

CALENDAR FOR WATER YEAR 2002

2001

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

2002

JANUARY							FEBRUARY							MARCH						
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														31						

APRIL							MAY							JUNE						
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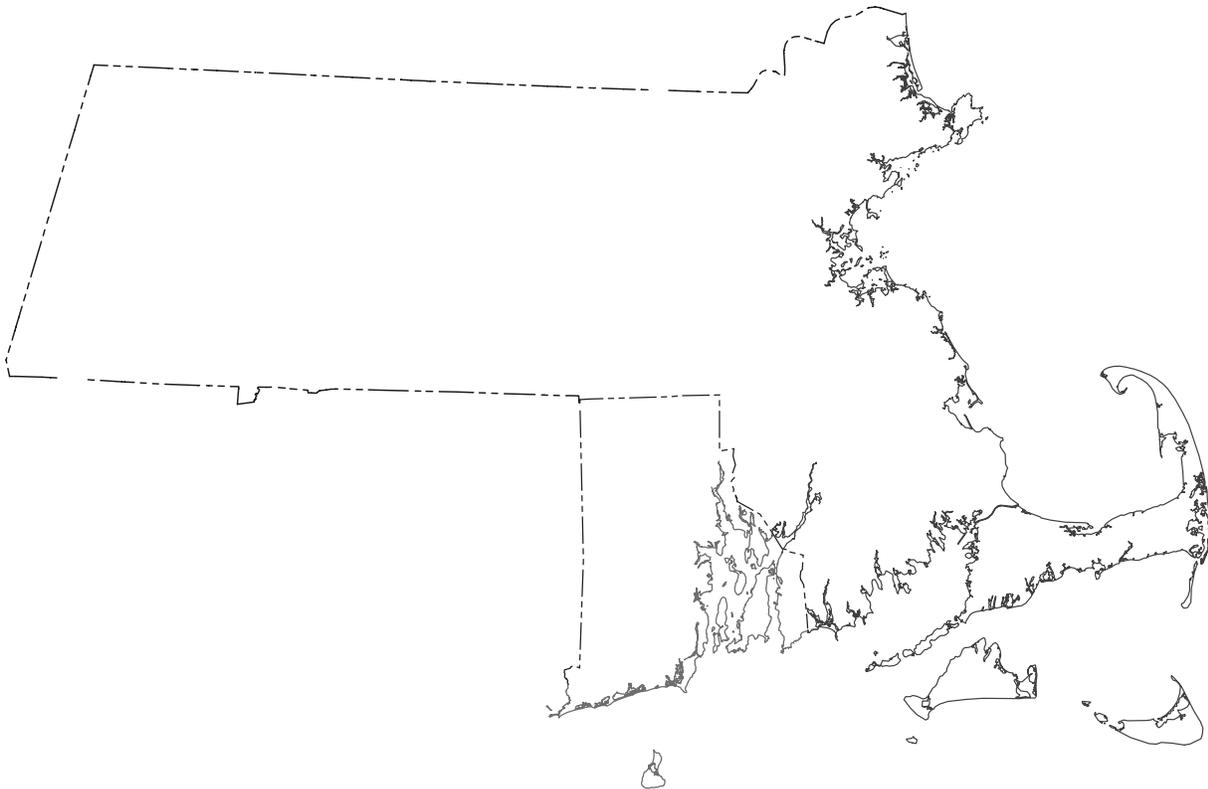
JULY							AUGUST							SEPTEMBER						
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7	8	9	10	11	12	13	4	5	6	7	8	9	10	8	9	10	11	12	13	14
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U.S. Department of the Interior
U.S. Geological Survey

Water Resources Data Massachusetts and Rhode Island Water Year 2002

By R.S. Socolow, G.G. Girouard, and L.R. Ramsbey

Water-Data Report MA-RI-02-1



Prepared in cooperation with the
States of Massachusetts and Rhode Island and with other agencies



U.S. DEPARTMENT OF THE INTERIOR
GALE A. NORTON, Secretary

U.S. GEOLOGICAL SURVEY

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2003

PREFACE

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

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13. ABSTRACT (Maximum 200 words) Water resources data for the 2002 water year for Massachusetts and Rhode Island consist of records of stage, discharge, and water quality of streams; contents of lakes and reservoirs, precipitation totals, water levels of ground-water wells, and water-quality of ground water. This report contains discharge records for 98 gaging stations, stage records for 2 gaging stations, stage records for 2 ponds, month-end contents of 5 lakes and reservoirs, precipitation totals at 6 gaging stations, water quality for 27 gaging stations, water levels for 136 observation wells, and ground-water quality for 3 wells. Miscellaneous hydrologic data were collected at various sites that were not a part of the systematic data-collection program; these data are published as miscellaneous discharge measurements, miscellaneous surface-water-quality data, and miscellaneous ground-water-quality data. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Massachusetts and Rhode Island.				
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FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

