	5,140	5,330
MIN	341	1,110	1,150	1,540	470	490	1,690	891	389	376	472	562

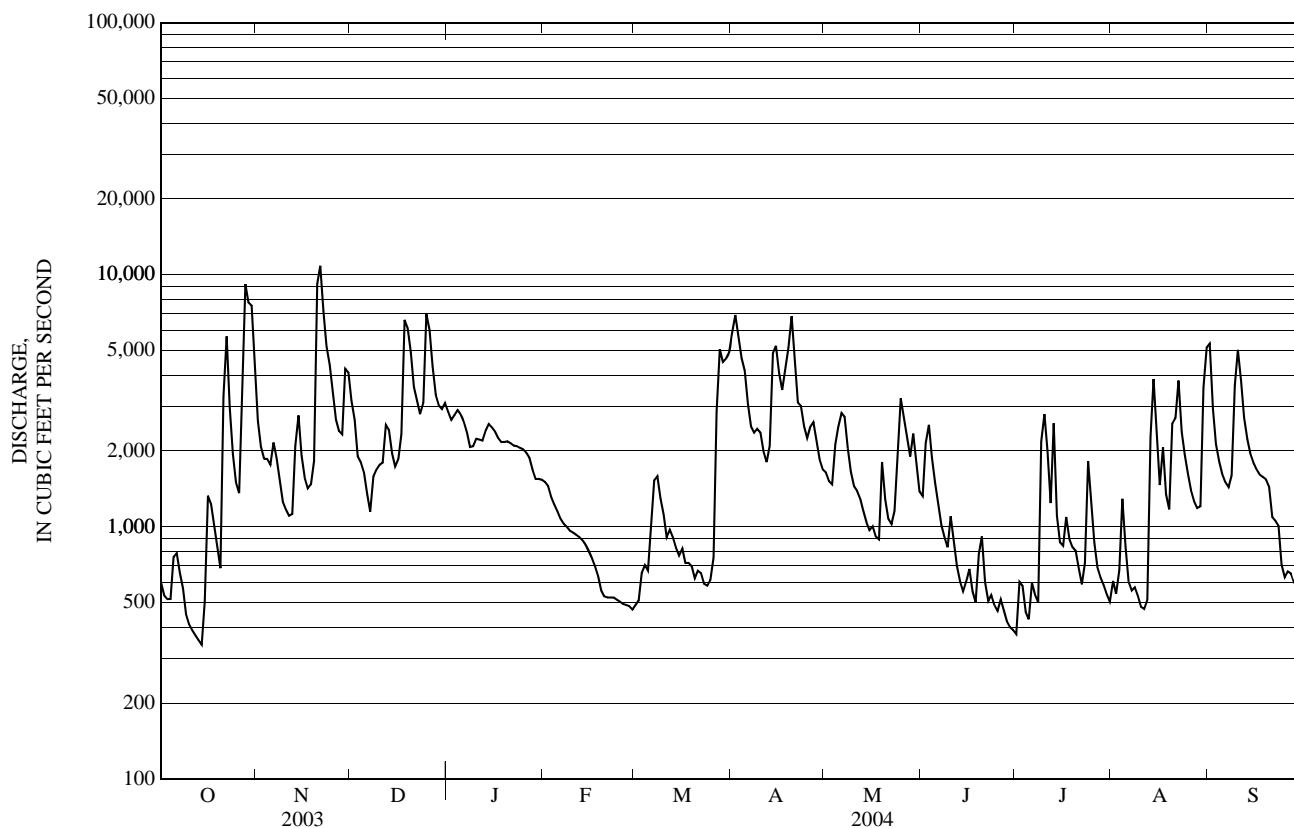
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

MEAN	1,282	1,604	1,542	1,369	1,208	1,639	3,910	2,518	1,273	894	850	922
MAX	3,445	3,119	3,095	2,537	3,295	6,254	7,348	6,018	3,724	2,818	2,475	3,203
(WY)	(1978)	(1960)	(1974)	(1998)	(1981)	(1936)	(1934)	(1972)	(1943)	(1996)	(1976)	(1954)
MIN	355	583	643	549	350	271	1,206	843	472	292	220	357
(WY)	(1949)	(1948)	(1948)	(1948)	(1940)	(1940)	(1995)	(1998)	(1962)	(1955)	(1940)	(1949)

01129500 CONNECTICUT RIVER AT NORTH STRATFORD, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004	
ANNUAL TOTAL	562,535		702,887			
ANNUAL MEAN	1,541		1,920		1,583	
HIGHEST ANNUAL MEAN					2,246	1974
LOWEST ANNUAL MEAN					1,033	1995
HIGHEST DAILY MEAN	13,700	Mar 30	10,900	Nov 21	28,000	Mar 19, 1936
LOWEST DAILY MEAN	285	Jul 21	341	Oct 14	108	Sep 29, 1960
ANNUAL SEVEN-DAY MINIMUM	310	Jul 15	403	Oct 9	128	Aug 16, 1975
MAXIMUM PEAK FLOW			12,000	Nov 21	32,300	Mar 31, 1998
MAXIMUM PEAK STAGE			a 11.05	Jan 10	ab 20.60	Mar 6, 1979
10 PERCENT EXCEEDS	3,340		4,080		3,030	
50 PERCENT EXCEEDS	779		1,520		1,120	
90 PERCENT EXCEEDS	373		525		459	

a Ice jam.
 b From floodmarks in well.
 c Estimated.



01129500 CONNECTICUT RIVER AT NORTH STRATFORD, NH—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June 1999 to current year.

INSTRUMENTATION.--Water-temperature recorder since June 16, 1999, provides continuous readings.

REMARKS.--Records fair.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.0	13.0	14.0	10.0	8.5	9.5	4.0	3.0	3.5	2.0	1.5	1.5
2	14.0	12.0	13.0	10.0	8.5	9.0	3.0	1.0	2.0	1.5	1.0	1.0
3	14.0	11.0	12.0	8.5	8.0	8.5	1.0	0.5	0.5	2.0	1.0	1.5
4	12.0	10.5	11.5	8.5	7.0	7.5	1.0	0.5	0.5	2.5	2.0	2.5
5	12.0	10.0	10.5	7.0	6.0	6.5	1.0	0.5	0.5	2.0	1.0	1.5
6	11.5	9.5	10.5	8.0	6.5	7.5	1.0	0.5	0.5	1.5	0.5	1.0
7	11.5	9.0	10.0	8.0	6.5	7.5	1.0	0.5	0.5	1.0	0.5	0.5
8	13.5	9.5	11.0	6.5	3.0	5.0	1.0	0.5	0.5	1.0	0.5	0.5
9	15.5	10.5	12.5	3.0	2.0	2.5	1.0	0.5	0.5	1.0	0.5	0.5
10	16.5	13.0	14.5	3.0	1.5	2.5	1.0	0.5	0.5	1.0	0.5	0.5
11	17.0	13.5	15.0	3.5	2.5	3.0	1.0	0.5	1.0	1.0	0.5	0.5
12	17.0	14.0	15.5	5.0	3.5	4.5	1.0	0.5	0.5	1.0	0.5	0.5
13	16.5	14.0	15.0	6.0	4.5	5.5	1.0	0.5	0.5	1.0	0.5	0.5
14	15.5	12.5	13.5	4.5	2.0	3.5	1.0	0.5	0.5	1.0	0.5	0.5
15	14.0	11.5	13.0	2.0	0.5	1.0	1.0	0.5	0.5	1.0	0.5	0.5
16	11.5	9.5	10.5	1.0	0.5	1.0	1.0	0.5	0.5	1.0	0.5	0.5
17	10.0	9.0	9.5	2.0	0.5	1.0	1.0	0.5	0.5	1.0	0.5	0.5
18	9.5	8.5	8.5	2.5	0.5	1.5	1.0	0.5	0.5	1.0	0.5	0.5
19	9.0	7.5	8.5	5.0	2.0	3.5	1.0	0.5	0.5	1.0	0.5	0.5
20	8.0	6.5	7.5	5.5	4.5	5.0	1.0	0.5	0.5	1.0	0.5	0.5
21	7.5	7.0	7.0	5.0	4.5	4.5	1.0	0.5	0.5	1.0	0.5	0.5
22	7.0	6.0	6.5	5.5	5.0	5.0	1.0	0.5	0.5	1.0	0.5	0.5
23	6.5	5.5	6.0	5.0	4.5	5.0	1.0	0.5	1.0	1.0	0.5	0.5
24	5.5	4.5	5.5	5.5	4.5	5.0	1.0	0.5	1.0	1.0	0.5	0.5
25	5.5	4.5	5.0	5.5	4.0	5.0	1.5	1.0	1.0	1.0	0.5	0.5
26	8.5	5.5	6.5	4.5	3.5	3.5	1.0	1.0	1.0	1.0	0.5	0.5
27	10.0	8.5	9.5	4.0	3.0	3.5	1.5	1.0	1.0	1.0	0.5	0.5
28	9.5	8.5	9.0	5.0	4.0	4.5	1.0	0.5	0.5	1.0	0.5	0.5
29	8.5	8.5	8.5	6.0	4.0	5.5	1.0	0.5	1.0	1.0	0.5	0.5
30	8.5	8.0	8.5	4.0	3.0	3.5	2.0	1.0	1.5	1.0	0.5	0.5
31	8.5	7.5	8.0	---	---	---	2.0	1.5	2.0	1.0	0.5	0.5
MONTH	17.0	4.5	10.2	10.0	0.5	4.7	4.0	0.5	0.8	2.5	0.5	0.7

01130000 UPPER AMMONOOSUC RIVER NEAR GROVETON, NH

LOCATION.--Lat 44° 37' 30", long 71° 28' 10", Coos County, Hydrologic Unit 01080101, on left bank, 75 ft upstream from Emerson Road bridge, 0.2 mi downstream from Nash Stream, 2.8 mi northeast of Groveton, and 3.4 mi northwest of Stark.

DRAINAGE AREA.--232 mi².

PERIOD OF RECORD.--Discharge records: August 1940 to November 1980, October 1982 to September 2004 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 920 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for periods of estimated record, 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.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0330	*3,620	*5.93	Apr 20	1930	3,130	5.62

Minimum discharge, 106 ft³/s, July 1, gage height, 2.08 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	228	1,180	780	689	e190	e118	1,580	847	450	110	220	702
2	172	937	606	604	e180	e132	1,960	857	683	258	293	458
3	163	899	375	566	e177	e235	2,040	837	785	225	191	354
4	158	939	e435	625	e176	e260	1,750	1,110	570	149	241	288
5	330	836	e435	619	e174	e237	1,490	1,110	452	128	198	240
6	297	749	e430	529	e176	e430	1,080	962	379	280	157	216
7	231	654	e445	456	e177	e660	862	834	333	216	149	206
8	191	559	e475	e387	e175	e465	808	685	300	231	229	194
9	172	475	e435	e368	e173	e340	882	567	315	920	201	842
10	158	440	e440	e366	e173	e275	914	518	437	982	161	1,650
11	149	420	e460	e373	e168	e250	759	502	327	604	144	1,040
12	140	424	e800	e410	e159	e240	682	478	253	382	141	624
13	131	719	e1,050	e442	e154	e240	834	429	221	325	368	469
14	122	911	e950	e470	e152	e215	1,970	386	197	252	674	381
15	281	602	728	e435	e148	e205	2,110	366	208	228	430	326
16	785	484	e700	e410	e145	e193	1,690	427	206	238	334	304
17	502	e435	e800	e390	e142	e183	1,410	416	174	217	388	253
18	375	e400	e1,820	e375	e142	e174	1,740	346	157	249	299	312
19	311	473	1,950	e352	e140	e170	2,220	452	189	295	225	425
20	271	2,140	1,510	e336	e138	e165	3,040	384	243	303	236	331
21	1,340	2,380	1,030	e318	e134	e160	2,250	331	179	256	432	266
22	2,340	1,390	830	e295	e132	e158	1,410	308	156	201	708	237
23	1,420	977	703	e277	e134	e150	1,350	372	187	218	430	209
24	859	797	730	e262	e129	e150	1,160	918	170	649	339	187
25	640	713	1,550	e248	e129	e150	1,010	1,420	145	446	266	178
26	585	629	1,670	e237	e125	e200	1,080	1,130	143	306	220	190
27	1,790	543	1,360	e225	e122	e950	1,200	874	134	231	192	177
28	3,300	518	1,010	e217	e120	1,510	1,020	701	122	216	176	164
29	2,930	1,120	e865	e210	e120	1,470	830	760	116	203	179	155
30	2,910	1,080	787	e207	---	1,350	788	581	115	175	817	143
31	1,800	---	762	e198	---	1,320	---	470	---	159	1,040	---
TOTAL	25,081	24,823	26,921	11,896	4,404	12,755	41,919	20,378	8,346	9,652	10,078	11,521
MEAN	809	827	868	384	152	411	1,397	657	278	311	325	384
MAX	3,300	2,380	1,950	689	190	1,510	3,040	1,420	785	982	1,040	1,650
MIN	122	400	375	198	120	118	682	308	115	110	141	143
CFSM	3.49	3.57	3.74	1.65	0.65	1.77	6.02	2.83	1.20	1.34	1.40	1.66
IN.	4.02	3.98	4.32	1.91	0.71	2.05	6.72	3.27	1.34	1.55	1.62	1.85
(†)	1.95	1.96	2.25	2.68	2.80	2.67	2.22	2.09	2.09	1.92	1.95	1.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

MEAN	318	451	355	260	214	463	1,430	1,109	453	242	200	203
MAX	1,057	1,128	994	748	851	1,374	2,416	2,695	1,119	840	572	1,427
(WY)	(1991)	(1970)	(1974)	(1978)	(1970)	(1945)	(1954)	(1972)	(2002)	(1996)	(1969)	(1954)
MIN	69.7	118	68.6	53.3	56.6	74.4	532	402	179	94.0	57.2	51.0
(WY)	(1949)	(1948)	(1948)	(1948)	(1980)	(1941)	(1995)	(1941)	(1953)	(1991)	(2001)	(1948)

01130000 UPPER AMMONOOSUC RIVER NEAR GROVETON, NH—Continued

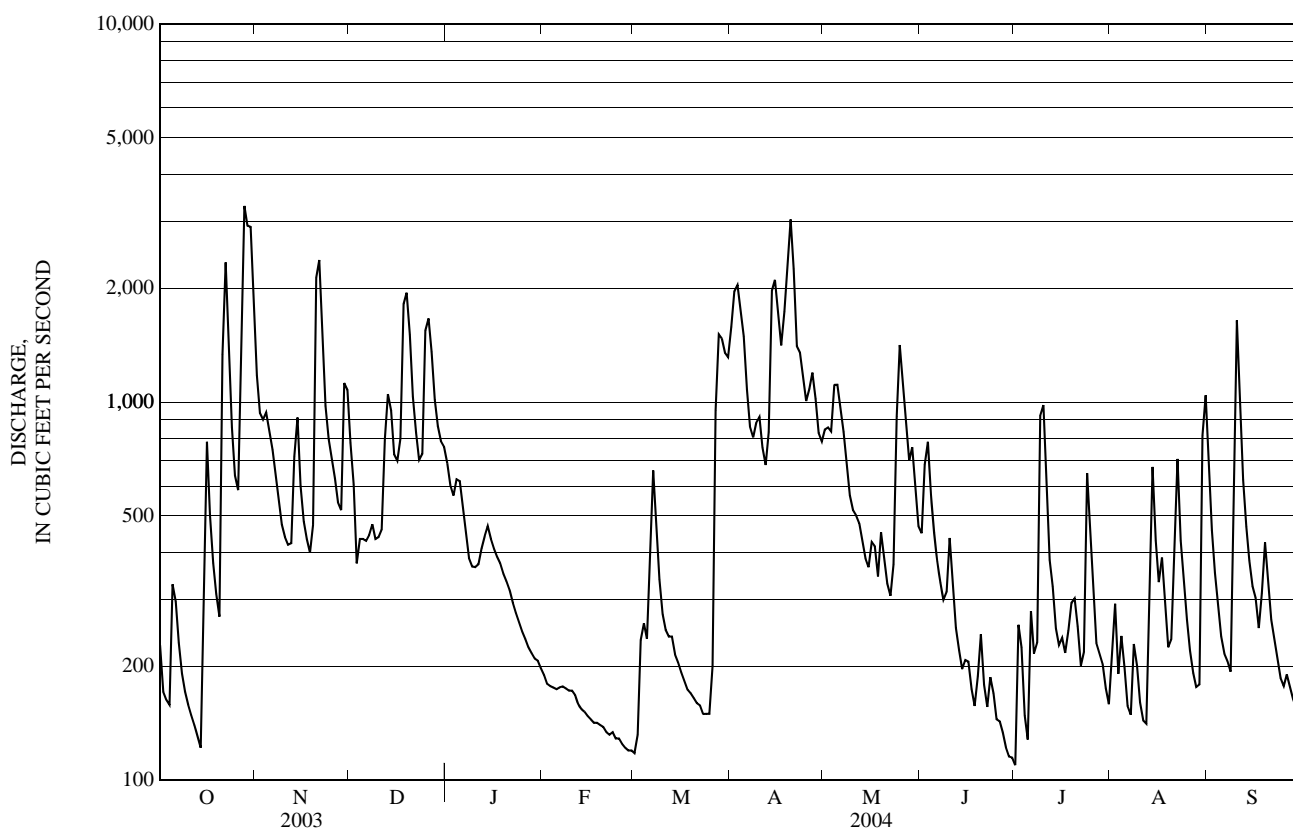
SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	188,668		207,774		475	
ANNUAL MEAN	517		568		696	
HIGHEST ANNUAL MEAN					1954	
LOWEST ANNUAL MEAN					1980	
HIGHEST DAILY MEAN	4,000	Mar 30	3,300	Oct 28	8,350	Apr 23, 1954
LOWEST DAILY MEAN	68	Sep 14	110	Jul 1	27	Sep 10, 2002
ANNUAL SEVEN-DAY MINIMUM	78	Sep 9	123	Feb 24	30	Sep 5, 2002
MAXIMUM PEAK FLOW			3,620	Oct 28	a 24,100	May 20, 1969
MAXIMUM PEAK STAGE			5.93	Oct 28	b 12.01	May 20, 1969
INSTANTANEOUS LOW FLOW			106	Jul 1	26	Sep 11, 2002
ANNUAL RUNOFF (CFSM)	2.23		2.45		2.05	
ANNUAL RUNOFF (INCHES)	30.25		33.32		27.82	
10 PERCENT EXCEEDS	1,160		1,340		1,110	
50 PERCENT EXCEEDS	281		375		245	
90 PERCENT EXCEEDS	101		150		96	

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

a From rating curve extended above 8,700 ft³/s on basis of contracted-opening measurement of peak flow.

b From floodmarks. Caused by failure of dam on Nash Stream.

e Estimated.



01131500 CONNECTICUT RIVER NEAR DALTON, NH

LOCATION.--Lat 44° 24'36", long 71° 43'16", Coos County, Hydrologic Unit 01080101, on left bank, 250 ft upstream from Dalton Hill Road bridge, 1,200 ft downstream from dam of Gilman Paper Co., 0.3 mi south of Post Office in Gilman, VT, 0.3 mi north of Dalton Hill Road and State Highway 135 intersection in Cushman, 1.2 mi downstream from Dalton, and at mile 300.1.

DRAINAGE AREA.--1,514 mi².

PERIOD OF RECORD.--Discharge records: March 1927 to current year. Published as "at Waterford, VT" 1927-35. Records published for both sites January to September 1935.

REVISED RECORDS.--WSP 891: Drainage area. WSP 1231: 1935. WSP 1301: 1928-35(M).

GAGE.--Water-stage recorder. Datum of gage is 799.89 ft above National Geodetic Vertical Datum of 1929. Prior to September 30, 1935, nonrecording gage at bridge 10.5 mi downstream at mean sea level. January 1, 1935 to June 29, 1937, nonrecording gage at bridge 250 ft downstream at present datum. 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 fair. Flow regulated by power plants and by First Connecticut and Second Connecticut Lakes, Lake Francis, and other reservoirs. These reservoirs have a combined usable capacity of about 8.3 billion ft³.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,300 ft³/s, Oct. 30, gage height, 16.52 ft; minimum daily discharge, 583 ft³/s, Jul. 5.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,480	8,080	6,220	5,470	2,870	909	11,200	3,630	2,780	831	1,190	8,040
2	1,140	5,480	5,160	4,980	2,350	933	12,400	3,510	3,090	874	1,570	6,290
3	1,120	4,710	3,890	4,620	e2,470	1,130	13,000	3,380	4,610	1,420	1,250	4,150
4	1,000	4,500	2,770	4,820	2,390	1,530	11,000	4,320	4,220	1,020	1,760	3,200
5	1,140	4,250	e2,650	5,010	e2,180	1,720	9,350	5,820	3,250	583	1,970	2,750
6	1,540	3,950	2,250	4,730	e2,000	1,830	7,390	5,580	2,720	1,140	1,370	2,540
7	1,410	3,980	1,660	4,200	1,790	2,840	5,790	5,450	2,310	1,450	1,110	2,100
8	1,380	3,540	2,070	3,390	e1,770	3,380	5,100	4,710	1,840	1,120	1,120	2,010
9	1,240	2,800	e2,450	3,080	e1,740	3,050	4,960	3,760	1,750	2,100	1,190	3,000
10	970	2,600	e2,500	3,250	1,670	2,620	5,010	3,180	1,970	5,390	1,190	7,600
11	767	2,570	2,580	3,420	1,630	2,030	4,590	2,930	2,050	4,260	871	7,400
12	800	2,490	3,930	3,260	e1,630	2,050	3,960	2,830	1,640	2,950	806	5,300
13	772	2,570	5,230	3,420	1,650	1,950	3,980	2,700	1,340	2,780	1,630	3,960
14	695	4,650	4,520	3,910	1,550	1,760	7,170	2,290	1,320	2,820	4,330	3,270
15	853	4,360	3,430	3,840	e1,450	1,580	10,300	2,110	1,140	1,890	4,840	2,900
16	2,150	3,280	3,230	3,690	e1,380	1,680	9,140	2,550	1,320	1,420	3,150	2,710
17	2,600	2,970	3,270	e3,600	e1,280	1,480	7,230	2,570	1,260	1,540	2,890	2,380
18	2,370	2,680	6,530	e3,550	e1,270	1,410	7,030	2,070	1,060	1,460	3,150	2,440
19	1,830	2,720	9,790	e3,470	e1,200	1,400	8,330	2,290	1,030	1,700	2,460	2,890
20	1,500	7,130	9,700	e3,450	1,190	1,240	10,300	2,880	1,540	1,570	2,060	2,630
21	2,650	14,000	8,030	e3,300	1,040	1,270	10,900	2,510	1,440	1,500	3,450	2,340
22	9,160	14,200	6,030	e3,280	979	1,250	7,680	2,100	1,090	1,490	5,580	1,740
23	8,360	11,100	5,200	e3,260	1,030	1,160	6,090	2,300	1,090	1,300	5,040	1,700
24	5,110	8,000	4,900	e3,250	1,040	1,110	5,520	4,070	1,120	2,230	3,580	1,550
25	3,670	6,510	7,530	e3,230	982	1,170	5,020	6,820	1,010	2,710	2,860	1,300
26	3,110	5,330	11,000	e3,190	978	1,360	4,750	6,570	896	e2,240	2,510	1,240
27	4,750	4,390	11,000	e3,130	955	3,350	5,810	5,380	725	1,650	1,920	1,170
28	12,500	4,060	8,690	2,810	914	7,860	5,180	4,370	1,020	1,120	1,900	1,420
29	14,500	5,310	6,430	e2,580	890	9,080	4,380	4,490	721	1,420	1,800	993
30	15,300	7,740	5,620	e2,450	---	9,430	3,810	4,220	773	1,060	3,670	1,150
31	13,000	---	5,530	2,590	---	9,790	---	3,250	---	1,070	7,840	---
TOTAL	118,867	159,950	163,790	112,230	44,268	83,352	216,370	114,640	52,125	56,108	80,057	92,163
MEAN	3,834	5,332	5,284	3,620	1,526	2,689	7,212	3,698	1,738	1,810	2,582	3,072
MAX	15,300	14,200	11,000	5,470	2,870	9,790	13,000	6,820	4,610	5,390	7,840	8,040
MIN	695	2,490	1,660	2,450	890	909	3,810	2,070	721	583	806	993

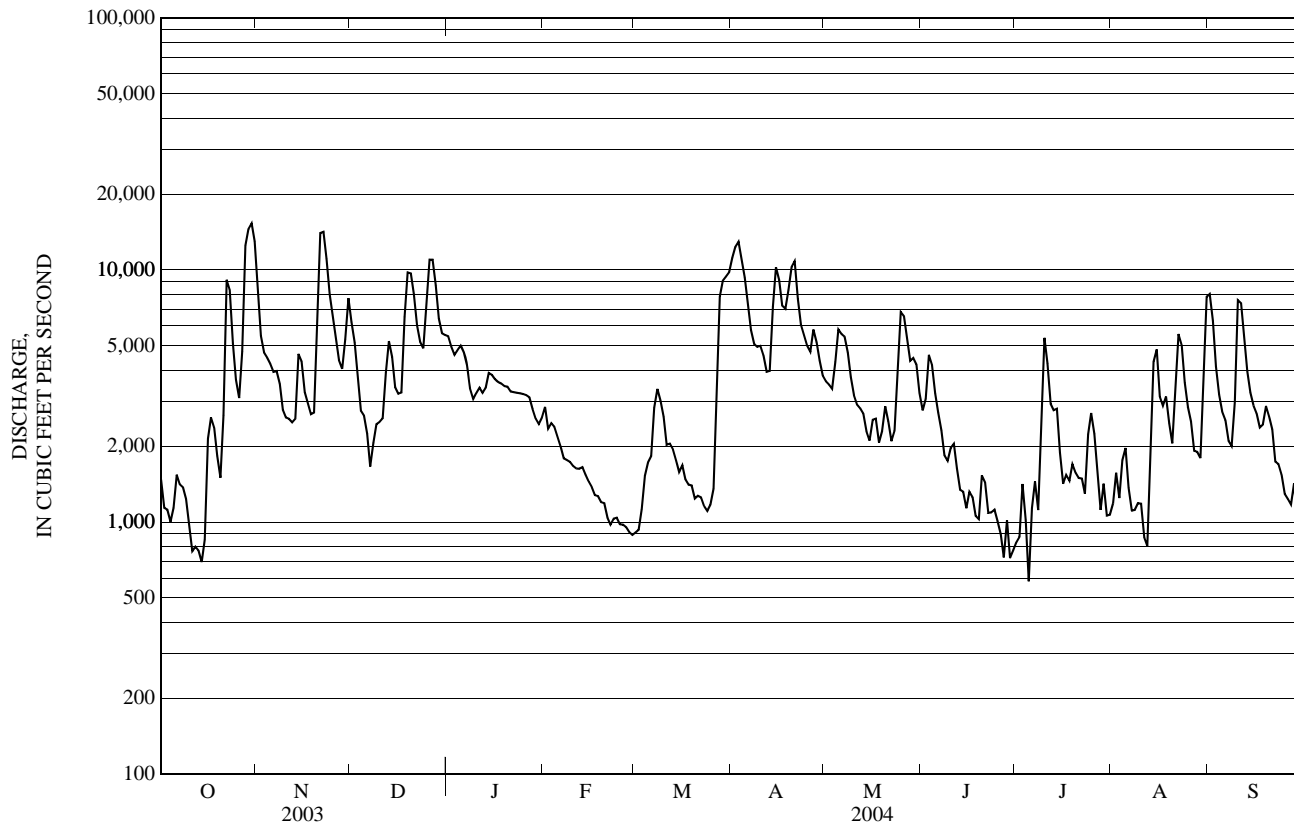
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2004, BY WATER YEAR (WY)

MEAN	2,182	2,880	2,522	2,138	1,805	2,923	7,794	5,467	2,516	1,577	1,422	1,528
MAX	6,129	7,331	5,786	4,321	6,093	12,140	15,380	11,890	6,415	5,059	3,662	7,140
(WY)	(1978)	(1928)	(1974)	(1996)	(1981)	(1936)	(1934)	(1972)	(2002)	(1996)	(1976)	(1954)
MIN	654	1,066	860	751	533	482	2,631	1,951	1,030	654	406	654
(WY)	(1949)	(1948)	(1948)	(1948)	(1940)	(1940)	(1995)	(1941)	(1988)	(1955)	(1942)	(1995)

01131500 CONNECTICUT RIVER NEAR DALTON, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1927 - 2004	
ANNUAL TOTAL	1,078,179		1,293,920		2,900	
ANNUAL MEAN	2,954		3,535		1,934	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					1995	
HIGHEST DAILY MEAN	19,400	Mar 31	15,300	Oct 30	46,500	Mar 20, 1936
LOWEST DAILY MEAN	576	Sep 14	583	Jul 5	115	Oct 3, 1937
ANNUAL SEVEN-DAY MINIMUM	613	Sep 9	834	Jun 26	265	Sep 8, 1957
MAXIMUM PEAK FLOW			16,300	Oct 30	48,300	Mar 20, 1936
MAXIMUM PEAK STAGE			16.52	Oct 30	25.60	Mar 20, 1936
10 PERCENT EXCEEDS	6,550		7,550		6,060	
50 PERCENT EXCEEDS	1,680		2,720		1,860	
90 PERCENT EXCEEDS	741		1,090		819	

e Estimated.



01133000 EAST BRANCH PASSUMPSIC RIVER NEAR EAST HAVEN, VT

LOCATION.--Lat 44° 38'02", long 71° 53'53", Caledonia County, Hydrologic Unit 01080102, on right bank, in Town of Burke, downstream of Watkins Road, 0.5 mi upstream from Flower Brook, 0.9 mi south of Hartwellville, 2.1 mi south of East Haven, 4.2 mi east of Post Office in West Burke, and 8.4 mi upstream from mouth.

DRAINAGE AREA.--53.8 mi².

PERIOD OF RECORD.--Discharge records: July 1939 to October 1945, October 1948 to September 1979, October 1997 to current year. Prior to October 1951, published as Passumpsic River near East Haven.

REVISED RECORDS.--WSP 1141: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 943.88 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to October 1, 1973, at datum 2.00 ft higher.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 21	1445	1,050	5.76	Nov 20	0945	1,080	5.83
Oct 28	0100	*1,330	6.43	Dec 25	0500	ice jam	*6.44
Oct 29	1715	977	5.58				

Minimum discharge, 23 ft³/s, Mar. 23, result of freezeup, gage height, 1.87 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	202	213	e155	e52	e50	525	140	130	49	e88	150
2	48	175	e148	e147	e51	e56	552	131	340	64	e64	98
3	43	195	e119	e135	e50	e115	414	144	222	54	72	80
4	43	211	e110	e125	e50	101	358	267	151	48	88	70
5	64	173	e103	e115	e50	87	318	235	118	68	58	61
6	55	157	e105	e110	e50	203	220	232	102	224	49	58
7	46	134	e105	e78	e49	127	182	191	92	82	46	55
8	42	118	e105	e68	e49	87	189	149	83	109	46	67
9	40	104	e110	e90	e48	73	211	134	141	532	43	306
10	39	99	e130	e120	e47	66	196	122	201	238	40	353
11	37	98	e212	e108	e47	66	159	121	111	128	42	179
12	37	106	e365	e102	e47	68	157	110	88	87	61	116
13	35	245	e225	e98	e47	61	221	101	78	71	159	93
14	32	194	e170	e95	e46	59	536	94	72	63	294	79
15	114	134	e185	e92	e45	57	371	92	99	68	109	72
16	169	119	e225	e91	e44	53	294	102	71	72	91	69
17	116	109	e420	e90	e42	54	274	88	69	83	104	64
18	84	100	e560	e88	e39	51	331	85	64	81	72	70
19	75	192	e330	e87	e38	50	397	113	139	93	68	65
20	63	789	e250	e86	e40	49	405	87	104	71	89	60
21	596	441	e215	e88	e40	53	275	86	75	60	192	57
22	369	277	e180	e84	e39	46	238	80	69	54	155	57
23	183	205	e160	e79	e39	50	206	129	88	123	86	54
24	127	174	e235	e74	e40	50	218	366	67	151	77	50
25	102	169	e600	e70	e40	53	184	451	71	80	62	50
26	106	143	e350	e67	e40	120	286	283	68	64	56	56
27	539	128	e240	e63	e42	441	240	195	58	58	53	50
28	784	146	e210	e59	e45	372	202	212	55	64	51	48
29	657	523	e195	e56	e47	342	176	207	52	59	101	48
30	487	293	e175	e55	---	341	155	140	51	52	358	45
31	274	---	e165	e53	---	321	---	115	---	e48	299	---
TOTAL	5,460	6,153	6,915	2,828	1,303	3,722	8,490	5,002	3,129	3,098	3,173	2,680
MEAN	176	205	223	91.2	44.9	120	283	161	104	99.9	102	89.3
MAX	784	789	600	155	52	441	552	451	340	532	358	353
MIN	32	98	103	53	38	46	155	80	51	48	40	45
CFSM	3.27	3.81	4.15	1.70	0.84	2.23	5.26	3.00	1.94	1.86	1.90	1.66
IN.	3.78	4.25	4.78	1.96	0.90	2.57	5.87	3.46	2.16	2.14	2.19	1.85

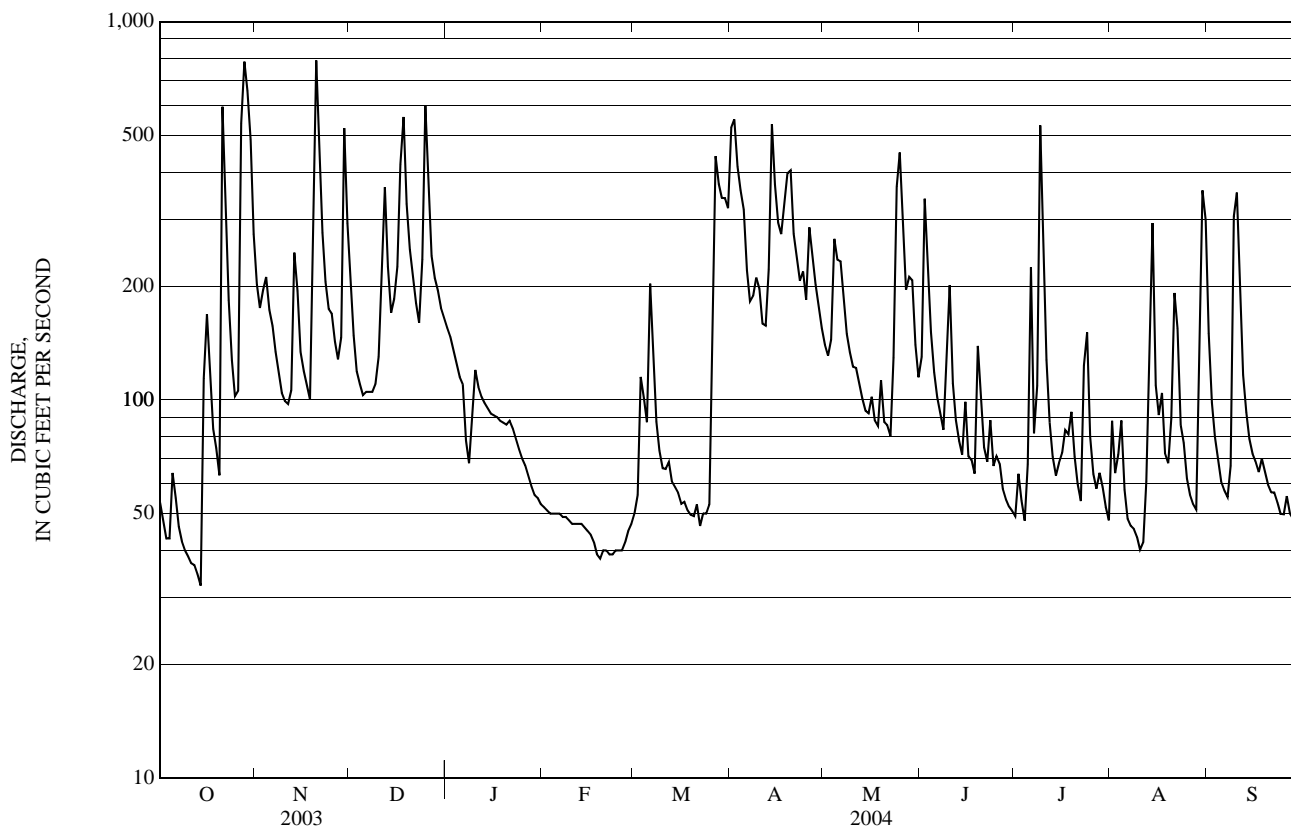
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1979, 1998 - 2004, BY WATER YEAR (WY)

	83.1	102	87.7	65.0	53.8	97.5	289	210	110	68.1	56.4	61.3
MEAN	83.1	102	87.7	65.0	53.8	97.5	289	210	110	68.1	56.4	61.3
MAX	218	232	250	148	114	244	469	423	325	241	121	177
(WY)	(1946)	(1960)	(1974)	(1978)	(1976)	(1953)	(1954)	(1972)	(2002)	(1973)	(1962)	(1954)
MIN	24.4	39.3	41.0	21.4	16.9	20.5	154	76.1	48.9	31.7	19.8	28.3
(WY)	(1949)	(1979)	(1956)	(1940)	(1940)	(1940)	(1972)	(1998)	(1953)	(1955)	(1999)	(1978)

01133000 EAST BRANCH PASSUMPSIC RIVER NEAR EAST HAVEN, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 79, 1998 - 2004	
ANNUAL TOTAL	45,671		51,953			
ANNUAL MEAN	125		142		107	
HIGHEST ANNUAL MEAN					166	1973
LOWEST ANNUAL MEAN					76.0	1941
HIGHEST DAILY MEAN	796	Mar 30	789	Nov 20	2,310	Jun 12, 2002
LOWEST DAILY MEAN	a 22	Sep 12	32	Oct 14	b 12	Sep 1, 1999
ANNUAL SEVEN-DAY MINIMUM	23	Sep 9	37	Oct 8	12	Aug 31, 1999
MAXIMUM PEAK FLOW			1,330	Oct 28	4,450	Jun 30, 1973
MAXIMUM PEAK STAGE			c 6.44	Dec 25	11.45	Jun 30, 1973
INSTANTANEOUS LOW FLOW			d 23	Mar 23	f 11	Sep 4, 1999
ANNUAL RUNOFF (CFSM)	2.33		2.64		1.99	
ANNUAL RUNOFF (INCHES)	31.58		35.92		26.99	
10 PERCENT EXCEEDS	278		310		231	
50 PERCENT EXCEEDS	69		96		64	
90 PERCENT EXCEEDS	30		47		31	

- a Also occurred on September 13, 2003.
- b Also occurred on August 15, 16, 2001.
- c Ice jam.
- d Result of freezeup.
- e Estimated.
- f Also occurred on August 16, 2001.



01134500 MOOSE RIVER AT VICTORY, VT

LOCATION.--Lat 44° 30'42", long 71° 50'16" (revised), Essex County, Hydrologic Unit 01080102, on right bank, 0.5 mi northeast of Victory, 0.8 mi downstream from Cold Brook, 1.1 mi upstream from Stanley Brook, 3.1 mi north of North Concord, and 5.1 mi southwest of Burke Road and River Road intersection in Gallup Mills.

DRAINAGE AREA.--75.2 mi².

PERIOD OF RECORD.--Discharge records: January 1947 to current year.

REVISED RECORDS.--WSP 1381: Drainage area. WDR NH-VT-96-1: 1973(M), 1995(M).

GAGE.--Water-stage recorder. Datum of gage is 1,103.99 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 22	0845	1,100	7.56	Oct 30	0645	1,320	7.99
Oct 28	1115	*1,980	*8.97	Nov 21	0315	1,220	7.79

Minimum discharge, 21 ft³/s, July 1, 2, Aug. 11, gage height, 2.92 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	332	282	e198	e55	e41	e540	168	169	22	47	512
2	53	246	199	e180	e54	e45	e770	155	331	72	38	166
3	47	254	e162	e175	e53	e76	e700	163	360	53	52	105
4	44	271	e137	e165	e54	e130	e600	275	203	30	173	79
5	92	232	e129	e150	e53	e100	e530	304	151	23	68	61
6	87	203	e123	e135	e53	e160	381	313	122	96	41	55
7	64	174	e120	e120	e52	e270	305	267	102	54	31	47
8	51	146	e119	e115	e52	e170	276	190	89	47	29	44
9	44	115	e120	e112	e52	e109	283	159	78	329	30	226
10	39	110	e135	e110	e51	e90	281	141	96	290	26	535
11	36	105	e215	e105	e50	e91	223	138	72	120	21	262
12	35	110	e410	e100	e52	e92	198	129	57	68	22	138
13	31	263	e290	e96	e51	e75	269	114	49	47	117	99
14	29	338	e170	e92	e50	e66	652	100	44	37	217	77
15	77	189	e166	e88	e49	e62	841	93	50	35	98	63
16	212	161	e168	e86	e48	e58	534	148	51	43	60	57
17	145	131	e167	e82	e46	e56	381	128	40	42	111	51
18	110	119	e300	e82	e44	e53	436	99	33	41	65	62
19	85	160	e700	e81	e43	e49	540	139	47	96	46	75
20	69	619	e490	e79	e44	e48	643	108	84	55	43	56
21	333	1,020	e230	e78	e43	e48	376	98	46	39	126	48
22	946	523	e200	e77	e43	e51	259	86	35	29	248	44
23	448	291	e175	e73	e43	e44	243	141	62	25	98	40
24	213	230	e248	e71	e42	e44	220	413	48	85	72	35
25	153	207	e480	e65	e41	e46	211	688	36	47	52	32
26	144	177	e820	e63	e41	e82	288	549	37	32	41	37
27	515	149	e545	e56	e40	e240	360	338	30	26	35	35
28	1,650	148	e370	e58	e39	e560	254	281	26	34	31	31
29	1,020	483	e240	e57	e39	e520	215	423	25	34	36	30
30	1,160	544	e230	e56	---	e470	186	234	24	27	462	29
31	637	---	e215	e56	---	e420	---	169	---	24	639	---
TOTAL	8,633	8,050	8,355	3,061	1,377	4,366	11,995	6,751	2,597	2,002	3,175	3,131
MEAN	278	268	270	98.7	47.5	141	400	218	86.6	64.6	102	104
MAX	1,650	1,020	820	198	55	560	841	688	360	329	639	535
MIN	29	105	119	56	39	41	186	86	24	22	21	29
CFSM	3.70	3.57	3.58	1.31	0.63	1.87	5.32	2.90	1.15	0.86	1.36	1.39
IN.	4.27	3.98	4.13	1.51	0.68	2.16	5.93	3.34	1.28	0.99	1.57	1.55

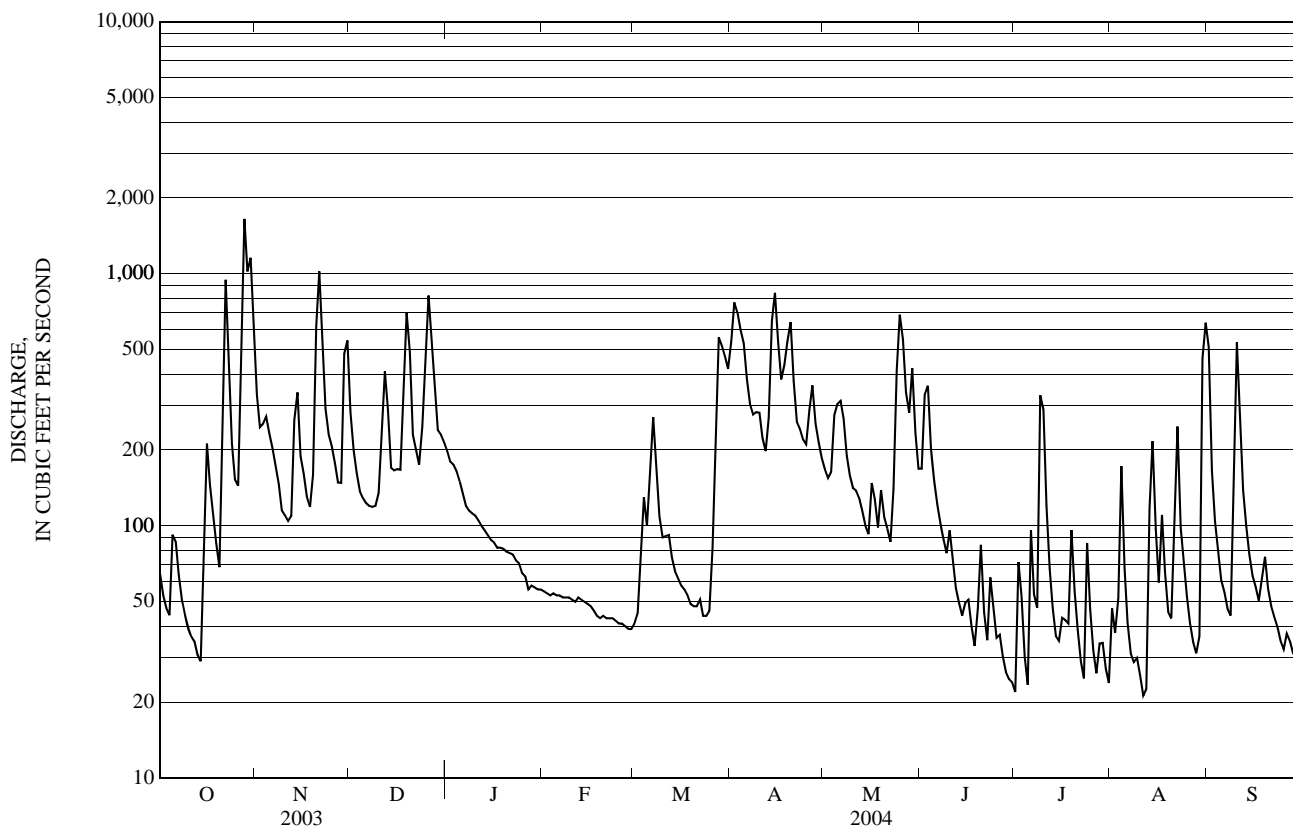
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2004, BY WATER YEAR (WY)

MEAN	110	148	120	81.0	72.0	165	488	269	115	70.4	65.1	65.6
MAX	353	376	386	210	429	468	806	674	299	236	242	323
(WY)	(1991)	(1960)	(1974)	(1998)	(1981)	(1953)	(1954)	(1972)	(1973)	(1973)	(1995)	(1954)
MIN	14.1	35.9	21.8	12.7	15.7	32.9	172	72.3	31.1	10.8	9.00	8.34
(WY)	(1948)	(1948)	(1948)	(1948)	(1980)	(1956)	(1995)	(1999)	(1988)	(1991)	(2001)	(1948)

01134500 MOOSE RIVER AT VICTORY, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1947 - 2004	
ANNUAL TOTAL	60,594		63,493		147	
ANNUAL MEAN	166		173		102	
HIGHEST ANNUAL MEAN					205	1974
LOWEST ANNUAL MEAN					102	1975
HIGHEST DAILY MEAN	1,810	Mar 30	1,650	Oct 28	4,100	Mar 31, 1987
LOWEST DAILY MEAN	12	Sep 14	21	Aug 11	2.5	Aug 17, 2001
ANNUAL SEVEN-DAY MINIMUM	14	Sep 10	29	Jun 25	3.6	Jul 29, 1991
MAXIMUM PEAK FLOW			1,980	Oct 28	4,940	Jul 1, 1973
MAXIMUM PEAK STAGE			8.97	Oct 28	12.04	Jul 1, 1973
INSTANTANEOUS LOW FLOW			a 21	Jul 1	b 2.2	Aug 4, 1991
ANNUAL RUNOFF (CFSM)	2.21		2.31		1.95	
ANNUAL RUNOFF (INCHES)	29.97		31.41		26.56	
10 PERCENT EXCEEDS	431		440		349	
50 PERCENT EXCEEDS	71		98		72	
90 PERCENT EXCEEDS	22		36		21	

a Also occurred on July 2, Aug. 11.
 b Also occurred on Aug. 17, 2001.
 c Estimated.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957, 1975 to 1978, 1980 to 1999, 2003 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
OCT														
06...	1230	87	10.9	90	6.7	31	7.0	.31	.010	.023	<.008	<.02	.013	5
NOV														
05...	1130	229	11.2	86	6.3	26	4.8	.21	E.009	.048	<.008	<.02	.006	2
DEC														
08...	1430	E116	12.1	85	6.4	31	.5	.15	.012	.112	<.008	<.02	.007	2
JAN														
12...	1430	E97	14.1	101	6.2	36	.0	.15	.016	.150	<.008	<.02	.007	3
FEB														
03...	1130	E52	13.2	90	6.6	42	.1	.13	.029	.182	<.008	<.02	.007	1
MAR														
01...	1615	E42	13.9	100	6.5	49	.5	.18	.033	.198	E.004	<.02	.008	1
29...	1130	E537	--	--	5.8	18	.5	.26	.012	.244	<.008	<.02	.026	24
APR														
06...	0730	366	13.4	98	6.2	20	.5	.20	E.009	.143	<.008	<.02	.011	2
14...	0800	557	12.9	97	6.1	19	2.1	.81	E.009	.088	<.008	<.02	.124	165
MAY														
04...	0830	240	9.4	81	6.4	26	8.5	.23	E.007	.052	<.008	<.02	.015	5
JUN														
10...	0845	105	7.8	82	7.0	34	17.3	.23	E.005	.038	<.008	<.02	.008	3
JUL														
22...	0800	29	8.1	91	7.1	38	21.0	.23	E.009	.032	<.008	<.02	.012	3
AUG														
12...	0830	23	7.6	85	7.2	46	20.5	.23	.012	.034	<.008	<.02	.015	4
SEP														
08...	0830	43	7.5	77	6.7	39	16.7	.29	.012	.033	<.008	<.02	.012	4

Remark codes used in this table:

< -- Less than.

E -- Estimated value.

CONNECTICUT RIVER BASIN

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

LOCATION.--Lat 44° 28'35", long 72° 07'31", Caledonia County, Hydrologic Unit 01080102, on left bank, 200 ft upstream of Morril Flat Road, 0.3 mi north of Pope Cemetery, 1.1 mi upstream of North Brook, 1.7 mi northwest of North Danville, 4.5 mi north of Danville, and 6.4 mi northwest of Court House in St. Johnsbury.

DRAINAGE AREA.--3.25 mi².

PERIOD OF RECORD.--Discharge records: December 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,141.20 ft above National Geodetic Vertical Datum of 1929.

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

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).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 15	1025	88	2.05	Nov 20	0700	100	2.14
Oct 21	1025	73	1.91	Dec 17	2215	85	2.02
Oct 27	2055	78	1.96	May 24	0415	86	2.03
Oct 29	1210	*137	*2.40	Aug 29	2015	135	2.39

Minimum discharge, 1.3 ft³/s, on several days, gage height, 0.40 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	12	11	9.3	2.8	2.6	28	7.2	11	1.9	1.9	4.2
2	2.0	12	9.2	e8.8	2.8	3.6	25	6.8	17	2.0	1.5	3.1
3	2.5	12	e8.2	8.6	2.8	5.5	20	7.8	9.2	1.8	5.3	2.7
4	2.8	12	e8.0	8.3	2.9	3.4	20	15	7.6	1.6	3.6	2.5
5	3.7	9.8	e7.6	7.8	2.8	4.5	16	10	6.4	1.9	1.9	2.3
6	2.5	9.0	e7.4	7.3	2.8	7.8	13	9.6	5.8	2.6	1.6	2.2
7	2.1	8.2	e7.0	6.7	2.9	5.4	12	9.1	5.3	1.8	1.5	2.1
8	2.0	7.3	e6.8	e6.4	2.7	3.9	13	7.3	4.8	6.6	1.4	2.3
9	1.9	6.7	e6.6	e6.2	2.7	3.5	14	6.8	6.6	10	1.4	13
10	1.8	6.6	6.4	e6.0	2.7	3.3	13	6.4	6.2	3.1	1.3	12
11	1.8	6.6	21	e5.8	2.7	3.5	12	6.4	4.5	2.4	1.5	4.7
12	1.7	7.3	17	e5.6	2.6	3.6	12	5.7	3.9	2.0	3.8	4.1
13	1.7	18	e8.4	5.4	2.6	3.2	18	5.2	3.5	1.8	8.8	4.2
14	1.6	9.5	e8.0	4.9	2.5	3.2	27	4.7	3.3	1.8	6.2	3.1
15	16	7.7	e7.8	4.5	2.5	3.1	18	5.2	3.9	3.2	2.4	3.0
16	7.3	7.2	e7.6	4.3	2.3	2.9	15	5.9	3.1	2.3	2.1	2.9
17	5.8	6.9	23	4.2	2.0	2.9	16	4.4	2.8	2.0	2.1	2.7
18	3.8	6.9	25	4.3	2.3	2.8	19	4.8	2.6	2.8	1.7	4.1
19	3.5	17	12	4.2	2.3	2.8	23	6.2	4.8	3.6	1.7	2.9
20	2.9	52	10	4.0	2.2	2.8	17	4.2	3.1	2.4	1.6	2.6
21	29	16	e9.6	3.8	2.3	2.8	12	5.5	2.6	1.9	8.2	2.5
22	8.6	12	e9.2	3.7	2.3	2.5	11	4.6	3.1	1.7	3.3	2.4
23	6.3	11	8.6	3.6	2.3	2.7	9.6	11	4.5	2.0	2.4	2.1
24	5.4	10	22	3.4	2.3	2.6	13	31	2.6	2.1	2.3	2.1
25	5.0	10	31	3.2	2.2	3.8	9.3	16	2.8	1.6	1.8	2.8
26	5.5	8.7	16	3.1	2.2	7.6	13	11	2.6	1.5	1.7	3.1
27	37	8.1	13	3.1	2.1	21	9.6	8.3	2.3	1.6	1.6	2.4
28	22	12	e12	3.1	2.1	15	8.5	14	2.2	1.8	1.5	2.2
29	49	32	11	3.1	2.3	14	7.8	9.4	2.1	1.6	17	2.1
30	20	13	11	3.0	---	15	7.3	7.2	2.2	1.4	13	2.0
31	14	---	10	2.9	---	14	---	6.4	---	1.8	10	---
TOTAL	271.3	367.5	371.4	158.6	72.0	175.3	452.1	263.1	142.4	76.6	116.1	104.4
MEAN	8.75	12.2	12.0	5.12	2.48	5.65	15.1	8.49	4.75	2.47	3.75	3.48
MAX	49	52	31	9.3	2.9	21	28	31	17	10	17	13
MIN	1.6	6.6	6.4	2.9	2.0	2.5	7.3	4.2	2.1	1.4	1.3	2.0
CFSM	2.69	3.77	3.69	1.57	0.76	1.74	4.64	2.61	1.46	0.76	1.15	1.07
IN.	3.11	4.21	4.25	1.82	0.82	2.01	5.17	3.01	1.63	0.88	1.33	1.19

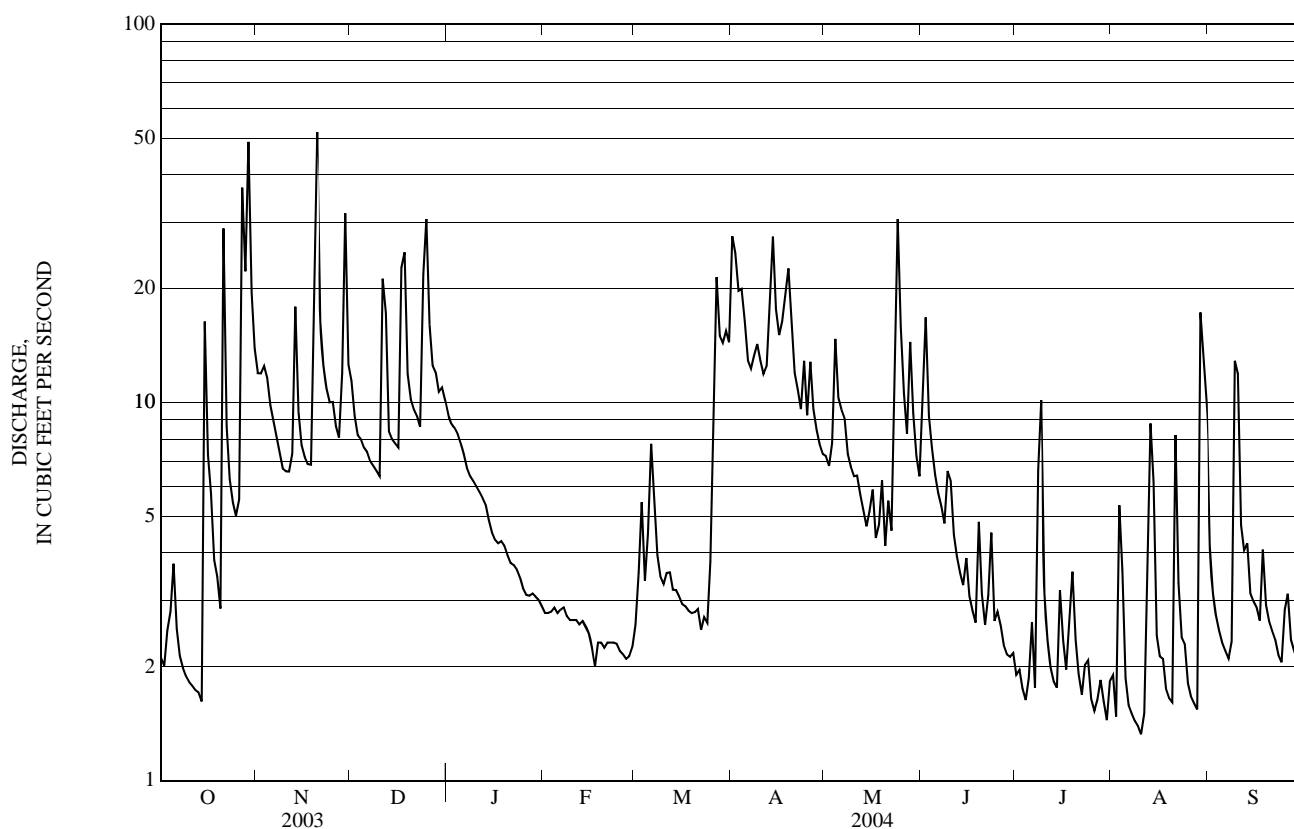
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2004, BY WATER YEAR (WY)

	3.97	5.70	5.35	4.54	3.24	6.24	18.9	9.19	4.80	3.30	2.88	2.57
MEAN												
MAX	8.75	12.2	12.0	9.04	8.16	10.9	25.4	16.5	12.0	7.79	6.00	4.90
(WY)	(2004)	(2004)	(2004)	(1996)	(1996)	(1998)	(1994)	(2000)	(2002)	(1998)	(1997)	(1999)
MIN	1.34	1.65	1.77	1.58	1.70	2.13	6.87	4.51	1.84	1.40	0.85	1.02
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)	(1995)	(1998)	(1995)	(1991)	(2001)	(2001)

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

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1991 - 2004	
ANNUAL TOTAL	2,469.1		2,570.8			
ANNUAL MEAN	6.76		7.02		5.94	
HIGHEST ANNUAL MEAN					8.44	1996
LOWEST ANNUAL MEAN					3.93	1995
HIGHEST DAILY MEAN	52	Nov 20	52	Nov 20	90	Apr 24, 2001
LOWEST DAILY MEAN	a 1.1	Jul 19	1.3	Aug 10	0.71	Aug 25, 2001
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 7	1.5	Aug 5	0.74	Sep 14, 2001
MAXIMUM PEAK FLOW			137	Oct 29	b 249	Jul 15, 1997
MAXIMUM PEAK STAGE			2.40	Oct 29	2.96	Jul 15, 1997
INSTANTANEOUS LOW FLOW			c 1.3	Aug 9	d 0.65	Aug 15, 2001
ANNUAL RUNOFF (CFSM)	2.08		2.16		1.83	
ANNUAL RUNOFF (INCHES)	28.26		29.43		24.83	
10 PERCENT EXCEEDS	16		15		13	
50 PERCENT EXCEEDS	3.0		4.5		3.4	
90 PERCENT EXCEEDS	1.4		1.9		1.4	

- a Also occurred on July 20, 2003.
- b From rating curve extended above 84 ft³/s on basis of theoretical weir formula.
- c Also occurred on July 30, 31, August 2, 3, 8, 10, 11.
- d Also occurred on August 24-26 and September 9, 2001.
- e Estimated.



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

LOCATION.--Lat 44° 26'07", long 72° 02'20", Caledonia County, Hydrologic Unit 01080102, on left bank, just upstream of Emerson Falls, 0.6 mi upstream of US 2 bridge, 1.5 mi northwest of Post Office in St. Johnsbury, and 2.7 mi above mouth.

DRAINAGE AREA.--42.9 mi².

PERIOD OF RECORD.--Discharge records: October 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 641.68 ft above National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 21	1145	886	3.01	Nov 29	0500	632	2.63
Oct 27	2315	1,080	3.26	Dec 18	0045	688	2.72
Oct 29	1330	*1,390	*3.60	May 24	0615	688	2.72
Nov 20	0900	1,050	3.22				

Minimum discharge, 8.0 ft³/s, Aug. 11, gage height, 0.47 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	138	138	118	e35	e32	322	68	112	16	21	53
2	24	135	e110	e110	e34	47	306	67	227	24	14	33
3	26	152	e94	e105	e34	101	243	78	125	17	46	26
4	26	150	e80	e100	34	82	234	192	100	13	71	22
5	50	123	e68	98	33	69	208	114	73	12	23	19
6	33	112	e72	96	e33	e175	159	95	61	21	15	18
7	25	99	e72	92	e33	e150	143	89	55	15	13	17
8	21	87	e70	58	e33	75	151	68	49	30	11	17
9	19	76	e70	e82	e32	59	164	63	59	147	9.8	157
10	17	73	75	e68	e32	54	150	58	91	42	8.6	167
11	17	75	e170	e66	32	59	134	60	50	27	9.0	61
12	16	85	292	e64	31	63	130	52	40	20	19	41
13	15	205	e100	e64	32	51	191	46	35	16	79	45
14	14	e130	e84	e62	32	47	294	42	32	14	117	31
15	160	e96	e82	e60	e29	46	190	45	40	20	31	27
16	114	84	e80	e58	e28	42	158	77	33	25	22	26
17	72	81	e160	e56	e27	40	153	52	27	19	24	23
18	49	78	406	e54	26	38	187	45	25	15	18	42
19	40	159	e160	e52	e26	36	217	78	40	32	15	33
20	33	591	e130	e50	e27	36	173	46	34	22	14	25
21	378	198	e120	48	e27	37	127	60	24	16	109	22
22	144	141	e110	47	e26	32	114	49	24	13	67	21
23	80	120	107	45	26	33	102	140	46	12	28	19
24	63	113	182	e44	27	33	131	377	27	24	24	17
25	53	115	435	e42	27	40	104	224	27	14	18	17
26	53	99	214	e40	e27	132	143	135	26	11	15	34
27	489	91	e160	e38	e27	347	117	102	20	11	13	22
28	379	115	e150	37	e28	254	93	177	18	15	12	19
29	595	383	e145	36	e30	225	82	135	18	13	87	18
30	249	159	140	e36	---	217	74	84	18	11	235	16
31	163	---	132	e35	---	196	---	69	---	12	133	---
TOTAL	3,446	4,263	4,408	1,961	868	2,848	4,994	2,987	1,556	699	1,321.4	1,088
MEAN	111	142	142	63.3	29.9	91.9	166	96.4	51.9	22.5	42.6	36.3
MAX	595	591	435	118	35	347	322	377	227	147	235	167
MIN	14	73	68	35	26	32	74	42	18	11	8.6	16
CFSM	2.59	3.31	3.31	1.47	0.70	2.14	3.88	2.25	1.21	0.53	0.99	0.85
IN.	2.99	3.70	3.82	1.70	0.75	2.47	4.33	2.59	1.35	0.61	1.15	0.94

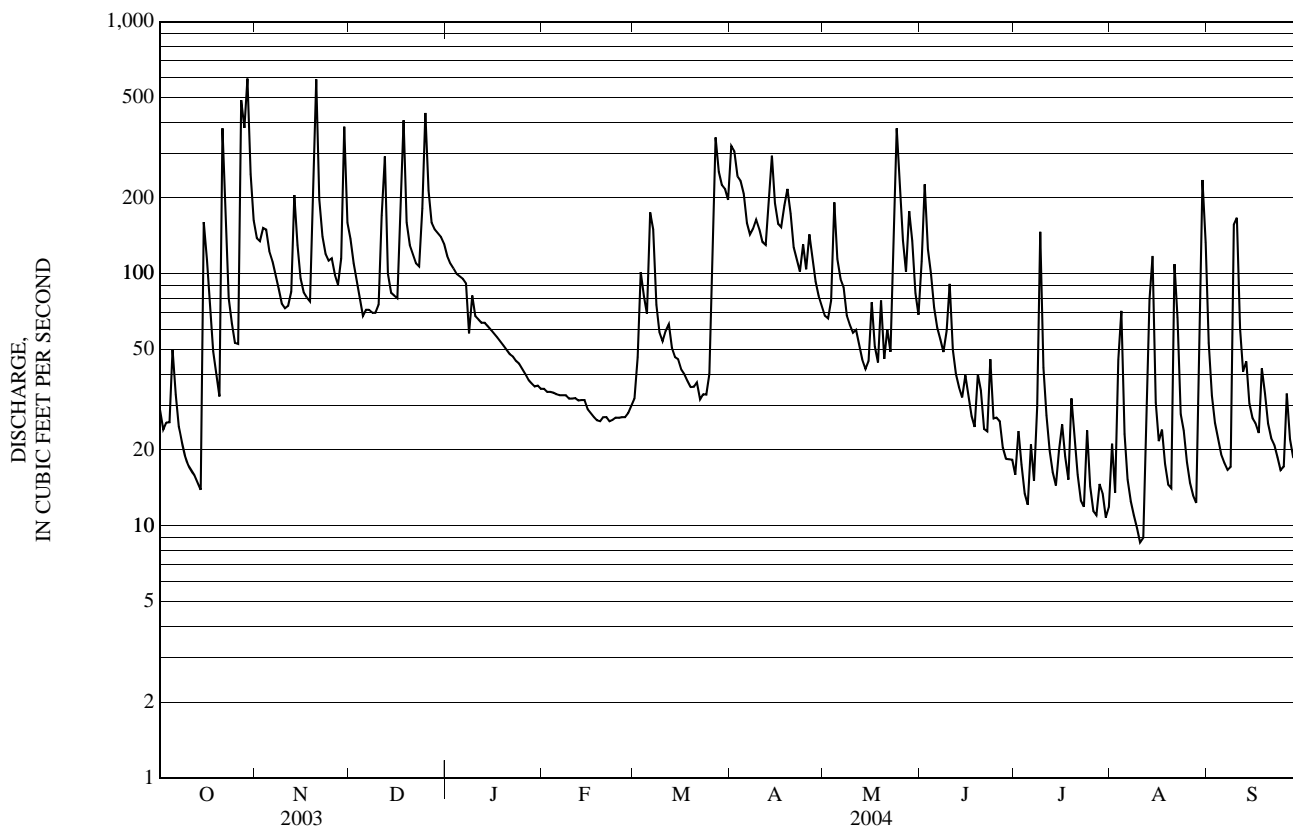
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2004, BY WATER YEAR (WY)

MEAN	52.1	69.6	66.5	53.6	38.6	87.0	209	100	50.1	35.3	32.3	26.2
MAX	128	142	143	108	93.3	142	302	198	128	84.2	97.9	56.9
(WY)	(1991)	(2004)	(1991)	(1996)	(1996)	(1998)	(1994)	(2000)	(2002)	(1998)	(1998)	(1999)
MIN	9.49	14.0	17.9	14.5	18.4	26.2	75.2	48.8	14.9	8.47	2.11	4.52
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)	(1995)	(1998)	(1995)	(1991)	(2001)	(2001)

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

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1991 - 2004	
ANNUAL TOTAL	27,728.4		30,439.4			
ANNUAL MEAN	76.0		83.2		68.3	
HIGHEST ANNUAL MEAN					93.2 1996	
LOWEST ANNUAL MEAN					42.8 1995	
HIGHEST DAILY MEAN	595	Oct 29	595	Oct 29	1,380	Aug 12, 1998
LOWEST DAILY MEAN	a 5.6	Jul 21	8.6	Aug 10	1.1	Aug 16, 2001
ANNUAL SEVEN-DAY MINIMUM	6.5	Sep 9	12	Aug 6	1.4	Sep 14, 2001
MAXIMUM PEAK FLOW			b 1,390	Oct 29	b 7,570	Aug 12, 1998
MAXIMUM PEAK STAGE			3.60	Oct 29	7.11	Aug 12, 1998
INSTANTANEOUS LOW FLOW			8.0	Aug 11	0.98	Aug 16, 2001
ANNUAL RUNOFF (CFSM)	1.77		1.94		1.59	
ANNUAL RUNOFF (INCHES)	24.04		26.40		21.64	
10 PERCENT EXCEEDS	181		174		154	
50 PERCENT EXCEEDS	31		53		38	
90 PERCENT EXCEEDS	9.6		17		11	

a Also occurred on September 13, 2003.
 b From rating curve extended above 560 ft³/s on basis of theoretical weir formula.
 c Estimated.



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, 1.1 mi downstream from dam, bridge, and village of Passumpsic, 3.8 mi south of Town Hall in St. Johnsbury, 4.0 mi upstream from mouth, and 4.8 mi north of Post Office in Barnet.

DRAINAGE AREA.--436 mi².

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

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

GAGE.--Water-stage recorder. Elevation of gage is 500 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for those estimated daily discharges, which are fair. Low flow regulated by power plants 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).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0945	*6,360	10.76	Dec 18	----	e5,600	ice jam
Oct 29	1815	6,190	10.57	Dec 25	1715	e5,900	*11.02
Nov 20	1900	5,110	9.34				

Minimum daily discharge, 196 ft³/s, Aug. 10, 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	446	1,580	1,500	e1,150	e385	e340	2,850	864	911	230	282	1,630
2	358	1,330	1,170	e1,080	e365	e425	3,800	802	1,720	362	253	895
3	321	1,380	e955	e1,020	e335	e590	3,050	818	1,680	410	264	617
4	310	1,430	e790	e970	e330	e880	2,460	1,450	1,160	295	787	490
5	412	1,280	e760	e940	e325	e750	2,310	1,490	890	244	398	421
6	449	1,150	e780	e915	e330	e1,260	1,630	1,330	739	708	273	377
7	350	1,030	e800	e840	e335	e1,650	1,410	1,200	644	554	235	328
8	309	916	e820	e600	e340	e1,000	1,350	967	577	415	224	330
9	279	785	e775	e790	e335	e740	1,420	830	551	1,420	205	1,060
10	250	747	e790	e700	e320	e650	1,380	754	790	1,320	196	2,140
11	237	740	e1,170	e640	e315	e600	1,210	742	602	745	196	1,270
12	221	765	e2,900	e630	e310	e660	1,110	693	475	526	211	792
13	203	1,270	e2,250	e620	e310	e570	1,360	626	425	398	713	636
14	204	1,510	e1,400	e590	e310	e465	2,660	565	389	335	1,260	501
15	496	1,030	e1,600	e580	e320	e485	2,540	543	412	328	677	442
16	1,080	842	e1,850	e560	e315	e450	1,890	738	463	417	431	422
17	755	816	e1,920	e540	e295	e435	1,550	665	360	399	546	387
18	591	751	e4,350	e530	e265	e420	1,720	553	313	365	413	447
19	477	907	e2,800	e520	e270	e390	2,120	720	366	471	313	483
20	416	3,870	e1,320	e500	e290	e375	2,250	640	585	e377	315	388
21	1,940	3,570	e1,250	e495	e275	e395	1,650	567	391	292	614	359
22	2,920	2,010	e1,160	e480	e265	e370	1,300	535	317	249	1,120	312
23	1,500	1,420	e1,110	e460	e265	e320	1,210	788	452	225	565	295
24	956	1,220	e1,800	e445	e260	e350	1,190	2,260	398	664	423	283
25	751	1,160	e4,800	e430	e270	e390	1,180	2,880	327	423	310	271
26	688	1,060	e3,500	e415	e275	e780	1,330	2,050	352	294	285	346
27	2,500	941	e2,850	e395	e275	e2,560	1,530	1,500	298	243	250	303
28	5,770	944	e2,050	e380	e290	3,040	1,220	1,340	266	288	230	268
29	4,640	2,760	e1,700	e375	e310	2,460	1,070	1,670	256	280	367	263
30	4,590	2,200	e1,300	e365	---	2,330	945	1,140	246	227	2,240	243
31	2,390	---	e1,250	e370	---	2,310	---	881	---	220	2,690	---
TOTAL	36,809	41,414	53,470	19,325	8,885	28,440	52,695	32,601	17,355	13,724	17,286	16,999
MEAN	1,187	1,380	1,725	623	306	917	1,756	1,052	578	443	558	567
MAX	5,770	3,870	4,800	1,150	385	3,040	3,800	2,880	1,720	1,420	2,690	2,140
MIN	203	740	760	365	260	320	945	535	246	220	196	243
CFSM	2.72	3.17	3.96	1.43	0.70	2.10	4.03	2.41	1.33	1.02	1.28	1.30
IN.	3.14	3.53	4.56	1.65	0.76	2.43	4.50	2.78	1.48	1.17	1.47	1.45

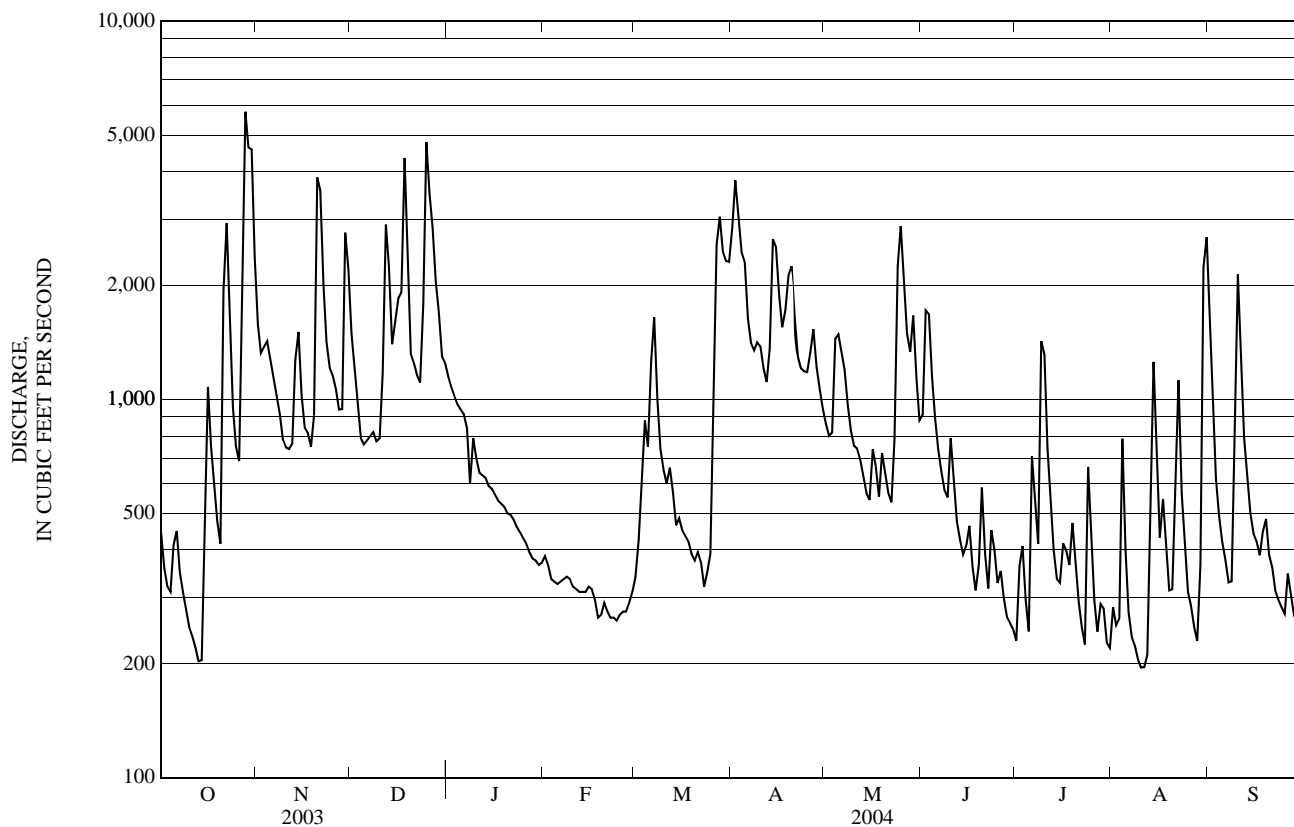
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

MEAN	529	708	617	495	424	940	2,252	1,335	652	406	341	351
MAX	1,522	1,667	1,919	1,255	2,280	4,013	3,931	3,082	1,846	1,519	963	1,126
(WY)	(1946)	(1960)	(1974)	(1978)	(1981)	(1936)	(1934)	(1972)	(1973)	(1973)	(1990)	(1954)
MIN	132	253	169	128	123	161	806	517	225	138	103	98.8
(WY)	(1948)	(1948)	(1948)	(1948)	(1980)	(1940)	(1995)	(1941)	(1988)	(1955)	(2001)	(1948)

01135500 PASSUMPSIC RIVER AT PASSUMPSIC, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	316,279		339,003		754	
ANNUAL MEAN	867		926		472	
HIGHEST ANNUAL MEAN					1,153	1974
LOWEST ANNUAL MEAN					472	1965
HIGHEST DAILY MEAN	6,180	Mar 30	5,770	Oct 28	15,400	Mar 18, 1936
LOWEST DAILY MEAN	105	Jul 21	a 196	Aug 10	13	Sep 12, 1948
ANNUAL SEVEN-DAY MINIMUM	139	Sep 10	220	Aug 6	66	Sep 3, 1999
MAXIMUM PEAK FLOW			6,360	Oct 28	18,200	Jul 1, 1973
MAXIMUM PEAK STAGE			b 11.02	Dec 25	23.49	Jul 1, 1973
ANNUAL RUNOFF (CFSM)	1.99		2.12		1.73	
ANNUAL RUNOFF (INCHES)	26.99		28.92		23.48	
10 PERCENT EXCEEDS	2,030		2,070		1,680	
50 PERCENT EXCEEDS	444		618		430	
90 PERCENT EXCEEDS	177		274		168	

a Also occurred on August 11.
 b Ice jam.
 e Estimated.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953, 1956 to 1958, 1960, 1961, 1966 to 1978, 1980 to 1999, 2003 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
OCT														
06...	0930	510	10.5	90	7.8	195	8.5	.29	E.007	.171	<.008	<.02	.033	30
NOV														
05...	0845	1,250	11.9	95	7.4	154	5.8	.20	.011	.185	<.008	<.02	.012	9
DEC														
08...	1100	E879	--	--	7.5	198	.0	.16	.022	.349	<.008	<.02	.013	2
JAN														
12...	1615	E588	--	--	7.3	228	.5	.15	.029	.476	<.008	<.02	.012	2
FEB														
03...	0900	E328	--	--	7.3	236	.0	.15	.047	.489	<.008	<.02	.012	1
MAR														
01...	1445	E401	--	--	7.5	254	--	.14	.050	.490	E.006	<.02	.013	1
29...	0900	2,350	--	--	7.5	80	1.0	.43	.029	.410	<.008	<.02	.083	69
APR														
02...	1400	3,740	13.9	103	7.4	74	1.5	.52	.012	.305	<.008	<.02	.155	358
05...	1715	2,150	13.5	100	7.3	95	1.7	.23	E.008	.310	<.008	<.02	.032	18
13...	1700	1,480	12.4	96	7.6	149	4.5	.22	.011	.319	<.008	<.02	.018	12
MAY														
04...	0945	1,420	10.7	96	7.9	170	10.0	.19	.028	.211	<.008	<.02	.034	16
JUN														
09...	1845	655	8.8	95	8.3	209	18.8	.25	E.007	.150	E.004	<.02	.018	9
JUL														
21...	1715	267	8.4	101	8.2	214	24.4	.21	.029	.183	E.005	<.02	.018	3
AUG														
11...	1800	218	9.4	109	8.4	256	22.3	.22	.025	.163	E.004	<.02	.022	2
SEP														
08...	1030	325	9.0	97	8.2	219	18.8	.20	.016	.185	<.008	<.02	.018	1

Remark codes used in this table:

<-- Less than.

E-- Estimated value.

01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, NH

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, 3.0 mi east of US 302 and State Highway 142 intersection in Bethlehem, 3.4 mi downstream from Little River, 4.5 mi west of US 3 and 302 intersection in Twin Mountain, and at mile 35.0.

DRAINAGE AREA.--87.6 mi².

PERIOD OF RECORD.-- Discharge records: August 1939 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 National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0115	3,790	7.47	Dec 18	0300	*5,540	*8.80
Nov 20	1045	4,330	7.89	Dec 25	0100	3,060	6.85

Minimum discharge, 27 ft³/s, Mar. 23, result of freezeup, gage height, 0.90 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	412	345	301	e72	55	722	432	226	73	228	176
2	111	349	275	261	e70	e68	1,190	439	300	75	140	126
3	116	369	213	277	e69	e110	687	529	300	66	94	103
4	125	410	208	320	e71	e91	477	1,080	292	59	105	91
5	245	345	174	272	e71	e85	428	564	220	58	84	83
6	164	337	175	240	e71	e170	295	579	185	68	73	78
7	136	280	186	186	e73	e260	250	522	167	68	70	74
8	119	241	182	137	e73	e173	235	375	154	73	70	72
9	107	206	153	e130	74	124	232	302	146	216	74	221
10	100	193	161	131	e74	93	219	266	178	193	65	446
11	94	185	564	e137	73	82	191	269	140	122	61	233
12	89	184	1,360	e148	67	82	175	257	123	88	60	163
13	87	371	416	e150	68	e75	215	231	113	74	160	146
14	82	312	276	e138	67	e72	1,390	211	105	68	215	122
15	922	221	287	e129	64	69	699	205	102	71	129	108
16	514	188	252	e125	61	66	440	327	92	71	111	100
17	288	176	843	e125	60	64	378	255	86	69	210	93
18	228	167	2,850	e124	60	61	668	212	82	70	139	265
19	198	257	743	e119	60	61	929	535	86	72	107	244
20	174	2,140	476	e112	60	e61	1,140	317	80	85	98	161
21	523	890	358	e106	59	60	517	258	71	88	236	131
22	479	550	343	e100	60	e60	477	255	72	66	296	118
23	304	408	298	e99	60	e60	514	431	90	64	161	104
24	243	348	733	e94	58	60	408	874	76	122	150	93
25	212	323	1,880	e90	56	60	331	647	69	88	118	89
26	289	274	887	e86	55	117	398	439	72	71	101	102
27	1,370	246	524	e83	53	e530	414	346	73	64	91	87
28	1,810	243	410	e79	53	443	355	316	68	70	85	81
29	1,410	992	370	e76	e50	334	285	351	83	67	87	79
30	1,030	476	362	e74	---	314	358	263	85	60	138	74
31	548	---	346	e73	---	315	---	226	---	58	266	---
TOTAL	12,235	12,093	16,650	4,522	1,862	4,275	15,017	12,313	3,936	2,557	4,022	4,063
MEAN	395	403	537	146	64.2	138	501	397	131	82.5	130	135
MAX	1,810	2,140	2,850	320	74	530	1,390	1,080	300	216	296	446
MIN	82	167	153	73	50	55	175	205	68	58	60	72
CFSM	4.51	4.60	6.13	1.67	0.73	1.57	5.71	4.53	1.50	0.94	1.48	1.55
IN.	5.20	5.14	7.07	1.92	0.79	1.82	6.38	5.23	1.67	1.09	1.71	1.73

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	158	221	172	120	105	190	513	503	203	105	93.7	99.5
MAX	416	524	590	438	712	691	896	1,054	462	308	273	550
(WY)	(1978)	(1960)	(1974)	(1996)	(1981)	(1953)	(1969)	(1940)	(1973)	(1996)	(1990)	(1954)
MIN	34.1	59.0	44.9	30.9	31.9	47.3	176	221	91.5	39.0	25.6	32.5
(WY)	(1948)	(1979)	(1948)	(1948)	(1980)	(1940)	(1995)	(1993)	(1953)	(1991)	(2001)	(1948)

01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	88,229		93,545		207	
ANNUAL MEAN	242		256		131	
HIGHEST ANNUAL MEAN					323	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	2,850	Dec 18	2,850	Dec 18	6,300	Mar 27, 1953
LOWEST DAILY MEAN	ae 33	Mar 13	e 50	Feb 29	19	Aug 26, 2001
ANNUAL SEVEN-DAY MINIMUM	34	Mar 10	54	Feb 24	22	Aug 21, 2001
MAXIMUM PEAK FLOW			5,540	Dec 18	b 11,300	Nov 12, 1995
MAXIMUM PEAK STAGE			8.80	Dec 18	c 12.34	Nov 12, 1995
INSTANTANEOUS LOW FLOW			d 27	Mar 23	16	Nov 14, 1952
ANNUAL RUNOFF (CFSM)	2.76		2.92		2.37	
ANNUAL RUNOFF (INCHES)	37.47		39.72		32.14	
10 PERCENT EXCEEDS	510		522		459	
50 PERCENT EXCEEDS	134		152		108	
90 PERCENT EXCEEDS	44		66		46	

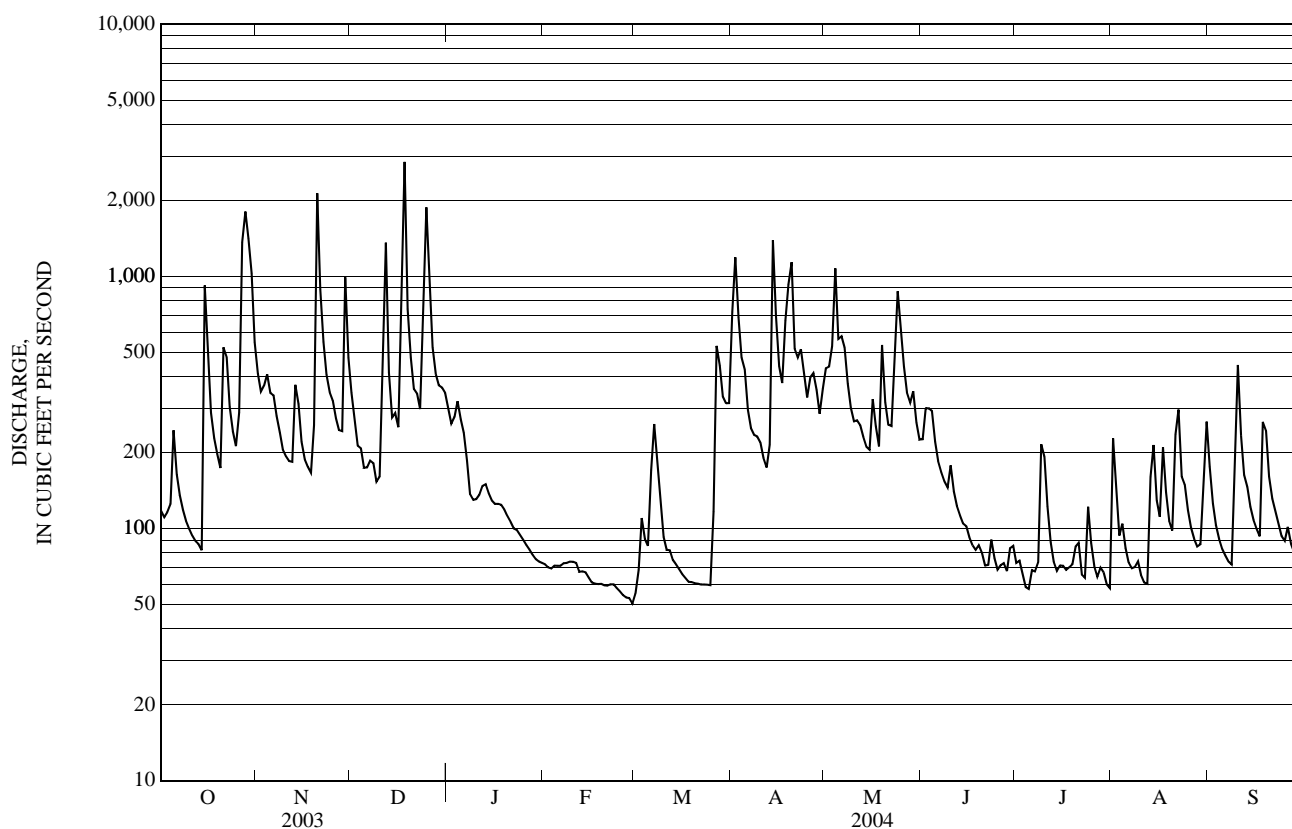
a Also occurred on March 14 and 15, 2003.

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

c From floodmarks in well.

d Result of freezeup.

e Estimated.



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 US 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.--Discharge records: October 1949 to current year. October and November 1949 monthly discharge only, published in WSP 1301.

PERIOD OF DAILY WATER-QUALITY RECORD.--Water years 1980 to 1982.

WATER TEMPERATURE: Water years 1980 to 1982.

SPECIFIC CONDUCTANCE: Water years 1980 to 1982.

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

GAGE.--Water-stage recorder. Datum of gage is 399.75 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by power plants, by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, and other reservoirs. These reservoirs have a combined capacity of about 14.8 billion ft³.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,100 ft³/s, July 1, 1973, gage height, 17.35 ft, from peak-stage indicator; minimum daily discharge 152 ft³/s, August 28, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28,100 ft³/s, Oct. 29, gage height, 9.63 ft; minimum daily discharge, 1,450 ft³/s, June 29.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,610	14,700	10,700	8,970	e3,000	e2,460	17,200	5,930	5,320	1,770	1,870	12,800
2	2,330	11,600	9,390	8,230	e2,900	e2,740	20,200	5,350	6,500	2,210	2,290	11,500
3	2,040	9,980	7,240	7,650	e2,800	e2,850	19,100	6,050	5,910	1,610	1,680	4,890
4	2,330	8,760	5,320	6,910	e2,980	e3,940	17,100	8,560	6,940	1,930	4,030	2,890
5	2,640	7,550	6,290	7,310	e3,640	e3,410	15,300	10,200	5,970	1,590	1,920	3,120
6	2,630	7,260	6,510	7,080	e3,290	e3,890	12,300	9,650	4,160	1,990	1,610	3,800
7	2,370	7,610	5,980	6,670	e3,190	e4,600	8,540	9,520	4,330	1,530	1,540	4,190
8	2,090	7,380	5,990	e6,050	e3,230	4,430	6,700	6,890	3,410	1,870	1,550	5,220
9	1,950	5,620	3,720	e6,340	e3,430	4,910	5,430	6,220	2,440	3,020	1,650	7,200
10	1,910	5,430	3,820	e6,550	e3,070	e4,760	5,180	4,630	2,510	4,110	1,770	12,200
11	1,870	5,950	4,520	e5,250	e2,950	4,520	6,180	5,300	3,100	2,400	2,990	11,100
12	1,830	6,540	10,800	e4,950	e2,920	3,700	6,620	5,310	2,120	3,480	3,720	8,320
13	1,740	5,820	7,960	e5,830	e2,800	3,650	7,950	4,340	1,900	3,990	3,740	5,710
14	1,710	7,620	7,390	e7,550	e2,650	3,250	13,600	3,440	2,620	3,630	5,030	4,400
15	3,730	7,510	7,690	e7,550	e2,670	3,670	16,500	3,730	3,190	3,520	2,910	3,120
16	5,020	6,610	6,810	e6,850	e2,620	4,480	12,900	4,420	1,860	2,020	2,710	3,300
17	3,750	6,080	7,220	e4,130	e3,820	4,490	10,300	4,280	1,930	1,700	3,520	3,520
18	2,960	5,810	18,200	e3,550	e2,860	2,970	11,300	4,750	2,220	1,560	3,860	5,010
19	2,660	6,190	16,900	e3,420	e2,360	2,360	10,300	4,950	1,690	2,790	3,540	3,640
20	2,510	16,800	14,900	e4,310	e3,330	2,200	11,700	5,360	1,580	2,890	3,350	2,760
21	5,080	22,000	12,900	e3,720	e2,430	2,260	11,700	4,420	1,580	1,980	4,300	3,350
22	10,900	18,800	12,500	e3,700	e2,480	2,780	11,900	4,280	1,570	2,580	6,830	2,850
23	12,100	16,000	11,700	e4,530	e2,820	2,500	9,830	5,500	1,580	1,550	6,480	4,290
24	7,270	13,200	11,700	e3,590	e2,740	2,170	7,680	11,900	1,650	4,160	5,490	2,250
25	6,570	12,300	18,800	e2,840	e2,660	2,350	7,790	14,600	2,030	2,310	3,750	1,880
26	8,490	9,980	18,200	e4,790	e2,830	3,180	8,910	13,400	1,980	3,840	3,220	2,140
27	13,100	7,060	16,900	e5,220	e3,600	7,870	9,760	11,600	1,530	3,090	2,660	2,340
28	24,900	7,430	14,300	e3,350	e2,420	11,600	8,310	8,290	1,490	2,650	3,190	1,840
29	23,800	12,600	11,000	e3,140	e2,290	14,700	6,680	7,860	1,450	1,670	2,790	2,740
30	24,900	12,600	10,300	e3,550	---	14,400	5,420	7,300	1,490	1,560	9,110	1,660
31	19,400	---	9,750	e3,410	---	15,000	---	6,290	---	1,850	14,200	---
TOTAL	207,190	292,790	315,400	166,990	85,420	152,090	322,380	214,320	86,050	76,850	117,300	144,030
MEAN	6,684	9,760	10,170	5,387	2,946	4,906	10,750	6,914	2,868	2,479	3,784	4,801
MAX	24,900	22,000	18,800	8,970	3,820	15,000	20,200	14,600	6,940	4,160	14,200	12,800
MIN	1,710	5,430	3,720	2,840	2,290	2,170	5,180	3,440	1,450	1,530	1,540	1,660

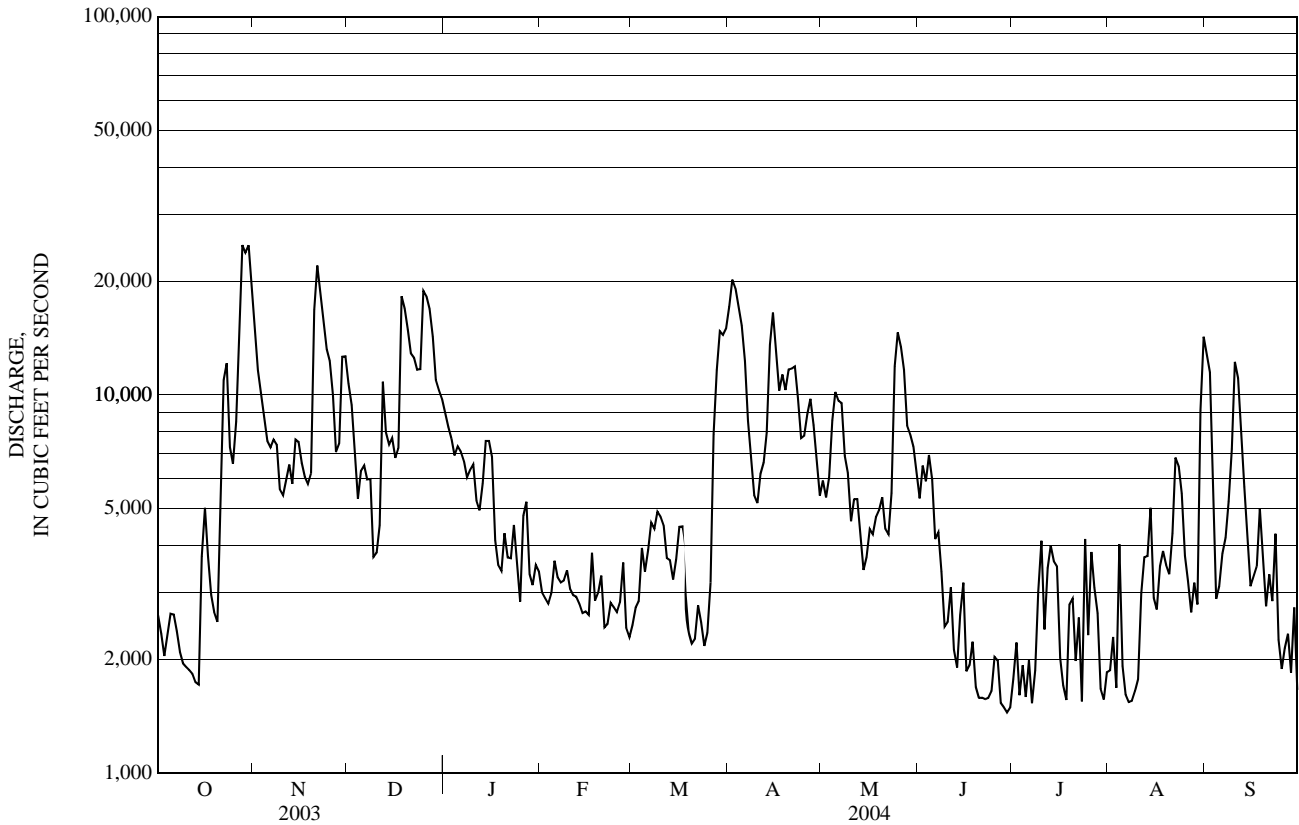
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2004, BY WATER YEAR (WY)

MEAN	3,731	4,839	4,715	3,810	3,781	5,892	12,620	8,371	4,434	2,840	2,521	2,542
MAX	9,801	9,815	11,320	7,717	10,050	13,420	20,110	17,120	10,450	8,566	6,709	10,810
(WY)	(1978)	(1960)	(1974)	(1996)	(1981)	(1979)	(1954)	(1972)	(2002)	(1996)	(1990)	(1954)
MIN	1,226	2,008	1,445	1,632	1,824	2,492	3,634	3,479	1,906	1,206	1,013	883
(WY)	(1964)	(1979)	(1979)	(1981)	(1980)	(1962)	(1995)	(1987)	(1988)	(1991)	(1970)	(1978)

01138500 CONNECTICUT RIVER AT WELLS RIVER, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1950 - 2004	
ANNUAL TOTAL	1,937,790		2,180,810		5,012	
ANNUAL MEAN	5,309		5,958		7,355	
HIGHEST ANNUAL MEAN					3,211 1996	
LOWEST ANNUAL MEAN					50,600 1965	
HIGHEST DAILY MEAN	27,700	Mar 30	a 24,900	Oct 28	57,100	Mar 27, 1953
LOWEST DAILY MEAN	1,230	Jul 21	1,450	Jun 29	152	Aug 28, 1960
ANNUAL SEVEN-DAY MINIMUM	1,320	Mar 11	1,650	Jun 27	522	Aug 1, 1955
MAXIMUM PEAK FLOW			28,100		57,100 Jul 1, 1973	
MAXIMUM PEAK STAGE			9.63		b 17.35 Jul 1, 1973	
10 PERCENT EXCEEDS	12,300		12,500		10,400	
50 PERCENT EXCEEDS	2,970		4,300		3,590	
90 PERCENT EXCEEDS	1,380		1,890		1,300	

a Also occurred October 30.
 b From peak stage indicator.
 c Estimated.



01138500 CONNECTICUT RIVER AT WELLS RIVER, VT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952, 1957, 1960, 1961, 1967, 1968, 1970, 1975, 1979 to 1999, 2003 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
OCT														
06...	1515	2,510	9.0	87	7.5	108	13.5	.23	.010	.140	<.008	<.02	.008	1
NOV														
04...	0830	8,540	11.4	99	6.6	73	9.0	.27	.013	.137	<.008	<.02	.018	5
21...	0830	22,600	12.3	99	7.1	62	5.5	.34	E.007	.134	<.008	<.02	.041	29
DEC														
08...	0900	5,060	12.7	91	7.0	87	2.0	.26	.017	.196	<.008	<.02	.022	5
JAN														
13...	0730	E5,170	14.0	97	6.7	87	.0	.15	.016	.254	<.008	<.02	.010	2
FEB														
03...	0800	E2,680	14.4	98	6.7	96	.0	.22	.019	.271	<.008	<.02	.011	3
MAR														
30...	0715	13,400	--	--	7.0	76	1.0	.27	.029	.321	<.008	<.02	.029	16
APR														
05...	1545	15,500	13.1	96	6.9	61	1.9	.22	.020	.291	<.008	<.02	.022	12
13...	1530	9,070	13.2	100	7.1	81	3.2	.20	.014	.272	<.008	<.02	.015	9
MAY														
04...	1130	10,800	11.6	100	7.1	61	8.0	.26	.012	.152	<.008	<.02	.050	40
JUN														
09...	1600	2,280	8.4	89	7.6	101	17.6	.22	E.008	.120	<.008	<.02	.020	31
JUL														
21...	1415	1,380	7.8	89	7.7	115	21.5	.22	.010	.147	<.008	<.02	.008	2
AUG														
11...	1530	5,700	8.4	94	7.5	91	20.7	.20	E.008	.160	<.008	<.02	.012	6
SEP														
08...	1245	5,830	7.9	87	7.2	72	19.7	.26	.020	.124	<.008	<.02	.011	4

Remark codes used in this table:

<-- Less than.

E-- Estimated value.

01139000 WELLS RIVER AT WELLS RIVER, VT

LOCATION.--Lat 44°09'01", long 72°03'56" (revised), Orange County, Hydrologic Unit 01080103, on right bank, 0.8 mi west of village of Wells River, 1.3 mi southeast of I-91 and US 302 intersection in Four Corners, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--98.4 mi².

PERIOD OF RECORD.--Discharge records: August 1940 to current year.

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 National Geodetic Vertical Datum of 1929 (levels by Connecticut River Power Co.).

REMARKS.--Records good except those for the period of August 10 to August 30, which are fair, and those for estimated daily discharges, which are poor. Some diurnal fluctuation at low flow prior to 1958 and since June 1984 caused by small power plant upstream. Flow partly regulated by Groton and Ricker Ponds.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 980 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0415	1,720	5.35	Dec 18	0745	1,100	4.54
Oct 29	1945	*1,960	*5.65	Dec 25	0630	1,320	4.86
Nov 20	1445	1,550	5.15	May 24	1415	1,120	4.58
Nov 29	1000	1,060	4.48	Aug 30	0545	1,290	4.82

Minimum daily discharge, 29 ft³/s, Aug. 10.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	418	371	279	e74	e60	553	150	208	53	105	271
2	125	339	292	247	e72	e68	660	144	351	71	87	169
3	103	351	e210	249	e71	e105	644	163	315	65	57	118
4	89	375	198	253	e74	e130	512	365	256	50	104	93
5	144	321	e165	242	e73	e115	502	294	200	44	64	76
6	116	283	e140	226	e73	e170	366	242	166	45	46	65
7	96	248	e150	186	e75	e260	313	204	143	41	39	56
8	81	222	e160	e150	e75	e210	290	170	130	54	34	54
9	74	196	e140	e115	e76	172	284	149	115	199	32	246
10	71	178	e145	e120	e76	144	272	139	126	145	29	368
11	66	172	e215	e140	e75	134	252	134	107	86	32	210
12	62	180	506	e155	e70	138	232	125	93	64	43	147
13	59	308	e330	e160	e70	124	296	112	83	50	95	112
14	55	323	e285	e145	e69	107	527	102	75	44	137	89
15	261	245	e280	e135	e67	106	413	98	75	47	75	74
16	289	197	e240	e130	e65	100	326	135	71	64	63	70
17	194	190	e360	e130	e62	96	283	116	64	51	99	65
18	153	e170	903	e128	e64	94	301	104	60	45	72	197
19	126	227	570	e123	e64	88	295	217	68	61	60	191
20	108	1,050	415	e120	e63	84	298	133	68	80	57	118
21	404	785	317	e113	e63	91	253	113	56	86	179	93
22	391	477	285	e108	e62	84	228	150	54	66	211	80
23	257	359	261	e102	e62	77	212	336	66	62	107	71
24	204	297	343	e98	e60	84	201	783	54	179	91	63
25	170	271	1,150	e92	e58	83	185	662	49	84	69	57
26	152	245	758	e88	e57	180	243	434	53	59	55	62
27	592	224	495	e85	57	536	255	324	53	50	47	55
28	1,230	219	371	e81	56	506	213	295	47	88	43	53
29	1,160	799	330	e78	e57	455	184	353	69	74	80	52
30	1,120	496	308	e76	---	425	168	250	71	56	739	48
31	579	---	302	e75	---	427	---	201	---	46	557	---
TOTAL	8,694	10,165	10,995	4,429	1,940	5,453	9,761	7,197	3,346	2,209	3,508	3,423
MEAN	280	339	355	143	66.9	176	325	232	112	71.3	113	114
MAX	1,230	1,050	1,150	279	76	536	660	783	351	199	739	368
MIN	55	170	140	75	56	60	168	98	47	41	29	48
CFSM	2.85	3.44	3.60	1.45	0.68	1.79	3.31	2.36	1.13	0.72	1.15	1.16
IN.	3.29	3.84	4.16	1.67	0.73	2.06	3.69	2.72	1.26	0.84	1.33	1.29

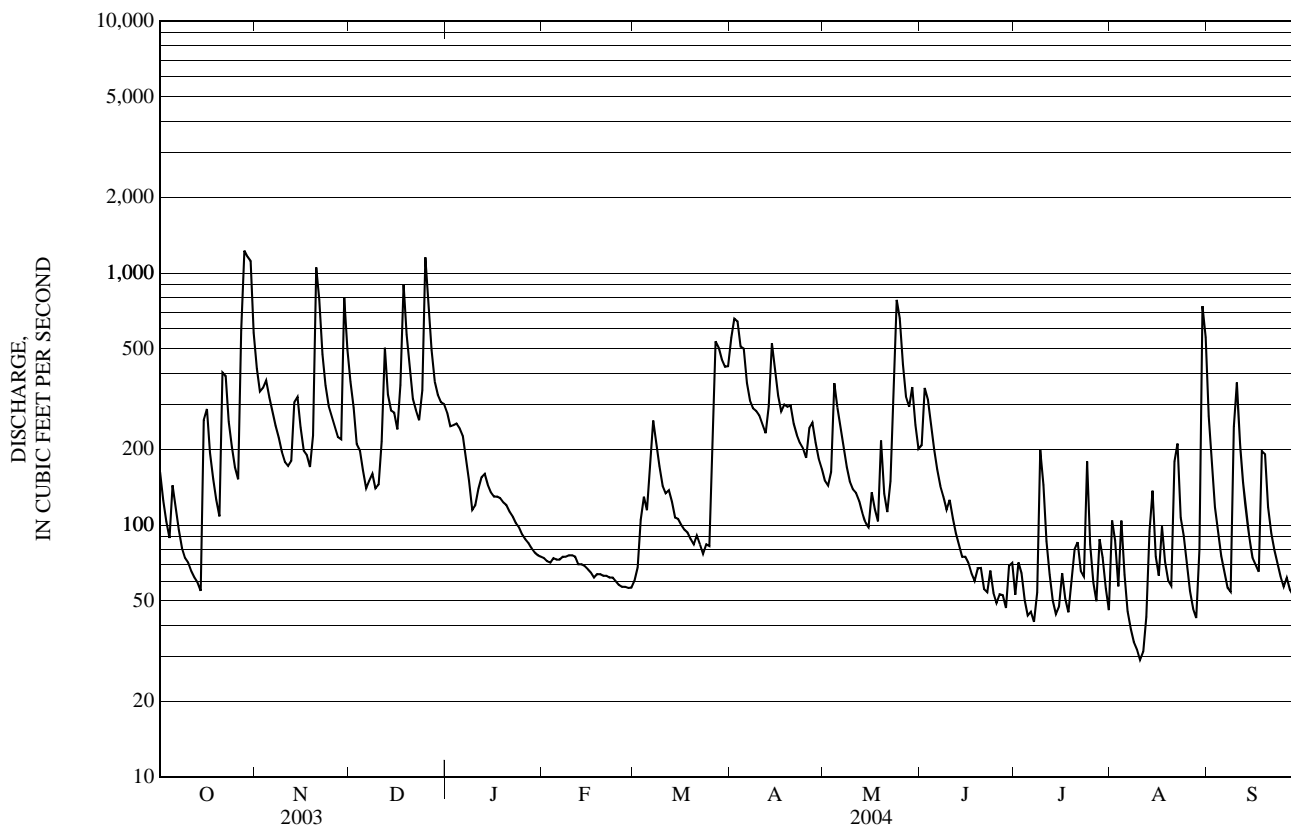
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

	97.3	131	122	96.6	92.7	188	449	255	134	77.7	64.3	60.3
MEAN	97.3	131	122	96.6	92.7	188	449	255	134	77.7	64.3	60.3
MAX	337	339	395	285	349	467	764	589	449	323	305	196
(WY)	(1982)	(2004)	(1984)	(1996)	(1981)	(1953)	(1952)	(1972)	(1973)	(1973)	(1990)	(1981)
MIN	16.3	37.6	36.3	23.2	22.1	49.5	137	82.2	38.9	25.2	12.4	17.7
(WY)	(1964)	(1971)	(1948)	(1948)	(1980)	(1941)	(1995)	(1965)	(1995)	(1965)	(2001)	(2001)

01139000 WELLS RIVER AT WELLS RIVER, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	64,487		71,120			
ANNUAL MEAN	177		194		147	
HIGHEST ANNUAL MEAN					239	1990
LOWEST ANNUAL MEAN					66.5	1965
HIGHEST DAILY MEAN	1,230	Oct 28	1,230	Oct 28	2,960	Jul 1, 1973
LOWEST DAILY MEAN	22	Aug 29	29	Aug 10	7.9	Sep 20, 2001
ANNUAL SEVEN-DAY MINIMUM	23	Aug 28	36	Aug 6	8.4	Sep 14, 2001
MAXIMUM PEAK FLOW			1,960	Oct 29	a 5,970	Jun 30, 1973
MAXIMUM PEAK STAGE			5.65	Oct 29	9.82	Jun 30, 1973
ANNUAL RUNOFF (CFSM)	1.80		1.97		1.50	
ANNUAL RUNOFF (INCHES)	24.38		26.89		20.36	
10 PERCENT EXCEEDS	380		395		341	
50 PERCENT EXCEEDS	102		130		83	
90 PERCENT EXCEEDS	35		56		29	

a From rating curve extended above 1,600 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 Road and Fish Pond Road intersection in East Orange, 1.7 mi upstream from mouth, 2.0 mi southwest of West Topsham, 5.0 mi southwest of Orange, and 11.0 mi southeast of Barre.

DRAINAGE AREA.--8.95 mi².

PERIOD OF RECORD.--Discharge records: June 1958 to current year.

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

GAGE.--Water-stage recorder. Elevation of gage is 1,180 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 15	0915	222	2.74	Nov 29	0200	149	2.47
Oct 27	2045	152	2.48	Jan 11	0630	ice jam	*4.64
Oct 29	1215	*361	3.12	May 24	0430	190	2.63
Nov 20	0600	231	2.77	Aug 29	2300	198	2.66

Minimum discharge, 1.9 ft³/s, July 30, gage height, 0.96 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	39	31	e26	e7.0	e7.4	49	23	29	8.5	7.4	12
2	7.0	40	29	e23	e6.9	e10	54	19	42	18	4.1	10
3	6.5	43	e23	e22	e6.8	14	40	20	33	6.3	13	10
4	7.6	42	e19	e27	e6.7	10	42	32	26	5.3	16	9.8
5	8.6	34	e16	e20	e6.6	13	40	18	23	5.3	8.0	9.6
6	7.0	31	e15	e19	e6.6	18	48	16	21	6.2	6.5	9.4
7	7.0	29	e15	e18	e6.6	13	37	13	20	4.6	6.0	9.2
8	6.9	27	e15	e16	e6.5	9.9	38	14	18	12	5.8	10
9	6.8	24	e15	e14	e6.5	9.1	38	14	19	15	5.3	40
10	6.7	23	e16	e14	e6.4	8.7	35	14	19	7.1	4.8	25
11	6.7	23	e26	e13	e6.3	e9.0	32	15	15	5.2	6.9	15
12	6.6	24	e42	e13	e6.2	e8.6	33	13	14	4.4	8.9	13
13	6.7	37	e33	e12	e6.2	e8.0	49	14	12	3.9	11	12
14	6.5	25	e22	e11	e6.1	e7.8	55	14	12	3.9	8.3	12
15	45	e21	e21	e11	e6.0	e7.6	43	15	12	7.6	6.2	11
16	14	e19	e24	e10	e5.8	e7.0	41	24	11	4.7	9.4	11
17	11	19	e37	e10	e5.6	e6.9	47	18	9.3	4.5	10	12
18	9.9	20	e46	e10	e5.3	e6.8	48	17	8.6	4.2	6.6	32
19	9.5	33	e31	e9.8	e5.4	e7.0	47	17	14	5.4	5.9	16
20	9.3	100	e27	e9.7	e5.4	e6.2	43	14	8.9	3.9	5.8	14
21	29	35	e24	e9.6	e5.4	e6.1	41	17	7.6	3.0	31	13
22	15	30	e22	e8.8	e5.4	e6.6	40	26	10	2.6	12	12
23	13	30	e21	e8.4	e5.4	e7.5	36	32	8.8	8.4	8.3	11
24	13	30	e39	e8.2	e5.4	e8.6	35	64	6.9	9.0	7.8	10
25	13	30	e58	e7.9	e5.2	e9.2	31	42	7.2	3.2	6.7	10
26	16	28	e36	e8.2	e5.1	18	40	29	7.4	2.6	6.2	9.6
27	66	27	e33	e7.8	e5.1	35	31	25	6.9	3.4	6.0	9.3
28	35	36	e30	e7.5	e5.4	27	28	42	5.4	4.1	6.5	9.3
29	98	67	e30	e7.3	e6.0	27	26	37	12	2.5	34	9.2
30	42	33	e29	e7.1	---	29	24	28	6.7	2.6	26	8.8
31	40	---	e28	e7.0	---	29	---	23	---	5.3	19	---
TOTAL	576.9	999	853	396.3	173.3	391.0	1,191	709	445.7	182.7	319.4	395.2
MEAN	18.6	33.3	27.5	12.8	5.98	12.6	39.7	22.9	14.9	5.89	10.3	13.2
MAX	98	100	58	27	7.0	35	55	64	42	18	34	40
MIN	6.5	19	15	7.0	5.1	6.1	24	13	5.4	2.5	4.1	8.8
CFSM	2.08	3.72	3.07	1.43	0.67	1.41	4.44	2.56	1.66	0.66	1.15	1.47
IN.	2.40	4.15	3.55	1.65	0.72	1.63	4.95	2.95	1.85	0.76	1.33	1.64

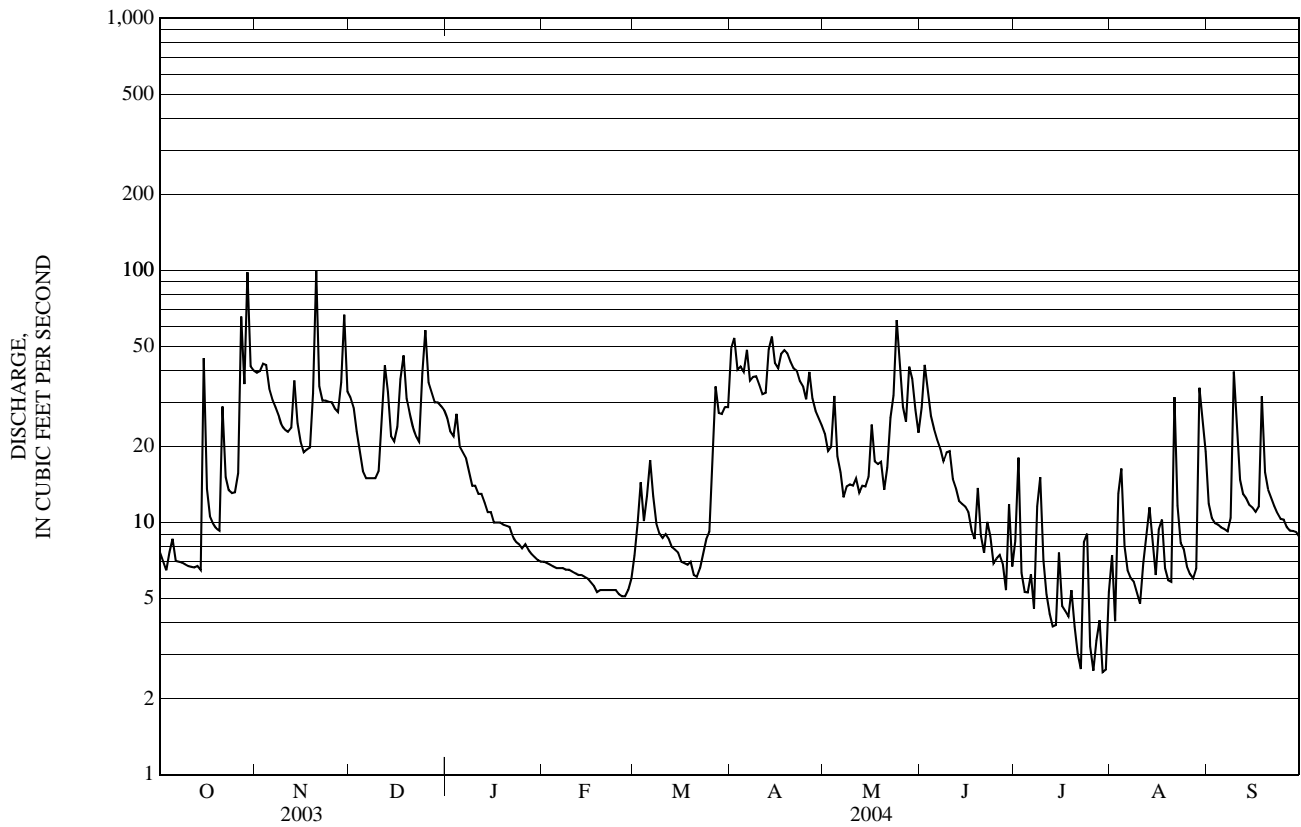
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2004, BY WATER YEAR (WY)

MEAN	9.87	13.8	13.2	9.99	9.11	17.4	49.7	33.6	13.8	7.23	5.64	5.38
MAX	35.5	33.3	41.0	26.6	46.0	47.0	91.2	75.7	41.1	41.0	25.5	14.9
(WY)	(1976)	(2004)	(1984)	(1978)	(1981)	(1976)	(1969)	(1971)	(1973)	(1973)	(1990)	(1976)
MIN	1.14	3.41	2.91	2.53	1.90	3.56	16.3	11.4	4.87	1.63	1.15	0.40
(WY)	(1964)	(1979)	(1964)	(1971)	(1964)	(2001)	(1995)	(1995)	(1995)	(1963)	(1970)	(1963)

01139800 EAST ORANGE BRANCH AT EAST ORANGE, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1958 - 2004	
ANNUAL TOTAL	6,338.3		6,632.5			
ANNUAL MEAN	17.4		18.1		15.7	
HIGHEST ANNUAL MEAN					29.1	1976
LOWEST ANNUAL MEAN					6.71	1965
HIGHEST DAILY MEAN	100	Nov 20	100	Nov 20	260	May 4, 1971
LOWEST DAILY MEAN	2.4	Sep 13	2.5	Jul 29	0.20	Sep 3, 1963
ANNUAL SEVEN-DAY MINIMUM	2.8	Sep 7	3.4	Jul 25	0.21	Sep 6, 1963
MAXIMUM PEAK FLOW			a 361	Oct 29	ab 800	Jul 23, 1990
MAXIMUM PEAK STAGE			c 4.64	Jan 11	c 6.35	Jan 22, 1959
INSTANTANEOUS LOW FLOW			1.9	Jul 30	d 0.10	Sep 9, 1963
ANNUAL RUNOFF (CFSM)	1.94		2.02		1.76	
ANNUAL RUNOFF (INCHES)	26.34		27.57		23.90	
10 PERCENT EXCEEDS	40		39		39	
50 PERCENT EXCEEDS	9.2		13		8.5	
90 PERCENT EXCEEDS	3.2		5.5		2.3	

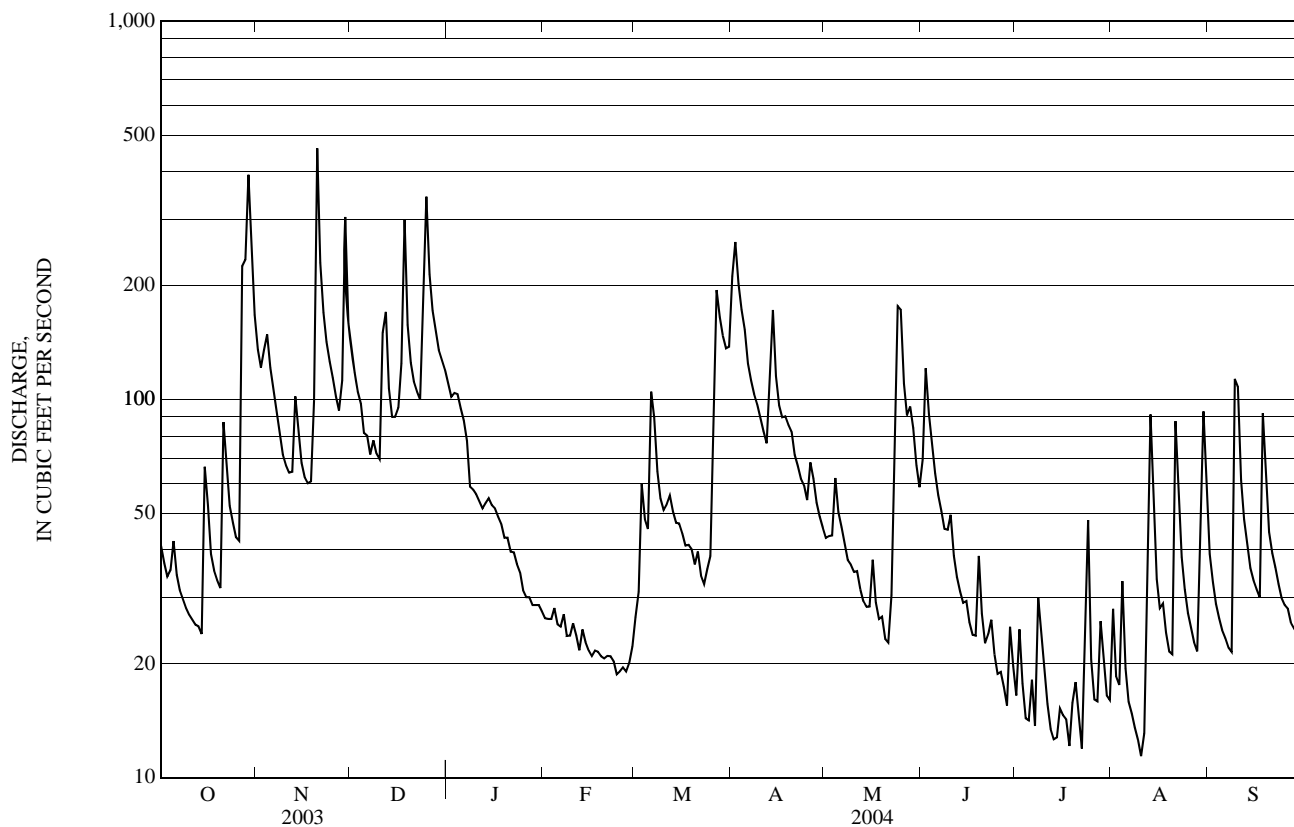
- a From rating curve extended above 160 ft³/s on basis of slope-area measurement of peak flow.
- b From floodmarks.
- c Ice jam.
- d Also occurred on September 19, 1963.
- e Estimated.



01142500 AYERS BROOK AT RANDOLPH, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	22,523.0		23,430			
ANNUAL MEAN	61.7		64.0		48.4	
HIGHEST ANNUAL MEAN					78.4	1973
LOWEST ANNUAL MEAN					16.7	1965
HIGHEST DAILY MEAN	462	Nov 20	462	Nov 20	1,550	Jun 27, 1998
LOWEST DAILY MEAN	8.3	Jul 10	11	Aug 10	0.80	Aug 2, 1965
ANNUAL SEVEN-DAY MINIMUM	9.6	Jul 4	14	Jul 12	0.97	Jul 27, 1965
MAXIMUM PEAK FLOW			745	Nov 20	a 3,480	Jun 27, 1998
MAXIMUM PEAK STAGE			6.13	Nov 20	11.93	Jun 27, 1998
INSTANTANEOUS LOW FLOW			10	Jul 23	0.60	Jul 27, 1965
ANNUAL RUNOFF (CFSM)	2.02		2.10		1.59	
ANNUAL RUNOFF (INCHES)	27.47		28.58		21.58	
10 PERCENT EXCEEDS	142		135		110	
50 PERCENT EXCEEDS	33		42		27	
90 PERCENT EXCEEDS	12		19		6.8	

a From rating curve extended above 1,500 ft³/s on basis of contracted-opening measurement at gage height 10.37 ft.
 e Estimated.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to 1999, 2003 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
OCT														
07...	0730	32	10.9	91	7.6	250	7.3	E.09	E.007	.448	<.008	<.02	.006	3
NOV														
03...	1430	143	11.4	100	7.6	166	9.0	.19	E.007	.404	<.008	<.02	.059	80
DEC														
09...	0900	E98	--	--	7.3	180	.0	E.08	.011	.605	<.008	<.02	.012	11
JAN														
12...	1100	E53	13.9	98	7.2	205	.5	E.08	E.009	.656	<.008	<.02	.018	17
FEB														
02...	1100	E26	14.5	100	7.3	220	.0	E.07	.010	.733	<.008	<.02	.006	2
MAR														
01...	1115	E21	14.0	100	7.3	230	.5	.14	.014	.699	E.005	<.02	.007	3
30...	1645	130	--	--	7.6	143	--	.24	.010	.573	<.008	<.02	.076	80
APR														
02...	1000	269	12.6	96	7.5	127	3.5	.63	E.009	.485	<.008	<.02	.42	614
05...	1230	154	12.9	95	7.5	139	2.3	.20	<.010	.557	<.008	<.02	.078	86
13...	1215	103	12.6	96	7.4	190	3.7	.27	E.005	.540	<.008	<.02	.076	88
MAY														
03...	1130	43	9.8	94	7.9	215	13.0	.13	.013	.469	<.008	<.02	.010	5
JUN														
09...	1215	44	9.8	103	8.0	221	17.6	.10	E.007	.347	<.008	<.02	.005	3
JUL														
21...	1130	15	9.6	108	8.0	259	20.7	E.08	.012	.308	<.008	<.02	.005	4
AUG														
11...	1200	13	9.0	99	8.1	292	20.1	E.09	.012	.337	<.008	<.02	.006	3
SEP														
07...	1530	22	9.8	103	8.0	272	17.5	E.08	.011	.322	<.008	<.02	E.004	1

Remark codes used in this table:

<-- Less than.

E-- Estimated value.

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 Quechee West Hartford Road bridge at West Hartford, 0.2 mi south of the State Highway 14 and Tigertown Road intersection in West Hartford, 5.1 mi south of State Highways 14 and 132 intersection in Sharon, 5.5 mi west of Post Office in Norwich, and 7.4 mi upstream from mouth.

DRAINAGE AREA.--690 mi².

PERIOD OF RECORD.--Discharge records: June 1915 to current year. October 1927 to September 1928 monthly discharge only, published in WSP 1301.

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 National Geodetic Vertical Datum of 1929. Prior to October 30, 1927, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some diurnal fluctuation at low flow during period 1934-50 caused by power plant upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft³/s, November 4, 1927, gage height, 29.3 ft, from floodmarks, from rating curve extended above 29,000 ft³/s on basis of slope-area measurement of peak flow; minimum observed, about 35 ft³/s, August 4, 1918; minimum daily discharge, 54 ft³/s, September 27, 28, 1963. Stage and discharge of the flood of November 4, 1927, are the greatest since at least 1761.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1815	*17,400	*12.65	Dec 25	0630	12,800	11.04
Nov 20	1330	12,300	10.87				

Minimum discharge, 294 ft³/s, July 23, Aug. 10, 11, gage height, 3.26 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,260	3,270	2,870	e2,520	e550	e620	4,860	1,100	1,620	421	841	1,150
2	1,070	2,830	2,450	e2,290	e535	e750	7,200	1,050	2,040	400	702	855
3	949	3,170	1,990	e2,200	e530	e1,280	5,360	1,070	2,420	428	508	706
4	847	3,540	1,860	e2,310	e530	e1,400	4,090	1,480	2,090	350	669	615
5	1,530	3,110	e1,580	e2,270	e545	e1,220	3,650	1,360	1,660	324	526	553
6	1,330	2,780	e1,530	e2,070	e555	e1,960	2,870	1,290	1,410	415	421	504
7	1,060	2,410	e1,370	e1,750	e560	e2,980	2,580	1,140	1,250	403	370	473
8	897	2,120	e1,500	e1,330	e550	e1,940	2,430	995	1,110	433	374	456
9	791	1,870	e1,380	e990	e530	e1,480	2,310	930	992	727	348	1,720
10	724	1,720	e1,400	e1,080	e537	e1,240	2,140	878	1,950	572	309	3,030
11	676	1,630	e2,500	e1,190	e533	e1,160	1,960	938	1,260	437	323	1,740
12	640	1,610	e4,500	e1,350	e514	e1,180	1,840	867	998	374	414	1,230
13	613	2,240	2,640	e1,420	e507	e1,110	2,040	772	857	333	4,060	955
14	575	2,350	e1,760	e1,060	e497	e970	3,810	741	767	321	2,880	783
15	1,700	1,890	e1,700	e970	e490	e1,010	3,160	779	769	337	1,480	690
16	2,870	1,670	e1,760	e970	e463	e900	2,490	1,880	721	424	1,040	638
17	1,740	1,580	e2,300	e1,000	e485	851	2,200	1,160	622	362	1,100	597
18	1,340	1,530	e5,300	e965	e500	836	2,330	913	587	341	853	1,400
19	1,150	1,850	3,510	e920	e485	801	2,380	925	600	361	674	1,740
20	1,010	8,020	2,860	e890	e475	741	2,590	778	606	410	631	1,070
21	1,320	5,280	2,410	e840	e470	803	2,050	734	503	443	1,520	861
22	2,120	3,470	2,410	e815	e460	724	1,770	745	479	346	2,620	749
23	1,510	2,820	2,210	e795	e452	e580	1,630	2,250	617	498	1,370	662
24	1,290	2,470	3,130	e760	e440	e750	1,500	6,350	506	1,390	983	594
25	1,120	2,280	10,300	e690	e436	735	1,370	6,030	430	713	774	553
26	1,060	2,050	5,600	e653	e436	1,130	1,650	3,780	415	503	662	524
27	3,190	1,880	4,000	e638	e440	6,470	1,760	2,940	417	430	584	487
28	7,590	1,830	3,290	e615	e470	5,470	1,470	2,660	375	540	533	462
29	9,250	5,680	3,010	e605	e525	4,270	1,300	2,530	500	609	538	450
30	7,760	3,700	2,800	e590	---	3,640	1,190	2,000	577	544	2,220	435
31	4,240	---	e2,770	e580	---	3,510	---	1,720	---	437	1,740	---
TOTAL	63,222	82,650	88,690	37,126	14,500	52,511	77,980	52,785	29,148	14,626	32,067	26,682
MEAN	2,039	2,755	2,861	1,198	500	1,694	2,599	1,703	972	472	1,034	889
MAX	9,250	8,020	10,300	2,520	560	6,470	7,200	6,350	2,420	1,390	4,060	3,030
MIN	575	1,530	1,370	580	436	580	1,190	734	375	321	309	435
CFSM	2.96	3.99	4.15	1.74	0.72	2.45	3.77	2.47	1.41	0.68	1.50	1.29
IN.	3.41	4.46	4.78	2.00	0.78	2.83	4.20	2.85	1.57	0.79	1.73	1.44

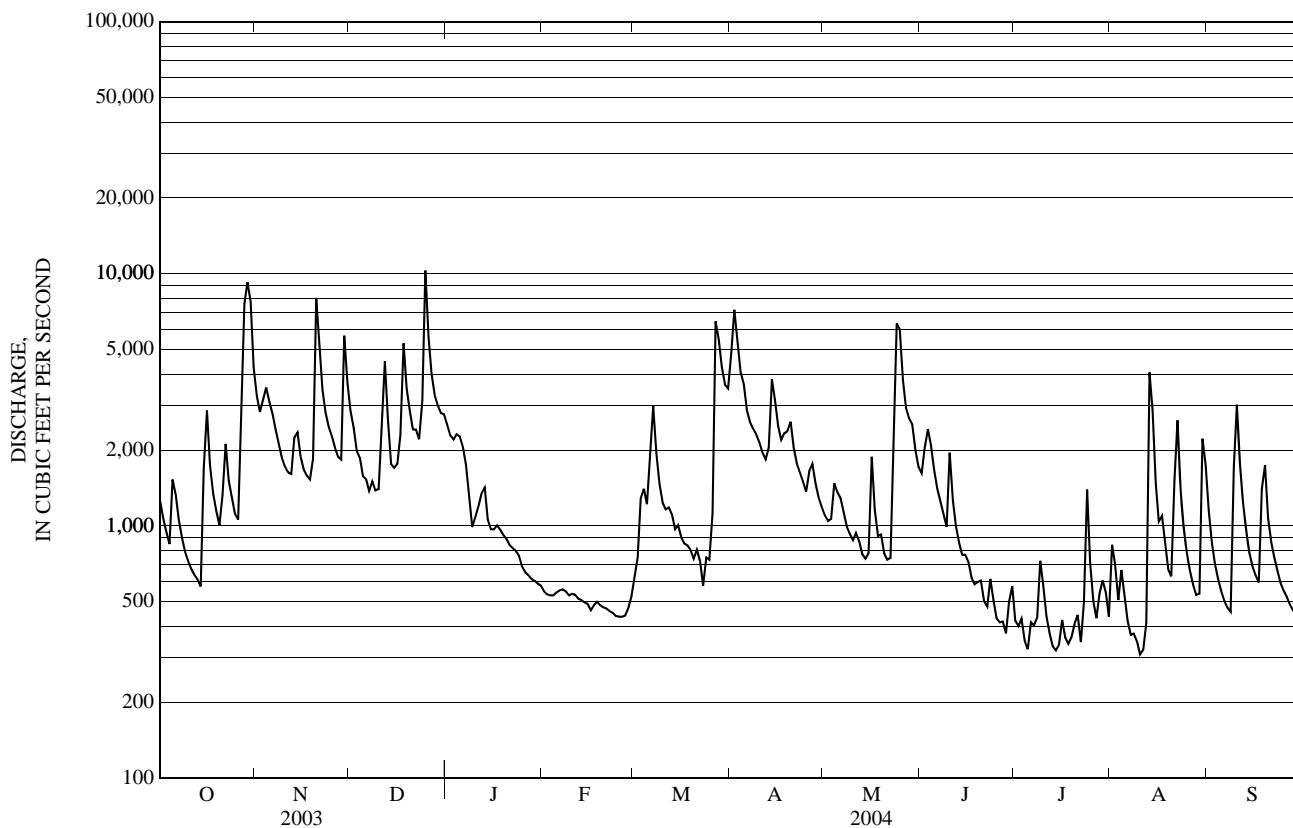
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2004, BY WATER YEAR (WY)

MEAN	674	1,028	1,023	854	793	1,900	3,879	1,974	902	497	382	408
MAX	2,416	2,755	3,189	2,178	3,503	7,170	7,286	4,734	3,459	2,010	1,822	2,774
(WY)	(1946)	(2004)	(1984)	(1996)	(1981)	(1936)	(1969)	(1940)	(1947)	(1996)	(1976)	(1938)
MIN	80.0	204	237	197	169	222	1,131	634	224	108	90.5	77.5
(WY)	(1964)	(2002)	(1923)	(1925)	(1940)	(1940)	(1995)	(1941)	(1921)	(1965)	(1965)	(1963)

01144000 WHITE RIVER AT WEST HARTFORD, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1915 - 2004	
ANNUAL TOTAL	580,698		571,987		1,191	
ANNUAL MEAN	1,591		1,563		1,910	
HIGHEST ANNUAL MEAN					494	
LOWEST ANNUAL MEAN					1976	
HIGHEST DAILY MEAN	11,400	Mar 30	10,300	Dec 25	31,300	Mar 18, 1936
LOWEST DAILY MEAN	232	Jul 7	309	Aug 10	a 54	Sep 27, 1963
ANNUAL SEVEN-DAY MINIMUM	253	Jul 4	354	Jul 13	59	Sep 22, 1963
MAXIMUM PEAK FLOW			17,400	Oct 29	b 120,000	Nov 4, 1927
MAXIMUM PEAK STAGE			12.65	Oct 29	c 29.30	Nov 4, 1927
INSTANTANEOUS LOW FLOW			d 294	Jul 23	f 35	Aug 4, 1918
ANNUAL RUNOFF (CFSM)	2.31		2.26		1.73	
ANNUAL RUNOFF (INCHES)	31.31		30.84		23.46	
10 PERCENT EXCEEDS	3,360		3,140		2,700	
50 PERCENT EXCEEDS	968		1,070		633	
90 PERCENT EXCEEDS	346		440		189	

- a Also occurred on September 28, 1963.
- b From rating curve extended above 29,000 ft³/s as explained above.
- c From floodmarks.
- d Also occurred on August 10, 11.
- e Estimated.
- f About.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953, 1956 to 1958, 1961, 1966 to 1999, 2003 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
OCT														
07...	1000	1,070	11.2	96	7.7	136	9.0	.11	<.010	.138	<.008	<.02	.004	1
NOV														
04...	1145	3,800	11.4	99	7.5	124	8.8	.16	E.009	.195	<.008	<.02	.034	30
20...	1600	11,600	11.8	98	6.7	59	6.5	.68	<.010	.160	<.008	<.02	.46	555
DEC														
09...	1100	E1,310	--	--	7.1	136	.0	.10	E.008	.355	<.008	<.02	.009	5
JAN														
12...	0900	E1,360	14.0	97	6.8	160	.5	E.08	E.007	.414	<.008	<.02	.004	2
FEB														
02...	1200	E557	14.4	98	7.5	195	.0	E.08	E.009	.470	<.008	<.02	.006	4
MAR														
01...	1245	E628	14.0	99	7.6	210	.5	E.10	.010	.478	E.005	<.02	.006	2
31...	0645	3,570	--	--	6.5	96	1.0	.17	E.005	.426	<.008	<.02	.042	45
APR														
02...	1130	7,470	12.4	96	7.3	73	3.3	.49	.012	.374	<.008	<.02	.31	451
05...	1345	3,560	12.4	94	7.4	100	3.5	.15	<.010	.386	<.008	<.02	.043	49
13...	1330	1,890	12.8	96	7.8	145	4.1	.18	E.006	.353	<.008	<.02	.012	16
MAY														
03...	1300	1,030	9.8	100	8.1	160	15.7	E.09	E.006	.240	<.008	<.02	E.004	0
JUN														
09...	0930	966	9.4	102	8.1	172	19.1	E.09	<.010	.178	E.005	<.02	.008	4
JUL														
21...	0915	473	8.3	97	8.2	197	22.8	E.08	.010	.219	<.008	<.02	.009	2
AUG														
11...	0900	298	8.4	95	8.1	207	21.2	.10	.013	.188	<.008	<.02	.005	2
SEP														
07...	1315	468	9.2	100	8.2	173	19.1	E.08	<.010	.163	<.008	<.02	.004	0

Remark codes used in this table:

<-- Less than.

E-- Estimated value.

01144500 CONNECTICUT RIVER AT WEST LEBANON, NH

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, 0.2 mi northwest of US 4 and State Highway 12A intersection in West Lebanon, and at mile 215.0.

DRAINAGE AREA.--4,092 mi².

PERIOD OF RECORD.--Discharge records: November 1911 to December 1911, March 1912 to December 1913, March 1914 to December 1914, February 1915 to December 1915, April 1916 to December 1916, March 1917 to November 1917, April 1918 to December 1919, April 1920 to January 1921, March 1921 to November 1976, November 1978 to current year. Published as "at White River Junction, VT" prior to November 1978. Peak streamflow: Water years 1912 to 1976, 1979 to current year. Water-quality discrete samples: Water years 1954, 1961, 1967, 1968, 1970, 1975, 1976, 1979 to 1999.

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 National Geodetic Vertical Datum of 1929. 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 November 2, 1930, nonrecording gage at various locations on upstream and downstream sides of railroad bridge at same datum.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 136,000 ft³/s, November 4, 1927, gage height, 35.0 ft, present site; minimum daily discharge 82 ft³/s, August 8, 1965. Stage and discharge of flood November 4, 1927, are the greatest since at least 1760.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 48,900 ft³/s, Oct. 29, gage height, 18.74 ft; minimum daily discharge, 1,360 ft³/s, July 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,300	24,700	14,900	12,700	e3,940	2,800	e25,400	7,860	8,250	3,100	1,920	16,100
2	3,940	18,100	13,800	12,700	e3,800	3,340	e28,400	8,360	10,700	3,130	4,140	13,200
3	3,850	14,300	12,900	11,800	e3,680	4,000	e30,400	7,310	9,770	2,950	2,900	8,470
4	4,430	14,900	e7,460	10,500	e4,070	5,640	e26,200	10,900	9,270	2,510	4,470	5,010
5	4,670	12,700	8,730	12,800	e3,640	5,480	e22,500	13,700	8,440	3,990	3,490	3,940
6	4,600	12,300	7,960	8,970	e4,870	5,910	e17,500	13,500	7,150	2,720	2,440	4,620
7	4,210	11,700	8,570	9,750	e2,510	9,260	e14,400	11,800	6,150	1,360	1,810	5,500
8	4,930	10,500	7,250	7,820	e4,280	6,830	e12,800	10,000	5,520	3,560	1,680	6,910
9	3,220	8,570	e8,010	8,990	e5,320	6,880	e9,620	8,490	5,370	4,400	2,380	8,570
10	3,760	9,160	e7,600	9,070	e2,650	5,430	e8,730	7,730	4,730	6,340	2,500	15,200
11	2,360	8,880	e7,250	e4,000	e3,710	7,120	e8,700	7,650	5,590	3,950	3,960	14,300
12	2,080	7,670	e15,600	6,580	e4,150	5,970	e9,270	7,370	4,230	4,420	6,520	11,500
13	3,280	9,670	15,100	7,710	e3,120	5,240	e10,800	6,490	3,800	5,240	8,120	7,570
14	4,690	12,000	10,800	10,500	e3,590	5,570	e19,500	4,430	5,350	4,470	8,400	7,380
15	5,310	10,600	9,080	e7,900	e3,030	6,650	e21,600	5,800	5,760	4,400	4,580	4,680
16	9,260	9,300	10,200	e8,360	e5,280	6,650	e18,400	7,720	2,680	3,610	3,660	4,160
17	5,760	6,020	e11,700	e7,410	e5,420	4,690	e14,000	7,260	2,640	3,090	5,110	4,540
18	5,290	7,700	e25,400	e4,160	e3,560	4,100	e14,300	8,580	3,960	1,610	6,140	8,310
19	3,810	9,450	26,400	e4,640	e3,070	4,540	e13,800	6,410	1,660	3,380	6,030	6,990
20	4,710	25,400	24,200	e5,670	e3,820	2,760	e14,000	7,190	3,530	4,250	4,690	5,550
21	5,570	31,900	18,100	e4,990	e2,220	4,070	e14,700	6,040	3,370	3,380	5,450	5,330
22	13,300	27,700	16,500	e4,930	3,290	4,900	e13,900	5,130	2,130	3,130	10,400	5,220
23	14,400	23,500	16,500	e6,000	4,600	3,400	e12,700	9,880	3,040	2,290	8,520	5,290
24	11,000	18,000	17,600	e4,850	2,850	3,590	e10,600	e19,600	2,850	6,340	7,840	4,130
25	7,690	15,600	33,400	e1,950	3,970	4,340	e10,600	e25,000	3,310	3,890	4,940	3,150
26	10,200	14,300	e30,000	e6,300	3,250	6,520	e11,100	e19,800	3,230	4,300	4,350	3,310
27	15,800	11,300	26,200	e6,640	4,760	10,900	e12,800	16,300	2,220	4,580	3,520	3,720
28	32,800	12,300	21,400	e3,340	4,140	e16,200	e11,300	13,400	2,070	3,390	3,900	3,040
29	38,300	18,200	17,200	e3,680	2,350	e19,800	e9,650	12,900	2,100	3,070	3,690	3,320
30	40,600	19,800	15,400	e4,670	---	e20,000	7,630	10,900	3,010	3,540	11,500	2,500
31	32,400	---	14,000	e4,440	---	e20,700	---	9,490	---	2,900	15,800	---
TOTAL	310,520	436,220	479,210	223,820	108,940	223,280	455,300	316,990	141,880	113,570	164,850	201,510
MEAN	10,020	14,540	15,460	7,220	3,757	7,203	15,180	10,230	4,729	3,664	5,318	6,717
MAX	40,600	31,900	33,400	12,800	5,420	20,700	30,400	25,000	10,700	6,340	15,800	16,100
MIN	2,080	6,020	7,250	1,950	2,220	2,760	7,630	4,430	1,660	1,360	1,680	2,500

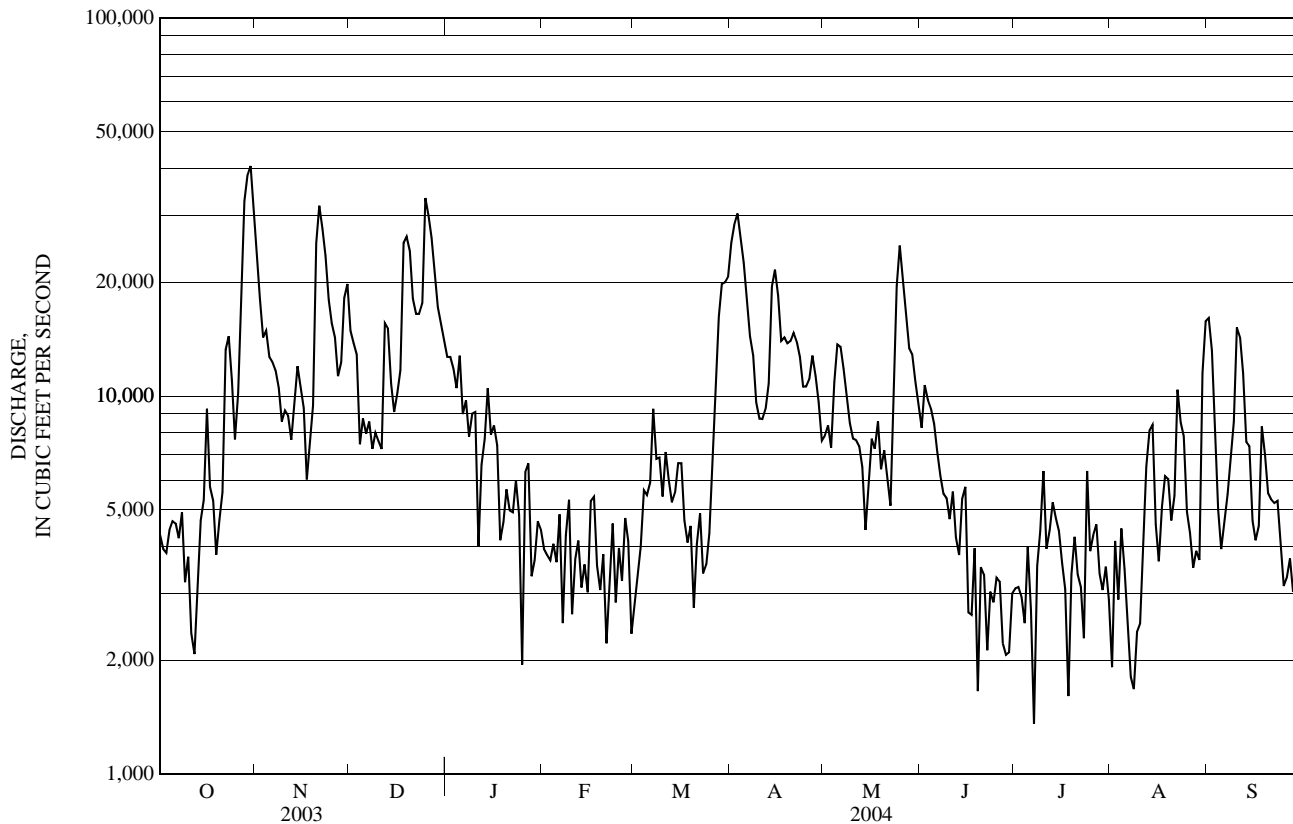
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 77, 1979 - 2004, BY WATER YEAR (WY)

MEAN	4,764	6,794	6,326	5,112	4,774	9,190	20,180	12,910	6,242	3,760	3,063	3,236
MAX	12,990	24,860	16,890	11,680	17,650	35,510	32,900	25,890	16,870	14,050	8,904	12,900
(WY)	(1982)	(1928)	(1984)	(1996)	(1981)	(1936)	(1934)	(1972)	(1947)	(1973)	(1990)	(1954)
MIN	1,314	2,313	1,795	1,627	1,419	1,626	5,536	4,556	1,946	1,393	1,072	1,007
(WY)	(1948)	(1948)	(1948)	(1948)	(1940)	(1940)	(1995)	(1987)	(1921)	(1921)	(1942)	(1921)

01144500 CONNECTICUT RIVER AT WEST LEBANON, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1912 - 77, 1979 - 2004	
ANNUAL TOTAL	2,911,077		3,176,090			
ANNUAL MEAN	7,976		8,678		7,142	
HIGHEST ANNUAL MEAN					10,700	1928
LOWEST ANNUAL MEAN					4,101	1965
HIGHEST DAILY MEAN	40,600	Oct 30	40,600	Oct 30	129,000	Nov 4, 1927
LOWEST DAILY MEAN	991	Jul 10	1,360	Jul 7	82	Aug 8, 1965
ANNUAL SEVEN-DAY MINIMUM	1,730	Jul 9	2,610	Aug 5	731	Aug 27, 1934
MAXIMUM PEAK FLOW			48,900		136,000	Nov 4, 1927
MAXIMUM PEAK STAGE			18.74		35.00	Nov 4, 1927
10 PERCENT EXCEEDS	17,600		17,500		15,500	
50 PERCENT EXCEEDS	4,690		6,380		4,590	
90 PERCENT EXCEEDS	2,070		3,040		1,660	

e Estimated.



01150500 MASCOMA RIVER AT MASCOMA, NH

LOCATION.--Lat 43° 38'55", long 72° 10'55", Grafton County, Hydrologic Unit 01080104, on right bank, 100 ft upstream of Payne Road bridge, 100 ft downstream from outlet of Mascoma Lake, 0.2 mi south of US 4 and Payne Road intersection in Mascoma, 1.9 mi west of City Hall in Enfield, and 3.5 mi east of City Hall in Lebanon.

DRAINAGE AREA.--153 mi².

PERIOD OF RECORD.--Discharge records: August 1923 to September 2004 (discontinued); August 1923 to January 1993, at site 900 ft downstream at different datum.

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

GAGE.--Water-stage recorder. Datum of gage is 740.68 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Mascoma and Crystal Lakes and Goose and Grafton Ponds.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,840 ft³/s, March 19, 1936, gage height, 7.50 ft (at different datum), from rating curve extended above 2,500 ft³/s on basis of computations of flow over dam at gage heights 6.85 ft and 7.50 ft; minimum daily discharge, 2 ft³/s, February 3, 1929 and September 1, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,550 ft³/s, Apr. 3, gage height, 6.13 ft; minimum daily discharge, 25 ft³/s, Aug. 11, 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	824	553	474	63	50	767	210	354	42	39	36
2	117	672	517	447	63	51	1,060	194	258	e41	49	40
3	118	581	436	424	65	54	1,480	181	298	e40	42	38
4	118	539	325	407	67	61	1,280	236	306	e39	38	37
5	118	510	247	387	67	77	987	450	288	e39	35	37
6	117	486	245	366	67	99	728	428	257	e38	33	32
7	116	467	247	273	68	140	522	289	165	e38	30	30
8	113	451	240	206	69	228	416	210	113	e67	29	30
9	111	430	237	205	69	259	341	200	126	e90	27	37
10	109	384	226	205	e69	244	310	193	238	e90	26	40
11	108	356	278	206	70	184	320	186	282	e90	25	38
12	107	350	377	196	70	165	321	171	217	e90	25	40
13	106	293	475	164	69	170	350	165	160	e59	36	40
14	152	257	511	161	68	167	346	153	105	e30	48	32
15	211	265	483	160	68	163	382	145	91	e30	47	30
16	215	268	468	160	67	157	510	144	92	29	35	30
17	219	269	457	157	55	118	480	128	88	29	31	30
18	206	312	583	153	44	84	359	105	82	31	31	31
19	205	327	770	152	45	85	252	108	71	31	32	84
20	204	347	925	151	46	86	290	112	64	31	33	131
21	234	451	857	148	46	87	301	110	50	34	36	118
22	273	541	730	144	47	87	272	117	35	34	38	97
23	273	493	609	141	47	87	259	187	40	33	38	80
24	282	607	540	138	48	88	238	743	44	32	39	66
25	286	695	600	134	49	89	224	1,050	43	32	37	56
26	283	444	812	96	49	90	218	1,100	43	32	35	48
27	320	284	923	64	49	130	279	774	42	34	33	44
28	456	292	827	64	49	486	314	613	40	34	32	42
29	822	354	699	64	49	741	263	643	43	40	31	41
30	1,140	468	553	64	---	783	238	629	42	41	30	37
31	1,070	---	496	64	---	808	---	512	---	40	32	---
TOTAL	8,322	13,017	16,246	6,175	1,702	6,118	14,107	10,486	4,077	1,360	1,072	1,472
MEAN	268	434	524	199	58.7	197	470	338	136	43.9	34.6	49.1
MAX	1,140	824	925	474	70	808	1,480	1,100	354	90	49	131
MIN	106	257	226	64	44	50	218	105	35	29	25	30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2004, BY WATER YEAR (WY)

MEAN	143	187	193	156	162	313	640	343	178	112	92.3	89.9
MAX	461	560	607	368	550	1,222	1,338	769	493	658	443	591
(WY)	(1976)	(1928)	(1984)	(1978)	(1981)	(1936)	(1969)	(1996)	(1984)	(1973)	(1990)	(1938)
MIN	34.6	35.8	46.5	39.3	38.7	65.4	180	78.2	34.8	26.3	19.0	22.0
(WY)	(1964)	(1965)	(1979)	(1981)	(1980)	(1931)	(1995)	(1957)	(1999)	(2003)	(1985)	(2002)

01150500 MASCOMA RIVER AT MASCOMA, NH—Continued

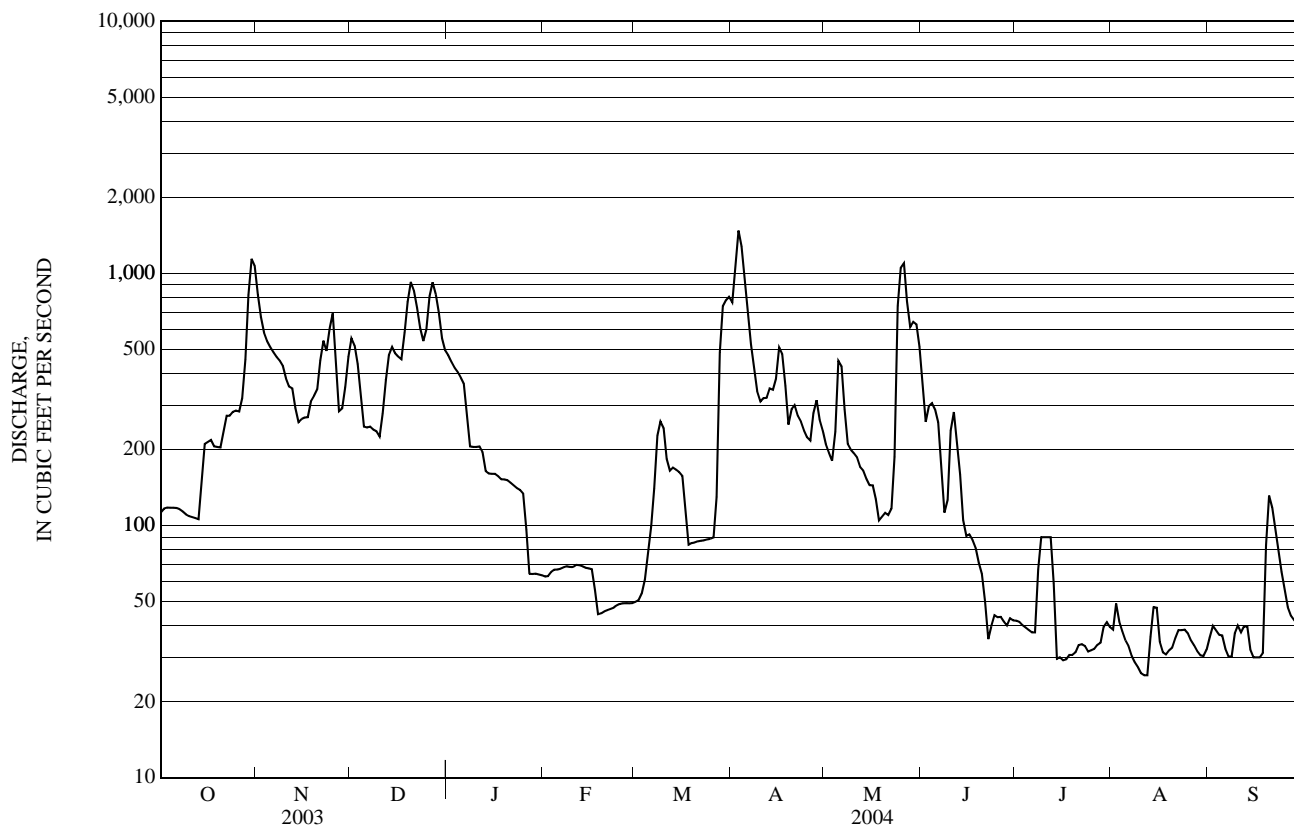
SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1923 - 2004	
ANNUAL TOTAL	94,843		84,154		217	
ANNUAL MEAN	260		230		359	
HIGHEST ANNUAL MEAN					84.4	
LOWEST ANNUAL MEAN					1973	
HIGHEST DAILY MEAN	2,320	Mar 31	1,480	Apr 3	5,090	Mar 19, 1936
LOWEST DAILY MEAN	22	Jul 10	a 25	Aug 11	b 2.0	Feb 3, 1929
ANNUAL SEVEN-DAY MINIMUM	24	Jul 19	28	Aug 6	16	Aug 24, 1985
MAXIMUM PEAK FLOW			1,550	Apr 3	c 5,840	Mar 19, 1936
MAXIMUM PEAK STAGE			6.13	Apr 3	9.08	Apr 20, 1997
10 PERCENT EXCEEDS	603		553		471	
50 PERCENT EXCEEDS	124		136		124	
90 PERCENT EXCEEDS	29		34		45	

a Also occurred on August 12.

b Also occurred on September 1, 1940.

c From rating curve extended above 2,500 ft³/s on basis of computation of flow over dam at gage heights 6.85 and 7.50 ft. From gage located 900 ft downstream of present site at different datum.

e Estimated.



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 Mission Chapel Road bridge, 1.6 mi northwest of State Highway 100S and US 4E intersection in West Bridgewater, and 2.6 mi southeast of River Road and US 4 intersection in Sherburne Center.

DRAINAGE AREA.--23.4 mi².

PERIOD OF RECORD.--Discharge records: October 1984 to current year.

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	2000	942	6.58	May 24	1459	*982	*6.62
Dec 25	0730	822	6.18				

Minimum discharge, 5.1 ft³/s, Aug. 10, gage height, 2.52 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	131	95	95	e25	e12	245	56	71	10	22	14
2	51	117	75	81	e24	e17	362	55	82	10	15	12
3	43	146	e72	93	e24	e37	210	56	71	8.3	12	12
4	58	164	e49	156	e23	e32	148	72	64	7.7	11	9.9
5	104	143	e44	122	e24	e32	119	63	50	8.6	10	9.0
6	65	127	e46	95	e24	122	92	61	42	11	7.9	8.8
7	47	106	e44	e68	e25	109	79	53	37	8.1	7.5	8.0
8	40	84	e43	e45	e24	67	71	42	32	21	7.2	7.8
9	35	68	e42	e43	e23	52	68	38	39	18	6.5	7.7
10	32	61	e41	e41	e22	43	64	37	58	13	6.0	7.7
11	29	57	91	e43	e19	39	58	59	35	15	17	45
12	27	59	190	e45	e18	39	54	47	27	10	11	28
13	25	138	e118	e41	e18	33	81	42	24	9.8	30	21
14	23	119	e79	e40	e16	29	175	52	22	10	34	17
15	167	84	e71	e38	e14	29	132	50	24	12	19	15
16	220	68	e66	e37	e14	26	97	99	20	11	17	14
17	105	63	106	e37	e13	25	88	65	18	9.9	18	13
18	75	63	261	e37	e13	25	108	70	17	8.7	14	69
19	59	98	152	e36	e14	24	159	107	18	11	12	72
20	48	349	103	e35	e14	22	146	67	14	15	17	37
21	54	230	83	e33	e15	25	96	57	11	12	40	28
22	56	132	78	e32	e13	24	88	69	12	9.2	43	23
23	49	103	72	e31	e12	20	79	208	14	25	24	20
24	43	88	157	e30	e11	21	69	639	11	7.7	17	18
25	38	79	635	e29	e11	26	56	456	7.5	27	14	16
26	41	66	261	e29	e10	66	83	215	10	18	12	15
27	148	60	157	e27	e10	359	85	166	9.7	18	11	14
28	353	66	126	e27	e10	298	65	131	8.0	25	11	13
29	518	206	107	e26	e10	180	56	97	13	20	10	14
30	504	127	118	e26	---	140	56	75	12	16	11	13
31	185	---	114	e25	---	138	---	62	---	13	20	---
TOTAL	3,310	3,402	3,696	1,543	493	2,111	3,289	3,366	873.2	488.3	507.1	740.5
MEAN	107	113	119	49.8	17.0	68.1	110	109	29.1	15.8	16.4	24.7
MAX	518	349	635	156	25	359	362	639	82	77	43	77
MIN	23	57	41	25	10	12	54	37	7.5	7.7	6.0	7.8
CFSM	4.56	4.85	5.10	2.13	0.73	2.91	4.69	4.64	1.24	0.67	0.70	1.05
IN.	5.26	5.41	5.88	2.45	0.78	3.36	5.23	5.35	1.39	0.78	0.81	1.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2004, BY WATER YEAR (WY)

MEAN	47.1	63.5	51.8	46.7	36.4	92.1	161	83.0	42.5	28.9	24.5	25.2
MAX	121	121	119	108	76.6	200	272	169	160	125	74.1	97.2
(WY)	(1988)	(1989)	(2004)	(1998)	(1990)	(1998)	(2000)	(1996)	(1998)	(1996)	(2003)	(1987)
MIN	7.26	13.8	21.2	18.9	14.5	20.2	45.7	34.7	13.7	6.77	4.21	6.04
(WY)	(2002)	(2002)	(1998)	(2002)	(1987)	(2001)	(1995)	(1995)	(1988)	(1991)	(2002)	(2002)

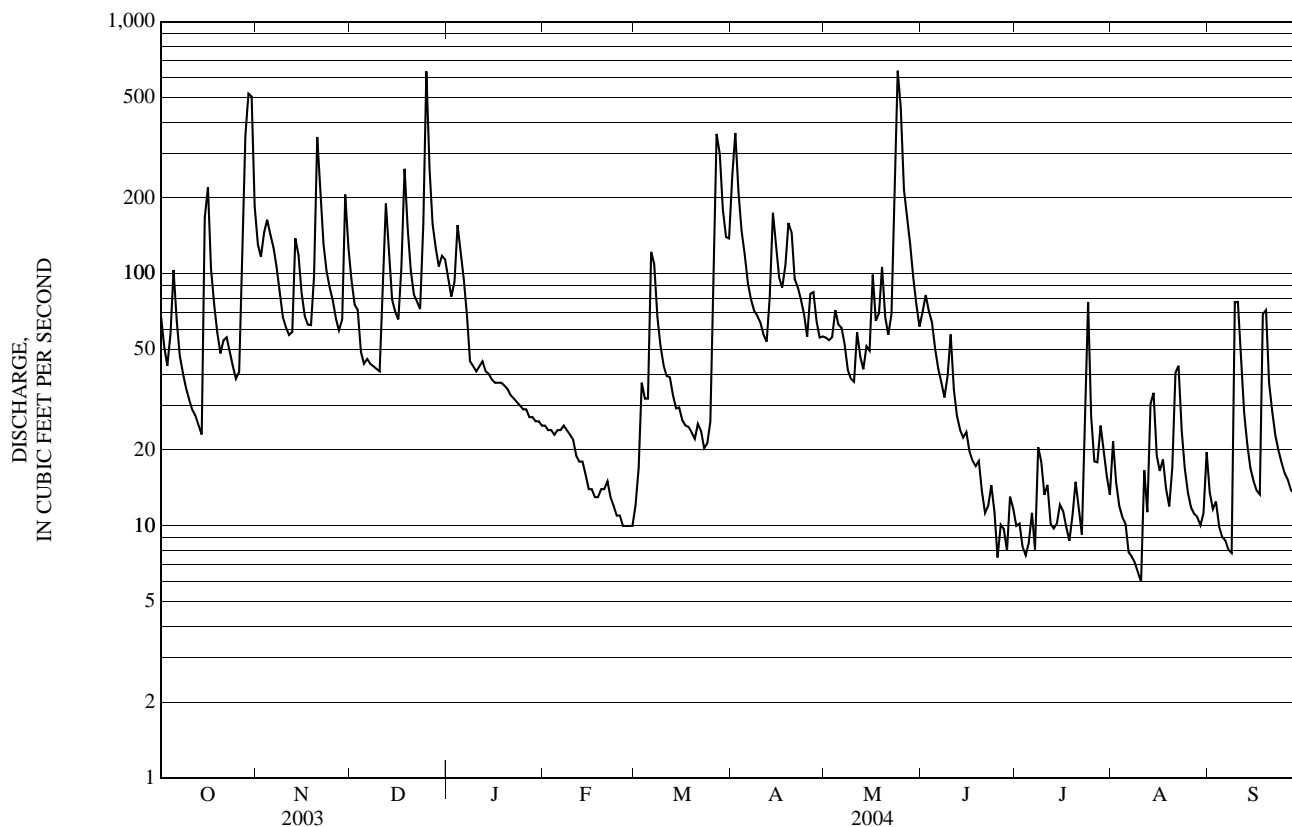
01150900 OTTAUQUECHEE RIVER NEAR WEST BRIDGEWATER, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1985 - 2004	
ANNUAL TOTAL	27,055.9		23,819.1			
ANNUAL MEAN	74.1		65.1		58.6	
HIGHEST ANNUAL MEAN					83.2	2000
LOWEST ANNUAL MEAN					35.6	1995
HIGHEST DAILY MEAN	743	Mar 30	639	May 24	1,460	Mar 29, 1998
LOWEST DAILY MEAN	6.8	Jul 10	6.0	Aug 10	a 1.6	Sep 8, 2002
ANNUAL SEVEN-DAY MINIMUM	7.7	Jul 4	8.0	Aug 4	1.8	Sep 5, 2002
MAXIMUM PEAK FLOW			982	May 24	1,960	Oct 22, 1995
MAXIMUM PEAK STAGE			6.62	May 24	8.94	Apr 14, 2002
INSTANTANEOUS LOW FLOW			5.1	Aug 10	b 1.2	Sep 8, 2002
ANNUAL RUNOFF (CFSM)	3.17		2.78		2.50	
ANNUAL RUNOFF (INCHES)	43.01		37.87		34.02	
10 PERCENT EXCEEDS	158		141		125	
50 PERCENT EXCEEDS	44		40		31	
90 PERCENT EXCEEDS	14		11		9.9	

a Also occurred on September 9 and 10, 2002.

b Also occurred on September 11, 2002.

c 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 US 5 bridge, 0.3 mi downstream from North Hartland Dam, 0.7 mi north of Depot Road and US 5 intersection in North Hartland, 1.2 mi upstream from mouth, and 3.7 mi southwest of Courthouse in White River Junction.

DRAINAGE AREA.--221 mi².

PERIOD OF RECORD.--Discharge records: October 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 336.77 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.-- Records good except those for estimated daily discharges, which are fair. Flow regulated by power plants upstream and by North Hartland Reservoir since March 1961; greater regulation by power plants 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft³/s, September 21, 1938, gage height, 17.68 ft, from rating curve extended above 6,200 ft³/s on basis of computation of flow over dam at gage heights 15.58 ft, 17.68 ft, and 21.5 ft; minimum, 0.2 ft³/s, July 6, 1984, during hydroelectric construction; minimum daily discharge, 3.8 ft³/s, July 3, 1933. Maximum discharge since construction of North Hartland Dam in March 1961, 6,170 ft³/s, March 17, 1977, gage height, 8.67 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,480 ft³/s, May 24, gage height, 6.92 ft; minimum daily discharge, 59 ft³/s, Sept. 16.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	409	2,120	995	888	178	152	1,340	341	574	138	192	114
2	339	1,300	919	758	e205	183	1,830	343	751	103	191	88
3	267	1,080	662	689	192	e325	2,280	344	633	95	129	88
4	214	1,270	505	703	172	422	1,640	454	582	88	109	88
5	250	1,130	459	836	172	313	1,230	502	523	84	118	77
6	376	1,000	356	762	162	318	902	442	362	121	89	64
7	391	796	433	581	150	752	767	367	352	121	89	59
8	292	639	606	405	149	801	712	307	332	118	89	60
9	211	515	600	235	e198	471	607	308	331	268	71	488
10	187	564	501	252	e214	380	580	284	811	176	61	553
11	177	583	562	329	179	350	580	385	581	126	68	227
12	177	556	1,350	461	145	362	549	398	332	110	125	162
13	177	804	1,600	523	145	364	607	253	331	120	189	108
14	177	849	1,140	536	145	315	983	223	300	124	171	111
15	648	573	733	366	145	309	1,040	236	256	88	131	127
16	1,130	449	705	230	e145	303	797	349	215	134	126	109
17	668	534	706	195	145	243	619	397	175	106	193	102
18	461	568	1,590	198	145	235	571	357	199	91	116	387
19	370	590	1,850	201	145	244	718	381	210	112	98	555
20	322	1,990	1,820	288	139	218	814	354	201	119	98	319
21	350	2,080	1,500	330	131	218	630	292	164	149	137	231
22	377	1,380	997	326	131	252	509	291	144	105	318	177
23	344	1,060	831	296	144	218	479	684	182	104	177	145
24	310	876	866	275	151	248	426	2,310	141	462	128	117
25	285	768	1,980	e230	124	278	426	2,790	112	293	106	95
26	285	627	2,670	209	129	346	554	1,500	136	152	81	95
27	565	574	2,130	205	121	1,300	619	1,080	107	173	81	151
28	1,280	575	1,200	175	87	1,950	485	1,050	119	189	79	135
29	1,400	1,410	1,070	198	87	1,370	402	1,010	137	157	77	115
30	1,980	1,450	1,060	198	---	1,010	379	710	147	152	76	115
31	2,680	---	959	177	---	1,010	---	555	---	122	133	---
TOTAL	17,099	28,710	33,355	12,055	4,375	15,260	24,075	19,297	9,440	4,500	3,846	5,262
MEAN	552	957	1,076	389	151	492	802	622	315	145	124	175
MAX	2,680	2,120	2,670	888	214	1,950	2,280	2,790	811	462	318	555
MIN	177	449	356	175	87	152	379	223	107	84	61	59

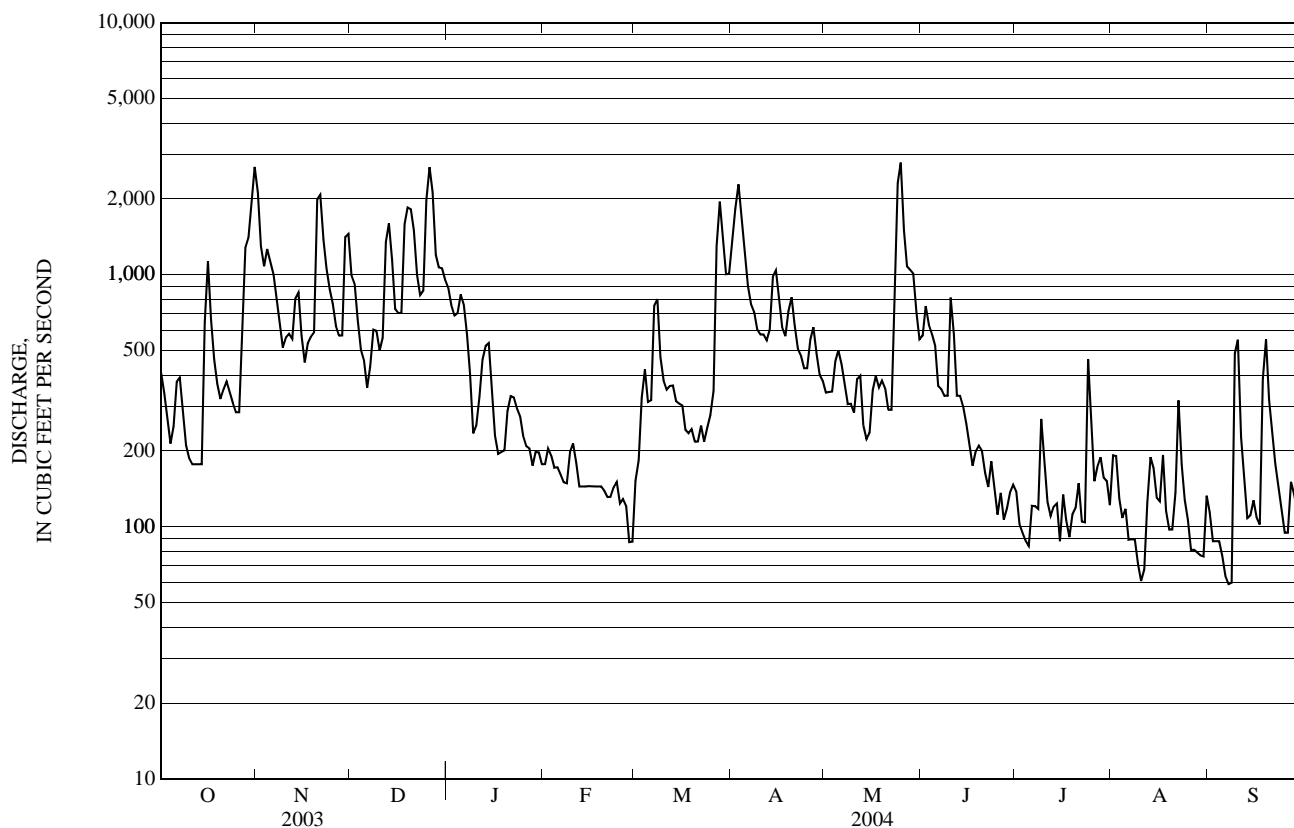
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

MEAN	218	344	349	298	279	629	1,367	663	295	165	125	132
MAX	1,060	957	1,076	900	1,157	2,570	2,587	1,676	990	1,131	759	1,030
(WY)	(1988)	(2004)	(2004)	(1996)	(1981)	(1936)	(1969)	(1940)	(1998)	(1973)	(1976)	(1938)
MIN	33.3	70.5	72.2	56.2	55.4	84.0	346	201	70.3	34.8	28.5	29.7
(WY)	(1965)	(1965)	(1948)	(1948)	(1940)	(1940)	(1995)	(1941)	(1965)	(1965)	(1965)	(1967)

01151500 OTTAUQUECHEE RIVER AT NORTH HARTLAND, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	202,546		177,274		405	
ANNUAL MEAN	555		484		173	
HIGHEST ANNUAL MEAN					691 1976	
LOWEST ANNUAL MEAN					173 1965	
HIGHEST DAILY MEAN	2,930	Apr 2	2,790	May 25	13,300	Mar 18, 1936
LOWEST DAILY MEAN	a 48	Jul 9	59	Sep 7	3.8	Jul 3, 1933
ANNUAL SEVEN-DAY MINIMUM	58	Jul 4	75	Sep 2	14	Sep 25, 1967
MAXIMUM PEAK FLOW			3,480	May 24	b 24,400	Sep 21, 1938
MAXIMUM PEAK STAGE			6.92	May 24	17.68	Sep 21, 1938
10 PERCENT EXCEEDS	1,360		1,100		934	
50 PERCENT EXCEEDS	328		316		208	
90 PERCENT EXCEEDS	102		108		56	

a Also occurred on July 10, 2003.
 b From rating curve extended above 6,200 ft³/s as explained above.
 c Estimated.



01152500 SUGAR RIVER AT WEST CLAREMONT, NH

LOCATION.--Lat 43° 23'15", long 72° 21'45", Sullivan County, Hydrologic Unit 01080104, on right bank, 0.2 mi downstream from Redwater Brook, 0.7 mi southeast of Clay Hill Road and Paddy Hollow Road intersection in West Claremont, 1.6 mi northwest of City Hall in Claremont, and 2.4 mi upstream from mouth.

DRAINAGE AREA.--269 mi².

PERIOD OF RECORD.--Discharge records: May 1928 to current year. Published as "at Claremont" prior to October 1928. Peak streamflow: Water years 1929 to current year. Water-quality discrete samples: Water years 1954, 1956 to 1959, 1966 to 1968, 1970, 1975 to 1978, 1980 to 1999.