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(Letters after station name designate type of data: (d) discharge; (st) stage only; (l) lake; (c) chemical;
(t) water temperature; (b) biological; (m) microbiological; (s) sediment; (p) precipitation)

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DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge stations (gaging stations) in Massachusetts and Rhode Island have been discontinued. Daily streamflow records were collected and published for the period of record, expressed in water years, shown for each station.

Discontinued surface-water discharge stations

Station Name	Station Number	Drainage area (mi ²)	Period of record (water years)
MERRIMACK RIVER BASIN			
Rocky Brook near Sterling, Mass.	01095000	1.95	1947–67
Boulder Brook near East Bolton, Mass.	01096906	1.32	1975–78
Boulder Brook at East Bolton, Mass.	01096910	1.60	1972–81
Sudbury River at Ashland, Mass.	01097480	35.1	1994–95
Beaverdam Brook at Natick, Mass.	01098320	7.27	1978–79
Course Brook at Natick, Mass.	01098340	3.44	1978–79
Pegan Brook at Natick, Mass.	01098360	.54	1978–79
Snake Brook at Wayland, Mass.	01098450	2.10	1978–79
Lake Cochituate outlet at Framingham, Mass.	01098500	21.1	1978–79
Hager Pond outlet at Marlborough, Mass.	01098710	1.80	1978–80
East Meadow River near Haverhill, Mass.	01100700	5.47	1963–74
IPSWICH RIVER BASIN			
Maple Meadow Brook at Wilmington, Mass.	01101300	4.04	1963–74
NORTH COASTAL BASIN			
Mill Brook at Rockport, Mass.	01102029	.55	1999–2000
Sawmill Brook near Rockport, Mass.	011020308	.53	1999–2000
CHARLES RIVER BASIN			
Charles River at Millis, Mass.	01103305	84.0	1974–80
Hobbs Brook at Mill Street near Lincoln, Mass.	01104405	2.16	1998
Cambridge Reservoir, Unnamed Tributary 1 near Lexington, Mass.	01104410	.35	1998
Cambridge Reservoir, Unnamed Tributary 2 near Lexington, Mass.	01104415	.41	1998
Cambridge Reservoir, Unnamed Tributary 3 near Lexington, Mass.	01104420	.73	1998
Hobbs Brook at Kendal Green, Mass.	01104440	8.47	1998
NEPONSET RIVER BASIN			
Mine Brook at Walpole, Mass.	01104850	6.00	1967–68
BLACKS CREEK BASIN			
Furnace Brook at Quincy, Mass.	01105557	3.81	1973–80
BOUND BROOK BASIN			
Bound Brook near Cohasset, Mass.	01105660	4.86	1970–71
NORTH RIVER BASIN			
Indian Head Brook near Hanson, Mass.	01105700	4.30	1958–60
Pudding Brook at East Pembroke, Mass.	01105800	1.38	1958–62
EEL RIVER BASIN			
Eel River near Plymouth, Mass.	01105876	14.7	1970–71

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

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Discontinued surface-water discharge stations--Continued