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 National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to October 1, 1928, nonrecording gage at site 0.8 mi upstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Regulation by Sunapee Lake 25 mi upstream and occasional diurnal fluctuation at low flow by mills upstream; greater regulation by mills prior to 1971.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft³/s, March 19, 1936, gage height, 10.92 ft, from rating curve extended above 6,700 ft³/s on basis of computations of flow over dam at gage heights 10.49 ft and 10.92 ft; maximum gage height, 11.80 ft, March 12, 1936 (ice jam); minimum daily discharge, 14 ft³/s, August 26, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0515	3,280	5.07	Dec 18	unknown	e3,700	ice jam
Oct 29	1745	4,140	5.68	Apr 2	1100	*4,580	5.99
Dec 18	0230	ice jam	*10.56				

Minimum daily discharge, 80 ft³/s, July 5.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	410	1,460	891	829	e193	e190	2,060	371	745	94	349	244
2	351	1,180	745	768	e189	e240	3,890	338	607	90	338	182
3	303	1,160	e600	734	e183	e435	2,300	326	574	88	202	151
4	270	1,120	e525	768	e186	e470	1,640	631	522	82	171	126
5	273	1,090	e460	780	e190	e415	1,480	626	394	80	153	110
6	255	1,210	e430	708	e191	e660	1,160	521	336	92	136	103
7	225	1,120	e440	617	e193	e930	969	448	301	90	124	100
8	202	949	e470	e506	e193	745	835	372	271	94	114	98
9	188	778	e435	e443	e192	509	742	337	264	244	109	339
10	175	670	e425	e403	e189	413	671	302	451	219	96	528
11	168	607	e870	e428	e188	370	614	328	338	164	93	347
12	163	584	e1,800	e428	e183	e370	565	310	262	132	113	250
13	178	636	1,210	e403	e181	344	662	281	216	119	118	206
14	175	660	e900	e364	e180	319	1,570	238	194	110	128	181
15	494	569	e810	e335	e179	310	1,300	228	185	134	122	162
16	681	520	e740	e335	e176	287	996	312	162	320	121	134
17	482	494	e1,250	e345	e174	269	825	295	158	199	150	123
18	423	475	e3,200	e330	e172	e260	717	263	145	172	149	782
19	370	487	e2,300	e319	e172	248	650	438	148	149	133	1,070
20	334	1,550	1,760	e310	e172	243	589	357	139	141	118	540
21	319	1,430	1,390	e295	e170	251	448	291	135	123	175	392
22	356	1,000	1,150	e285	e170	e260	420	266	122	107	302	303
23	353	823	972	e276	e169	238	435	415	109	192	207	244
24	347	703	1,140	e266	e168	238	477	1,260	98	631	165	209
25	380	646	2,680	e242	e166	245	404	2,330	97	354	139	186
26	379	596	2,050	e232	e163	340	548	1,580	110	256	123	174
27	1,390	552	1,560	e226	e162	1,210	730	1,260	118	357	116	159
28	2,810	553	1,240	e219	e165	1,460	593	1,200	104	1,020	109	145
29	3,100	1,540	1,060	e213	e185	1,180	484	1,290	102	683	118	158
30	3,080	1,180	950	e209	---	936	419	1,020	103	480	114	156
31	1,900	---	893	e204	---	1,030	---	846	---	384	364	---
TOTAL	20,534	26,342	35,346	12,820	5,194	15,415	29,193	19,080	7,510	7,400	4,969	7,902
MEAN	662	878	1,140	414	179	497	973	615	250	239	160	263
MAX	3,100	1,550	3,200	829	193	1,460	3,890	2,330	745	1,020	364	1,070
MIN	163	475	425	204	162	190	404	228	97	80	93	98

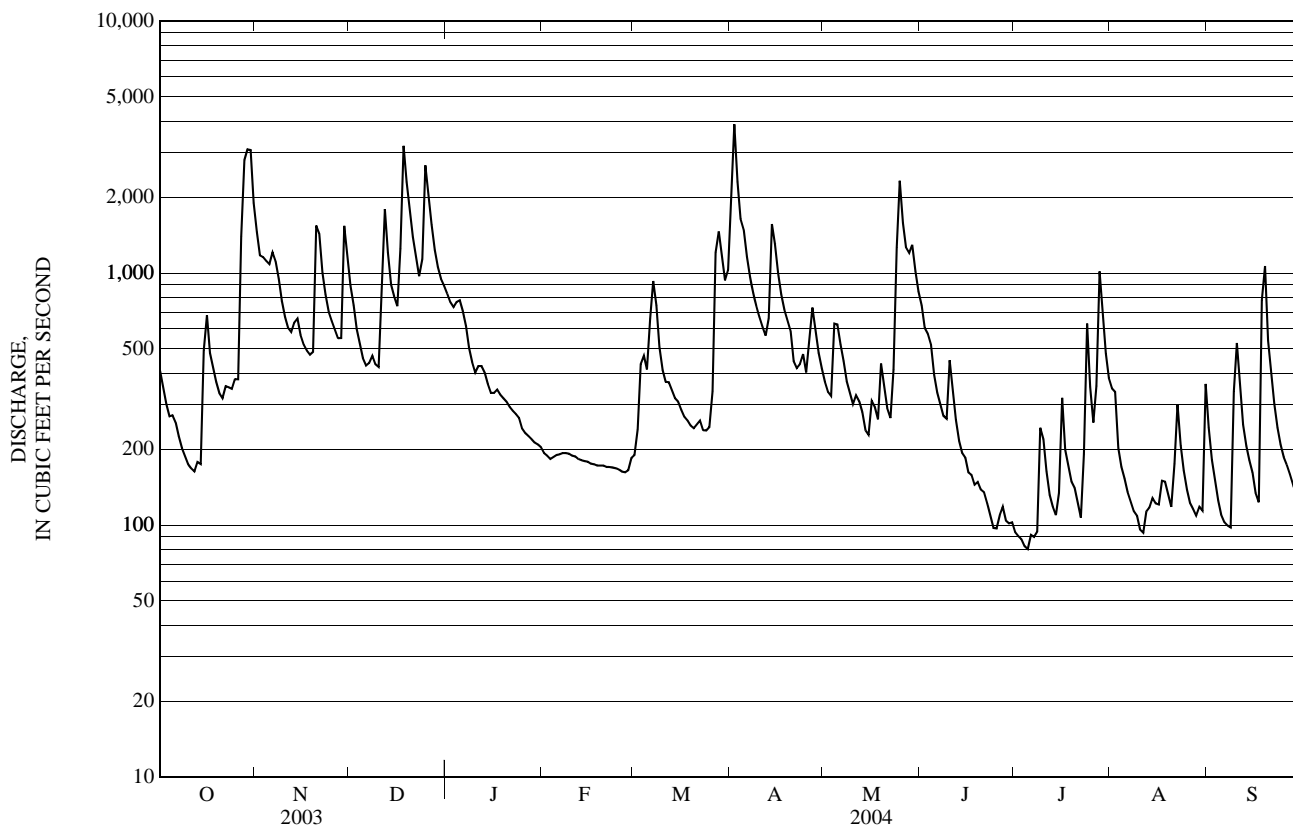
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

MEAN	219	350	368	320	325	678	1,275	637	317	172	140	135
MAX	895	917	1,146	1,090	1,343	2,490	2,746	1,657	818	711	952	1,269
(WY)	(1976)	(1996)	(1997)	(1978)	(1981)	(1936)	(1969)	(1940)	(1940)	(1973)	(1990)	(1938)
MIN	39.2	66.9	92.9	84.7	74.5	108	359	179	67.5	26.2	29.3	44.7
(WY)	(1984)	(1972)	(1948)	(1948)	(1942)	(1940)	(1995)	(1965)	(1965)	(1965)	(1999)	(1995)

01152500 SUGAR RIVER AT WEST CLAREMONT, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	207,662		191,705			
ANNUAL MEAN	569		524		410	
HIGHEST ANNUAL MEAN					660 1976	
LOWEST ANNUAL MEAN					139 1965	
HIGHEST DAILY MEAN	4,240	Mar 30	3,890	Apr 2	11,200	Mar 19, 1936
LOWEST DAILY MEAN	a 54	Jul 8	80	Jul 5	14	Aug 26, 1965
ANNUAL SEVEN-DAY MINIMUM	61	Jul 4	88	Jul 1	21	Aug 22, 1965
MAXIMUM PEAK FLOW			4,580	Apr 2	b 14,000	Mar 19, 1936
MAXIMUM PEAK STAGE			c 10.56	Dec 18	c 11.80	Mar 12, 1936
10 PERCENT EXCEEDS	1,410		1,190		985	
50 PERCENT EXCEEDS	300		336		210	
90 PERCENT EXCEEDS	95		122		68	

- a Also occurred on July 9 and 10, 2003.
- b From rating curve extended above 6,700 ft³/s as explained above.
- c Ice jam.
- e Estimated.



01152500 SUGAR RIVER AT WEST CLAREMONT, NH—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1956 to 1959, 1966 to 1968, 1970, 1975 to 1978, 1980 to 1999, 2003 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
OCT														
08...	0830	204	11.6	98	6.8	132	7.5	.21	E.006	.121	<.008	<.02	.016	2
NOV														
03...	1200	1,150	10.8	98	6.8	84	11.0	.26	.018	.068	<.008	<.02	.016	2
DEC														
10...	0830	E448	--	--	6.7	107	.0	.20	.051	.184	<.008	<.02	.013	2
JAN														
13...	1200	E394	14.3	102	6.7	105	.0	.16	.057	.203	<.008	<.02	.011	2
FEB														
02...	0900	E185	14.5	99	6.1	138	.0	.26	.088	.250	<.008	<.02	.012	2
MAR														
01...	0930	E191	15.2	110	7.0	153	.5	.21	.105	.440	E.005	<.02	.011	1
30...	1500	887	--	--	6.9	76	--	.45	.033	.181	<.008	<.02	.019	4
APR														
02...	0800	4,380	14.0	101	6.1	49	1.8	.82	.027	.128	<.008	<.02	.28	267
05...	1030	1,530	13.4	100	6.3	64	2.0	.21	.032	.163	<.008	<.02	.018	8
13...	1015	631	12.7	101	6.8	109	5.3	.24	.023	.162	<.008	<.02	.011	4
MAY														
03...	0945	332	9.9	100	7.2	121	15.2	.29	E.006	.167	<.008	<.02	.011	2
JUN														
08...	1300	266	9.5	104	7.6	127	19.5	.22	<.010	.149	<.008	<.02	.017	7
JUL														
20...	1300	144	9.8	116	8.2	150	23.6	.28	E.009	.199	<.008	<.02	.022	3
AUG														
10...	1330	93	9.7	114	8.4	164	22.7	.21	E.005	.167	<.008	<.02	.015	2
SEP														
07...	1115	100	9.7	106	7.8	157	19.8	.23	E.006	.159	<.008	<.02	.021	2

Remark codes used in this table:

<-- Less than.

E-- Estimated value.

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 Parker Hill Road bridge, 0.2 mi downstream from Divoll Brook, 0.35 mi northeast of Rockingham, 2.2 mi upstream from mouth, 2.2 mi downstream of Station 01153500, "Williams River at Brockways Mills", and 4.5 mi northwest of Bellows Falls.

DRAINAGE AREA.--112 mi².

PERIOD OF RECORD.--Discharge records: October 1986 to current year. Peak streamflow: Water years 1987 to current year. Water-quality discrete samples: Water years 1988 to 1999.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 303.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Low flow regulated by power plant upstream October 1986 to September 1992, August 2002 to present.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1938 had greatest discharge since at least 1753.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1345	*6,500	*8.77	Dec 24	2330	2,890	6.69
Nov 29	0415	2,630	6.49	Apr 1	2145	3,350	7.02
Dec 17	2315	3,900	7.38				

Minimum daily discharge, 29 ft³/s, July 4.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	442	400	326	e85	e85	1,840	164	206	36	84	59
2	194	376	333	298	e83	e145	1,850	153	255	35	70	45
3	164	418	292	306	e85	e270	872	167	198	32	57	40
4	150	388	e280	387	e100	e230	675	246	200	29	72	36
5	191	444	256	346	e90	e215	538	188	150	30	56	33
6	146	443	e255	297	e91	e440	399	167	128	68	47	32
7	130	343	e250	233	e93	e405	349	145	118	41	44	30
8	119	284	e245	e195	e92	e265	317	127	104	46	40	35
9	109	248	e235	e170	e92	e200	295	120	130	166	37	555
10	104	233	e225	e156	e89	e178	269	115	368	74	34	316
11	99	220	e955	e166	e88	e180	245	141	157	51	33	143
12	95	225	e1,160	e160	e86	e182	225	119	118	41	40	101
13	93	292	523	e158	e85	e164	530	103	99	38	67	81
14	86	246	e350	e151	e84	e152	876	97	89	46	75	70
15	539	201	e375	e144	e85	e150	477	88	83	128	47	59
16	354	184	e335	e138	e85	e143	355	97	70	134	73	56
17	216	178	e970	e132	e85	e138	306	84	63	69	135	58
18	177	173	1,720	e133	e84	e130	285	83	65	52	74	939
19	156	201	698	e130	e83	e125	270	194	60	50	57	448
20	141	1,160	511	e125	e82	e120	244	105	54	51	51	224
21	144	550	413	e120	e85	e142	211	85	48	47	130	157
22	155	386	376	e117	e82	e135	195	77	46	39	130	126
23	147	320	340	e116	e81	e118	239	349	56	96	74	104
24	135	283	817	e110	e79	e122	255	908	46	135	56	89
25	124	260	1,600	e103	e79	e134	199	718	41	65	47	81
26	126	233	744	e94	e77	e255	342	438	54	50	43	76
27	639	218	536	e90	e75	e760	304	378	53	127	39	67
28	785	280	436	e86	e76	e755	230	455	41	475	38	81
29	2,400	1,310	387	e87	e82	e550	199	366	44	204	38	88
30	1,010	525	370	e86	---	470	179	247	42	122	49	79
31	573	---	357	e86	---	681	---	196	---	89	121	---
TOTAL	9,726	11,064	16,744	5,246	2,463	8,039	13,570	6,920	3,186	2,666	1,958	4,308
MEAN	314	369	540	169	84.9	259	452	223	106	86.0	63.2	144
MAX	2,400	1,310	1,720	387	100	760	1,850	908	368	475	135	939
MIN	86	173	225	86	75	85	179	77	41	29	33	30
CFSM	2.80	3.29	4.82	1.51	0.76	2.32	4.04	1.99	0.95	0.77	0.56	1.28
IN.	3.23	3.67	5.56	1.74	0.82	2.67	4.51	2.30	1.06	0.89	0.65	1.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

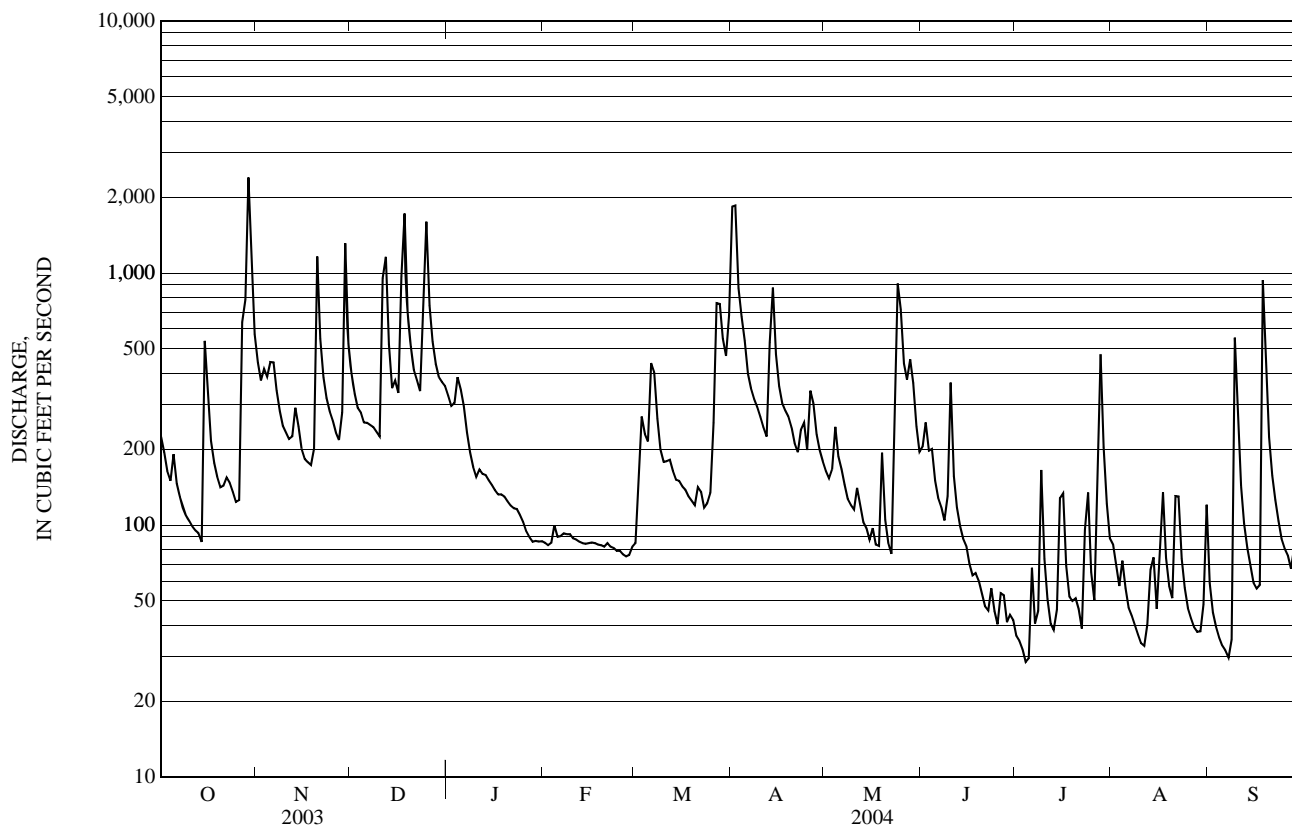
	129	194	194	159	142	398	629	282	150	68.1	66.2	70.5
MEAN	129	194	194	159	142	398	629	282	150	68.1	66.2	70.5
MAX	461	382	540	441	306	850	1,199	544	440	227	291	282
(WY)	(1988)	(1996)	(2004)	(1996)	(1997)	(1990)	(1994)	(1996)	(1998)	(1996)	(2003)	(1987)
MIN	29.4	35.1	69.5	58.7	51.0	108	156	90.4	34.9	16.6	13.8	13.4
(WY)	(1994)	(2002)	(2002)	(1989)	(1993)	(2001)	(1995)	(1995)	(1995)	(1999)	(2002)	(1995)

01153550 WILLIAMS RIVER NEAR ROCKINGHAM, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1987 - 2004	
ANNUAL TOTAL	102,422		85,890			
ANNUAL MEAN	281		235		207	
HIGHEST ANNUAL MEAN					283	1996
LOWEST ANNUAL MEAN					111	1995
HIGHEST DAILY MEAN	2,400	Oct 29	2,400	Oct 29	6,670	Mar 31, 1987
LOWEST DAILY MEAN	23	Jul 31	29	Jul 4	6.9	Sep 7, 1995
ANNUAL SEVEN-DAY MINIMUM	26	Jul 4	35	Jun 29	7.5	Sep 2, 1995
MAXIMUM PEAK FLOW			6,500	Oct 29	a 11,500	Mar 31, 1987
MAXIMUM PEAK STAGE			8.77	Oct 29	10.59	Mar 31, 1987
ANNUAL RUNOFF (CFSM)	2.51		2.10		1.85	
ANNUAL RUNOFF (INCHES)	34.02		28.53		25.09	
10 PERCENT EXCEEDS	601		487		450	
50 PERCENT EXCEEDS	146		140		104	
90 PERCENT EXCEEDS	57		47		25	

a From rating curve extended above 3,800 ft³/s.

e Estimated.



CONNECTICUT RIVER BASIN

01154000 SAXTONS RIVER AT SAXTONS RIVER, VT

LOCATION.--Lat 43°08'15", long 72°29'19", Windham County, Hydrologic Unit 01080107, on right bank 130 ft upstream from highway bridge, 0.8 mi east of Saxtons River, 1.4 mi upstream from Bundy Brook, and 3.9 mi upstream from mouth.

DRAINAGE AREA.--72.2 mi².

PERIOD OF RECORD.--Discharge records: June 1940 to September 1982, June 2001 to current year. Water-quality record: Water year 1957.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 395.51 ft above National Vertical Datum of 1929 (levels by private engineer).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional diurnal fluctuation at low flow prior to 1962; fluctuation more frequent prior to 1946.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,460 ft³/s, August 10, 1976, gage height, 14.06 ft, from rating curve extended above 2,000 ft³/s on basis of slope-area measurements at gage heights 10.51 ft, 11.37 ft, and 13.26 ft; minimum, 1.9 ft³/s, July 25, 1949; minimum daily, 2.4 ft³/s, August 6, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1869, 17.9 ft in September 1938, from floodmarks (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1315	*4,100	*9.88	Apr 1	2045	2,690	8.21
Dec 17	2330	2,140	7.47	Sep 18	1515	1,980	7.25

Minimum daily discharge, e15 ft³/s, July 4.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	173	313	277	212	e53	e53	1,460	115	132	e20	71	101
2	148	264	229	194	e53	e90	1,430	108	149	e19	50	65
3	126	301	184	199	e53	e175	667	111	131	e17	37	50
4	119	269	175	228	e64	e150	490	174	143	e15	33	41
5	135	329	151	216	e57	e135	377	132	106	e16	30	36
6	109	327	154	189	e57	e285	268	122	91	e37	26	34
7	97	246	159	155	e58	e260	230	105	83	e23	23	30
8	89	203	157	126	e57	172	208	91	74	e26	21	36
9	83	178	151	105	e57	129	194	87	70	e70	19	645
10	77	166	146	e100	e56	115	179	84	130	29	18	371
11	72	159	e645	e105	e55	116	163	89	80	21	19	165
12	70	160	791	e100	e54	118	152	78	64	18	28	118
13	68	194	356	e100	e53	104	371	69	55	17	49	92
14	62	163	242	e96	e53	95	705	70	49	20	53	75
15	350	140	250	e92	e53	94	343	62	47	40	32	66
16	204	129	219	e88	e53	89	241	65	41	65	33	59
17	139	126	642	e84	e53	87	204	e57	36	32	74	57
18	119	122	e1,060	e84	e52	82	183	e55	37	23	43	982
19	106	145	481	e83	e52	79	170	e120	34	24	34	480
20	97	900	334	e78	e51	76	149	70	29	25	31	220
21	96	413	268	e75	e53	89	133	55	26	20	110	158
22	94	269	239	e74	e51	86	124	51	25	17	104	128
23	95	220	219	e73	e50	73	144	e245	27	51	57	104
24	86	195	591	e69	e49	77	151	e475	23	62	40	88
25	80	181	1,100	e64	e49	84	124	340	20	30	32	80
26	81	163	532	e59	e47	153	247	223	31	22	28	74
27	812	153	362	e55	e46	492	216	243	29	43	25	64
28	761	201	289	e54	e47	495	160	342	e22	225	24	85
29	1,710	915	253	e55	e51	356	138	252	e23	131	22	93
30	780	376	242	e54	---	274	125	163	e23	72	26	83
31	428	---	231	e54	---	486	---	130	---	48	401	---
TOTAL	7,466	7,920	11,129	3,320	1,537	5,169	9,746	4,383	1,830	1,278	1,593	4,680
MEAN	241	264	359	107	53.0	167	325	141	61.0	41.2	51.4	156
MAX	1,710	915	1,100	228	64	495	1,460	475	149	225	401	982
MIN	62	122	146	54	46	53	124	51	20	15	18	30
CFSM	3.34	3.66	4.97	1.48	0.73	2.31	4.50	1.96	0.84	0.57	0.71	2.16
IN.	3.85	4.08	5.73	1.71	0.79	2.66	5.02	2.26	0.94	0.66	0.82	2.41

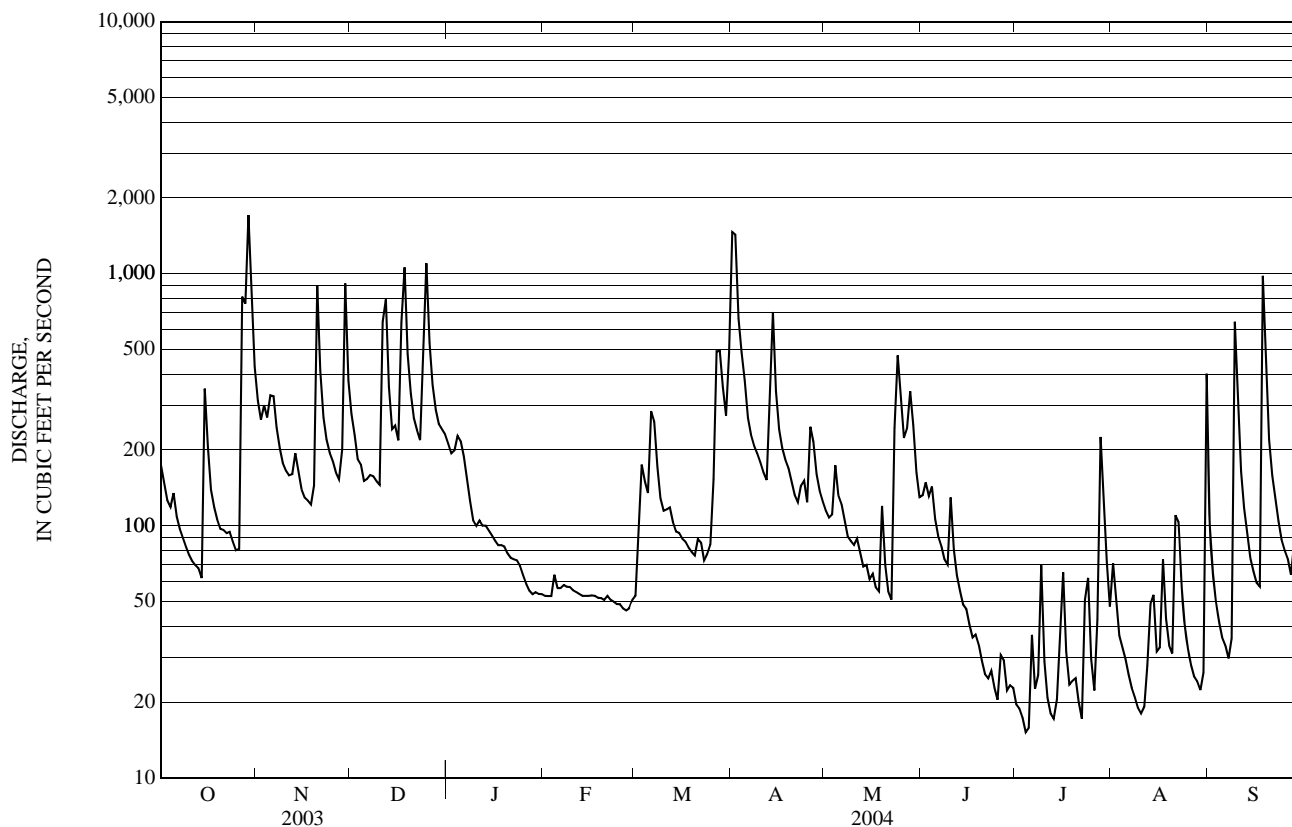
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1982, 2001 - 2004, BY WATER YEAR (WY)

MEAN	59.9	106	112	86.9	95.7	224	407	181	78.6	35.2	31.7	33.6
MAX	315	317	359	269	376	535	804	402	222	145	214	163
(WY)	(1976)	(1956)	(2004)	(1978)	(1981)	(1953)	(1969)	(1972)	(1952)	(1973)	(2003)	(1960)
MIN	6.22	12.9	22.3	12.9	24.0	46.2	107	56.3	12.1	6.75	6.55	4.57
(WY)	(1965)	(1965)	(1965)	(1965)	(1980)	(1956)	(1946)	(1941)	(1964)	(1965)	(1957)	(1964)

01154000 SAXTONS RIVER AT SAXTONS RIVER, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 82, 2001 - 04	
ANNUAL TOTAL	72,173		60,051		121	
ANNUAL MEAN	198		164		198	
HIGHEST ANNUAL MEAN					1973	
LOWEST ANNUAL MEAN					43.1	
HIGHEST DAILY MEAN	1,710	Oct 29	1,710	Oct 29	3,350	Jun 30, 1973
LOWEST DAILY MEAN	13	Jul 31	e15	Jul 4	2.4	Aug 6, 1955
ANNUAL SEVEN-DAY MINIMUM	15	Jul 4	19	Jun 29	3.0	Aug 1, 1955
MAXIMUM PEAK FLOW			a 4,100	Oct 29	a 8,460	Aug 10, 1976
MAXIMUM PEAK STAGE			9.88	Oct 29	14.06	Aug 10, 1976
INSTANTANEOUS LOW FLOW			b		1.9	Jul 25, 1949
ANNUAL RUNOFF (CFSM)	2.74		2.27		1.67	
ANNUAL RUNOFF (INCHES)	37.19		30.94		22.72	
10 PERCENT EXCEEDS	452		352		293	
50 PERCENT EXCEEDS	102		94		56	
90 PERCENT EXCEEDS	38		28		11	

a From rating curve extended above 2,000 ft³/s as explained above.
 b Not determined.
 e Estimated.



01154500 CONNECTICUT RIVER AT NORTH WALPOLE, NH

LOCATION.--Lat 43°07'34", long 72°26'14", Cheshire County, Hydrologic Unit 01080104, on left bank, 100 ft upstream from Saxtons River, 0.7 mi downstream from Vilas Bridge between Bellows Falls, VT, and North Walpole, 1.0 mi south of Main Street and New Hampshire State Highway 12 intersection in North Walpole, and at mile 172.5.

DRAINAGE AREA.--5,493 mi², includes that of Saxtons River.

PERIOD OF RECORD.--Discharge records: March 1942 to current year.

PERIOD OF DAILY WATER-QUALITY RECORD.--Water years 1975 to 1982.

SPECIFIC CONDUCTANCE: October 1980 to November 1981. Record at site 01155050, Connecticut River at Walpole, NH, are considered equivalent, Water years 1975 to 1980.

WATER TEMPERATURES: October 1980 to September 1981. Record at site 01155050, Connecticut River at Walpole, NH, are considered equivalent, Water years 1975 to 1980.

GAGE.--Water-stage recorder. Datum of gage is 218.63 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by power plants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, 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, March 19, 1936, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 59,700 ft³/s, Oct. 30, gage height, 22.36 ft; minimum daily discharge, 1,650 ft³/s, July 18.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,850	35,400	20,400	19,500	e5,750	e3,290	35,600	8,620	11,800	3,120	2,610	19,300
2	5,750	27,100	19,700	17,000	4,690	e4,400	43,900	8,970	12,300	3,330	4,610	14,700
3	5,230	19,700	16,900	17,200	4,990	e5,630	44,300	10,100	13,900	3,140	4,490	11,200
4	5,240	23,300	14,200	14,400	e5,020	e7,480	37,500	11,900	13,400	3,070	4,670	7,470
5	5,890	18,500	10,600	17,600	e5,650	e8,090	33,000	16,900	11,800	3,850	4,900	4,460
6	6,720	19,300	11,900	14,600	e5,820	e7,420	27,000	17,200	10,500	3,480	2,770	4,350
7	6,220	17,100	10,800	12,600	e4,590	e9,790	19,900	15,400	8,300	1,830	2,370	4,970
8	4,970	15,700	e10,800	11,300	e4,410	e11,300	17,100	13,700	7,080	3,730	1,920	6,800
9	5,610	13,100	e10,300	e8,680	e5,950	e10,300	15,200	9,760	6,560	4,950	2,070	9,430
10	4,770	12,200	10,400	e9,000	e5,230	8,110	13,500	10,400	8,580	7,000	3,390	18,600
11	3,290	12,400	10,900	e8,680	4,270	8,140	12,100	9,590	8,530	6,090	4,250	18,700
12	3,070	11,300	22,000	6,940	4,620	8,730	13,000	9,080	6,680	4,920	5,480	13,000
13	3,590	11,500	25,100	e9,090	5,570	7,790	13,200	9,410	5,060	4,820	8,460	9,510
14	5,670	15,500	17,800	e9,870	4,420	7,520	25,200	5,340	5,140	5,220	10,100	8,450
15	6,640	15,700	12,800	e9,380	4,200	7,070	28,900	5,430	6,750	4,980	7,060	7,180
16	13,600	11,900	13,300	e9,450	5,440	9,330	27,100	8,830	5,020	5,170	4,150	4,950
17	9,130	10,000	19,600	e9,060	4,460	7,170	19,900	9,160	2,860	4,280	5,320	4,390
18	7,660	10,200	39,500	e7,440	5,320	6,580	18,700	9,840	4,240	1,650	5,870	10,500
19	6,410	11,700	42,100	e6,300	4,760	5,890	19,000	9,600	2,460	4,200	6,460	14,800
20	6,240	28,400	37,000	6,990	4,080	4,160	17,600	8,390	3,650	4,790	6,050	8,940
21	6,200	43,000	30,500	e7,140	2,960	5,550	19,100	7,080	4,530	3,980	5,610	6,770
22	12,200	37,100	23,800	7,150	3,930	6,100	17,600	6,250	3,200	3,530	11,400	7,250
23	17,000	30,300	23,100	e6,860	4,570	5,380	17,000	9,080	3,340	3,000	9,330	5,820
24	13,800	24,700	25,200	e6,640	3,420	4,940	14,900	25,300	2,780	6,280	9,790	5,790
25	11,300	19,500	44,800	e6,740	4,210	4,980	14,500	40,300	3,310	8,030	6,990	3,720
26	11,000	19,600	48,100	e4,220	3,820	7,550	13,900	30,300	3,330	4,690	5,130	3,530
27	19,200	14,800	38,500	e6,400	5,260	16,200	17,000	24,800	2,600	4,960	4,810	4,650
28	39,800	16,000	30,200	e7,540	e4,490	28,200	16,000	19,900	2,730	7,010	4,470	4,020
29	50,100	26,900	25,500	5,220	e3,390	27,100	14,200	19,700	2,580	6,580	3,250	3,750
30	56,300	30,100	21,500	e5,630	---	27,600	12,100	17,500	3,070	3,950	7,950	3,400
31	46,800	---	18,500	e6,080	---	27,200	---	14,000	---	4,440	16,800	---
TOTAL	407,250	602,000	705,800	294,700	135,290	308,990	638,000	421,830	186,080	140,070	182,530	250,400
MEAN	13,140	20,070	22,770	9,506	4,665	9,967	21,270	13,610	6,203	4,518	5,888	8,347
MAX	56,300	43,000	48,100	19,500	5,950	28,200	44,300	40,300	13,900	8,030	16,800	19,300
MIN	3,070	10,000	10,300	4,220	2,960	3,290	12,100	5,340	2,460	1,650	1,920	3,400

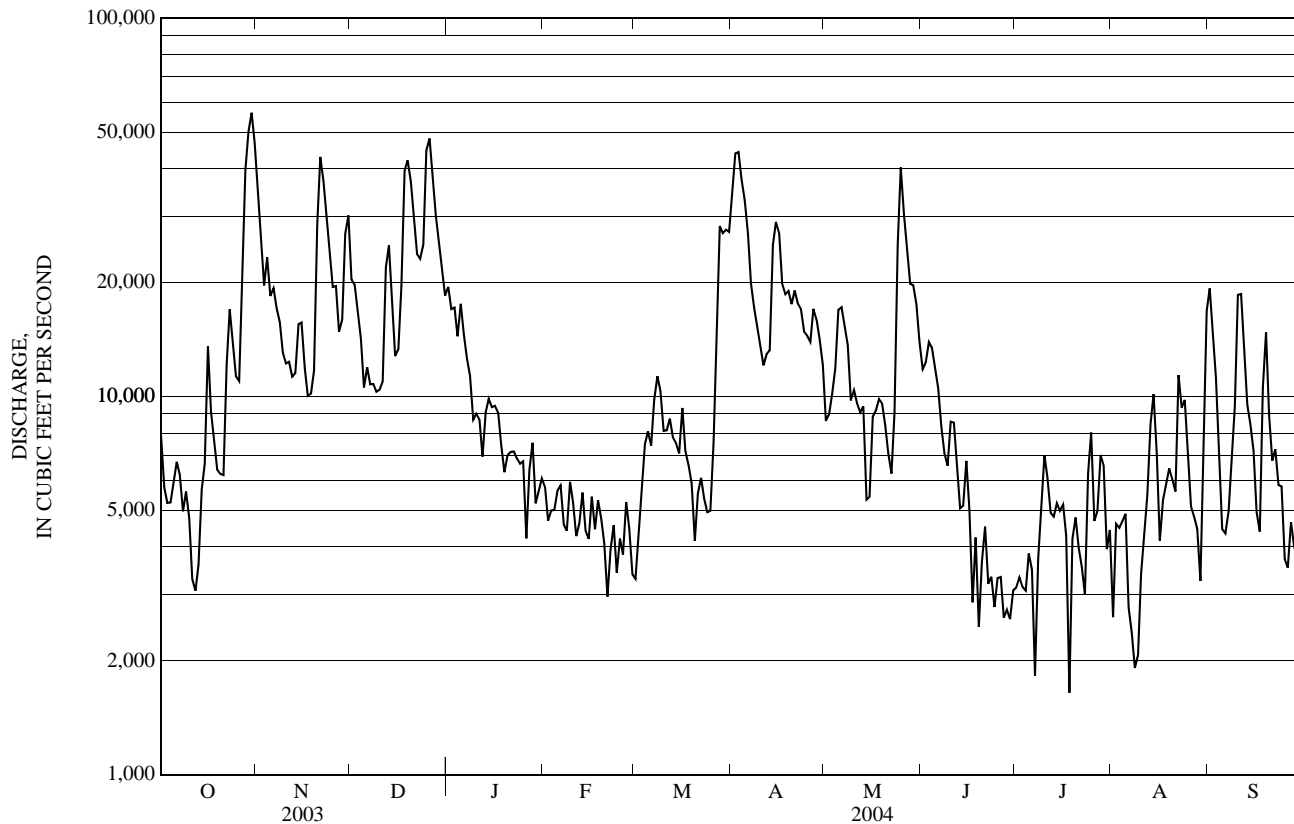
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004, BY WATER YEAR (WY)

MEAN	6,234	8,691	8,614	7,078	7,008	13,520	27,160	16,330	8,125	4,604	3,972	3,861
MAX	18,300	20,070	22,770	17,930	21,810	34,150	45,630	33,380	20,600	18,930	12,990	14,820
(WY)	(1978)	(2004)	(2004)	(1996)	(1981)	(1979)	(1969)	(1972)	(1947)	(1973)	(1990)	(1954)
MIN	1,424	2,811	2,124	1,866	2,736	4,532	7,803	6,477	3,082	1,845	1,461	1,555
(WY)	(1949)	(2002)	(1948)	(1948)	(1980)	(1956)	(1995)	(1965)	(1999)	(1965)	(1942)	(1995)

01154500 CONNECTICUT RIVER AT NORTH WALPOLE, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1942 - 2004	
ANNUAL TOTAL	4,136,420		4,272,940			
ANNUAL MEAN	11,330		11,670		9,600	
HIGHEST ANNUAL MEAN					14,630	1996
LOWEST ANNUAL MEAN					4,991	1965
HIGHEST DAILY MEAN	56,300	Oct 30	56,300	Oct 30	88,300	Mar 28, 1953
LOWEST DAILY MEAN	1,390	Jul 10	1,650	Jul 18	a 115	Aug 31, 1952
ANNUAL SEVEN-DAY MINIMUM	2,320	Jul 9	2,910	Jun 24	777	Aug 7, 1970
MAXIMUM PEAK FLOW			59,700		97,000	Mar 27, 1953
MAXIMUM PEAK STAGE			22.36		30.37	Mar 27, 1953
10 PERCENT EXCEEDS	27,000		25,200		21,300	
50 PERCENT EXCEEDS	6,240		8,220		6,200	
90 PERCENT EXCEEDS	2,710		3,630		2,030	

a Also occurred on September 2, 1957.
 e Estimated.



01154500 CONNECTICUT RIVER AT NORTH WALPOLE, NH—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954 to 1958, 1963 to 1968, 1970, 1975 to 1977, 1981 to 1999, 2003 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)
OCT														
08...	1030	5,300	9.7	91	7.6	137	12.1	.21	.014	.168	<.008	<.02	.011	1
NOV														
03...	0930	14,700	10.9	96	7.2	81	10.0	.25	.010	.148	<.008	<.02	.016	6
DEC														
10...	1100	10,400	13.6	94	7.2	121	.2	.18	.020	.256	<.008	<.02	.009	1
JAN														
13...	1015	E9,000	13.9	97	7.0	112	.0	.15	.018	.308	<.008	<.02	.012	1
FEB														
02...	0800	6,220	14.3	98	6.9	142	.0	.20	.041	.383	<.008	<.02	.011	2
MAR														
01...	0800	E7,600	14.8	103	6.8	148	.5	.21	.052	.406	E.006	<.02	.014	2
31...	1000	26,000	--	--	7.0	83	--	.33	.021	.336	<.008	<.02	.038	24
APR														
05...	0830	34,000	--	--	6.6	64	--	.28	.017	.301	<.008	<.02	.045	33
13...	0845	12,100	12.2	97	7.1	113	5.4	.20	.013	.295	<.008	<.02	.008	2
MAY														
03...	0815	9,570	10.3	98	7.5	102	13.2	.16	.024	.197	<.008	<.02	.013	2
JUN														
08...	0945	7,310	9.5	98	7.7	117	16.7	.20	E.008	.153	<.008	<.02	.011	1
JUL														
20...	0945	6,080	7.7	89	7.6	145	22.4	.20	E.005	.180	<.008	<.02	.005	2
AUG														
10...	0930	1,610	7.5	88	7.7	124	23.0	.15	<.010	.136	<.008	<.02	.008	1
SEP														
07...	0900	5,680	7.9	88	7.4	106	20.5	.24	.015	.162	<.008	<.02	.011	2

Remark codes used in this table:

<-- Less than.

E-- Estimated value.

01155500 WEST RIVER AT JAMAICA, VT

LOCATION.--Lat 43°06'32", long 72°46'33", Windham County, Hydrologic Unit 01080107, on left bank, 0.3 mi upstream from Depot Street bridge, 0.4 mi upstream from Ball Mountain Brook, 0.7 mi north of Depot Street and State Highway 30/100 intersection in Jamaica, 2.5 mi downstream from Ball Mountain Dam, and 7.0 mi northwest of State Highways 30 and 35 intersection in Townshend.

DRAINAGE AREA.--179 mi².

PERIOD OF RECORD.--Discharge records: October 1946 to September 1989, October 1995 to current year. Maximum discharge only: Water years 1990-1995. Measured discharge only: Water years 1990-1995.

REVISED RECORDS.--WDR NH-VT-97-1: 1994 (M), 1996 (M).

GAGE.--Water-stage recorder. Elevation of gage is 680 ft (revised) above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since 1961 by Ball Mountain Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,500 ft³/s, December 31, 1948, gage height, 14.87 ft, from rating curve extended above 9,800 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.94 ft³/s, September 23, 24, 1968. Maximum discharge since construction of Ball Mountain Dam in 1961, 5,840 ft³/s, April 23, 1996, gage height, 9.47 ft; maximum gage height, 11.72 ft, February 7, 1982 (Ice Jam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,340 ft³/s, Oct. 30, gage height, 8.86 ft; minimum daily discharge, 36 ft³/s, July 4, 5.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,100	1,590	976	424	e130	e93	2,030	e300	426	56	132	65
2	708	1,040	582	350	e128	e125	2,570	e280	603	49	180	65
3	410	842	389	291	e119	e285	3,750	e260	418	37	190	65
4	324	858	e330	330	e120	e465	3,200	e540	495	36	187	65
5	425	768	e285	537	e117	e410	2,270	419	318	36	185	65
6	488	851	240	618	e116	e330	1,330	346	258	43	113	64
7	387	729	330	382	e119	e500	577	283	211	48	65	63
8	256	485	510	e200	e116	e950	541	240	173	55	64	65
9	220	407	640	e160	e117	e855	541	218	170	160	58	505
10	189	349	560	e140	e118	530	592	216	474	187	53	898
11	170	323	591	e150	e115	364	549	304	289	119	52	285
12	167	297	1,780	e170	e118	314	436	238	207	71	52	181
13	155	473	1,130	195	e115	e265	843	206	137	50	64	116
14	143	544	e550	e190	e110	e235	1,950	251	119	50	89	115
15	492	350	e525	e190	e108	198	1,150	185	113	64	89	89
16	978	349	e510	e180	e107	228	772	223	95	125	93	65
17	669	367	559	e140	e106	250	613	183	86	124	480	55
18	373	328	1,700	e140	e99	243	619	164	77	81	339	612
19	308	292	1,670	e150	e98	153	597	455	72	68	103	1,670
20	275	1,020	711	e160	e97	e140	567	251	71	101	103	1,200
21	216	1,450	e550	e175	e97	182	528	173	63	91	133	288
22	260	1,020	e470	e170	e97	277	349	138	57	68	514	276
23	302	626	385	e155	e97	140	399	736	57	52	136	181
24	251	551	514	e140	e93	e120	1,160	2,370	57	223	103	132
25	227	476	1,620	e140	e93	265	1,050	2,500	57	205	102	980
26	231	390	1,900	e135	e92	273	978	1,150	58	111	101	94
27	679	343	898	e130	e89	397	790	841	58	129	e86	112
28	1,960	318	526	e130	e83	451	499	943	57	983	76	152
29	1,740	1,570	e400	e130	e88	1,780	e400	966	58	785	68	172
30	2,500	1,810	432	e130	---	2,510	e340	532	57	428	64	167
31	2,480	---	440	e130	---	1,810	---	385	---	130	65	---
TOTAL	19,083	20,816	22,703	6,662	3,102	15,138	31,990	16,296	5,391	4,765	4,139	8,862
MEAN	616	694	732	215	107	488	1,066	526	180	154	134	295
MAX	2,500	1,810	1,900	618	130	2,510	3,750	2,500	603	983	514	1,670
MIN	143	292	240	130	83	93	340	138	57	36	52	55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1989, 1996 - 2004, BY WATER YEAR (WY)

	243	354	353	271	272	565	1,262	586	255	132	112	129
MEAN	243	354	353	271	272	565	1,262	586	255	132	112	129
MAX	916	787	862	749	1,009	1,486	2,290	1,499	831	822	909	606
(WY)	(1988)	(1989)	(1984)	(1998)	(1981)	(1953)	(1969)	(1972)	(1984)	(1973)	(1976)	(1987)
MIN	16.9	65.0	78.7	65.3	42.0	107	499	192	35.8	14.2	11.3	12.5
(WY)	(1948)	(1965)	(1948)	(1981)	(1980)	(1956)	(1985)	(1964)	(1964)	(1965)	(1999)	(1948)

01155500 WEST RIVER AT JAMAICA, VT—Continued

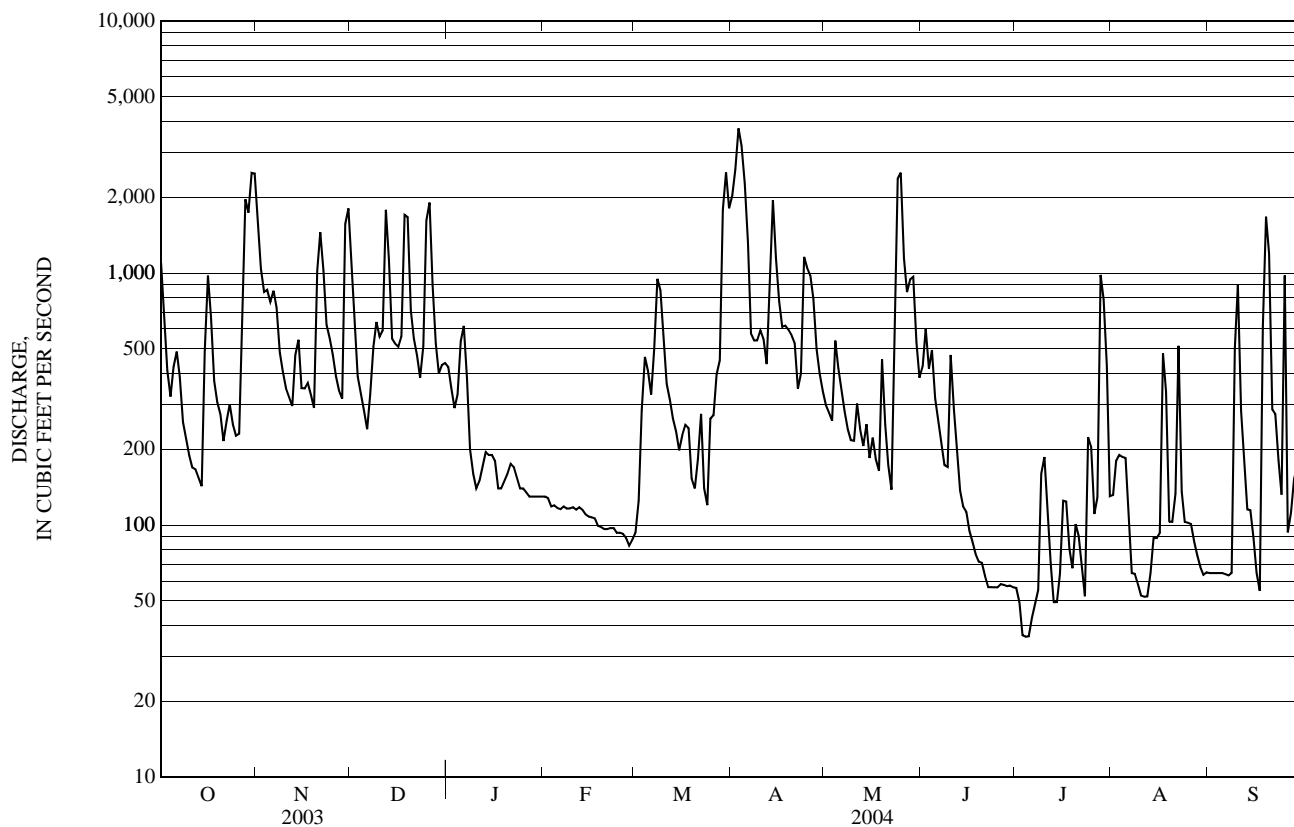
SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1947 - 89, 1996 - 2004	
ANNUAL TOTAL	176,079		158,947		377	
ANNUAL MEAN	482		434		611	
HIGHEST ANNUAL MEAN					1976	
LOWEST ANNUAL MEAN					161	
HIGHEST DAILY MEAN	3,730	Apr 17	3,750	Apr 3	15,500	Dec 31, 1948
LOWEST DAILY MEAN	a 26	Jul 8	b 36	Jul 4	0.94	Sep 23, 1968
ANNUAL SEVEN-DAY MINIMUM	32	Jul 4	43	Jul 2	1.1	Sep 18, 1968
MAXIMUM PEAK FLOW			4,340	Oct 30	c 29,500	Dec 31, 1948
MAXIMUM PEAK STAGE			8.86	Oct 30	14.87	Dec 31, 1948
10 PERCENT EXCEEDS	1,260		994		954	
50 PERCENT EXCEEDS	256		242		170	
90 PERCENT EXCEEDS	66		65		33	

a Also occurred on July 9 and 10, 2003.

b Also occurred on July 5.

c From rating curve extended above 9,800 ft³/s on basis of slope-area measurement of peak flow.

e Estimated.



01158000 ASHUELOT RIVER BELOW SURRY MOUNTAIN DAM, NEAR KEENE, NH

LOCATION.--Lat 42° 59'41", long 72° 18'42", Cheshire County, Hydrologic Unit 01080201, on right bank, 1000 ft south of Surry Mountain Dam, 2.7 mi upstream from Sturtevant Brook, 4.4 mi southwest of Post Office in Gilsum, 4.5 mi north of Courthouse in Keene, and at mile 34.0.

DRAINAGE AREA.--101 mi².

PERIOD OF RECORD.--Discharge records: September 1945 to September 1989, October 1995 to current year. Peak streamflow: Water years 1946 to current year. Miscellaneous discharge measurements only: Water years 1990 to 1995. Water-quality discrete samples: Water years 1956 to 1959, 1965 to 1970, 1975 to 1999.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 480.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Surry Mountain Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,040 ft³/s, Dec. 19, gage height, 8.52 ft; minimum daily discharge, 19 ft³/s, July 26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	313	843	449	453	54	46	700	262	247	32	106	57
2	256	802	429	377	54	46	318	259	214	30	176	49
3	212	756	321	323	54	46	274	243	197	28	163	41
4	176	701	256	317	54	68	538	264	194	25	123	37
5	161	626	214	312	53	135	875	315	177	22	91	32
6	146	454	196	276	54	150	907	287	153	22	69	28
7	129	371	175	221	54	153	936	250	130	20	53	27
8	115	316	192	203	54	189	907	212	112	21	42	27
9	103	271	199	167	54	203	864	184	99	35	35	99
10	92	236	194	152	54	201	819	168	116	39	30	235
11	84	212	215	149	54	199	768	158	130	35	27	237
12	79	200	399	101	54	199	729	146	111	29	28	194
13	93	201	449	84	54	197	675	133	90	26	36	152
14	100	198	448	85	54	194	748	120	75	25	64	116
15	163	180	430	85	54	192	813	107	66	25	75	90
16	298	165	367	85	53	133	785	99	54	25	74	74
17	323	158	319	85	48	104	669	98	48	24	142	65
18	296	151	245	85	47	117	428	86	49	24	180	285
19	247	150	677	87	47	122	315	147	45	31	151	520
20	203	305	969	93	47	121	219	150	40	38	116	623
21	177	452	942	96	47	120	190	118	35	39	170	760
22	164	456	947	e90	47	120	190	97	31	34	452	726
23	156	444	966	e90	47	120	190	133	29	28	453	596
24	149	381	565	e86	47	119	192	212	27	25	364	330
25	140	292	359	e86	47	119	192	395	24	21	223	238
26	133	248	631	e84	46	119	192	431	30	19	149	204
27	171	219	868	e74	46	123	301	432	42	20	112	182
28	465	206	844	69	46	132	383	454	41	97	86	175
29	667	368	928	69	46	321	365	477	38	147	70	191
30	842	449	982	63	---	651	283	433	37	115	58	179
31	863	---	760	54	---	693	---	323	---	84	60	---
TOTAL	7,516	10,811	15,935	4,601	1,470	5,452	15,765	7,193	2,681	1,185	3,978	6,569
MEAN	242	360	514	148	50.7	176	526	232	89.4	38.2	128	219
MAX	863	843	982	453	54	693	936	477	247	147	453	760
MIN	79	150	175	54	46	46	190	86	24	19	27	27

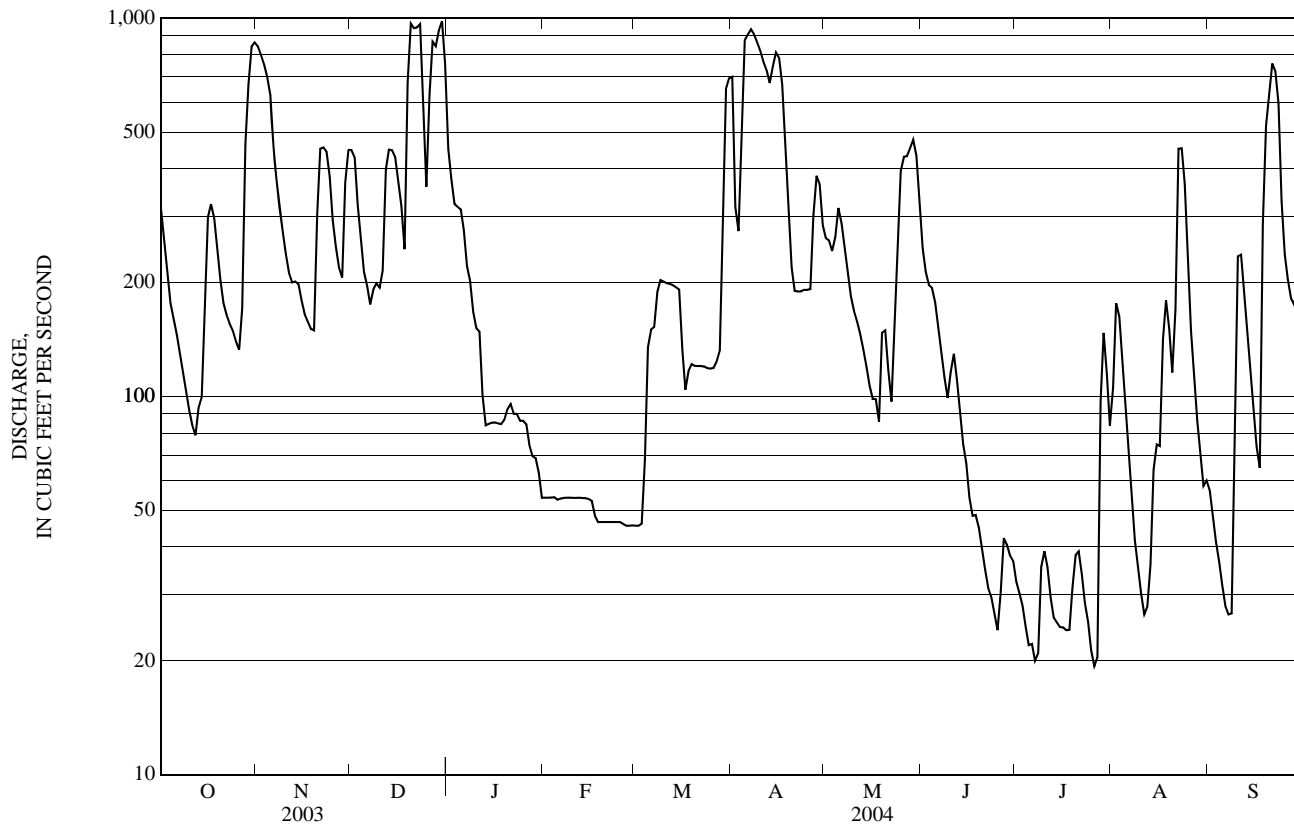
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1989, 1996 - 2004, BY WATER YEAR (WY)

MEAN	102	163	182	147	150	279	549	282	135	53.2	46.4	55.9
MAX	453	577	514	383	423	661	1,022	632	634	229	334	233
(WY)	(1978)	(1996)	(2004)	(1978)	(1981)	(1979)	(1960)	(1956)	(1984)	(1973)	(1986)	(1960)
MIN	4.39	4.04	22.7	21.2	28.1	88.5	167	90.6	13.5	5.77	4.88	8.68
(WY)	(1965)	(1965)	(1965)	(1981)	(1980)	(1956)	(1946)	(1986)	(1964)	(1965)	(1965)	(2002)

01158000 ASHUELOT RIVER BELOW SURRY MOUNTAIN DAM, NEAR KEENE, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1945 - 89, 1996 - 2004	
ANNUAL TOTAL	92,077.9		83,156			
ANNUAL MEAN	252		227		178	
HIGHEST ANNUAL MEAN					279	1960
LOWEST ANNUAL MEAN					57.3	1965
HIGHEST DAILY MEAN	1,090	Apr 2	982	Dec 30	2,150	Apr 7, 1987
LOWEST DAILY MEAN	7.4	Jul 31	19	Jul 26	0.40	Sep 17, 1964
ANNUAL SEVEN-DAY MINIMUM	11	Jul 6	24	Jul 2	0.67	Aug 1, 1965
MAXIMUM PEAK FLOW			1,040	Dec 19	2,260	Apr 7, 1987
MAXIMUM PEAK STAGE			8.52	Dec 19	a 11.78	Apr 7, 1987
10 PERCENT EXCEEDS	757		628		516	
50 PERCENT EXCEEDS	141		150		90	
90 PERCENT EXCEEDS	34		35		14	

a From floodmarks.
e Estimated.



01158600 OTTER BROOK BELOW OTTER BROOK DAM NEAR KEENE, NH

LOCATION.--Lat 42° 56'45", long 72° 14'14", Cheshire County, Hydrologic Unit 01080201, on right bank, 450 ft downstream from Otter Brook Dam, 1.5 mi downstream of station 01158500, "Otter Brook near Keene", 2.2 mi northeast of City Hall in Keene, and 2.3 mi upstream from confluence with Minnewawa Brook to form "The Branch."

DRAINAGE AREA.--47.2 mi².

PERIOD OF RECORD.--Discharge records: May 1958 to September 1989, October 1995 to current year. Peak streamflow: Water years 1959 to current year. Miscellaneous discharge measurements only: Water years 1990 to 1995. Water-quality discrete samples: Water years 1958, 1965 to 1970, 1975 to 1999.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 658.65 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to September 29, 1933, nonrecording gage on highway bridge at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Otter Brook Lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 642 ft³/s, Apr. 5, gage height, 8.51 ft; minimum daily discharge, 11 ft³/s, July 7, 8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	323	144	126	25	18	285	225	113	20	68	27
2	75	176	115	127	25	18	58	259	108	18	87	23
3	65	137	90	126	25	19	65	158	95	17	70	18
4	56	140	87	126	25	33	271	171	99	15	56	15
5	57	132	74	126	25	45	582	160	82	13	43	14
6	51	157	73	118	25	46	601	131	67	12	35	14
7	46	143	76	69	26	47	582	109	60	11	30	13
8	42	118	79	48	25	87	570	89	53	11	25	14
9	39	98	71	57	25	126	545	80	48	53	22	55
10	36	88	73	56	26	127	510	76	75	49	18	92
11	33	83	111	55	25	124	465	74	69	34	16	75
12	31	83	199	51	25	113	370	67	48	25	15	56
13	46	88	204	49	25	99	156	59	40	20	16	44
14	52	85	200	48	26	97	237	52	40	19	25	34
15	111	72	194	48	26	75	382	49	37	19	26	28
16	174	66	179	48	25	59	287	60	32	19	35	25
17	128	63	136	48	25	59	225	57	27	18	84	24
18	96	62	353	48	25	48	249	50	35	16	74	162
19	92	64	564	48	25	40	237	113	37	22	53	233
20	82	159	543	48	25	36	167	90	30	e37	46	e340
21	76	196	509	48	25	36	104	66	26	e37	94	e410
22	72	193	351	44	25	37	76	56	23	29	189	332
23	66	136	296	41	25	35	69	146	22	23	189	242
24	61	106	204	40	25	34	70	180	19	20	143	160
25	55	101	223	40	22	29	70	e200	15	18	72	64
26	52	90	397	30	18	35	80	e210	16	15	58	52
27	68	77	467	24	18	181	137	e278	23	14	48	46
28	261	79	430	24	18	263	164	306	22	152	38	48
29	319	174	264	25	18	289	143	299	23	182	32	64
30	394	185	167	25	---	275	153	262	23	127	30	56
31	386	---	134	25	---	249	---	140	---	65	29	---
TOTAL	3,215	3,674	7,007	1,836	698	2,779	7,910	4,272	1,407	1,130	1,766	2,780
MEAN	104	122	226	59.2	24.1	89.6	264	138	46.9	36.5	57.0	92.7
MAX	394	323	564	127	26	289	601	306	113	182	189	410
MIN	31	62	71	24	18	18	58	49	15	11	15	13

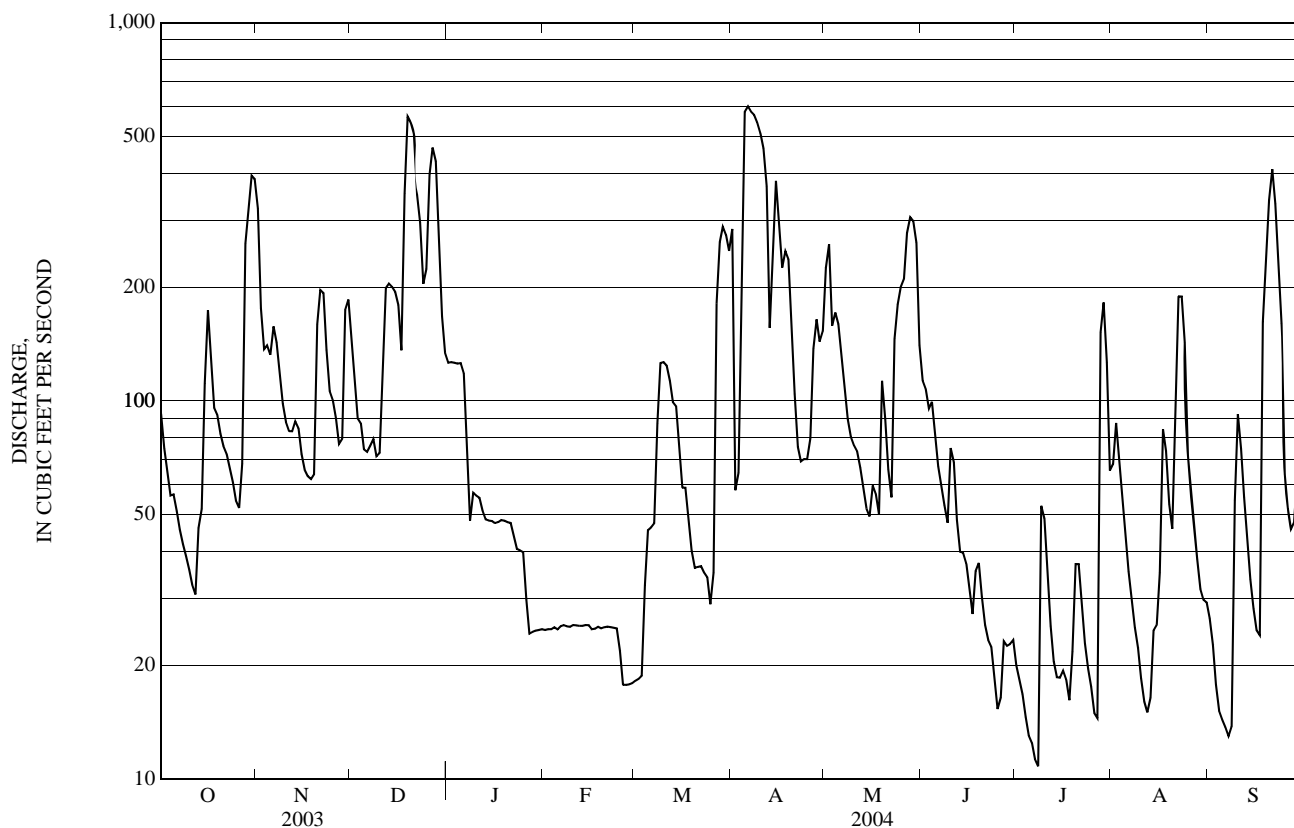
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1989, 1996 - 2004, BY WATER YEAR (WY)

MEAN	46.9	73.7	80.5	62.5	68.2	134	250	118	61.0	27.5	22.5	25.3
MAX	158	242	272	185	223	368	447	256	312	120	157	114
(WY)	(1978)	(1996)	(1997)	(1978)	(1984)	(1979)	(1987)	(1969)	(1984)	(1973)	(1986)	(1999)
MIN	0.86	3.20	12.8	8.97	14.3	29.8	88.6	34.4	3.78	2.65	2.21	0.77
(WY)	(1965)	(1965)	(1965)	(1981)	(1965)	(1965)	(1985)	(1999)	(1964)	(1965)	(1963)	(1964)

01158600 OTTER BROOK BELOW OTTER BROOK DAM NEAR KEENE, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1958 - 89, 1996 - 2004	
ANNUAL TOTAL	38,214.3		38,474		80.9	
ANNUAL MEAN	105		105		23.2	
HIGHEST ANNUAL MEAN					126	1960
LOWEST ANNUAL MEAN					23.2	1965
HIGHEST DAILY MEAN	564	Dec 19	601	Apr 6	685	Apr 10, 1987
LOWEST DAILY MEAN	5.1	Jul 8	a 11	Jul 7	0.30	Sep 27, 1964
ANNUAL SEVEN-DAY MINIMUM	6.1	Jul 7	14	Jul 2	0.30	Oct 12, 1964
MAXIMUM PEAK FLOW			642	Apr 5	b 752	Apr 9, 1987
MAXIMUM PEAK STAGE			8.51	Apr 5	8.62	Apr 9, 1987
10 PERCENT EXCEEDS	317		261		208	
50 PERCENT EXCEEDS	61		62		41	
90 PERCENT EXCEEDS	12		20		6.1	

- a Also occurred on July 8.
- b Includes bypass flow through spillway of the dam structure.
- e Estimated.



01160350 ASHUELOT RIVER AT WEST SWANZEY, NH

LOCATION.--Lat 42° 52'16", long 72° 19'42", Cheshire County, Hydrologic Unit 01080201, on left bank, 150 ft downstream of California/Main Street bridge in West Swanzey, 4.5 mi downstream from South Branch Ashuelot River, 5.0 mi southwest of City Hall in Keene, and 18.3 mi upstream from mouth.

DRAINAGE AREA.--316 mi².

PERIOD OF RECORD.--Discharge records: April 1994 to current year. Peak streamflow: Water years 1994 to current year. Miscellaneous discharge measurements only: Water year 1990. Water-quality discrete samples: Water years 1994 to 1999.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 452 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those below 400 ft³/s and those for estimated daily discharges, which are fair. Flow regulated by Surry Mountain Lake 20 mi upstream since 1942, and by Otter Brook Lake 16 mi upstream on Otter Brook since 1958. Some regulation by small hydro plants upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,490 ft³/s, Apr. 2, gage height, 4.51 ft; minimum daily discharge, 66 ft³/s, Sept. 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	713	2,020	1,210	1,250	212	186	1,950	812	738	116	244	134
2	579	1,700	1,070	1,060	210	216	3,100	792	653	115	327	112
3	481	1,530	882	934	207	328	2,760	751	606	108	313	93
4	384	1,460	712	946	214	376	1,840	926	596	97	261	84
5	356	1,360	612	950	213	398	2,070	1,120	522	90	201	77
6	344	1,350	564	892	212	497	2,180	941	446	98	158	73
7	326	1,180	514	e700	221	654	2,100	760	396	92	118	66
8	293	980	e545	e580	220	628	2,000	620	359	93	100	69
9	259	818	e545	e470	210	617	1,890	542	318	285	87	284
10	255	706	540	424	214	573	1,770	507	419	313	76	576
11	241	641	652	404	212	554	1,650	466	478	216	69	509
12	209	615	1,310	418	203	549	1,530	430	386	160	69	386
13	253	673	1,410	389	207	508	1,430	392	320	130	81	300
14	269	673	e1,310	346	202	480	2,020	348	287	120	112	226
15	434	598	e1,250	335	197	461	2,510	327	261	116	129	177
16	894	530	e1,100	322	181	418	2,140	375	238	109	140	145
17	826	492	e1,100	305	190	355	1,690	370	211	93	242	137
18	706	467	2,740	303	183	339	1,360	329	222	95	301	955
19	607	479	3,110	313	178	323	1,100	566	225	128	257	2,250
20	522	956	2,760	311	175	310	858	577	194	183	209	1,930
21	502	1,490	2,490	310	176	332	633	435	164	175	342	1,600
22	469	1,360	2,150	305	178	351	541	368	149	141	917	1,440
23	441	1,160	1,920	300	179	320	550	608	145	116	875	1,230
24	423	997	1,790	292	174	319	618	877	142	102	697	842
25	406	886	2,090	286	171	323	572	1,460	131	82	434	504
26	379	753	2,380	256	162	352	671	1,570	139	68	308	398
27	431	650	2,350	220	162	681	1,170	1,600	157	69	232	348
28	1,160	613	2,170	220	166	968	1,270	1,610	140	375	182	339
29	1,660	1,110	1,940	234	172	971	1,070	1,500	138	525	139	438
30	2,440	1,360	1,760	220	---	1,220	859	1,310	133	408	123	475
31	2,370	---	1,640	209	---	1,390	---	978	---	270	141	---
TOTAL	19,632	29,607	46,616	14,504	5,601	15,997	45,902	24,267	9,313	5,088	7,884	16,197
MEAN	633	987	1,504	468	193	516	1,530	783	310	164	254	540
MAX	2,440	2,020	3,110	1,250	221	1,390	3,100	1,610	738	525	917	2,250
MIN	209	467	514	209	162	186	541	327	131	68	69	66

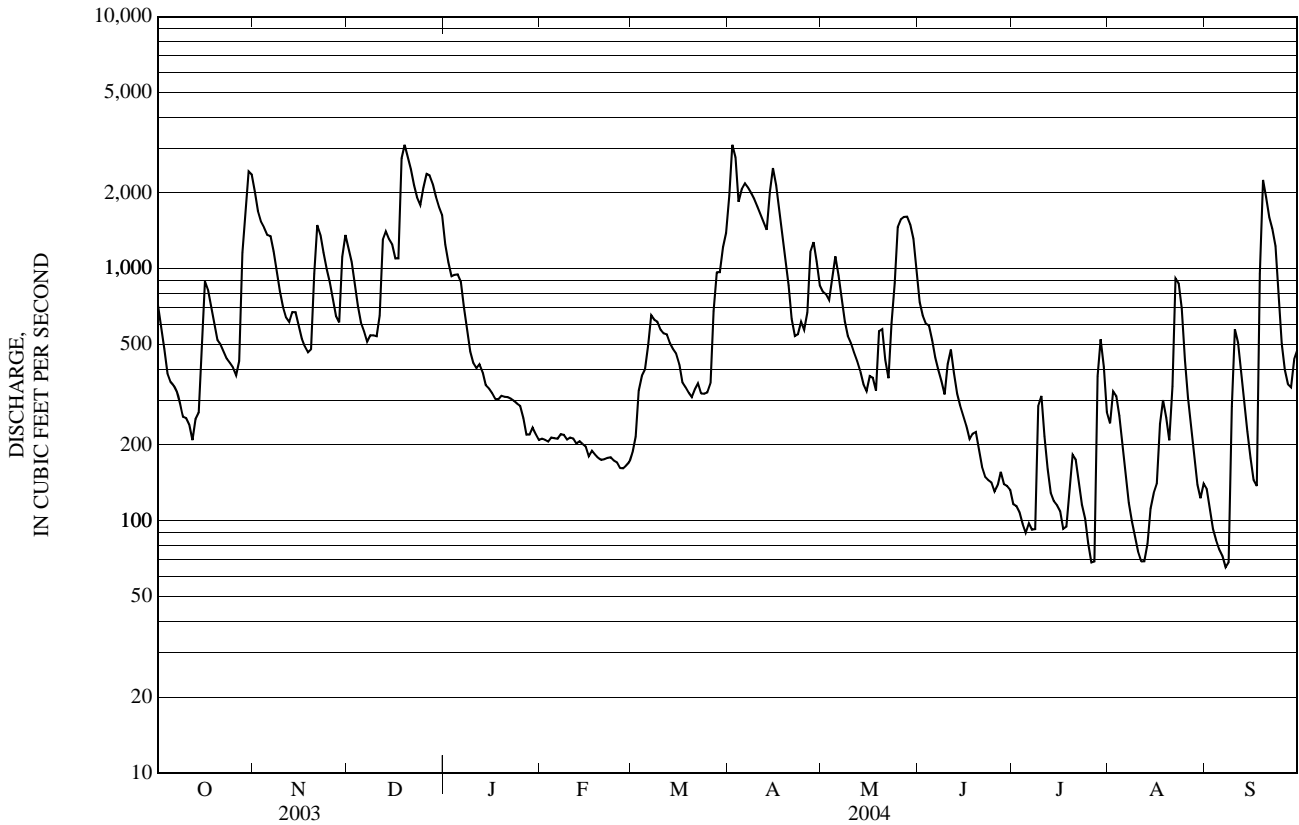
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2004, BY WATER YEAR (WY)

MEAN	341	543	632	522	433	879	1,402	735	394	176	178	192
MAX	761	1,539	1,723	1,076	1,007	1,264	2,353	1,511	1,067	362	555	540
(WY)	(1996)	(1996)	(1997)	(1996)	(1996)	(1998)	(1994)	(1996)	(1998)	(1996)	(2003)	(2004)
MIN	108	73.4	129	85.2	192	439	518	316	89.1	88.2	42.6	47.8
(WY)	(1998)	(2002)	(2002)	(2002)	(2003)	(2001)	(1995)	(1995)	(1999)	(2003)	(2002)	(1995)

01160350 ASHUELOT RIVER AT WEST SWANZEY, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1994 - 2004	
ANNUAL TOTAL	257,620		240,608			
ANNUAL MEAN	706		657		528	
HIGHEST ANNUAL MEAN					781	1996
LOWEST ANNUAL MEAN					327	2002
HIGHEST DAILY MEAN	3,110	Mar 31	3,110	Dec 19	a 3,370	Apr 12, 2001
LOWEST DAILY MEAN	43	Jul 31	66	Sep 7	20	Aug 13, 1999
ANNUAL SEVEN-DAY MINIMUM	66	Jul 5	82	Sep 2	21	Aug 7, 1999
MAXIMUM PEAK FLOW			3,490	Apr 2	3,620	Apr 17, 1996
MAXIMUM PEAK STAGE			4.51	Apr 2	b 6.30	Mar 7, 1999
10 PERCENT EXCEEDS	1,850		1,620		1,360	
50 PERCENT EXCEEDS	407		418		302	
90 PERCENT EXCEEDS	117		130		66	

a Also occurred on April 13, 2001.
 b Ice jam.
 e Estimated.



01161000 ASHUELOT RIVER AT HINSDALE, NH

LOCATION.--Lat 42° 47'09", long 72° 29'12", Cheshire County, Hydrologic Unit 01080201, on left bank, 40 ft upstream from State Highway 63S bridge in Hinsdale, 200 ft south of State Highway 63S and 119W intersection in Hinsdale, 0.2 mi downstream from dam, and 1.3 mi upstream from mouth.

DRAINAGE AREA.--420 mi².

PERIOD OF RECORD.--Discharge records: March 1907 to December 1911, July 1914 to current year.

REVISED RECORDS.--WSP 661: Drainage area. WSP 781: 1907-10, 1914-34. WSP 1301: 1915(M), 1917-19(M), 1921-33(M). WSP 1701: 1920.

GAGE.--Water-stage recorder. Datum of gage is 201.32 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to September 29, 1933, nonrecording gage on State Highway 63S bridge at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Surry Mountain Lake 33 mi upstream since 1942, and by Otter Brook Lake 29 mi upstream on Otter Brook since 1958. Regulation by small hydro plants upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,600 ft³/s, March 19, 1936, by computation of peak flow over dam; maximum gage height, 20.2 ft, March 19, 1936, from floodmarks (backwater from the Connecticut River); minimum daily discharge, 12 ft³/s, September 15, 1929. Maximum discharge since at least 1859, that of March 19, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,620 ft³/s, Apr. 2, gage height, 7.38 ft; maximum gage height, 7.54 ft (ice jam); minimum daily discharge, 115 ft³/s, Sept. 8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,100	2,480	1,590	1,780	e300	e263	2,940	1,130	1,110	176	315	208
2	910	2,100	1,380	1,470	e291	e301	4,440	1,100	1,020	165	369	192
3	776	1,880	1,200	1,320	e286	e642	4,090	1,120	955	160	403	163
4	632	1,780	1,000	1,320	e294	e825	2,770	1,310	919	148	350	145
5	567	1,660	e840	1,340	e300	788	2,480	1,560	840	135	294	134
6	520	1,680	e766	1,290	e299	913	2,610	1,370	722	135	247	126
7	484	1,520	681	e916	e304	1,150	2,490	1,160	626	139	203	118
8	429	1,290	e785	e764	e304	1,050	2,360	990	554	147	170	115
9	377	1,100	e785	e650	e296	960	2,250	884	478	290	150	357
10	348	968	e762	e575	e296	893	2,110	837	614	428	134	866
11	338	891	904	e550	e293	857	1,970	779	734	333	123	813
12	306	867	1,640	e569	e285	858	1,840	713	606	261	119	608
13	313	920	1,790	e535	e287	798	1,850	639	466	214	127	446
14	342	948	1,400	e469	e285	745	2,900	558	386	193	158	351
15	594	856	1,300	e457	e277	728	3,190	505	346	183	186	281
16	1,120	761	1,390	e440	e259	687	2,810	557	311	176	206	239
17	1,090	708	1,560	e418	e268	589	2,250	574	278	160	272	220
18	946	662	4,030	e412	e260	538	1,850	502	265	148	353	1,380
19	825	664	4,230	e423	e255	498	1,520	685	279	212	345	3,010
20	714	1,220	3,510	e423	e253	471	1,270	880	257	283	303	2,530
21	651	1,900	3,020	e423	e255	526	1,040	699	225	275	491	1,960
22	616	1,740	2,690	e419	e255	591	891	564	203	240	1,080	1,720
23	573	1,470	2,370	e419	e255	514	887	684	196	201	1,150	1,490
24	542	1,270	2,370	e397	e251	509	991	1,080	187	175	967	1,180
25	510	1,160	3,240	e397	e251	515	928	1,940	178	153	703	808
26	474	1,040	3,300	e349	e237	585	1,030	2,100	182	131	462	603
27	552	924	2,990	e306	e234	934	1,650	2,160	200	122	354	497
28	1,460	883	2,760	e314	e239	1,340	1,780	2,180	200	314	291	477
29	2,730	1,530	2,460	e327	e248	1,330	1,520	1,950	196	700	247	689
30	3,390	1,840	2,230	e306	---	1,400	1,260	1,700	194	608	215	774
31	2,980	---	2,100	e297	---	1,690	---	1,370	---	399	204	---
TOTAL	27,209	38,712	61,073	20,075	7,917	24,488	61,967	34,280	13,727	7,404	10,991	22,500
MEAN	878	1,290	1,970	648	273	790	2,066	1,106	458	239	355	750
MAX	3,390	2,480	4,230	1,780	304	1,690	4,440	2,180	1,110	700	1,150	3,010
MIN	306	662	681	297	234	263	887	502	178	122	119	115

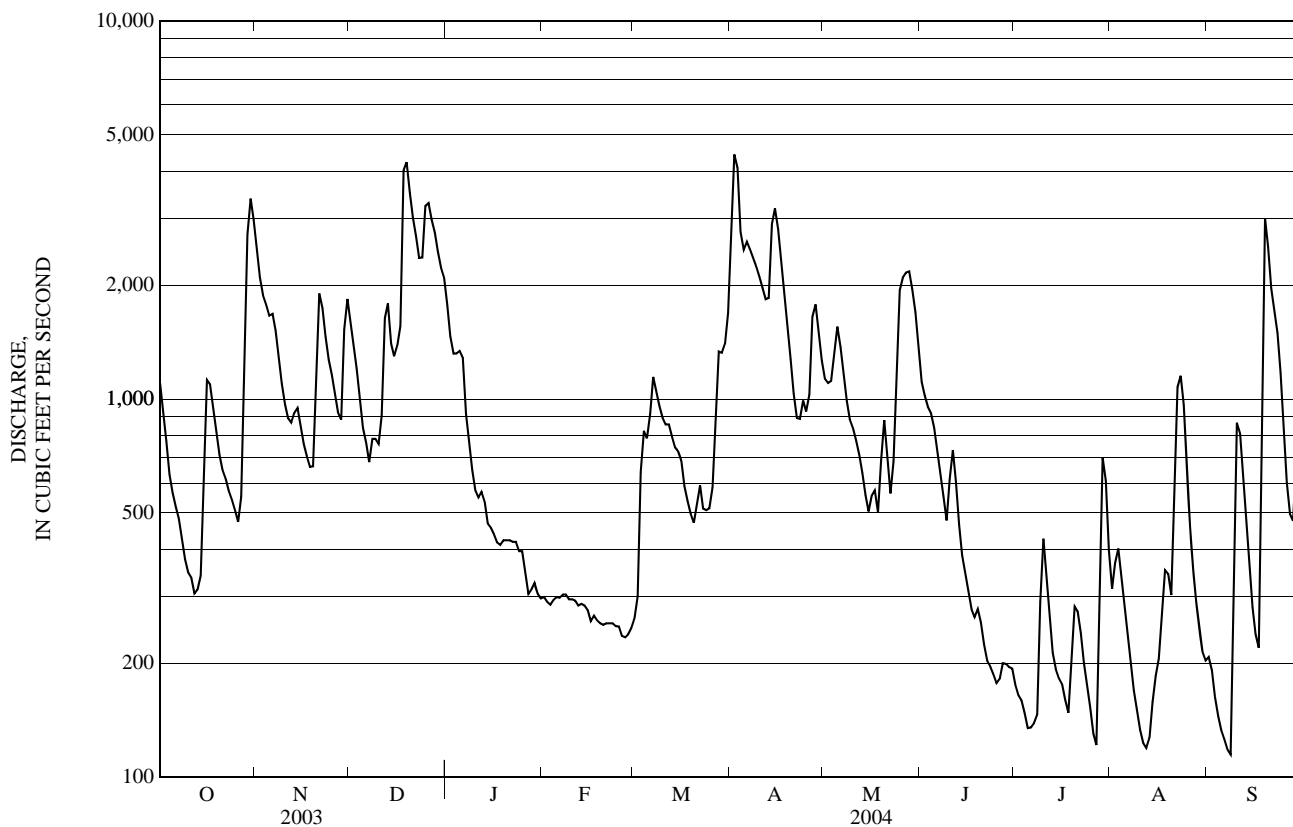
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1907 - 1912, 1914 - 2004, BY WATER YEAR (WY)

MEAN	349	594	671	602	597	1,236	1,882	990	523	274	230	249
MAX	1,474	2,248	2,209	1,539	2,016	4,392	3,723	2,175	2,075	1,182	1,098	2,394
(WY)	(1976)	(1928)	(1997)	(1978)	(1984)	(1936)	(1960)	(1945)	(1984)	(1915)	(1990)	(1938)
MIN	49.2	55.4	113	84.0	113	273	597	335	96.9	60.8	50.5	53.0
(WY)	(1965)	(1965)	(1915)	(1981)	(1980)	(1940)	(1985)	(1985)	(1964)	(1965)	(1966)	(1995)

01161000 ASHUELOT RIVER AT HINSDALE, NH—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1907 - 12, 1914 - 2004	
ANNUAL TOTAL	338,039		330,343		682	
ANNUAL MEAN	926		903		216	
HIGHEST ANNUAL MEAN					1,093	1960
LOWEST ANNUAL MEAN					216	1965
HIGHEST DAILY MEAN	4,230	Dec 19	4,440	Apr 2	16,500	Mar 19, 1936
LOWEST DAILY MEAN	70	Jul 31	115	Sep 8	12	Sep 15, 1929
ANNUAL SEVEN-DAY MINIMUM	97	Jul 6	140	Aug 8	32	Aug 16, 1966
MAXIMUM PEAK FLOW			4,620	Apr 2	a 16,600	Mar 19, 1936
MAXIMUM PEAK STAGE			b 7.54	Jan 27	c 20.20	Mar 19, 1936
10 PERCENT EXCEEDS	2,280		2,100		1,720	
50 PERCENT EXCEEDS	572		621		377	
90 PERCENT EXCEEDS	151		195		97	

- a By computation of peak flow over dam as explained above.
- b Ice jam.
- c From floodmarks as explained above.
- e Estimated.



01334000 WALLOOMSAC RIVER NEAR NORTH BENNINGTON, VT

LOCATION.--Lat 42° 54'46", long 73° 15'25" (revised), Bennington County, Hydrologic Unit 02020003, on left bank, 500 ft downstream of River Road Covered bridge, 700 ft downstream of Old Mill Dam, 0.6 mi downstream from Paran Creek, 1.4 mi south of State Highway 67 and 67A intersection in North Bennington, and 3.9 mi northwest of Town Hall in Bennington.

DRAINAGE AREA.--111 mi².

PERIOD OF RECORD.--Discharge records: June 1931 to current year.

REVISED RECORDS.--WSP 781: 1933(M).