Station Name	Station Number	Drainage area (mi ²)	Period of record (water years)
HERRING RIVER BASIN			
Herring River at North Harwich, Mass.	01105880	9.4	1966-88
RED BROOK BASIN			
Red Brook below Route 25 near Wareham, Mass.	01105885	9.14	1981-86
WEWEANTIC RIVER BASIN			
Weweantic River at South Wareham, Mass.	01105895	56.1	1970-71
WEST BRANCH WESTPORT RIVER BASIN			
Adamsville Brook at Adamsville, R.I.	01106000	8.01	1941-78, 1987
TAUNTON RIVER BASIN			
Matfield River at Elmwood, Mass.	01106500	40.5	1958-60
Poor Meadow Brook at South Hanson, Mass.	01106900	14.6	1958-60
Dorchester Brook near Brockton, Mass.	01107000	4.67	1963-74
Taunton River at Titicut near Brockton, Mass.	01107200	182	1920-25
Fall Brook near Middleborough, Mass.	01107400	9.32	1967
Wading River at West Mansfield, Mass.	01108500	19.5	1954-86
PALMER RIVER BASIN			
West Branch Palmer River near Rehoboth, Mass.	01109200	4.35	1962-74
BLACKSTONE RIVER BASIN			
Kettle Brook at Worcester, Mass.	01109500	31.6	1923-78
Mumford River at East Douglas, Mass.	01111000	29.1	1939-51
West River below West Hill Dam near Uxbridge, Mass.	01111200	27.9	1962-90
Chepachet River at Chepachet, R.I.	01111400	17.4	1965-73
Chepachet River at Gazzaville, R.I.	01111410	19.2	1973-75
Blackstone River tributary at Woonsocket, R.I.	01112700	2.31	1965-74
PAWTUXET RIVER BASIN			
Mosquitohawk Brook near North Scituate, R.I.	01115100	3.06	1965-74
Pawtuxet River at Fiskeville, R.I.	01115500	102	1915-25
Nooseneck River at Nooseneck, R.I.	01115630	8.23	1964-81
Carr River near Nooseneck, R.I.	01115770	6.73	1964-80
Flat River near Coventry, R.I.	01115900	9.13	1961-64
Furnace Hill Brook at Cranston, R.I.	01116300	4.19	1965-74
ANNAQUATUCKET RIVER BASIN			
Annaquatucket River at Belleville, R.I.	01117100	6.4	1961-64
PAWCATUCK RIVER BASIN			
Beaver River at Kenyon, R.I.	01117472	11.7	1975-79
Meadow Brook near Carolina, R.I.	01117600	5.53	1965-74
THAMES RIVER BASIN			
Quinebaug River below East Brimfield Dam near Fiskdale, Mass.	01123360	67.4	1973-90
Quinebaug River at Westville, Mass.	01123500	93.6	1940-62
Quinebaug River below Westville Dam near Southbridge, Mass.	01123600	99.0	1963-90
French River below Hodges Village Dam at Hodges Village, Mass.	01124350	31.2	1962-90
Little River near Oxford, Mass.	01124500	26.0	1939-90

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

Discontinued surface-water discharge stations--Continued

Station Name	Station Number	Drainage area (mi ²)	Period of record (water years)
THAMES RIVER BASIN—Continued			
Browns Brook near Webster, Mass.	01124750	0.49	1963–77
French River at Webster, Mass.	01125000	84.0	1949–81
Bucks Horn Brook at Greene, R.I.	01126200	5.52	1965–74
CONNECTICUT RIVER BASIN			
Tarbell Brook near Winchendon, Mass.	01161500	17.8	1916–82
Otter River near Gardner, Mass.	01163000	20.0	1916–17
Millers River at South Royalston, Mass.	01164000	189	1939–90
East Branch Tully River near Athol, Mass.	01165000	50.5	1916–90
Lake Rohunta Outlet near Athol, Mass.	01165300	20.3	1965–85
Moss Brook at Wendell Depot, Mass.	01165500	12.1	1909–10, 1916–82
Whetstone Brook at Depot Road at Wendell Depot, Mass.	01166105	5.22	1985–91
Deerfield River near Rowe, Mass.	01168151	254	1974–97
Unnamed Channel to Wilder Brook at Buckland, Mass.	01168639	.01	1993–95
Wilder Brook at Buckland, Mass.	01168640	.07	1993–95
Fort River near Amherst, Mass.	01171300	36.3	1966–96
Bassett Brook near Northampton, Mass.	01171800	5.56	1963–74
Natty Pond Brook Templeton Rd (DS) near Hubbardston, Mass.	01172680	1.63	1985–88
Natty Pond Brook near Hubbardston, Mass.	01172800	5.48	1985–88
Moose Brook near Barre, Mass.	01173260	4.63	1963–74
Hop Brook near New Salem, Mass.	01174000	3.39	1947–82
East Branch Fever Brook near Petersham, Mass.	01174050	4.85	1984–85
Dickey Brook near Cooleyville, Mass.	01174570	1.19	1985–89
Dickey Brook tributary near Cooleyville, Mass.	01174575	1.06	1985–89
Cadwell Creek near Pelham, Mass.	01174600	.60	1962–94
Cadwell Creek near Belchertown, Mass.	01174900	2.55	1961–97
Mill River at Springfield, Mass.	01178000	33.2	1939–51
Westfield River at West Chesterfield, Mass.	01178500	110	1946–51
Sykes Brook at Knightville, Mass.	01180000	1.73	1945–74
Middle Branch Westfield River at Goss Heights, Mass.	01180500	52.7	1910–90
Walker Brook near Becket Center, Mass.	01180800	2.94	1963–77
Great Brook near Westfield, Mass.	01183450	22.6	1973–82
Fall River below Otis Reservoir near Otis, Mass.	01185100	16.5	1969–82
HOUSATONIC RIVER BASIN			
Town Brook at Bridge Street at Lanesborough, Mass.	01197015	10.6	1980–83
Marsh Brook at Lenox, Mass.	01197300	2.12	1963–74
Green River near Great Barrington, Mass.	01198000	51.0	1951–71, 1994–96
Schenob Brook near Sheffield, Mass.	01198030	23.3	1971–72
Willard Brook near Sheffield, Mass.	01198070	3.20	1971–72
Hubbard Brook at Sheffield, Mass.	01198075	25.8	1971–72
Ironworks Brook, East Road, at Sheffield, Mass.	01198122	11.2	1994–96
Housatonic River near Ashley Falls, Mass.	01198125	465	1994–96
Konkapot River at Ashley Falls, Mass.	01198200	61.1	1994–96
HUDSON RIVER BASIN			
Dry Brook at Adams, Mass.	01331400	7.67	1963–74
North Branch Hoosic River at North Adams, Mass.	01332000	40.9	1931–90

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

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The following continuous-record surface-water-quality stations have been discontinued. Daily records of temperature (temp.), specific conductance (S.C.), pH (pH), dissolved oxygen (D.O.) or sediment (sed.) were collected and published for the period of record, expressed in water years, shown for each station. Those stations currently being operated as water-quality partial-record stations (sampled quarterly or more frequently) are shown with an asterisk (*) beside the station number.

Discontinued continuous-record surface-water-quality stations

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record (water years)
MERRIMACK RIVER BASIN				
North Nashua River near Lancaster, Mass.	01094700	128	Temp., S.C., pH, D.O.	1969–74
Merrimack River above Concord River at Lowell, Mass.	01096570	3,956	Temp., S.C., pH, D.O.	1968–72
Boulder Brook near East Bolton, Mass.	01096906	1.32	Temp., S.C.	1971–78
Boulder Brook at East Bolton, Mass.	01096910	1.60	Temp., S.C.	1971–78
Nashoba Brook near Acton, Mass.	01097300	12.8	Temp., S.C.	1972–74, 1976–78
Merrimack River at West Newbury, Mass.	01100750	--	Temp., S.C., pH, D.O.	1969–76
CHARLES RIVER BASIN				
Charles River at Dover, Mass.	01103500	183	Temp., S.C.	1975–81
Hobbs Brook at Mill Street near Lincoln, Mass.	01104405	2.16	Temp., S.C.	1998
Cambridge Reservoir, Unnamed Tributary 1 near Lexington, Mass.	01104410	.35	Temp., S.C.	1998
Cambridge Reservoir, Unnamed Tributary 2 near Lexington, Mass.	01104415	.41	Temp., S.C.	1998
Cambridge Reservoir, Unnamed Tributary 3 near Lexington, Mass.	01104420	.73	Temp., S.C.	1998
Hobbs Brook at Kendal Green, Mass.	01104440	8.47	Temp., S.C.	1998
Stony Brook at Route 20 near Waltham, Mass.	01104460	22.0	Temp., S.C.	1998
NORTH RIVER BASIN				
Indian Head River at Hanover, Mass.	01105730	30.3	Temp., S.C.	1970–71
JONES RIVER BASIN				
Jones River at Kingston, Mass.	01105870	15.7	Temp., S.C.	1970–71
EEL RIVER BASIN				
Eel River near Plymouth, Mass.	01105876	14.7	Temp. S.C.	1970–71 1971
WEWEANTIC RIVER BASIN				
Weweantic River at South Wareham, Mass.	01105895	56.1	Temp., S.C.	1970–71
WEST BRANCH WESTPORT RIVER BASIN				
Adamsville Brook at Adamsville, Mass.	01106000	8.01	Temp., S.C.	1973–74
PALMER RIVER BASIN				
West Branch Palmer River near Rehoboth, Mass.	01109200	4.35	Temp., S.C.	1973–74
BLACKSTONE RIVER BASIN				
Blackstone River at Millville, Mass.	*01111230	263	Temp., S.C., pH, D.O.	1969–81
Blackstone River at Woonsocket, R.I.	01112500	416	Temp.	1962–67