GAGE.--Water-stage recorder. Elevation of gage is 525 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional diurnal fluctuation at low flow caused by mills upstream; diurnal fluctuation greater prior to 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	2300	2,560	6.29	Apr 1	2245	2,900	6.71
Oct 29	1415	3,470	7.37	May 25	0100	*3,820	*7.75
Nov 29	0400	2,430	6.13	Sep 18	1530	3,330	7.21
Dec 25	0000	3,010	6.84				

Minimum discharge, c 67 ft³/s, Feb. 27, 28, gage height, 1.78 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	226	447	455	339	e135	93	1,550	231	357	93	298	280
2	208	371	376	310	e133	155	1,650	217	386	162	237	205
3	194	532	298	353	e128	265	756	227	300	111	173	171
4	181	443	289	477	e129	223	615	429	266	86	159	151
5	239	414	264	414	e136	226	542	321	232	106	147	134
6	193	447	260	348	e137	440	426	268	206	172	131	125
7	165	357	257	281	e132	423	370	239	191	111	120	116
8	149	304	249	e235	e125	282	334	212	172	110	114	113
9	138	e255	237	e205	e120	231	326	225	158	159	105	294
10	128	247	231	e195	113	213	315	229	243	119	97	308
11	122	242	539	e190	108	204	295	213	177	97	91	195
12	116	258	755	e182	e104	207	281	188	146	81	86	154
13	111	272	404	e177	102	183	368	168	130	76	104	132
14	105	242	304	e172	100	166	601	160	121	78	188	120
15	248	212	309	e167	97	175	460	152	118	160	121	110
16	246	193	292	e162	e105	168	372	224	106	199	218	105
17	176	189	654	e157	e99	159	338	175	104	196	365	124
18	151	186	924	e146	e95	152	362	155	148	134	181	1,720
19	139	191	536	e142	e90	148	359	209	119	132	141	743
20	129	1,010	419	e137	e88	151	332	156	102	269	167	388
21	131	560	357	e135	96	210	274	148	95	168	599	295
22	139	379	326	e132	96	174	239	139	92	119	482	244
23	141	318	318	e129	91	150	263	269	97	114	260	212
24	131	285	1,130	e125	89	155	281	845	84	142	193	186
25	127	289	1,680	e128	e87	184	243	1,680	79	106	160	171
26	148	261	750	e125	e85	263	538	657	120	92	141	161
27	1,090	243	535	e124	e84	1,140	494	575	111	162	127	147
28	1,210	305	439	e129	83	848	339	544	87	677	126	173
29	1,830	1,520	395	e137	84	610	283	448	101	360	224	200
30	1,110	624	400	e141	---	516	252	334	97	221	145	189
31	595	---	390	e137	---	695	---	279	---	167	670	---
TOTAL	10,016	11,596	14,772	6,231	3,071	9,209	13,858	10,316	4,745	4,979	6,370	7,666
MEAN	323	387	477	201	106	297	462	333	158	161	205	256
MAX	1,830	1,520	1,680	477	137	1,140	1,650	1,680	386	677	670	1,720
MIN	105	186	231	124	83	93	239	139	79	76	86	105

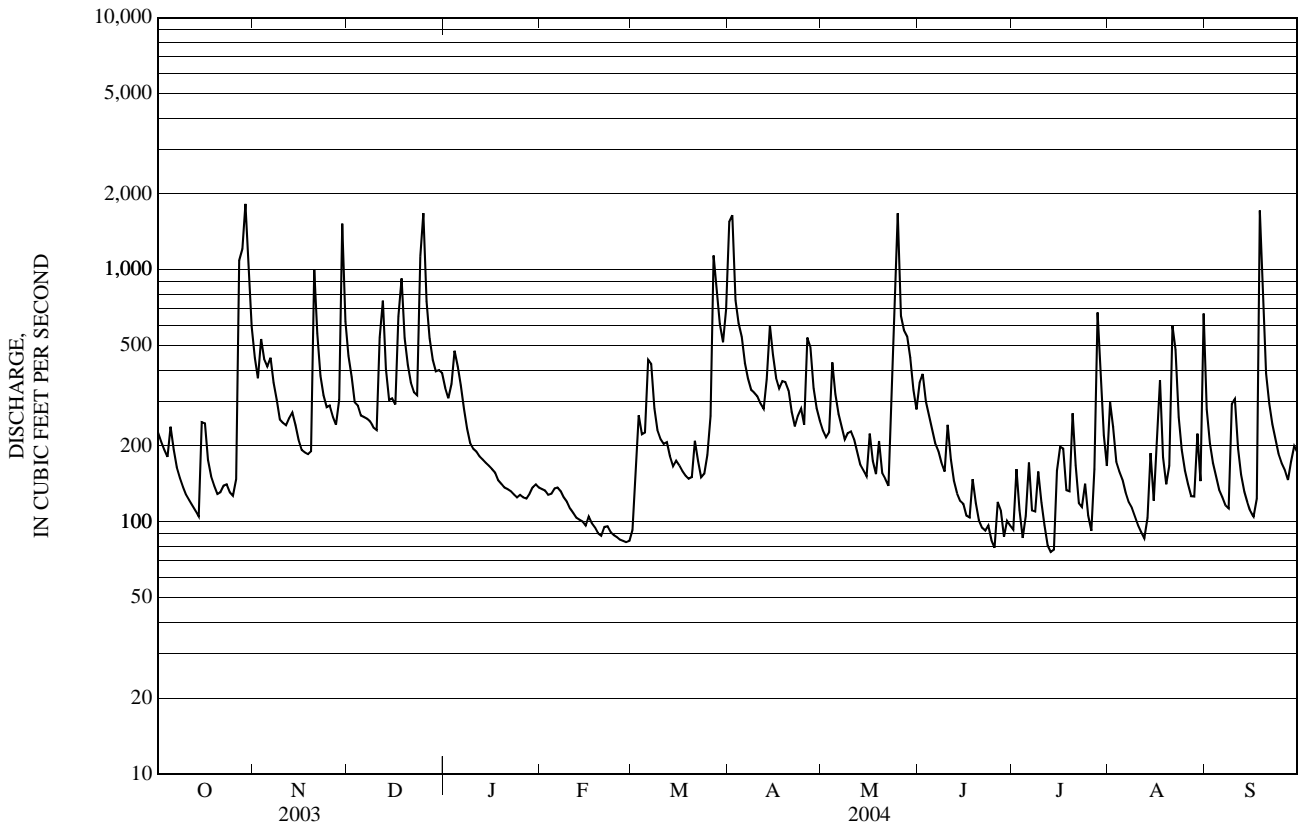
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

MEAN	152	211	216	195	180	322	532	323	182	123	107	118
MAX	418	412	477	425	575	958	1,008	742	436	311	481	585
(WY)	(1976)	(1960)	(2004)	(1937)	(1981)	(1936)	(1969)	(1943)	(1998)	(1935)	(1976)	(1938)
MIN	30.9	39.6	94.6	61.6	54.2	68.0	215	116	53.1	39.8	41.2	25.6
(WY)	(1965)	(1965)	(1948)	(1965)	(1980)	(1965)	(1946)	(1987)	(1964)	(1964)	(1964)	(1964)

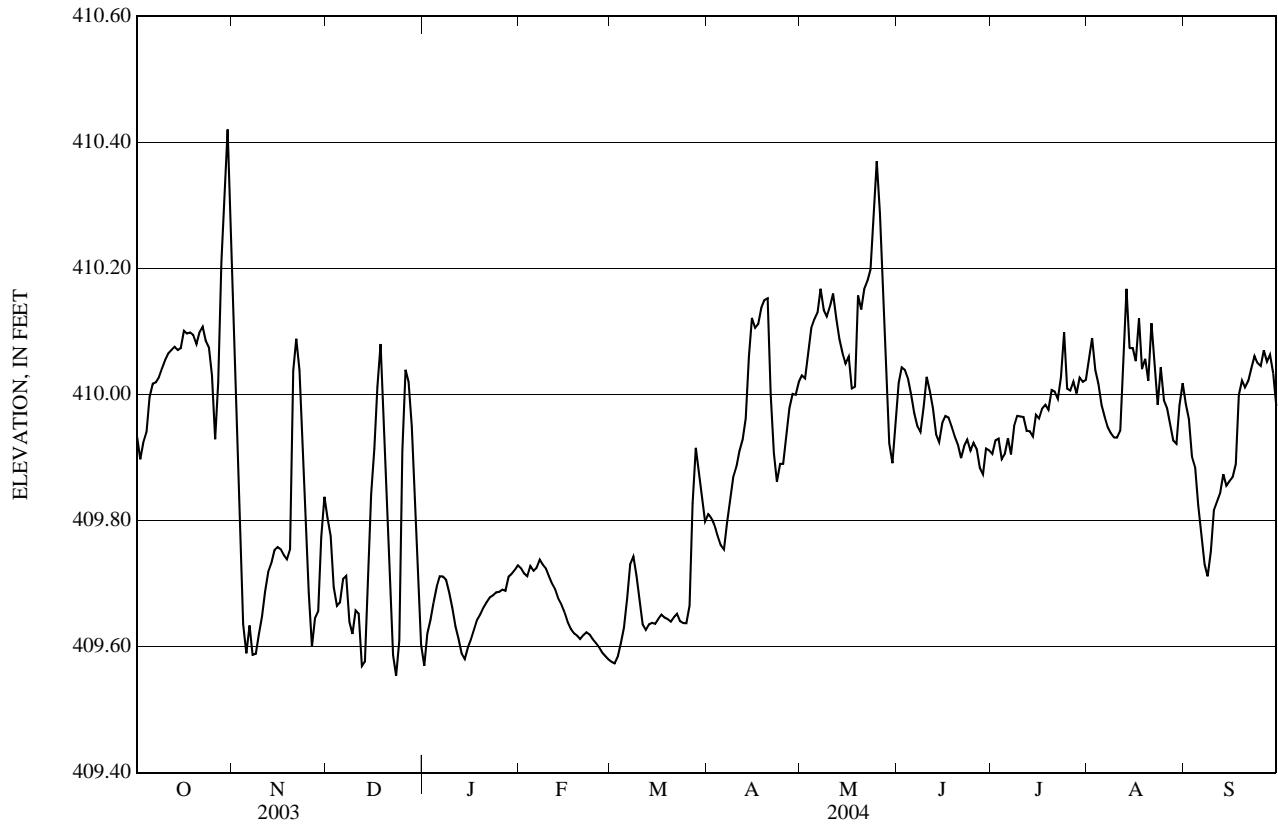
01334000 WALLOOMSAC RIVER NEAR NORTH BENNINGTON, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	100,719		102,829			
ANNUAL MEAN	276		281		222	
HIGHEST ANNUAL MEAN					362 1976	
LOWEST ANNUAL MEAN					98.9 1965	
HIGHEST DAILY MEAN	1,860	Mar 30	1,830	Oct 29	6,350	Dec 31, 1948
LOWEST DAILY MEAN	52	Jul 31	76	Jul 13	a 21	Sep 22, 1964
ANNUAL SEVEN-DAY MINIMUM	57	Jul 3	86	Feb 23	22	Sep 20, 1964
MAXIMUM PEAK FLOW			3,820	May 25	b 8,450	Sep 21, 1938
MAXIMUM PEAK STAGE			7.75	May 25	12.04	Sep 21, 1938
INSTANTANEOUS LOW FLOW			c 67	Feb 27	4.0	Sep 27, 1932
10 PERCENT EXCEEDS	551		538		457	
50 PERCENT EXCEEDS	190		193		144	
90 PERCENT EXCEEDS	81		103		57	

- a Also occurred on September 23, 1964 and July 12, 1965.
- b From rating curve extended above 2,800 ft³/s on basis of contracted-opening measurements at gage-heights 10.13 ft, 10.49 ft, 11.50 ft, and 12.04 ft, and slope-area measurement and computation of flow over dam at gage height 12.04 ft.
- c Result of freezeup. Also occurred on Feb. 28.
- e Estimated.



04279490 LAKE BOMOSEEN AT OUTLET, NEAR FAIR HAVEN, VT—Continued



04280000 POULTNEY RIVER BELOW FAIR HAVEN, VT

LOCATION.--Lat 43° 37'27", long 73° 18'43", Rutland County, Hydrologic Unit 02010001, on right bank, 0.4 mi downstream from Carver Falls and Dam, 2.0 mi upstream from Hubbardton River, 3.0 mi northwest of Town Hall in Fair Haven, and 6.6 mi northeast of Whitehall, NY.

DRAINAGE AREA.--187 mi².

PERIOD OF RECORD.--Discharge records: October 1928 to current year.

REVISED RECORDS.--WSP 1114: 1929(M), 1932-35.

GAGE.--Water-stage recorder. Elevation of gage is 110 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by power plant upstream and Lake Bomoseen.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft³/s, July 20, 1945, gage height, 24.36 ft, from high-water mark in well, 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; minimum daily discharge, 2.1 ft³/s, August 8, 1965, September 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 30	0030	*3,780	*15.04	May 24	2000	3,400	14.14
Nov 20	1900	3,140	13.48				

Minimum daily discharge, 33 ft³/s, Jul. 14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	370	1,220	683	736	e195	e137	704	174	334	66	215	290
2	292	1,030	631	530	e192	e148	671	166	386	38	132	242
3	147	1,060	556	506	e187	e220	569	174	348	41	166	227
4	142	1,040	496	576	e189	e360	521	238	351	37	166	212
5	230	899	380	564	e195	e440	497	243	294	35	153	193
6	199	684	e350	511	e199	835	416	230	255	35	67	183
7	175	608	e340	432	e190	1,090	326	213	212	34	58	177
8	142	506	e330	e380	e182	730	295	194	192	45	57	171
9	127	357	e310	e320	e175	508	274	184	161	67	52	268
10	115	322	302	e290	e163	409	249	178	259	52	47	273
11	110	299	405	e280	e155	402	229	209	192	45	52	182
12	95	291	1,290	e265	e152	395	216	234	167	39	182	152
13	89	330	835	e260	e150	306	225	228	151	35	1,460	138
14	88	354	e430	e250	e145	269	364	288	e140	33	1,110	116
15	99	301	e425	e245	e140	269	335	257	e130	47	685	112
16	120	276	e420	e235	e153	251	275	432	e108	44	647	101
17	112	248	499	e230	e145	231	255	347	e122	37	889	96
18	99	235	1,240	e215	e140	227	252	332	e150	34	620	328
19	92	269	1,190	e205	e130	216	257	771	e135	93	418	478
20	83	1,980	916	e198	e128	206	294	487	e115	59	409	278
21	86	1,790	759	e199	e140	219	374	347	e57	66	661	217
22	94	1,110	710	e190	e138	223	357	323	e51	44	1,120	197
23	83	923	632	e185	e134	199	298	668	e68	70	723	178
24	83	810	e1,180	e183	e130	208	187	2,140	61	399	507	167
25	107	755	e2,450	e185	e129	229	174	2,280	57	232	409	145
26	201	685	e1,820	e182	e132	325	203	1,430	37	120	319	131
27	617	462	e1,070	e180	e128	875	237	1,140	46	119	272	122
28	1,950	432	e940	e188	e127	795	209	957	41	260	250	114
29	2,020	1,010	e880	e198	e128	717	195	808	83	159	283	153
30	2,760	764	857	e205	---	646	185	616	67	119	311	144
31	1,530	---	837	e197	---	598	---	345	---	105	340	---
TOTAL	12,457	21,050	24,163	9,320	4,491	12,683	9,643	16,633	4,770	2,609	12,780	5,785
MEAN	402	702	779	301	155	409	321	537	159	84.2	412	193
MAX	2,760	1,980	2,450	736	199	1,090	704	2,280	386	399	1,460	478
MIN	83	235	302	180	127	137	174	166	37	33	47	96
CFSM	2.15	3.75	4.17	1.61	0.83	2.19	1.72	2.87	0.85	0.45	2.20	1.03
IN.	2.48	4.19	4.81	1.85	0.89	2.52	1.92	3.31	0.95	0.52	2.54	1.15

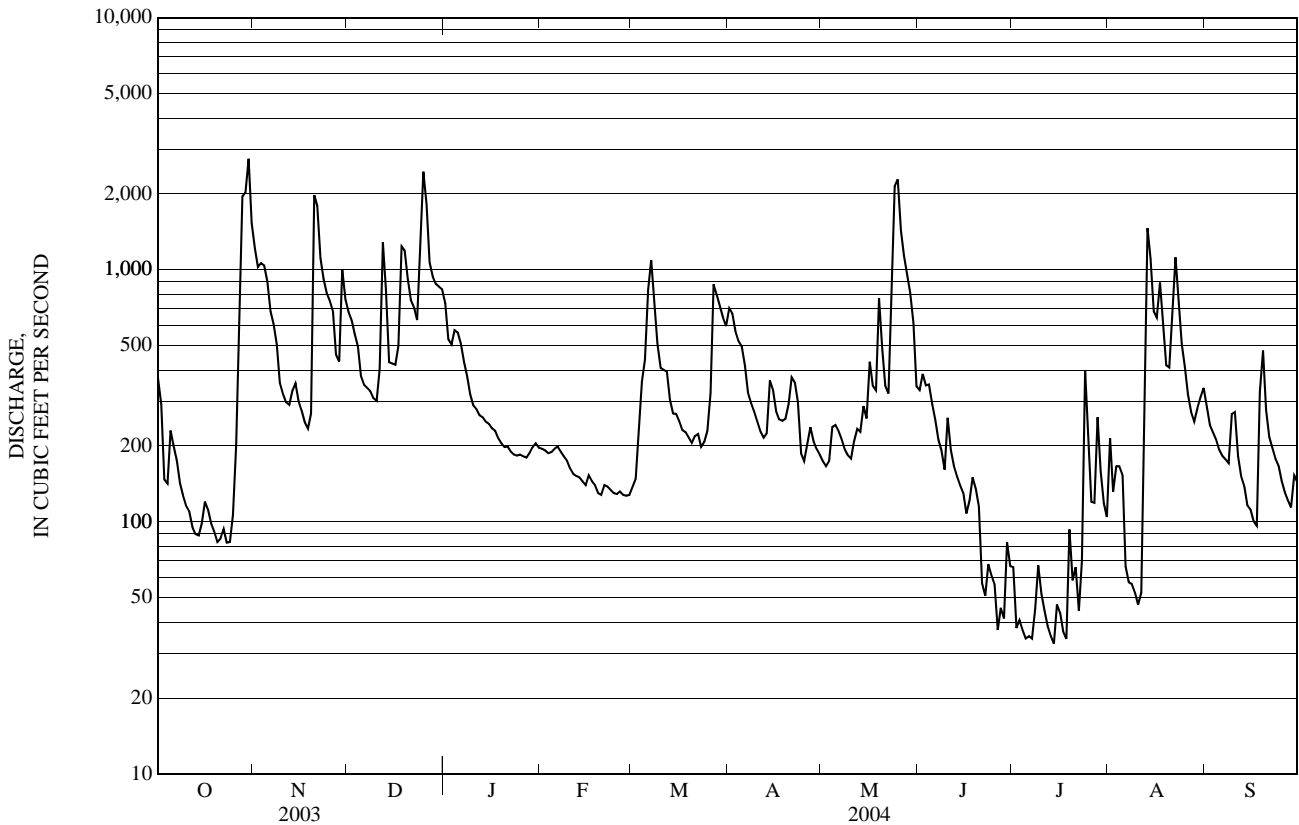
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

MEAN	140	227	267	258	261	522	669	324	164	104	87.6	91.5
MAX	721	760	1,018	897	800	1,627	1,441	902	776	639	629	666
(WY)	(1978)	(1973)	(1984)	(1996)	(1984)	(1986)	(1977)	(1983)	(1947)	(1976)	(1976)	(1938)
MIN	13.8	19.5	38.4	42.0	26.8	113	231	71.5	19.4	7.08	3.94	8.19
(WY)	(2002)	(2002)	(1965)	(1931)	(1980)	(1940)	(1966)	(1941)	(1965)	(1965)	(1965)	(1995)

04280000 POULTNEY RIVER BELOW FAIR HAVEN, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	142,920		136,384			
ANNUAL MEAN	392		373		259	
HIGHEST ANNUAL MEAN					527 1976	
LOWEST ANNUAL MEAN					66.9 1965	
HIGHEST DAILY MEAN	2,760	Oct 30	2,760	Oct 30	7,010	Jan 20, 1996
LOWEST DAILY MEAN	28	Jul 10	33	Jul 14	a 2.1	Aug 8, 1965
ANNUAL SEVEN-DAY MINIMUM	31	Jul 5	38	Jul 2	3.0	Aug 13, 1965
MAXIMUM PEAK FLOW			3,780	Oct 30	b 14,800	Jul 20, 1945
MAXIMUM PEAK STAGE			15.04	Oct 30	c 24.36	Jul 20, 1945
ANNUAL RUNOFF (CFSM)	2.09		1.99		1.39	
ANNUAL RUNOFF (INCHES)	28.43		27.13		18.84	
10 PERCENT EXCEEDS	941		843		616	
50 PERCENT EXCEEDS	240		230		139	
90 PERCENT EXCEEDS	49		69		28	

- a Also occurred on Sept. 13, 1977.
- b From rating curve extended above 2,600 ft³/s as explained above.
- c From high water mark in well.
- e Estimated.



04280350 METTAWEE RIVER NEAR PAWLET, VT

LOCATION.--Lat 43°22'14", long 73°13'00", Rutland County, Hydrologic Unit 02010001, on left bank, 10 ft downstream from Betts Bridge Road bridge, 20 ft southwest of Betts Bridge Road and Offesend Road intersection, 0.8 mi upstream of State Highway 153 bridge, 1.0 mi southwest of Offesend Road and State Highway 30 intersection at Butternut Bend, and 2.5 mi northwest of State Highways 30 and 133 intersection in Pawlet.

DRAINAGE AREA.--70.2 mi².

PERIOD OF RECORD.--Discharge records: October 1984 to current year.

REVISED RECORDS.--WDR NH-VT-97-1: 1993, 1994, 1996 (P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 525 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	2300	1,380	4.46	Mar 27	0545	894	3.94
Oct 29	1300	2,890	5.53	Apr 2	0630	941	3.99
Nov 20	0745	1,580	4.64	May 18	2130	1,110	4.18
Nov 29	0315	1,370	4.45	May 24	1015	2,300	5.15
Dec 12	0000	1,220	4.30	Jul 23	2345	3,140	5.68
Dec 17	2015	1,420	4.50	Aug 14	0015	e 1,250	e 4.33
Dec 24	2145	*3,830	*6.06	Aug 16	2300	e 1,000	e 4.06

Minimum discharge, 23 ft³/s, July 4, gage height, 1.68 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	404	403	307	e74	e54	458	130	311	43	e365	e135
2	63	338	339	273	e72	e77	690	124	283	46	e200	e113
3	56	383	275	279	e70	e165	486	133	260	39	e180	e102
4	61	342	241	335	e69	e110	427	210	248	36	e150	e90
5	78	312	e185	305	e68	e105	365	171	188	46	e135	e82
6	63	294	e170	268	e70	321	314	150	163	70	e117	e77
7	57	249	e160	231	e75	256	291	136	147	45	e105	e74
8	52	206	e155	191	e70	176	256	119	133	78	e93	e72
9	49	174	167	e150	e66	145	222	112	144	101	e90	e165
10	46	161	148	e135	e61	129	201	109	192	88	e84	e210
11	43	151	426	e123	e59	126	180	168	131	89	e102	e140
12	41	146	663	e114	e57	125	159	125	112	57	e390	e113
13	40	188	364	e108	e59	110	185	116	100	50	e900	e96
14	38	154	e260	e100	e55	102	259	125	92	49	e500	e88
15	62	133	e247	e98	e54	106	210	147	88	e59	e340	e82
16	65	122	232	e92	e52	97	179	256	80	e58	e380	e81
17	55	116	606	e88	e51	96	164	171	73	e65	e720	e160
18	52	111	781	e85	e52	89	156	287	83	e98	e410	e350
19	49	123	514	e82	e50	85	172	398	92	e118	e300	e310
20	46	906	432	e79	e52	82	183	231	60	e140	e260	e225
21	46	534	379	e78	e52	99	154	196	53	e120	e390	e185
22	46	399	342	e76	e53	91	147	177	61	e112	e360	e160
23	48	329	326	e75	e50	84	162	290	72	e280	e250	e140
24	47	281	1,590	e72	e48	89	154	1,380	59	e740	e212	e125
25	45	273	1,690	e70	e47	107	133	1,190	54	e315	e185	e113
26	47	228	867	e69	e46	188	204	674	56	e230	e160	e104
27	378	199	596	e68	e46	637	187	464	52	e260	e143	e98
28	651	219	469	e70	e45	469	164	416	47	e300	e135	e95
29	1,390	862	406	e74	e46	347	153	395	55	e250	e143	e92
30	914	496	389	e78	---	299	141	281	48	e200	e185	e87
31	553	---	350	e75	---	317	---	243	---	e210	e180	---
TOTAL	5,253	8,833	14,172	4,248	1,669	5,283	7,156	9,124	3,537	4,392	8,164	3,964
MEAN	169	294	457	137	57.6	170	239	294	118	142	263	132
MAX	1,390	906	1,690	335	75	637	690	1,380	311	740	900	350
MIN	38	111	148	68	45	54	133	109	47	36	84	72
CFSM	2.41	4.19	6.51	1.95	0.82	2.43	3.40	4.19	1.68	2.02	3.75	1.88
IN.	2.78	4.68	7.51	2.25	0.88	2.80	3.79	4.83	1.87	2.33	4.33	2.10

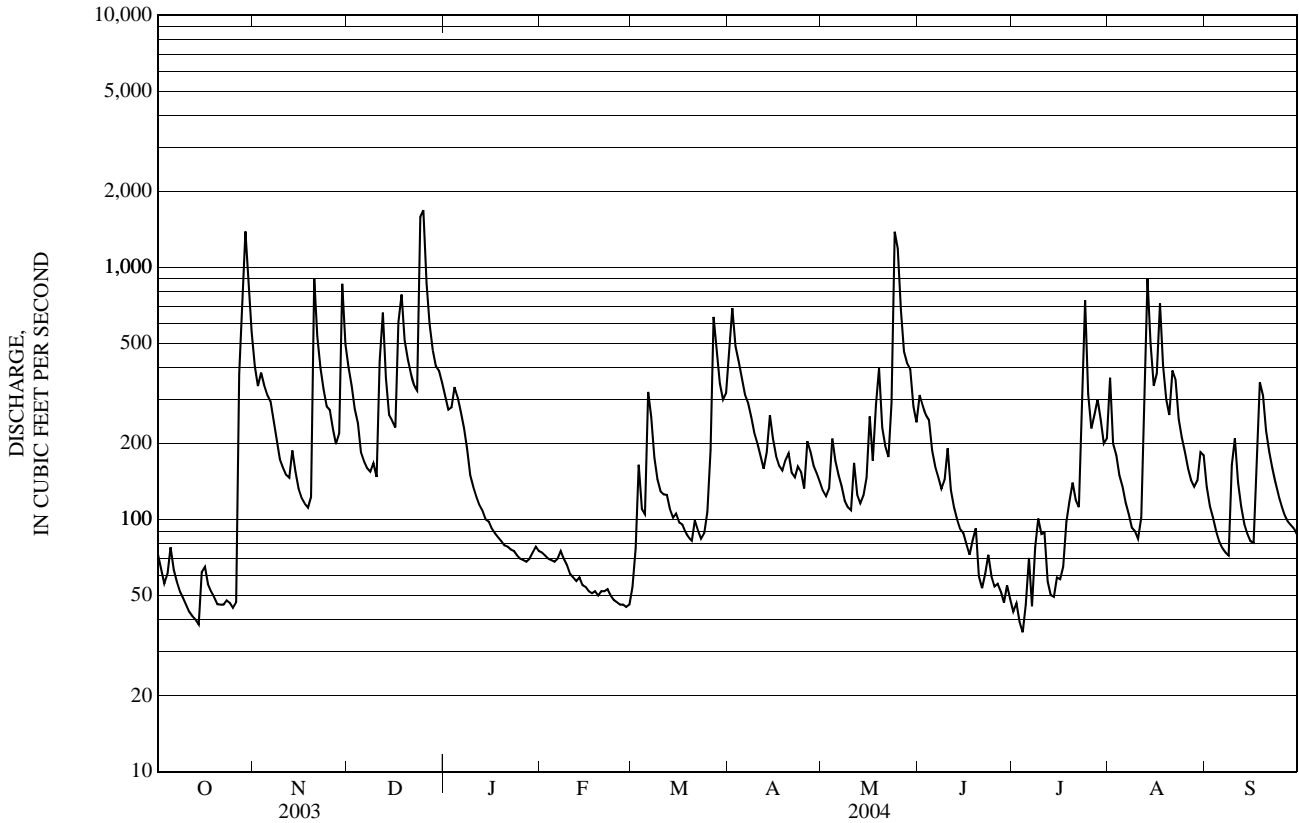
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2004, BY WATER YEAR (WY)

	71.9	126	147	133	108	202	283	163	87.4	60.4	56.9	43.0
MEAN	71.9	126	147	133	108	202	283	163	87.4	60.4	56.9	43.0
MAX	286	294	457	344	194	376	559	371	167	169	263	132
(WY)	(1988)	(2004)	(2004)	(1998)	(2000)	(2003)	(1994)	(1996)	(2001)	(1996)	(2004)	(2004)
MIN	14.3	21.8	40.5	42.9	45.5	73.7	115	55.4	32.8	13.8	11.1	10.6
(WY)	(2002)	(2002)	(2002)	(2002)	(1987)	(2001)	(1995)	(1987)	(1999)	(1995)	(2002)	(1995)

04280350 METTAWEE RIVER NEAR PAWLET, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1985 - 2004	
ANNUAL TOTAL	67,603		75,795			
ANNUAL MEAN	185		207		124	
HIGHEST ANNUAL MEAN					207	2004
LOWEST ANNUAL MEAN					75.9	1995
HIGHEST DAILY MEAN	1,690	Dec 25	1,690	Dec 25	2,860	Dec 17, 2000
LOWEST DAILY MEAN	16	Sep 22	36	Jul 4	5.7	Sep 10, 2002
ANNUAL SEVEN-DAY MINIMUM	18	Sep 16	44	Oct 8	6.3	Sep 8, 2002
MAXIMUM PEAK FLOW			3,830	Dec 24	7,080	Dec 17, 2000
MAXIMUM PEAK STAGE			6.06	Dec 24	7.31	Dec 17, 2000
INSTANTANEOUS LOW FLOW			23	Jul 4	a 5.0	Sep 10, 2002
ANNUAL RUNOFF (CFSM)	2.64		2.95		1.76	
ANNUAL RUNOFF (INCHES)	35.82		40.16		23.90	
10 PERCENT EXCEEDS	440		405		261	
50 PERCENT EXCEEDS	92		138		80	
90 PERCENT EXCEEDS	26		52		22	

a Also occurred on Sept. 11, 2002.
 e Estimated.



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 US Highway 4 (Business) in Center Rutland, 0.3 mi upstream of Clarendon River, 1.2 mi downstream from East Creek, and 2.1 mi west of US 7N and 4E intersection in Rutland.

DRAINAGE AREA.--307 mi².

PERIOD OF RECORD.--Discharge records: May 1928 to current year.

REVISED RECORDS.--WSP 1084: 1929.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 474.80 ft above National Geodetic Vertical Datum of 1929; prior to October 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 power plants 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.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1745	4,080	8.33	Apr 2	1900	3,770	7.98
Dec 25	2230	*4,400	*8.68	May 24	1215	4,370	8.65

Minimum daily discharge, e 137 ft³/s, Jan. 16.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	649	1,410	1,140	1,060	e236	252	1,990	478	862	198	747	363
2	529	1,130	985	954	e290	283	3,280	453	983	183	436	269
3	439	1,310	e740	954	e270	569	2,840	515	844	169	351	240
4	379	1,340	e680	1,180	e272	642	1,890	755	797	146	298	184
5	577	1,140	e620	1,180	304	597	1,450	737	630	146	252	151
6	495	1,100	e600	1,020	340	917	1,120	629	524	251	211	152
7	416	980	e580	835	311	1,280	1,020	540	488	243	195	150
8	372	855	e600	e440	287	968	909	461	453	370	207	216
9	341	756	e610	e250	321	714	853	435	525	424	209	502
10	325	717	e625	e240	338	618	804	413	922	363	203	736
11	262	687	905	e270	336	587	754	577	718	247	281	423
12	225	695	1,780	e440	323	617	743	509	520	222	445	288
13	264	913	1,480	e380	329	513	824	442	387	203	792	272
14	273	927	783	e197	290	412	1,350	507	371	178	650	250
15	503	694	774	e165	e250	454	1,280	497	367	182	442	235
16	945	563	806	e137	e240	427	991	877	328	204	379	224
17	630	579	984	e190	e260	393	840	655	294	190	525	225
18	439	584	1,690	e370	e270	389	889	657	287	192	445	856
19	363	605	1,600	e390	e270	376	1,030	1,100	291	242	360	1,100
20	373	1,960	1,530	e340	280	328	1,070	790	257	309	349	619
21	394	1,970	859	e290	262	364	874	590	236	291	641	465
22	431	1,410	1,010	e263	245	391	727	587	235	230	718	398
23	415	1,070	988	e230	e240	347	677	1,300	323	302	477	346
24	395	947	1,510	e180	e230	381	710	3,230	265	1,120	393	306
25	323	889	3,970	e165	e220	407	608	3,550	224	623	343	243
26	326	817	3,670	e157	e227	656	750	2,810	204	394	313	212
27	1,120	672	2,030	e175	e230	1,900	859	1,860	183	380	284	205
28	2,210	642	1,350	e225	225	1,950	707	1,430	186	778	216	196
29	2,800	1,660	1,240	e330	230	1,720	613	1,330	259	651	197	246
30	3,490	1,590	1,170	e290	---	1,460	548	1,020	235	482	265	242
31	2,370	---	1,170	e255	---	1,430	---	856	---	379	405	---
TOTAL	23,073	30,612	38,479	13,552	7,926	22,342	33,000	30,590	13,198	10,292	12,029	10,314
MEAN	744	1,020	1,241	437	273	721	1,100	987	440	332	388	344
MAX	3,490	1,970	3,970	1,180	340	1,950	3,280	3,550	983	1,120	792	1,100
MIN	225	563	580	137	220	252	548	413	183	146	195	150
CFSM	2.42	3.32	4.04	1.42	0.89	2.35	3.58	3.21	1.43	1.08	1.26	1.12
IN.	2.80	3.71	4.66	1.64	0.96	2.71	4.00	3.71	1.60	1.25	1.46	1.25

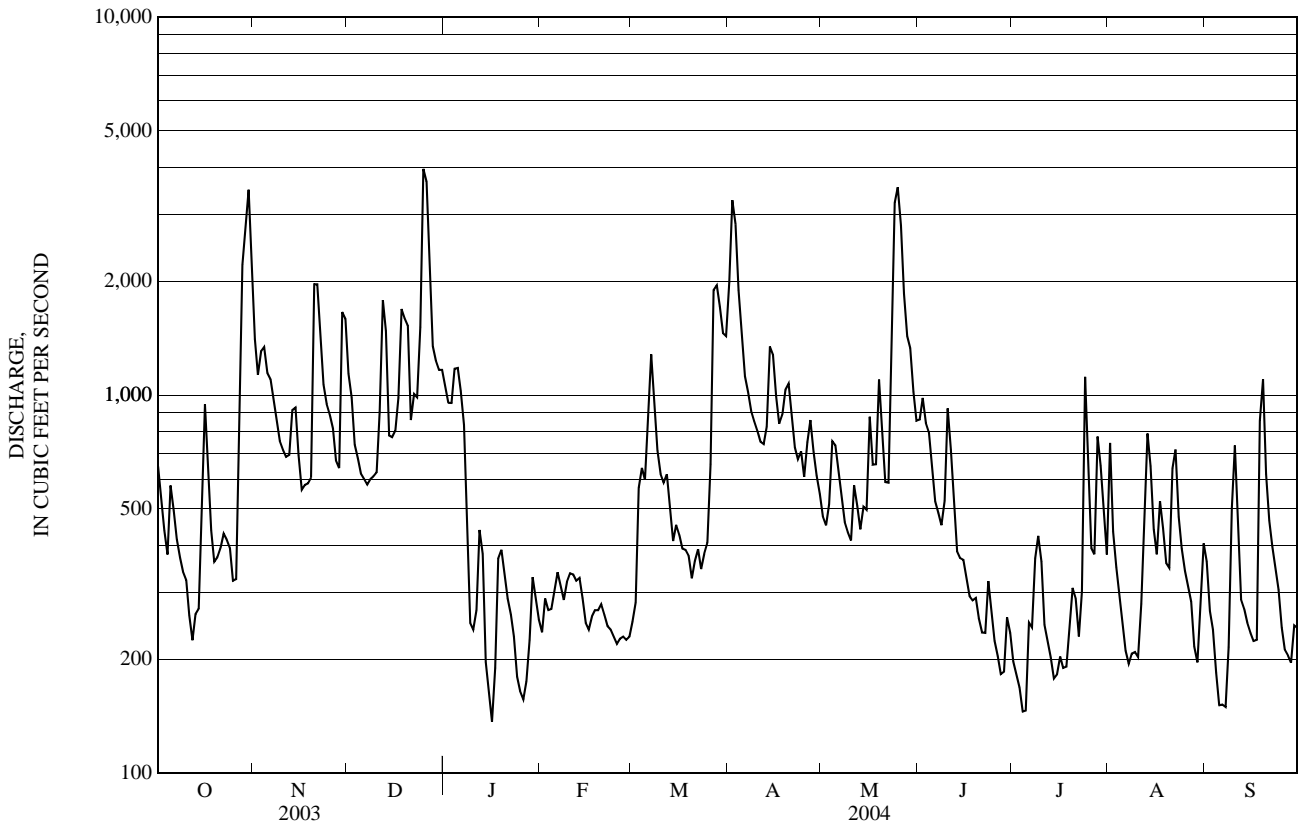
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

MEAN	352	506	516	474	457	822	1,463	827	440	285	245	255
MAX	1,227	1,025	1,291	1,094	1,564	2,376	3,078	2,120	1,565	1,047	1,591	1,385
(WY)	(1988)	(1960)	(1984)	(1949)	(1981)	(1936)	(1969)	(1940)	(1947)	(1976)	(1976)	(1938)
MIN	86.5	141	126	100	110	231	445	271	130	78.2	65.5	78.4
(WY)	(1965)	(1965)	(1948)	(1948)	(1980)	(1965)	(1995)	(1941)	(1965)	(1965)	(1999)	(1964)

04282000 OTTER CREEK AT CENTER RUTLAND, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	240,881		245,407		552	
ANNUAL MEAN	660		671		1,049	
HIGHEST ANNUAL MEAN					1976	
LOWEST ANNUAL MEAN					239	
HIGHEST DAILY MEAN	3,970	Dec 25	3,970	Dec 25	10,100	Sep 22, 1938
LOWEST DAILY MEAN	97	Jul 6	e 137	Jan 16	38	Aug 3, 1999
ANNUAL SEVEN-DAY MINIMUM	110	Jul 4	190	Jun 30	48	Aug 1, 1999
MAXIMUM PEAK FLOW			4,400		13,700	
MAXIMUM PEAK STAGE			8.68		a 12.45	
ANNUAL RUNOFF (CFSM)	2.15		2.18		1.80	
ANNUAL RUNOFF (INCHES)	29.19		29.74		24.45	
10 PERCENT EXCEEDS	1,470		1,340		1,200	
50 PERCENT EXCEEDS	439		458		340	
90 PERCENT EXCEEDS	159		216		133	

a At datum then in use.
e Estimated.



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 State Highway 125 bridge in Middlebury, 0.1 mi southwest of US 7 and State Highway 125 intersection, and 3.6 mi downstream from Middlebury River.

DRAINAGE AREA.--628 mi².

PERIOD OF RECORD.--Discharge records: April 1903 to April 1907, October 1910 to January 1920, October 1928 to current year.

REVISED RECORDS.--WSP 434: 1903-04. 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 National Geodetic Vertical Datum of 1929. Nonrecording gage at site 1,800 ft upstream at datum 10 ft lower, April 1, 1903 to April 30, 1907 and October 5, 1910 to January 31, 1920; nonrecording gage at present site and datum, October 1, 1928 to October 17, 1933.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation by Chittenden Reservoir, usable capacity, 819 million ft³ on East Creek.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 13,600 ft³/s, November 4, 1927, gage height, 13.3 ft, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,800 ft³/s, Dec. 31, gage height, 5.36 ft; minimum daily discharge, 329 ft³/s, July 5.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,680	3,160	2,490	3,700	e620	476	2,540	987	2,720	457	793	1,470
2	1,460	3,350	2,500	3,500	e570	552	2,630	871	2,680	449	992	1,300
3	1,120	3,560	2,460	3,330	e600	838	2,610	820	2,560	418	834	1,080
4	884	3,650	2,380	3,220	e620	1,040	2,640	960	2,390	361	694	912
5	1,020	3,590	2,180	3,000	e640	1,220	2,710	1,150	2,190	329	576	719
6	1,050	3,530	e2,100	2,820	e660	1,530	2,800	1,180	1,950	415	488	563
7	947	3,420	e1,980	e2,450	e700	1,600	2,940	1,070	1,660	508	419	511
8	796	3,270	e1,900	e2,300	e660	1,630	2,880	925	1,360	591	389	535
9	714	3,080	e1,900	e2,200	e620	1,660	2,780	796	1,120	784	391	815
10	669	2,900	e1,930	e2,060	e660	1,670	2,620	736	1,330	759	383	1,220
11	577	2,690	1,640	e1,900	e660	1,710	2,430	749	1,370	628	402	1,290
12	503	2,480	2,230	e1,870	e665	1,790	2,220	833	1,220	478	535	1,030
13	435	2,370	2,810	e2,020	e690	1,570	2,040	807	946	400	1,630	759
14	468	2,250	e3,000	e1,900	e680	1,220	2,140	763	720	392	2,060	659
15	548	2,100	e2,850	e1,720	e620	960	2,020	841	666	380	1,910	580
16	1,030	1,900	e2,900	e1,600	e550	886	1,960	909	646	392	1,780	557
17	1,340	1,670	e2,600	e1,470	e580	812	1,910	1,090	582	428	1,650	523
18	1,200	1,500	e2,300	e1,380	e575	769	1,820	975	540	376	1,480	731
19	888	1,400	e2,280	e1,250	e595	735	1,730	990	518	409	1,260	1,350
20	713	2,500	e2,200	e1,150	e600	696	1,700	1,210	519	550	1,060	1,480
21	809	2,560	e2,350	e1,100	e580	656	1,630	1,140	474	579	1,270	1,320
22	984	2,570	e2,300	e1,000	565	683	1,540	962	435	540	1,710	1,060
23	928	2,630	e2,300	e980	533	689	1,410	1,200	483	498	1,660	826
24	887	2,670	e2,480	e890	552	687	1,260	1,970	529	833	1,490	754
25	807	2,680	3,410	e820	e530	791	1,140	2,260	483	1,180	1,270	633
26	691	2,640	3,240	e740	e540	1,200	1,100	2,280	432	993	1,050	540
27	1,360	2,550	e3,100	e745	e520	2,130	1,230	2,370	411	734	857	485
28	2,750	2,420	e3,300	e690	542	2,200	1,270	2,510	374	770	721	476
29	2,990	2,640	e3,400	e730	480	2,260	1,210	2,630	402	1,050	759	436
30	3,210	2,520	3,700	e740	---	2,330	1,080	2,700	495	1,020	1,950	484
31	3,100	---	3,740	e670	---	2,390	---	2,730	---	819	1,640	---
TOTAL	36,558	80,250	79,950	53,945	17,407	39,380	59,990	41,414	32,205	18,520	34,103	25,098
MEAN	1,179	2,675	2,579	1,740	600	1,270	2,000	1,336	1,074	597	1,100	837
MAX	3,210	3,650	3,740	3,700	700	2,390	2,940	2,730	2,720	1,180	2,060	1,480
MIN	435	1,400	1,640	670	480	476	1,080	736	374	329	383	436
CFSM	1.88	4.26	4.11	2.77	0.96	2.02	3.18	2.13	1.71	0.95	1.75	1.33
IN.	2.17	4.75	4.74	3.20	1.03	2.33	3.55	2.45	1.91	1.10	2.02	1.49

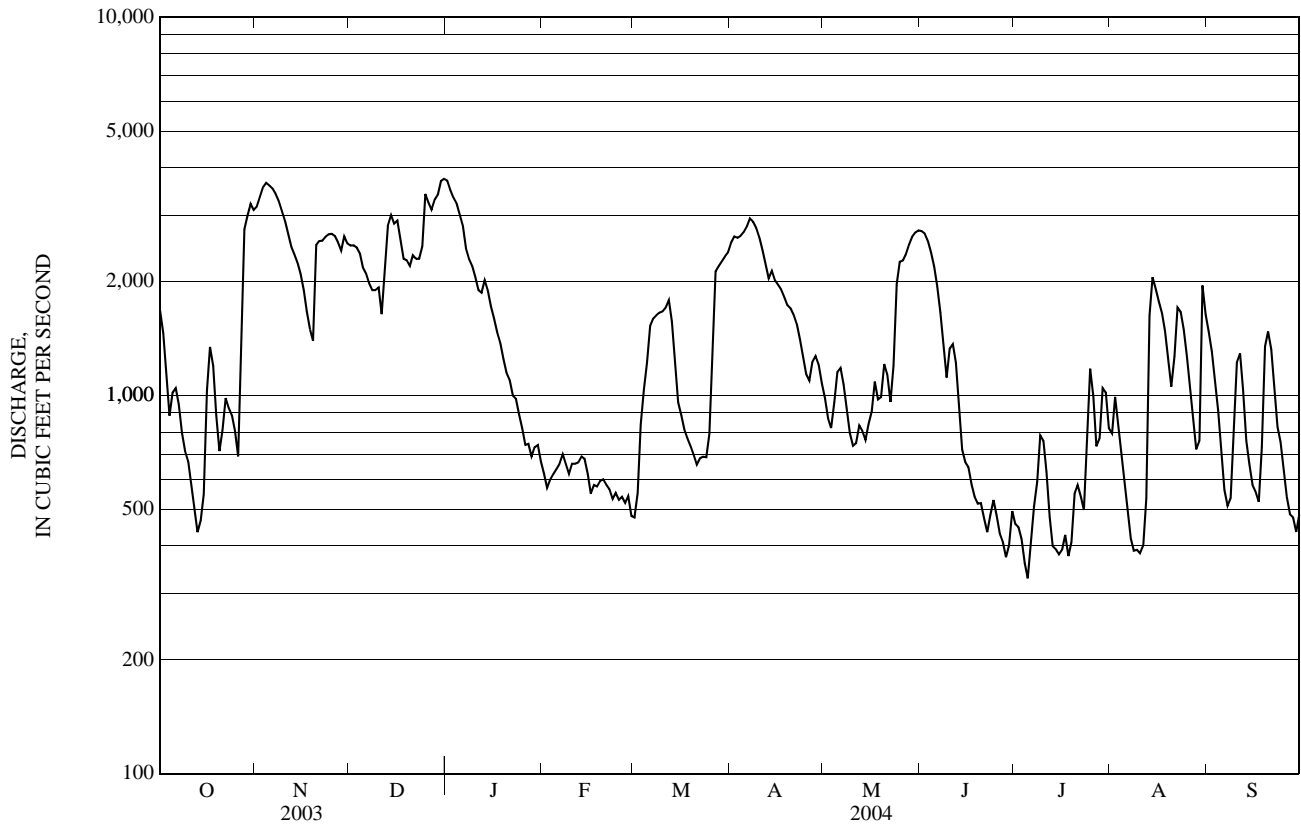
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2004, BY WATER YEAR (WY)

MEAN	636	880	931	885	852	1,513	2,557	1,530	830	545	470	479
MAX	2,021	2,675	2,610	2,509	2,414	4,538	4,500	3,717	3,025	1,833	2,624	2,411
(WY)	(1988)	(2004)	(1984)	(1949)	(1981)	(1936)	(1960)	(1996)	(1947)	(1996)	(1976)	(1938)
MIN	166	241	246	205	229	384	885	370	208	126	129	168
(WY)	(2002)	(2002)	(1948)	(1948)	(1980)	(1940)	(1995)	(1903)	(1965)	(1965)	(1965)	(1982)

04282500 OTTER CREEK AT MIDDLEBURY, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1903 - 2004	
ANNUAL TOTAL	502,521		518,820		1,008	
ANNUAL MEAN	1,377		1,418		1,878	
HIGHEST ANNUAL MEAN					397	1976
LOWEST ANNUAL MEAN					11,000	1965
HIGHEST DAILY MEAN	4,010	Apr 3	3,740	Dec 31	86	Mar 21, 1936
LOWEST DAILY MEAN	244	Jul 7	329	Jul 5	102	Sep 9, 2002
ANNUAL SEVEN-DAY MINIMUM	263	Jul 5	397	Jul 13	11,000	Sep 3, 2002
MAXIMUM PEAK FLOW			3,800	Dec 31	11,000	Mar 20, 1936
MAXIMUM PEAK STAGE			a 6.66	Jan 15	10.30	Mar 20, 1936
INSTANTANEOUS LOW FLOW			320	Jul 5	86	Sep 9, 2002
ANNUAL RUNOFF (CFSM)	2.19		2.26		1.60	
ANNUAL RUNOFF (INCHES)	29.77		30.73		21.80	
10 PERCENT EXCEEDS	2,900		2,720		2,330	
50 PERCENT EXCEEDS	921		1,100		638	
90 PERCENT EXCEEDS	360		493		256	

a Ice affected.
e Estimated.



04282525 NEW HAVEN RIVER AT BROOKSVILLE NEAR MIDDLEBURY, VT

LOCATION.--Lat 44°03'42", long 73°10'16", Rutland County, Hydrologic Unit 02010002, on left bank, at downstream side of Dog Team Road bridge, 0.2 mi south of Brooksville, 0.6 mi upstream from mouth, 1.5 mi downstream of Muddy Branch, 3.3 mi north of US 7 and State Highway 125 intersection in Middlebury.

DRAINAGE AREA.-- 115 mi².

PERIOD OF RECORD.--Discharge records: March 1990 to current year.

REVISED RECORDS.--WDR NH-VT-97-1: 1991(P), 1992(P), 1993(P), 1994(P), 1995(P), 1996(P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 235 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0045	3,330	7.93	Mar 27	0745	3,430	8.00
Oct 29	1730	4,710	8.77	May 24	0830	2,850	7.59
Nov 20	1115	3,870	8.28	May 25	0115	1,580	6.43
Dec 12	0045	2,000	6.87	Aug 14	0200	1,750	6.62
Dec 25	0230	*5,140	*9.00	Aug 21	1645	1,950	6.83
				Aug 29	0000	4,300	8.54
				Aug 30	0130	2,640	7.43

Minimum discharge, 52 ft³/s, Jul. 14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	351	311	362	e110	e100	771	172	261	68	152	374
2	85	301	253	307	e104	e132	736	191	384	95	214	274
3	91	344	227	377	e106	e221	509	195	331	76	98	243
4	82	446	196	570	e109	e202	420	260	282	60	215	198
5	196	331	e180	384	e105	e250	392	235	217	58	113	166
6	123	277	e175	e265	e100	e595	324	217	184	78	86	149
7	94	230	e173	e215	e109	443	301	178	168	67	86	133
8	81	198	e171	e180	e99	267	285	171	152	118	85	130
9	72	168	e169	e160	e109	207	261	147	164	146	75	e740
10	67	156	e180	e185	e113	180	249	137	297	102	65	e410
11	74	152	685	e210	e108	178	222	141	171	91	63	237
12	63	157	1,030	e223	e102	190	195	127	142	71	300	177
13	59	302	378	e208	e103	160	265	152	129	61	891	149
14	62	152	e280	e200	e97	142	909	198	116	55	860	131
15	160	180	e270	e190	e86	140	463	142	120	90	280	119
16	238	153	e260	e185	e77	127	328	221	107	95	294	115
17	127	150	291	e192	e78	119	280	148	95	107	375	105
18	100	159	607	e187	e80	117	324	124	89	88	194	322
19	89	180	e345	e172	e78	115	409	136	160	92	145	227
20	82	2,080	e288	e178	e80	108	451	111	112	106	141	152
21	412	725	e260	e155	e81	118	282	116	88	89	799	128
22	312	438	e256	e150	e84	111	281	229	92	67	498	115
23	189	336	e250	e150	e79	101	274	688	111	118	238	104
24	164	293	1,120	e132	e81	115	252	1,650	84	269	188	95
25	136	293	2,940	e125	e76	150	216	1,030	75	122	150	88
26	126	246	858	e118	e72	513	260	516	77	95	129	86
27	1,160	233	e470	e116	e75	1,940	247	379	82	86	113	82
28	1,490	235	e400	e120	e77	755	204	430	71	128	563	78
29	2,100	921	e360	e118	e81	606	187	408	89	108	1,300	77
30	1,130	421	468	e115	---	535	169	283	83	86	1,180	74
31	495	---	465	e112	---	521	---	233	---	96	770	---
TOTAL	9,758	10,608	14,316	6,361	2,659	9,458	10,466	9,365	4,533	2,988	10,660	5,478
MEAN	315	354	462	205	91.7	305	349	302	151	96.4	344	183
MAX	2,100	2,080	2,940	570	113	1,940	909	1,650	384	269	1,300	740
MIN	59	150	169	112	72	100	169	111	71	55	63	74
CFSM	2.74	3.07	4.02	1.78	0.80	2.65	3.03	2.63	1.31	0.84	2.99	1.59
IN.	3.16	3.43	4.63	2.06	0.86	3.06	3.39	3.03	1.47	0.97	3.45	1.77

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	171	206	207	179	131	287	445	279	154	110	119	101			
MAX	409	369	462	450	283	554	763	592	448	344	344	263			
(WY)	(1991)	(1991)	(2004)	(1998)	(2000)	(1998)	(1994)	(1996)	(1998)	(1998)	(2004)	(1998)			
MIN	37.5	73.1	92.4	68.3	46.5	110	182	126	51.0	44.7	24.6	43.3			
(WY)	(2002)	(2002)	(2002)	(2002)	(1992)	(2001)	(1995)	(1995)	(1995)	(1993)	(2002)	(2001)			

04282525 NEW HAVEN RIVER AT BROOKSVILLE NEAR MIDDLEBURY, VT—Continued

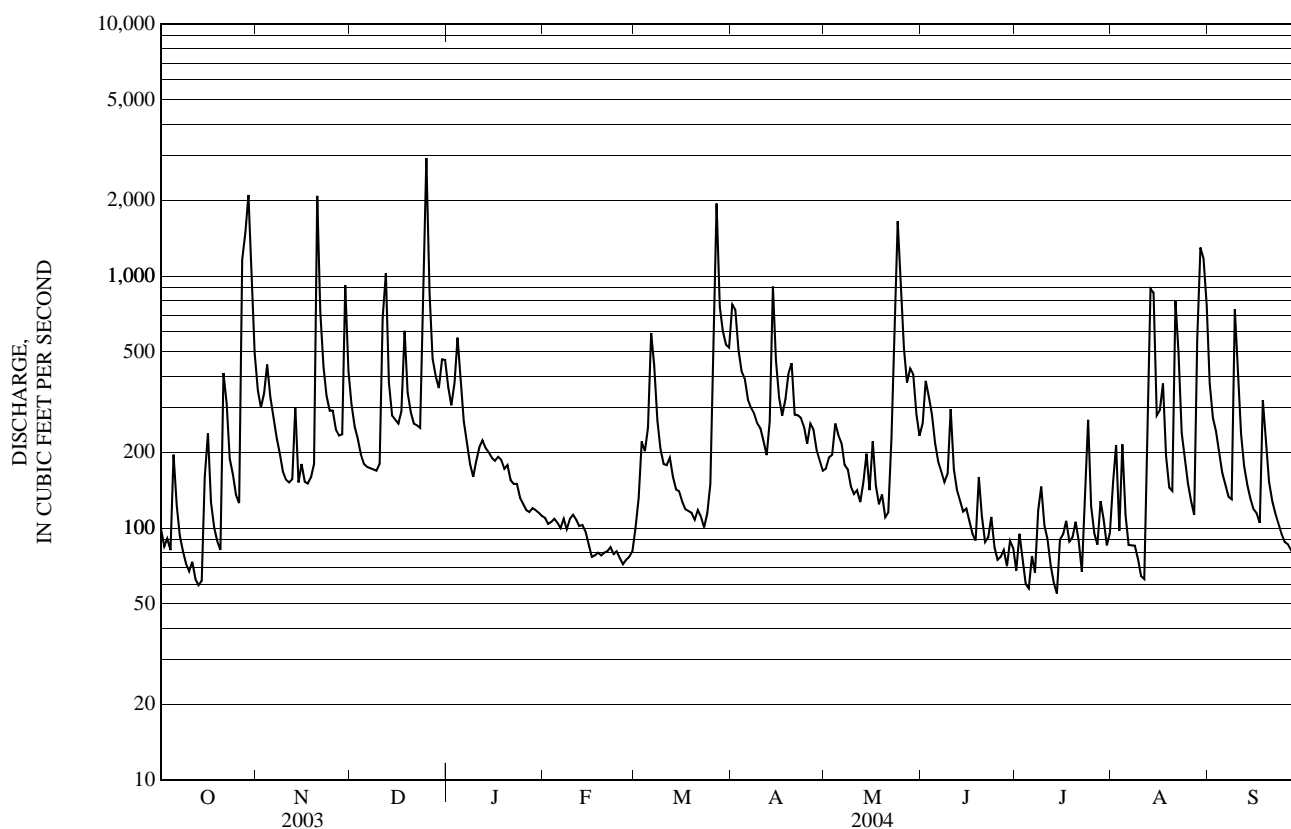
SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	85,835		96,650			
ANNUAL MEAN	235		264		197	
HIGHEST ANNUAL MEAN					292	
LOWEST ANNUAL MEAN					128	
HIGHEST DAILY MEAN	2,940	Dec 25	2,940	Dec 25	6,880	Jun 27, 1998
LOWEST DAILY MEAN	29	Sep 19	55	Jul 14	12	Sep 10, 2002
ANNUAL SEVEN-DAY MINIMUM	32	Sep 16	68	Oct 8	14	Sep 1, 1999
MAXIMUM PEAK FLOW			5,140	Dec 25	a 21,700	Jun 27, 1998
MAXIMUM PEAK STAGE			9.00	Dec 25	b 14.18	Jun 27, 1998
INSTANTANEOUS LOW FLOW			52	Jul 14	c 11	Sep 10, 2002
ANNUAL RUNOFF (CFSM)	2.04		2.30		1.71	
ANNUAL RUNOFF (INCHES)	27.77		31.26		23.23	
10 PERCENT EXCEEDS	497		510		398	
50 PERCENT EXCEEDS	126		169		120	
90 PERCENT EXCEEDS	48		81		46	

a From rating curve extended above 5,300 ft³/s.

b From floodmarks.

c Also occurred on Sept. 11, 2002.

e Estimated



04282650 LITTLE OTTER CREEK AT FERRISBURG, VT

LOCATION.--Lat 44° 11'53", long 73° 14'58", Addison County, Hydrologic Unit 02010002, on left bank, downstream side of US 7 Highway bridge, 0.5 mi south of Middle Brook Road and US 7 intersection in Ferrisburg, 2.2 mi north of Town Hall in Vergennes, 2.4 mi downstream of Mud Creek.

DRAINAGE AREA.-- 57.1 mi².

PERIOD OF RECORD.--Discharge records: March 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 145 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to October 23, 1990, nonrecording gage at same site and datum.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 30	0000	*860	4.11	Mar 6	0915	ice jam	*5.34
Nov 20	2030	697	3.83	May 24	2300	522	3.48
Dec 25	unknown	e 610	ice jam	Aug 30	1230	784	3.98
Dec 31	0515	501	3.43				

Minimum discharge, 4.3 ft³/s, July 6, gage height, 0.62 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	440	193	e158	e23	e27	117	24	40	8.4	11	334
2	42	234	e125	e140	e23	e35	124	24	48	6.6	9.5	201
3	26	147	e97	e120	e22	e70	122	23	44	5.8	9.0	111
4	19	123	e113	e134	e20	e145	110	29	43	5.1	17	63
5	23	101	e103	e84	e23	e260	115	31	34	4.6	18	42
6	19	87	e87	e68	e24	e420	100	27	27	4.5	17	33
7	16	72	e92	e51	e24	e330	90	24	24	6.8	12	26
8	13	59	e84	e64	e23	e260	78	20	21	17	12	22
9	11	47	e75	e55	e24	162	67	18	21	25	14	81
10	9.6	38	e66	e52	e21	142	58	17	37	20	12	200
11	8.7	33	e133	e51	e20	e130	50	17	32	14	12	151
12	8.1	32	e175	e48	e19	e110	43	16	23	9.9	11	117
13	6.7	95	e260	e47	e21	e95	48	15	19	7.8	29	71
14	6.1	100	e190	e39	e21	e73	149	31	16	6.7	63	43
15	7.0	90	e144	e48	e20	68	160	34	15	8.3	64	31
16	9.3	70	e112	e33	e19	58	130	28	13	12	88	25
17	9.0	55	e102	e31	e18	e56	90	23	11	14	54	21
18	8.3	48	e400	e29	e17	47	74	18	11	16	36	29
19	7.4	51	e220	e28	e17	42	66	31	15	15	24	38
20	6.5	496	e145	e27	e19	42	58	20	19	14	17	37
21	12	648	e136	e27	e21	42	49	17	14	13	25	28
22	24	540	e125	e27	e22	e42	43	45	11	9.8	43	22
23	20	339	e105	e26	e22	e41	39	187	14	15	49	20
24	16	185	e175	e25	e19	e39	35	409	12	35	42	17
25	14	126	e490	e24	e17	57	31	500	10	27	28	15
26	13	95	e580	e22	e16	118	36	422	9.0	20	19	14
27	130	77	e360	e21	e15	179	40	277	8.3	15	18	12
28	377	74	e285	e19	e16	175	34	148	7.9	14	18	11
29	528	225	e230	e21	e21	142	29	87	9.0	14	200	10
30	803	217	e190	e22	---	111	26	60	9.5	13	741	9.6
31	647	---	e215	e22	---	94	---	43	---	11	604	---
TOTAL	2,896.7	4,944	5,807	1,563	587	3,612	2,211	2,665	617.7	408.3	2,316.5	1,834.6
MEAN	93.4	165	187	50.4	20.2	117	73.7	86.0	20.6	13.2	74.7	61.2
MAX	803	648	580	158	24	420	160	500	48	35	741	334
MIN	6.1	32	66	19	15	27	26	15	7.9	4.5	9.0	9.6
CFSM	1.64	2.89	3.28	0.88	0.35	2.04	1.29	1.51	0.36	0.23	1.31	1.07
IN.	1.89	3.22	3.78	1.02	0.38	2.35	1.44	1.74	0.40	0.27	1.51	1.20

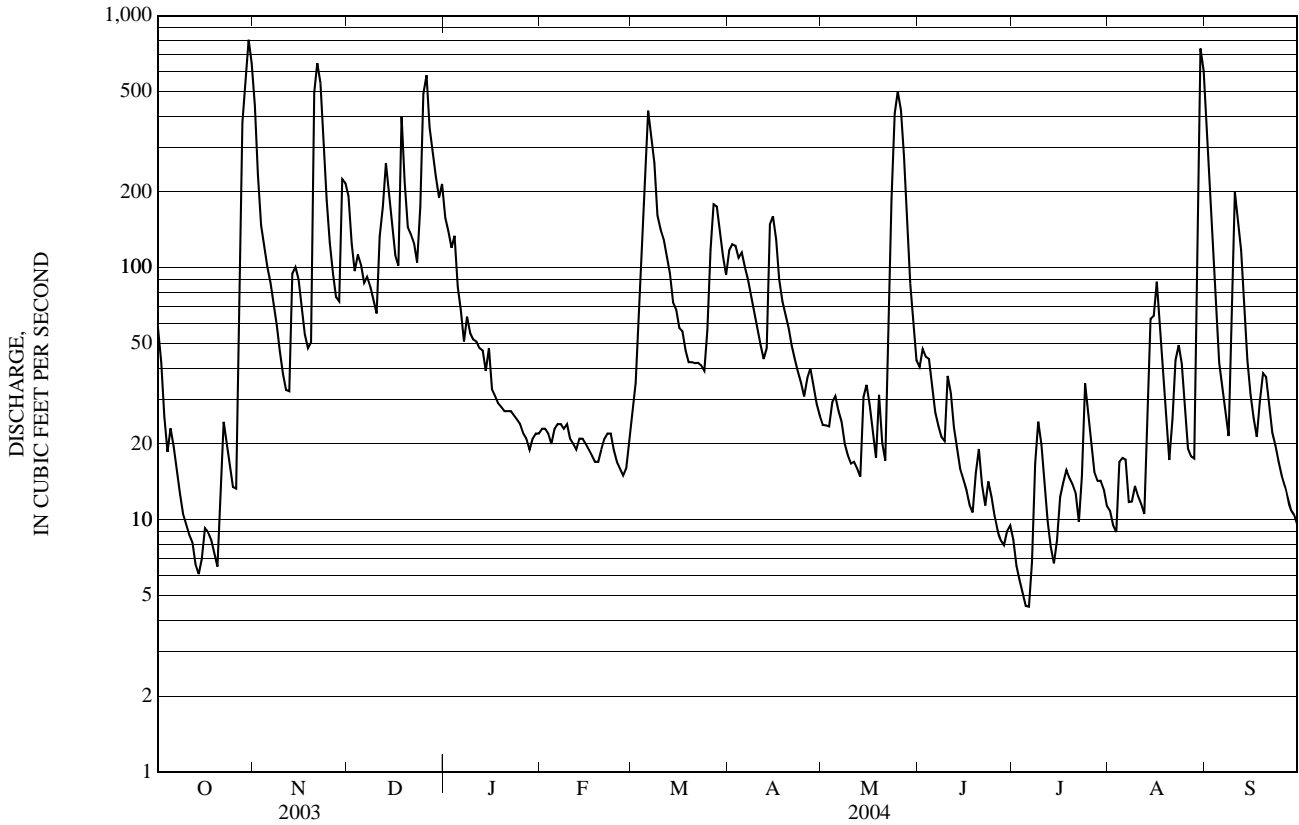
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	47.4	72.6	71.8	69.2	42.5	106	154	66.0	31.2	20.2	25.4	19.8			
MAX	178	174	226	259	153	193	377	203	127	123	107	61.2			
(WY)	(1991)	(1991)	(1997)	(1996)	(2000)	(1990)	(2001)	(1996)	(1998)	(1998)	(1990)	(2004)			
MIN	2.36	4.96	9.39	10.3	12.6	26.7	34.8	15.2	4.16	2.83	1.61	3.02			
(WY)	(2002)	(2002)	(2002)	(2002)	(2003)	(2001)	(1995)	(2001)	(1995)	(1999)	(1999)	(2001)			

04282650 LITTLE OTTER CREEK AT FERRISBURG, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	26,893.3		29,462.8		59.4	
ANNUAL MEAN	73.7		80.5		26.8	
HIGHEST ANNUAL MEAN					103	1996
LOWEST ANNUAL MEAN					26.8	2002
HIGHEST DAILY MEAN	803	Oct 30	803	Oct 30	1,620	Jan 9, 1998
LOWEST DAILY MEAN	3.4	Sep 22	4.5	Jul 6	0.64	Sep 10, 2002
ANNUAL SEVEN-DAY MINIMUM	4.1	Sep 16	6.0	Jul 1	0.77	Sep 5, 2002
MAXIMUM PEAK FLOW			860	Oct 30	2,210	Jan 20, 1996
MAXIMUM PEAK STAGE			a 5.34	Mar 6	a 5.77	Feb 27, 2000
INSTANTANEOUS LOW FLOW			4.3	Jul 6	b 0.56	Sep 9, 2002
ANNUAL RUNOFF (CFSM)	1.29		1.41		1.04	
ANNUAL RUNOFF (INCHES)	17.52		19.19		14.14	
10 PERCENT EXCEEDS	190		191		142	
50 PERCENT EXCEEDS	20		32		23	
90 PERCENT EXCEEDS	6.0		11		4.5	

a Ice jam.
 b Also occurred on September 10, 2002.
 c Estimated.



04282780 LEWIS CREEK NEAR NORTH FERRISBURG, VT

LOCATION.--Lat 44° 14'57", long 73° 13'44", Addison County, Hydrologic Unit 02010002, on right bank, 100 ft upstream of US 7 Highway bridge, 1.1 mi southwest of Four Winds Road and Hollow Road intersection in North Ferrisburg, 1.2 mi south of Mount Philo Peak, and 5.7 mi north of Town Hall in Vergennes.

DRAINAGE AREA.--77.2 mi².

PERIOD OF RECORD.--Discharge records: March 1990 to current year. Published as "at North Ferrisburg" prior to October 1996.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 105 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0745	1,110	4.31	Dec 25	0845	e 1,500	a *5.16
Oct 29	1345	*2,260	5.11	Mar 27	1545	938	4.14
Nov 20	1800	1,690	4.77	May 24	2030	1,070	4.27
				Sep 9	2300	810	4.00

Minimum discharge, 15 ft³/s, Oct. 14, 15.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	233	178	287	e40	e40	273	64	114	28	27	96
2	40	191	152	235	e39	e56	267	63	145	27	27	63
3	34	195	e142	280	e39	e90	238	72	132	25	30	50
4	32	210	e134	381	e41	e80	209	102	117	23	68	43
5	40	169	e113	262	e38	e84	234	103	94	23	42	39
6	35	144	e110	220	e39	e380	187	97	79	34	33	37
7	29	123	e108	e180	e40	e220	185	81	71	27	34	34
8	25	105	e107	e152	e36	e158	172	70	63	64	42	35
9	23	90	e104	e137	e37	e122	158	66	59	52	36	169
10	22	80	e102	e118	e38	e105	139	62	92	41	29	253
11	20	75	e152	e105	e37	e103	123	62	68	34	32	105
12	19	74	e350	e98	e36	e106	111	59	55	29	28	78
13	18	168	e175	e92	e35	e98	127	52	49	26	172	60
14	16	137	e150	e86	e34	e89	325	54	45	25	185	48
15	19	101	e155	e84	e29	e86	228	52	45	33	95	42
16	30	88	e153	e81	e28	e81	169	75	41	40	74	39
17	26	79	e215	e78	e30	e74	145	64	37	31	72	36
18	23	77	e280	e74	e31	e68	137	56	35	32	57	48
19	22	82	e202	e68	e30	e66	129	72	47	42	47	53
20	21	1,280	e165	e66	e31	e63	121	59	46	53	42	39
21	57	535	e150	e64	e32	e64	106	61	35	37	61	35
22	84	279	e125	e59	e31	e68	100	85	36	29	83	32
23	54	216	e117	e57	e30	e67	92	270	49	43	53	29
24	44	183	e166	e53	e28	e71	85	795	38	60	46	27
25	38	210	e1,120	e47	e27	e82	79	706	35	40	41	26
26	36	169	e520	e46	e28	e123	102	359	33	32	36	25
27	395	144	e390	e45	e29	688	102	254	31	30	32	22
28	790	149	e340	e44	e30	377	86	197	29	34	30	20
29	1,250	377	e320	e44	e32	282	75	179	30	33	64	19
30	1,140	221	407	e43	---	240	69	136	33	29	74	18
31	331	---	371	e41	---	220	---	111	---	27	147	---
TOTAL	4,761	6,184	7,273	3,627	975	4,451	4,573	4,538	1,783	1,083	1,839	1,620
MEAN	154	206	235	117	33.6	144	152	146	59.4	34.9	59.3	54.0
MAX	1,250	1,280	1,120	381	41	688	325	795	145	64	185	253
MIN	16	74	102	41	27	40	69	52	29	23	27	18
CFSM	1.99	2.67	3.04	1.52	0.44	1.86	1.97	1.90	0.77	0.45	0.77	0.70
IN.	2.29	2.98	3.50	1.75	0.47	2.14	2.20	2.19	0.86	0.52	0.89	0.78

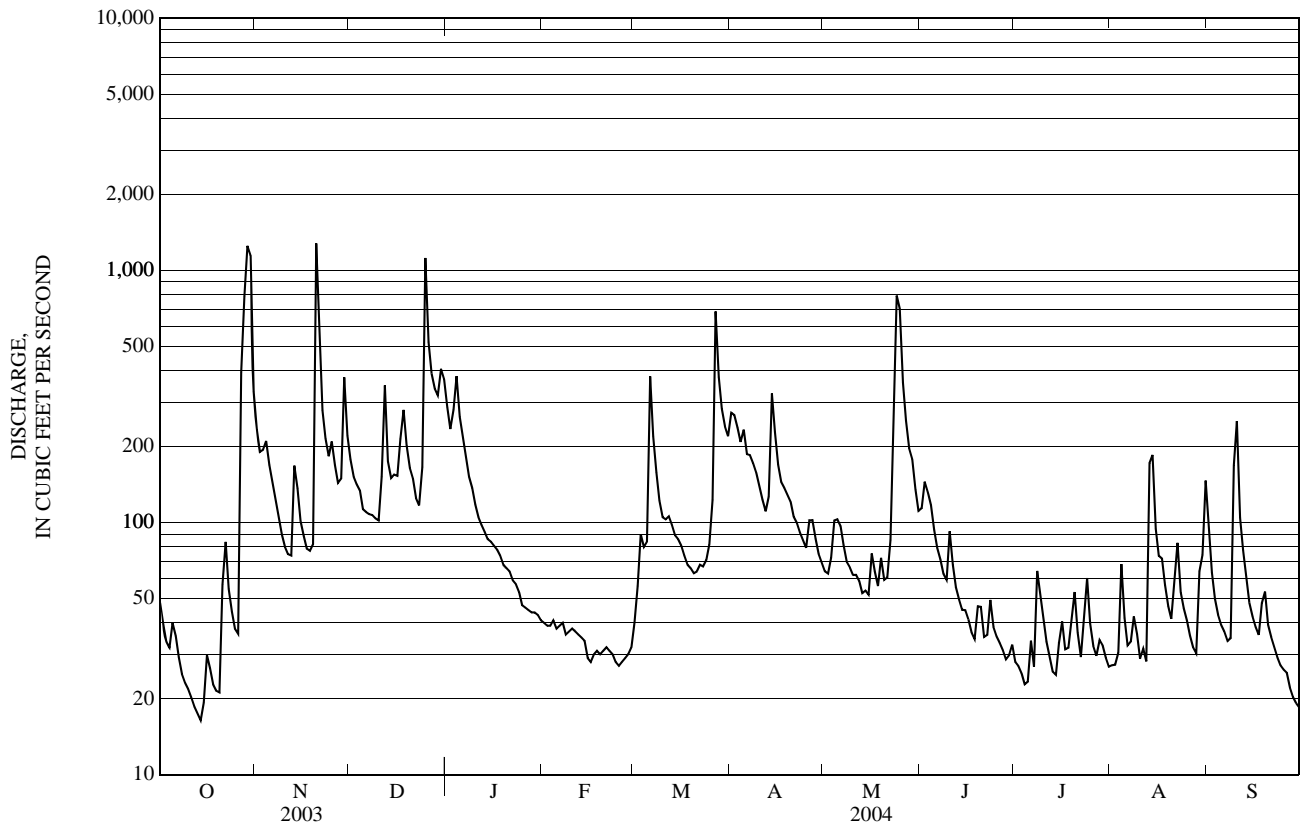
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

	79.9	105	114	102	84.3	169	243	126	62.3	42.9	39.2	36.3
MAX	247	238	300	259	251	299	485	349	151	182	139	92.0
(WY)	(1991)	(1991)	(1997)	(1996)	(2000)	(1999)	(2001)	(1996)	(1996)	(1998)	(1990)	(1998)
MIN	9.18	16.1	22.1	22.6	30.1	47.3	77.1	40.4	15.7	9.98	7.44	10.5
(WY)	(2002)	(2002)	(2002)	(2002)	(2003)	(2001)	(1995)	(2001)	(1995)	(1999)	(1999)	(2001)

04282780 LEWIS CREEK NEAR NORTH FERRISBURG, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	41,520.2		42,707			
ANNUAL MEAN	114		117		99.1	
HIGHEST ANNUAL MEAN					152	1996
LOWEST ANNUAL MEAN					54.2	1995
HIGHEST DAILY MEAN	1,280	Nov 20	1,280	Nov 20	b 2,500	Feb 28, 2000
LOWEST DAILY MEAN	9.0	Sep 22	16	Oct 14	4.2	Sep 4, 1999
ANNUAL SEVEN-DAY MINIMUM	10	Sep 16	20	Oct 9	4.5	Aug 31, 1999
MAXIMUM PEAK FLOW			2,260	Oct 29	b 3,380	Feb 28, 2000
MAXIMUM PEAK STAGE			a 5.16	Dec 25	a 6.20	Feb 22, 1997
INSTANTANEOUS LOW FLOW			d 15	Oct 14	c 4.0	Sep 3, 1999
ANNUAL RUNOFF (CFSM)	1.47		1.51		1.28	
ANNUAL RUNOFF (INCHES)	20.01		20.58		17.43	
10 PERCENT EXCEEDS	266		239		211	
50 PERCENT EXCEEDS	51		66		54	
90 PERCENT EXCEEDS	17		29		16	

- a Ice jam.
- b From rating curve extended above 550 ft³/s.
- c Also occurred on Sept. 4,5, 1999.
- d Also occurred on Oct. 15, 2003.
- e Estimated.



04282795 LAPLATTE RIVER AT SHELBURNE FALLS, VT

LOCATION.--Lat 44°22'12", long 73°13'00", Chittenden County, Hydrologic Unit 02010003, on left bank, 150 ft upstream of small right bank tributary, 300 ft upstream of Falls Road bridge, 500 ft southwest of Falls Road and Thomas Road intersection in Shelburne Falls, 0.8 mi southeast of Town Hall in Shelburne, 3.4 mi above mouth.

DRAINAGE AREA.--44.6 mi².

PERIOD OF RECORD.--Discharge records: March 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 150 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to October 23, 1990, nonrecording gage at site 100 ft downstream.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	2345	*1,020	*4.96	Sep 10	0145	614	4.04
Nov 20	1030	984	4.89				

Minimum discharge, 2.6 ft³/s, Oct. 13, 14, gage height, 1.06 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	123	115	e49	e14	e15	134	22	50	7.6	15	137
2	9.0	82	86	e45	e14	e19	140	21	70	7.7	13	53
3	6.5	82	e70	e53	e13	e50	136	30	61	6.8	12	29
4	5.6	105	e58	e82	e14	e115	119	52	55	5.7	13	21
5	9.3	85	e50	e64	e14	e64	161	45	36	5.3	12	17
6	8.2	68	e55	e53	e13	e112	117	40	26	5.0	10	14
7	6.0	54	e62	e46	e14	e123	128	30	22	5.4	11	11
8	5.0	41	e70	e41	e14	e81	99	24	19	17	16	13
9	4.3	32	e53	e37	e14	e62	80	22	18	14	14	190
10	3.9	27	e44	e33	e14	e52	67	20	50	9.0	11	462
11	3.6	26	e67	e29	e14	e44	57	21	25	6.9	13	158
12	3.4	27	e130	e27	e13	e45	49	e20	17	5.9	11	68
13	3.0	116	e83	e24	e13	e39	59	e19	14	5.0	27	41
14	2.9	113	e62	e23	e13	e36	246	e17	11	4.4	60	28
15	4.2	61	e48	e22	e13	e32	158	e16	12	7.0	29	21
16	7.8	46	e55	e20	e12	e30	90	e25	12	12	27	17
17	6.2	35	e70	e19	e13	e29	69	e20	9.4	9.1	23	14
18	5.4	33	e99	e19	e13	e28	64	e18	9.1	8.2	17	17
19	4.5	36	e88	e19	e13	e27	61	15	12	17	13	17
20	4.1	709	e77	e18	e12	e28	52	13	13	35	11	13
21	32	439	e72	e18	e12	e28	42	17	9.4	33	23	11
22	53	182	e62	e18	e13	e30	39	19	9.2	18	40	10
23	23	110	e56	e18	e15	e32	36	104	13	44	22	9.5
24	16	83	e96	e17	e14	e35	33	370	10	109	15	8.6
25	12	116	e420	e16	e13	79	29	420	9.2	46	12	7.8
26	10	99	e180	e16	e14	169	45	210	9.8	26	10	7.4
27	157	73	e100	e18	e13	260	47	111	8.5	20	9.1	7.1
28	412	77	e84	e17	e13	193	35	90	8.2	19	8.1	6.5
29	627	347	e70	e16	e13	120	27	114	6.9	17	17	6.1
30	689	200	e62	e15	---	94	24	59	7.8	15	80	5.8
31	253	---	e76	e15	---	82	---	40	---	13	406	---
TOTAL	2,398.9	3,627	2,720	907	387	2,153	2,443	2,044	633.5	554.0	1,000.2	1,420.8
MEAN	77.4	121	87.7	29.3	13.3	69.5	81.4	65.9	21.1	17.9	32.3	47.4
MAX	689	709	420	82	15	260	246	420	70	109	406	462
MIN	2.9	26	44	15	12	15	24	13	6.9	4.4	8.1	5.8
CFSM	1.74	2.71	1.97	0.66	0.30	1.56	1.83	1.48	0.47	0.40	0.72	1.06
IN.	2.00	3.03	2.27	0.76	0.32	1.80	2.04	1.70	0.53	0.46	0.83	1.19

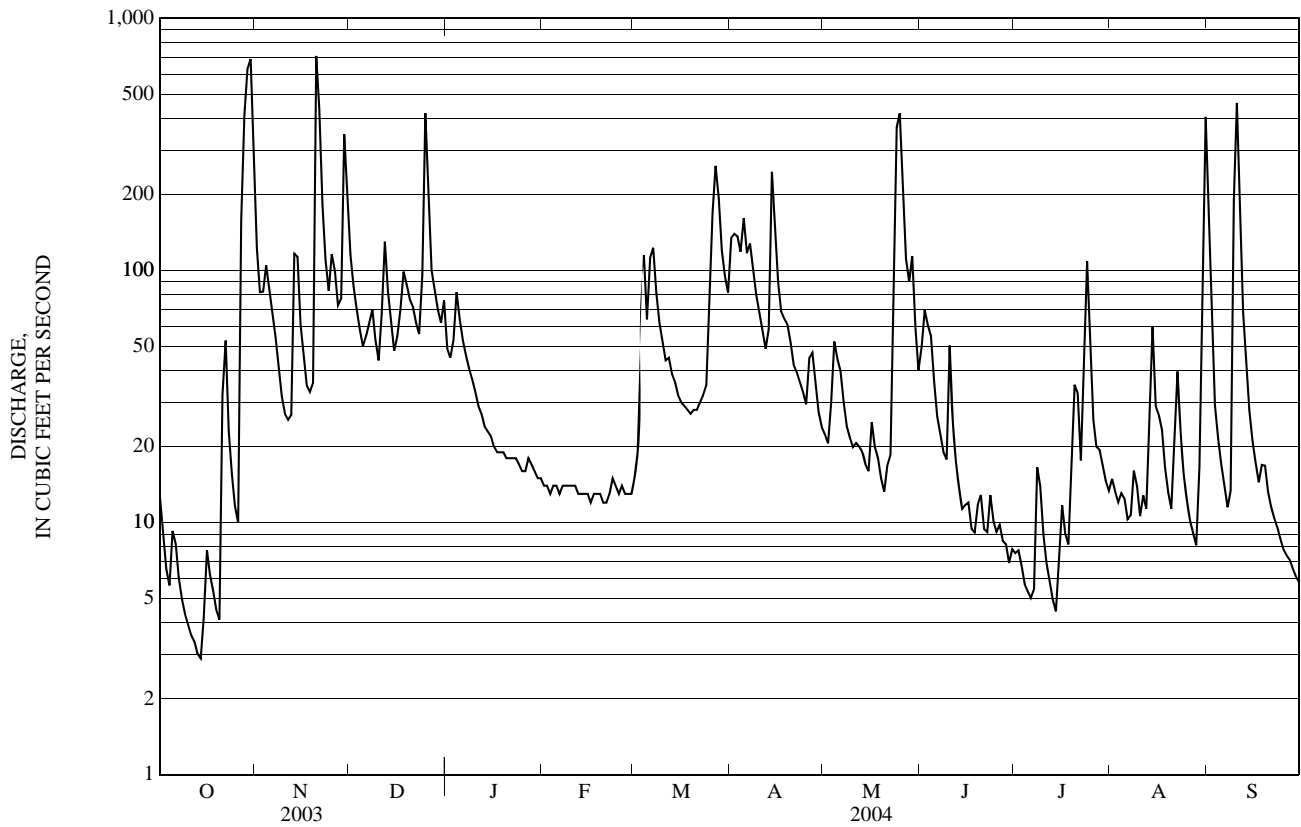
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	35.2	55.7	47.9	43.8	31.1	74.6	124	58.7	25.9	21.4	19.4	15.5			
MAX	113	135	150	159	106	125	295	181	79.4	146	99.7	60.4			
(WY)	(1991)	(1991)	(1997)	(1996)	(2000)	(2003)	(2001)	(1996)	(1996)	(1998)	(1990)	(1998)			
MIN	2.69	4.03	5.05	6.17	8.61	26.7	28.8	15.0	4.86	1.69	1.58	2.62			
(WY)	(2002)	(2002)	(2002)	(2002)	(1993)	(2001)	(1995)	(1998)	(1999)	(1995)	(2001)	(1995)			

04282795 LAPLATTE RIVER AT SHELBURNE FALLS, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	21,127.0		20,288.4		45.5	
ANNUAL MEAN	57.9		55.4		21.8	
HIGHEST ANNUAL MEAN					70.7	1996
LOWEST ANNUAL MEAN					21.8	1995
HIGHEST DAILY MEAN	723	Mar 21	709	Nov 20	1,410	Dec 2, 1996
LOWEST DAILY MEAN	1.1	Sep 14	2.9	Oct 14	0.23	Sep 4, 1995
ANNUAL SEVEN-DAY MINIMUM	1.6	Sep 12	3.6	Oct 9	0.33	Aug 31, 1995
MAXIMUM PEAK FLOW			a 1,020	Oct 29	a 2,640	Jan 19, 1996
MAXIMUM PEAK STAGE			4.96	Oct 29	b 9.50	Feb 20, 1994
INSTANTANEOUS LOW FLOW			c 2.6	Oct 13	d 0.18	Sep 3, 1995
ANNUAL RUNOFF (CFSM)	1.30		1.24		1.02	
ANNUAL RUNOFF (INCHES)	17.62		16.92		13.86	
10 PERCENT EXCEEDS	128		116		106	
50 PERCENT EXCEEDS	18		24		18	
90 PERCENT EXCEEDS	3.5		8.0		3.5	

- a From rating curve extended above 750 ft³/s.
- b Ice jam.
- c Also occurred on Oct. 14.
- d Also occurred on Sept. 4, 1995.
- e Estimated.



04282813 POTASH BROOK AT QUEEN CITY PARK ROAD, NEAR BURLINGTON, VT

LOCATION.--Lat 44° 26'45", long 73° 12'50", Chittenden County, Hydrologic Unit 02010003, on right bank, 100 ft downstream from Queen City Park Road, 0.1 mi southeast of Pine Street and Queen City Park Road intersection, 0.2 mi northwest of Shelburne Road (US 7) and Queen City Park Road intersection, 0.9 mi upstream from mouth at Lake Champlain, 2.1 mi south of Church Street and Main Street (US 2) intersection in Burlington.

DRAINAGE AREA.-- 7.18 mi². Drainage area affected by stormwater diversions.

PERIOD OF RECORD.--Discharge records: July 29, 2004 to September 30, 2004.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 582 ft³/s, Aug. 31, gage height, 4.86 ft; minimum discharge, 0.99 ft³/s, Aug. 28, gage height, 2.03 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

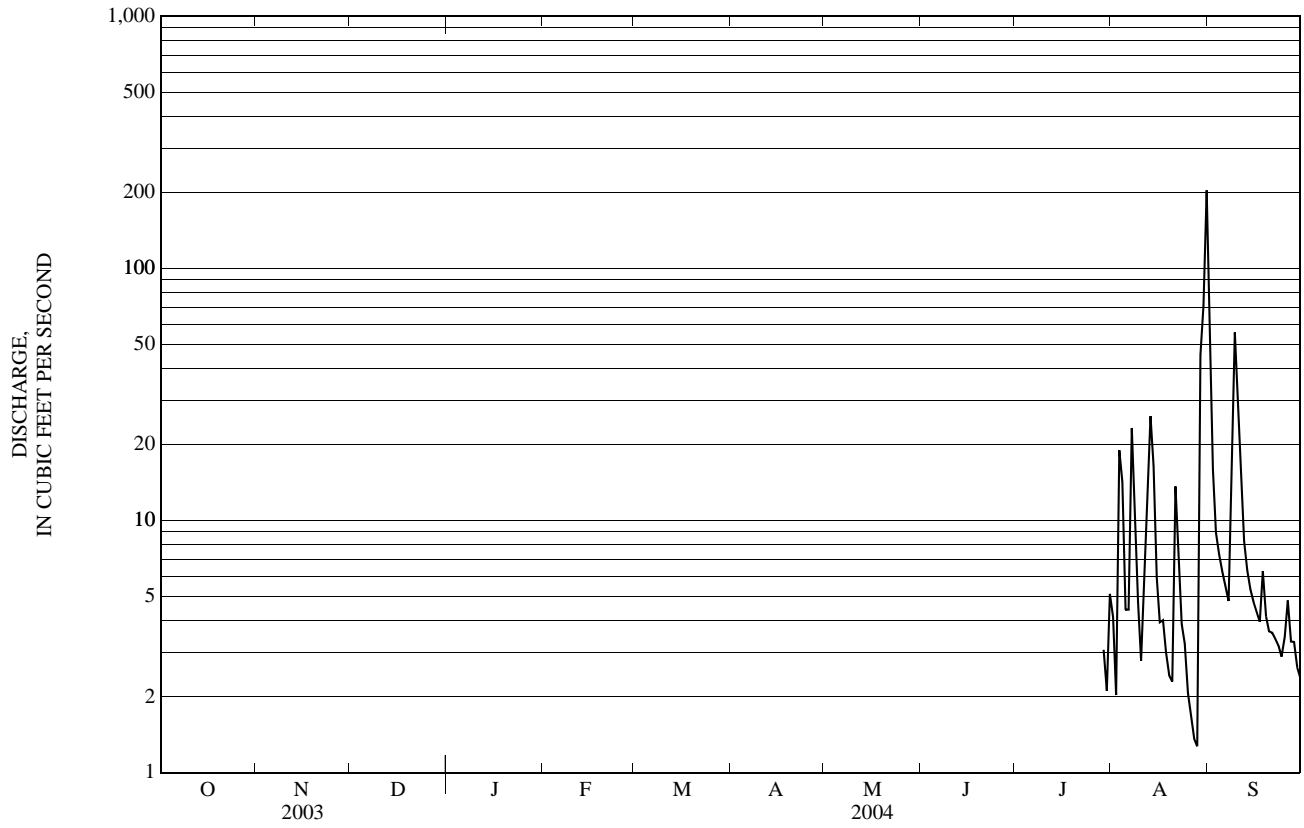
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	4.1	e65
2	---	---	---	---	---	---	---	---	---	---	2.0	e16
3	---	---	---	---	---	---	---	---	---	---	19	9.0
4	---	---	---	---	---	---	---	---	---	---	14	7.3
5	---	---	---	---	---	---	---	---	---	---	4.4	6.3
6	---	---	---	---	---	---	---	---	---	---	4.4	5.5
7	---	---	---	---	---	---	---	---	---	---	23	4.8
8	---	---	---	---	---	---	---	---	---	---	11	15
9	---	---	---	---	---	---	---	---	---	---	4.8	56
10	---	---	---	---	---	---	---	---	---	---	2.8	32
11	---	---	---	---	---	---	---	---	---	---	5.2	17
12	---	---	---	---	---	---	---	---	---	---	11	8.3
13	---	---	---	---	---	---	---	---	---	---	26	6.3
14	---	---	---	---	---	---	---	---	---	---	17	5.3
15	---	---	---	---	---	---	---	---	---	---	6.0	4.8
16	---	---	---	---	---	---	---	---	---	---	4.0	4.4
17	---	---	---	---	---	---	---	---	---	---	4.0	4.0
18	---	---	---	---	---	---	---	---	---	---	3.0	6.3
19	---	---	---	---	---	---	---	---	---	---	2.4	4.2
20	---	---	---	---	---	---	---	---	---	---	2.3	3.6
21	---	---	---	---	---	---	---	---	---	---	14	3.6
22	---	---	---	---	---	---	---	---	---	---	7.3	3.4
23	---	---	---	---	---	---	---	---	---	---	3.9	3.2
24	---	---	---	---	---	---	---	---	---	---	3.2	2.9
25	---	---	---	---	---	---	---	---	---	---	2.1	3.5
26	---	---	---	---	---	---	---	---	---	---	1.7	4.8
27	---	---	---	---	---	---	---	---	---	---	1.4	3.3
28	---	---	---	---	---	---	---	---	---	---	1.3	3.3
29	---	---	---	---	---	---	---	---	---	3.1	45	2.6
30	---	---	---	---	---	---	---	---	---	2.1	71	2.4
31	---	---	---	---	---	---	---	---	---	5.1	e204	---
TOTAL	---	---	---	---	---	---	---	---	---	---	525.3	314.1
MEAN	---	---	---	---	---	---	---	---	---	---	16.9	10.5
MAX	---	---	---	---	---	---	---	---	---	---	204	65
MIN	---	---	---	---	---	---	---	---	---	---	1.3	2.4
CFSM	---	---	---	---	---	---	---	---	---	---	2.36	1.46
IN.	---	---	---	---	---	---	---	---	---	---	2.72	1.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2004, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	---	---	16.9	10.5
MAX	---	---	---	---	---	---	---	---	---	---	16.9	10.5
(WY)	---	---	---	---	---	---	---	---	---	---	(2004)	(2004)
MIN	---	---	---	---	---	---	---	---	---	---	16.9	10.5
(WY)	---	---	---	---	---	---	---	---	---	---	(2004)	(2004)

e Estimated.

04282813 POTASH BROOK AT QUEEN CITY PARK ROAD, NEAR BURLINGTON, VT—Continued



04282815 ENGLSBY BROOK AT BURLINGTON, VT

LOCATION.--Lat 44° 27'28", long 73° 13'11", Chittenden County, Hydrologic Unit 02010003, on right bank, 125 ft downstream from Vermont Railroad culvert, 0.25 mi upstream from mouth, 0.35 mi downstream from Pine Street culvert, 0.8 mi northwest from junction of US 7 and Interstate 189, 1.3 mi south of City Hall in Burlington.

DRAINAGE AREA.-- About 0.9 mi². Drainage area affected by stormwater diversions.

PERIOD OF RECORD.--Discharge records: October 1999 to current year. Water-quality records: October 1999 to September 2001.