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

Discontinued continuous-record surface-water-quality stations--Continued

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record (water years)
PAWTUXET RIVER BASIN				
Pawtuxet River at Cranston, R.I.	*01116500	200	Temp., S.C.	1962–81
POTOWOMUT RIVER BASIN				
Hunt River near Davisville, R.I.	01116910	17.3	Temp.	1962–65
Hunt River near East Greenwich, R.I.	01117000	23.0	Temp., S.C.	1977–81
PAWCATUCK RIVER BASIN				
Chipuxet River at West Kingston, R.I.	01117350	9.99	Temp., S.C.	1974–83
Usquepaug River near Usquepaug, R.I.	01117420	36.1	Temp., S.C.	1975–83
Beaver River near Usquepaug, R.I.	01117468	8.87	Temp. S.C.	1979–83 1979–80, 1982–83
Beaver River at Kenyon, R.I.	01117472	11.7	Temp., S.C.	1976–79
THAMES RIVER BASIN				
Quinebaug River near Dudley, Mass.	01123990	156	Temp., S.C., pH, D.O.	1969–81
Browns Brook near Webster, Mass.	01124750	.49	Temp., S.C.	1972–77
CONNECTICUT RIVER BASIN				
Millers River at South Royalston, Mass.	01164000	189	Temp.	1966
Deerfield River near West Deerfield, Mass.	01170000	557	Temp., S.C.	1969–70
Moose Brook near Barre, Mass.	01173260	4.63	Temp., S.C.	1972–73
Hop Brook near New Salem, Mass.	01174000	3.39	Temp., S.C.	1972–73
Chicopee River at Chicopee Falls, Mass.	01177100	711	Temp., S.C., pH D.O.	1973–81 1973–76, 1978–81
Connecticut River at West Springfield, Mass.	01177200	9,623	Temp., S.C., pH, D.O.	1972–75, 1977, 1979–81
Walker Brook near Becket Center, Mass.	01180800	2.94	Temp., S.C.	1972–77
Westfield River at West Springfield, Mass.	01183600	513	Temp., S.C., pH, D.O.	1972–76
Connecticut River at Agawam, Mass.	01183750	--	Temp., S.C., D.O. pH	1969–81 1969–76, 1979–81
HOUSATONIC RIVER BASIN				
Housatonic River near Great Barrington, Mass.	01197500	282	Sed.	1979–80, 1994–96

Water Resources Data for Massachusetts and Rhode Island, 2002

By R.S. Socolow, G.G. Girouard, and L.R. Ramsbey

INTRODUCTION

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

Hydrologic data are also available through the Massachusetts–Rhode Island District Home Page on the World Wide Web (<http://ma.water.usgs.gov>). Historical data and real-time data (for sites equipped with satellite gage-height telemeter) are also available. The home page also contains a link to the U.S. Geological Survey National Home Page where streamflow data from locations throughout the United States can be retrieved (<http://waterdata.usgs.gov/nwis>). Please be advised that hydrographs for surface-water discharge stations and ground-water-level observation wells are only available on-line in page-sized pdf format through the USGS Web page (<http://water.usgs.gov/pubs/wdr/>). Surface-water hydrographs display daily mean discharge for water year 2002; ground-water-level hydrographs display water levels for water years 1993 through 2002.

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 discharge records for 98 gaging stations; stage records for 2 gaging stations; stage records for 2 ponds; month-end contents of 5 lakes and reservoirs; precipitation totals at 6 gaging stations; water quality for 27 gaging stations; water levels for 136 observation wells; and ground-water quality for 3 wells. Locations of these sites are shown in figures 1 and 2. Hydrologic data were collected at many sites that were not involved in the systematic data-collection program; these data are published as miscellaneous discharge measurements, miscellaneous surface-water-quality, and miscellaneous ground-water-quality data. The data in this report represent that part of the National Water Information System (NWIS) operated by the U.S. Geological Survey and cooperating State and Federal agencies in Massachusetts and Rhode Island.