GAGE.--Concrete control with v-notch weir, water-stage recorder, and crest-stage gage. Elevation of gage is 105 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 206 ft³/s, Aug. 31, 2004, gage-height 5.18 ft; no flow for many days in water years 2000-2003.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 46 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jul 1	1600	86	4.11	Aug 7	1635	97	4.25
Jul 23	1650	109	4.38	Aug 29	0100	66	3.85
Aug 3	1155	68	3.88	Aug 31	0050	*206	*5.18

Minimum discharge, no flow on Oct. 8, 9, 12-14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	0.66	1.2	1.4	e0.01	e0.02	1.5	0.11	2.6	4.4	0.05	2.0
2	0.02	0.67	0.82	1.0	e0.01	e1.5	1.4	0.11	2.7	0.77	0.03	0.15
3	0.02	0.73	0.40	2.3	e0.02	e1.0	1.4	1.1	1.4	0.21	3.9	0.08
4	0.12	0.94	0.29	2.6	e0.01	e0.31	1.8	0.54	0.64	0.08	1.1	0.09
5	0.06	0.53	0.24	1.5	e0.01	e1.2	1.6	0.27	0.27	1.1	0.56	0.09
6	0.01	0.44	0.19	0.99	e0.01	e2.0	1.2	0.19	0.19	0.36	1.5	0.08
7	0.01	0.27	0.24	0.72	e0.01	e1.2	1.00	0.15	0.16	0.30	4.9	0.05
8	0.00	0.18	e0.25	e0.43	e0.01	0.82	0.76	0.12	0.11	1.5	1.4	2.6
9	0.00	0.14	e0.30	e0.21	e0.01	0.57	0.61	0.12	0.75	0.44	0.52	7.2
10	0.01	0.12	e0.35	e0.13	e0.01	0.51	0.51	0.13	0.29	0.08	0.21	1.2
11	0.01	0.14	4.0	e0.10	e0.01	0.46	0.44	0.20	0.11	0.03	0.36	0.33
12	0.00	0.13	3.1	e0.14	e0.01	0.45	0.41	0.09	0.10	0.02	2.7	0.02
13	0.00	1.8	e1.3	e0.13	e0.01	0.30	1.0	0.08	0.08	0.01	3.8	0.02
14	0.00	0.57	e0.80	e0.09	e0.01	0.26	2.7	0.07	0.07	0.01	1.4	0.04
15	0.55	0.38	e0.78	e0.09	e0.01	0.28	1.3	0.79	0.40	e3.0	0.64	0.02
16	0.04	0.28	e0.65	e0.07	e0.01	0.22	0.83	0.21	0.06	e1.6	0.53	0.02
17	0.02	0.23	1.5	e0.06	e0.01	0.23	0.66	0.09	0.05	e0.21	0.48	e0.04
18	0.01	0.19	1.5	e0.07	e0.01	0.19	0.56	0.74	0.18	e0.02	0.32	0.18
19	0.01	1.1	1.1	e0.07	e0.01	0.22	0.63	0.38	0.23	e2.1	0.40	0.01
20	0.01	8.8	0.88	e0.06	e0.01	0.22	0.43	0.66	0.05	e7.0	0.26	0.02
21	1.5	2.3	0.75	e0.05	e0.01	e0.30	0.38	0.56	0.04	e0.45	2.2	0.02
22	0.15	1.3	0.70	e0.05	e0.01	e0.31	0.45	0.16	0.49	0.48	0.62	0.02
23	0.04	0.91	0.96	e0.04	e0.01	e0.40	0.27	1.6	0.10	e6.5	0.37	0.02
24	e0.14	0.66	5.2	e0.03	e0.01	e0.40	0.30	6.6	0.04	e1.6	0.19	0.02
25	e0.06	1.3	7.2	e0.01	e0.01	1.2	0.25	3.3	1.1	e0.31	0.08	0.13
26	e0.10	0.64	3.2	e0.01	e0.01	1.6	0.44	1.8	0.16	e0.30	0.07	0.02
27	e5.5	0.48	1.9	e0.01	e0.01	2.0	0.22	0.73	0.09	0.75	0.06	0.04
28	1.9	0.99	1.3	e0.01	e0.01	1.0	0.15	1.5	0.05	0.33	0.05	0.37
29	7.7	4.7	1.1	e0.01	e0.01	0.82	0.12	0.79	0.22	0.19	5.2	0.46
30	2.2	1.7	2.0	e0.01	---	e0.80	0.11	0.50	0.53	0.08	16	0.25
31	1.0	---	2.0	e0.01	---	e0.90	---	0.32	---	0.33	33	---
TOTAL	21.21	33.28	46.20	12.40	0.30	21.69	23.43	24.01	13.26	34.56	82.90	15.59
MEAN	0.68	1.11	1.49	0.40	0.01	0.70	0.78	0.77	0.44	1.11	2.67	0.52
MAX	7.7	8.8	7.2	2.6	0.02	2.0	2.7	6.6	2.7	7.0	33	7.2
MIN	0.00	0.12	0.19	0.01	0.01	0.02	0.11	0.07	0.04	0.01	0.03	0.01

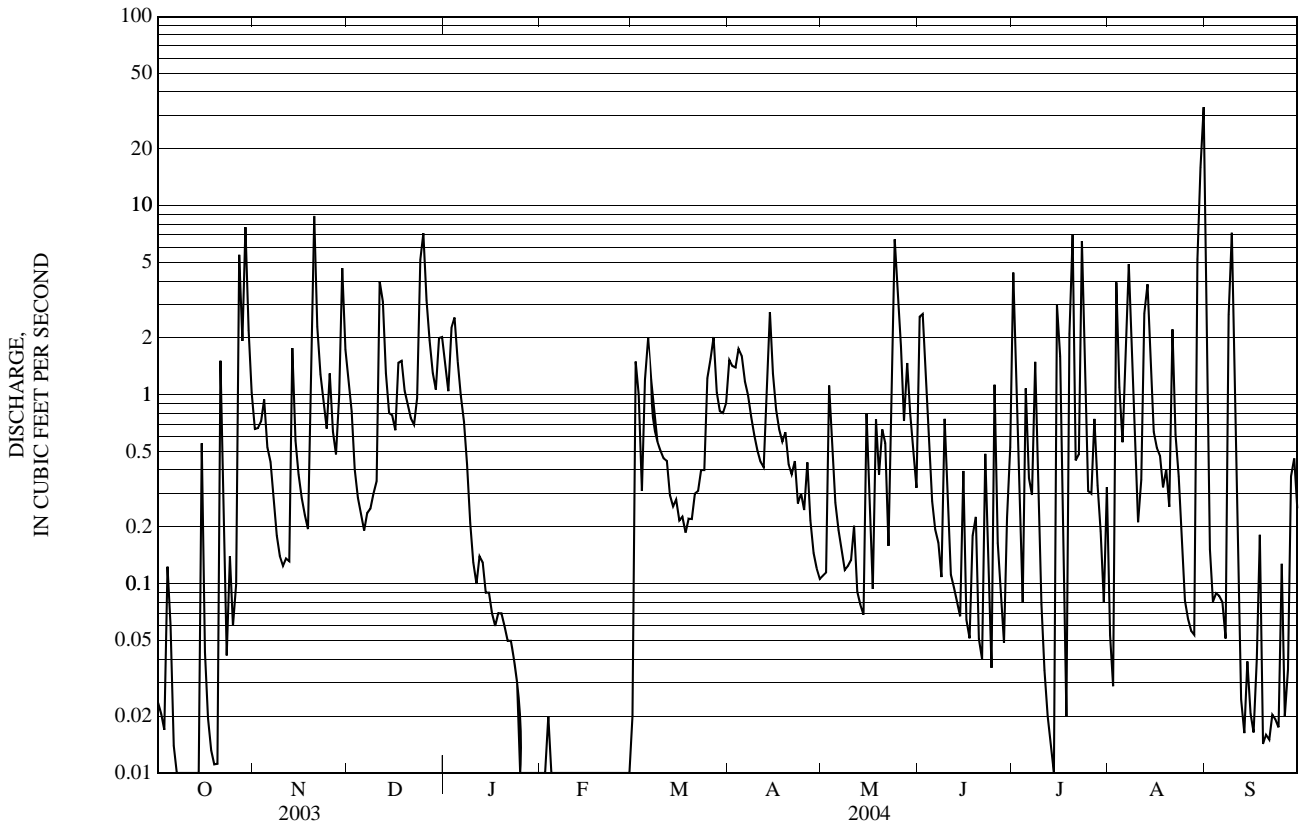
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	0.34	0.58	0.60	0.21	0.55	0.72	1.45	0.94	0.58	0.40	0.67	0.33
MAX	0.68	1.11	1.49	0.40	1.59	1.01	2.99	2.13	1.49	1.11	2.67	0.63
(WY)	(2004)	(2004)	(2004)	(2004)	(2000)	(2003)	(2001)	(2000)	(2002)	(2004)	(2004)	(2002)
MIN	0.02	0.17	0.12	0.09	0.01	0.54	0.59	0.21	0.22	0.02	0.03	0.13
(WY)	(2002)	(2002)	(2002)	(2001)	(2004)	(2002)	(2002)	(2001)	(2001)	(2001)	(2002)	(2001)

04282815 ENGLSBY BROOK AT BURLINGTON, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	198.63		328.83		0.61	
ANNUAL MEAN	0.54		0.90		0.90	
HIGHEST ANNUAL MEAN					0.90	2004
LOWEST ANNUAL MEAN					0.40	2003
HIGHEST DAILY MEAN	9.2	Mar 21	33	Aug 31	33	Aug 31, 2004
LOWEST DAILY MEAN	0.00	Jul 5	a 0.00	Oct 8	a 0.00	Oct 2, 1999
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 14	0.00	Oct 8	0.00	Jan 17, 2000
MAXIMUM PEAK FLOW			b 206	Aug 31	b 206	Aug 31, 2004
MAXIMUM PEAK STAGE			5.18	Aug 31	5.18	Aug 31, 2004
10 PERCENT EXCEEDS	1.5		2.0		1.5	
50 PERCENT EXCEEDS	0.13		0.30		0.16	
90 PERCENT EXCEEDS	0.00		0.01		0.00	

- a Also occurred on many days as noted in the Extremes paragraph above.
- b From rating curve extended above 10 ft³/s on basis of culvert computation at gage height 4.84 ft.
- c Estimated.



ST. LAWRENCE RIVER BASIN

RESERVOIRS IN WINOOSKI RIVER BASIN ABOVE MONTPELIER, VT

04283500 EAST BARRE DETENTION RESERVOIR AT EAST BARRE, VT

LOCATION.--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.--Gage heights and contents: Monthend readings only, 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 at National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to August 30, 1960, nonrecording gage, and August 30 to September 30, 1960, water-stage recorder, at present site at datum 1,127.9 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--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

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,163.9 ft, present datum, March 22, 1936; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,144.13 ft, December 25; minimum, not determined.

MONTHEND ELEVATION AND CONTENTS AT 2400
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Elevation (feet)	Contents (millions of cubic feet)	Change in Contents (millions of cubic feet)	Change in Contents (Equivalent cubic feet per second)
Sep. 30	1,131.19	7.1	--	--
Oct. 31	1,136.31	16.4	+9.3	+3.47
Nov. 30	1,131.88	8.1	-8.3	-3.20
Dec. 31	1,131.91	8.1	0.0	0.00
CAL YR 2003	--	--	+2.3	+0.07
Jan. 31	1,130.65	6.4	-1.7	-0.63
Feb. 29	1,130.55	6.3	-0.1	-0.04
Mar. 31	1,135.10	13.4	+7.1	+2.65
Apr. 30	1,130.91	6.7	-6.7	-2.58
May 31	1,130.95	6.8	+0.1	-0.04
Jun. 30	1,131.08	7.0	+0.2	+0.08
Jul. 31	1,131.12	7.0	0.0	0.00
Aug. 31	1,132.88	9.6	+2.6	0.97
Sep. 30	1,130.98	6.8	-2.8	+1.08
WTR YR 2004	--	--	-0.3	-0.01

RESERVOIRS IN WINOOSKI RIVER BASIN ABOVE MONTPELIER, VT

04285000 WRIGHTSVILLE DETENTION RESERVOIR AT WRIGHTSVILLE, VT

LOCATION.--Lat 44° 18'38", long 72° 34'31", Washington County, Hydrologic Unit 02010003, at Wrightsville Detention Reservoir Dam on North Branch Winooski River, 0.2 mi east of Wrightsville Dam Road and State Highway 12 intersection in Wrightsville, 0.3 mi downstream from Long Meadow Brook, 2.4 mi north of the State Capital Building in Montpelier, and 4.4 mi upstream from mouth.

DRAINAGE AREA.--66.5 mi².

PERIOD OF RECORD.--Gage heights and contents: Monthend reading only, 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 at National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to July 28, 1960, nonrecording gage at present site at datum 612.75 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--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, March 22, 1936, from graph based on gage readings; minimum observed, 613.00 ft, August 17, 1949 and August 17-19, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 653.30 ft, November 20; minimum, 633.02 ft, September 4 and 5.

MONTHEND ELEVATION AND CONTENTS AT 2400
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Elevation (feet)	Contents (millions of cubic feet)	Change in Contents (millions of cubic feet)	Change in Contents (Equivalent cubic feet per second)
Sep. 30	634.28	103.8	--	--
Oct. 31	644.36	195.7	+91.9	+34.3
Nov. 30	e 640.35	156.4	-39.3	-15.2
Dec. 31	*634.94	109.0	-47.4	-17.7
CAL YR 2003	--	--	+12.0	+0.38
Jan. 31	*633.77	99.7	-9.3	-3.47
Feb. 29	634.10	102.3	+2.6	+1.04
Mar. 31	639.21	145.8	+43.5	+16.2
Apr. 30	633.98	101.4	-44.4	-17.1
May 31	634.61	106.4	+5.0	+1.87
Jun. 30	633.97	101.3	-5.1	-1.97
Jul. 31	634.27	103.7	+2.4	+0.90
Aug. 31	634.85	108.4	+4.7	+1.75
Sep. 30	633.25	95.7	-12.7	-4.90
WTR YR 2004	--	--	-8.1	-0.26

e Estimated.

* Elevations furnished by Washington Electric Coop.

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, 0.8 mi south of Wrightsville Dam Road and State Highway 12 intersection in Wrightsville, 0.9 mi downstream from Wrightsville Detention Reservoir, 2.6 mi north of the Vermont State Capitol Building in Montpelier, and 3.5 mi upstream from mouth.

DRAINAGE AREA.--69.2 mi².

PERIOD OF RECORD.--Discharge records: October 1933 to current year.

REVISED RECORDS.--WSP 1237: 1934-39.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 549.53 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to November 21, 1934, nonrecording gage at same site, datum then in use. Prior to April 24, 2001, at datum 1.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Discharge affected since 1935 by Wrightsville Detention Reservoir (Reservoirs in Winooski River Basin above Montpelier). Flow regulated by power plant 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 17,200 ft³/s, November 3, 1927, by computation of peak flow over dam 0.8 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 952 ft³/s, Oct. 29, gage height, 4.22 ft; minimum daily discharge, 12 ft³/s, Aug. 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	826	315	213	40	33	726	154	180	26	27	122
2	60	636	239	191	39	46	743	152	426	29	27	138
3	56	260	202	176	39	184	744	130	509	28	23	64
4	51	240	167	179	50	164	710	172	367	24	24	61
5	98	226	97	173	49	108	644	184	249	22	26	35
6	77	211	e90	126	37	221	358	188	169	30	21	23
7	58	198	e114	e80	37	365	274	127	79	30	18	25
8	46	180	e87	e80	49	281	246	121	129	37	16	24
9	32	108	e80	e58	48	223	241	108	91	76	14	138
10	34	93	82	e59	e50	204	239	104	116	43	13	324
11	29	85	97	e74	e50	137	225	86	88	40	12	219
12	27	103	328	e76	e34	139	217	85	70	39	124	185
13	27	165	327	e110	33	122	224	79	52	39	639	83
14	25	280	219	e76	33	112	591	79	48	29	643	54
15	89	229	205	e80	e32	102	581	46	56	21	483	50
16	169	203	161	e80	e32	92	381	166	44	28	180	35
17	200	187	147	e80	e34	88	307	173	40	45	167	35
18	129	135	315	e78	36	84	391	103	39	47	108	48
19	73	172	401	e56	35	76	408	80	53	114	66	55
20	60	869	286	e45	35	89	461	79	43	70	56	37
21	428	924	226	e25	33	72	312	115	40	46	121	35
22	768	888	208	e25	33	100	246	155	41	27	188	29
23	414	841	201	e25	e47	146	236	208	50	36	107	27
24	215	770	e158	e25	e34	62	217	605	40	130	74	27
25	180	380	e800	e25	e30	70	224	763	40	60	53	24
26	126	213	e860	e49	e28	153	217	745	40	32	44	23
27	409	196	e780	e59	e29	679	225	647	40	29	31	24
28	854	146	e500	e59	e30	792	227	439	35	34	38	22
29	900	427	e250	e45	e84	786	181	375	30	32	43	21
30	919	564	228	39	---	772	155	261	27	27	159	19
31	877	---	225	39	---	747	---	182	---	27	155	---
TOTAL	7,567	10,755	8,395	2,505	1,140	7,249	10,951	6,911	3,231	1,297	3,700	2,006
MEAN	244	358	271	80.8	39.3	234	365	223	108	41.8	119	66.9
MAX	919	924	860	213	84	792	744	763	509	130	643	324
MIN	25	85	80	25	28	33	155	46	27	21	12	19
MEAN (†)	278	343	253	77.3	40.3	250	348	225	106	42.7	121	62.0
CFSM (†)	4.02	4.96	3.66	1.12	0.58	3.61	5.03	3.25	1.53	0.62	1.75	0.90
IN. (†)	4.64	5.54	4.22	1.29	0.63	4.17	5.61	3.75	1.70	0.71	2.02	1.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2004, BY WATER YEAR (WY)

MEAN	107	141	114	84.1	69.7	176	452	243	91.3	49.8	50.0	52.6
MAX	437	358	318	279	348	556	714	617	396	271	278	230
(WY)	(1991)	(2004)	(1974)	(1998)	(1981)	(1936)	(1994)	(1972)	(1984)	(1973)	(1995)	(1938)
MIN	6.00	25.9	28.0	17.5	14.6	21.4	121	47.3	15.8	7.91	7.95	5.10
(WY)	(1964)	(1954)	(1948)	(1940)	(1980)	(1940)	(1995)	(1941)	(1949)	(1953)	(2001)	(1963)

04285500 NORTH BRANCH WINOOSKI RIVER AT WRIGHTSVILLE, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1934 - 2004	
ANNUAL TOTAL	62,781.9		65,707		136	
ANNUAL MEAN	172		180		226	
HIGHEST ANNUAL MEAN					71.4	
LOWEST ANNUAL MEAN					1,620	
HIGHEST DAILY MEAN	924	Nov 21	924	Nov 21	1,620	Apr 17, 1934
LOWEST DAILY MEAN	8.4	Sep 19	12	Aug 11	0.20	Aug 13, 1941
ANNUAL SEVEN-DAY MINIMUM	9.1	Sep 14	17	Aug 5	2.8	Aug 14, 1970
MAXIMUM PEAK FLOW			952		a 2,170	
MAXIMUM PEAK STAGE			4.22		b 6.53	
10 PERCENT EXCEEDS	501		488		396	
50 PERCENT EXCEEDS	82		92		62	
90 PERCENT EXCEEDS	19		27		14	

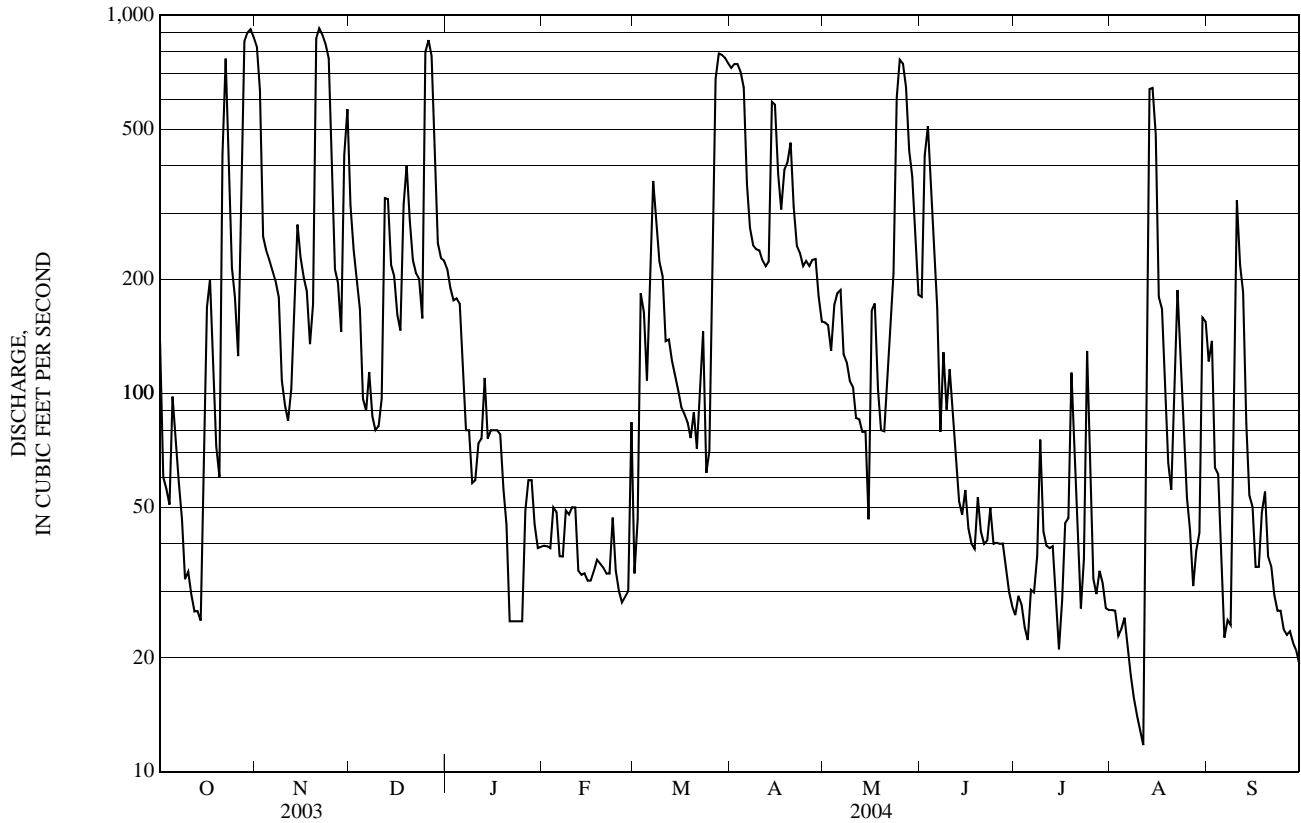
a From rating curve extended above 1,030 ft³/s.

b At datum then in use.

e Estimated.

(†) Adjusted for change in contents in Wrightsville Detention Reservoir.

NOTE: All statistics are based on unadjusted daily and monthly mean data.



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, 0.6 mi downstream of Bailey Road bridge, 0.8 mi southwest of the Vermont State Capitol Building in Montpelier, and 1.0 mi downstream of the North Branch Winooski River.

DRAINAGE AREA.--397 mi².

PERIOD OF RECORD.--Discharge records: 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 National Geodetic Vertical Datum of 1929. 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 power plants 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 above Montpelier, VT).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 57,000 ft³/s, November 3, 1927, gage height, 27.1 ft, from rating curve extended above 9,090 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,580 ft³/s, Dec. 25, gage height, 11.08 ft; maximum gage height 11.43 ft, Dec. 18 (Ice jam); minimum daily discharge, 114 ft³/s, Aug. 10.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	564	2,200	1,510	1,240	e298	e221	2,700	582	828	206	262	648
2	396	1,830	1,250	1,090	e286	e336	3,000	598	1,520	261	227	463
3	338	1,460	960	1,080	e315	e590	2,720	537	1,620	236	190	340
4	304	1,550	876	1,090	e342	e739	2,310	932	1,250	159	378	357
5	382	1,310	748	996	e348	e625	2,260	886	907	144	225	265
6	342	1,150	e750	887	e332	e1,320	1,540	811	711	181	183	232
7	289	1,030	e730	e577	e330	e1,570	1,300	678	575	183	189	218
8	251	905	e740	e374	e342	e1,150	1,200	538	531	243	138	210
9	220	741	e747	e432	e316	e887	1,150	554	448	706	128	788
10	215	643	e772	e505	e344	e795	1,080	452	543	412	114	1,260
11	209	633	e1,210	e486	e349	e754	970	437	437	260	151	738
12	193	665	e2,400	e656	e296	e816	895	412	378	221	306	531
13	186	1,080	e1,530	e656	e327	603	1,110	375	327	217	1,220	388
14	176	1,210	e1,020	e515	e294	536	2,110	348	305	167	1,250	357
15	503	1,010	e1,080	e341	e267	521	1,760	316	314	164	830	270
16	801	831	e993	e434	e246	483	1,270	468	314	182	486	236
17	577	784	e1,050	e454	e259	454	1,080	493	275	244	571	227
18	455	715	e2,200	e473	e250	447	1,190	459	264	223	409	478
19	354	1,180	e2,260	e454	e226	425	1,200	428	323	458	272	454
20	309	4,730	e1,750	e426	e236	400	1,240	381	289	476	260	310
21	1,520	3,420	e1,300	e408	e238	425	993	426	237	341	897	300
22	2,060	2,600	e1,380	e400	e244	403	855	614	234	216	983	272
23	1,150	2,130	e1,220	e368	e258	367	803	1,160	271	257	493	244
24	774	1,910	e1,190	e335	e231	405	766	2,830	243	546	403	197
25	645	1,460	e4,950	e305	e186	422	754	2,960	228	301	330	184
26	554	1,150	3,260	e267	e186	981	884	2,120	236	210	272	190
27	2,350	1,040	2,520	e283	e209	2,970	927	1,670	202	194	215	185
28	3,690	1,010	1,690	e333	e212	2,580	809	1,310	182	272	200	170
29	4,450	2,750	1,500	e316	e176	2,400	693	1,520	229	236	306	165
30	3,950	2,080	1,430	e314	---	2,270	621	993	217	197	1,420	157
31	2,820	---	1,350	e364	---	2,250	---	782	---	184	1,110	---
TOTAL	31,027	45,207	46,366	16,859	7,943	29,145	40,190	27,070	14,438	8,297	14,418	10,834
MEAN	1,001	1,507	1,496	544	274	940	1,340	873	481	268	465	361
MAX	4,450	4,730	4,950	1,240	349	2,970	3,000	2,960	1,620	706	1,420	1,260
MIN	176	633	730	267	176	221	621	316	182	144	114	157

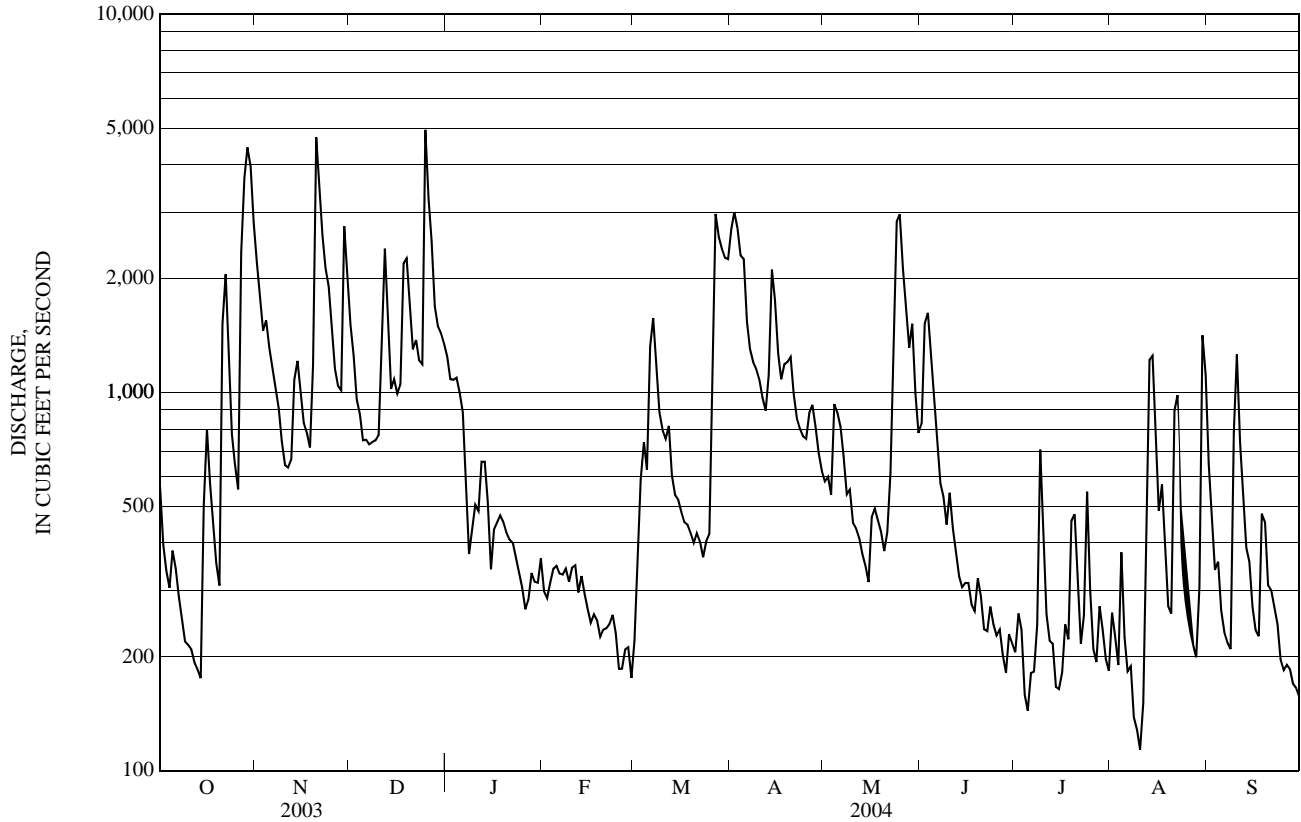
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2004, BY WATER YEAR (WY)

MEAN	387	526	501	426	385	901	1,860	950	479	274	244	235
MAX	1,432	1,507	1,504	1,226	1,475	3,442	3,275	2,374	1,785	1,245	1,008	934
(WY)	(1946)	(2004)	(1984)	(1935)	(1981)	(1936)	(1933)	(1972)	(1947)	(1973)	(1990)	(1938)
MIN	74.3	152	126	109	91.6	153	555	254	131	88.5	50.5	60.1
(WY)	(1964)	(1979)	(1915)	(1940)	(1940)	(1940)	(1995)	(1921)	(1995)	(1991)	(2001)	(1921)

04286000 WINOOSKI RIVER AT MONTPELIER, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1914 - 2004	
ANNUAL TOTAL	276,655		291,794		597	
ANNUAL MEAN	758		797		967	
HIGHEST ANNUAL MEAN					1976	
LOWEST ANNUAL MEAN					270	
HIGHEST DAILY MEAN	e 4,950	Dec 25	e 4,950	Dec 25	12,200	Mar 18, 1936
LOWEST DAILY MEAN	79	Sep 14	114	Aug 10	17	Sep 3, 1933
ANNUAL SEVEN-DAY MINIMUM	89	Sep 13	161	Aug 5	41	Aug 22, 2001
MAXIMUM PEAK FLOW			6,580	Dec 25	17,200	Apr 7, 1912
MAXIMUM PEAK STAGE			a 11.43	Dec 18	17.55	Jun 30, 1973
10 PERCENT EXCEEDS	1,840		1,750		1,430	
50 PERCENT EXCEEDS	368		484		330	
90 PERCENT EXCEEDS	129		210		118	

a Ice jam.
e Estimated.



04287000 DOG RIVER AT NORTHFIELD FALLS, VT

LOCATION.--Lat 44° 10'58", long 72° 38'27", Washington County, Hydrologic Unit 02010003, on right bank, just downstream of New England Central Railroad bridge, 0.9 mi northeast of Cox Brook Road and State Highway 12 intersection in Northfield Falls, 1.1 mi downstream from Cox Branch, and 4.2 mi downstream of Station 04286500, Dog River at Northfield.

DRAINAGE AREA.--76.1 mi².

PERIOD OF RECORD.--Discharge records: October 1934 to current year. October and November 1934 monthly discharge only, published in WSP 1307.

REVISED RECORDS.--WSP 1237: 1935-37.

GAGE.--Water-stage recorder. Datum of gage is 603.00 ft above National Geodetic Vertical Datum of 1929 (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 power plant upstream; regulation much greater prior to 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	2030	2,530	5.72	Nov 20	0800	*3,650	*6.79
Oct 29	1415	3,540	6.69	Dec 24	2345	2,550	5.74

Minimum discharge, c12 ft³/s, Feb. 25, gage height, 0.71 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	321	293	241	52	50	662	100	202	34	46	129
2	72	273	238	217	51	71	755	103	320	47	37	105
3	61	288	200	215	50	117	564	100	254	34	34	90
4	59	322	e170	218	53	105	464	139	226	29	108	81
5	92	271	e145	202	50	108	405	118	189	27	52	74
6	70	241	e140	e185	50	323	302	110	161	30	40	68
7	57	211	e137	e148	52	311	267	98	140	27	33	63
8	51	183	e135	e120	e46	197	243	90	108	38	31	61
9	47	160	e132	e118	e47	157	235	87	100	48	28	344
10	44	147	e130	e115	49	136	217	82	110	41	26	353
11	41	139	e195	e110	47	133	198	81	89	30	43	196
12	39	137	459	e105	e46	139	181	74	80	27	172	145
13	37	236	e225	e110	46	126	257	70	73	25	563	117
14	35	215	e190	e112	45	115	499	68	67	24	411	100
15	154	176	e198	e108	e38	113	323	63	67	28	169	91
16	142	158	e195	e104	e36	104	256	66	59	29	131	84
17	95	151	e230	e100	e38	102	231	58	53	27	120	79
18	80	152	517	e94	e40	97	249	55	50	24	94	189
19	70	308	310	e88	e39	92	227	62	85	37	80	143
20	66	1,950	e240	e86	40	87	209	52	61	52	77	110
21	501	605	e215	e79	41	92	178	53	50	40	322	96
22	304	395	e205	e78	40	77	164	112	51	29	262	88
23	186	308	202	e74	39	76	146	260	55	40	147	79
24	146	262	686	e69	e36	83	138	753	44	66	117	73
25	122	233	1,350	e61	e35	90	123	524	39	41	96	69
26	114	203	577	e60	e36	211	158	310	37	33	86	65
27	1,010	184	e400	e58	37	898	146	235	38	32	76	59
28	920	205	e320	e57	38	594	127	299	35	52	68	57
29	1,540	754	e285	e57	41	509	115	297	42	42	127	54
30	727	370	282	e56	---	460	106	202	37	33	346	52
31	426	---	273	e53	---	438	---	163	---	30	181	---
TOTAL	7,397	9,558	9,274	3,498	1,258	6,211	8,145	4,884	2,922	1,096	4,123	3,314
MEAN	239	319	299	113	43.4	200	272	158	97.4	35.4	133	110
MAX	1,540	1,950	1,350	241	53	898	755	753	320	66	563	353
MIN	35	137	130	53	35	50	106	52	35	24	26	52
CFSM	3.14	4.19	3.93	1.48	0.57	2.63	3.57	2.07	1.28	0.46	1.75	1.45
IN.	3.62	4.67	4.53	1.71	0.61	3.04	3.98	2.39	1.43	0.54	2.02	1.62

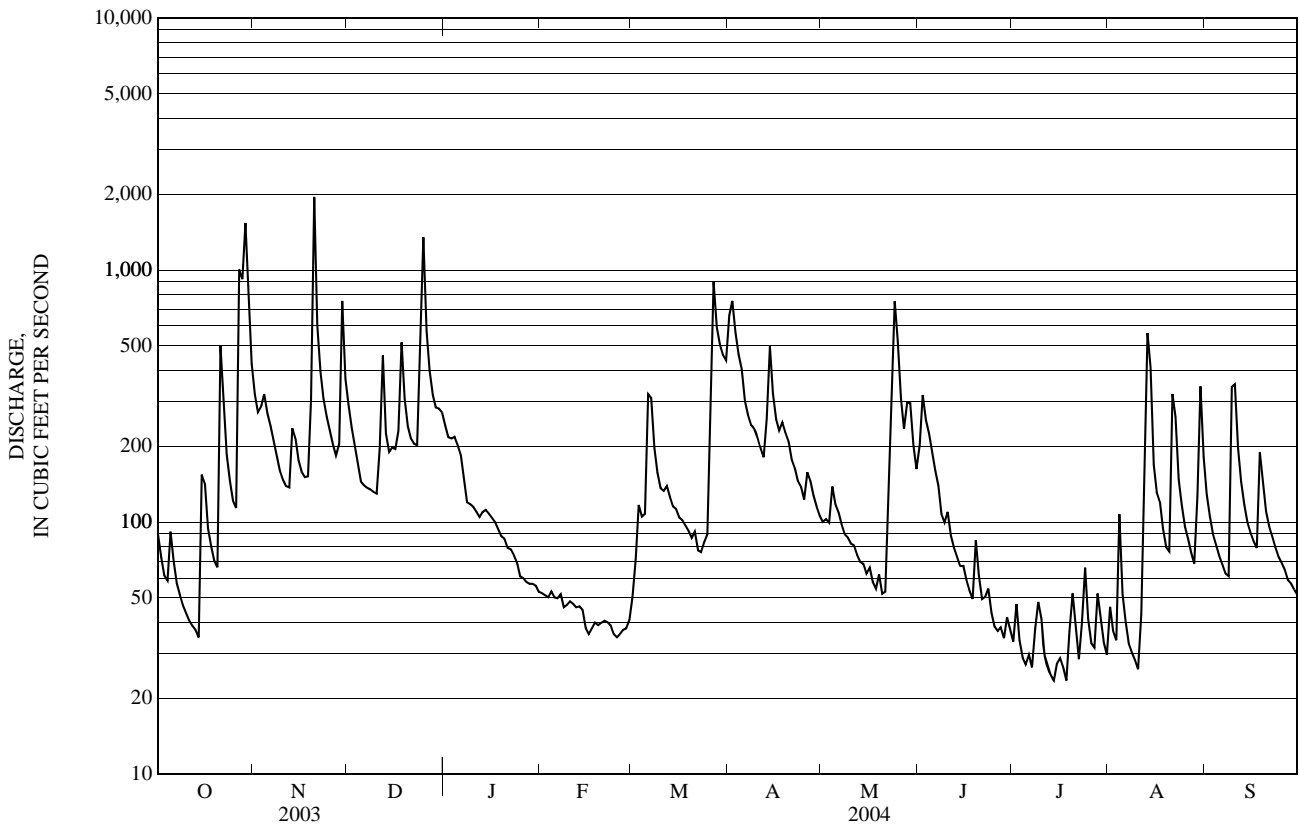
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2004, BY WATER YEAR (WY)

MEAN	73.6	109	114	90.5	86.3	210	419	192	81.7	42.8	39.8	39.9
MAX	301	319	349	264	439	831	785	463	357	176	219	259
(WY)	(1978)	(2004)	(1984)	(1996)	(1981)	(1936)	(1969)	(1972)	(1947)	(1973)	(1976)	(1938)
MIN	8.19	14.8	24.7	21.5	18.6	37.0	115	57.5	19.7	8.96	8.48	9.19
(WY)	(1964)	(2002)	(2002)	(1940)	(1940)	(1940)	(1995)	(1941)	(1965)	(1965)	(2001)	(1963)

04287000 DOG RIVER AT NORTHFIELD FALLS, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1935 - 2004	
ANNUAL TOTAL	57,655		61,680			
ANNUAL MEAN	158		169		125	
HIGHEST ANNUAL MEAN					205	1976
LOWEST ANNUAL MEAN					51.6	1965
HIGHEST DAILY MEAN	1,950	Nov 20	1,950	Nov 20	4,390	Mar 18, 1936
LOWEST DAILY MEAN	14	Jul 21	a 24	Jul 14	4.3	Sep 7, 1942
ANNUAL SEVEN-DAY MINIMUM	15	Sep 16	26	Jul 12	5.3	Sep 14, 2001
MAXIMUM PEAK FLOW			b 3,650	Nov 20	b 10,600	Jun 30, 1973
MAXIMUM PEAK STAGE			6.79	Nov 20	11.57	Jun 30, 1973
INSTANTANEOUS LOW FLOW			c 12	Feb 25	4.3	Aug 31, 1942
ANNUAL RUNOFF (CFSM)	2.08		2.21		1.64	
ANNUAL RUNOFF (INCHES)	28.18		30.15		22.29	
10 PERCENT EXCEEDS	323		323		274	
50 PERCENT EXCEEDS	75		105		64	
90 PERCENT EXCEEDS	24		38		17	

- a Also occurred on July 18.
- b From rating curve extended above 1,500 ft³/s on basis of flow over dam at gage height 8.49 ft.
- c Result of freezeup.
- e Estimated.



04288000 MAD RIVER NEAR MORETOWN, VT

LOCATION.--Lat 44° 16'38", long 72° 44'35", Washington County, Hydrologic Unit 02010003, on left bank, at downstream side of Munns Road bridge, 0.4 mi downstream of Welder Brook, 2.0 mi northeast of Moretown Mountain Road and State Highway 100B intersection in Moretown, 3.2 mi west of State Highway 100B bridge across Winooski River in Middlesex, and 3.8 mi upstream from mouth.

DRAINAGE AREA.--139 mi².

PERIOD OF RECORD.--Discharge records: October 1928 to current year.

REVISED RECORDS.--WSP 744: Drainage area. WSP 854: 1934(M). WSP 1114: 1929, 1930(M), 1936-37.

GAGE.--Water-stage recorder. Concrete control since October 13, 1933. Datum of gage is 543.93 ft above National Geodetic Vertical Datum of 1929 (levels by Vermont Department of Highway). July 6 to November 4, 1910, nonrecording gage at same site at different datum. November 20, 1928 to September 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, November 3, 1927, gage height, 19.4 ft, from floodmarks, by computation of peak flow over dam at gage heights 9.98 ft, 11.51 ft, 16.34 ft, 19.4 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	2200	4,020	7.33	Dec 24	2330	ice jam	*14.17
Oct 29	1730	*4,940	8.06	Mar 6	1615	5,560	8.53
Nov 20	1045	4,520	7.73	May 24	0715	3,460	6.86

Minimum discharge, 39 ft³/s, July 5, gage height, 2.63 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	554	484	458	e120	e114	1,160	264	345	51	97	251
2	140	482	387	432	e118	e155	1,430	275	644	72	89	194
3	124	544	e360	412	e115	e260	1,040	270	465	56	69	159
4	120	604	e340	554	e122	e235	782	290	354	44	210	137
5	317	513	e320	459	e118	e295	679	273	269	48	100	121
6	195	481	e297	e380	e117	e780	513	271	228	120	73	109
7	152	445	e285	e300	e120	e640	443	244	206	62	67	96
8	129	416	e280	e240	e110	398	401	214	183	183	61	94
9	111	380	e270	e263	e112	305	392	198	168	185	55	840
10	100	349	e257	e265	e112	259	374	188	227	117	45	577
11	94	324	e440	e260	e110	253	348	192	163	82	47	341
12	88	308	942	e243	e112	267	314	178	138	64	371	238
13	82	482	e445	e250	e107	232	416	160	121	55	988	192
14	76	435	e405	e260	e103	213	944	168	106	53	771	166
15	470	346	e440	e250	e97	202	789	173	109	109	267	139
16	427	e310	e415	e240	e88	185	611	208	94	103	234	131
17	260	284	e510	e235	e92	176	548	159	82	92	193	115
18	204	294	e830	e223	e94	174	652	145	78	74	148	273
19	175	545	e620	e205	e93	167	775	182	184	127	120	205
20	155	2,660	e510	e200	e93	155	870	138	108	108	127	162
21	1,050	1,060	e450	e185	e96	171	459	147	81	86	602	135
22	636	670	e410	e180	e94	158	462	292	92	62	386	123
23	394	519	e380	e170	e92	e153	411	718	121	85	216	119
24	317	440	e1,300	e160	e86	e165	340	1,940	78	167	189	88
25	272	411	e2,500	e144	e83	193	284	1,330	68	91	152	81
26	261	351	971	e140	e84	500	353	658	66	72	128	79
27	1,600	316	650	e137	e86	2,140	329	457	66	66	105	70
28	1,760	347	e560	e133	e89	1,370	283	542	56	112	116	66
29	2,460	1,230	e557	e132	e94	1,080	252	498	64	91	310	64
30	1,580	612	e561	e128	---	958	249	320	64	71	911	61
31	745	---	565	e125	---	896	---	259	---	61	390	---
TOTAL	14,668	16,712	17,741	7,763	2,957	13,249	16,903	11,351	5,028	2,769	7,637	5,426
MEAN	473	557	572	250	102	427	563	366	168	89.3	246	181
MAX	2,460	2,660	2,500	554	122	2,140	1,430	1,940	644	185	988	840
MIN	76	284	257	125	83	114	249	138	56	44	45	61
CFSM	3.40	4.01	4.12	1.80	0.73	3.07	4.05	2.63	1.21	0.64	1.77	1.30
IN.	3.93	4.47	4.75	2.08	0.79	3.55	4.52	3.04	1.35	0.74	2.04	1.45

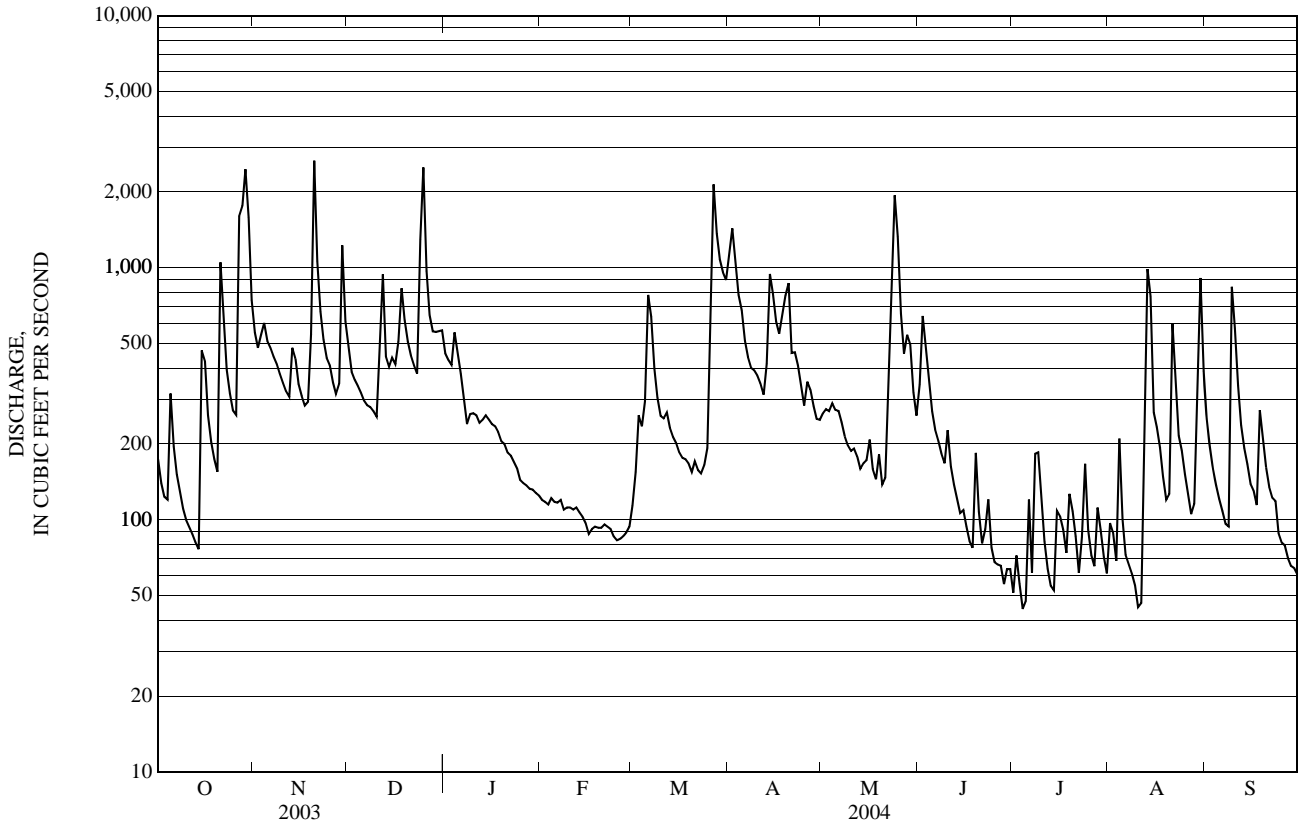
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

MEAN	182	262	237	192	174	387	794	433	182	103	102	104
MAX	675	582	705	608	956	1,324	1,415	1,114	840	367	734	588
(WY)	(1978)	(1984)	(1974)	(1998)	(1981)	(1936)	(1969)	(1940)	(1947)	(1998)	(1976)	(1938)
MIN	22.1	65.5	73.0	35.9	40.8	76.9	258	142	46.2	22.8	20.6	22.5
(WY)	(1964)	(1954)	(1948)	(1981)	(1931)	(1956)	(1995)	(1941)	(1965)	(1933)	(2001)	(1963)

04288000 MAD RIVER NEAR MORETOWN, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	116,059		122,204			
ANNUAL MEAN	318		334		263	
HIGHEST ANNUAL MEAN					430 1976	
LOWEST ANNUAL MEAN					133 1965	
HIGHEST DAILY MEAN	2,660	Nov 20	2,660	Nov 20	6,410	Jun 3, 1947
LOWEST DAILY MEAN	29	Sep 22	44	Jul 4	2.9	Aug 18, 1929
ANNUAL SEVEN-DAY MINIMUM	32	Sep 16	57	Jun 29	4.6	Aug 17, 1929
MAXIMUM PEAK FLOW			4,940	Oct 29	a 18,400	Sep 22, 1938
MAXIMUM PEAK STAGE			b 14.17	Dec 24	16.34	Sep 22, 1938
INSTANTANEOUS LOW FLOW			39	Jul 5	1.4	Oct 1, 1930
ANNUAL RUNOFF (CFSM)	2.29		2.40		1.89	
ANNUAL RUNOFF (INCHES)	31.06		32.70		25.67	
10 PERCENT EXCEEDS	650		673		589	
50 PERCENT EXCEEDS	183		214		137	
90 PERCENT EXCEEDS	50		80		39	

- a From rating curve extended above 6,300 ft³/s on basis of computation of flow over dam at gage heights 9.98 ft, 11.51 ft, 16.34 ft, and 19.4 ft.
- b Ice jam.
- e Estimated.



04288225 WEST BRANCH LITTLE RIVER ABOVE BINGHAM FALLS NEAR STOWE, VT

LOCATION.--Lat 44° 31' 29", long 72° 46' 31", Lamoille County, Hydrologic Unit 02010003, 0.6 mi upstream from Bingham Falls, 0.8 mi southeast of Barnes Camp, 1.9 mi northwest of State Highway 108 crossing of West Branch Little River in Stowe Fork, and 6.0 mi northwest of State Highways 100 and 108 intersection in Stowe.

DRAINAGE AREA.--4.57 mi².

PERIOD OF RECORD.--Discharge records: October 2000 to current year. Peak Streamflow: Water years 2001 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Winter records at times affected by water withdrawals for snowmaking.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 21	0935	250	3.45	Mar 27	0240	240	3.40
Oct 29	1200	332	3.81	Apr 19	1710	206	3.23
Nov 20	0000	*416	*4.13	Aug 29	2030	408	3.79
Dec 24	2120	215	3.28	Sep 10	1125	209	2.94

Minimum discharge, 0.96 ft³/s, Jan. 20, gage height, 0.72 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	22	20	14	5.3	5.3	57	94	29	9.6	16	35
2	7.1	19	8.2	13	5.3	8.0	61	89	101	13	12	22
3	9.4	19	e10	17	5.3	10	37	80	38	8.1	43	15
4	33	21	6.1	21	3.8	6.9	29	45	26	6.7	29	12
5	30	21	e6.0	15	2.0	9.7	e22	37	20	24	16	11
6	15	21	e5.6	8.0	3.5	28	e19	48	17	31	e14	9.7
7	11	16	e5.2	e7.8	5.2	16	17	49	15	13	e13	8.9
8	9.3	14	e5.0	e7.4	5.1	9.9	17	27	13	44	e12	14
9	7.7	6.0	e4.8	e7.0	5.0	5.4	17	23	23	43	9.5	81
10	6.5	7.5	4.9	e6.6	5.0	3.7	16	23	23	24	6.8	112
11	5.7	7.9	32	e6.2	4.9	5.8	15	41	14	17	8.8	42
12	5.2	9.1	32	e5.8	4.8	7.2	16	28	12	14	33	24
13	5.1	57	e13	e5.6	4.8	6.5	21	25	10	13	76	17
14	4.8	27	e10	8.4	4.8	6.6	83	22	9.3	11	41	13
15	56	16	e9.5	7.9	4.7	5.9	45	35	14	40	20	12
16	39	7.6	e12	7.5	4.7	5.6	35	33	9.9	34	22	11
17	22	11	15	7.3	4.7	5.6	49	19	8.5	57	17	9.5
18	17	14	16	7.3	4.6	5.4	88	18	7.8	48	12	11
19	14	63	7.5	7.3	4.5	5.3	155	27	20	51	15	9.5
20	11	190	5.2	2.8	4.5	e5.3	103	17	11	71	15	8.7
21	132	56	4.6	2.6	4.5	5.3	49	21	8.4	33	28	8.0
22	42	40	7.6	3.0	4.5	e5.2	80	17	9.2	21	17	6.9
23	22	27	10	5.3	4.5	e5.2	61	39	14	81	16	6.0
24	16	26	69	6.2	4.4	5.1	61	98	8.6	46	16	5.6
25	12	19	78	5.5	4.4	9.0	38	77	10	25	10	6.0
26	20	14	24	3.2	4.3	37	54	51	8.9	19	8.3	6.6
27	119	15	17	2.7	4.3	150	55	30	8.0	17	7.3	5.8
28	69	23	16	3.0	4.5	58	42	27	7.2	16	6.6	5.9
29	130	85	17	4.5	4.7	46	40	22	7.0	14	91	5.8
30	66	23	24	5.5	---	42	82	18	6.9	12	68	5.7
31	32	---	17	5.4	---	33	---	16	---	17	84	---
TOTAL	976.9	897.1	512.2	229.8	132.6	557.9	1,464	1,196	509.7	873.4	783.3	540.6
MEAN	31.5	29.9	16.5	7.41	4.57	18.0	48.8	38.6	17.0	28.2	25.3	18.0
MAX	132	190	78	21	5.3	150	155	98	101	81	91	112
MIN	4.8	6.0	4.6	2.6	2.0	3.7	15	16	6.9	6.7	6.6	5.6
CFSM	6.90	6.54	3.62	1.62	1.00	3.94	10.7	8.44	3.72	6.17	5.53	3.94
IN.	7.95	7.30	4.17	1.87	1.08	4.54	11.92	9.74	4.15	7.11	6.38	4.40

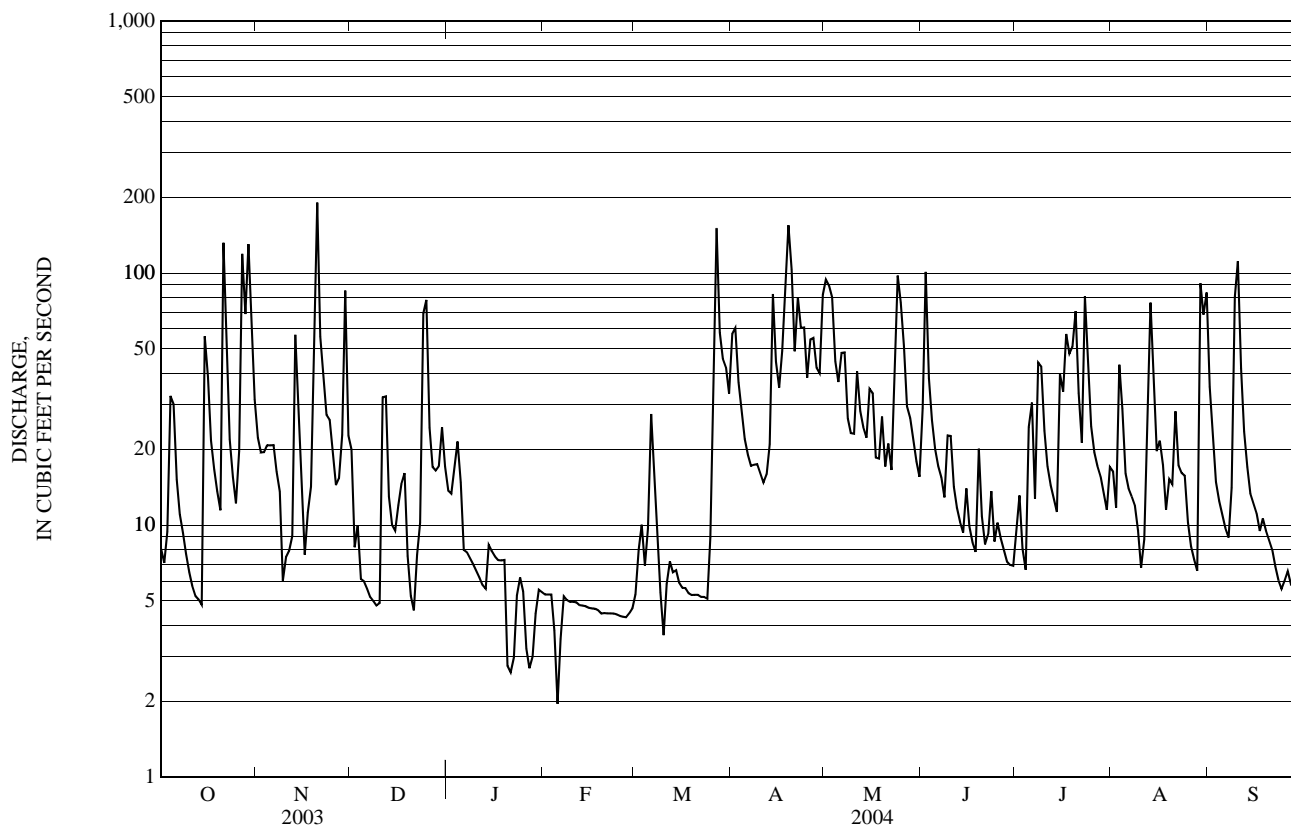
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
MEAN	17.4	19.3	9.46	4.75	3.97	13.5	48.4	39.5	22.1	14.1	11.7	13.4			
MAX	31.5	29.9	16.5	7.41	5.96	21.4	62.2	46.8	33.5	28.2	25.3	18.0			
(WY)	(2004)	(2004)	(2004)	(2004)	(2001)	(2003)	(2002)	(2001)	(2002)	(2004)	(2004)	(2004)			
MIN	11.7	13.8	4.24	1.56	2.47	3.34	39.2	30.9	17.0	7.64	3.36	6.84			
(WY)	(2002)	(2003)	(2003)	(2002)	(2002)	(2001)	(2003)	(2003)	(2004)	(2003)	(2002)	(2003)			

04288225 WEST BRANCH LITTLE RIVER ABOVE BINGHAM FALLS NEAR STOWE, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	6,858.06		8,673.5			
ANNUAL MEAN	18.8		23.7		18.2	
HIGHEST ANNUAL MEAN					23.7	2004
LOWEST ANNUAL MEAN					14.8	2003
HIGHEST DAILY MEAN	190	Nov 20	190	Nov 20	230	Apr 24, 2001
LOWEST DAILY MEAN	0.61	Feb 25	2.0	Feb 5	0.61	Feb 25, 2003
ANNUAL SEVEN-DAY MINIMUM	1.5	Feb 24	4.1	Jan 21	0.77	Jan 31, 2002
MAXIMUM PEAK FLOW			416	Nov 20	416	Nov 20, 2003
MAXIMUM PEAK STAGE			4.13	Nov 20	4.13	Nov 20, 2003
INSTANTANEOUS LOW FLOW			0.96	Jan 20		
ANNUAL RUNOFF (CFSM)	4.11		5.19		3.97	
ANNUAL RUNOFF (INCHES)	55.82		70.60		53.98	
10 PERCENT EXCEEDS	49		57		46	
50 PERCENT EXCEEDS	9.5		14		8.5	
90 PERCENT EXCEEDS	3.0		5.0		2.8	

e Estimated.



04288230 RANCH BROOK AT RANCH CAMP, NEAR STOWE, VT

LOCATION.--Lat 44° 30'14", long 72° 46'56", Lamoille County, Hydrologic Unit 02010003, 300 ft east of Ranch Camp, 1.3 mi upstream of mouth, 1.3 mi west of State Highway 108 crossing of West Branch Little River at Stowe Fork, and 5.4 mi northwest of State Highways 100 and 108 intersection in Stowe.

DRAINAGE AREA.--3.80 mi².

PERIOD OF RECORD.--Discharge records: October 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1240 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 21	0935	165	2.42	Apr 19	2315	199	2.58
Oct 29	1215	221	2.65	May 24	0340	189	2.54
Nov 19	2355	*366	*3.09	Aug 29	2055	181	2.51
Mar 27	unknown	e270	ice jam				

Minimum discharge, 2.3 ft³/s, July 4, gage height, 0.91 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	12	12	e9.6	3.4	3.5	47	53	16	3.6	6.2	18
2	3.6	11	e10	e9.4	3.4	6.6	52	46	61	4.5	4.5	11
3	4.1	12	e9.0	e9.2	3.3	6.6	27	45	20	3.2	27	8.0
4	16	13	e8.0	e8.6	3.3	4.5	21	27	16	2.7	15	6.8
5	17	12	e7.2	e8.2	3.2	6.3	e15	21	10	18	6.8	6.2
6	8.6	13	e6.6	e7.8	3.2	19	e12	27	8.0	13	5.4	5.9
7	5.9	9.3	e6.0	e7.4	e3.2	10	10	21	7.0	5.1	5.1	5.6
8	4.7	7.8	e5.6	e7.0	e3.2	6.8	10	12	5.9	25	4.9	7.0
9	4.0	e6.8	e5.4	e6.6	e3.1	5.6	10	10	9.4	24	4.5	60
10	3.7	6.3	e5.2	e6.2	e3.1	5.0	9.5	9.4	10	11	3.8	82
11	3.5	6.1	e35	e5.8	3.0	5.0	8.6	13	6.1	6.3	5.0	24
12	3.6	6.6	e36	e5.4	3.0	5.0	9.3	9.5	5.2	15	22	11
13	4.3	40	e17	e5.2	3.1	4.6	13	7.9	4.5	13	62	8.3
14	4.2	e16	e13	e4.9	3.2	e4.4	68	6.9	4.2	7.2	34	6.9
15	37	11	e11	e4.7	3.0	4.3	31	13	5.5	28	12	6.1
16	18	9.0	e10	e4.6	3.0	4.1	24	14	4.2	27	12	5.6
17	9.9	8.3	e9.2	e4.5	3.0	4.0	40	8.2	3.7	50	9.5	5.2
18	7.5	8.4	e8.6	e4.4	2.9	4.0	79	7.3	3.4	22	6.8	6.0
19	6.2	42	e8.0	e4.3	2.8	3.9	140	9.4	7.1	28	6.8	5.0
20	5.3	144	e7.4	e4.2	2.7	e3.8	93	6.6	4.4	32	6.9	4.6
21	86	35	e7.0	e4.1	2.7	3.8	35	9.0	3.5	14	17	4.2
22	25	22	e6.8	e4.0	2.7	e3.7	68	6.9	4.1	7.8	9.5	4.0
23	12	15	e6.8	e3.9	2.7	e3.7	45	22	6.5	47	8.1	3.9
24	8.4	14	e52	e3.8	2.7	3.6	42	87	3.9	25	8.0	3.7
25	7.1	12	63	e3.7	2.7	7.5	26	58	4.3	10	5.8	4.4
26	11	9.6	e18	e3.6	2.6	27	39	28	3.7	7.6	4.9	4.2
27	91	8.7	e13	e3.5	2.5	e130	37	16	3.3	6.6	4.4	3.7
28	51	12	e11	e3.5	2.6	40	28	17	3.0	6.2	4.1	3.6
29	92	56	e10	e3.5	2.9	28	25	13	3.0	5.4	53	3.6
30	40	16	e11	e3.4	---	25	54	9.3	3.4	4.6	42	3.5
31	17	---	e10	3.4	---	21	---	7.5	---	6.3	63	---
TOTAL	611.9	594.9	438.8	168.4	86.2	410.3	1,118.4	640.9	250.3	479.1	480.0	332.0
MEAN	19.7	19.8	14.2	5.43	2.97	13.2	37.3	20.7	8.34	15.5	15.5	11.1
MAX	92	144	63	9.6	3.4	130	140	87	61	50	63	82
MIN	3.5	6.1	5.2	3.4	2.5	3.5	8.6	6.6	3.0	2.7	3.8	3.5
CFSM	5.19	5.22	3.72	1.43	0.78	3.48	9.81	5.44	2.20	4.07	4.07	2.91
IN.	5.99	5.82	4.30	1.65	0.84	4.02	10.95	6.27	2.45	4.69	4.70	3.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	11.1	13.0	8.85	4.50	3.87	9.98	35.2	21.0	12.6	7.63	6.53	8.06
MAX	19.7	19.8	14.2	5.84	5.71	16.5	42.2	25.2	22.2	15.5	15.5	11.1
(WY)	(2004)	(2004)	(2004)	(2003)	(2001)	(2003)	(2002)	(2002)	(2002)	(2004)	(2004)	(2004)
MIN	6.68	8.29	6.54	3.28	2.75	2.29	28.1	15.2	8.34	3.76	1.97	3.48
(WY)	(2002)	(2001)	(2002)	(2001)	(2003)	(2001)	(2003)	(2003)	(2004)	(2001)	(2002)	(2003)

04288230 RANCH BROOK AT RANCH CAMP, NEAR STOWE, VT—Continued

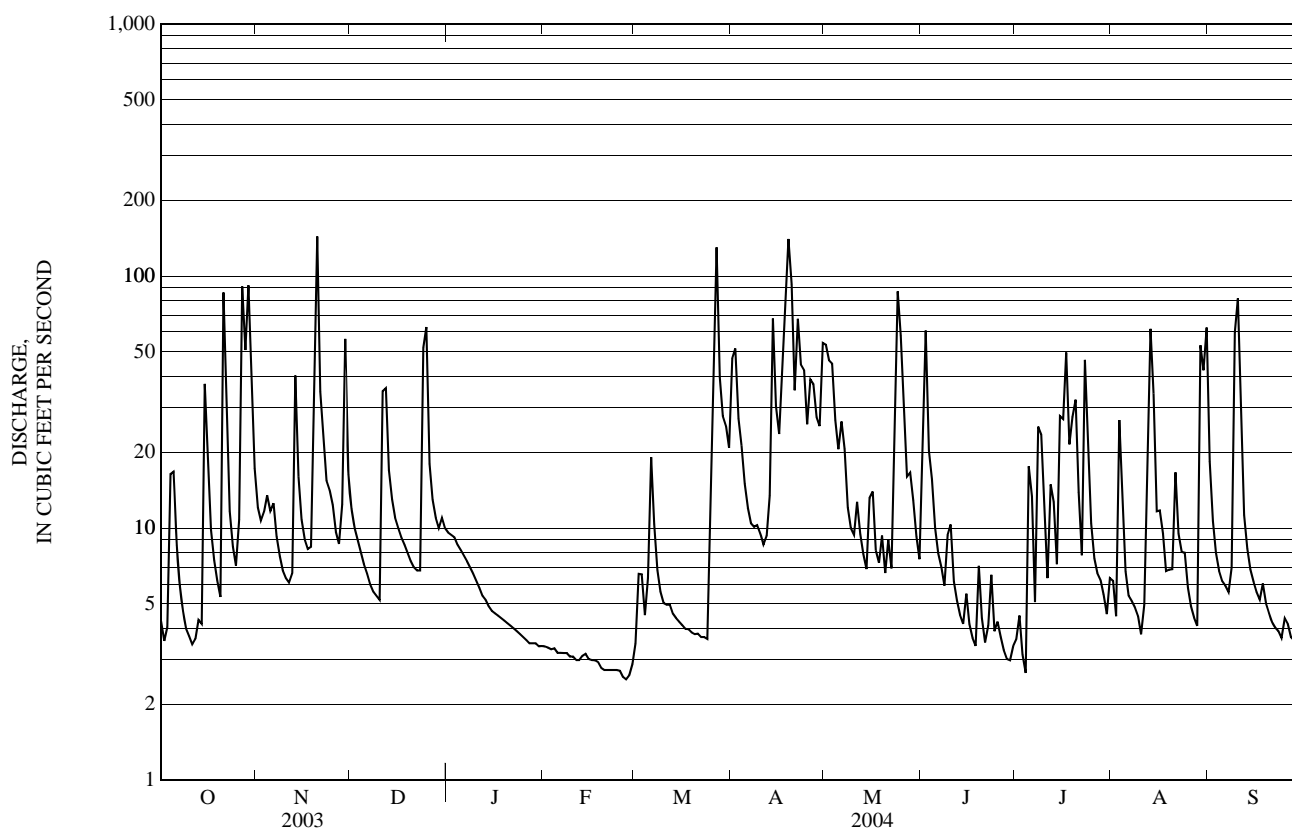
SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	4,477.5		5,611.2		11.9	
ANNUAL MEAN	12.3		15.3		15.3	
HIGHEST ANNUAL MEAN					9.39	2004
LOWEST ANNUAL MEAN					205	2001
HIGHEST DAILY MEAN	144	Nov 20	144	Nov 20	205	Apr 24, 2001
LOWEST DAILY MEAN	a 1.2	Sep 11	2.5	Feb 27	0.79	Sep 10, 2002
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 11	2.6	Feb 22	0.92	Sep 4, 2002
MAXIMUM PEAK FLOW			b 366	Nov 19	b 366	Nov 19, 2003
MAXIMUM PEAK STAGE			3.09	Nov 19	3.09	Nov 19, 2003
INSTANTANEOUS LOW FLOW			2.3	Jul 4	c 0.70	Sep 9, 2002
ANNUAL RUNOFF (CFSM)	3.23		4.03		3.12	
ANNUAL RUNOFF (INCHES)	43.83		54.93		42.41	
10 PERCENT EXCEEDS	30		40		27	
50 PERCENT EXCEEDS	6.3		7.6		5.8	
90 PERCENT EXCEEDS	1.9		3.4		2.2	

a Also occurred on September 12, 13, 17, 18, and 19, 2003.

b From rating curve extended above 140 ft³/s.

c Also occurred on September 10 and 11, 2002.

e Estimated.



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, 0.3 mi east of Recreational Highway and Waterbury Dam Road intersection, 2.5 mi upstream of mouth, 2.8 mi north of US Highway 2 and State Highway 100 intersection in 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 National Geodetic Vertical Datum of 1929 (levels by U.S. Corps of Engineers). Prior to December 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	Contents, in millions of cubic feet
500.0	0
510.0	34.8
520.0	92.6
530.0	180.8
540.0	302.7
550.0	461.7
560.0	658.8
570.0	891.9
580.0	1,168.5
590.0	1,505.0
600.0	1,913.4

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 613.45 ft, May 4, 1940; minimum observed, 501.30 ft, October 16, 1938, July 3, 12, and 13, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation at 2400 hours, 566.37 ft, Nov. 20; minimum daily elevation at 2400 hours, 548.46 ft, Feb. 17.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	549.84	560.51	553.73	551.75	550.63	550.49	556.07	552.85	551.33	550.24	551.07	552.35
2	550.18	557.90	553.13	551.45	550.38	550.56	556.60	552.89	554.81	550.20	550.44	551.40
3	549.90	555.31	552.53	551.36	550.13	550.17	555.73	553.06	555.79	550.48	550.21	550.90
4	550.74	552.72	551.63	551.55	550.09	549.89	554.51	552.54	555.71	550.71	549.64	550.16
5	551.32	549.82	550.93	551.36	549.93	550.71	552.54	551.85	555.21	550.28	549.73	549.78
6	551.25	550.69	550.23	550.85	549.75	552.53	549.87	551.29	554.46	549.84	549.73	549.88
7	550.92	550.75	551.23	550.45	550.24	552.44	549.80	550.93	553.57	550.38	550.19	550.11
8	550.06	550.44	551.03	550.34	550.08	551.55	549.93	550.46	552.46	551.65	550.64	550.15
9	550.36	551.29	550.03	550.26	550.39	550.31	550.03	550.59	551.72	551.68	550.52	552.41
10	550.00	551.31	551.33	550.40	550.36	549.66	550.49	550.78	551.09	550.55	550.86	554.19
11	550.25	551.16	553.53	550.42	549.65	549.75	550.84	551.03	550.40	550.24	551.24	553.73
12	550.48	551.12	552.93	550.87	549.18	549.86	551.19	551.58	551.00	551.89	552.54	552.61
13	550.21	553.83	551.63	550.64	548.98	549.71	551.44	551.63	550.62	551.30	554.75	551.60
14	549.99	554.02	550.93	550.39	548.78	549.87	554.40	550.97	550.79	550.17	553.18	550.75
15	551.38	553.58	550.33	550.57	548.50	549.95	554.91	551.00	550.65	550.20	550.07	550.65
16	551.39	552.93	550.73	550.20	548.89	550.03	554.87	550.95	550.44	550.47	550.32	550.67
17	550.60	552.20	552.13	550.46	548.46	550.27	555.45	551.02	549.79	551.15	550.15	550.61
18	549.94	551.60	552.03	550.63	548.86	550.25	554.02	550.85	550.31	551.53	550.29	550.71
19	549.86	556.86	551.73	550.52	549.22	550.24	555.59	550.86	550.79	552.01	550.27	551.19
20	549.79	566.37	551.03	550.47	549.60	550.16	555.13	550.65	550.91	551.84	549.94	551.11
21	554.13	565.76	550.53	550.42	549.99	549.53	552.81	550.29	550.86	551.08	549.84	551.51
22	552.33	564.11	549.93	550.46	550.36	550.06	551.17	550.35	550.72	550.50	549.46	551.88
23	552.07	561.97	552.33	550.46	550.72	549.97	551.38	551.26	550.56	552.54	550.23	551.57
24	551.23	559.15	557.86	550.52	551.06	549.90	551.51	555.62	550.48	552.80	550.95	551.26
25	550.80	556.25	557.05	550.67	550.66	550.28	550.99	555.58	550.88	552.06	551.26	550.96
26	550.87	553.13	555.05	550.84	550.20	553.68	551.36	553.80	550.87	551.04	551.06	551.32
27	558.85	551.93	552.43	550.83	550.03	558.76	551.17	551.09	550.60	549.94	550.96	551.02
28	558.29	555.45	551.23	550.87	550.40	558.93	550.60	551.62	550.25	550.02	550.39	550.86
29	565.15	554.95	551.23	550.49	550.43	558.93	550.90	550.93	550.29	550.60	551.46	550.51
30	564.80	554.15	551.73	550.25	---	557.29	551.63	549.82	550.32	549.93	551.81	550.04
31	562.91	---	551.84	550.19	---	555.88	---	549.99	---	550.48	553.15	---

04288500 WATERBURY RESERVOIR NEAR WATERBURY, VT—Continued

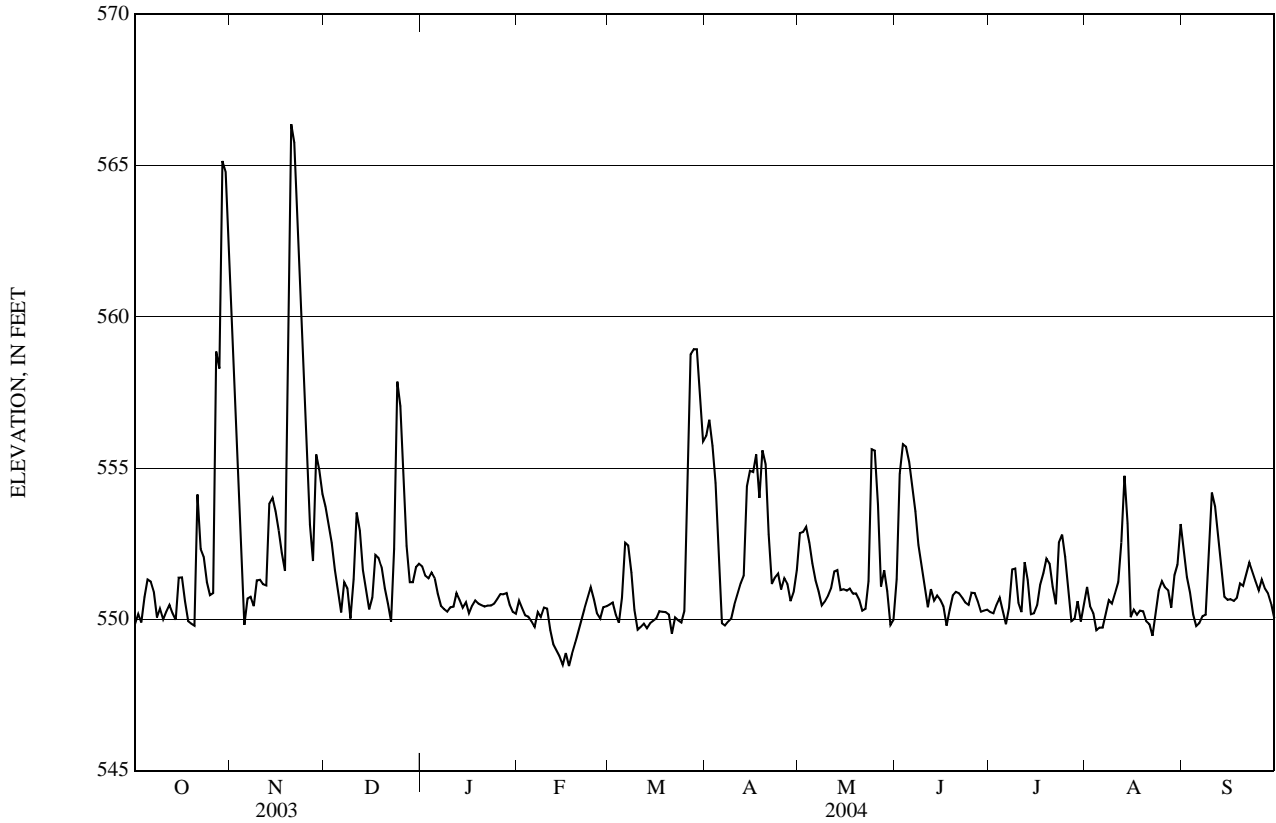
ELEVATION ABOVE NGVD 1929, FEET—CONTINUED
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
 DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	552.58	555.04	552.06	550.68	549.86	551.66	552.56	551.55	551.59	550.90	550.85	551.20
MAX	565.15	566.37	557.86	551.75	551.06	558.93	556.60	555.62	555.79	552.80	554.75	554.19
MIN	549.79	549.82	549.93	550.19	548.46	549.53	549.80	549.82	549.79	549.84	549.46	549.78
(†)	724.0	539.6	496.3	565.2	469.8	573.8	492.3	461.5	467.7	470.7	520.8	462.4
(‡)	+97.3	-71.1	-16.2	+25.7	-38.1	+38.8	-31.4	-11.5	+2.38	+1.14	+18.7	-22.5
CAL YR	2003	MEAN 551.50	MAX 566.37	MIN 548.30	(†) +1.10							
WTR YR	2004	MEAN 551.71	MAX 566.37	MIN 548.46	(†) -0.03							

(†) Contents, in millions of cubic feet, at end of month.

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

Observations at 2400 hours on November 25 to December 30 provided by Green Mountain Power Company.



04289000 LITTLE RIVER NEAR WATERBURY, VT

LOCATION.--Lat 44° 22'12", long 72° 46'11", Washington County, Hydrologic Unit 02010003, on right bank, 0.8 mi downstream from spillway on Waterbury Reservoir, 1.7 mi upstream from mouth, and 2.0 mi north of US Highway 2 and State Highway 100 intersection in Waterbury.

DRAINAGE AREA.--111 mi².

PERIOD OF RECORD.--Discharge records: July to October 1910 (gage heights only), October 1935 to current year. October, November 1935 monthly discharge only, published in WSP 1307. Monthly discharges only for July, August, and September 1937. Prior to October 1962, published as Waterbury River near Waterbury.

REVISED RECORDS.--WSP 824: 1936.

GAGE.--Water-stage recorder. Concrete control since December 8, 1937. Datum of gage is 428.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). July 7 to October 31, 1910, nonrecording gage at site 2 mi upstream at different datum.

REMARKS.-- Records good except those for estimated daily discharges, which are fair. Flow completely regulated by Waterbury Reservoir (station 04288500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,520 ft³/s, March 18, 1936, gage height, 19.38 ft; minimum daily discharge, 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, December 9, 1937, gage height, 14.88 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,030 ft³/s, Nov. 20, gage height, 8.47 ft; minimum daily discharge, 8.1 ft³/s, Feb. 1.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	999	e580	377	8.1	92	998	218	210	80	9.4	468
2	13	984	442	377	127	231	1,000	349	283	92	216	436
3	130	975	385	377	133	320	999	373	383	9.3	256	367
4	10	962	383	377	96	163	995	433	385	8.7	341	203
5	132	947	381	377	e115	136	988	467	383	159	142	187
6	67	621	336	376	e122	307	974	467	381	275	99	88
7	325	232	320	322	e15	464	722	416	378	9.9	11	56
8	171	193	11	156	e113	462	463	351	375	12	11	102
9	11	10	240	151	e23	458	256	168	374	191	108	421
10	136	160	369	121	e93	394	215	146	373	373	9.8	471
11	11	196	227	116	e219	192	206	145	326	200	10	472
12	12	203	466	133	e175	191	281	68	11	192	212	470
13	108	262	475	201	e125	204	319	225	185	372	900	426
14	95	409	472	184	e124	136	478	192	10	371	974	352
15	198	409	434	178	e126	139	476	250	214	369	961	147
16	373	408	376	119	e15	130	476	318	137	141	596	113
17	373	405	250	82	e152	94	477	157	211	201	377	120
18	326	405	277	101	e15	136	797	190	11	373	116	126
19	146	452	365	144	e16	129	987	185	182	375	165	11
20	143	619	365	131	e15	141	995	265	48	377	198	112
21	474	1,020	365	118	e15	249	988	271	146	375	199	10
22	950	1,010	365	104	e15	9.8	977	100	180	373	360	10
23	696	996	364	106	e15	133	781	237	81	210	12	138
24	435	984	433	95	17	130	471	465	102	373	11	134
25	380	e950	756	68	143	171	469	992	10	374	131	144
26	88	e965	965	64	150	330	471	994	86	373	142	10
27	388	e950	959	94	97	844	470	980	128	370	114	9.7
28	847	e567	946	86	8.4	1,010	469	676	134	162	212	8.6
29	810	e563	622	158	70	1,010	408	468	61	9.6	263	8.4
30	990	e655	378	132	---	1,000	134	465	68	258	464	8.4
31	1,010	---	378	96	---	998	---	245	---	10	425	---
TOTAL	10,024	18,511	13,685	5,521	2,357.5	10,403.8	18,740	11,276	5,856	7,068.5	8,045.2	5,629.1
MEAN	323	617	441	178	81.3	336	625	364	195	228	260	188
MAX	1,010	1,020	965	377	219	1,010	1,000	994	385	377	974	472
MIN	10	10	11	64	8.1	9.8	134	68	10	8.7	9.4	8.4

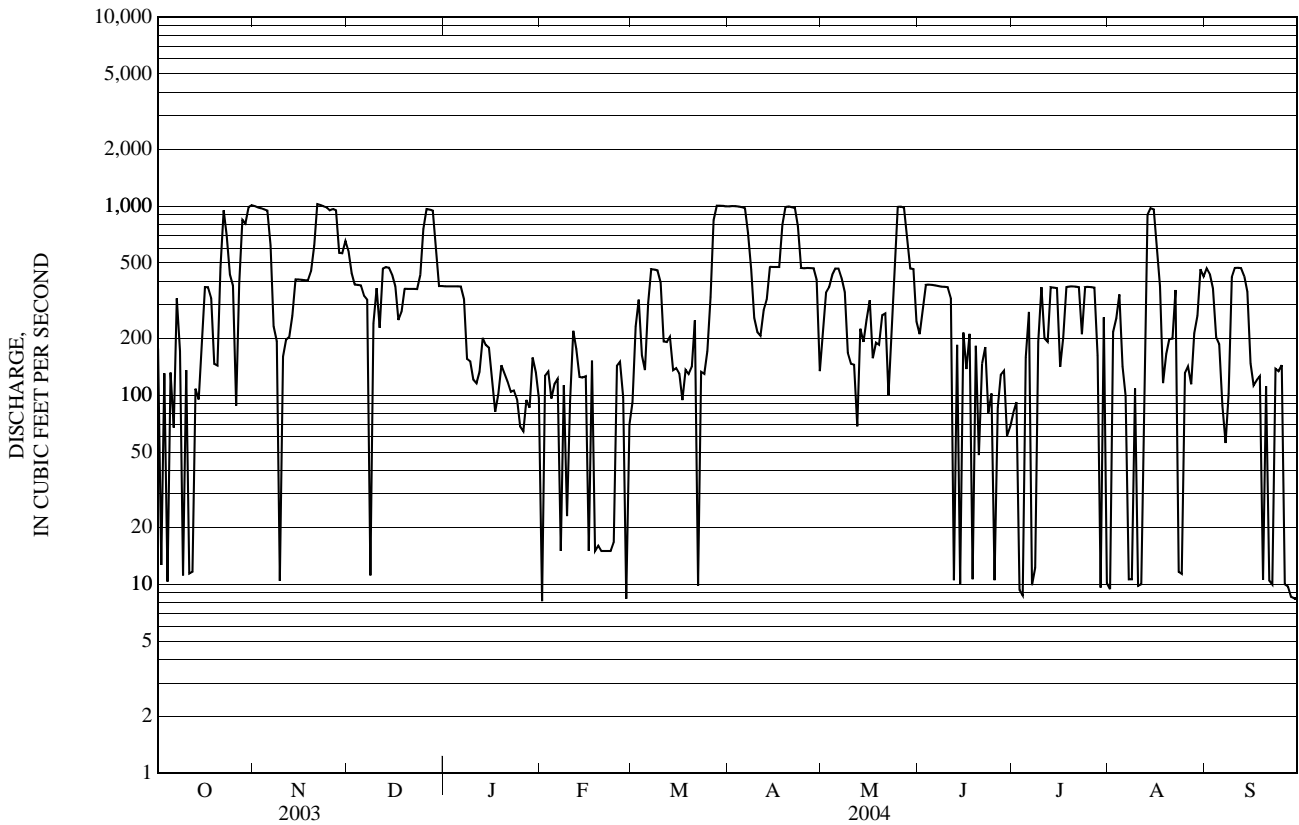
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2004, BY WATER YEAR (WY)

MEAN	184	228	234	218	253	306	471	401	216	145	151	141
MAX	749	617	477	476	527	1,121	1,111	954	646	433	421	375
(WY)	(1946)	(2004)	(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	28.5	30.4
(WY)	(1942)	(1941)	(1939)	(1938)	(1936)	(1938)	(1940)	(1938)	(1938)	(1977)	(1999)	(1984)

04289000 LITTLE RIVER NEAR WATERBURY, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1936 - 2004	
ANNUAL TOTAL	101,585.4		117,117.1		244	
ANNUAL MEAN	278		320		456	
HIGHEST ANNUAL MEAN					146	
LOWEST ANNUAL MEAN					1976	
HIGHEST DAILY MEAN	a 1,190	Mar 30	1,020	Nov 21	4,830	Mar 18, 1936
LOWEST DAILY MEAN	b 9.1	Sep 19	8.1	Feb 1	c 0.60	Jul 10, 1938
ANNUAL SEVEN-DAY MINIMUM	10	Jul 14	15	Feb 18	0.70	Jul 13, 1938
MAXIMUM PEAK FLOW			1,030	Nov 20	6,520	Mar 18, 1936
MAXIMUM PEAK STAGE			8.47	Nov 20	19.38	Mar 18, 1936
10 PERCENT EXCEEDS	758		946		557	
50 PERCENT EXCEEDS	164		222		191	
90 PERCENT EXCEEDS	10		15		9.1	

- a Also occurred on March 31, 2003.
- b Also occurred on September 21, 2003.
- c See Extremes for Period of Record.
- e Estimated.



04290500 WINOOSKI RIVER NEAR ESSEX JUNCTION, VT

LOCATION.--Lat 44° 28'44", long 73° 08'21", Chittenden County, Hydrologic Unit 02010003, on right bank, 0.3 mi downstream from Muddy Brook, 1.5 mi downstream of State Highway 2A bridge, 1.6 mi southwest of Town Hall in Essex Junction, and 1.8 mi northeast of US 2 and State Highway 116 intersection in South Burlington.

DRAINAGE AREA.--1,044 mi².

PERIOD OF RECORD.--Discharge records: October 1928 to current year.