This series of annual reports for Massachusetts and Rhode Island began with the 1961 water year with a report that contained only data relating to the quantities of surface water. 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 Massachusetts and Rhode Island 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, Information Services, Box 25286, Denver Federal Center, Box 25425, Denver, CO 80225-0286.

Publications similar to this report are published annually by the USGS for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report MA-RI-01-1." For archiving and general distribution, the reports for 1971–74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. 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 (800) 696-4042.

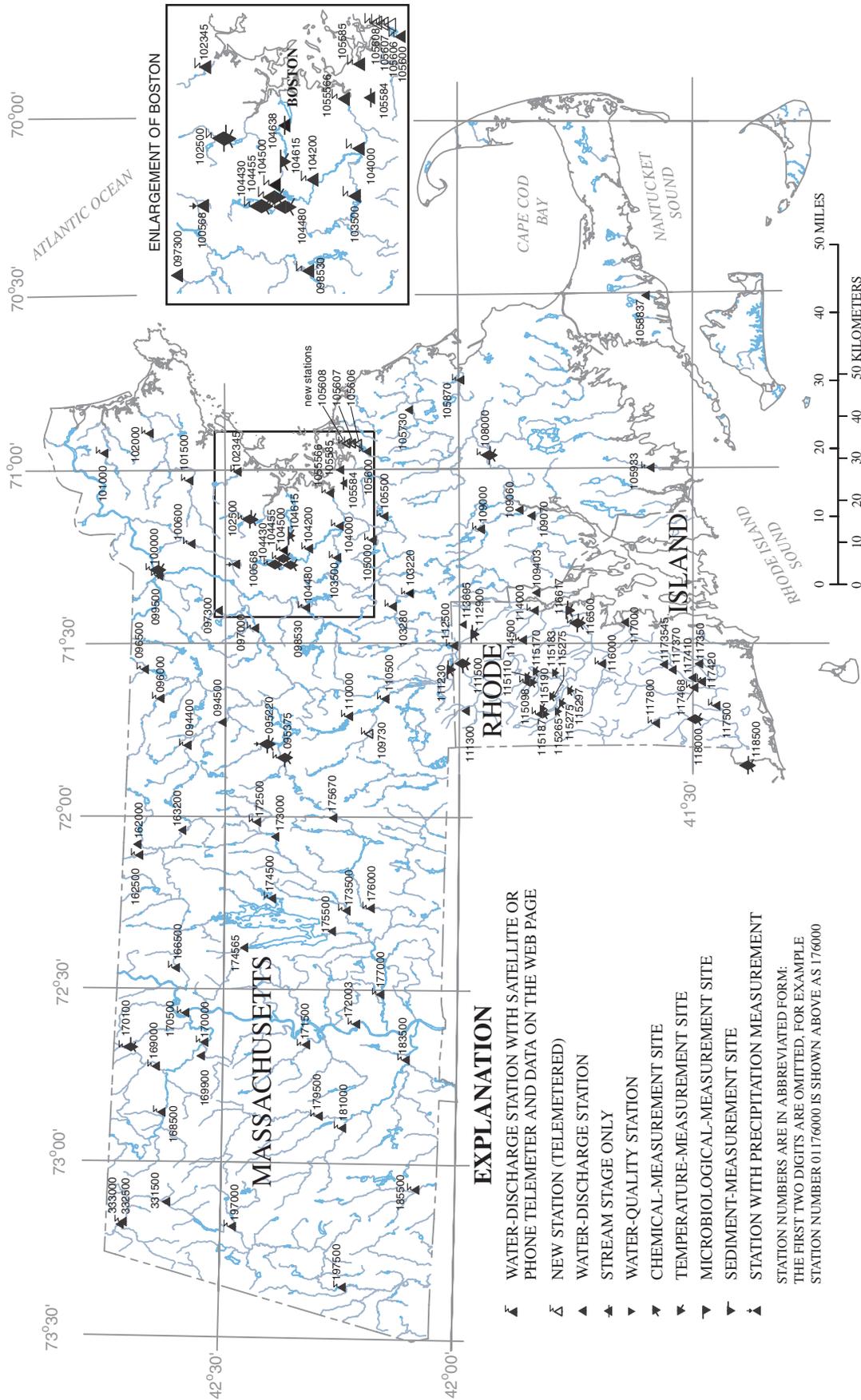
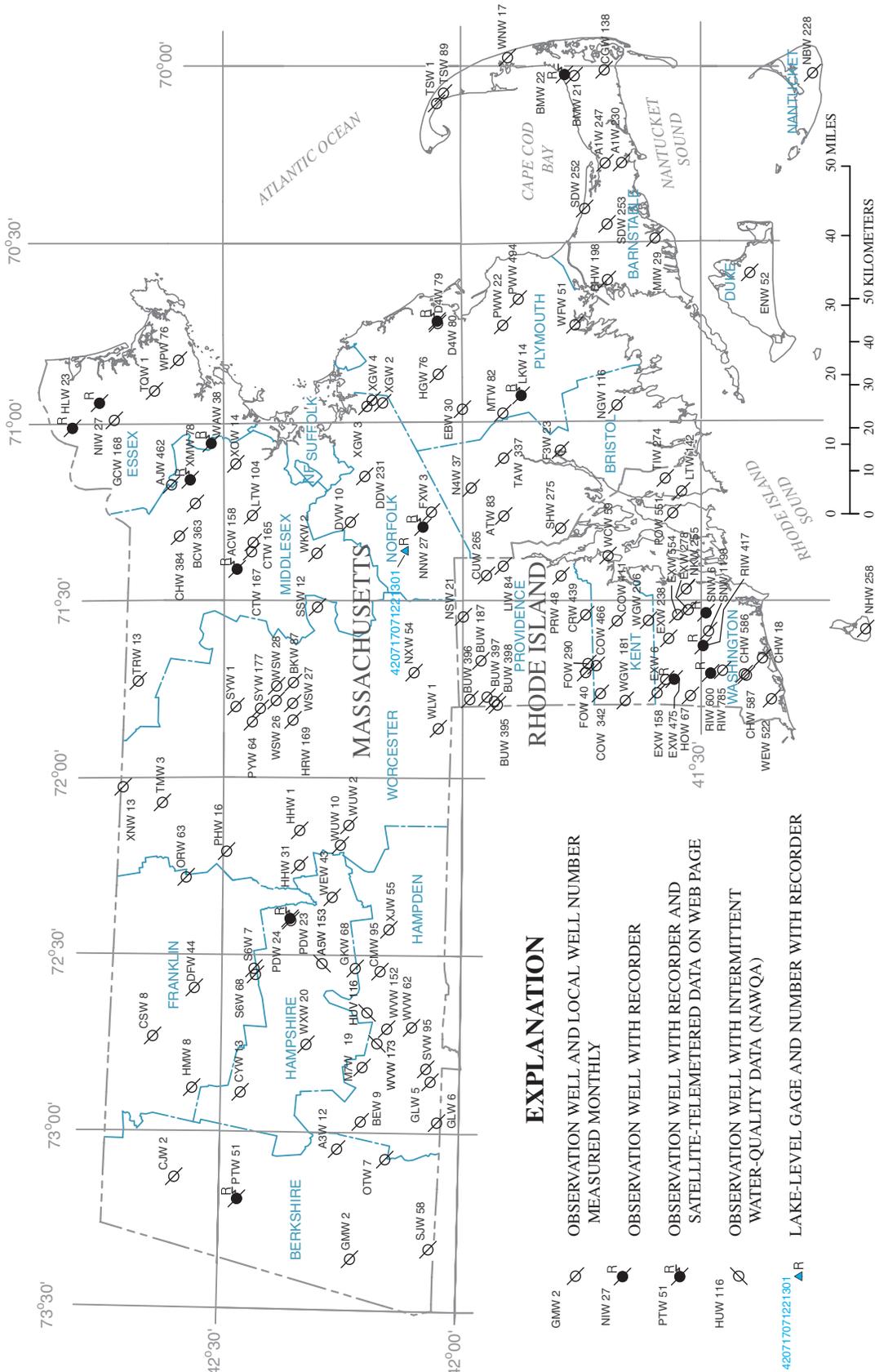