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 National Geodetic Vertical Datum of 1929, from topographic map; prior to October 1, 1964, datum was 1.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by power plants 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 above Montpelier) since 1935.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 113,000 ft³/s, November 4, 1927, gage height, 50.4 ft, present datum, from floodmarks, from rating curve extended above 25,000 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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,900 ft³/s, Nov. 20, gage height, 14.23 ft; minimum daily discharge, 429 ft³/s, July 5.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,580	5,210	4,090	3,600	e720	e620	7,090	1,620	1,950	598	546	2,610
2	914	4,320	3,250	3,100	e680	e940	8,320	1,780	3,390	587	679	1,750
3	801	3,950	2,510	3,070	e790	e1,700	7,820	1,850	4,040	581	883	1,390
4	775	4,140	e2,100	3,550	e820	e1,900	6,150	2,150	3,310	453	1,190	1,110
5	1,020	3,840	e1,700	e2,900	e760	e1,750	5,990	2,570	2,550	429	952	971
6	1,060	3,350	e1,550	e2,150	e810	3,600	4,640	2,340	2,080	809	636	863
7	945	2,540	e1,500	e1,600	e780	5,360	3,930	2,110	1,810	542	557	754
8	855	2,240	e1,620	e1,330	e680	3,480	3,280	1,630	1,590	680	588	712
9	670	1,790	e1,480	e1,290	e840	2,610	2,950	1,430	1,520	1,130	529	2,130
10	580	1,560	e1,800	e1,220	e670	2,270	2,690	1,300	1,660	1,410	557	4,920
11	580	1,580	e2,040	e1,130	e900	1,920	2,420	1,280	1,510	973	471	3,070
12	496	1,570	e5,000	e1,070	e820	1,920	2,230	1,190	1,060	627	573	2,070
13	468	2,510	4,620	e1,100	e900	1,900	2,500	1,040	952	802	4,370	1,650
14	532	3,280	2,910	e1,050	e865	1,610	5,740	1,140	869	755	5,580	1,410
15	853	2,630	2,090	e1,250	e810	1,510	5,080	1,070	942	917	3,170	1,040
16	2,470	2,240	e2,210	e1,220	e760	1,430	3,710	1,640	930	966	2,390	937
17	1,760	2,100	e2,150	e1,170	e630	1,290	3,170	1,380	817	1,060	1,890	797
18	1,450	2,020	e3,050	e1,220	e705	1,240	3,680	1,220	678	983	1,390	895
19	1,020	2,520	e4,300	e1,340	e575	1,240	4,290	1,230	886	1,180	1,020	1,400
20	900	15,600	e3,400	e1,250	e545	1,140	4,830	1,160	1,010	2,130	938	1,020
21	2,900	12,800	e2,200	e1,180	e530	1,270	3,640	1,260	643	1,410	1,280	843
22	6,150	6,860	e2,300	e1,050	e520	1,140	3,240	1,270	770	1,010	3,320	756
23	3,470	5,310	e2,350	e1,030	e515	886	3,170	3,040	820	1,110	1,610	760
24	2,280	4,550	3,310	e1,000	e590	1,120	2,450	8,150	711	1,760	1,170	728
25	1,840	4,150	14,900	e920	e595	1,320	2,280	10,800	660	1,320	988	688
26	1,510	3,530	11,000	e880	e705	2,520	2,360	6,390	635	989	891	575
27	4,500	3,120	7,090	e830	e720	11,700	2,680	4,670	585	919	803	624
28	13,500	2,860	5,170	e918	e680	8,810	2,350	3,760	600	868	720	596
29	11,500	6,680	4,180	e970	e570	7,120	2,060	3,970	547	687	1,330	576
30	15,900	5,810	4,020	e1,040	---	6,450	1,680	2,970	556	677	3,330	572
31	7,100	---	4,370	e960	---	6,050	---	2,350	---	665	4,480	---
TOTAL	90,379	124,660	114,260	46,388	20,485	87,816	116,420	79,760	40,081	29,027	48,831	38,217
MEAN	2,915	4,155	3,686	1,496	706	2,833	3,881	2,573	1,336	936	1,575	1,274
MAX	15,900	15,600	14,900	3,600	900	11,700	8,320	10,800	4,040	2,130	5,580	4,920
MIN	468	1,560	1,480	830	515	620	1,680	1,040	547	429	471	572

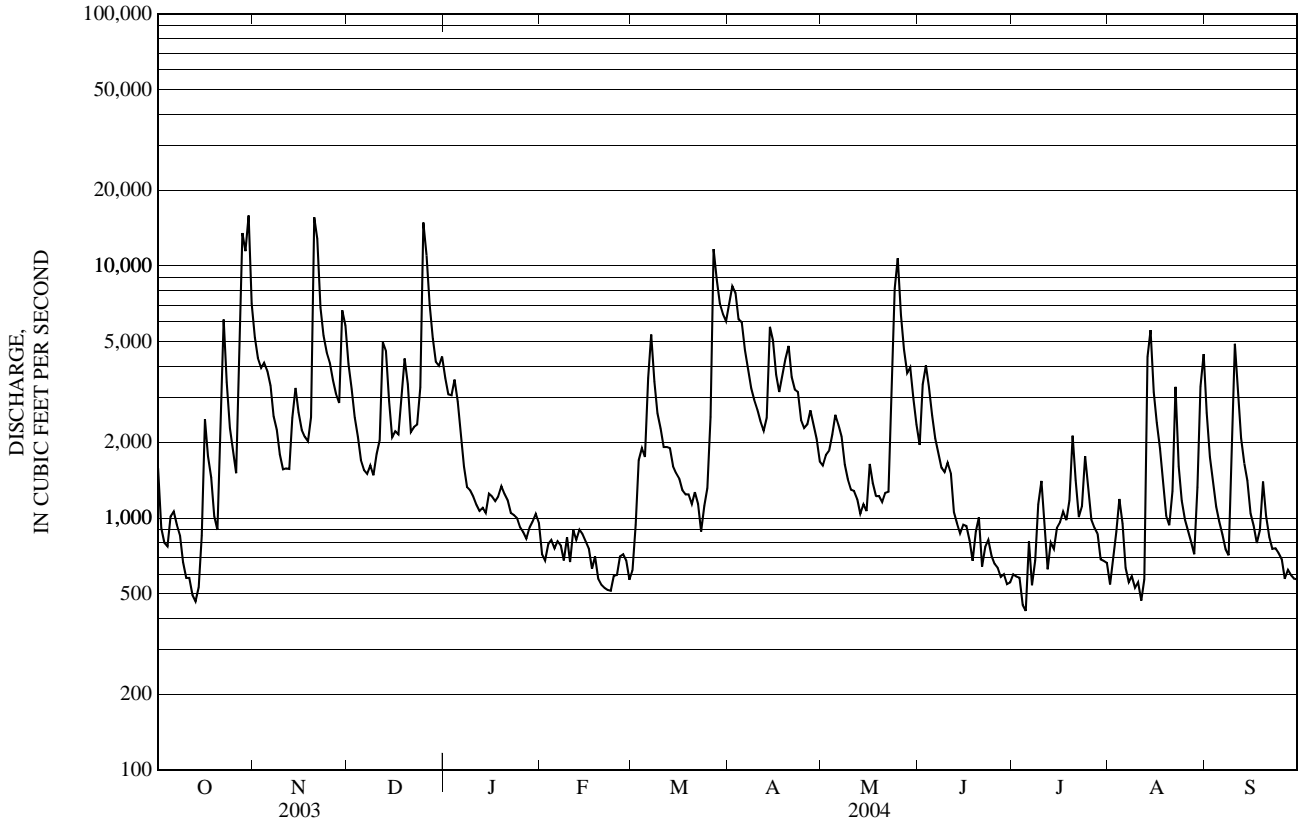
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

MEAN	1,155	1,622	1,527	1,327	1,231	2,601	5,131	2,806	1,318	790	739	714
MAX	4,587	4,155	4,549	3,704	4,266	9,642	9,256	6,826	5,027	3,368	3,284	3,096
(WY)	(1946)	(2004)	(1974)	(1998)	(1981)	(1936)	(1933)	(1972)	(1947)	(1973)	(1976)	(1938)
MIN	245	389	378	350	337	554	1,477	846	364	297	171	231
(WY)	(1964)	(1954)	(1930)	(1931)	(1940)	(1940)	(1995)	(1965)	(1938)	(1965)	(2001)	(1963)

04290500 WINOOSKI RIVER NEAR ESSEX JUNCTION, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	778,796		836,324			
ANNUAL MEAN	2,134		2,285		1,746	
HIGHEST ANNUAL MEAN					2,751	1973
LOWEST ANNUAL MEAN					832	1965
HIGHEST DAILY MEAN	15,900	Oct 30	15,900	Oct 30	41,600	Mar 19, 1936
LOWEST DAILY MEAN	231	Sep 20	429	Jul 5	24	Sep 7, 1968
ANNUAL SEVEN-DAY MINIMUM	244	Sep 14	536	Jun 29	54	Aug 5, 1964
MAXIMUM PEAK FLOW			21,900	Nov 20	45,300	Mar 19, 1936
MAXIMUM PEAK STAGE			14.23	Nov 20	24.54	Mar 19, 1936
10 PERCENT EXCEEDS	4,610		4,720		4,000	
50 PERCENT EXCEEDS	1,120		1,410		1,000	
90 PERCENT EXCEEDS	379		626		356	

e Estimated.



04292000 LAMOILLE RIVER AT JOHNSON, VT

LOCATION.--Lat 44° 37'22", long 72° 40'36", Lamoille County, Hydrologic Unit 02010005, on right bank, above falls, 0.8 mi south of State Highways 15 and 100° C intersection in Johnson, 0.8 mi upstream from Railroad Street bridge in Johnson, 0.9 mi upstream from Gihon River, and 1.0 mi downstream of Waterman Brook.

DRAINAGE AREA.--310 mi².

PERIOD OF RECORD.--Discharge records: July to December 1910, June 1911 to December 1913 (monthly discharge only, January to March 1912, February 1913), September 1928 to current year.

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 506.7 ft above National Geodetic Vertical Datum of 1929, by levels. Prior to December 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 power plant upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0530	6,740	12.08	Nov 20	1445	*9,600	*14.34
Oct 29	2230	7,670	12.89				

Minimum discharge, 74 ft³/s, Oct. 11, gage height, 1.94 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	340	1,060	1,140	915	e253	e224	2,260	483	579	145	305	1,610
2	247	855	1,010	757	e247	e275	e3,320	467	2,220	209	225	961
3	243	878	e750	848	e243	e435	e3,090	479	1,570	206	375	738
4	262	981	e670	878	e247	e540	e2,190	739	1,010	156	1,010	505
5	325	904	e620	783	e242	e508	e1,800	835	720	163	490	390
6	309	863	e490	703	e243	e1,120	1,270	775	594	603	304	339
7	269	744	454	e525	e247	e1,400	1,030	711	520	379	282	307
8	225	668	673	e510	e239	887	976	669	445	422	361	348
9	205	582	647	e520	e240	658	1,050	475	364	853	339	1,750
10	189	527	538	e545	e241	566	888	432	485	554	369	2,020
11	129	454	e598	e540	e237	545	786	434	440	335	359	1,120
12	131	459	e1,340	e512	e232	605	721	409	323	249	978	777
13	139	1,170	e941	e517	e230	524	920	363	271	215	3,060	633
14	189	1,210	e764	e514	e223	459	2,320	330	247	198	1,870	451
15	349	823	e696	e534	e204	462	1,800	320	269	203	916	381
16	879	681	e663	e487	e188	400	1,280	562	258	367	642	347
17	566	640	e746	e460	e192	379	963	490	145	474	971	321
18	434	713	e1,670	e421	e201	378	1,130	372	190	352	775	329
19	301	1,290	e1,380	e391	e200	355	1,540	347	327	698	645	358
20	284	7,480	e1,120	e400	e200	350	1,670	462	394	718	593	288
21	2,280	3,450	e968	e385	e205	333	1,150	441	264	574	638	285
22	1,990	1,700	e879	e370	e204	301	971	384	212	399	1,010	266
23	835	1,220	e820	e360	e198	349	874	409	250	790	607	196
24	640	1,030	e1,000	e342	e186	327	745	2,110	273	1,460	474	289
25	512	962	e3,590	e329	e182	347	764	2,890	209	638	399	228
26	434	757	e2,320	e322	e183	1,110	880	1,630	217	458	336	239
27	2,280	671	e1,720	e316	e187	4,020	908	1,150	210	460	264	242
28	4,960	676	1,100	e332	e192	2,910	732	929	181	383	272	208
29	4,280	2,870	1,000	e320	e201	2,360	611	1,090	177	300	933	178
30	4,150	1,580	1,020	e280	---	2,160	623	719	176	239	2,840	165
31	1,660	---	1,080	e265	---	1,980	---	563	---	230	3,680	---
TOTAL	30,036	37,898	32,407	15,381	6,287	27,267	39,262	22,469	13,540	13,430	26,322	16,269
MEAN	969	1,263	1,045	496	217	880	1,309	725	451	433	849	542
MAX	4,960	7,480	3,590	915	253	4,020	3,320	2,890	2,220	1,460	3,680	2,020
MIN	129	454	454	265	182	224	611	320	145	145	225	165
CFSM	3.13	4.08	3.37	1.60	0.70	2.84	4.22	2.34	1.46	1.40	2.74	1.75
IN.	3.60	4.55	3.89	1.85	0.75	3.27	4.71	2.70	1.62	1.61	3.16	1.95

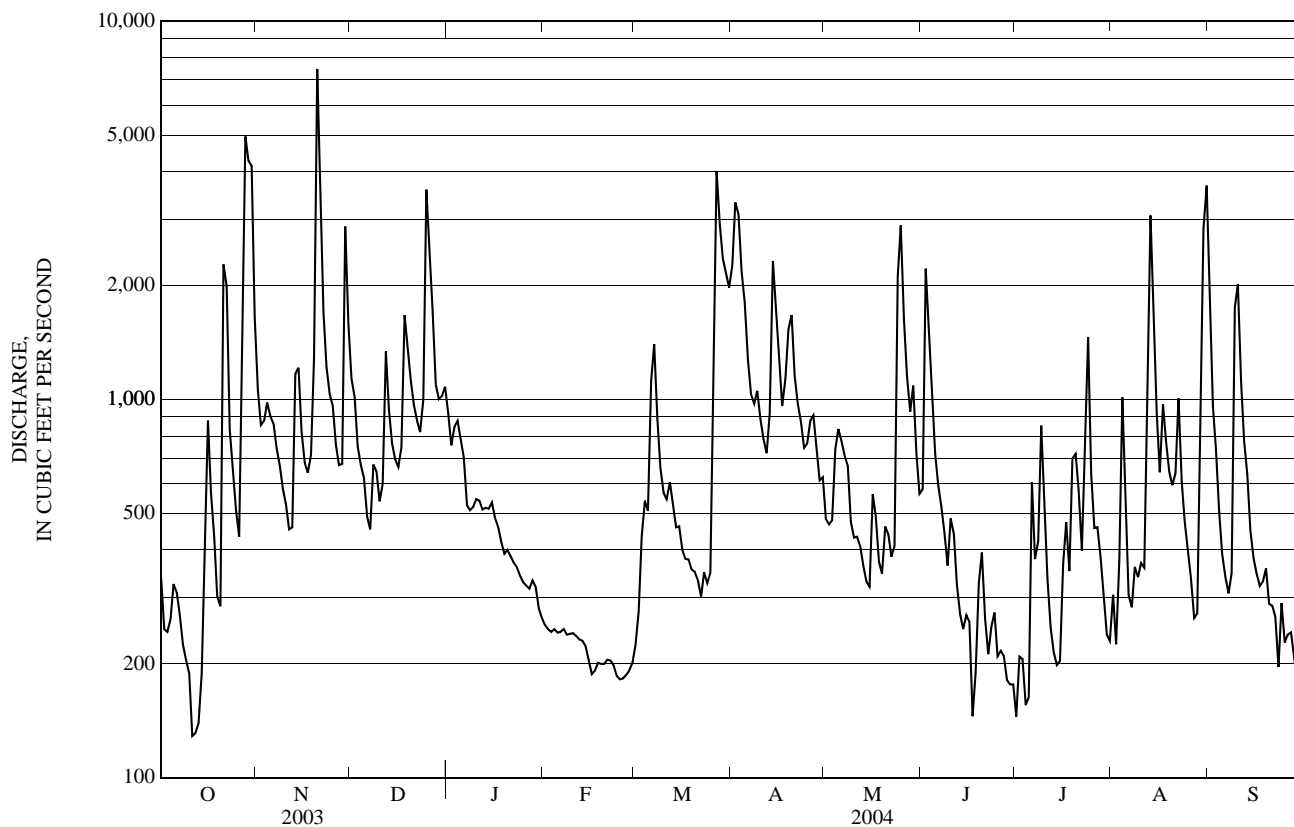
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 14, 1928 - 2004, BY WATER YEAR (WY)

MEAN	400	519	463	376	336	726	1,630	799	421	277	256	256
MAX	1,481	1,263	1,390	959	1,624	2,711	2,868	1,903	1,344	1,028	849	655
(WY)	(1991)	(2004)	(1991)	(1996)	(1981)	(1936)	(1933)	(1972)	(1973)	(1973)	(2004)	(1938)
MIN	84.1	140	162	93.0	114	157	556	245	123	88.5	59.1	93.6
(WY)	(1964)	(1954)	(1948)	(1948)	(1934)	(1940)	(1995)	(1965)	(1988)	(1911)	(2001)	(1978)

04292000 LAMOILLE RIVER AT JOHNSON, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1910 - 14, 1928 - 2004	
ANNUAL TOTAL	231,290		280,568		540	
ANNUAL MEAN	634		767		819	
HIGHEST ANNUAL MEAN					1973	
LOWEST ANNUAL MEAN					305	
HIGHEST DAILY MEAN	7,480	Nov 20	7,480	Nov 20	13,400	Aug 6, 1995
LOWEST DAILY MEAN	a 75	Sep 14	129	Oct 11	16	Oct 26, 1947
ANNUAL SEVEN-DAY MINIMUM	75	Sep 14	172	Oct 8	44	Aug 11, 2001
MAXIMUM PEAK FLOW			9,600		19,000	
MAXIMUM PEAK STAGE			14.34		19.98	
INSTANTANEOUS LOW FLOW			74		11	
ANNUAL RUNOFF (CFSM)	2.04		2.47		1.74	
ANNUAL RUNOFF (INCHES)	27.75		33.67		23.66	
10 PERCENT EXCEEDS	1,360		1,660		1,180	
50 PERCENT EXCEEDS	311		509		298	
90 PERCENT EXCEEDS	96		209		134	

a Also occurred on September 15-18, 2003.
 e Estimated.



04292500 LAMOILLE RIVER AT EAST GEORGIA, VT

LOCATION.--Lat 44° 40'45", long 73° 04'23", Franklin County, Hydrologic Unit 02010005, on right bank, 0.5 mi upstream from New England Central Railroad bridge at East Georgia, 0.9 mi downstream from Beaver Meadow Brook and 3.3 mi northeast of Main Street and US 7 intersection in Milton.

DRAINAGE AREA.--686 mi².

PERIOD OF RECORD.--Discharge records: August 1929 to current year. Prior to October 1937, published as "near Milton."

REVISED RECORDS.--WSP 894: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 285 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to December 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 power plants upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	1915	10,800	9.19	Mar 7	0130	ice jam	*14.72
Oct 30	1045	14,100	10.09	Aug 31	0900	14,700	10.25
Nov 21	0145	*17,600	10.96				

Minimum daily discharge, 272 ft³/s, Oct. 12.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	679	2,650	2,610	e1,800	e500	e470	e3,850	1,220	1,080	423	713	8,690
2	523	1,860	2,110	e1,480	e475	e620	6,640	1,100	3,810	462	665	3,030
3	448	1,730	1,410	e1,600	e470	e860	6,370	1,310	4,470	487	690	1,830
4	490	1,880	e1,260	e1,790	e480	e1,140	4,620	1,660	2,560	413	1,990	1,390
5	623	1,870	e1,110	e1,500	e505	e980	4,330	1,900	1,630	368	1,230	1,090
6	627	1,730	e940	e1,250	e475	e1,800	3,150	1,760	1,250	831	816	939
7	536	1,500	e980	e1,000	e480	e3,050	2,490	1,590	1,060	863	682	834
8	457	1,290	e1,030	e970	e470	e2,200	2,140	1,360	930	756	757	990
9	417	1,130	e950	e1,000	e485	e1,700	2,120	1,130	894	1,250	784	3,480
10	376	1,020	e960	e1,100	e495	e1,040	1,920	981	1,250	1,320	687	7,270
11	350	953	e1,400	e1,050	e490	e1,180	1,640	944	960	852	779	4,570
12	272	931	e2,720	e990	e485	e960	1,460	938	805	644	1,540	2,270
13	352	1,960	e2,150	e1,000	e470	e890	1,580	829	656	561	5,420	1,560
14	333	3,170	e1,600	e1,010	e450	e905	4,490	758	590	524	4,980	1,230
15	352	1,940	e1,450	e1,020	e430	e800	4,430	692	672	540	2,390	1,010
16	1,470	1,400	e1,320	e1,070	e415	e780	2,940	859	763	1,280	1,820	901
17	1,220	1,330	e1,600	e1,150	e395	e740	2,280	918	596	1,530	2,100	819
18	882	1,260	e3,400	e790	e425	e720	2,550	786	487	1,120	1,590	773
19	742	2,070	e2,600	e750	e415	e685	3,420	801	474	1,550	1,210	779
20	574	11,500	e2,100	e790	e420	e660	4,300	754	608	3,550	1,680	729
21	2,610	13,900	e1,850	e770	e435	e620	2,780	774	573	2,680	1,600	648
22	6,020	4,820	e1,700	e750	e420	e590	2,120	816	508	1,240	2,340	630
23	2,220	2,820	e1,620	e710	e415	e700	2,070	922	533	1,230	1,490	597
24	1,350	2,190	e2,030	e700	e405	e640	1,650	2,640	558	3,710	1,240	525
25	1,090	1,990	e8,150	e670	e395	e670	1,590	6,550	663	1,860	1,020	577
26	932	1,680	e5,200	e690	e390	e3,550	1,680	4,110	653	1,100	870	558
27	3,930	1,380	e3,500	e610	e395	e7,600	1,940	2,520	550	901	759	548
28	9,890	1,310	e2,800	e660	e410	e6,200	1,630	1,840	497	862	640	525
29	9,810	4,470	e2,350	e600	e430	e5,000	1,360	2,160	452	762	4,020	473
30	12,700	4,590	e2,080	e525	---	e4,150	1,270	1,520	439	644	10,600	444
31	5,530	---	e2,400	e510	---	e4,000	---	1,160	---	614	13,000	---
TOTAL	67,805	82,324	67,380	30,305	12,925	55,900	84,810	47,302	30,971	34,927	70,102	49,709
MEAN	2,187	2,744	2,174	978	446	1,803	2,827	1,526	1,032	1,127	2,261	1,657
MAX	12,700	13,900	8,150	1,800	505	7,600	6,640	6,550	4,470	3,710	13,000	8,690
MIN	272	931	940	510	390	470	1,270	692	439	368	640	444
CFSM	3.19	4.00	3.17	1.43	0.65	2.63	4.12	2.22	1.50	1.64	3.30	2.42
IN.	3.68	4.46	3.65	1.64	0.70	3.03	4.60	2.57	1.68	1.89	3.80	2.70

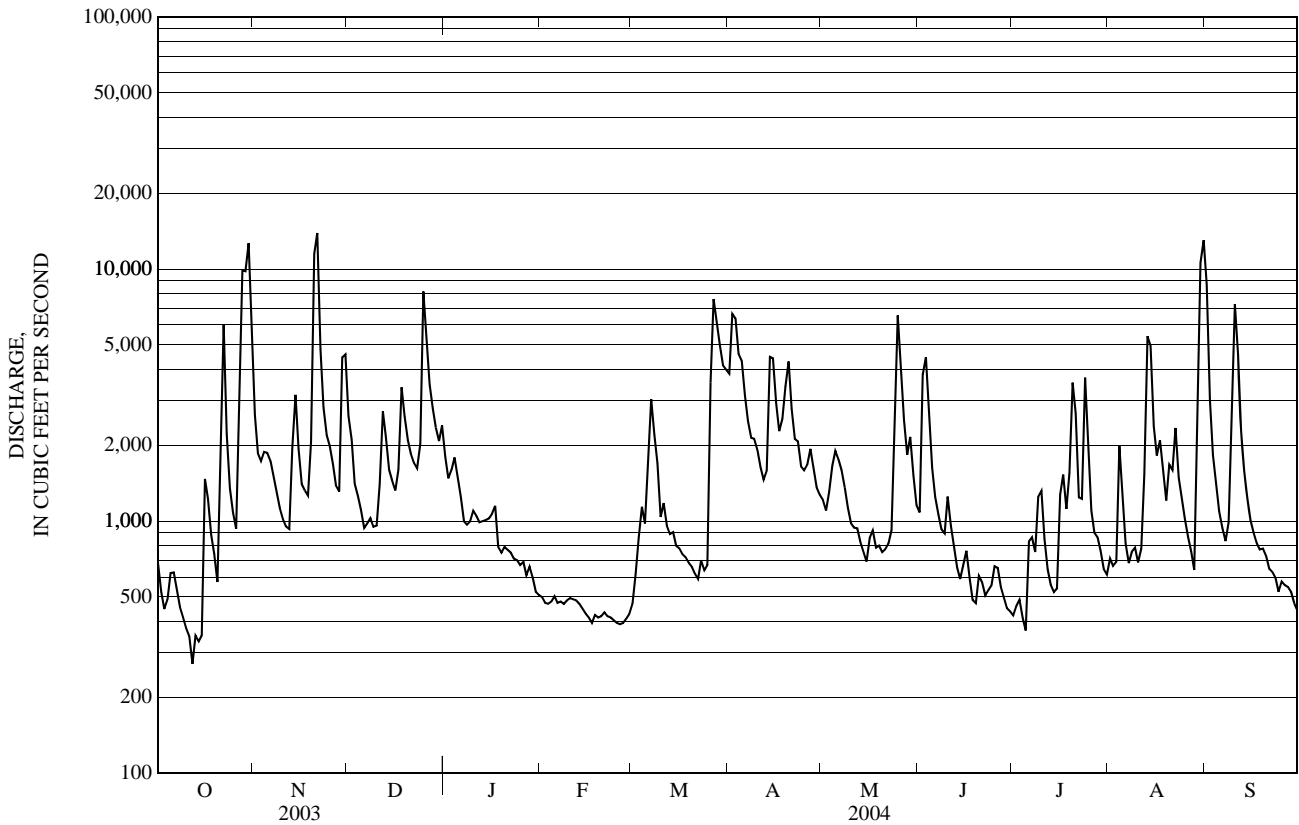
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

MEAN	998	1,313	1,120	901	801	1,664	3,626	1,840	987	651	621	639
MAX	3,330	2,744	3,076	2,197	4,101	5,622	6,211	4,022	3,246	2,609	2,261	1,987
(WY)	(1946)	(2004)	(1974)	(1998)	(1981)	(1936)	(1933)	(1940)	(2002)	(1998)	(2004)	(1938)
MIN	237	306	405	224	293	399	1,253	638	293	223	171	218
(WY)	(1954)	(1954)	(1948)	(1948)	(1962)	(1940)	(1995)	(1987)	(1988)	(1991)	(2001)	(1978)

04292500 LAMOILLE RIVER AT EAST GEORGIA, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	536,033		634,460		1,263	
ANNUAL MEAN	1,469		1,733		1,776	
HIGHEST ANNUAL MEAN					1,776	
LOWEST ANNUAL MEAN					791	
HIGHEST DAILY MEAN	13,900	Nov 21	13,900	Nov 21	21,700	Mar 19, 1936
LOWEST DAILY MEAN	120	Sep 20	272	Oct 12	74	Sep 26, 1964
ANNUAL SEVEN-DAY MINIMUM	181	Sep 16	350	Oct 9	122	Aug 30, 1934
MAXIMUM PEAK FLOW			17,600	Nov 21	23,700	Apr 18, 1982
MAXIMUM PEAK STAGE			a 14.72	Mar 7	a 21.64	Mar 6, 1979
ANNUAL RUNOFF (CF5M)	2.14		2.53		1.84	
ANNUAL RUNOFF (INCHES)	29.07		34.41		25.02	
10 PERCENT EXCEEDS	2,960		3,870		2,800	
50 PERCENT EXCEEDS	849		1,060		720	
90 PERCENT EXCEEDS	245		472		298	

a Ice jam.
e Estimated.



04293000 MISSISQUOI RIVER NEAR NORTH TROY, VT

LOCATION.--Lat 44° 58'22", long 72° 23'09", Orleans County, Hydrologic Unit 02010007, on right bank, 200 ft upstream from Big Falls, 1.5 mi downstream from Jay Branch, 1.8 mi southeast of Town Hall in North Troy, 2.2 mi upstream from State Highway 105 bridge in North Troy, and 8.8 mi west of State Highway 105 and US 5 intersection in Newport.

DRAINAGE AREA.--131 mi².

PERIOD OF RECORD.--Discharge records: 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 National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional regulation at low flow caused by small power plant upstream; greater regulation prior to 1967.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s, June 12, 2002, gage height, 14.55 ft; minimum, 9.4 ft³/s, August 28, 1949.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 21	1715	3,820	8.29	Nov 20	1515	*6,600	*10.92
Oct 28	0645	4,320	8.82	Mar 27	0245	3,870	8.35
Oct 30	0100	4,580	9.08	Aug 31	0415	4,990	9.48

Minimum discharge, 46 ft³/s, Oct. 14, 15, July 5, gage height, 1.37 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	419	569	e478	e110	e98	1,260	350	267	59	119	986
2	71	333	e349	e395	e110	e130	1,810	324	901	64	82	378
3	83	333	e175	e405	e109	e330	1,150	322	583	58	100	240
4	80	360	e190	e455	e108	e290	836	418	359	51	204	177
5	134	412	e185	e390	e108	e260	859	376	246	49	107	144
6	123	428	e180	e332	e110	e1,060	486	343	185	89	80	127
7	89	307	e190	e241	e110	1,200	394	325	160	66	72	115
8	73	251	e214	e216	e110	594	362	250	141	95	105	132
9	65	208	e203	e230	e109	382	422	214	145	166	112	1,520
10	60	194	e214	e250	e110	297	383	192	185	113	79	1,840
11	56	190	e230	e280	e112	289	297	223	126	103	145	649
12	53	254	e649	e260	e108	304	291	196	106	75	435	336
13	50	1,140	e370	e252	e105	255	439	169	97	70	1,770	230
14	48	814	e296	e248	e100	218	1,610	153	90	60	859	177
15	198	444	e242	e268	e93	216	852	142	183	91	306	152
16	854	358	e250	e225	e84	187	627	146	145	357	203	135
17	354	309	e270	e210	e85	178	610	132	98	291	288	124
18	240	288	e795	e185	e88	177	927	183	84	145	162	114
19	190	899	e608	e173	e89	167	1,230	363	107	355	272	110
20	152	5,220	e410	e162	e89	161	1,670	192	125	285	492	102
21	2,160	1,660	e325	e155	e90	171	689	202	87	261	423	96
22	1,950	654	e320	e145	e88	150	707	179	75	132	489	92
23	444	463	e325	e139	e85	140	612	244	81	214	221	83
24	290	379	e447	e135	e82	150	523	773	72	407	227	76
25	219	334	e1,950	e128	e80	182	422	1,300	105	158	152	74
26	196	285	1,520	e125	e81	848	532	599	100	108	118	86
27	1,980	255	762	e123	e83	3,270	487	409	81	91	102	77
28	3,280	281	e520	e120	e86	1,630	439	373	71	84	91	71
29	2,660	1,610	e495	e115	e91	1,140	367	437	69	80	142	69
30	2,540	791	e470	e113	---	1,160	370	257	68	69	1,300	67
31	673	---	e510	e112	---	1,060	---	196	---	73	3,920	---
TOTAL	19,452	19,873	14,233	7,065	2,813	16,694	21,663	9,982	5,142	4,319	13,177	8,579
MEAN	627	662	459	228	97.0	539	722	322	171	139	425	286
MAX	3,280	5,220	1,950	478	112	3,270	1,810	1,300	901	407	3,920	1,840
MIN	48	190	175	112	80	98	291	132	68	49	72	67
CFSM	4.79	5.06	3.50	1.74	0.74	4.11	5.51	2.46	1.31	1.06	3.24	2.18
IN.	5.52	5.64	4.04	2.01	0.80	4.74	6.15	2.83	1.46	1.23	3.74	2.44

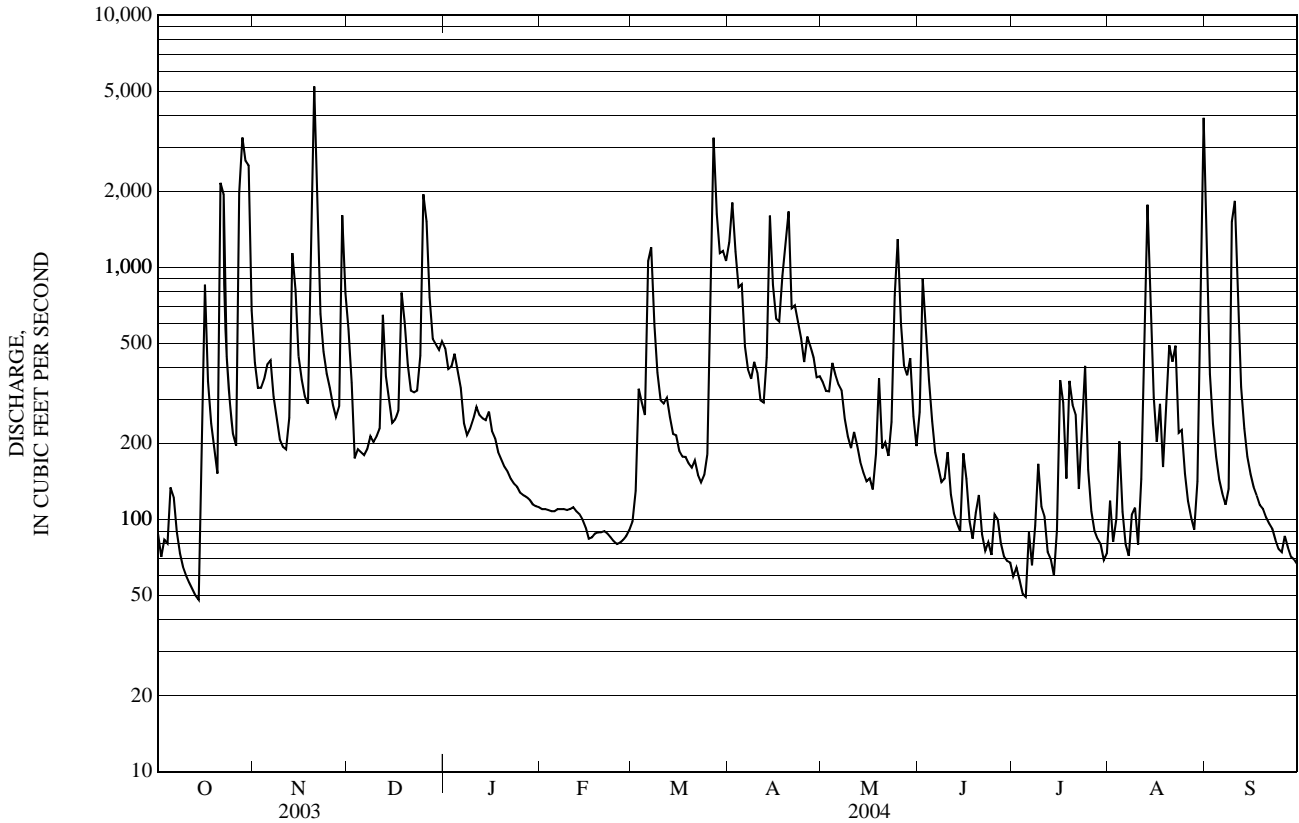
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

	223	290	229	167	140	379	876	416	196	121	116	135
MEAN	223	290	229	167	140	379	876	416	196	121	116	135
MAX	653	662	585	661	796	1,225	1,522	991	932	412	454	421
(WY)	(1946)	(2004)	(1974)	(1998)	(1981)	(1936)	(1933)	(1940)	(2002)	(1997)	(1976)	(1945)
MIN	51.3	97.6	60.9	53.9	34.0	57.0	265	143	43.7	32.0	19.7	31.5
(WY)	(1949)	(1979)	(1956)	(1940)	(1980)	(1941)	(1995)	(1977)	(1933)	(1934)	(1934)	(1953)

04293000 MISSISQUOI RIVER NEAR NORTH TROY, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	119,431		142,992			
ANNUAL MEAN	327		391		274	
HIGHEST ANNUAL MEAN					391 2004	
LOWEST ANNUAL MEAN					168 1965	
HIGHEST DAILY MEAN	5,220	Nov 20	5,220	Nov 20	8,330	Jun 12, 2002
LOWEST DAILY MEAN	32	Sep 19	48	Oct 14	11	Aug 28, 1949
ANNUAL SEVEN-DAY MINIMUM	34	Sep 13	58	Oct 8	15	Aug 22, 1934
MAXIMUM PEAK FLOW			6,600 Nov 20		11,500 Jun 12, 2002	
MAXIMUM PEAK STAGE			10.92 Nov 20		14.55 Jun 12, 2002	
INSTANTANEOUS LOW FLOW			a 46 Oct 14		9.4 Aug 28, 1949	
ANNUAL RUNOFF (CFSM)	2.50		2.98		2.09	
ANNUAL RUNOFF (INCHES)	33.91		40.61		28.39	
10 PERCENT EXCEEDS	754		859		634	
50 PERCENT EXCEEDS	140		209		128	
90 PERCENT EXCEEDS	45		81		46	

a Also occurred on October 15 and July 5.
 e Estimated.



04293500 MISSISQUOI RIVER NEAR EAST BERKSHIRE, VT

LOCATION.--Lat 44° 57'36", long 72° 41'49", Franklin County, Hydrologic Unit 02010007, on left bank, 0.4 mi upstream of State Highway 105 bridge, 1.9 mi north of intersection of State Highways 105 and 118 in East Berkshire, 1.9 mi upstream from Trout River, 2.6 mi southwest of Town Hall in Richford, and 3.6 mi downstream from North Branch.

DRAINAGE AREA.--479 mi².

PERIOD OF RECORD.--Discharge records: July 1911 to September 1923, October 1928 to current year. Monthly discharge only for July 1911 to July 1915, September 1916, March 1920 to July 1920, March 1921 to July 1921, published in WSP 1307. Prior to October 1977, published as "near Richford."

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 National Geodetic Vertical Datum of 1929, from topographic map. Prior to August 1, 1915, nonrecording gage at site 0.2 mi downstream at datum 4.35 ft lower. August 1, 1915 to September 30, 1923, water-stage recorder at present site and datum. October 1, 1928 to September 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 14,100 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.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1645	*11,500	12.29	Mar 27	0330	e9,780	*14.79
Nov 20	1100	11,400	12.22	Aug 31	0815	8,980	10.66
Dec 25	----	e7,900	ice jam				

Minimum discharge, 109 ft³/s, Oct. 14, 15, gage height 2.02 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	270	2,610	2,700	e1,550	e395	e335	5,190	1,030	973	233	1,100	6,750
2	198	1,620	2,030	e1,330	e390	e375	5,980	949	2,590	250	830	3,000
3	191	1,280	e1,240	e1,380	e380	e850	5,860	1,050	2,740	246	863	1,270
4	183	1,240	e910	e1,560	e380	e1,050	4,690	1,340	1,880	209	854	881
5	230	1,350	e680	e1,300	e375	e890	4,020	1,420	1,260	186	657	714
6	282	1,490	e615	e1,050	e370	e3,550	3,040	1,280	899	213	478	600
7	242	1,190	e640	e900	e370	e4,150	2,340	1,160	714	230	391	523
8	192	954	e800	e730	e370	e2,400	2,000	943	609	307	494	566
9	164	780	e720	e760	e375	e1,620	1,960	786	556	1,200	686	1,890
10	151	690	e730	e840	e380	e1,150	1,850	701	1,020	770	505	6,390
11	137	657	e770	e910	e390	e1,010	1,560	698	672	609	918	4,030
12	126	763	e2,150	e930	e385	e1,050	1,380	685	483	506	4,200	2,020
13	115	1,710	e1,750	e830	e375	e950	1,630	589	394	698	6,110	1,260
14	112	3,040	e1,400	e850	e365	e840	4,380	521	343	474	5,070	917
15	156	1,900	e1,150	e920	e340	e730	4,350	502	624	623	2,810	698
16	e775	1,490	e900	e830	e310	e680	3,160	460	684	1,670	1,490	595
17	e1,980	1,210	e950	e760	e285	e630	2,620	409	468	1,810	1,220	553
18	e940	1,060	e1,830	e690	e290	e595	3,010	415	362	1,090	902	498
19	e670	2,420	e2,700	e630	e295	e580	3,390	799	409	1,120	1,380	442
20	e580	9,650	e2,100	e595	e300	e570	4,660	686	447	879	2,140	402
21	2,800	9,380	e1,700	e550	e305	e630	3,460	544	365	788	1,440	369
22	4,940	4,840	e1,400	e530	e300	e560	2,440	566	292	577	1,690	341
23	3,270	2,460	e1,130	e490	e300	e480	2,190	526	275	1,110	1,060	316
24	1,400	1,700	e2,400	e465	e285	e550	1,650	1,210	261	1,820	911	290
25	911	1,370	e6,630	e450	e270	e735	1,470	3,470	497	1,590	736	271
26	753	1,140	e5,070	e430	e270	e2,880	1,370	2,660	443	1,200	566	271
27	4,090	982	e3,800	e415	e275	e8,200	1,470	1,810	368	755	471	267
28	7,630	1,000	e2,400	e410	e285	e7,500	1,310	1,510	299	478	422	247
29	8,880	3,420	e1,990	e400	e300	6,450	1,170	1,770	259	403	448	228
30	8,680	3,890	e1,600	e400	---	5,840	1,080	1,190	255	352	2,160	217
31	5,540	---	e1,780	e405	---	5,120	---	868	---	605	7,570	---
TOTAL	56,588	67,286	56,665	24,290	9,710	62,950	84,680	32,547	21,441	23,001	50,572	36,816
MEAN	1,825	2,243	1,828	784	335	2,031	2,823	1,050	715	742	1,631	1,227
MAX	8,880	9,650	6,630	1,560	395	8,200	5,980	3,470	2,740	1,820	7,570	6,750
MIN	112	657	615	400	270	335	1,080	409	255	186	391	217
CFSM	3.81	4.68	3.82	1.64	0.70	4.24	5.89	2.19	1.49	1.55	3.41	2.56
IN.	4.39	5.23	4.40	1.89	0.75	4.89	6.58	2.53	1.67	1.79	3.93	2.86

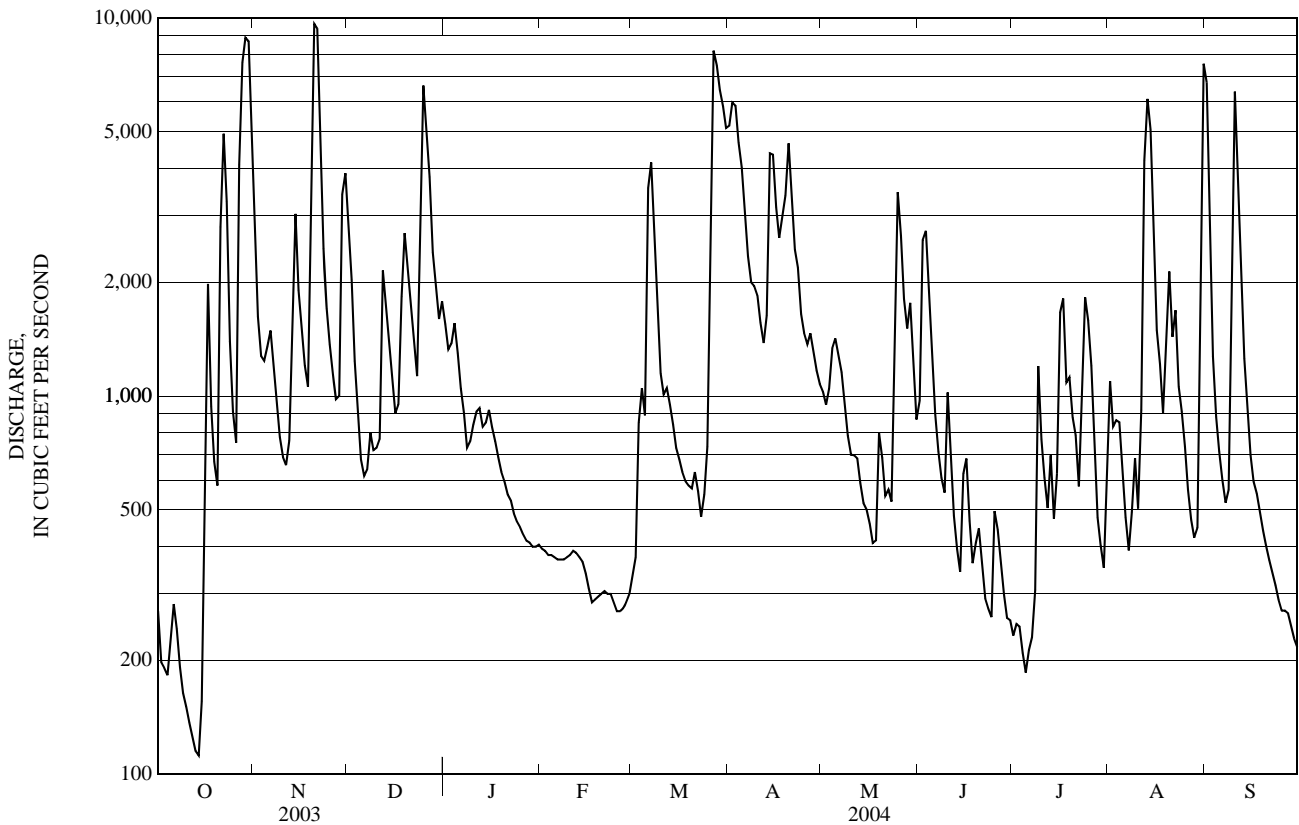
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 23, 1929 - 2004, BY WATER YEAR (WY)

MEAN	778	1,038	856	651	516	1,375	2,966	1,307	691	416	366	418
MAX	2,295	2,385	2,330	2,284	2,439	4,013	4,882	3,187	2,509	1,671	1,631	1,365
(WY)	(1978)	(1984)	(1984)	(1998)	(1981)	(1936)	(1969)	(1940)	(2002)	(1974)	(2004)	(1954)
MIN	87.4	241	270	157	115	240	922	453	175	86.0	63.3	57.5
(WY)	(1949)	(1954)	(1956)	(1918)	(1980)	(1941)	(1995)	(1977)	(1999)	(1991)	(1934)	(1921)

04293500 MISSISQUOI RIVER NEAR EAST BERKSHIRE, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1915 - 23, 1929 - 2004	
ANNUAL TOTAL	415,014		526,546		947	
ANNUAL MEAN	1,137		1,439		1,439	
HIGHEST ANNUAL MEAN					2004	
LOWEST ANNUAL MEAN					1965	
HIGHEST DAILY MEAN	9,650	Nov 20	9,650	Nov 20	18,200	Mar 31, 1998
LOWEST DAILY MEAN	ae 80	Sep 17	112	Oct 14	28	Aug 20, 1919
ANNUAL SEVEN-DAY MINIMUM	80	Sep 16	137	Oct 9	39	Aug 22, 1934
MAXIMUM PEAK FLOW			11,500	Oct 29	21,200	Apr 18, 1982
MAXIMUM PEAK STAGE			b 14.79	Mar 27	b 18.92	Mar 15, 1946
INSTANTANEOUS LOW FLOW			c 109	Oct 14	8.0	Jul 14, 1911
ANNUAL RUNOFF (CFSM)	2.37		3.00		1.98	
ANNUAL RUNOFF (INCHES)	32.23		40.89		26.86	
10 PERCENT EXCEEDS	3,000		3,460		2,250	
50 PERCENT EXCEEDS	487		840		470	
90 PERCENT EXCEEDS	137		285		146	

- a Also occurred on September 18-22, 2003.
- b Ice jam.
- c Also occurred on October 15.
- e Estimated.



04294000 MISSISQUOI RIVER AT SWANTON, VT

LOCATION.--Lat 44° 55'00", long 73° 07'44", Franklin County, Hydrologic Unit 02010007, on left bank, at Old Railroad abutment, 0.3 mi upstream of dam and Depot Street (Route 78) bridge, 0.3 mi southwest of Post Office in Swanton, 1.1 mi west of Highway 78 and Interstate 89 interchange, and 7.9 mi upstream of mouth.

DRAINAGE AREA.--850 mi².

PERIOD OF RECORD.--Discharge records: March 1990 to current year.

GAGE.--Water-stage recorder and crest stage gage. Elevation of gage is 105 ft above National Geodetic Vertical Datum of 1929, from topographic map. July 6, 1989 to February 28, 1990, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Low flows regulated by power plants upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0830	15,900	5.62	Aug 13	0230	14,100	5.24
Oct 30	0230	19,300	6.31	Aug 31	1500	18,300	6.12
Nov 20	2045	*20,600	*6.57	Sep 10	1515	13,500	5.10
Dec 25	1715	12,500	4.89				

Minimum daily discharge, 174 ft³/s, Oct. 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	538	5,190	4,850	4,370	e620	e470	8,880	1,760	1,300	363	1,420	12,300
2	339	2,880	3,530	3,260	e540	e550	10,400	1,710	3,950	342	1,260	7,070
3	270	2,310	1,950	2,940	e530	e1,050	9,980	2,150	4,850	278	1,150	2,790
4	267	2,200	1,550	4,310	e560	e1,680	8,320	2,550	3,350	268	1,950	1,730
5	276	2,250	1,190	e4,000	e520	e1,620	7,750	2,600	2,130	267	1,040	1,130
6	458	2,560	1,020	e2,810	e460	e4,900	5,920	2,280	1,510	345	783	1,020
7	321	2,090	792	e1,900	e540	8,070	4,650	2,070	1,200	286	599	942
8	320	1,740	e1,320	e1,350	e530	6,250	3,990	1,580	916	396	571	1,020
9	307	1,260	e1,180	e1,250	e570	4,280	3,650	1,310	915	1,780	977	3,080
10	207	1,180	e1,200	e1,390	e550	3,070	3,320	1,190	1,000	1,800	752	10,800
11	174	1,020	1,680	e1,420	e550	2,720	2,980	1,110	972	719	1,350	8,170
12	186	1,320	5,330	e1,110	e600	2,870	2,640	1,060	709	845	6,730	4,360
13	235	2,110	e2,960	e1,370	e585	2,470	2,770	1,000	522	900	12,100	2,340
14	194	4,750	e2,350	e1,350	e560	2,050	7,030	723	586	641	9,530	1,700
15	275	3,340	2,120	e1,320	e515	1,650	7,570	679	718	614	5,230	1,330
16	1,280	2,160	e2,020	e1,290	e475	1,500	5,760	736	1,100	2,270	2,620	904
17	1,750	2,050	1,940	e1,200	e445	1,270	4,450	787	766	3,000	2,360	869
18	1,090	1,840	2,620	e1,100	e435	1,280	4,640	568	572	1,920	1,850	711
19	751	3,050	3,550	e1,050	e450	1,220	5,060	1,190	494	2,350	1,430	626
20	662	15,100	e3,580	e970	e445	1,110	7,130	1,140	471	2,280	4,150	566
21	3,560	15,100	e2,870	e920	e460	1,140	5,780	842	505	1,970	2,650	630
22	8,310	9,240	2,380	e870	e460	1,070	3,870	773	512	1,350	2,770	504
23	5,760	4,690	2,210	e845	e460	996	3,680	852	374	760	2,070	440
24	2,540	2,990	2,800	e820	e455	997	2,700	1,610	306	2,660	1,650	376
25	1,550	2,500	10,400	e780	e435	1,290	2,560	5,850	619	2,160	1,300	553
26	1,130	2,110	9,720	e740	e430	4,080	2,390	5,110	814	1,760	1,090	338
27	5,370	1,840	e6,610	e700	e435	e14,600	2,490	3,100	515	1,160	639	471
28	13,800	1,570	e4,110	e680	e445	e13,300	2,320	2,390	538	760	536	340
29	12,700	5,630	4,060	e645	e445	e11,500	2,110	2,880	443	593	677	343
30	15,700	6,890	3,700	e620	---	10,500	1,890	2,060	350	517	5,230	286
31	9,980	---	4,920	e580	---	9,240	---	1,500	---	640	15,400	---
TOTAL	90,300	112,960	100,512	47,960	14,505	118,793	146,680	55,160	33,007	35,994	91,864	67,739
MEAN	2,913	3,765	3,242	1,547	500	3,832	4,889	1,779	1,100	1,161	2,963	2,258
MAX	15,700	15,100	10,400	4,370	620	14,600	10,400	5,850	4,850	3,000	15,400	12,300
MIN	174	1,020	792	580	430	470	1,890	568	306	267	536	286

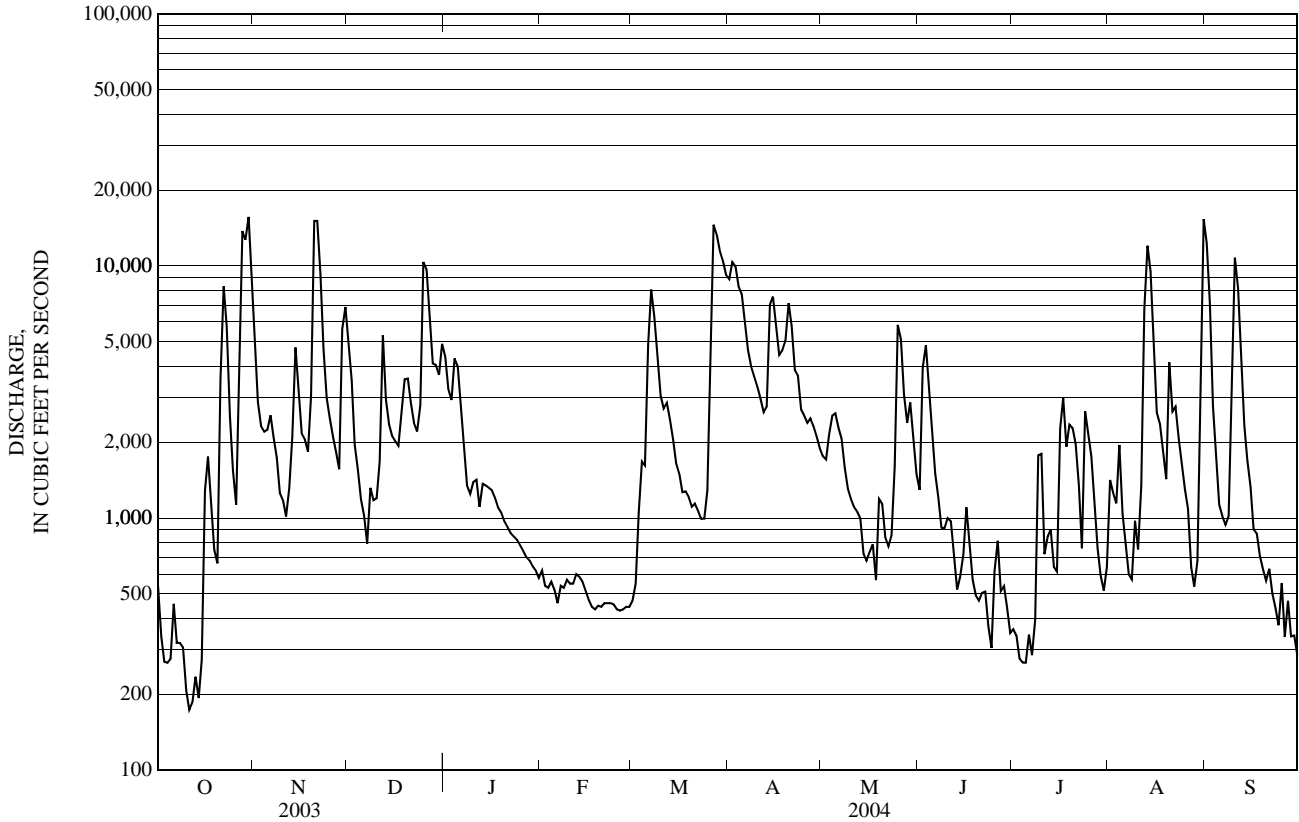
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	1,461	1,942	1,575	1,463	877	2,790	4,782	2,010	1,219	900	740	688			
MAX	2,913	3,765	3,894	4,324	1,670	5,220	7,078	3,920	5,243	2,042	2,963	2,258			
(WY)	(2004)	(2004)	(1997)	(1998)	(1996)	(2000)	(1993)	(2000)	(2002)	(1997)	(2004)	(2004)			
MIN	295	745	596	429	317	676	1,527	629	363	148	185	165			
(WY)	(1995)	(2002)	(1993)	(1994)	(1993)	(2001)	(1995)	(1998)	(1999)	(1991)	(2001)	(1995)			

04294000 MISSISQUOI RIVER AT SWANTON, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	698,789		915,474		1,697	
ANNUAL MEAN	1,914		2,501		2,501	
HIGHEST ANNUAL MEAN					1,137	2004
LOWEST ANNUAL MEAN					1,137	1999
HIGHEST DAILY MEAN	15,700	Oct 30	15,700	Oct 30	29,500	Jan 9, 1998
LOWEST DAILY MEAN	118	Sep 14	174	Oct 11	33	Sep 7, 1999
ANNUAL SEVEN-DAY MINIMUM	126	Sep 14	225	Oct 9	70	Sep 2, 1999
MAXIMUM PEAK FLOW			20,600	Nov 20	37,700	Jan 20, 1996
MAXIMUM PEAK STAGE			6.57	Nov 20	9.50	Jan 20, 1996
10 PERCENT EXCEEDS	4,940		5,870		4,200	
50 PERCENT EXCEEDS	770		1,350		820	
90 PERCENT EXCEEDS	236		445		231	

e Estimated.



04294300 PIKE RIVER AT EAST FRANKLIN, NEAR ENOSBURG FALLS, VT

LOCATION.--Lat 45° 00'10", long 72° 50'08", Franklin County, Hydrologic Unit 02010007, on left bank, 200 ft downstream from unnamed left bank tributary from Lake Carmi, 0.5 mi north of Scott Road and State Highway 120 intersection in East Franklin, 1.0 mi upstream from the US and Canada Border, 1.4 mi northwest of State Highway 108 and Berkshire Road intersection in West Berkshire, 1.6 mi northeast of Lake Carmi outlet, and 6.8 mi north of Town Hall in Enosburg Falls.

DRAINAGE AREA.--34.5 mi².

PERIOD OF RECORD.--Discharge records: August 2001 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0815	571	3.68	Mar 27	1000	*1,610	*5.28
Oct 30	0300	683	3.89	Mar 31	0445	428	3.38
Nov 20	1515	1,460	5.09	Apr 2	0645	473	3.48
Dec 25	2245	410	3.34	Aug 13	0545	525	3.59
Mar 6	1630	e500	ice jam	Aug 31	0715	432	3.39

Minimum discharge, 2.5 ft³/s, Oct. 14, 15, gage height, 1.27 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	89	132	171	e36	e34	368	53	59	9.1	145	171
2	4.6	78	95	136	e35	e37	421	51	176	11	45	77
3	5.4	78	e87	142	e34	e60	296	85	107	8.7	43	59
4	5.6	83	e82	191	e34	e110	235	113	81	7.0	61	52
5	8.4	92	e78	171	e36	e185	239	101	56	5.7	32	45
6	8.8	88	e87	148	e34	e370	184	88	43	7.8	22	39
7	7.0	75	e105	e129	e35	e600	176	74	37	5.7	19	34
8	5.3	63	e125	e105	e34	e205	167	59	32	17	36	42
9	4.4	54	e115	e93	e34	e135	156	52	28	113	54	156
10	4.0	51	e102	e84	e34	e125	142	47	28	53	26	310
11	3.9	51	e110	e75	e34	e135	124	53	23	29	77	164
12	3.4	62	e190	e68	e33	e145	115	47	21	20	302	79
13	3.4	103	e140	e63	e33	e125	139	41	17	35	471	60
14	2.8	117	e100	e60	e32	e108	329	37	15	19	266	50
15	4.5	85	e80	e56	e32	e93	197	38	52	50	86	44
16	15	70	e90	e53	e31	e84	138	35	33	60	57	40
17	15	63	e103	e49	e33	e79	117	29	22	39	50	39
18	13	69	e145	e48	e31	e76	116	29	18	28	43	34
19	11	157	e132	e49	e32	e73	110	41	18	78	107	30
20	9.6	930	e115	e47	e31	e73	106	29	15	34	226	27
21	114	387	e105	e46	e30	e74	84	27	11	22	102	25
22	113	138	e94	e47	e32	e74	81	23	9.4	23	85	24
23	37	111	e88	e48	e36	e73	78	24	9.6	52	64	22
24	27	95	e107	e45	e35	e72	76	71	8.0	76	68	20
25	18	96	315	e43	e33	e82	68	158	33	28	46	19
26	22	87	388	e40	e34	e280	86	99	22	18	37	19
27	207	82	295	e42	e32	1,220	78	74	16	14	33	17
28	440	94	223	e44	e32	568	76	82	12	12	31	16
29	294	298	153	e41	e33	467	68	66	9.7	11	39	15
30	430	206	155	e39	---	421	59	45	11	8.4	152	13
31	119	---	194	e38	---	364	---	36	---	35	394	---
TOTAL	1,960.3	4,052	4,330	2,411	965	6,547	4,629	1,807	1,022.7	929.4	3,219	1,742
MEAN	63.2	135	140	77.8	33.3	211	154	58.3	34.1	30.0	104	58.1
MAX	440	930	388	191	36	1,220	421	158	176	113	471	310
MIN	2.8	51	78	38	30	34	59	23	8.0	5.7	19	13
CFSM	1.83	3.91	4.05	2.25	0.96	6.12	4.47	1.69	0.99	0.87	3.01	1.68
IN.	2.11	4.37	4.67	2.60	1.04	7.06	4.99	1.95	1.10	1.00	3.47	1.88

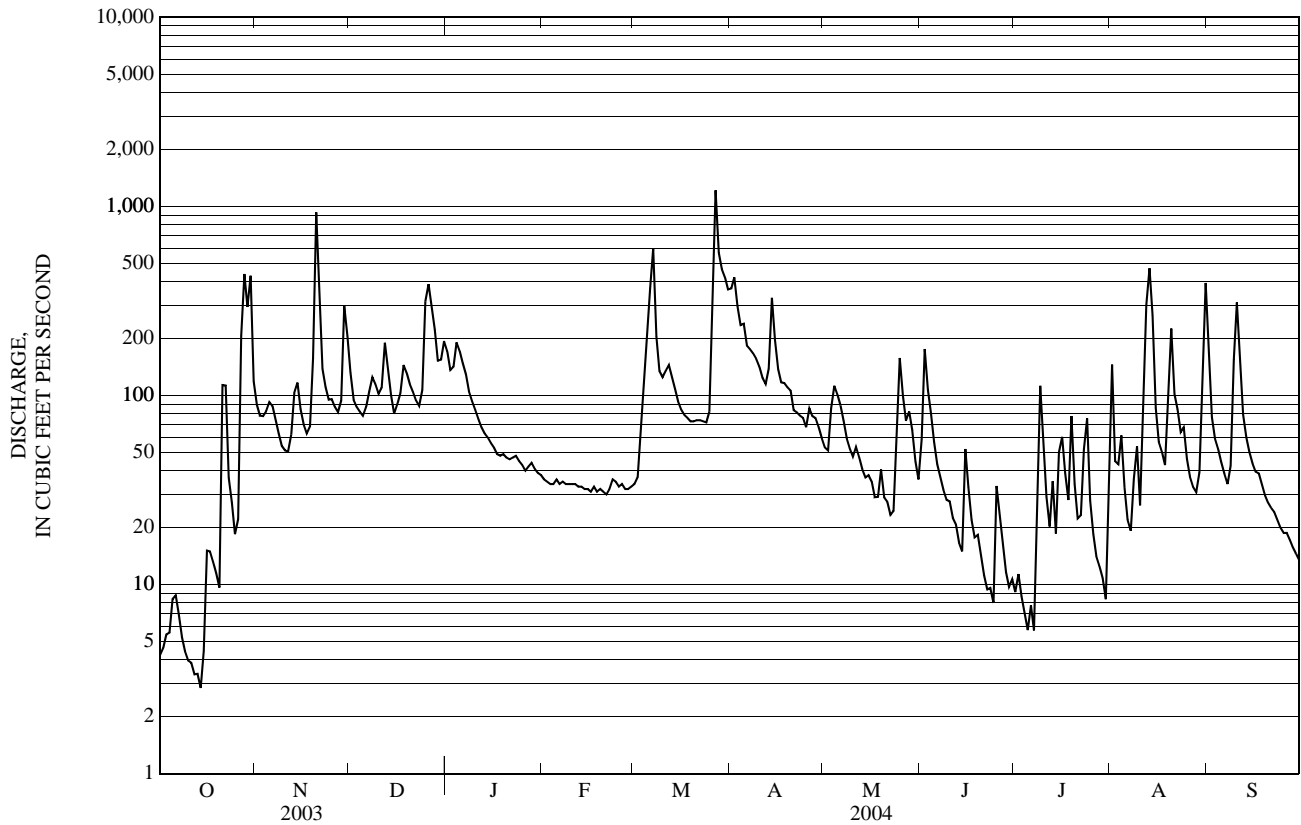
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	39.7	71.3	64.1	38.1	22.1	132	116	71.5	86.6	24.7	42.3	22.5
MAX	63.2	135	140	77.8	33.3	211	154	79.6	170	36.5	104	58.1
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2002)	(2002)	(2002)	(2004)	(2004)
MIN	5.21	16.6	21.5	15.8	11.1	82.4	96.3	58.3	34.1	7.46	9.08	2.38
(WY)	(2002)	(2002)	(2002)	(2002)	(2003)	(2002)	(2003)	(2004)	(2004)	(2003)	(2002)	(2003)

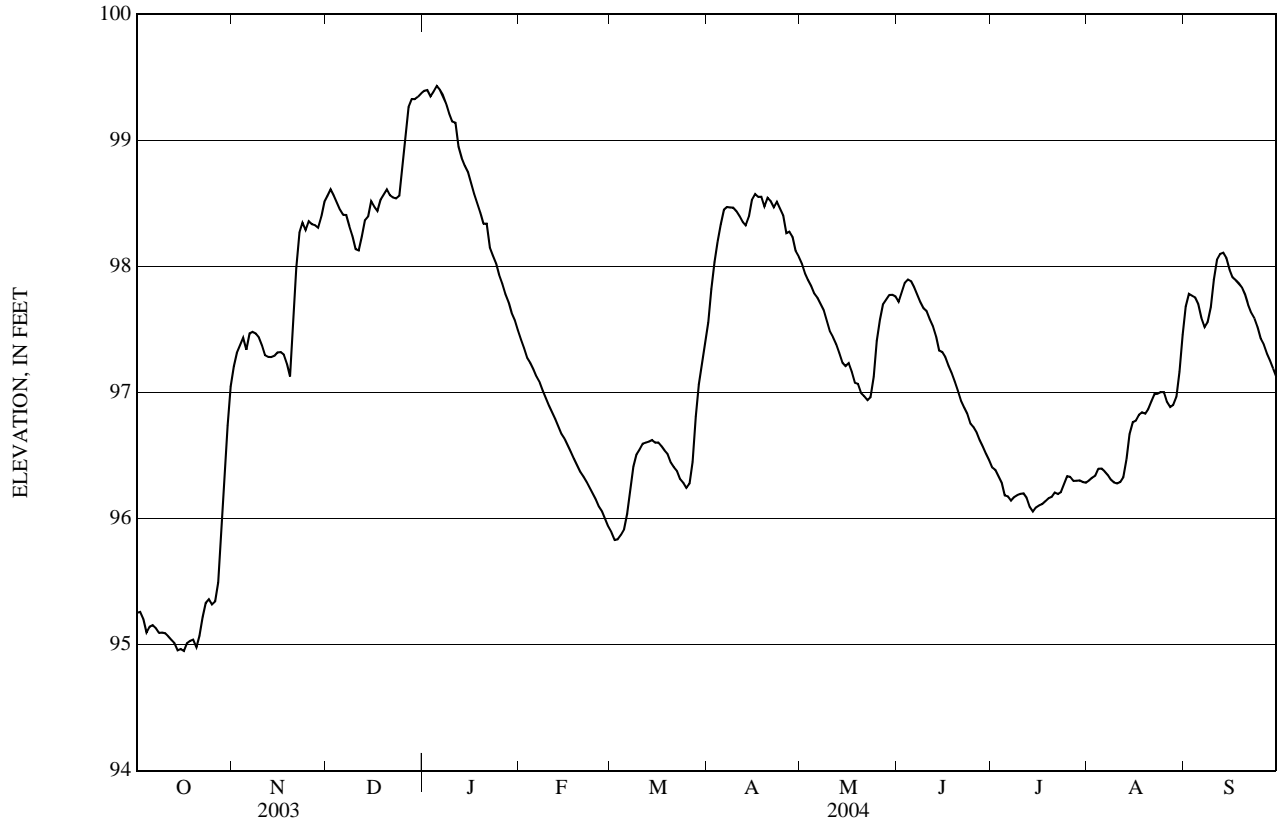
04294300 PIKE RIVER AT EAST FRANKLIN, NEAR ENOSBURG FALLS, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	22,132.08		33,614.4			
ANNUAL MEAN	60.6		91.8		61.5	
HIGHEST ANNUAL MEAN					91.8	2004
LOWEST ANNUAL MEAN					44.4	2003
HIGHEST DAILY MEAN	930	Nov 20	1,220	Mar 27	1,300	Jun 12, 2002
LOWEST DAILY MEAN	0.93	Sep 22	2.8	Oct 14	0.52	Aug 16, 2001
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 16	3.8	Oct 9	0.69	Aug 13, 2001
MAXIMUM PEAK FLOW			1,610	Mar 27	2,120	Jun 12, 2002
MAXIMUM PEAK STAGE			5.28	Mar 27	5.91	Jun 12, 2002
INSTANTANEOUS LOW FLOW			a 2.5	Oct 14	0.42	Aug 16, 2001
ANNUAL RUNOFF (CFSM)	1.76		2.66		1.78	
ANNUAL RUNOFF (INCHES)	23.86		36.25		24.23	
10 PERCENT EXCEEDS	141		190		138	
50 PERCENT EXCEEDS	20		56		34	
90 PERCENT EXCEEDS	4.0		14		6.2	

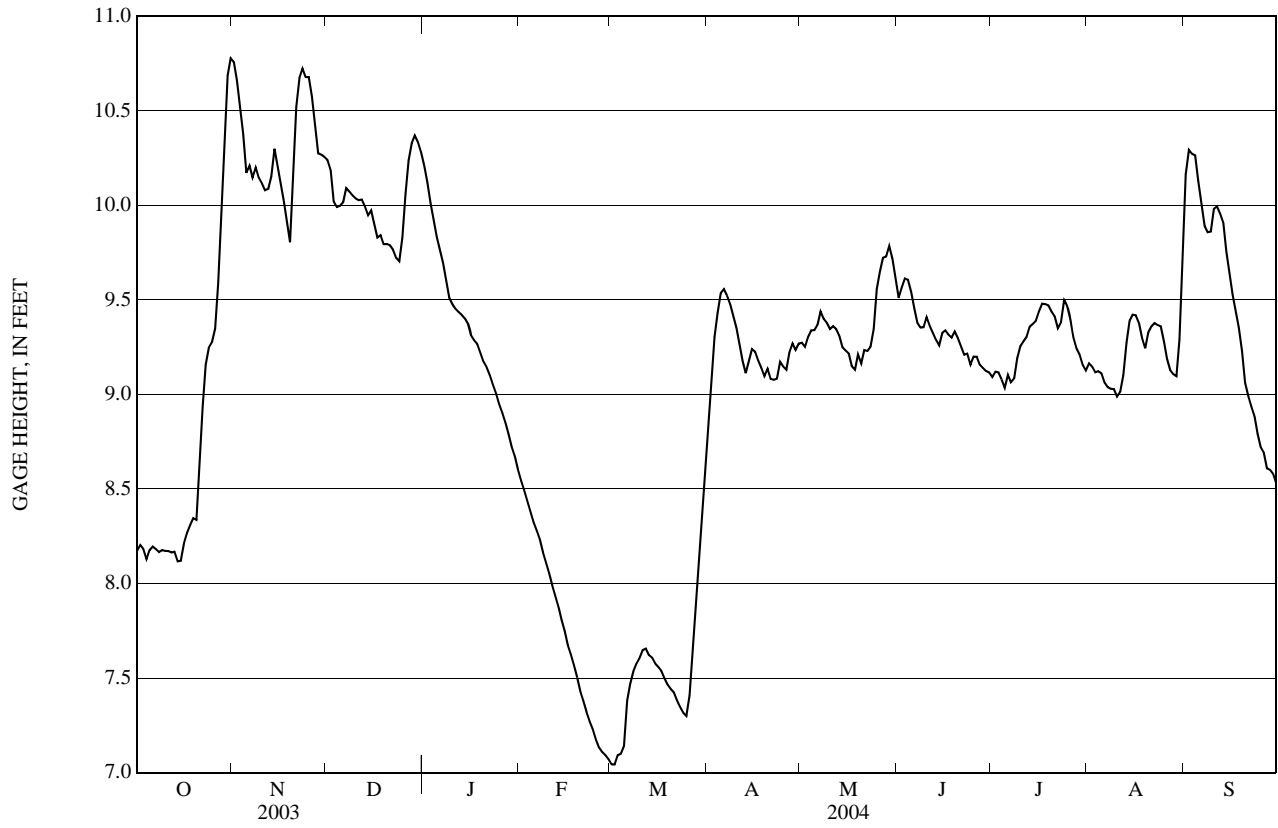
a Also occurred on October 15.
 e Estimated.



04294500 LAKE CHAMPLAIN AT BURLINGTON, VT—Continued



04295500 LAKE MEMPHREMAGOG AT NEWPORT, VT—Continued



04296000 BLACK RIVER AT COVENTRY, VT

LOCATION.--Lat 44° 52'08", long 72° 16'14", Orleans County, Hydrologic Unit 01110000, on right bank, 15 ft downstream from Loop Road bridge, 800 ft upstream from Stony Brook, 0.3 mi northwest of Loop Road and Main Street intersection in Coventry, and 4.6 mi north of State Highways 14 and 58 interaction in Irasburg.

DRAINAGE AREA.--122 mi².

PERIOD OF RECORD.--Discharge records: October 1951 to current year.

PERIOD OF DAILY WATER-QUALITY RECORD.--Water years 1978 to 1981.

SPECIFIC CONDUCTANCE: November 1977 to March 1979, May and June 1979, and December 1980 to July 1981.

WATER TEMPERATURE: November and December 1977, June to August 1978, May and June 1979, October 1979 to March 1980, May to September 1980, and December 1980 to July 1981.

GAGE.--Water-stage recorder. Elevation of gage is 710 ft above National Geodetic Vertical Datum of 1929, 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.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	2315	1,820	6.15	Nov 20	1045	1,960	6.31
Oct 29	1530	2,200	6.56	Aug 31	0715	*2,770	*7.11

Minimum discharge, 43 ft³/s, Oct. 14, 15, gage height, 1.79 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	869	564	e385	e98	e85	1,050	184	192	53	129	1,190
2	91	600	e411	e340	99	e98	1,170	171	495	57	121	807
3	80	444	e270	e320	98	e160	1,090	174	587	60	114	409
4	78	426	e215	e339	98	e245	956	263	445	55	207	235
5	93	403	e182	e322	97	e220	889	294	285	50	218	182
6	100	370	e175	e287	99	e630	689	266	200	88	134	155
7	84	305	e168	e239	99	668	567	238	166	152	100	136
8	70	250	e170	e208	100	451	494	199	146	133	99	160
9	61	207	e167	e218	99	352	476	171	144	336	100	831
10	56	184	e170	e238	99	295	439	153	231	317	90	796
11	52	175	e190	e241	e97	277	376	150	157	253	84	543
12	49	191	e420	e226	e95	277	337	145	121	134	132	368
13	46	491	e395	e224	e93	241	397	131	103	107	456	233
14	44	538	e310	e220	e90	242	721	120	92	86	624	178
15	65	402	e250	e238	e84	195	661	115	100	86	511	153
16	256	309	e235	e210	e75	187	540	118	101	216	373	134
17	242	271	e255	e195	e76	189	444	115	84	292	449	122
18	170	242	592	e175	e80	160	436	114	76	273	213	115
19	133	471	611	e160	e80	147	450	190	85	197	181	113
20	104	1,590	501	e150	e79	146	503	153	112	355	294	105
21	792	1,340	425	e137	e82	143	445	134	96	326	339	96
22	924	1,060	374	e129	e82	136	369	140	78	155	417	91
23	654	779	336	e126	e79	142	307	162	76	268	282	85
24	450	487	377	e118	e74	146	278	365	79	637	213	80
25	249	387	1,030	e114	e72	143	264	691	76	333	162	76
26	199	330	974	e109	e72	462	302	599	72	182	129	83
27	941	288	e750	e109	e73	1,280	333	466	68	130	110	83
28	1,380	283	e550	e106	e76	1,190	289	332	62	115	98	75
29	1,570	748	e470	e104	e79	1,200	240	385	58	109	176	70
30	1,610	646	e450	e103	---	1,140	207	282	55	97	519	67
31	1,090	---	e425	e100	---	1,020	---	199	---	96	1,890	---
TOTAL	11,872	15,086	12,412	6,190	2,524	12,267	15,719	7,219	4,642	5,748	8,964	7,771
MEAN	383	503	400	200	87.0	396	524	233	155	185	289	259
MAX	1,610	1,590	1,030	385	100	1,280	1,170	691	587	637	1,890	1,190
MIN	44	175	167	100	72	85	207	114	55	50	84	67
CFSM	3.14	4.12	3.28	1.64	0.71	3.24	4.29	1.91	1.27	1.52	2.37	2.12
IN.	3.62	4.60	3.78	1.89	0.77	3.74	4.79	2.20	1.42	1.75	2.73	2.37

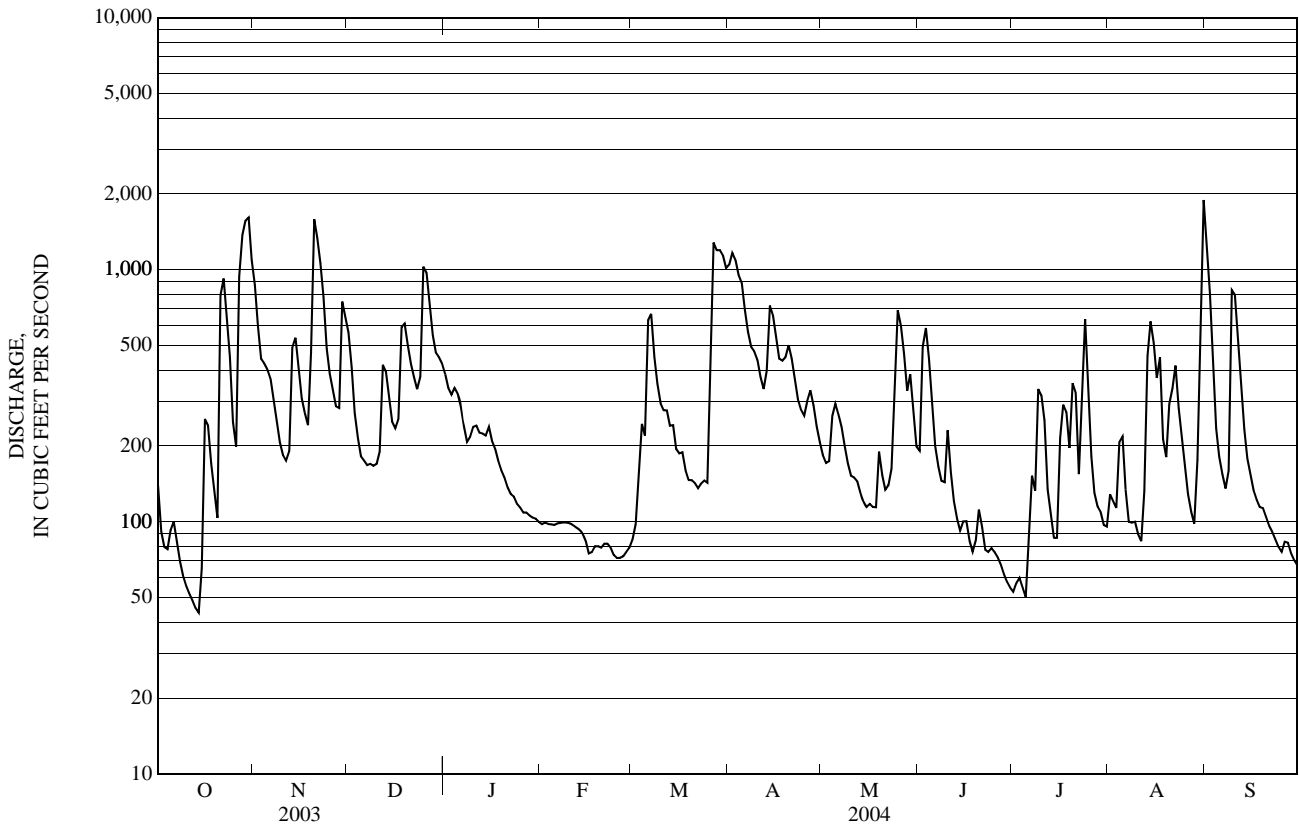
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2004, BY WATER YEAR (WY)

MEAN	152	200	179	129	120	280	651	281	154	103	93.4	93.0
MAX	512	503	473	426	534	611	1,164	709	654	405	334	280
(WY)	(1991)	(2004)	(1984)	(1998)	(1981)	(1976)	(1969)	(1972)	(2002)	(1973)	(1976)	(1977)
MIN	28.4	54.6	58.1	43.4	29.1	63.1	196	90.5	43.9	29.1	23.9	19.9
(WY)	(1954)	(1979)	(1979)	(1954)	(1980)	(1956)	(1995)	(1987)	(1988)	(1991)	(2001)	(1953)

04296000 BLACK RIVER AT COVENTRY, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1952 - 2004	
ANNUAL TOTAL	90,899		110,414		203	
ANNUAL MEAN	249		302		113	
HIGHEST ANNUAL MEAN					302	2004
LOWEST ANNUAL MEAN					113	1965
HIGHEST DAILY MEAN	1,730	Mar 30	1,890	Aug 31	3,300	Apr 2, 1976
LOWEST DAILY MEAN	29	Jul 21	44	Oct 14	a 11	Aug 29, 1953
ANNUAL SEVEN-DAY MINIMUM	31	Sep 14	53	Oct 9	11	Aug 28, 1953
MAXIMUM PEAK FLOW			2,770	Aug 31	3,740	Apr 2, 1976
MAXIMUM PEAK STAGE			7.11	Aug 31	7.91	Apr 2, 1976
INSTANTANEOUS LOW FLOW			b 43	Oct 14	a 11	Aug 29, 1953
ANNUAL RUNOFF (CFSM)	2.04		2.47		1.66	
ANNUAL RUNOFF (INCHES)	27.72		33.67		22.58	
10 PERCENT EXCEEDS	602		656		476	
50 PERCENT EXCEEDS	115		195		106	
90 PERCENT EXCEEDS	44		79		41	

a Also occurred on August 30 to September 1, 1953.
 b Also occurred on October 15.
 e Estimated.



04296500 CLYDE RIVER AT NEWPORT, VT

LOCATION.--Lat 44° 56' 25", long 72° 11' 23", Orleans County, Hydrologic Unit 01110000, on right bank, 100 ft upstream of small right-bank tributary, 600 ft upstream of Clyde Street bridge, 0.8 mi east of US 5 and Main Street intersection in Newport, 0.9 mi downstream of Clyde Pond Dam, and 0.9 mi upstream of mouth.

DRAINAGE AREA.--142 mi².

PERIOD OF RECORD.--Discharge records: May 1909 to December 1911, April 1912 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."

PERIOD OF DAILY WATER-QUALITY RECORD.--Water years 1975 to 1978.

SPECIFIC CONDUCTANCE: October 1974 to October 1977.

WATER TEMPERATURE: October 1974 to October 1977.

REVISED RECORDS.--WSP 744: 1913(M), drainage area. WSP 924: 1940. WSP 1307: 1913-15(M).

GAGE.--Water-stage recorder. Datum of gage is 682.36 ft above National Geodetic Vertical Datum of 1929. May 25, 1909 to September 20, 1915, nonrecording gage, and September 21, 1915 to September 30, 1924, November 16, 1928 to May 4, 1936, water-stage recorder, at site 0.65 mi upstream at different datum. March 6, 1957 to May 11, 1994, water-stage recorder and records of power generation. No instantaneous peak stage available for period of March 6, 1957 to May 11, 1994, due to diversion of flow around station through canal and penstock of Newport No. 11 power plant.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by power plant and reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,900 ft³/s, March 20, 1936, gage height, 5.76 ft, site and datum then in use; maximum daily, 3,610 ft³/s, March 20, 1936; minimum daily discharge, 2.6 ft³/s, June 18, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,350 ft³/s, Aug. 31, gage height 6.58; maximum gage height, 6.98 ft (ice jam); minimum daily discharge, 21 ft³/s, July 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	1,110	689	717	e120	80	812	460	362	110	136	837
2	181	970	698	644	e125	80	920	450	349	114	117	704
3	181	841	665	600	e117	118	953	443	225	115	121	614
4	179	751	613	570	126	115	958	420	362	114	124	528
5	134	690	548	538	124	110	949	420	338	113	115	447
6	95	635	e450	512	123	146	883	439	276	64	139	415
7	94	584	e370	480	123	e237	814	441	360	21	166	371
8	94	534	e330	e385	e120	291	756	441	388	28	211	371
9	94	477	e265	e350	121	291	704	440	361	37	163	397
10	94	413	e270	e320	122	290	654	437	221	35	137	396
11	94	338	e315	e304	122	288	610	387	196	38	152	406
12	94	333	e430	e306	e119	253	577	252	177	256	203	408
13	95	312	480	e240	119	237	567	311	221	217	228	411
14	95	347	487	e280	107	226	625	297	213	124	263	438
15	96	358	497	e240	e138	215	646	238	182	185	411	426
16	96	394	501	e224	e134	211	663	237	226	209	418	412
17	96	393	492	e223	e203	211	686	184	140	207	417	408
18	138	319	498	e202	e205	169	685	186	136	208	416	405
19	184	427	523	e223	e96	127	668	172	108	207	419	294
20	202	718	516	e210	90	133	657	174	108	167	415	204
21	335	790	503	e150	97	157	638	254	108	149	422	161
22	407	874	501	e120	97	154	611	269	108	144	427	179
23	406	918	509	e136	98	151	600	205	108	177	417	158
24	406	862	543	e147	e98	151	579	204	95	324	413	210
25	406	777	786	e146	e100	116	545	314	99	247	307	268
26	409	699	953	e147	e96	171	541	358	103	129	306	219
27	492	627	987	e146	e97	390	527	392	104	131	265	157
28	720	583	983	e147	84	436	505	360	104	171	221	129
29	915	620	928	e132	80	536	487	338	105	202	231	121
30	1,150	667	866	e128	---	708	469	381	104	211	374	118
31	1,200	---	798	e133	---	736	---	316	---	176	984	---
TOTAL	9,372	18,361	17,994	9,100	3,401	7,534	20,289	10,220	5,987	4,630	9,138	10,612
MEAN	302	612	580	294	117	243	676	330	200	149	295	354
MAX	1,200	1,110	987	717	205	736	958	460	388	324	984	837
MIN	94	312	265	120	80	80	469	172	95	21	115	118
CFSM	2.13	4.31	4.09	2.07	0.83	1.71	4.76	2.32	1.41	1.05	2.08	2.49
IN.	2.46	4.81	4.71	2.38	0.89	1.97	5.32	2.68	1.57	1.21	2.39	2.78

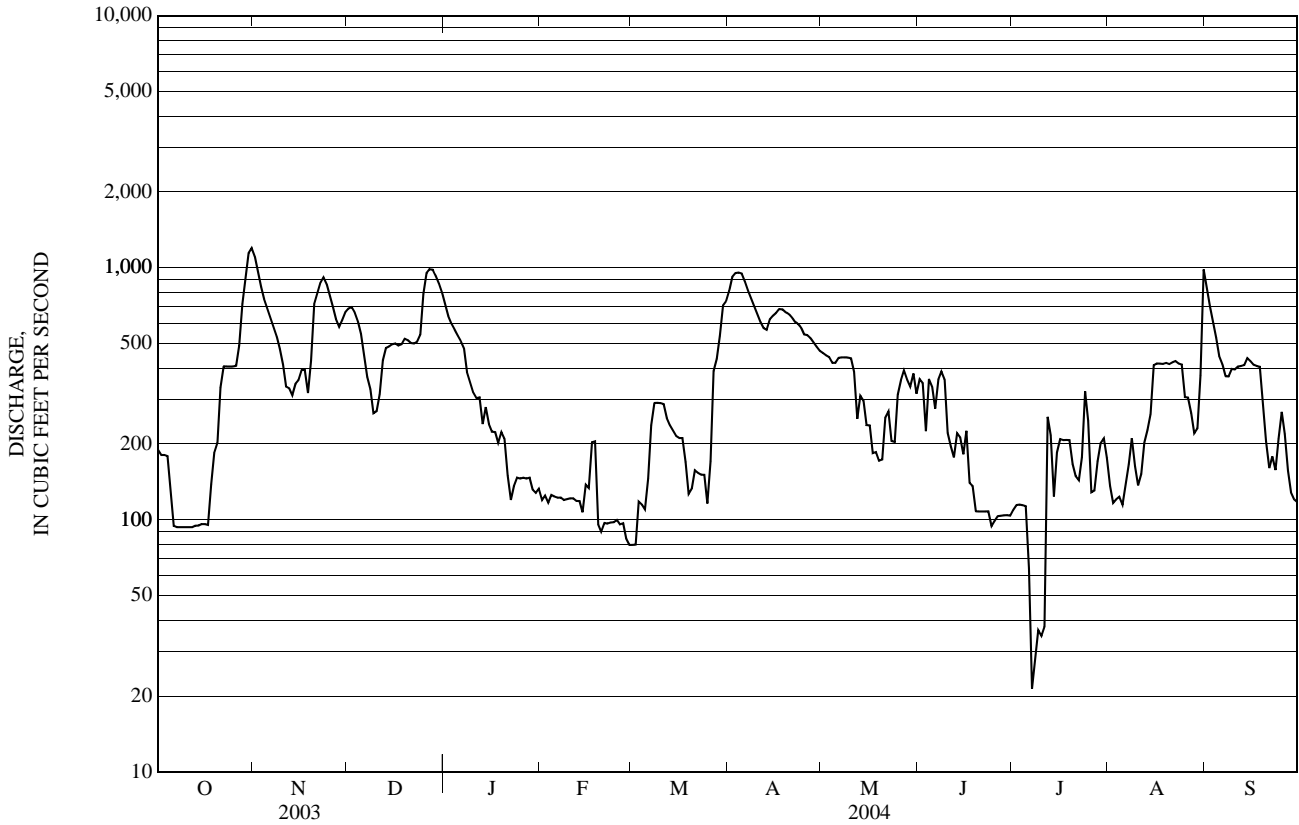
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 24, 29 - 36, 1938 - 2004, BY WATER YEAR (WY)

	178	236	227	189	157	280	695	491	244	148	130	131
MEAN	178	236	227	189	157	280	695	491	244	148	130	131
MAX	576	612	599	503	477	1,136	1,192	1,042	785	464	369	523
(WY)	(1946)	(2004)	(1984)	(2003)	(1981)	(1936)	(1933)	(1972)	(2002)	(1973)	(1976)	(1924)
MIN	50.7	79.5	80.4	62.9	19.1	72.8	186	151	74.0	47.2	39.6	41.9
(WY)	(1962)	(1923)	(1923)	(1948)	(1979)	(1911)	(1979)	(1998)	(1988)	(1991)	(1909)	(1984)

04296500 CLYDE RIVER AT NEWPORT, VT—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1909-24, 29-36, 38-2004	
ANNUAL TOTAL	119,644		126,638			
ANNUAL MEAN	328		346		258	
HIGHEST ANNUAL MEAN					394 1974	
LOWEST ANNUAL MEAN					153 1979	
HIGHEST DAILY MEAN	1,210	Mar 31	1,200	Oct 31	3,610	Mar 20, 1936
LOWEST DAILY MEAN	34	Sep 16	21	Jul 7	2.6	Jun 18, 1956
ANNUAL SEVEN-DAY MINIMUM	35	Sep 16	48	Jul 5	14	Oct 9, 1961
MAXIMUM PEAK FLOW			1,350	Aug 31	ab 3,900	Mar 20, 1936
MAXIMUM PEAK STAGE			c 6.98	Jan 27	ab 5.76	Mar 20, 1936
ANNUAL RUNOFF (CFSM)	2.31		2.44		1.81	
ANNUAL RUNOFF (INCHES)	31.34		33.18		24.65	
10 PERCENT EXCEEDS	751		700		530	
50 PERCENT EXCEEDS	202		278		180	
90 PERCENT EXCEEDS	65		104		63	

- a No instantaneous peak stage or discharge available for period of March 6, 1957 to May 11, 1994, as explained above in Remarks.
- b Site and datum then in use.
- c Ice jam.
- e Estimated.



DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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 2004 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									
Nubanusit Brook below Edward MacDowell Dam near Peter- borough, NH (01083000)	Lat 42°53'34", Long 71°59'13" (revised), Hillsborough County, Hydrologic Unit 01070003, on left bank, 300 ft downstream from Edward MacDowell Reservoir, 2.2 mi northwest of Peterborough, and 2.7 mi upstream from mouth. Drainage area is 44.0 mi ² .	1921-31†a, 1945-89†a, 1990-97a, 1998-2004	04-11-04	5.39	539	04-11-31	5.59	1,130	
Contoocook River near Henniker, NH (01085000)	Lat 43°09'10", Long 71°51'24", Merrimack County, Hydrologic Unit 01070003, on right bank, 1.6 mi downstream from Sand Brook, 2.6 mi southwest of Post Office in Henni- ker, and 3.3 mi northeast of State Highway 149 and US 202 intersec- tion in Hillsborough. Drainage area is 368 mi ² .	1938, 1940-77†, 1978-82, 1988-2004	04-03-04	13.32	10,100	09-21-38	21.30	22,200	
Blackwater River near Webster, NH (01087000)	Lat 43°17'49", Long 71°41'41", Merrimack County, Hydrologic Unit 01070003, on left bank 0.2 mi west of Dingit corner, 0.4 mi down- stream of Clothspin Bridge Road, 2.4 mi downstream from Blackwater Dam, 2.5 mi southeast of Webster, 4.4 mi east of US Highways 3 and 4 intersection in Boscawen, and 6.6 mi upstream from mouth. Drainage area is 129 mi ² .	1918-20†, 1927-89†, 1990-2004	04-05-04	6.13	1,540	03-19-36	11.78	11,000	
Piscataquog River below Everett Dam near East Weare, NH (01090800)	Lat 43°05'29", Long 71°39'36", Hillsborough County, Hydrologic Unit 01070002, on right bank, 500 ft downstream from Everett Dam, 1.4 mi southeast of East Weare, 2.3 mi west of Dunbarton Center, 3.6 mi east of Weare, and 5.9 mi northwest of Goffstown. Drainage area is 63.1 mi ² .	1963-89†, 1990-2004	04-16-04	7.97	1040	06-12-84	9.09	1,770	

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 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--Continued								
Piscataquog River near Goffstown, NH (01091500)	Lat 43°01'00", Long 71°33'04", Hillsborough County, Hydrologic Unit 01070002, on left bank, 300 ft upstream from Henry Bridge Road bridge, 0.3 mi upstream from Harry Brook, 0.4 mi southwest of Grasmere, 0.9 mi downstream from Glen Lake, and 2.5 mi east of Goffstown Town Hall. Drainage area is 202 mi ² .	1936, 1938, 1940-78†, 1983-2004	04-02-04	10.40	6,120	04-06-87	11.28	7,600
Spicket River near Methuen, MA (01100561)	Lat 42°44'35", Long 71°12'32", Rockingham County, Hydrologic Unit 01070002, on left bank, at bridge on Hampshire Road, on Massachu- setts-New Hampshire border, 800 ft downstream from Policy Brook, 0.5 mi west of Hampshire Road, 1.5 mi northwest of Massachusetts State Highways 113 and 213 inter- section in Methuen, MA, and 2.6 mi south of Town Hall in Salem, NH. Drainage area is 62.1 mi ² .	2001-2004	04-03-04	8.83	1080	03-24-01	9.07	1,140
CONNECTICUT RIVER BASIN								
Paul Stream Tributary near Brunswick Springs, VT (01129700)	Lat 44°41'06", Long 71°37'18", Essex County, Hydrologic Unit 01080101, at culvert on Maidstone Lake Road, 400 ft upstream of mouth at Paul Stream, 1.7 mi west of Mason, NH, 1.9 mi northeast of Maidstone Lake outlet, 3.5 mi south of Brunswick Springs, and 4.6 mi south of North Stratford, NH. Drainage area is 1.29 mi ² .	1966-78, 1999-2004	10-27-03	10.95	32	06-12-02	12.70	126
Quimby Brook near Lyndon- ville, VT (01133200)	Lat 44°34'52", Long 71°59'11", Caledonia County, Hydrologic Unit 01080102, at culvert on Sutton Road, 0.1 mi north of Sutton Road and US Hwy 5 intersection, and 3.5 mi north of Lyndonville. Drainage area is 2.32 mi ² .	1964-74, 1999-00, 2004	12-17-03	11.62	96	06-12-02	16.12	290
Kirby Brook at Concord, VT (01134800)	Lat 44°26'31", Long 71°52'43", Essex County, Hydrologic Unit 01080102, at culvert on U.S. Highway 2, 600 ft southwest of Kirby Road and US 2 intersec- tion, 700 ft upstream from mouth, 1.1 mi northeast of High Street and US 2 intersection in Concord, 2.1 mi southwest of Victory Road and US 2 intersection in North Concord, and 7.2 west of Town Hall in St. Johnsbury. Drainage area is 8.05 mi ² .	1964-74†b, 1999-2004	08-29-04	8.29	485	06-30-73	6.35	1,600
Joes Brook Tributary near East Barnet, VT (01135700)	Lat 44°20'40", Long 72°03'52", Caledonia County, Hydrologic Unit 01080102, at culvert on Joes Brook Road, 100 ft upstream of mouth, 1.8 mi northwest of East Barnet, 3.4 mi north of Barnet, 5.3 mi east of Peacham. Drainage area is 0.76 mi ² .	1964-74, 1999, 2001-2004	10-29-03	10.76	30	12-17-00	13.60	103

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 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--Continued								
Waits River Tributary near West Topsham, VT (01139700)	Lat 44°08'29", Long 72°18'52", Orange County, Hydrologic Unit 01080103, at culvert on US Hwy 302, 800 ft upstream of Waits River, 0.3 mi east of US Hwy 302 and State Hwy 25 intersection, and 2.0 mi north of West Topsham. Drainage area is 1.09 mi ² .	1964-74, 1999-2000, 2004	10-29-03	9.82	40	12-21-73	10.91	94
Ompompanoosuc River at Union Vil- lage, VT (01141500)	Lat 43°47'24", Long 72°15'19", Orange County, Hydrologic Unit 01080103, on right bank, 400 ft downstream from Avery Brook, 600 ft upstream from covered bridge at Union Village, 0.2 mi downstream from Union Village Reservoir, 3.5 mi upstream from mouth, and 3.7 mi southwest of State Highway 113 and US 5 inter- section in East Theford. Drainage area is 130 mi ² .	1940-89†a, 1990-2004	11-20-03	9.63	1,740	06-03-47	9.65	4,800
Third Branch White River Tributary at Randolph, VT (01142400)	Lat 43°55'54", Long 72°40'54", Orange County, Hydrologic Unit 01080105, at culvert on State 12A, 0.3 mi upstream of mouth, 0.8 mi west of junctions of State High- ways 12 and 12A in Randolph, and 0.8 mi northwest of Town Hall in Randolph. Drainage area is 0.77 mi ² .	1964-74b, 1998-2004	7-24-04	10.05	28	06-27-98	16.61	327
Mascoma River at West Canaan, NH (01145000)	Lat 43°39'04", Long 72°05'07", Grafton County, Hydrologic Unit 01080104, on right bank, 45 ft downstream from Boston and Maine Railroad bridge, 0.6 mi east of US 4 and South Road intersection in West Canaan, 1.4 mi downstream from Indian River, 3.0 mi east of City Hall in Enfield, 3.7 mi west of Post Office in Canaan, and 19.3 mi upstream of mouth. Drain- age area is 80.5 mi ² .	1938, 1939-78†, 1985-2004	04-02-04	5.46	1,320	09-22-38	9.60	4,310
Kent Brook near Killington, VT (01150800)	Lat 43°40'24", Long 72°48'33", Rutland County, Hydrologic Unit 01080105, at culvert on State Highway 100, 0.4 mi north of junc- tion of State Highway 100N and US 4W, 1.6 mi upstream from mouth, 2.0 mi northwest of River Road and US 4 intersection in Sherburne Center, 2.7 mi northwest of Kill- ington, 9.3 mi east of US 4E and 7N intersection in Rutland. Drainage area is 3.31 mi ² .	1964-74†, 1999-2004	05-24-04	9.54	344	04-14-02	14.50	792

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 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--Continued								
Ottauquechee River Tribu- tary near Quechee, VT (01151200)	Lat 43°39'37", Long 72°25'55", Windsor County, Hydrologic Unit 01080106, at culvert on West Hart- ford-Quechee Road, 0.2 mi upstream of mouth, and 1.2 mi northwest of Quechee Main Street, Deweys Mills Road and Waterman Hill Road inter- section in Quechee, and 2.8 mi northeast of Happy Valley Road and US 4 intersection in Taftsville. Drainage area is 0.82 mi ² .	1964-74, 1999-2004	05-24-04	9.78	15	06-30-73	13.35	93
Black River at North Spring- field, VT (01153000)	Lat 43°20'00", Long 72°30'55", Windsor County, Hydrologic Unit 01080106, on right bank, 600 ft upstream of State Highway 106, 0.3 mi upstream from Great Brook, 0.6 mi downstream from North Springfield Dam, 0.9 mi east of State Highway 10 and 106 intersec- tion in North Springfield, 2.9 mi northwest of State Highway 11 and 143 intersection in Springfield, and 7.8 mi upstream of mouth. Drainage area is 158 mi ² .	1929-89†, 1990-2004	12-18-03	7.16	3,050	09-22-38	17.68	15,500
Middle Branch Williams River Tribu- tary at Chester, VT (01153300)	Lat 43°16'13", Long 72°36'32", Windsor County, Hydrologic Unit 01080107, at culvert on Lovers Lane Road, 0.2 mi from Lovers Lane Road and State Highway 11 inter- section, 0.8 mi northeast of junc- tion of State Highways 11 and 35 in Chester, 1.5 mi upstream of mouth, and 6.7 mi west of Spring- field. Drainage area is 3.16 mi ² .	1964-78, 1999-2004	10-29-03	20.38	114	08-10-76	Unknown	e 367
Tributary to West River Tributary at Rte 30, near Jamaica, VT (01155350)	Lat 43°07'33", Long 72°48'46", Windham County, Hydrologic Unit 01080107, at culvert on State Highway 30/100, 800 ft north of Stratton Gate Road and State High- way 100 intersection, 0.5 mi upstream of mouth, 1.9 mi west of Ball Mountain Dam, 2.0 mi south- east of State Highway 30W and 100N intersection in Rawsonville, and 2.5 mi northwest of Depot Street and State Highway 30/100 intersec- tion in Jamaica. Drainage area is 0.90 mi ² .	1964-78b, 1999-2004	10-29-03	10.36	97	06-30-73	15.14	320
West River below Townsh- end Dam near Townshend, VT (01155910)	Lat 43°03'04", Long 72°42'02", Windham County, Hydrologic Unit 01080107, on left bank opposite mouth of Fair Brook, 150 ft below Townshend Dam, 1.7 mi west of State Highway 30 and 35 intersec- tion in Townshend, 2.4 mi south of Windham Hill Road and State High- way 30 intersection in West Town- shend, 2.7 mi upstream from Mills Brook, and 18.9 mi upstream from mouth. Drainage area is 282 mi ³ .	1995- 2000†, 2001-04	04-03-04	8.12	7,680	04-24-96 c	8.89 9.21	8,050 Ice Jam

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 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--Continued								
Whetstone Brook Tributary near Marlboro, VT (01156300)	Lat 42°52'42", long 72°42'32", Windham County, Hydrologic Unit 01080104, at culvert on State Highway 9, 600 ft southwest of Sunset Lake Road and State Highway 9 intersection, 800 ft upstream of mouth, 0.5 mi southwest of mouth of Hidden Lake, 1.5 mi northeast of Marlboro, and 7.6 mi west of Town Hall in Brattleboro . Drain- age area is 1.05 mi ² .	1963-74, 1999-2002, 2004	04-01-04	12.50	253	04-01-04	12.50	253
Connecticut River Tributary near Vernon, VT (01156450)	Lat 42°47'01", long 72°31'57", Windham County, Hydrologic Unit 01080104, at downstream culvert on Tyler Hill Road, 0.3 mi west of Tyler Hill Road and State Highway 142 intersection, 0.6 mi upstream of mouth, 1.3 mi northwest of Ver- non Dam, and 1.8 mi northwest of West Road and State Highway 142 intersection in Vernon . Drainage area is 1.12 mi ² .	1964-74, 1999-2004	10-29-03	7.03	60	04-25-70	10.91	128
HUDSON RIVER BASIN								
Tanner Brook near Sunder- land, VT (01328900)	Lat 43°07'48", Long 73°05'44", Bennington County, Hydrologic Unit 02020003, at culvert on State Highway 7A, 400 ft south of State Highway 7A and Muddy Lane inter- section, 1.3 mi northeast of Sunderland Borough Road and North Road intersection in Sunderland, 2.5 mi southwest of Courthouse in Manchester. Drainage area is 2.60 mi ² .	1964-74, 1999-2004	12-24-03	<9.90	<7	02-05-70	11.84	84
Paran Creek near South Shaftsbury, VT (01333900)	Lat 42°58'13", Long 73°11'19", Bennington County, Hydrologic Unit 02020003, at culvert on Hallow Road, 400 ft upstream of right bank tributary, 400 ft north of Hallow Road and Airport Road intersection, 1.3 mi southeast of State Highway 7A and West Mount Road intersection in Shaftsbury Center, and 1.8 mi northeast of State Highways 7A-N and 67N inter- section in South Shaftsbury. Drainage area is 2.38 mi ² .	1964-78, 1999-2004	05-24-04	8.26	93	06-30-73	11.52	193
ST. LAWRENCE RIVER BASIN								
Poultney River Tributary at East Poult- ney, VT (04279400)	Lat 43°32'13", Long 73°12'33", Rutland County, Hydrologic Unit 02010001, at culvert on Lewis Road, 0.5 mi west of Town Hill, 0.5 mi northwest of Lewis, Thrall and Hillside Roads intersection, 0.8 mi north of State Highway 140 and Thrall Road intersection in East Poultney, and 1.8 mi north- east of Town Hall in Poultney. Drainage area is 1.13 mi ² .	1964-78b, 1999-2004	05-24-04	unknown	unknown	04-14-64	12.36	98

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
ST. LAWRENCE RIVER BASIN--Continued								
Brandy Brook at Bread Loaf, VT (04282300)	Lat 43°57'19", Long 72°59'47", Addison County, Hydrologic Unit 02010002, at culvert on State Highway 125, 300 ft southeast of Kirby Road and State Highway 125 intersection, 0.2 mi west of Bread Loaf, 0.3 mi upstream of South Branch Middlebury River, 2.3 mi southeast of National Turnpike and State Highway 125 in Ripton, and 9.5 mi southeast of Town Hall in Middlebury. Drainage area is 2.24 mi ² .	1963-78, 2000-2004	08-28-04	10.83	119	07-16-00	17.98	546
Little Otter Creek Tribu- tary near Bristol, VT (04282600)	Lat 44°08'35", Long 73°07'03", Addison County, Hydrologic Unit 02010002, at culvert on Plank Road, 300 ft east of East Road and Plank Road intersection, 2.0 mi northwest of Town Hall in Bristol, 2.2 mi northeast of North Street, South Street, and State Highway 17 intersection in New Haven, and 9.1 mi northeast of State Highway 125 and US 7 intersection in Middlebury. Drainage area is 1.48 mi ² .	1964-78, 1999-2004	08-28-04	18.34	168	08-28-04	18.34	168
Lewis Creek Tributary at Starksboro, VT (04282700)	Lat 44°13'00", Long 72°03'21", Addison County, Hydrologic Unit 02010002, at culvert on State Highway 116, 0.4 mi upstream of mouth, 0.7 mi south of Big Hollow Road and State Highway 116 inter- section in Starksboro, 0.9 mi west of East Mountain, and 5.9 mi north of Town Hall in Bristol. Drainage area is 5.31 mi ² .	1963-74+b, 1999-2004	10-29-03	17.19	260	12-21-73	5.25	1,350
Sunny Brook near Montpe- lier, VT (04287300)	Lat 44°16'05", Long 72°37'28", Washington County, Hydrologic Unit 02010003, at culvert on U.S. High- way 2, 600 ft northeast of Inter- state 89 overpass over US Highway 2, 0.3 mi upstream from mouth, 0.7 mi east of the mouth of Jones Brook, and 2.2 mi west of Vermont State Capitol Building in Montpe- lier. Drainage area is 2.31 mi ² .	1964-74+b, 1999-2004	11-20-03	5.99	182	06-13-73	7.40	342
Bryant Brook at Waterbury Center, VT (04288400)	Lat 44°22'41", Long 72°43'29", Washington County, Hydrologic Unit 02010003, at culvert on State Highway 100, 0.3 mi west of Water- bury Center, and 3.0 mi north of Waterbury. Drainage area is 2.64 mi ² .	1964-78, 1999-2004	10-29-03	12.53	184	06-30-73	13.94	302

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
ST. LAWRENCE RIVER BASIN--Continued								
Winooski River Tributary near Richmond, VT (04289600)	Lat 44°26'09", Long 72°58'46", Chittenden County, Hydrologic Unit 02010003, at culvert on Browns Trace Road, 1400 ft north of Jerico-Richmond Town Line, 0.3 mi south of Browns Trace Road and Governor Peck Road intersection, 2.2 mi north of Jerico Road and US 2 intersection in Richmond, and 2.3 mi south of Browns Trace Road and Bolger Hill Road intersection in Jerico Center. Drainage area is 0.71 mi ² .	1964-74b, 1999-2004	10-29-03	12.95	59	06-15-72	14.59	102
Bailey Brook at East Hard- wick, VT (04290700)	Lat 44°31'41", Long 72°18'16", Caldonia County, Hydrologic Unit 02010005, at culvert on Hardwick Street, 800 ft north of railroad crossing, 0.4 mi upstream of mouth, and 0.5 mi northeast of Brochu Road and Church Street intersection in East Hardwick, and 3.6 mi northeast of Town Hall in Hardwick. Drainage area is 2.52 mi ² .	1964-78, 1999-2004	11-20-03	11.69	85	06-30-73	15.92	285
Stony Brook near Eden, VT (04292100)	Lat 44°41'37", Long 72°34'58", Lamoille County, Hydrologic Unit 02010005, at culvert on State Highway 100, 500 ft upstream of mouth, 2.0 mi southwest of State Highways 100 and 118 intersection in Eden, 2.2 mi northeast of State Highways 100 and 100C intersection in North Hyde Park, and 6.2 mi northeast of State Highways 15 and 100C intersection in Johnson. Drainage area is 4.21 mi ² .	1964-74+b, 1999-2004	11-20-03	7.56	339	06-30-73	b 3.64	890
Whittaker Brook at Richford, VT (04293400)	Lat 44°59'14", Long 72°39'15", Franklin County, Hydrologic Unit 02010007, at culvert on State Highway 105, 100 ft upstream of mouth, 0.3 mi east of a Canadian Pacific Railroad bridge over State Highway 105, and 1.0 mi southeast of the junction of State Highways 105 and 139 in Richford. Drainage area is 0.64 mi ² .	1963-78, 1999-2004	08-31-04	13.72	216	08-31-04	13.72	216
Missisquoi River Tribu- tary at Sheldon Junction, VT (04293800)	Lat 44°54'01", Long 72°57'40", Franklin County, Hydrologic Unit 02010007, at culvert on State Highway 105, 40 ft west of the State Highway 105 and Bergeron Road (TH21) intersection, 0.5 mi upstream of mouth, 0.8 mi west of State Highways 78 and 105 inter- section in Sheldon Junction, and 0.9 mi east of Catholic Church Road and Mill Road intersection in Sheldon Springs. Drainage area is 1.69 mi ² .	1963-78, 1999-2004		undetermined		06-12-02	15.23	122

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum		Period of record maximum			
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
ST. LAWRENCE RIVER BASIN--Continued								
Lord Brook near Evansville, VT (04296150)	Lat 44°46'59", Long 72°07'08", Orleans County, Hydrologic Unit 01110000, at culvert on State Highway 16, 0.2 mi east of State Highway 16 and Fiske Road inter- section, 1.2 mi upstream of mouth, 1.5 mi south of Chase Road and State Highway 58 intersection in Evansville, and 3.6 mi northeast of US 5 and State Highway 58 intersection in Barton. Drainage area is 4.76 mi ² .	1964-78, 1999-2004	10-27-03	13.10	235	06-12-02	15.63	425
Brownington Branch near Evansville, VT (04296200)	Lat 44°50'02", Long 72°04'00", Orleans County, Hydrologic Unit 01110000, at culvert on State Highway 5A, 0.5 mi upstream of mouth of Moody Brook, 2.8 mi north of State Highways 5A and 58 inter- section, 3.8 mi northeast of Chase Road and State Highway 58 intersection in Evansville, and 10.0 mi east of Loop Road and Main Street intersection in Coventry. Drainage area is 2.15 mi ² .	1964-74†b, 1999-2004	10-27-03	7.23	127	08-13-03	9.01	446
Pherrins River Tributary near Island Pond, VT (04296300)	Lat 44°50'34", Long 71°54'31", Essex County, Hydrologic Unit 01110000, at culvert on State Highway 114, 200 ft upstream of mouth, 800 ft south of State High- way 111 and 114 junction, 2.3 mi northwest of State Highways 105 and 114 intersection in Island Pond, and 4.0 mi east of Echo Pond Road and State Highway 105 inter- section in East Charleston. Drainage area is 1.05 mi ² .	1964-78, 1999-2004	07-09-04	9.95	30	05-20-69	12.53	140

- † Operated as a continuous-record gaging station.
a At different site and datum.
b Prior to 1998 at different datum.
c Sometime during the period March 21, 22, 2003.
d Revised.
e Estimated.

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

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
SACO RIVER BASIN						
01065000 Ossipee River at Effingham Falls, NH	Saco River	Lat 43°47'42", Long 71°03'35" (revised), Carroll County, Hydrologic Unit 01060002, 0.3 mi upstream from State Highway 153 at Effingham Falls, 0.3 mi downstream from the outlet of Ossipee Lake (Berry Bay), and 4 mi northwest of Effingham.	330	1924-90+, 1998-2003	10-06-03	240
					04-06-04	1,870
					05-28-04	1,380
BAILEY BROOK BASIN						
01073816 Bailey Brook at Love Lane, near Rye, NH (previously published as "01073835 Bailey Brook")	Atlantic Ocean	Lat 42°59'11", Long 70°46'38" (revised), Rockingham County, Hydrologic Unit 01060003, at Love Lane, 0.2 mi southwest of Love Lane and Central Road intersection, 0.9 mi upstream from mouth on Atlantic Ocean, 0.9 mi northwest of South Road and Ocean Boulevard (NH 1A) intersection in Rye Beach, and 1.9 mi southwest of Washington Road and Lang Road intersection in Rye.		1987	09-08-04	.50
PISCATAQUA RIVER BASIN						
01073597 Great Brook at Railroad Bridge, near Exeter, NH	Exeter River	Lat 42°56'54", Long 70°59'28", Rockingham County, Hydrologic Unit 01060003, at Boston and Maine Railroad bridge, 0.1 mi north of railroad crossing on Giles Road, 0.2 mi downstream from mouth of York Brook, 0.3 mi upstream from mouth of Brickyard Brook, 0.4 mi northwest of Giles Road and North Road (NH 108) intersection, and 3.2 mi southwest of Front Street (NH 108) and Water Street (NH 27) intersection in Exeter.			09-08-04	.50
LITTLE RIVER BASIN						
01073820 Little River tributary at NH 111, near Hampton, NH	Little River	Lat 42°58'00", Long 70°48'27", Rockingham County, Hydrologic Unit 01060003, at Atlantic Avenue (NH 111), 0.1 mi east of Mill Road and Atlantic Avenue intersection, 0.1 mi upstream from mouth at Little River, 1.2 mi southeast of Lafayette Road (US 1) and Atlantic Avenue intersection at North Hampton, and 2.6 mi northeast of Lafayette Road and Winnacunnet Road (NH 101E) intersection in Hampton.			09-08-04	.47
HAMPTON RIVER BASIN						
01073838 Taylor River at Old Stage Road, near Hampton, NH	Hampton River	Lat 42°56'33", Long 70°52'40", Rockingham County, Hydrologic Unit 01060003, on left bank, at dam, 100 ft upstream from Old Stage Road, 0.1 mi southwest of Old Stage Road and Timber Swamp Road intersection at Coffins Mill, and 0.8 mi northeast of Exeter Road (NH 88) and Brown Road intersection at Sanborn Corners, 2.0 mi west of Lafayette Road (US 1) and Winnacunnet Road (NH 101E) intersection in Hampton, and 4.8 mi upstream from mouth on the Hampton River.	8.41		05-29-03	36.7
					06-06-03	18.3
					06-25-03	6.36
					12-04-03	25.5
					01-22-04	2.16
					03-01-04	7.00
					04-05-04	64.0
					05-28-04	25.7
					07-12-04	1.39
					08-04-04	1.51
09-08-04	1.44					

Discharge measurements made at miscellaneous sites--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
MERRIMACK RIVER BASIN						
01077510	Pemigewasset River	Lat 43°37'05", Long 71°44'25", Grafton County, Hydrologic Unit 01070001, at outlet of Newfound Lake, 500 ft south of West Shore Road, 800 ft west of West Shore Road and State Highway 3A intersection, and 1.8 mi north of Post Office in Bristol.	98	1974-76, 1991-2003	10-10-03 10-30-03 04-21-04 06-25-04 07-28-04	123 1,170 133 46.9 238
01083000	Contoocook River	Lat 42°53'34", Long 71°59'13", (revised) Hillsborough County, Hydrologic Unit 01070003, on left bank 300 ft downstream from Edward MacDowell Reservoir, 2.2 mi northwest of Town Hall in Peterborough, and 2.7 mi upstream from mouth.	44.0	1920-31#b, 1945-89#b, 1990-97b, 1999-2003	11-25-03 03-23-04 06-09-04 08-24-04	97.2 56.6 60.6 50.8
01085000	Merrimack River	Lat 43°09'10", Long 71°51'24", Merrimack County, Hydrologic Unit 01070003, 1.6 mi downstream from Sand Brook, 2.6 mi southwest of Post Office in Henniker, and 3.3 mi northeast of State Highway 149 and US 202 intersection in Hillsborough.	368	1939-77‡, 1978-2003	04-02-04 07-07-04 09-03-04	7420 87.2 95.2
01087000	Merrimack River	Lat 43°17'49", Long 71°41'41", Merrimack County, Hydrologic Unit 01070003, 0.2 mi west of Dingit Corner, 0.4 mi downstream of Clothspin Bridge Road, 2.4 mi downstream from Blackwater Dam, 2.5 mi southeast of Webster, 4.4 mi east of US 3 and 4 intersection in Boscawan, and 6.6 mi upstream from mouth.	129	1927-89‡, 1990-2003	10-10-03 08-17-04	71.8 65.9
01090800	Merrimack River	Lat 43°05'29", Long 71°39'36", Hillsborough County, Hydrologic Unit 01070002, 500 ft downstream from Everett Dam, 1.4 mi southeast of East Weare, 2.3 mi west of Dunbarton Center, 3.6 mi east of Weare, and 5.9 mi northwest of Goffstown.	63.1	1963-89‡, 1990-2003	10-17-03 03-17-04 06-08-04 08-12-04	63.2 91.4 60.2 9.67
01091500	Merrimack River	Lat 43°01'00", Long 71°33'04", Hillsborough County, Hydrologic Unit 01070002, 300 ft upstream of Henry Road bridge, 0.3 mi upstream from Harry Brook, 0.4 mi southwest of Grasmere, 0.9 mi downstream from Glen Lake, and 2.5 mi east of Town Hall in Goffstown.	202	1939-78‡, 1979-2003	12-01-03 04-02-04 06-08-04 08-12-04	318 5,560 235 31.2
01100561	Merrimack River	Lat 42°44'35", Long 71°12'32", Rockingham County, Hydrologic Unit 01070002, at bridge on Hampshire Road, 800 ft downstream from Policy Brook, 0.5 mi west of Hampshire Road, 1.5 mi northwest of Massachusetts State Highways 113 and 213 in Methuen MA, and 2.6 mi south of Town Hall in Salem NH.	62.1	1998, 2001- 2003	12-19-03	252
01100846	Merrimack River	Lat 42°53'34", Long 70°55'45", Rockingham County, Hydrologic Unit 01070002, just north of Old NH 150 and Amesbury Road (NH 150) intersection, 0.2 mi south of Highland Road and Old NH 150 intersection at Towles Corner, 2.5 mi north of Friend Street and MA 150 intersection in Amesbury, MA, and 2.8 mi west of Lafayette Road (US 1) and NH 107 intersection in Seabrook.			09-08-04	.59

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
CONNECTICUT RIVER BASIN						
01129700 Paul Stream Tributary near Brunswick Springs, VT	Connecticut River	Lat 44°41'06", Long 71°37'18", Essex County, Hydrologic Unit 01080101, at culvert on Maidstone Lake Road, 400 ft upstream of mouth at Paul Stream, 1.7 mi west of Mason, NH, 1.9 mi northeast of Maidstone Lake outlet, 3.5 mi south of Brunswick Springs, and 4.6 mi south of North Stratford, NH.	1.29			
01140820 Copperas Brook at mouth, near South Straf- ford, VT	Connecticut River	Lat 43°49'52", Long 72°19'39", Orange County, Hydrologic Unit 01080103, on left bank at CB6, 20 ft upstream of mouth, 0.8 mi west of Miller Pond Road and State Highway 132 intersection at Campbell Corner, 2.0 mi east of Tunbridge Road and State Highway 132 intersection in South Strafford, and 4.0 mi west of Buzzelle Bridge Road and State Highway 113 intersection in Thetford Center.	0.60			
01141500 Ompompa- noosuc River at Union Village, VT	Connecticut River	Lat 44°47'24", Long 71°15'19", Orange County, Hydrologic Unit 01080103, 400 ft downstream from Avery Brook, 600 ft upstream from covered bridge at Union Village, 0.2 mi downstream from Union Village Reservoir, 3.5 mi upstream from mouth, and 3.7 mi southwest of State Highway 113 and US 5 intersection in East Theford.	130	1940-89†, 1990-2003	10-17-03 12-10-03 04-07-04 06-04-04 06-23-04 08-09-04	204 228 411 262 99.4 50.7
01145000 Mascoma River at West Canaan, NH	Connecticut River	Lat 43°39'04", Long 72°05'07", Grafton County, Hydrologic Unit 01080104, 45 ft downstream from Boston and Maine Railroad bridge, 0.6 east of US 4 and South Road intersection in West Canaan, 1.4 mi downstream from Indian River, 3.0 mi east of City Hall in Enfield, 3.7 mi west of Post Office in Canaan, and 19.3 mi upstream of mouth.	80.5	1939-78†, 1979-2003	10-16-03 07-15-04	188 21.7
01152010 Sugar River at Sunapee, NH	Connecticut River	Lat 43°23'10", Long 72°05'30", Sullivan County, Hydrologic Unit 01080104, behind Crutch Factory at Sunapee, and 0.2 mi downstream from State Highway 11, and 0.6 mi downstream of out- let of Lake Sunapee.	46	1976, 1979, 1983-87, 1991-2003	05-14-04	33.6
01153000 Black River at North Springfield, VT	Connecticut River	Lat 43°20'00", Long 72°30'55", Windsor County, Hydrologic Unit 01080106, at North Springfield, 600 ft upstream of State Highway 106, 0.3 mi upstream from Great Brook, 0.6 mi downstream from North Springfield Dam, 0.9 mi east of State Highway 10 and 106 intersection in North Springfield, 2.9 mi northeast of State Highway 11 and 143 intersection in Springfield, and 7.8 mi upstream from mouth.	158	1929-89†, 1990-2003	10-23-03 03-25-04 05-17-04 07-23-04	217 156 195 71.0
01153300 Middle Branch Williams River Tributary at Chester, VT	Connecticut River	Lat 43°16'13", Long 72°36'32", Windsor County, Hydrologic Unit 01080107, at culvert on Lovers Lane Road, 0.2 mi from Lovers Lane Road and State Highway 11 intersection, 0.8 mi northeast of junction of State Highways 11 and 35 in Chester, 1.5 mi upstream of mouth, and 6.7 mi west of Springfield.	3.16	2002		

Discharge measurements made at miscellaneous sites--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
01155910	Connecticut	Lat 43°03'04", Long 72°42'02",	282	1995-2003†	11-05-03	1,340
West River	River	Windham County, Hydrologic Unit 01080107,			05-21-04	268
below Townsh-		on left bank opposite mouth of Fair			07-22-04	102
end Dam near		Brook, 150 ft below Townshend Dam, 1.7 mi				
Townshend, VT		west of State Highway 30 and 35 intersec-				
		tion in Townshend, 2.4 mi south of				
		Windham Hill Road and State Highway 30				
		intersection in West Townshend, 2.7 mi				
		upstream from Mills Brook, and 18.9 mi				
		upstream from mouth.				

++ Operated as a continuous-record gaging station.

a Probably occurred during the period March 21, 22, 2003.

b Ice Jam

At different site and datum.

Spillway discharge only.

BELKNAP COUNTY

431916071125901. Local number, BAW 10, Town of Barnstead.

LOCATION.--Lat 43° 19'16", long 71° 12'59", Hydrologic Unit 01070002. Barnstead: about 0.8 mi north-northeast from junction of Rt. 126 and French Road and 1.6 mi west-southwest from Strafford, N.H. Owner: Francesca Latawicz.

AQUIFER.--Sandy till of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in, depth 25 ft.

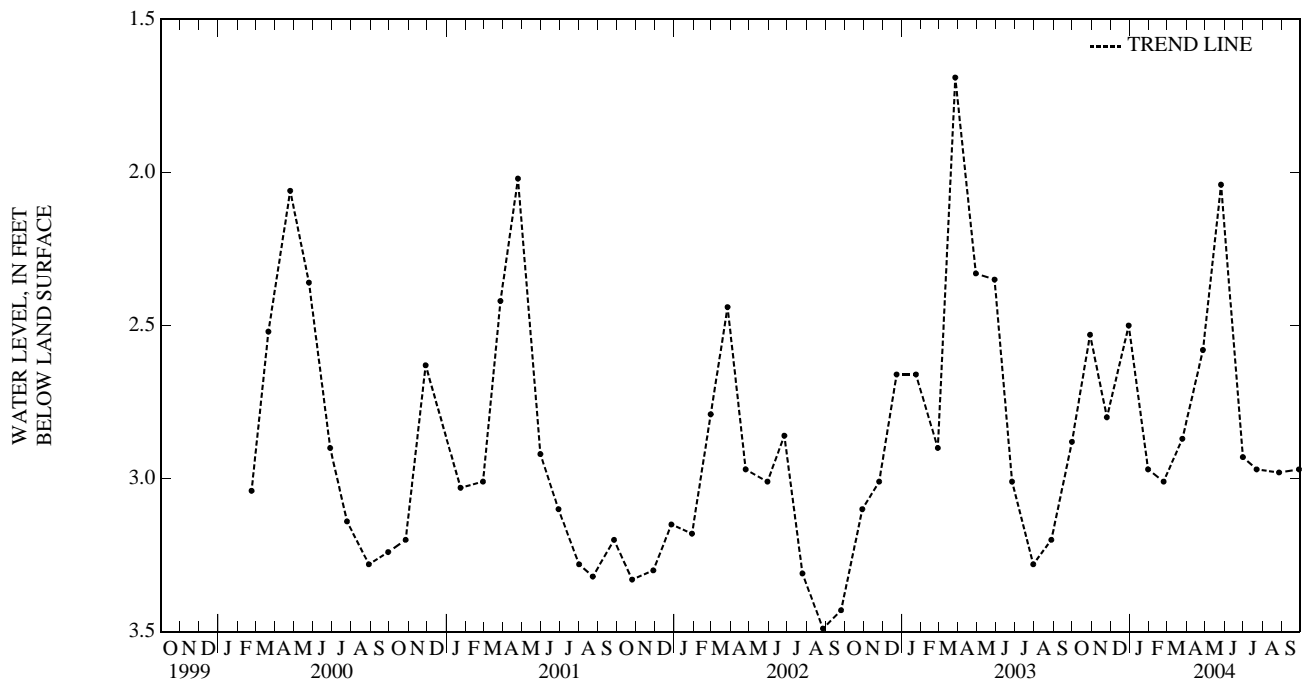
DATUM.--Altitude of land-surface datum is 530 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--June 1995 to October 1997, February 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.69 ft below land-surface datum, March 27, 2003; lowest measured, 3.41 ft below land-surface datum, August 28, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	2.53	DEC 30	2.50	FEB 24	3.01	APR 27	2.58	JUN 30	2.93	AUG 27	2.98
NOV 25	2.80	JAN 30	2.97	MAR 25	2.87	MAY 26	2.04	JUL 22	2.97	SEP 28	2.97
WATER YEAR 2004 HIGHEST		2.04	MAY 26, 2004 LOWEST		3.01	FEB 24, 2004					



CARROLL COUNTY

435948071220301. Local number, ADW 14, Town of Albany.

LOCATION.--Lat 43° 59'48", long 71° 22'03", Hydrologic Unit 01060002, approximately 1.5 mi west of Passaconaway and about 50 ft west of University of New Hampshire trail off Route 112 in Albany. Owner: U.S. Department of Agriculture - Forest Service.

AQUIFER.--Silt, sand, and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in., depth 79.5 ft.

DATUM.--Elevation of land-surface datum is 1,250 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 2.2 ft above land-surface datum.

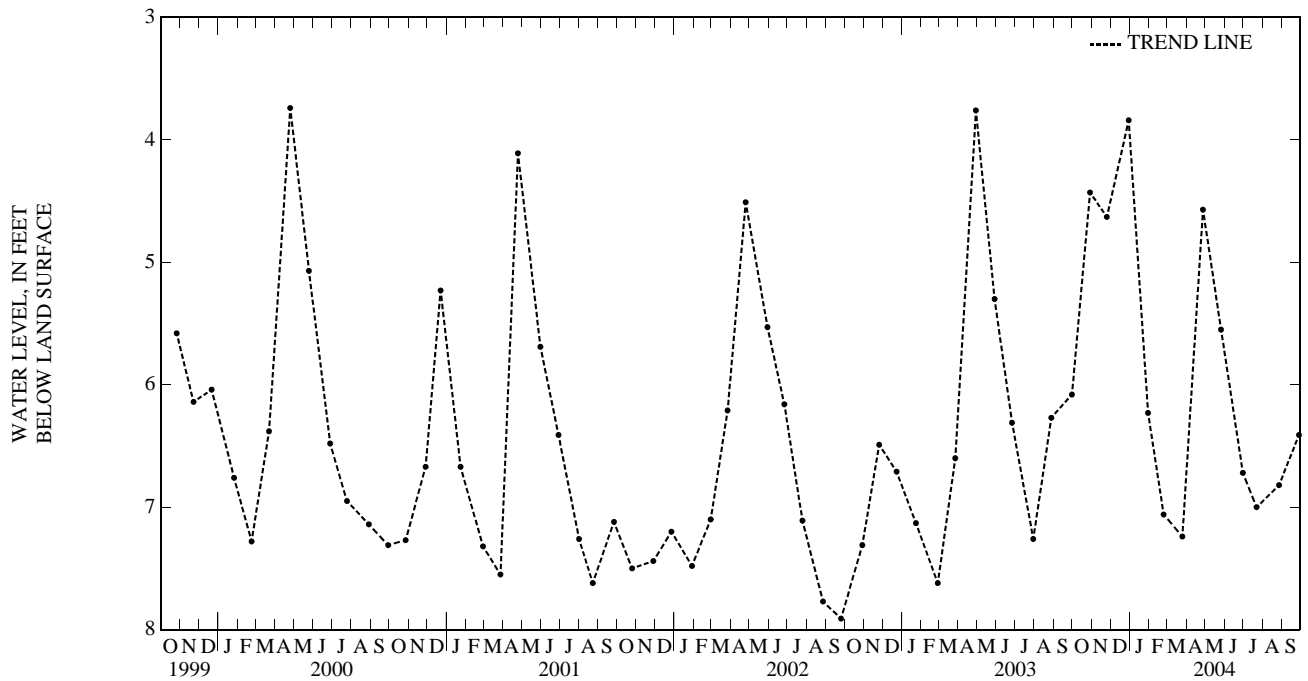
PERIOD OF RECORD.--April 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.36 ft below land-surface datum, April 24, 1996; lowest measured, 7.91 ft below land-surface datum, September 25, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	4.43	DEC 30	3.84	FEB 24	7.06	APR 27	4.57	JUN 30	6.72	AUG 27	6.82
NOV 25	4.63	JAN 30	6.23	MAR 25	7.24	MAY 26	5.55	JUL 22	7.00	SEP 28	6.41

WATER YEAR 2004 HIGHEST 3.84 DEC 30, 2003 LOWEST 7.24 MAR 25, 2004



CARROLL COUNTY

435948071220302. Local number, ADW 15, Town of Albany.

LOCATION.--Lat 43° 59'48", long 71° 22'03", Hydrologic Unit 01060002, approximately 1.5 mi west of Passaconaway and about 50 ft west of University of New Hampshire trail off Route 112 in Albany. Owner: U.S. Department of Agriculture - Forest Service.

AQUIFER.--Silt, sand, and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in., depth 18 ft.

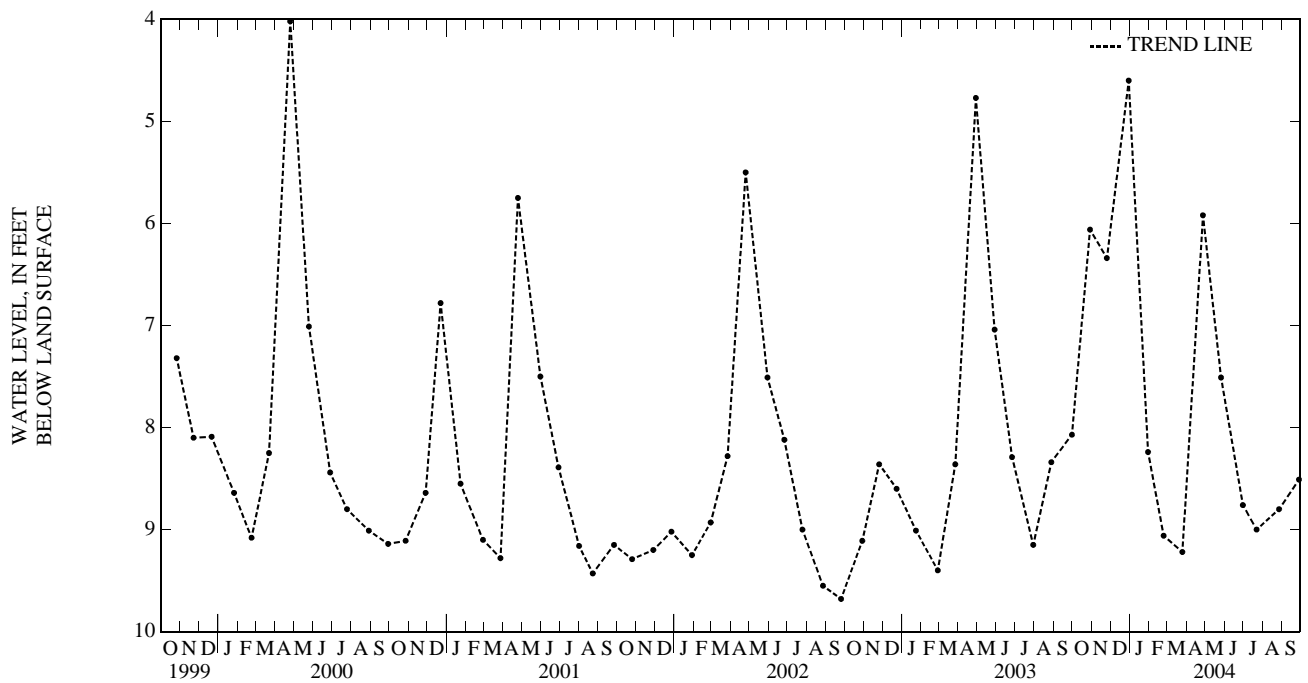
DATUM.--Elevation of land-surface datum is 1,250 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 2.6 ft above land-surface datum.

PERIOD OF RECORD.--August 1992, April 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.54 ft below land-surface datum, April 24, 1996; lowest measured, 9.68 ft below land-surface datum, September 25, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	6.06	DEC 30	4.60	FEB 24	9.06	APR 27	5.92	JUN 30	8.76	AUG 27	8.80
NOV 25	6.34	JAN 30	8.24	MAR 25	9.22	MAY 26	7.51	JUL 22	9.00	SEP 28	8.51
WATER YEAR 2004 HIGHEST		4.60 DEC 30, 2003	LOWEST		9.22 MAR 25, 2004						



CARROLL COUNTY

434221071051501. Local number, OXW 38, Town of Ossipee.

LOCATION.--Lat 43°42'21", long 71°05'15", Hydrologic Unit 01060002, in Pine River State Forest, 2 mi northeast of Ossipee and 1.2 mi east from junction of Routes 16 and 28. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in., depth 115 ft.

DATUM.--Elevation of land-surface datum is 550 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 3.4 ft above land-surface datum.

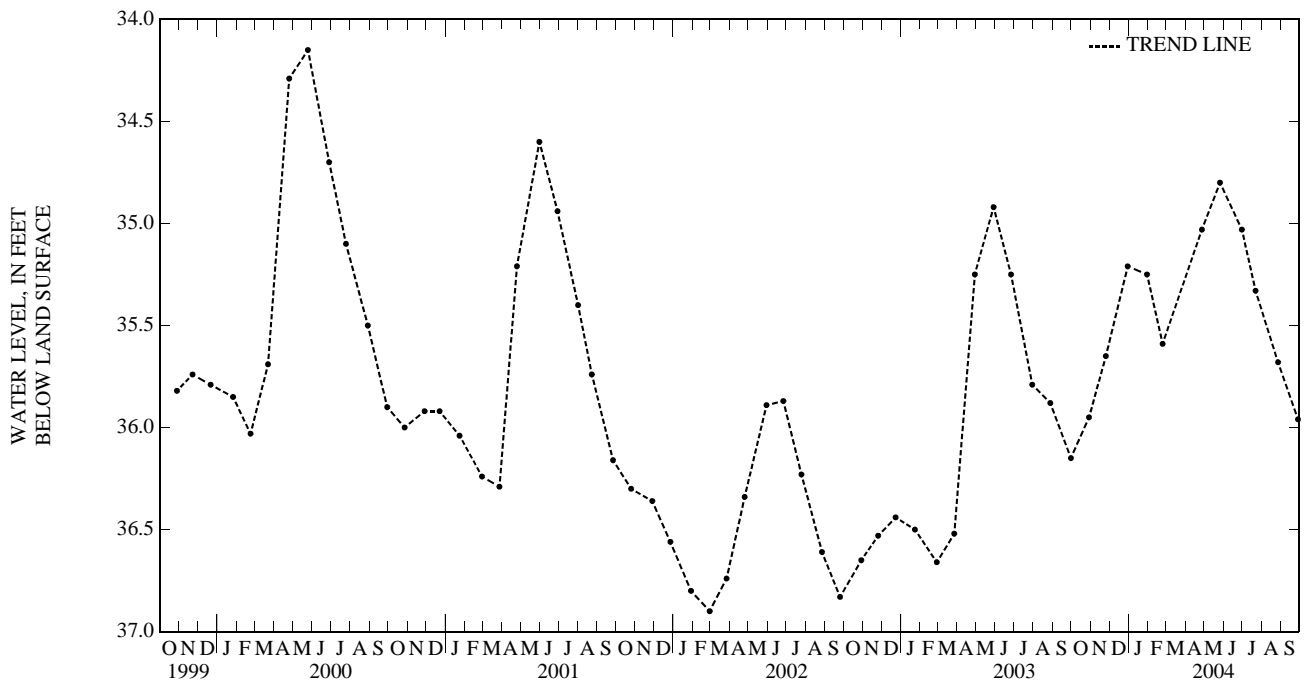
PERIOD OF RECORD.--September 1991, April 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.98 ft below land-surface datum, May 29, 1996; lowest measured, 37.00 ft below land-surface datum, September 23, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	35.95	DEC 30	35.21	FEB 24	35.59	MAY 26	34.80	JUL 22	35.33	SEP 28	35.96
NOV 25	35.65	JAN 30	35.25	APR 27	35.03	JUN 30	35.03	AUG 27	35.68		

WATER YEAR 2004 HIGHEST 34.80 MAY 26, 2004 LOWEST 35.96 SEP 28, 2004



CHESHIRE COUNTY

425543072175801. Local number, KEW 2, Town of Keene.

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.

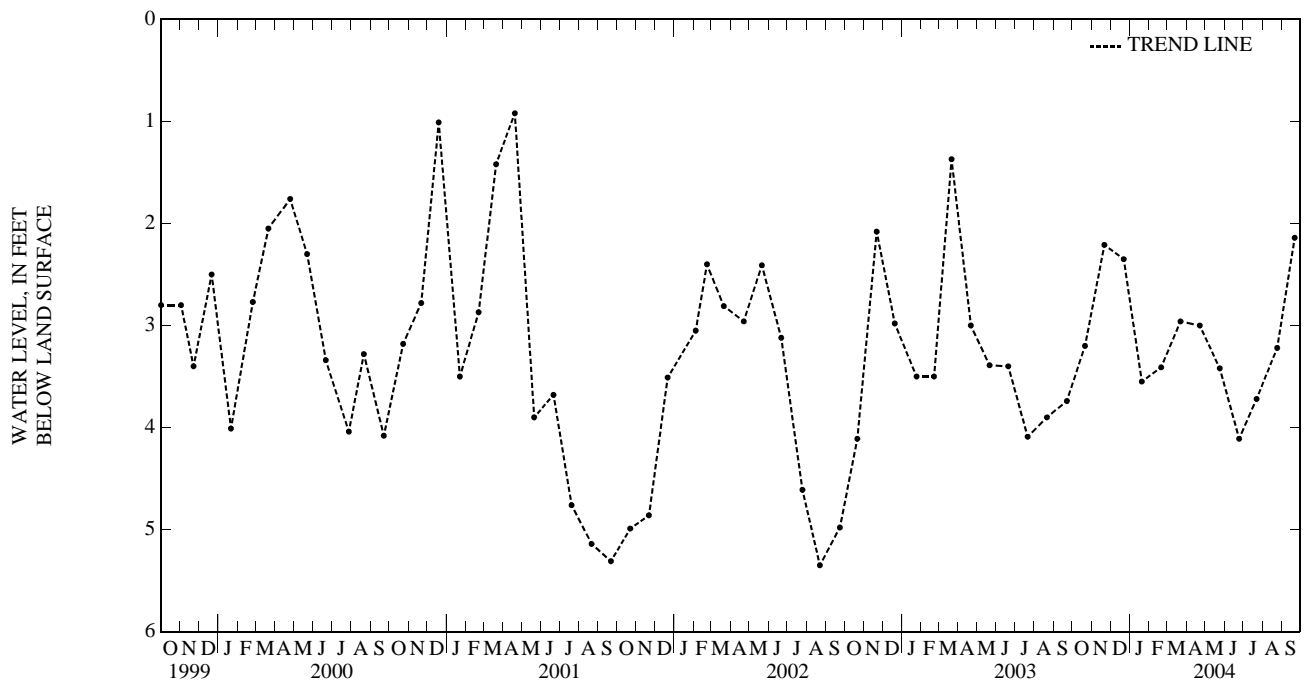
DATUM.--Elevation of land-surface datum is 470 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 4.5 ft above land-surface datum.

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, September 27, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	3.20	DEC 22	2.35	FEB 20	3.41	APR 22	3.00	JUN 24	4.11	AUG 24	3.22
NOV 21	2.21	JAN 20	3.55	MAR 22	2.96	MAY 24	3.42	JUL 22	3.72	SEP 21	2.14
WATER YEAR 2004 HIGHEST 2.14		SEP 21, 2004		LOWEST 4.11		JUN 24, 2004					



COOS COUNTY

445334071291701. Local number, CTW 73, Town of Colebrook.

LOCATION.--Lat 44° 53'34", long 71° 29'17", Hydrologic Unit 01080101, 0.5 mi east from the junction of Routes 3 and 26 in Colebrook, approximately 450 ft south of Route 26, and 100 ft south of the Mohawk River. Owner: Lemieux's Ski-Doo Shop.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in., depth 27 ft.

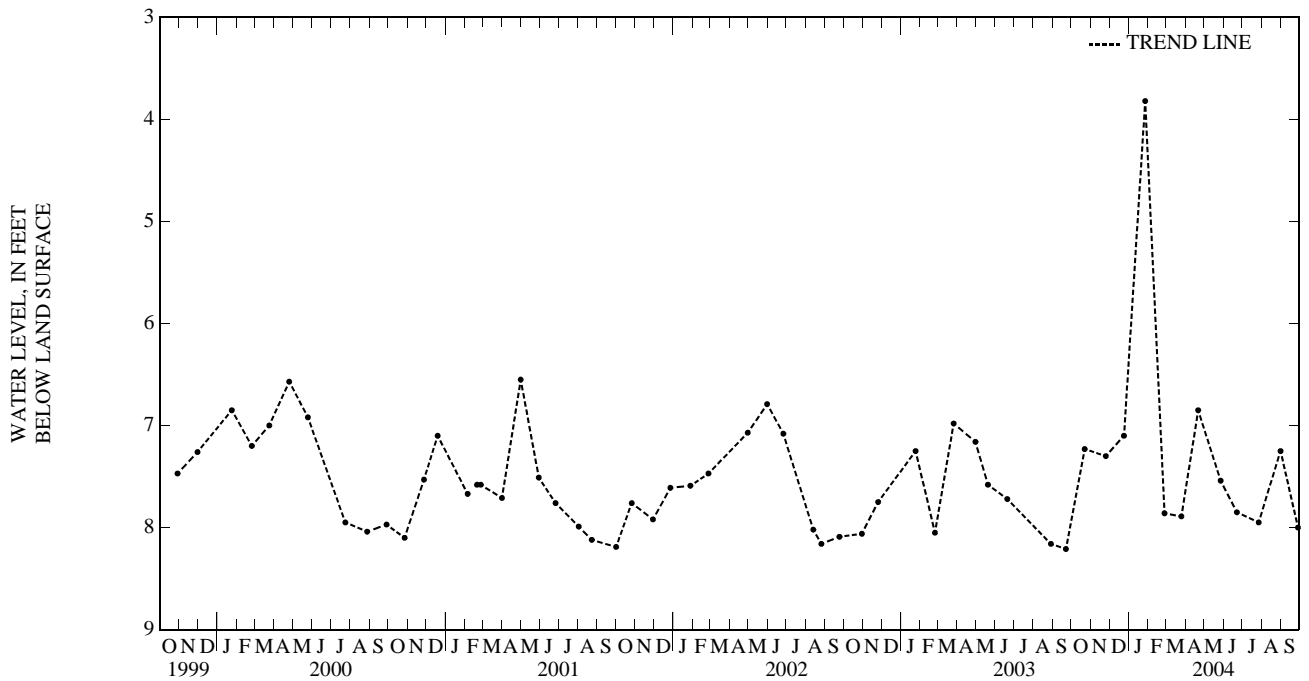
DATUM.--Elevation of land-surface datum is 1,030 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 3.2 ft above land-surface datum.

PERIOD OF RECORD.--June 1992, April 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.48 ft below land-surface datum, February 24, 1999; lowest measured, 8.21 ft below land-surface datum, August 27, 1999, September 22, 2003.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	7.23	DEC 24	7.10	FEB 27	7.86	APR 21	6.85	JUN 22	7.85	AUG 31	7.25
NOV 25	7.30	JAN 27	3.82	MAR 25	7.89	MAY 27	7.54	JUL 27	7.95	SEP 28	8.00
WATER YEAR 2004 HIGHEST 3.82 JAN 27, 2004		LOWEST 8.00 SEP 28, 2004									



COOS COUNTY

444733071094901. Local number, ETW 1, Town of Errol.

LOCATION.--Lat 44° 47'33", long 71° 09'49", Hydrologic Unit 01040001, southwest side of State Highway 26, 48 ft from the edge of pavement, 1.45 mi northwest from the intersection of Rte 26 and Rte 16, 1.8 mi northwest of Rte 26 overpass of the Androscoggin River, and 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.

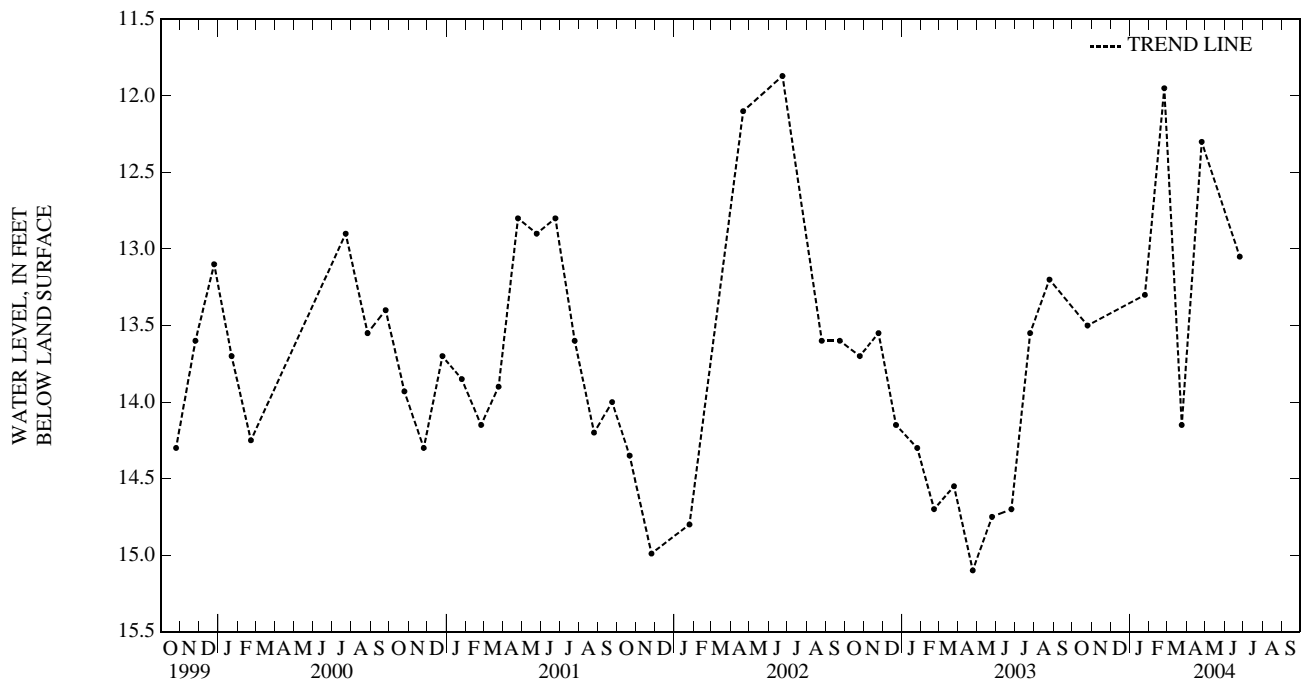
DATUM.--Elevation of land-surface datum is 1,245 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

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, 15.10 ft below land-surface datum, April 24, 2003.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	13.50	JAN 25	13.30	FEB 25	11.95	MAR 24	14.15	APR 25	12.30	JUN 25	13.05
WATER YEAR 2004 HIGHEST		11.95	FEB 25, 2004 LOWEST		14.15	MAR 24, 2004					



COOS COUNTY

442830071321001. Local number, LCW 1, Town of Lancaster.

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.

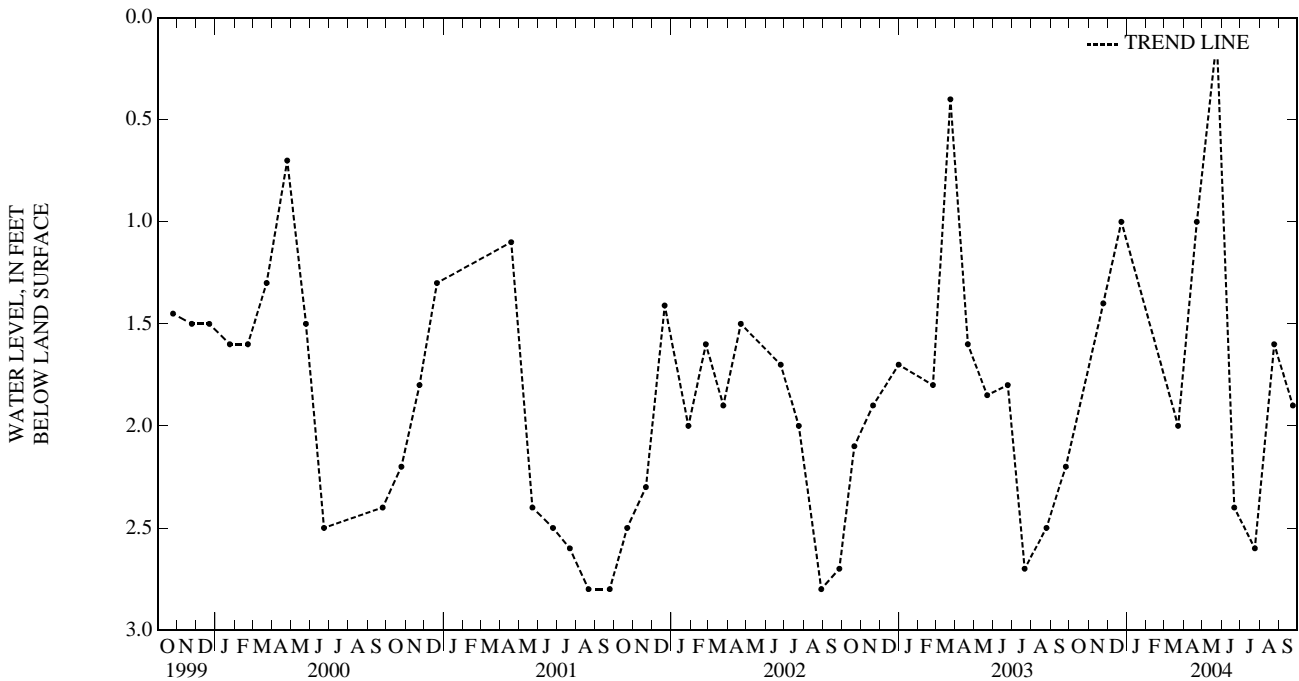
DATUM.--Elevation of land-surface datum is 940 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

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, April 28, 1972, December 21, 1982, February 21, March 21, 1986, March 27, 1987; lowest measured, 2.80 ft below land-surface datum, August 21, 2001, September 24, 2001, August 29, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 24	1.40	MAR 23	2.00	MAY 24	.10	JUL 24	2.60	SEP 23	1.90		
DEC 23	1.00	APR 22	1.00	JUN 21	2.40	AUG 24	1.60				
WATER YEAR 2004 HIGHEST .10 MAY 24, 2004 LOWEST 2.60 JUL 24, 2004											



COOS COUNTY

442450071052301. Local number, SJW 2, Town of Shelburne.

LOCATION.--Lat 44° 24'50", long 71° 05'23", Hydrologic Unit 01040001, 1.2 mi northwest of Shelburne, approximately 300 ft south of North Rd., and 1,000 ft north of the Androscoggin River. Owner: Oxford Paper Company.

AQUIFER.-- Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in., depth 40.7 ft.

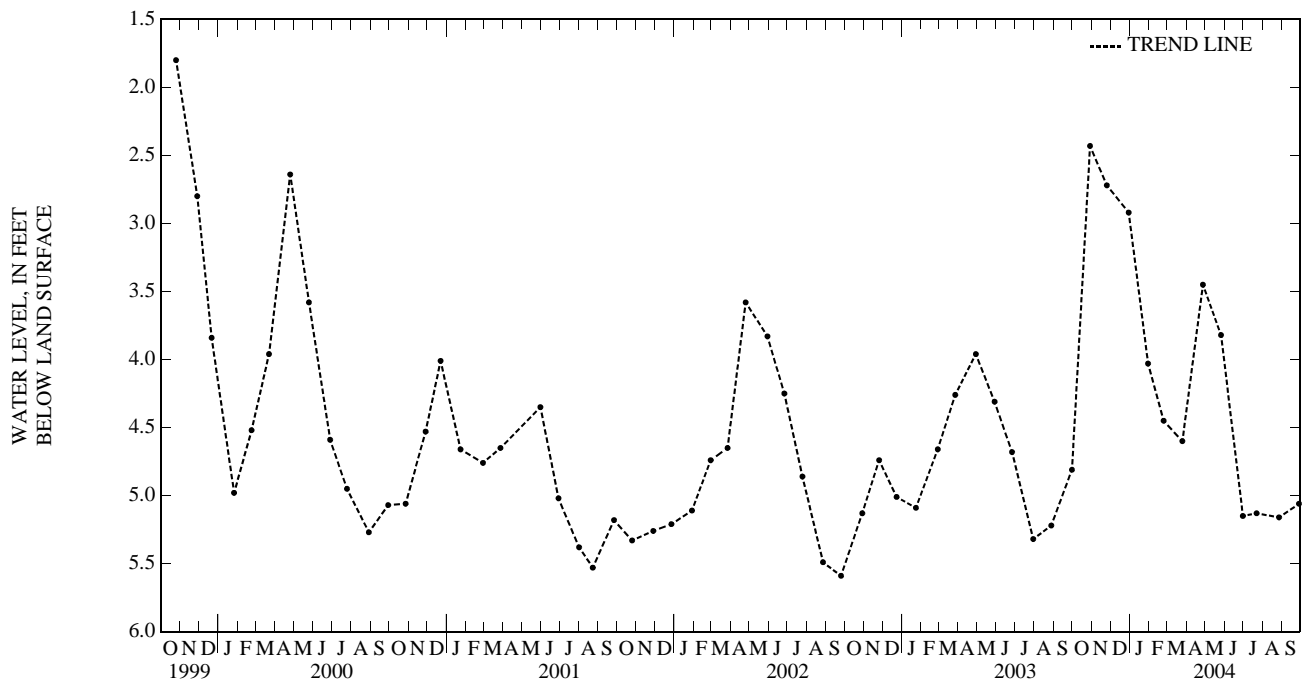
DATUM.--Elevation of land-surface datum is 700 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 2.2 ft above land-surface datum.

PERIOD OF RECORD.--September 1991, April 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.00 ft below land-surface datum (at land-surface), November 28, 1995; lowest measured, 5.59 ft below land-surface datum, September 25, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	2.43	DEC 30	2.92	FEB 24	4.45	APR 27	3.45	JUN 30	5.15	AUG 27	5.16
NOV 25	2.72	JAN 30	4.03	MAR 25	4.60	MAY 26	3.82	JUL 22	5.13	SEP 28	5.06
WATER YEAR 2004 HIGHEST 2.43 OCT 29, 2003		LOWEST 5.16		AUG 27, 2004							



GRAFTON COUNTY

434952071390901. Local number, CBW 34, Town of Campton.

LOCATION.--Lat 43° 49'52", long 71° 39'09", Hydrologic Unit 01070001, approximately 600 ft northeast of Beebe River Station on east side of railroad tracks in Campton, about 1,000 ft east from I-93. Owner: Beebe River Wood Products.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, depth 107 ft.

DATUM.--Elevation of land-surface datum is 541 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 2.6 ft above land-surface datum.

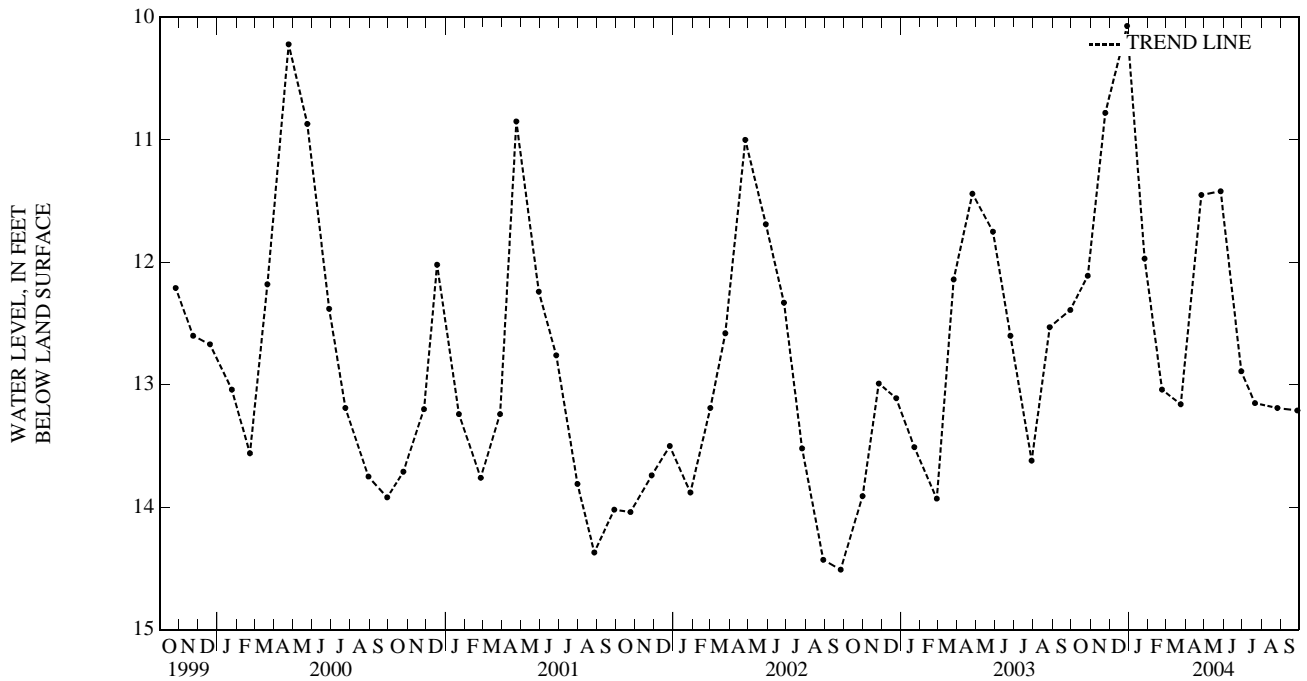
PERIOD OF RECORD.--June 1988, to August 1989, May 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.07 ft below land-surface datum, December 29, 2003; lowest measured, 14.51 ft below land-surface datum, September 26, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	12.11	DEC 29	10.07	FEB 23	13.04	APR 26	11.45	JUN 29	12.89	AUG 26	13.19
NOV 24	10.78	JAN 26	11.97	MAR 24	13.16	MAY 27	11.42	JUL 21	13.15	SEP 27	13.21

WATER YEAR 2004 HIGHEST 10.07 DEC 29, 2003 LOWEST 13.21 SEP 27, 2004



GRAFTON COUNTY

433616072074001. Local number, ENW 30, Town of Enfield.

LOCATION.--Lat 43° 36' 16", long 72° 07' 40", Hydrologic Unit 01080104, 50 ft north from the junction of Route 4A and Lakeview Drive in Enfield, and about 600 ft from the southeastern corner of Mascoma Lake. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in., depth 37.5 ft.

DATUM.--Elevation of land-surface datum is 758 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 2.8 ft above land-surface datum.

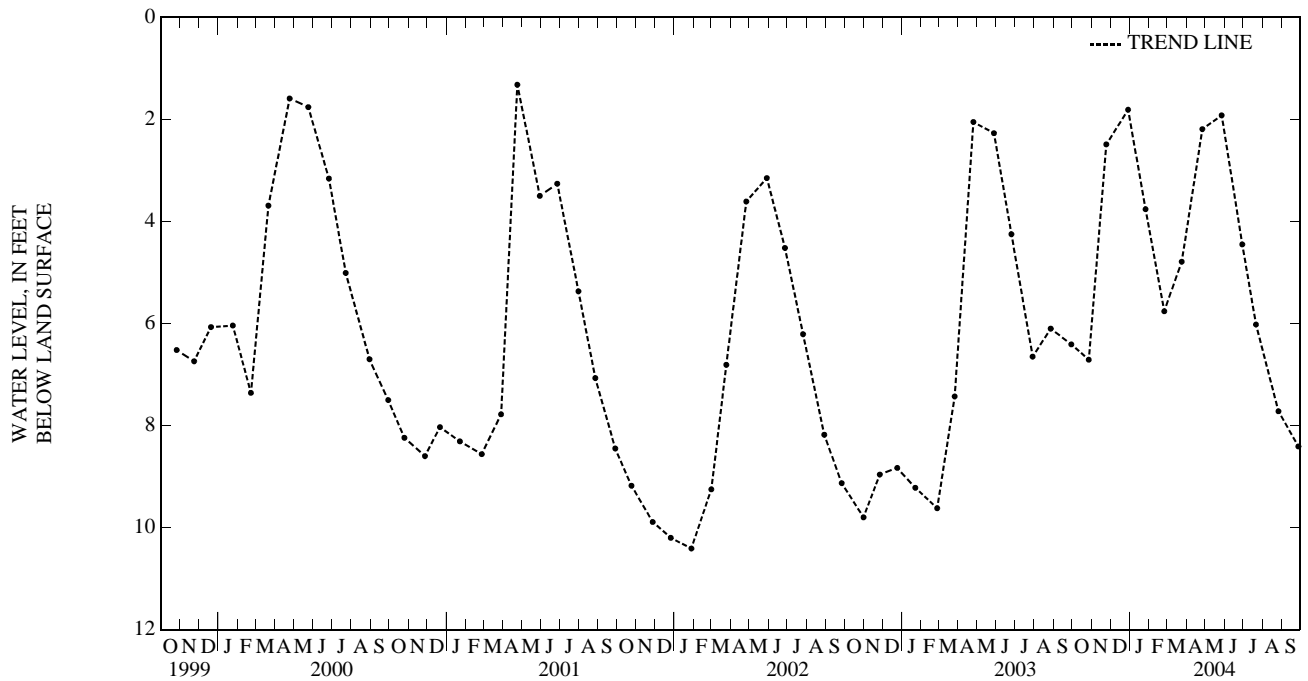
PERIOD OF RECORD.--May 1990 to October 1991, April 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.32 ft below land-surface datum, April 24, 2001; lowest measured, 10.41 ft below land-surface datum, January 28, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	6.71	DEC 29	1.81	FEB 25	5.76	APR 26	2.19	JUN 29	4.45	AUG 26	7.72
NOV 24	2.49	JAN 26	3.76	MAR 24	4.79	MAY 27	1.92	JUL 21	6.02	SEP 27	8.41

WATER YEAR 2004 HIGHEST 1.81 DEC 29, 2003 LOWEST 8.41 SEP 27, 2004



GRAFTON COUNTY

441401071531501. Local number, LLW 19, Town of Lisbon.

LOCATION.--Lat 44° 14'01", long 71° 53'15", Hydrologic Unit 01080101, 0.4 mi southwest from the junction of Routes 302 and 117 in Lisbon, and approximately 75 ft east of Route 302. Owner: Lester Presby.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in., depth 42 ft.

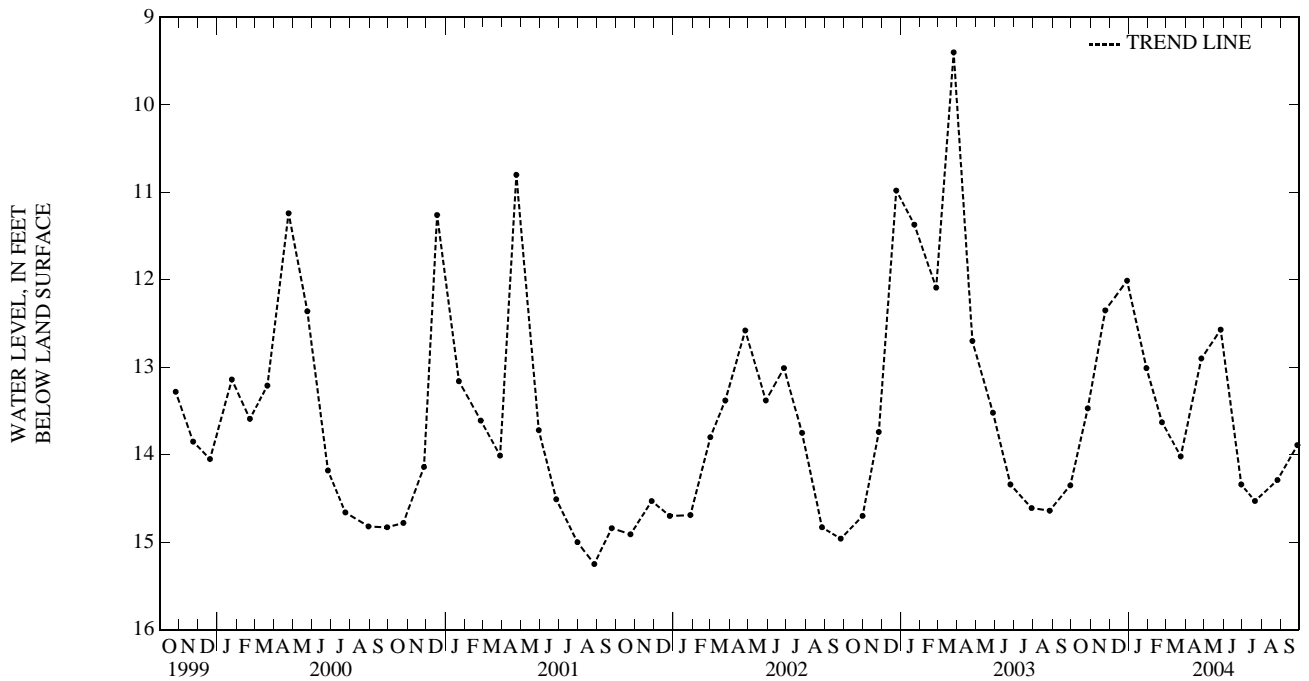
DATUM.--Elevation of land-surface datum is 590 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 2.7 ft above land-surface datum.

PERIOD OF RECORD.--December 1990 to October 1991, May 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.40 ft below land-surface datum, March 26, 2003; lowest measured, 15.25 ft below land-surface datum, August 27, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	13.47	DEC 29	12.01	FEB 23	13.63	APR 26	12.90	JUN 29	14.34	AUG 26	14.29
NOV 24	12.35	JAN 29	13.01	MAR 24	14.02	MAY 27	12.57	JUL 21	14.53	SEP 27	13.89
WATER YEAR 2004 HIGHEST		12.01	DEC 29, 2003		LOWEST		14.53	JUL 21, 2004			



HILLSBOROUGH COUNTY

425744071532001. Local number, GSW 75, Town of Greenfield.

LOCATION.--Lat 42° 57'44", long 71° 53'20", Hydrologic Unit 01070003, in Greenfield State Park, 1.1 mi northwest from Greenfield and about 0.2 mi southwest from Route 31. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused test well, diameter 2 in., depth 68 ft.

DATUM.--Elevation of land-surface datum is 882 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 0.9 ft above land-surface datum.

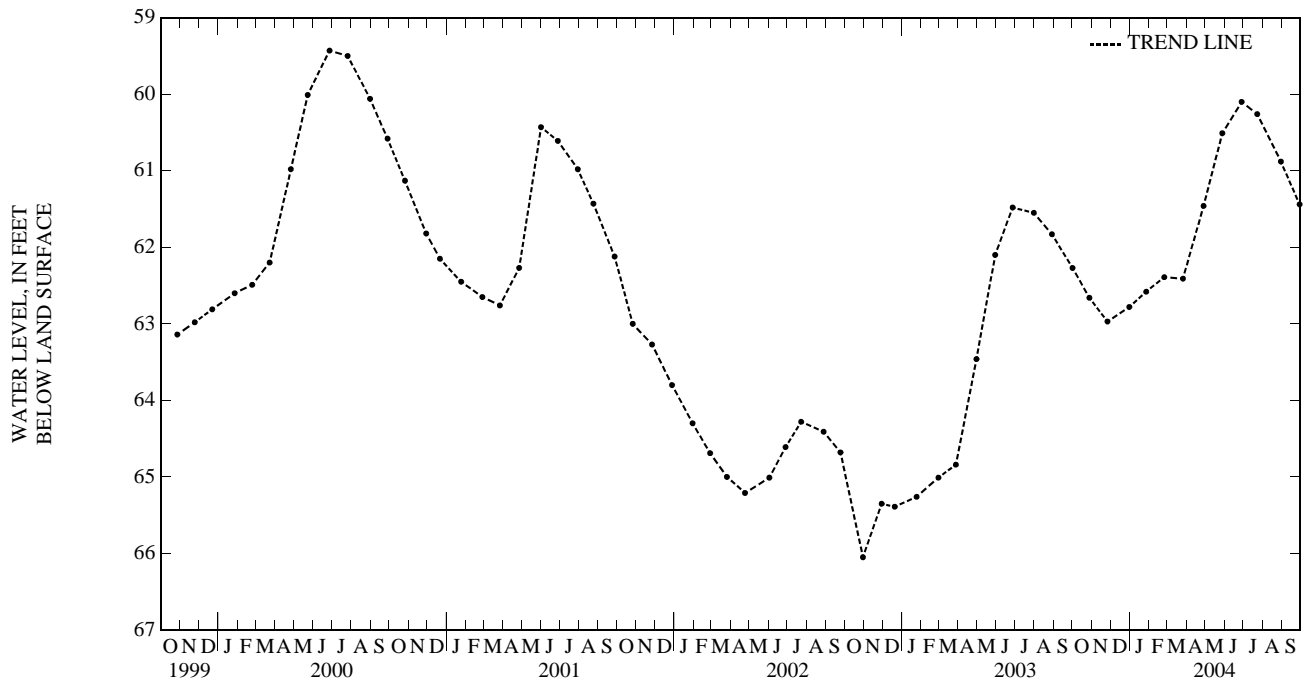
PERIOD OF RECORD.--July 1989, July 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.60 ft below land-surface datum, August 26, 1996; lowest measured, 66.05 ft below land-surface datum, October 30, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	62.27	DEC 31	62.78	MAR 26	62.41	JUN 28	60.10	SEP 29	61.44		
28	62.66	JAN 27	62.58	APR 28	61.46	JUL 23	60.26				
NOV 26	62.97	FEB 25	62.39	MAY 28	60.51	AUG 30	60.88				

WATER YEAR 2004 HIGHEST 60.10 JUN 28, 2004 LOWEST 62.97 NOV 26, 2003



HILLSBOROUGH COUNTY

425024071413001. Local number, MOW 36, Town of Milford.

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.

INSTRUMENTATION.--Electronic water-level recorder with hourly readings. Prior to October 1994, monthly readings were published.

DATUM.--Elevation of land-surface datum is 263 ft above National Geodetic Vertical Datum 1929 (levels by U.S. Geological Survey). Previously published as about 265 ft above National Geodetic Vertical Datum 1929. Measuring point: Top of concrete casing on south side of well, 1.60 ft above land-surface datum, elevation 264.34 ft above National Geodetic Vertical Datum 1929 (levels by U.S. Geological Survey).

REMARKS.--Record complete except for Dec. 26 to Jan. 22.

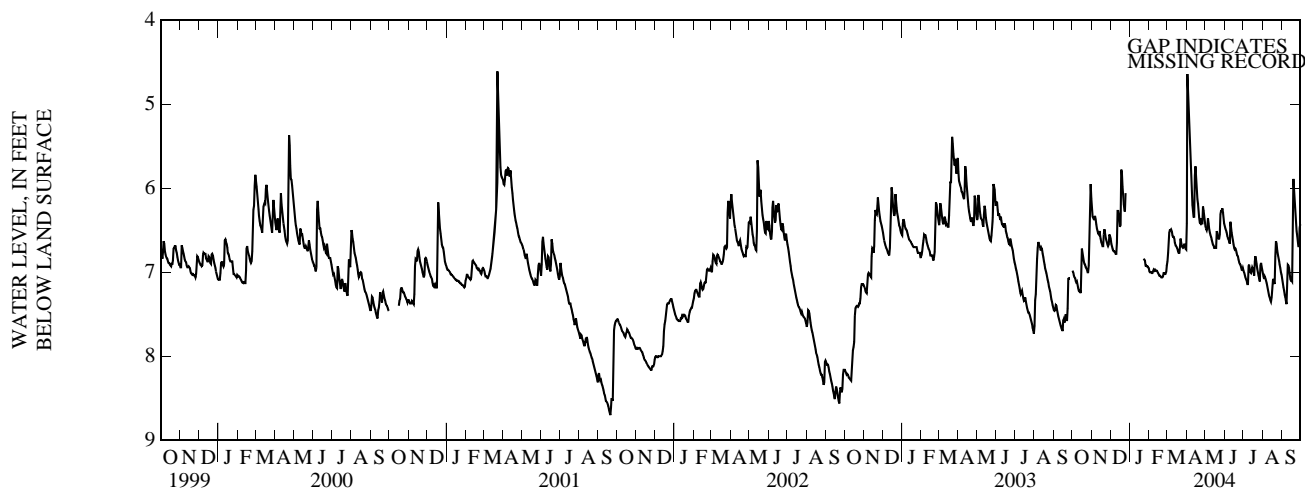
PERIOD OF RECORD.--January 1962 to current year. Prior to May 1966, published in New Hampshire Basic-Data Report No.2, Ground-Water Series.

REVISED RECORDS.-- WRD NH-VT-00-1: 1999.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.94 ft below land-surface datum, October 22, 1996; lowest measured, 12.30 ft below land-surface datum, November 18, 1978.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.98	6.24	6.60	---	6.99	6.87	6.42	6.45	6.45	6.98	7.01	7.08
2	7.00	6.34	6.66	---	7.00	6.77	4.62	6.48	6.48	7.00	7.05	7.13
3	7.04	6.35	6.69	---	7.00	6.65	4.93	6.50	6.50	7.03	7.08	7.18
4	7.06	6.37	6.72	---	7.00	6.53	5.26	6.46	6.53	7.06	7.05	7.22
5	7.07	6.37	6.74	---	7.01	6.50	5.50	6.36	6.57	7.08	7.07	7.27
6	7.10	6.33	6.75	---	7.01	6.50	5.71	6.42	6.59	7.10	7.10	7.30
7	7.12	6.37	6.75	---	6.99	6.49	5.87	6.49	6.61	7.14	7.13	7.34
8	7.11	6.43	6.76	---	6.97	6.51	5.99	6.53	6.64	7.14	7.17	7.38
9	7.15	6.48	6.78	---	6.98	6.56	6.10	6.56	6.66	6.93	7.20	7.09
10	7.19	6.51	6.78	---	6.97	6.58	6.20	6.58	6.40	6.91	7.24	6.91
11	7.22	6.54	6.65	---	6.98	6.58	6.28	6.61	6.46	6.96	7.28	6.92
12	7.23	6.55	6.27	---	6.98	6.60	6.34	6.64	6.53	7.00	7.30	6.95
13	7.22	6.51	6.27	---	6.98	6.65	6.34	6.67	6.58	7.01	7.33	7.02
14	7.25	6.56	6.32	---	6.99	6.67	5.85	6.68	6.62	6.98	7.35	7.08
15	6.90	6.60	6.37	---	7.01	6.69	5.74	6.71	6.67	6.94	7.30	7.10
16	6.72	6.64	6.46	---	7.02	6.70	5.90	6.71	6.71	6.96	7.21	7.10
17	6.77	6.66	6.44	---	7.04	6.72	6.02	6.71	6.73	7.00	7.10	7.11
18	6.82	6.69	5.78	---	7.04	6.75	6.13	6.71	6.72	7.04	7.08	6.42
19	6.87	6.69	5.81	---	7.05	6.77	6.19	6.51	6.74	6.87	7.12	5.89
20	6.90	6.55	5.98	---	7.06	6.77	6.29	6.54	6.77	6.81	7.14	6.00
21	6.91	6.49	6.09	---	7.06	6.70	6.35	6.59	6.80	6.85	6.81	6.14
22	6.94	6.54	6.19	---	7.06	6.60	6.41	6.60	6.81	6.90	6.63	6.29
23	6.95	6.59	6.26	6.84	7.05	6.64	6.42	6.60	6.85	6.96	6.66	6.41
24	6.97	6.62	6.28	6.85	7.01	6.68	6.36	6.55	6.88	7.00	6.74	6.51
25	7.00	6.64	6.06	6.86	7.01	6.70	6.42	6.31	6.90	7.04	6.79	6.57
26	7.00	6.67	---	6.92	7.02	6.71	6.42	6.27	6.91	7.07	6.83	6.64
27	6.92	6.69	---	6.92	7.02	6.70	6.22	6.27	6.94	7.11	6.87	6.69
28	6.64	6.67	---	6.93	7.00	6.66	6.27	6.24	6.97	6.92	6.91	6.69
29	6.24	6.55	---	6.93	6.92	6.69	6.34	6.29	6.97	6.89	6.95	6.47
30	5.95	6.57	---	6.94	---	6.72	6.40	6.36	6.95	6.93	7.00	6.43
31	6.12	---	---	6.95	---	6.73	---	6.42	---	6.97	7.03	---
MEAN	6.91	6.53	---	---	7.01	6.66	6.04	6.51	6.70	6.99	7.05	6.81
MAX	7.25	6.69	---	---	7.06	6.87	6.42	6.71	6.97	7.14	7.35	7.38
MIN	5.95	6.24	---	---	6.92	6.49	4.62	6.24	6.40	6.81	6.63	5.89



HILLSBOROUGH COUNTY

424800071295301. Local number, NAW 218, City of Nashua.

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.--Elevation of land-surface datum is 205 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 3.1 ft above land-surface datum.

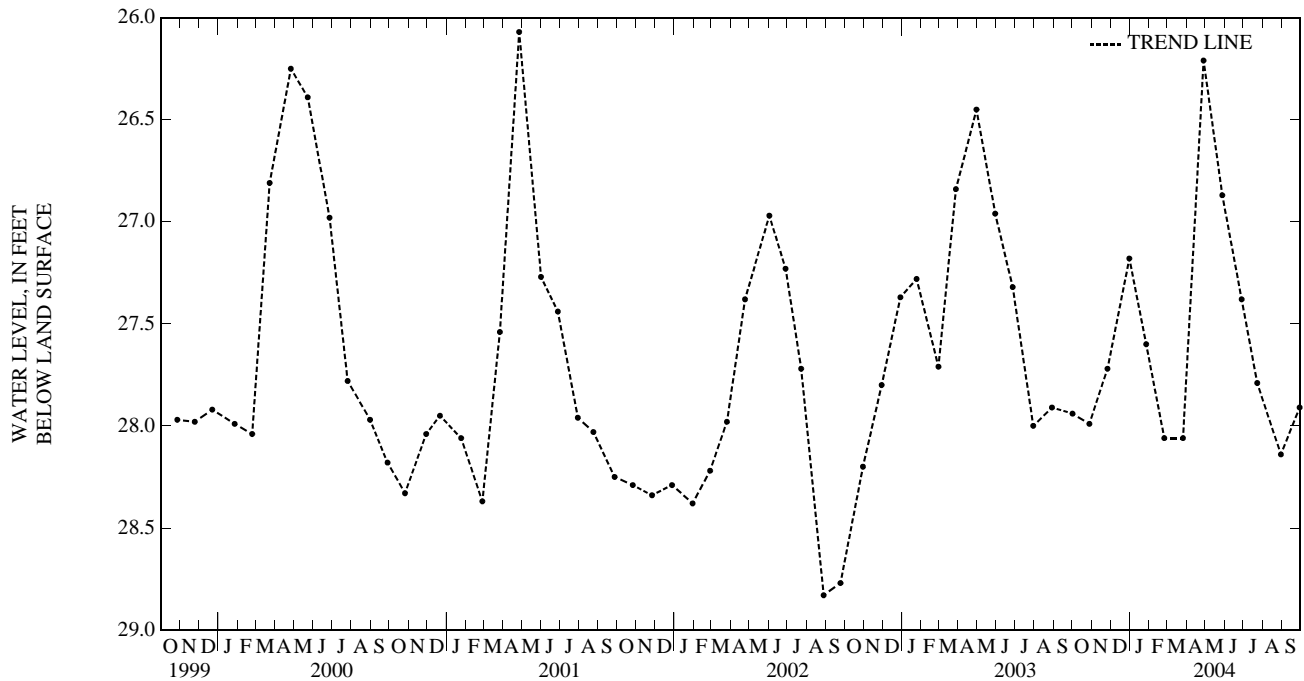
PERIOD OF RECORD.--October 1964 to current year. Prior to June 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.07 ft below land-surface datum, April 27, 2001; lowest measured, 33.10 ft below land-surface datum, November 25, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	27.94	DEC 31	27.18	MAR 26	28.06	JUN 28	27.38	SEP 29	27.91		
28	27.99	JAN 27	27.60	APR 28	26.21	JUL 23	27.79				
NOV 26	27.72	FEB 25	28.06	MAY 28	26.87	AUG 30	28.14				

WATER YEAR 2004 HIGHEST 26.21 APR 28, 2004 LOWEST 28.14 AUG 30, 2004



MERRIMACK COUNTY

431224071303601. Local number, CVW 2, City of Concord.

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.--Elevation of land-surface datum is 340 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

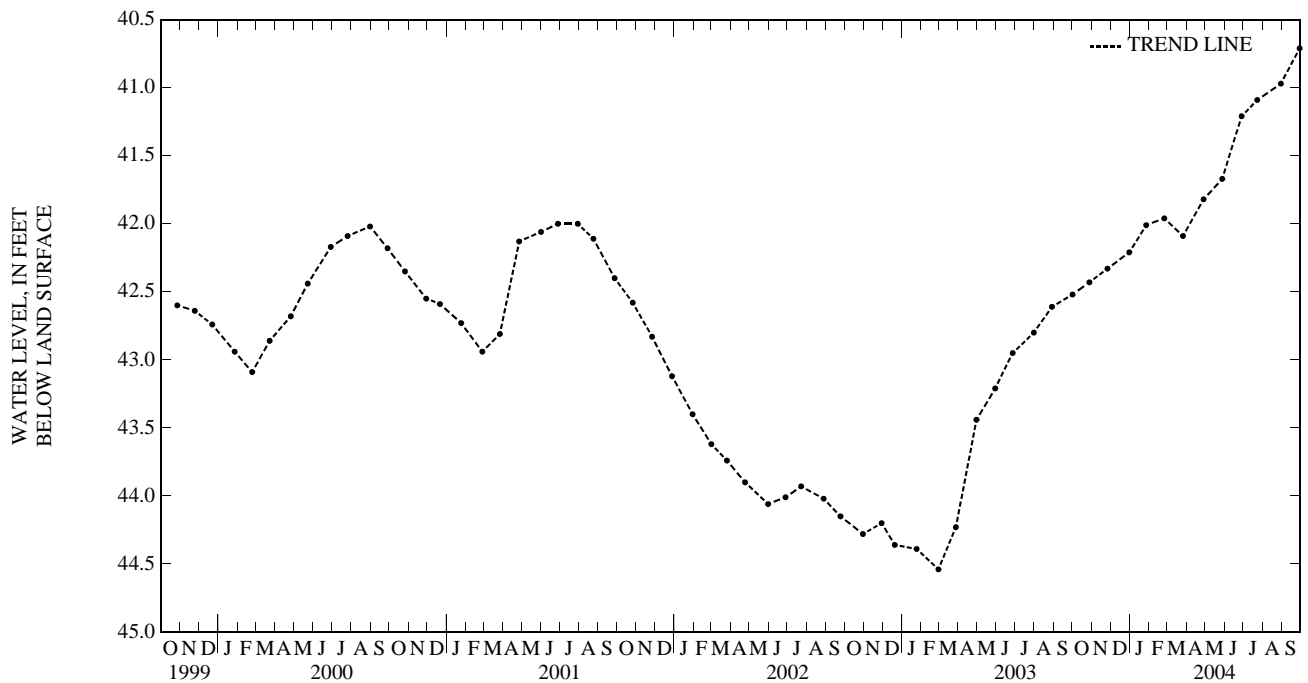
PERIOD OF RECORD.--August 1963 to May 1965, August 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.85 ft below land-surface datum, August 27, 1973; lowest measured, 44.66 ft below land-surface datum, August 23, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	42.52	DEC 31	42.21	MAR 26	42.09	JUN 28	41.21	SEP 29	40.71		
28	42.43	JAN 27	42.01	APR 28	41.82	JUL 23	41.09				
NOV 26	42.33	FEB 25	41.96	MAY 28	41.67	AUG 30	40.97				

WATER YEAR 2004 HIGHEST 40.71 SEP 29, 2004 LOWEST 42.52 OCT 01, 2003



MERRIMACK COUNTY

431049071324301. Local number, CVW 4, City of Concord.

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.--Elevation of land-surface datum is 285 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 3.8 ft above land-surface datum.

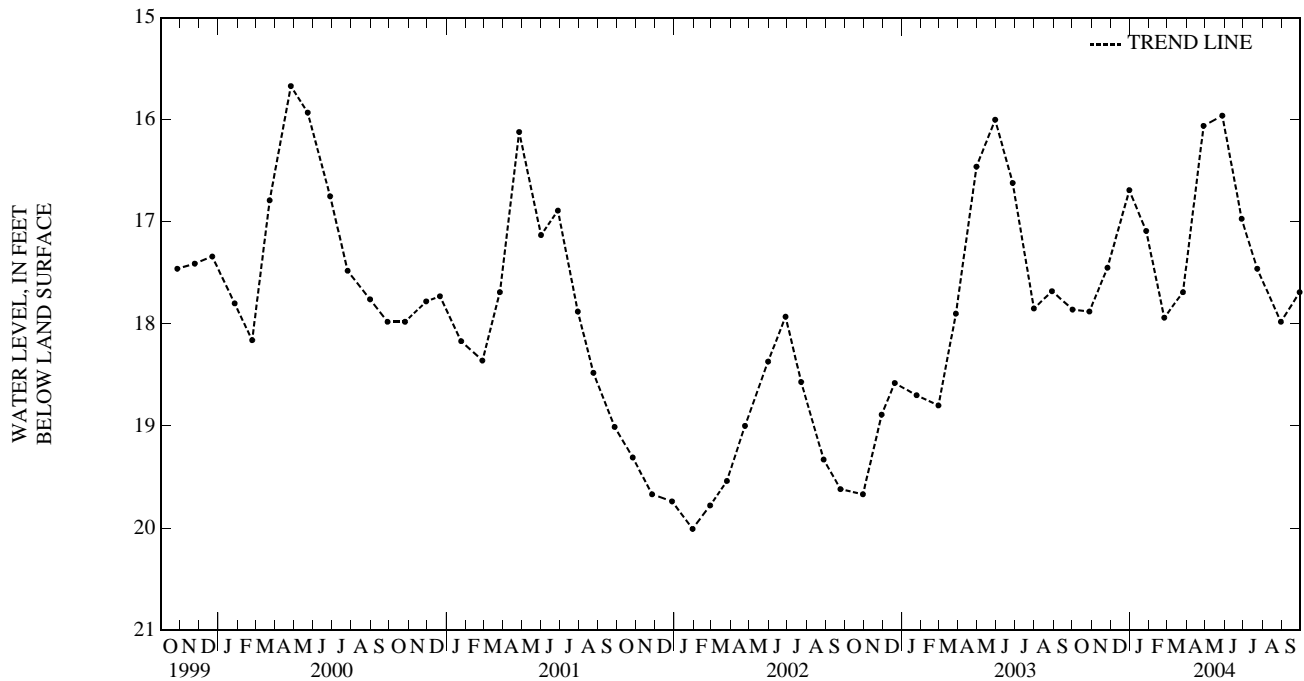
PERIOD OF RECORD.--November 1966 to current year.

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, January 26, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	17.86	DEC 31	16.69	MAR 26	17.69	JUN 28	16.97	SEP 29	17.69		
28	17.88	JAN 27	17.09	APR 28	16.06	JUL 23	17.46				
NOV 26	17.45	FEB 25	17.94	MAY 28	15.96	AUG 30	17.98				

WATER YEAR 2004 HIGHEST 15.96 MAY 28, 2004 LOWEST 17.98 AUG 30, 2004



MERRIMACK COUNTY

432428071390701. Local number, FKW 1, Town of Franklin.

LOCATION.--Lat 43° 24' 28", long 71° 39' 09", Hydrologic Unit 01070002, about 700 ft northeast from entrance to Holy Cross Convent on U.S. Highway 3, 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.

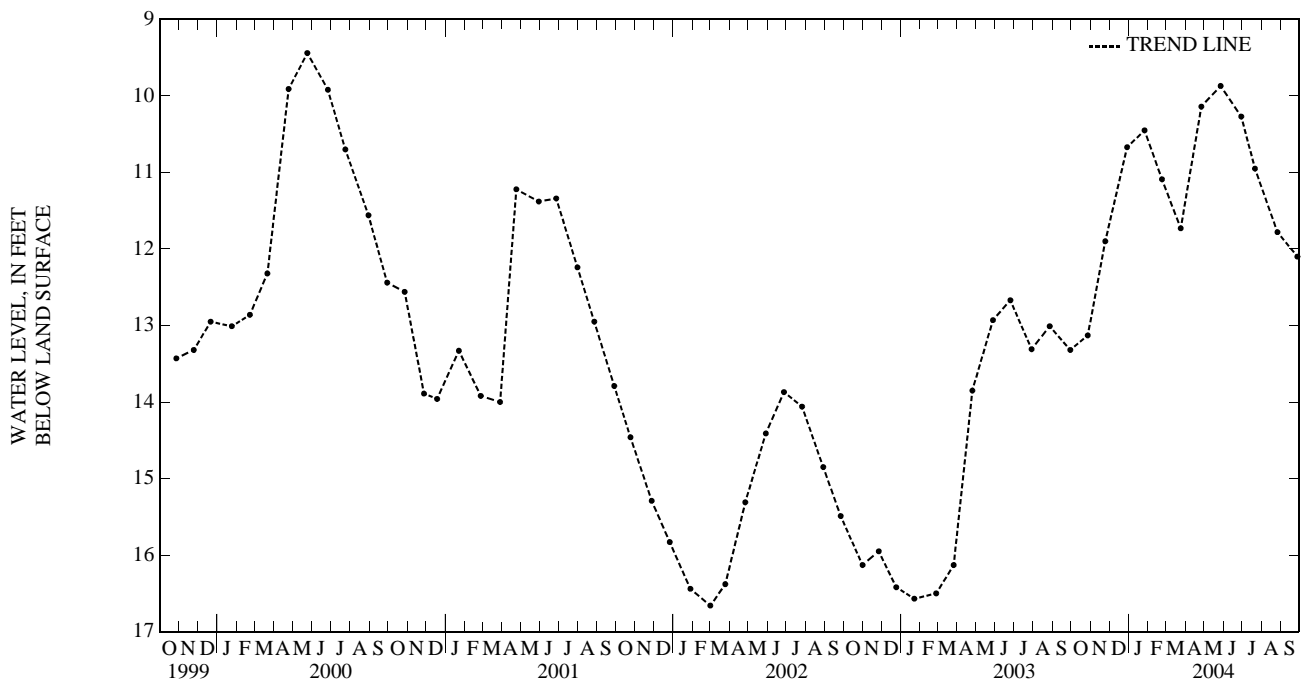
DATUM.--Elevation of land-surface datum is 290 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 1.80 ft above land-surface datum.

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, 16.66 ft below land-surface datum, March 1, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	13.13	DEC 29	10.67	FEB 23	11.09	APR 26	10.14	JUN 29	10.27	AUG 26	11.78
NOV 24	11.90	JAN 26	10.45	MAR 24	11.73	MAY 27	9.87	JUL 21	10.95	SEP 27	12.10
WATER YEAR 2004 HIGHEST 9.87 MAY 27, 2004		LOWEST 13.13		OCT 27, 2003							



MERRIMACK COUNTY

430235071275501. Local number, HTW 5, Town of Hooksett.

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.--Elevation of land-surface datum is 258.93 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

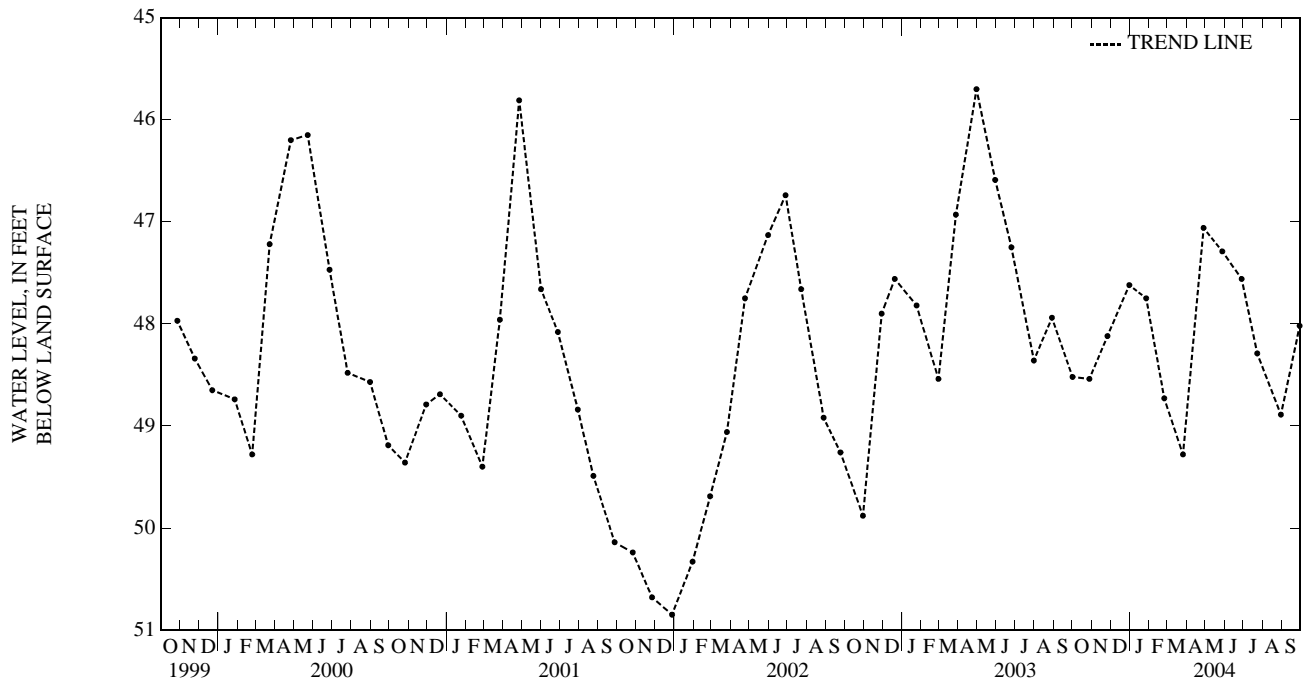
PERIOD OF RECORD.--April 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.69 ft below land-surface datum, April 28, 1967; lowest measured, 51.96 ft below land-surface datum, February 10, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	48.52	DEC 31	47.62	MAR 26	49.28	JUN 28	47.56	SEP 29	48.02		
28	48.54	JAN 27	47.75	APR 28	47.06	JUL 23	48.29				
NOV 26	48.12	FEB 25	48.73	MAY 28	47.29	AUG 30	48.89				

WATER YEAR 2004 HIGHEST 47.06 APR 28, 2004 LOWEST 49.28 MAR 26, 2004



MERRIMACK COUNTY

432343071570901. Local number, NLW 1, Town of New London.

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.--Elevation of land-surface datum is 1,020 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Edge of 0.75-in. hole in wooden cover, 2.9 ft above land-surface datum.

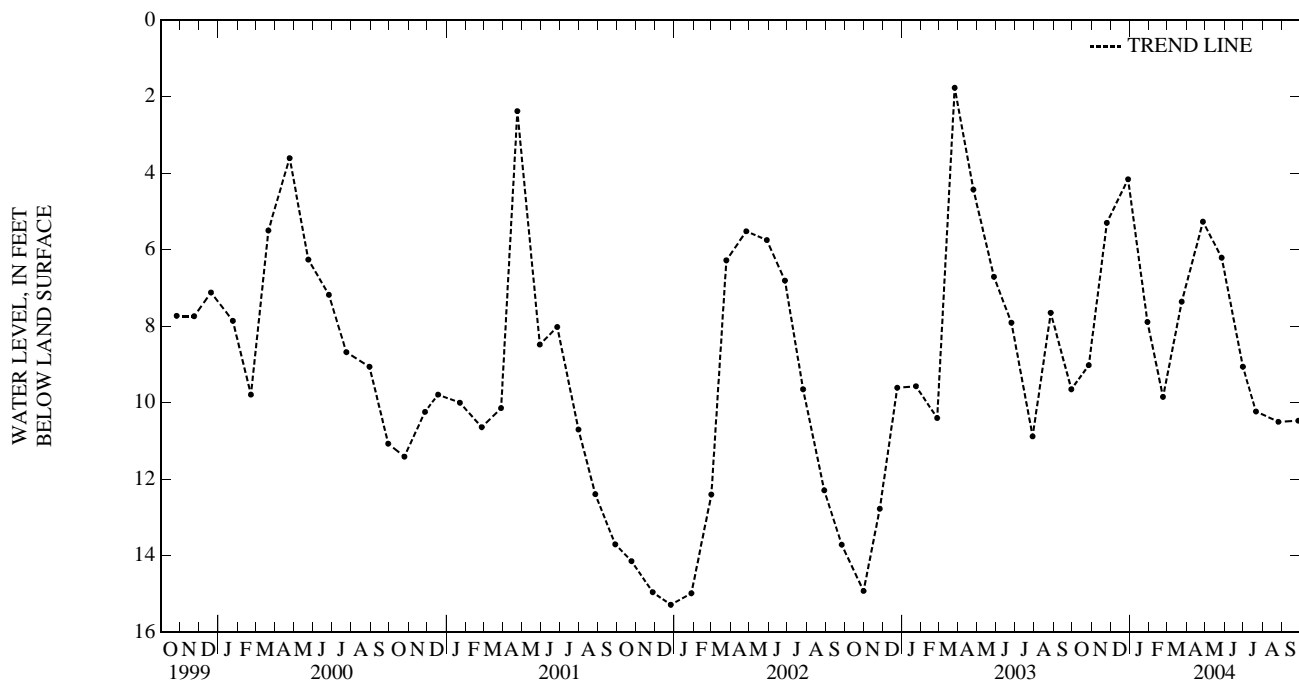
PERIOD OF RECORD.--October 1947 to current year. Prior to January 1956, published in Water Levels and Artesian Pressures in Observation Wells in the United States: Part 1. Northeastern States; U.S. Geological Survey Water-Supply Paper Series. January 1956 to November 1972, published in Ground-Water Levels 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, April 2, 1963; lowest measured, 16.90 ft below land-surface datum, December 28, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	9.02	DEC 29	4.16	FEB 23	9.85	APR 27	5.27	JUN 30	9.06	AUG 26	10.50
NOV 25	5.30	JAN 29	7.89	MAR 24	7.36	MAY 27	6.21	JUL 21	10.23	SEP 27	10.47

WATER YEAR 2004 HIGHEST 4.16 DEC 29, 2003 LOWEST 10.50 AUG 26, 2004



MERRIMACK COUNTY

431540071452801. Local number, WCW 1, Town of Warner.

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.

INSTRUMENTATION.--Electronic water-level recorder with hourly readings. Prior to March 1999, monthly readings were published.

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

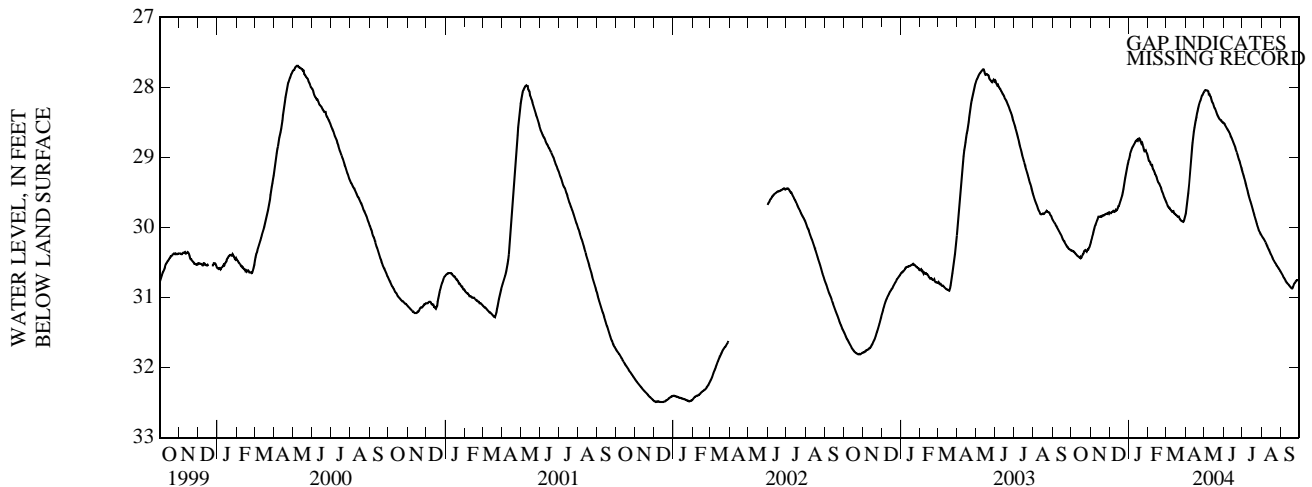
DATUM.--Elevation of land-surface datum is 424 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, presently 3.5 ft above land-surface datum.

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, December 17, 1965.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.33	30.21	29.79	29.03	29.02	29.64	29.80	28.05	28.51	29.20	30.12	30.64
2	30.33	30.17	29.79	28.99	29.05	29.66	29.75	28.04	28.52	29.23	30.14	30.66
3	30.34	30.14	29.79	28.95	29.05	29.69	29.68	28.04	28.53	29.27	30.15	30.68
4	30.34	30.10	29.78	28.92	29.07	29.70	29.60	28.04	28.56	29.30	30.16	30.69
5	30.35	30.07	29.78	28.89	29.10	29.71	29.51	28.04	28.57	29.33	30.18	30.71
6	30.36	30.03	29.77	28.87	29.11	29.72	29.41	28.05	28.59	29.37	30.20	30.73
7	30.37	30.00	29.76	28.85	29.11	29.74	29.29	28.05	28.60	29.41	30.21	30.74
8	30.38	29.97	29.77	28.83	29.15	29.75	29.17	28.10	28.62	29.44	30.23	30.76
9	30.39	29.95	29.78	28.82	29.17	29.76	29.06	28.09	28.63	29.47	30.25	30.77
10	30.40	29.92	29.77	28.80	29.19	29.77	28.96	28.12	28.64	29.51	30.27	30.79
11	30.41	29.90	29.75	28.78	29.21	29.77	28.87	28.13	28.66	29.54	30.29	30.80
12	30.42	29.87	29.76	28.76	29.24	29.77	28.79	28.16	28.69	29.57	30.31	30.81
13	30.42	29.85	29.74	28.76	29.25	29.79	28.71	28.20	28.71	29.60	30.33	30.82
14	30.43	29.84	29.72	28.76	29.27	29.80	28.64	28.22	28.73	29.63	30.35	30.83
15	30.42	29.85	29.70	28.74	29.30	29.80	28.57	28.23	28.75	29.66	30.37	30.84
16	30.44	29.84	29.69	28.74	29.33	29.82	28.52	28.26	28.78	29.70	30.39	30.85
17	30.43	29.84	29.66	28.75	29.36	29.82	28.47	28.29	28.80	29.73	30.41	30.86
18	30.41	29.85	29.64	28.73	29.37	29.83	28.43	28.30	28.82	29.76	30.43	30.87
19	30.39	29.83	29.61	28.74	29.38	29.85	28.37	28.33	28.84	29.79	30.45	30.87
20	30.37	29.83	29.58	28.77	29.41	29.84	28.33	28.35	28.88	29.82	30.47	30.85
21	30.34	29.83	29.54	28.80	29.42	29.84	28.30	28.37	28.90	29.85	30.48	30.83
22	30.33	29.83	29.50	28.79	29.45	29.87	28.26	28.39	28.93	29.88	30.50	30.80
23	30.32	29.82	29.45	28.82	29.48	29.88	28.23	28.41	28.96	29.91	30.51	30.79
24	30.34	29.81	29.40	28.85	29.50	29.90	28.20	28.43	28.99	29.95	30.53	30.78
25	30.35	29.81	29.35	28.89	29.53	29.90	28.18	28.45	29.02	29.98	30.55	30.76
26	30.33	29.80	29.29	28.91	29.55	29.91	28.15	28.46	29.04	30.01	30.56	30.75
27	30.31	29.81	29.25	28.90	29.58	29.91	28.12	28.47	29.08	30.03	30.57	30.75
28	30.31	29.79	29.20	28.90	29.60	29.92	28.11	28.47	29.11	30.06	30.58	30.75
29	30.29	29.79	29.15	28.93	29.62	29.90	28.09	28.49	29.14	30.07	30.60	30.76
30	30.27	29.80	29.09	28.94	---	29.87	28.07	28.50	29.17	30.09	30.61	30.77
31	30.24	---	29.06	28.98	---	29.84	---	28.50	---	30.10	30.63	---
MEAN	30.36	29.91	29.58	28.84	29.31	29.81	28.72	28.26	28.79	29.69	30.38	30.78
MAX	30.44	30.21	29.79	29.03	29.62	29.92	29.80	28.50	29.17	30.10	30.63	30.87
MIN	30.24	29.79	29.06	28.73	29.02	29.64	28.07	28.04	28.51	29.20	30.12	30.64
CAL YR	2003	MEAN 29.62	HIGH 27.74	LOW 30.90								
WTR YR	2004	MEAN 29.54	HIGH 28.04	LOW 30.87								



ROCKINGHAM COUNTY

430527071140101. Local number, DDW 46, Town of Deerfield.

LOCATION.--Lat 43° 05' 27", long 71° 14' 02", Hydrologic Unit 01060003, approximately 1.3 mi south from junction of Routes 107 and 43 and 25 ft east from Route 107, and about 4 mi south of Deerfield. Owner: New Hampshire Department of Transportation.

AQUIFER.--Sand and fine gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in., depth 47.5 ft.

DATUM.--Elevation of land-surface datum is 272 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 2.8 ft above land-surface datum.

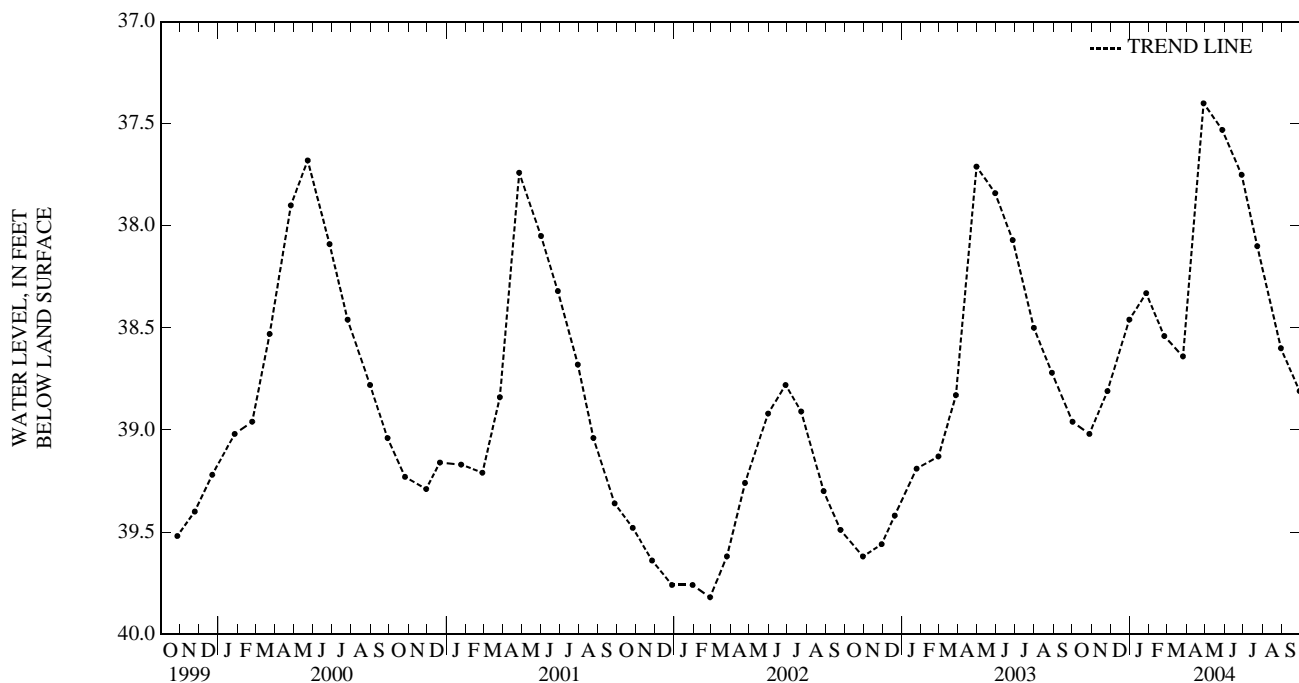
PERIOD OF RECORD.--November 1984 to May 1986, April 1989, April 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.35 ft below land-surface datum, April 29, 1997; lowest measured, 39.89 ft below land-surface datum, September 29, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	38.96	DEC 31	38.46	MAR 26	38.64	JUN 28	37.75	SEP 29	38.81		
28	39.02	JAN 27	38.33	APR 28	37.40	JUL 23	38.10				
NOV 26	38.81	FEB 25	38.54	MAY 28	37.53	AUG 30	38.60				

WATER YEAR 2004 HIGHEST 37.40 APR 28, 2004 LOWEST 39.02 OCT 28, 2003



STRAFFORD COUNTY

430721071005001. Local number, LIW 1, Town of Lee.

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.--Elevation of land-surface datum is 190 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top edge of board across well opening, 2.00 ft above land-surface datum.

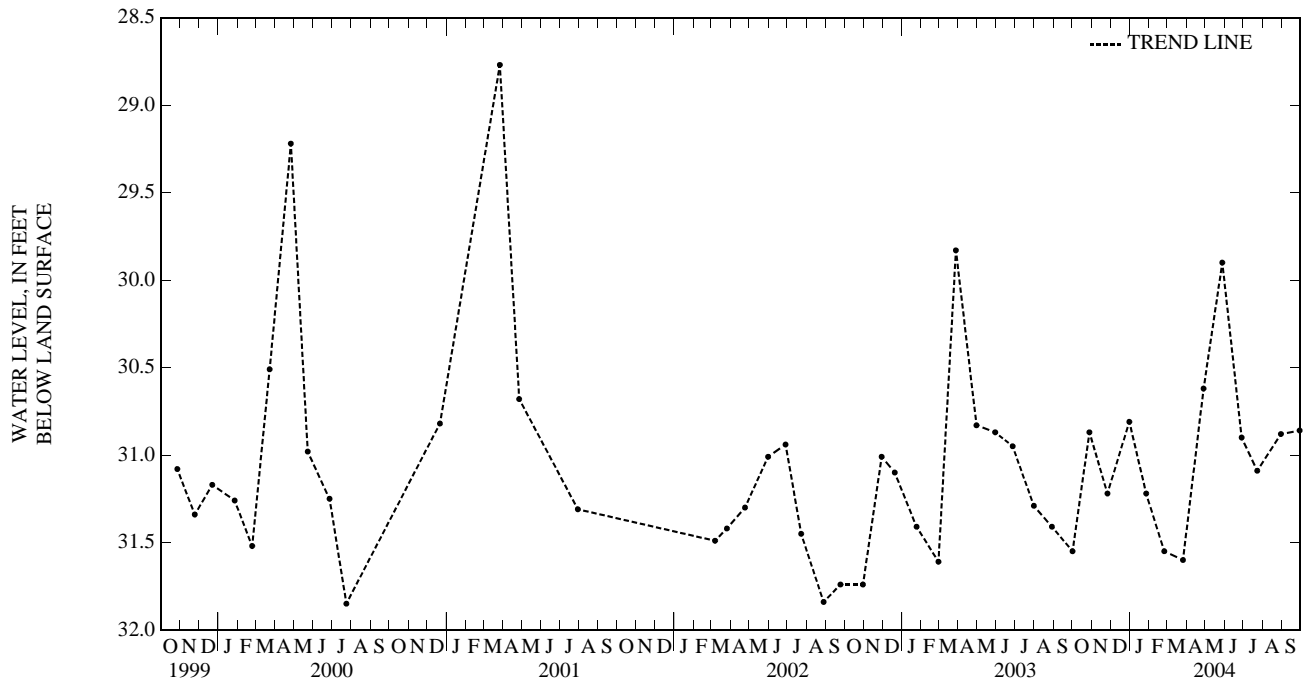
PERIOD OF RECORD.--November 1953 to current year. Prior to January 1958, published in New Hampshire Basic-Data Report No. 1, Ground-Water Series. Prior to January 1956, published in Water Levels and Artesian Pressures in Observation Wells in the United States: Part 1. Northeastern States; U.S. Geological 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, March 22, 1983; lowest measured, 32.40 ft below land-surface datum, December 18, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	31.55	DEC 31	30.81	MAR 26	31.60	JUN 28	30.90	SEP 29	30.86		
28	30.87	JAN 27	31.22	APR 28	30.62	JUL 23	31.09				
NOV 26	31.22	FEB 25	31.55	MAY 28	29.90	AUG 30	30.88				

WATER YEAR 2004 HIGHEST 29.90 MAY 28, 2004 LOWEST 31.60 MAR 26, 2004



STRAFFORD COUNTY

432534071095601. Local number, NFW 53, Town of New Durham.

LOCATION.--Lat 43° 25'36", long 71° 09'55", Hydrologic Unit 01060003, at the northwest corner of the Ridge Road and Stockbridge Corner Road intersection, approximately 0.25 mi south of Route 11, and 0.5 mi south of New Durham. Owner: Town of New Durham.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in., depth 60 ft.

DATUM.--Elevation of land-surface datum is 545 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 2.5 ft above land-surface datum.

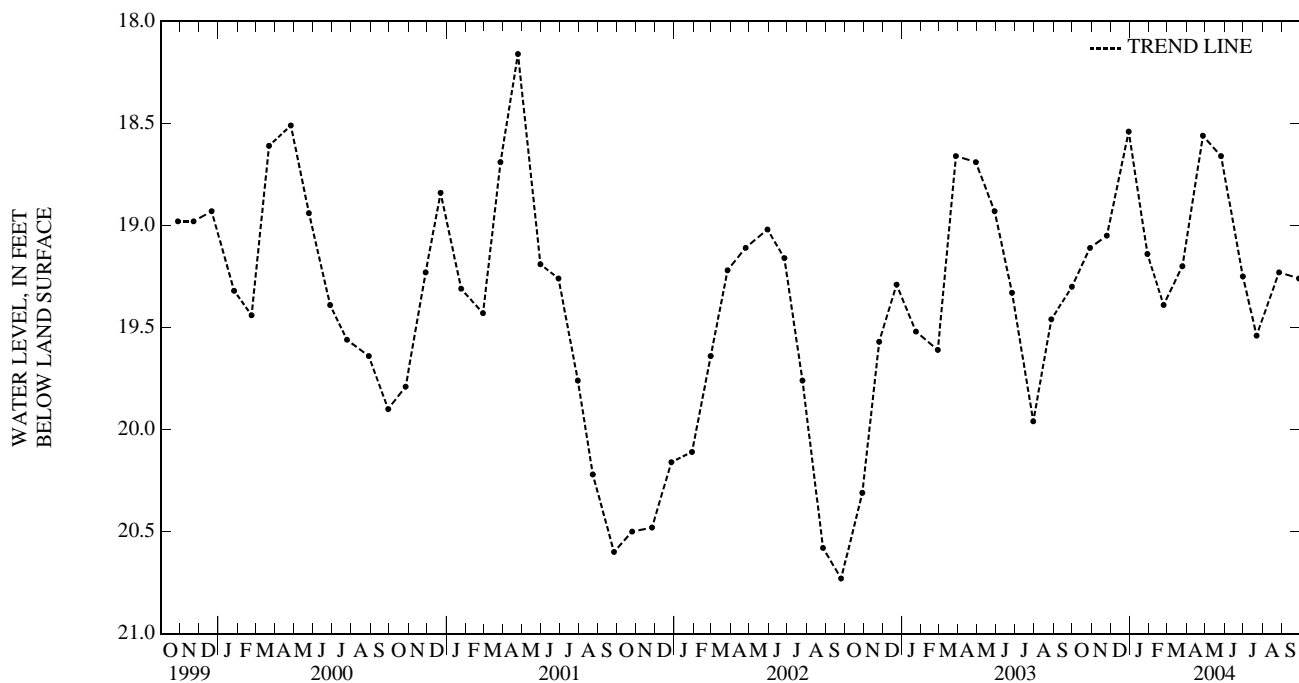
PERIOD OF RECORD.--December 1986 to May 1988, March, April 1991, April 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.67 ft below land-surface datum, June 24, 1998; lowest measured, 21.35 ft below land-surface datum, June 9, 1987.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	19.11	DEC 30	18.54	FEB 24	19.39	APR 27	18.56	JUN 30	19.25	AUG 27	19.23
NOV 25	19.05	JAN 29	19.14	MAR 25	19.20	MAY 26	18.66	JUL 22	19.54	SEP 28	19.26

WATER YEAR 2004 HIGHEST 18.54 DEC 30, 2003 LOWEST 19.54 JUL 22, 2004



SULLIVAN COUNTY

432322072112401. Local number, NPW 3, Town of Newport.

LOCATION.--Lat 43° 23'23", long 72° 11'08", Hydrologic Unit 01080104, approximately 300 ft south of Corbin Road, 0.2 mi west of Route 10, and 1.8 mi north from the center of Newport. Owner: U.S. Geological Survey.

AQUIFER.-- Sand and fine gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused test well, diameter 2 in., depth 57 ft.

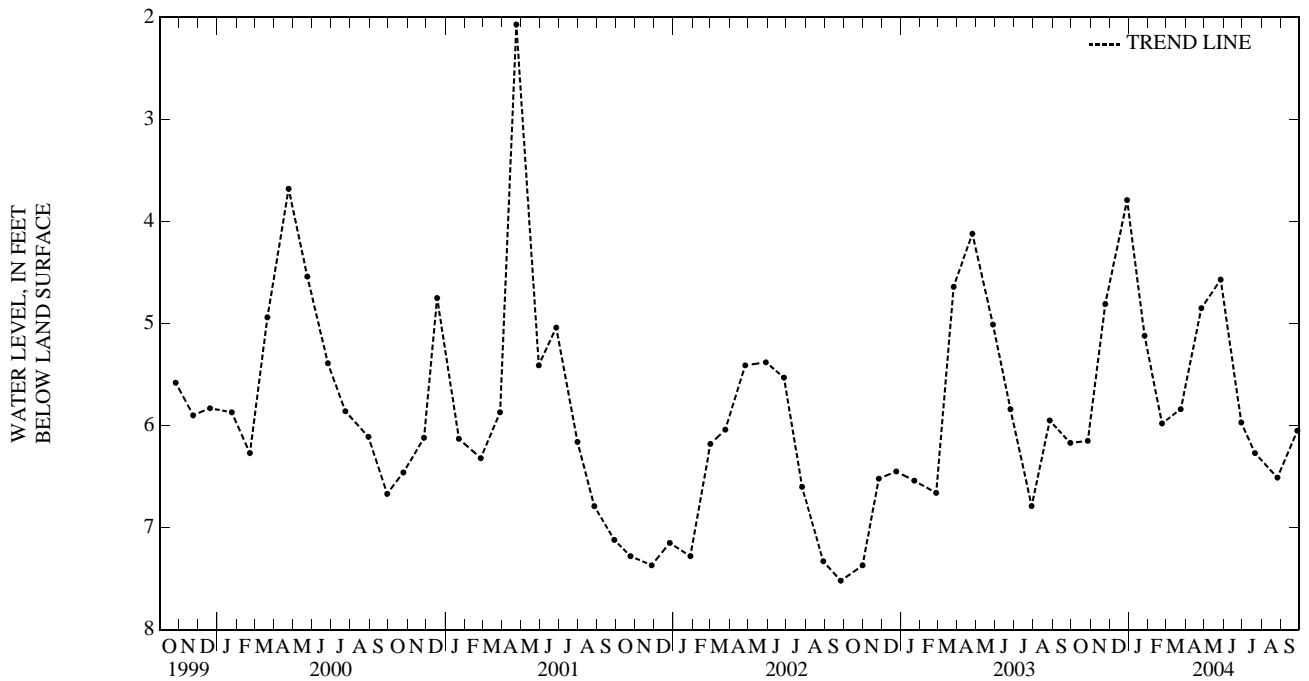
DATUM.--Elevation of land-surface datum is 777 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 3.5 ft above land-surface datum.

PERIOD OF RECORD.--April 1988, April 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.07 ft below land-surface datum, April 24, 2001; lowest measured, 7.52 ft below land-surface datum, September 26, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	6.15	DEC 29	3.79	FEB 23	5.98	APR 26	4.85	JUN 29	5.97	AUG 26	6.51
NOV 24	4.81	JAN 26	5.12	MAR 24	5.84	MAY 27	4.57	JUL 21	6.27	SEP 27	6.05
WATER YEAR 2004 HIGHEST		3.79	DEC 29, 2003	LOWEST		6.51	AUG 26, 2004				



SULLIVAN COUNTY

432322072112402. Local number, NPW 6, Town of Newport.

LOCATION.--Lat 43° 23'23", long 72° 11'08", Hydrologic Unit 01080104, approximately 300 ft south of Corbin Road, 0.2 mi west of Route 10, and 1.8 mi north from the center of Newport. Owner: U.S. Geological Survey.

AQUIFER.--Sand and fine gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored, unused test well, diameter 2 in., depth 57 ft.

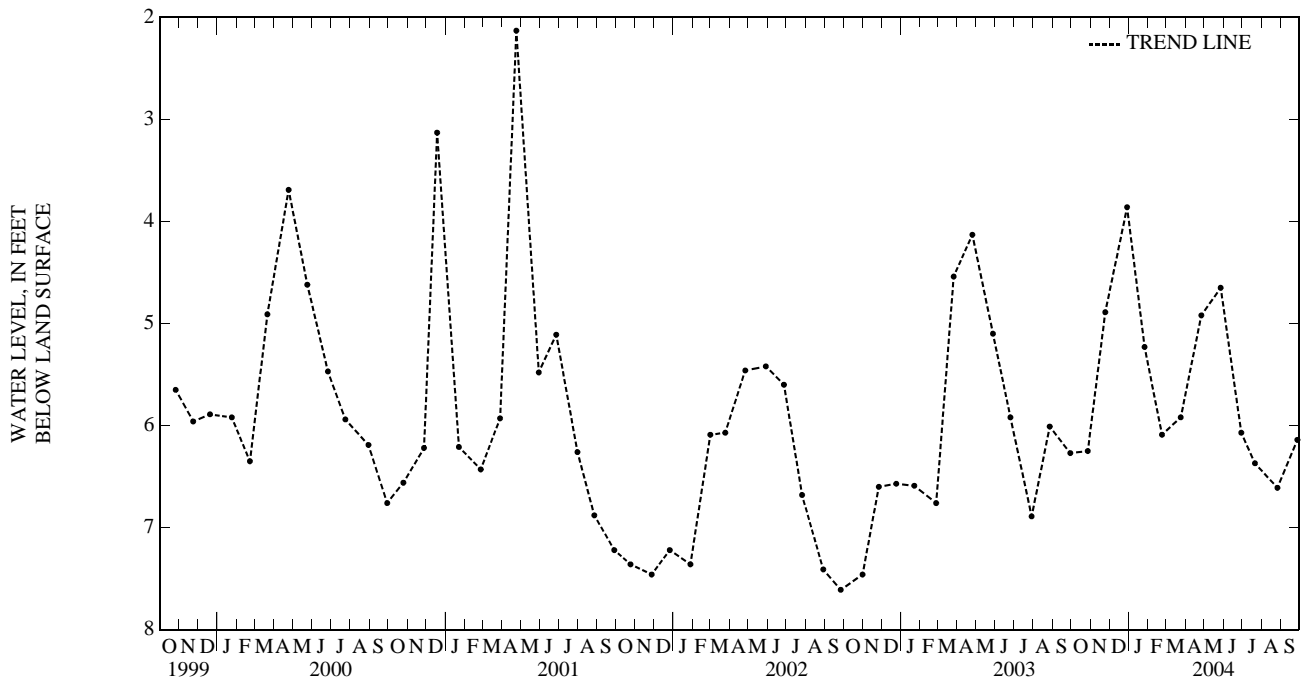
DATUM.--Elevation of land-surface datum is 787 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 3.4 ft above land-surface datum.

PERIOD OF RECORD.--April 1988, April 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.13 ft below land-surface datum, April 24, 2001; lowest measured, 7.61 ft below land-surface datum, September 26, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	6.25	DEC 29	3.86	FEB 23	6.09	APR 26	4.92	JUN 29	6.07	AUG 26	6.61
NOV 24	4.89	JAN 26	5.23	MAR 24	5.92	MAY 27	4.65	JUL 21	6.37	SEP 27	6.14
WATER YEAR 2004 HIGHEST 3.86 DEC 29, 2003 LOWEST 6.61 AUG 26, 2004											



BENNINGTON COUNTY

424810073160401. Local number, PQW 1, Town of North Pownal.

LOCATION.--Lat 42° 48'10", long 73° 16'04", Hydrologic Unit 02020003, in front of residence on west side of State Highway 346 and 0.15 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.--Elevation of land-surface datum is 515 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of 0.75-in diameter hole drilled in center of 0.38-in thick steel cover at land-surface datum.

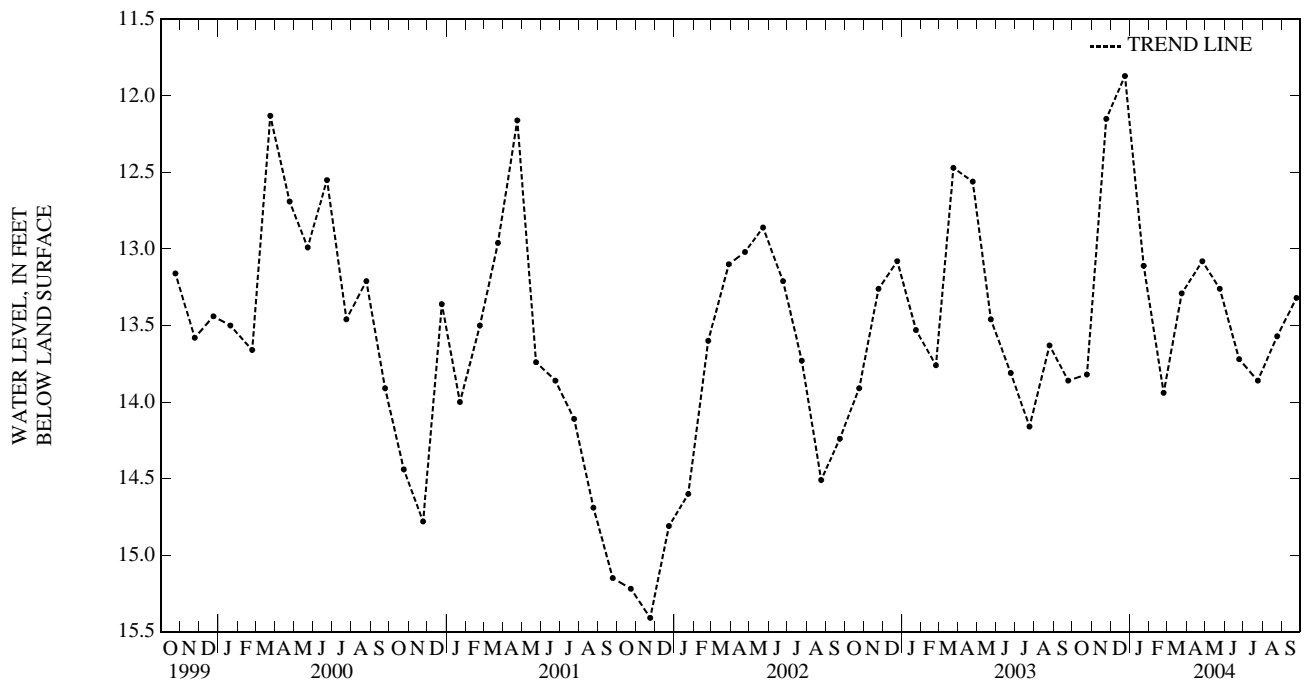
PERIOD OF RECORD.--October 1964 to current year. Prior to October 1977, published as Pownal 1.

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, October 19, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	13.82	DEC 24	11.87	FEB 24	13.94	APR 26	13.08	JUN 24	13.72	AUG 24	13.57
NOV 24	12.15	JAN 23	13.11	MAR 24	13.29	MAY 24	13.26	JUL 24	13.86	SEP 24	13.32

WATER YEAR 2004 HIGHEST 11.87 DEC 24, 2003 LOWEST 13.94 FEB 24, 2004



CHITTENDEN COUNTY

443646073124901. Local number, MJW 3, Town of Milton.

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.--Elevation of land-surface datum is 160 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 4.00 ft above land-surface datum.

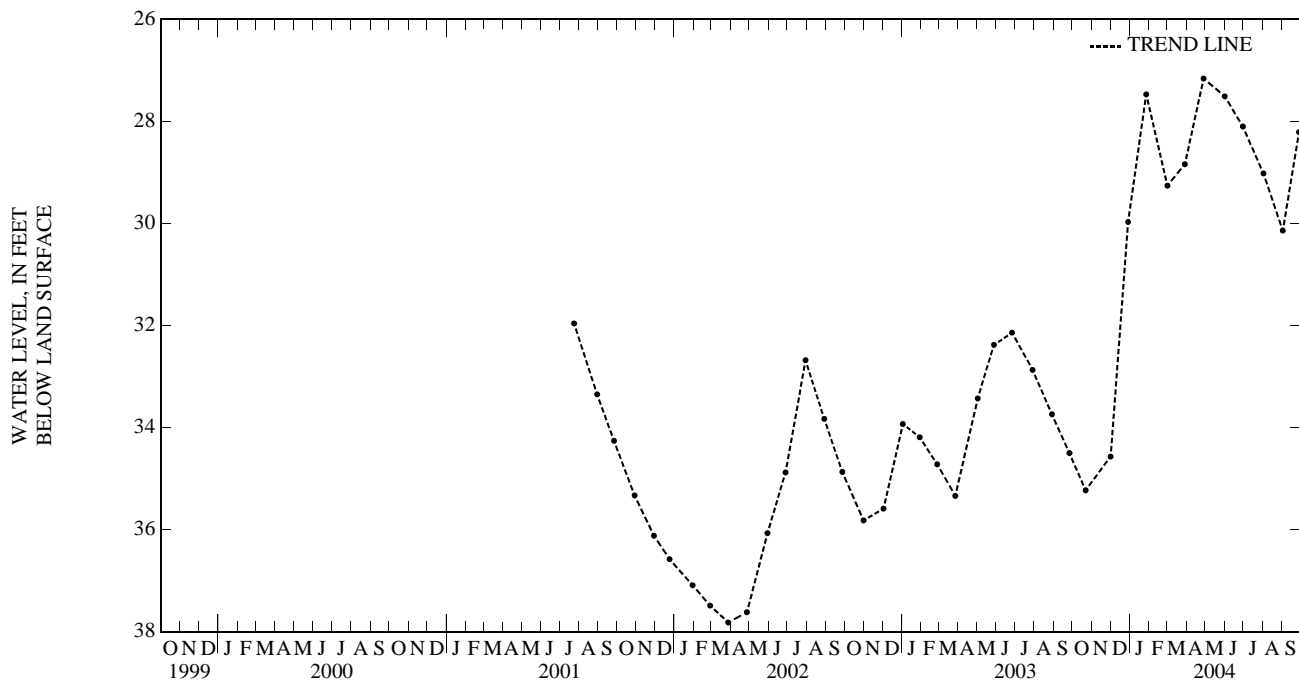
PERIOD OF RECORD.--November 1956 to September 1995, July 2001 to current year. Prior to October 1977, published as Milton 3.

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, March 23, 1989.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	35.23	DEC 29	29.97	MAR 01	29.26	APR 28	27.16	JUN 30	28.10	SEP 02	30.14
DEC 01	34.57	JAN 27	27.47	29	28.84	JUN 01	27.51	AUG 02	29.02	28	28.21

WATER YEAR 2004 HIGHEST 27.16 APR 28, 2004 LOWEST 35.23 OCT 22, 2003



ESSEX COUNTY

444731071514701. Local number, BIW 1, Town of Brighton.

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.--Elevation of land-surface datum is 1,180 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 4.00 ft above land-surface datum.

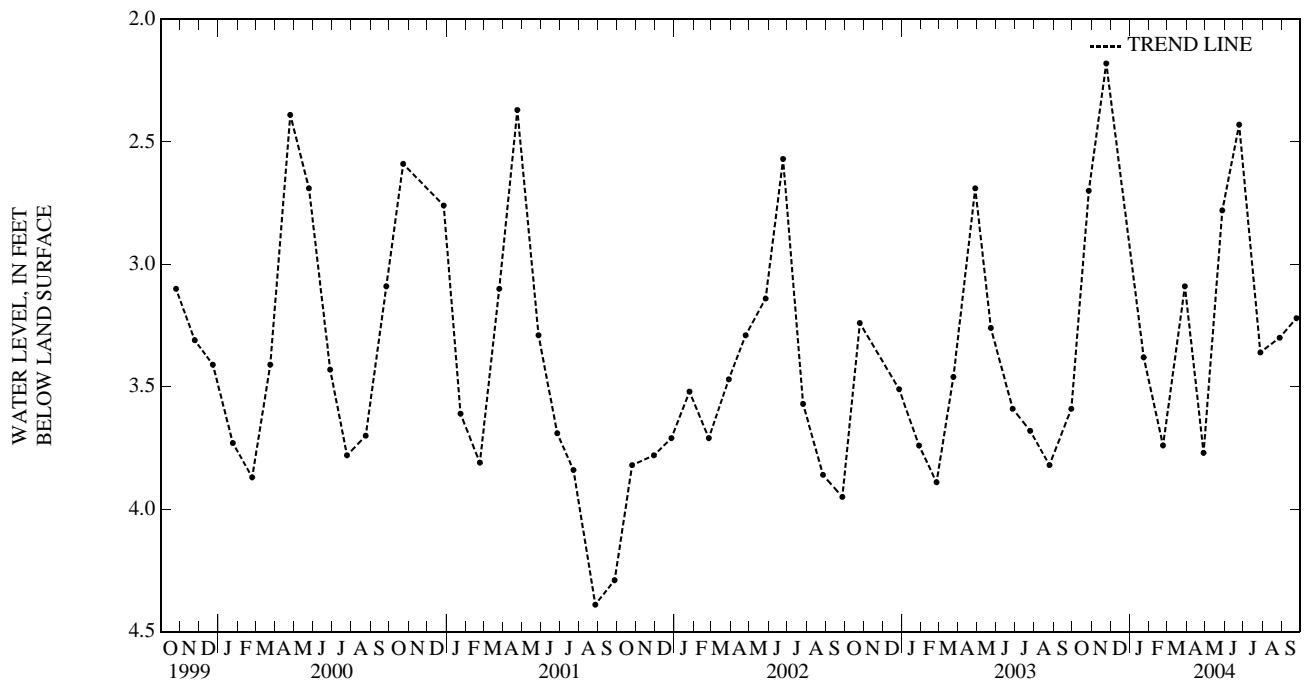
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as Brighton 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.68 ft below land-surface datum, April 21, 2000; lowest measured, 4.95 ft below land-surface datum, August 21, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	2.70	JAN 23	3.38	MAR 29	3.09	MAY 28	2.78	JUL 28	3.36	SEP 24	3.22
NOV 24	2.18	FEB 23	3.74	APR 28	3.77	JUN 24	2.43	AUG 28	3.30		

WATER YEAR 2004 HIGHEST 2.18 NOV 24, 2003 LOWEST 3.77 APR 28, 2004



FRANKLIN COUNTY

445603072422901. Local number, BKW 1, Town of East Berkshire.

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.--Elevation of land-surface datum is 425 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 4.00 ft above land-surface datum.

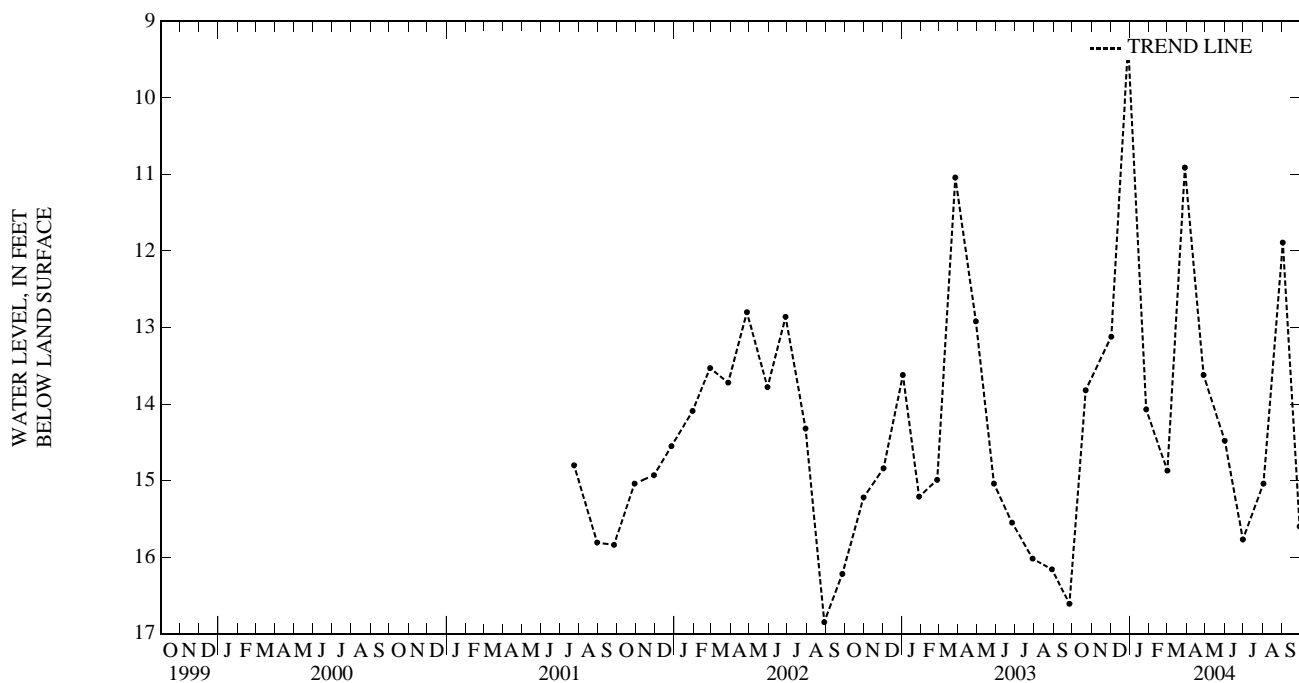
PERIOD OF RECORD.--November 1966 to September 1995, July 2001 to current year. Prior to October 1977, published as Berkshire 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.55 ft below land-surface datum, April 23, 1992; lowest measured, 16.85 ft below land-surface datum, August 29, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	13.82	DEC 29	9.30	MAR 01	14.87	APR 28	13.62	JUN 30	15.77	SEP 02	11.89
DEC 02	13.12	JAN 27	14.07	29	10.91	JUN 01	14.48	AUG 02	15.04	29	15.60

WATER YEAR 2004 HIGHEST 9.30 DEC 29, 2003 LOWEST 15.77 JUN 30, 2004



LAMOILLE COUNTY

443405072323501. Local number, MPW 1, Town of Morrisville.

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.

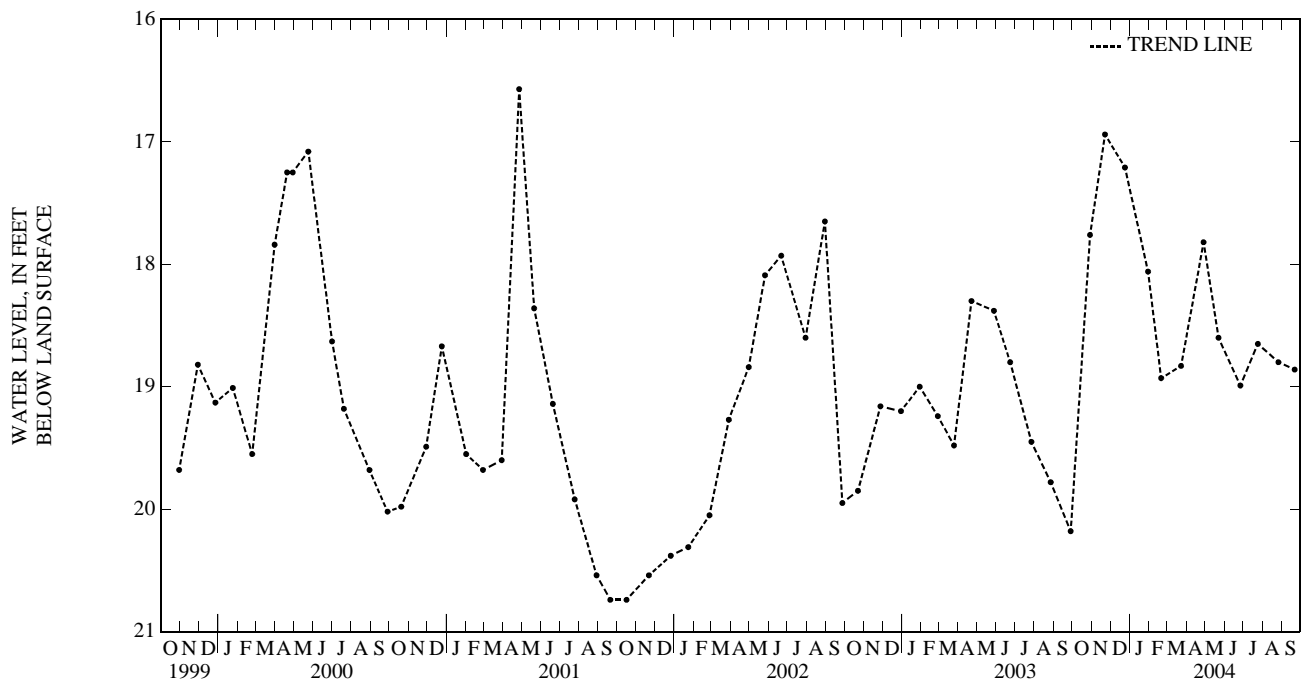
DATUM.--Elevation of land-surface datum is 660 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 4.00 ft above land-surface datum.

PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as Morrystown 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.87 ft below land-surface datum, January 27, 1978; lowest measured, 20.74 ft below land-surface datum, September 20, 2001, October 16, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	17.76	DEC 24	17.21	FEB 20	18.93	APR 28	17.82	JUN 26	18.99	AUG 26	18.80
NOV 22	16.94	JAN 30	18.06	MAR 23	18.83	MAY 22	18.60	JUL 24	18.65	SEP 21	18.86
WATER YEAR 2004 HIGHEST 16.94 NOV 22, 2003		LOWEST 18.99 JUN 26, 2004									



ORANGE COUNTY

435343072151801. Local number, WOW 1, Town of West Fairlee.

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.--Elevation of land-surface datum is 700 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 2.00 ft above land-surface datum.

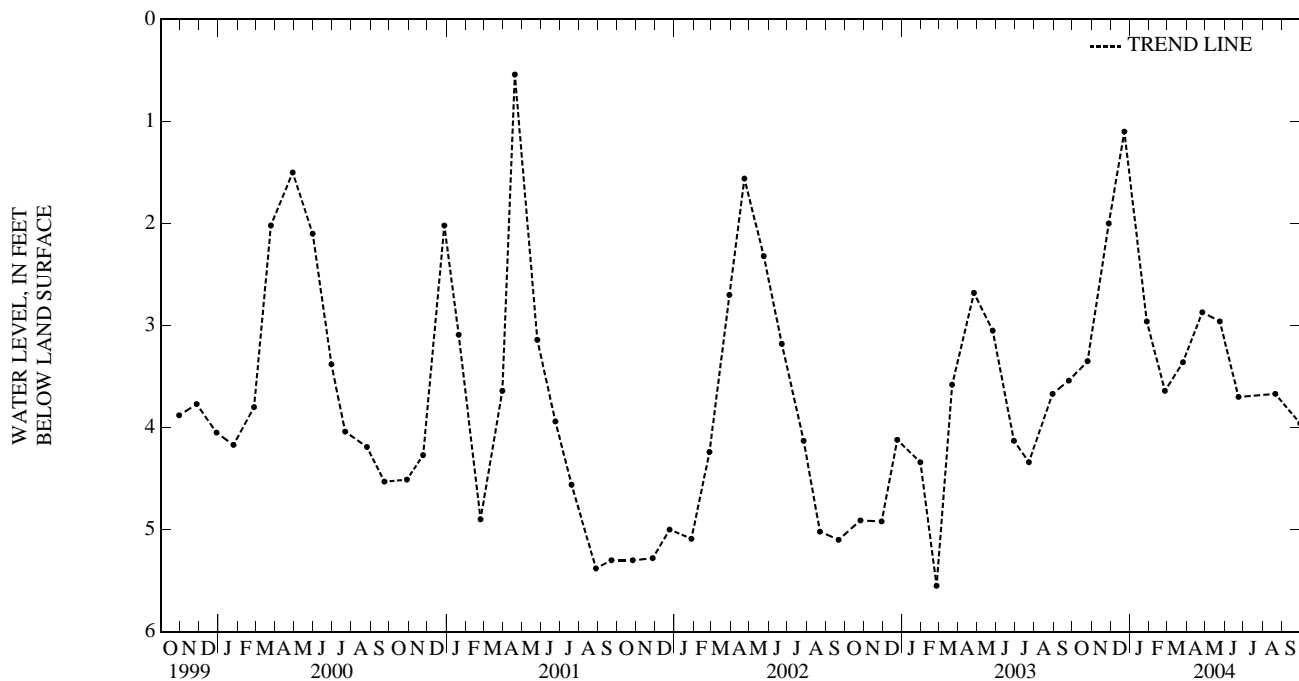
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as West Fairlee 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.53 ft below land-surface datum, April 23, 1993; lowest measured, 5.56 ft below land-surface datum, September 26, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	3.35	DEC 23	1.10	FEB 26	3.64	APR 26	2.87	JUN 23	3.70	SEP 30	3.96
NOV 28	2.00	JAN 28	2.96	MAR 26	3.36	MAY 24	2.96	AUG 21	3.67		

WATER YEAR 2004 HIGHEST 1.10 DEC 23, 2003 LOWEST 3.96 SEP 30, 2004



ORLEANS COUNTY

443952072114001. Local number, GLW 1, Town of Glover.

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.

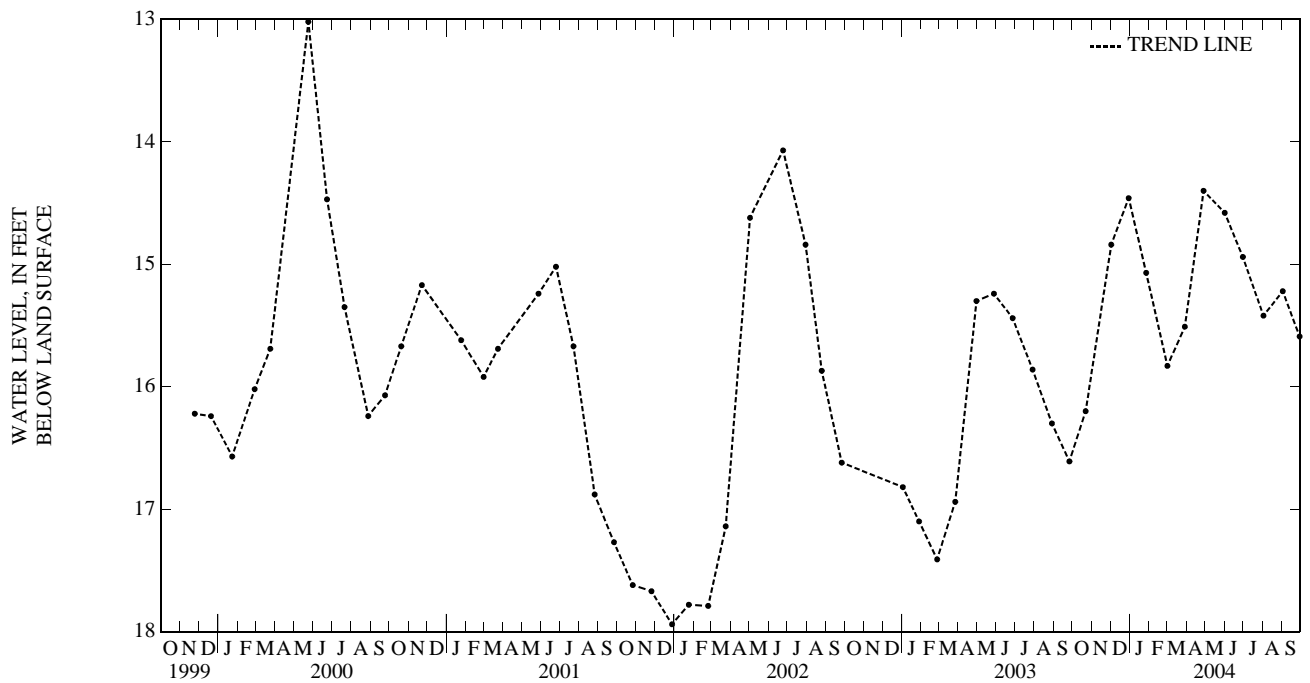
DATUM.--Elevation of land-surface datum is 1,200 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, .00 ft above land-surface datum.

PERIOD OF RECORD.--November 1966 to current year. Prior to 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, March 28, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	16.20	DEC 30	14.46	MAR 01	15.83	APR 28	14.40	JUN 30	14.94	SEP 02	15.22
DEC 02	14.84	JAN 27	15.07	29	15.51	JUN 01	14.58	AUG 02	15.42	29	15.59
WATER YEAR 2004 HIGHEST		14.40	APR 28, 2004		LOWEST		16.20	OCT 22, 2003			



RUTLAND COUNTY

434217073010601. Local number, PFW 8, Town of Pittsford.

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.--Elevation of land-surface datum is 490 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 2.00 ft above land-surface datum.

REMARKS.--Well pulled November 8, 1968, point replaced, depth changed from 43 to 42 ft, old 3-ft point was completely encrusted.

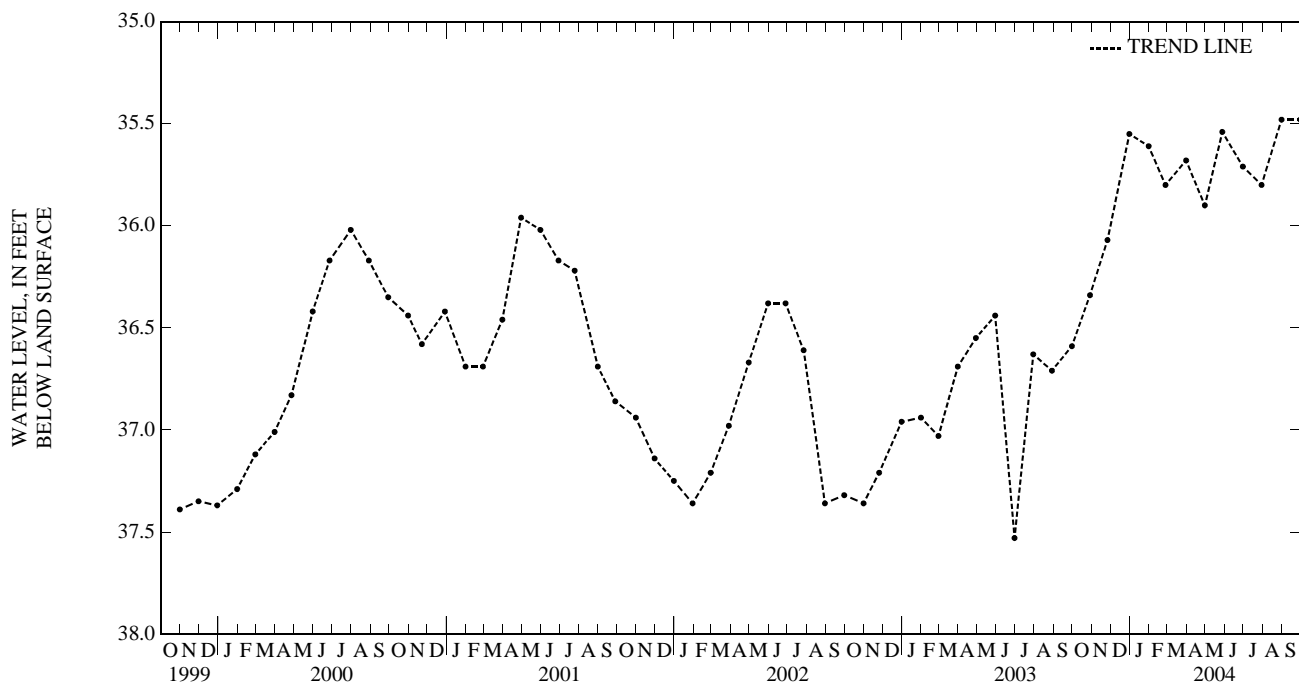
PERIOD OF RECORD.--October 1957 to September 1995, October 1996 to current year. Prior to October 1977, published as Pittsford 8.

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, October 18, 1957.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	36.34	DEC 31	35.55	FEB 27	35.80	APR 30	35.90	JUN 30	35.71	AUG 31	35.48
NOV 26	36.07	JAN 31	35.61	MAR 31	35.68	MAY 28	35.54	JUL 30	35.80	SEP 30	35.48

WATER YEAR 2004 HIGHEST 35.48 AUG 31, 2004 SEP 30, 2004 LOWEST 36.34 OCT 29, 2003



WASHINGTON COUNTY

441215072483101. Local number, WAW 2, Town of Waitsfield.

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-table well, diameter 1.25 in, depth 45.5 ft, screened 43.5 to 45.5 ft.

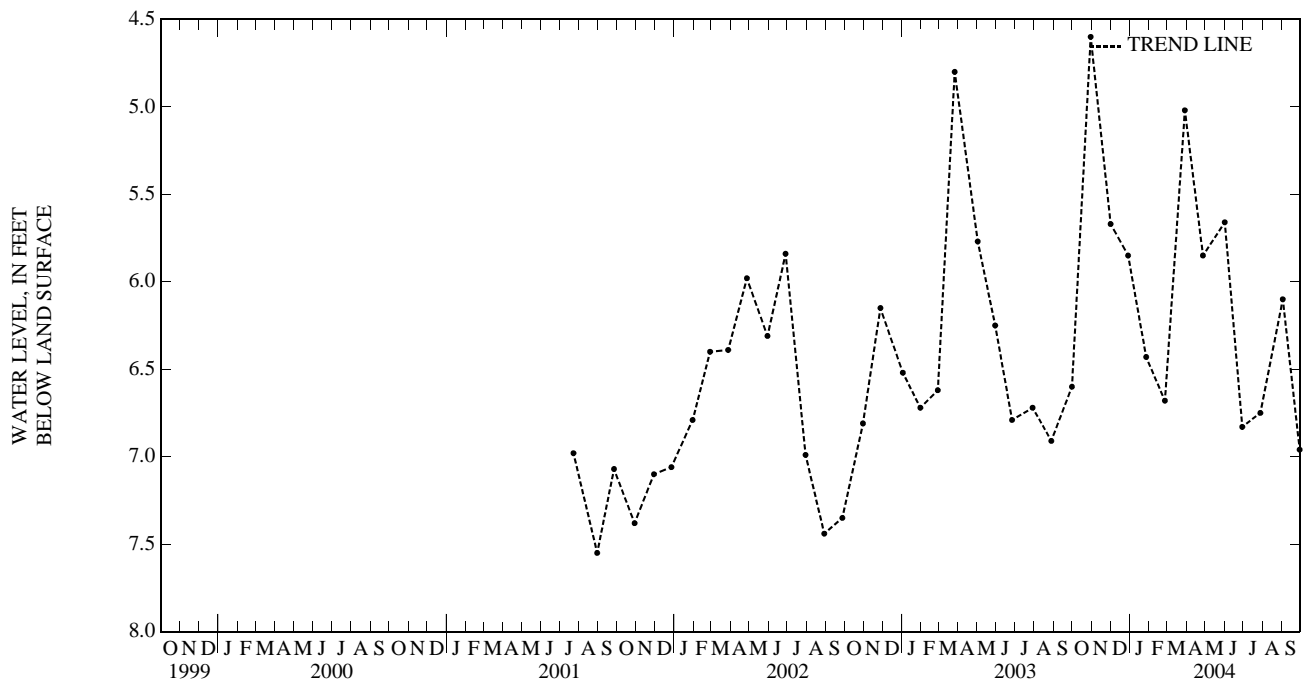
DATUM.--Elevation of land-surface datum is 685 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1975 to September 1995, July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.25 ft below land-surface datum, December 14, 1983; lowest measured, 7.99 ft below land-surface datum, June 27, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	4.60	DEC 29	5.85	FEB 26	6.68	APR 27	5.85	JUN 29	6.83	SEP 02	6.10
DEC 01	5.67	JAN 27	6.43	MAR 29	5.02	JUN 01	5.66	JUL 28	6.75	29	6.96
WATER YEAR 2004 HIGHEST 4.60 OCT 30, 2003		LOWEST 6.96		SEP 29, 2004							



WINDSOR COUNTY

431551072350601. Local number, CKW 1, Town of Chester.

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.--Elevation of land-surface datum is 580 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 2.00 ft above land-surface datum.

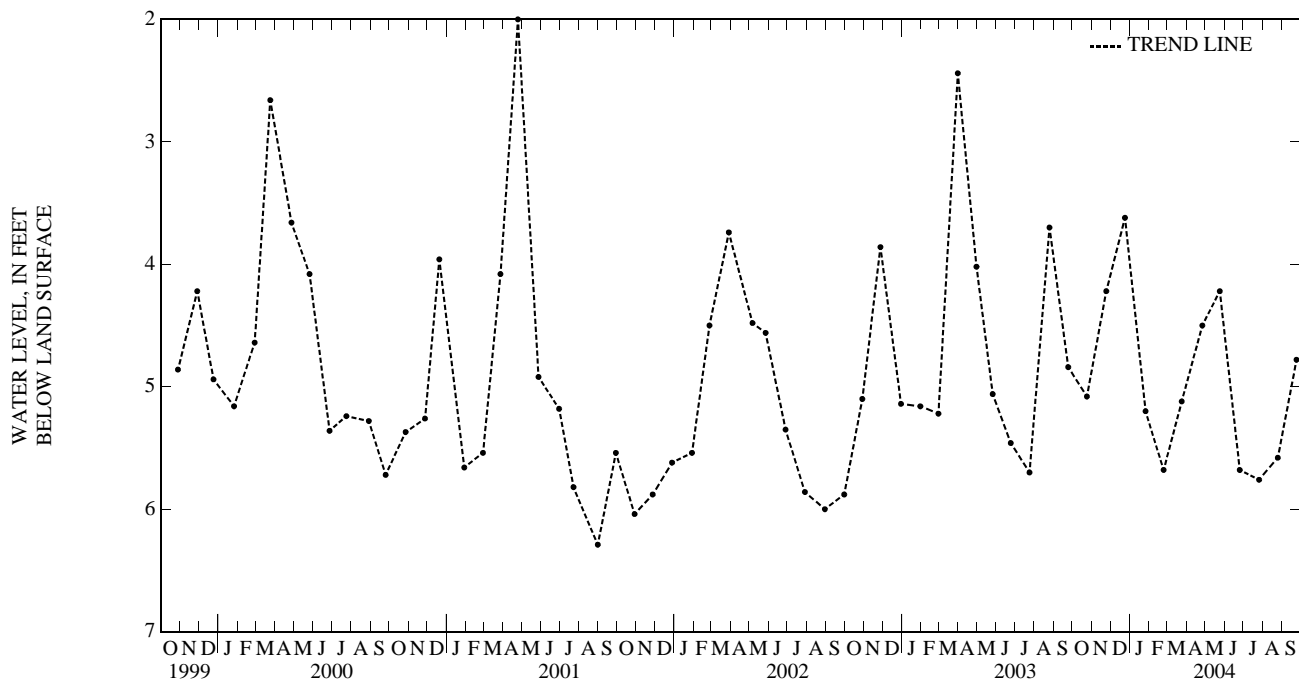
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as Chester 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.56 ft below land-surface datum, March 20, 1986; lowest measured, 6.31 ft below land-surface datum, September 28, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	5.08	DEC 24	3.62	FEB 24	5.68	APR 26	4.50	JUN 25	5.68	AUG 25	5.58
NOV 24	4.22	JAN 26	5.20	MAR 24	5.12	MAY 24	4.22	JUL 26	5.76	SEP 24	4.78

WATER YEAR 2004 HIGHEST 3.62 DEC 24, 2003 LOWEST 5.76 JUL 26, 2004



WINDSOR COUNTY

433240072242901. Local number, HLW 54, Town of Hartland.

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-table well, diameter 1.25 in, depth 51 ft, screened 49 to 51 ft.

DATUM.--Elevation of land-surface datum is 575 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 4.00 ft above land-surface datum.

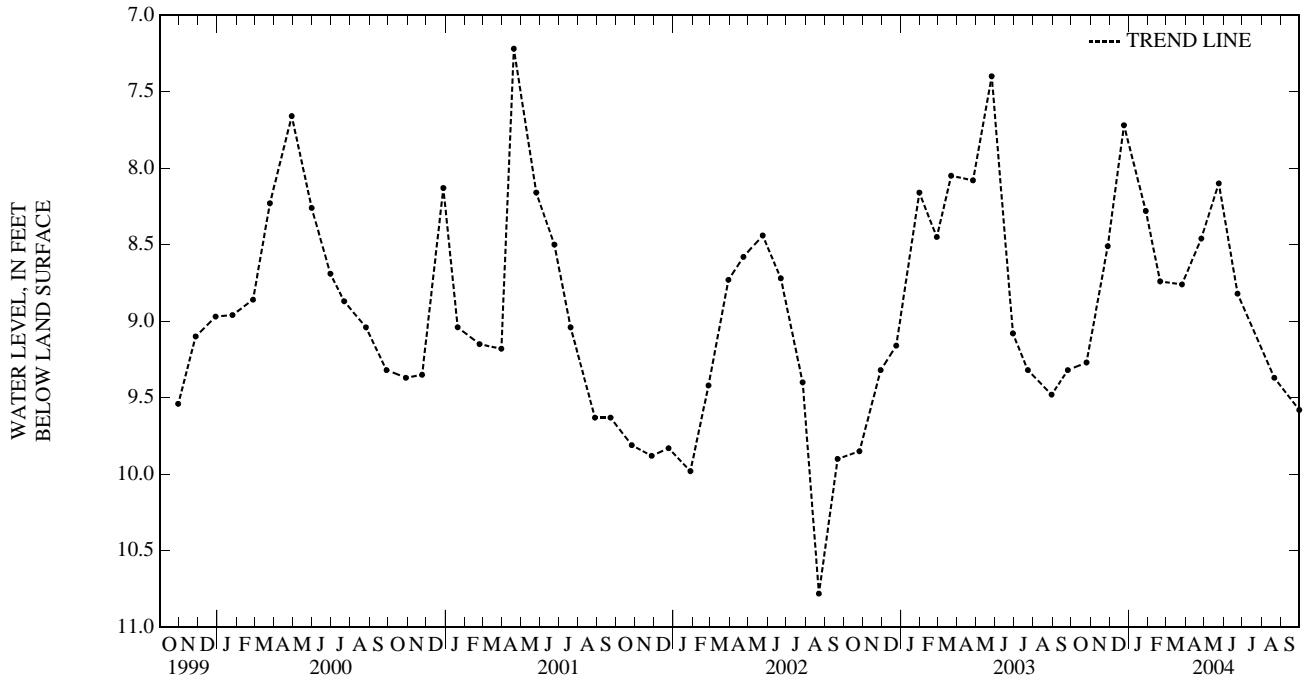
PERIOD OF RECORD.--August 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.96 ft below land-surface datum, June 1, 1984; lowest measured, 10.78 ft below land-surface datum, August 22, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	9.27	DEC 24	7.72	FEB 20	8.74	APR 26	8.46	JUN 23	8.82	SEP 30	9.58
NOV 28	8.51	JAN 28	8.28	MAR 26	8.76	MAY 24	8.10	AUG 21	9.37		

WATER YEAR 2004 HIGHEST 7.72 DEC 24, 2003 LOWEST 9.58 SEP 30, 2004



WINDSOR COUNTY

435129072483301. Local number, RJW 1, Town of Rochester.

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.--Elevation of land-surface datum is 800 ft above National Geodetic Vertical Datum 1929 from topographic map. Measuring point: Top of casing, 4.00 ft above land-surface datum.

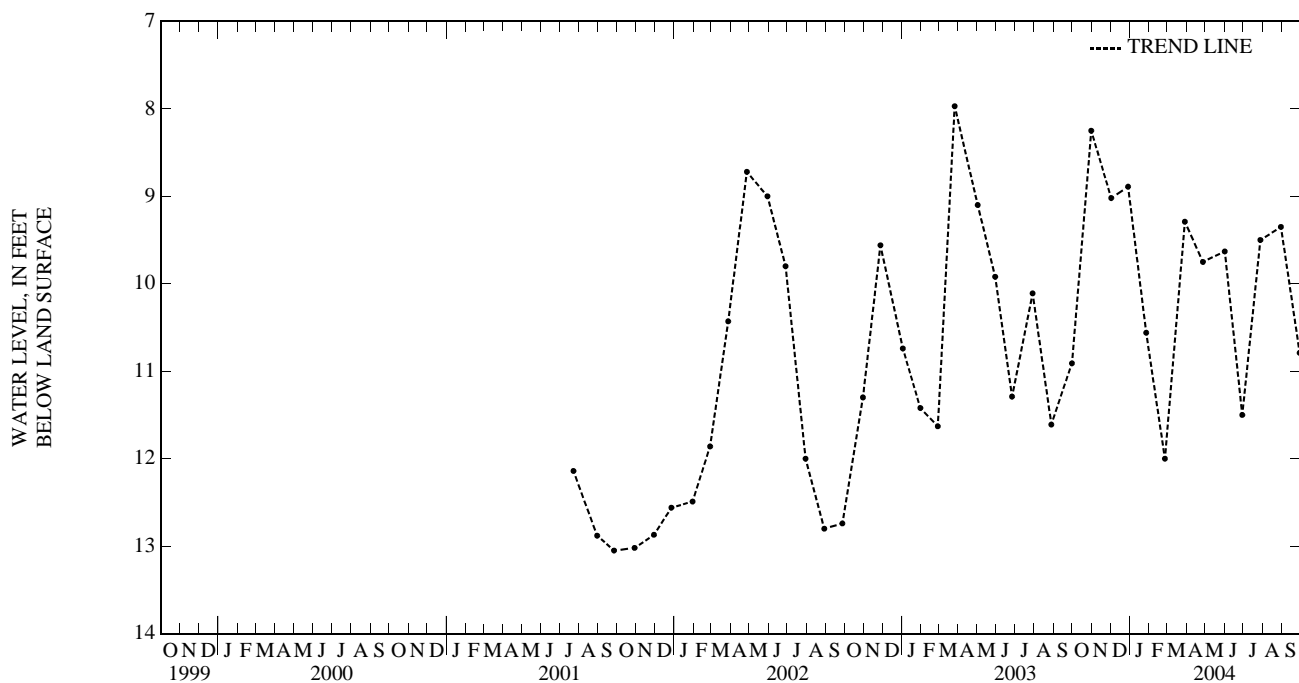
PERIOD OF RECORD.--November 1966 to September 1995, July 2001 to current year. Prior to 1977, published as Rochester 1.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.50 ft below land-surface datum, March 26, 1968; lowest measured, 13.05 ft below land-surface datum, August 25, 1975, September 26, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	8.25	DEC 29	8.89	FEB 26	12.00	APR 27	9.75	JUN 29	11.50	AUG 30	9.35
DEC 02	9.02	JAN 27	10.56	MAR 29	9.29	JUN 01	9.63	JUL 28	9.50	SEP 29	10.79

WATER YEAR 2004 HIGHEST 8.25 OCT 31, 2003 LOWEST 12.00 FEB 26, 2004



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