Figure 1. Location of gaging stations.



EXPLANATION

- OBSERVATION WELL AND LOCAL WELL NUMBER MEASURED MONTHLY
- OBSERVATION WELL WITH RECORDER
- OBSERVATION WELL WITH RECORDER AND SATELLITE-TELEMETERED DATA ON WEB PAGE
- OBSERVATION WELL WITH INTERMITTENT WATER-QUALITY DATA (NAWQA)
- LAKE-LEVEL GAGE AND NUMBER WITH RECORDER

Figure 2. Location of observation wells.

COOPERATION

The USGS and agencies of the States of Massachusetts and Rhode Island have had cooperative agreements for the collection of streamflow records since 1909 and 1941, respectively, and for water-quality records since 1954. Organizations that assisted in collecting the data in this report through cooperative agreement with the Survey during the 2002 water year are:

Massachusetts:

*Department of Environmental Management,
P. Webber, Commissioner
Division of Resource Conservation,
Michael Gildesgame, Director;*
*Department of Environmental Protection,
Edward Kunce, Acting Commissioner
Office of Watershed Management,
Glenn Haas, Director*
*Metropolitan District Commission,
D.B. Balfour, Jr., Commissioner
Division of Watershed Management,
J.M. McGinn, Director*
*Division of Parks, Engineering, and Construction,
F.D. Faucher, Director*
*Town of Dartmouth,
Manuel Branco, Water Superintendent*
*Town of Franklin
W.A. Fitzgerald, Director, Department of Public Works*
*Town of Weymouth,
Bradley Hayes, Superintendent, Water Department*
*Upper Blackstone Water Pollution Abatement District
Thomas K. Walsh, Director*

Rhode Island:

*State Water Resources Board,
M. Paul Sams, General Manager
D.W. Varin, Chairman*
*Department of Environmental Management,
J.H. Reitsma, Director,*
*Providence Water Supply Board,
Robert Kilduff, General Manager and Chief Engineer
A. Parillo, Chairman*
*Ocean State Power
Gary Couture, EHS Engineer*

Assistance in the form of funds or services was given by the U.S. Army Corps of Engineers, in collecting records for three gaging stations published in the report. Assistance in the form of services was given by the Cape Cod Commission, Barnstable County, Nantucket Land Council, Nantucket County, and Cooperative Extension, Martha's Vineyard, Dukes County, Massachusetts, in measuring observation wells on Cape Cod, Nantucket Island, and Martha's Vineyard Island, Massachusetts.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow

Runoff was below normal (lowest 25 percent of record) at most gaging stations in Massachusetts and Rhode Island during the periods October through April and July through September of the 2002 water year. Runoff was normal

(between lowest and highest 25 percent of record) in northwestern Massachusetts during that same period and was normal for Massachusetts and Rhode Island in May and most of the two-state region in June. Runoff was above normal (highest 25 percent of record) for northeastern and northwestern Massachusetts in June.

Annual peak discharges occurred primarily during the period from May 13–18 and resulted from heavy precipitation on May 12–13 with rainfall totals ranging from approximately 2 to 2.5 inches statewide. The peak discharges had average flood recurrence intervals of approximately 1 year (a one in one chance of occurring in any single year).

New minimum monthly mean discharges were recorded at 35 gaging stations with 30 or more years of continuous record (see table 2). Precipitation deficits were approximately 9 inches statewide during the 2002 water year. Historic minimum monthly mean discharges occurred throughout the water year with record monthly mean discharges at 23 gaging stations in November 2001 and 13 gaging stations in March 2002. A table that shows the names of gaging stations and the months when new minimum monthly mean discharges occurred is provided in the "Droughts" section that follows.

Monthly and yearly discharges for the 2002 water year and median monthly and yearly discharges for the 30-year reference period 1971–2000 for three index gaging stations are compared in figure 3. Maps showing monthly surface-water conditions during the 2002 water year in Massachusetts and Rhode Island are shown in figure 4. The maps show areas of normal (between highest and lowest 25 percent of record), above normal (within the highest 25 percent of record), or below normal (within the lowest 25 percent of record) runoff for each month and are based on records for many of the streamflow-gaging stations contained in this report. Additional statistics for each gaging station are provided with the tables of daily mean discharge.

Reservoir Storage

During the 2002 water year, month-end storage of Quabbin Reservoir in central Massachusetts ranged from 88 percent of usable capacity at the end of October to 79 percent of usable capacity at the end of September. Month-end storage of Borden Brook/Cobble Mountain Reservoir in western Massachusetts ranged from 75 percent of usable capacity at the end of May to 58 percent of usable capacity at the end of September. Storage values for Quabbin and Borden Brook/Cobble Mountain Reservoirs were provided by the Metropolitan District Commission, Division of Watershed Management. The month-end storage of Scituate Reservoir in central Rhode Island ranged from 80 percent of usable capacity at the end of June to 56 percent of usable capacity at the end of September. Storage values were provided by the Providence Water Supply Board.

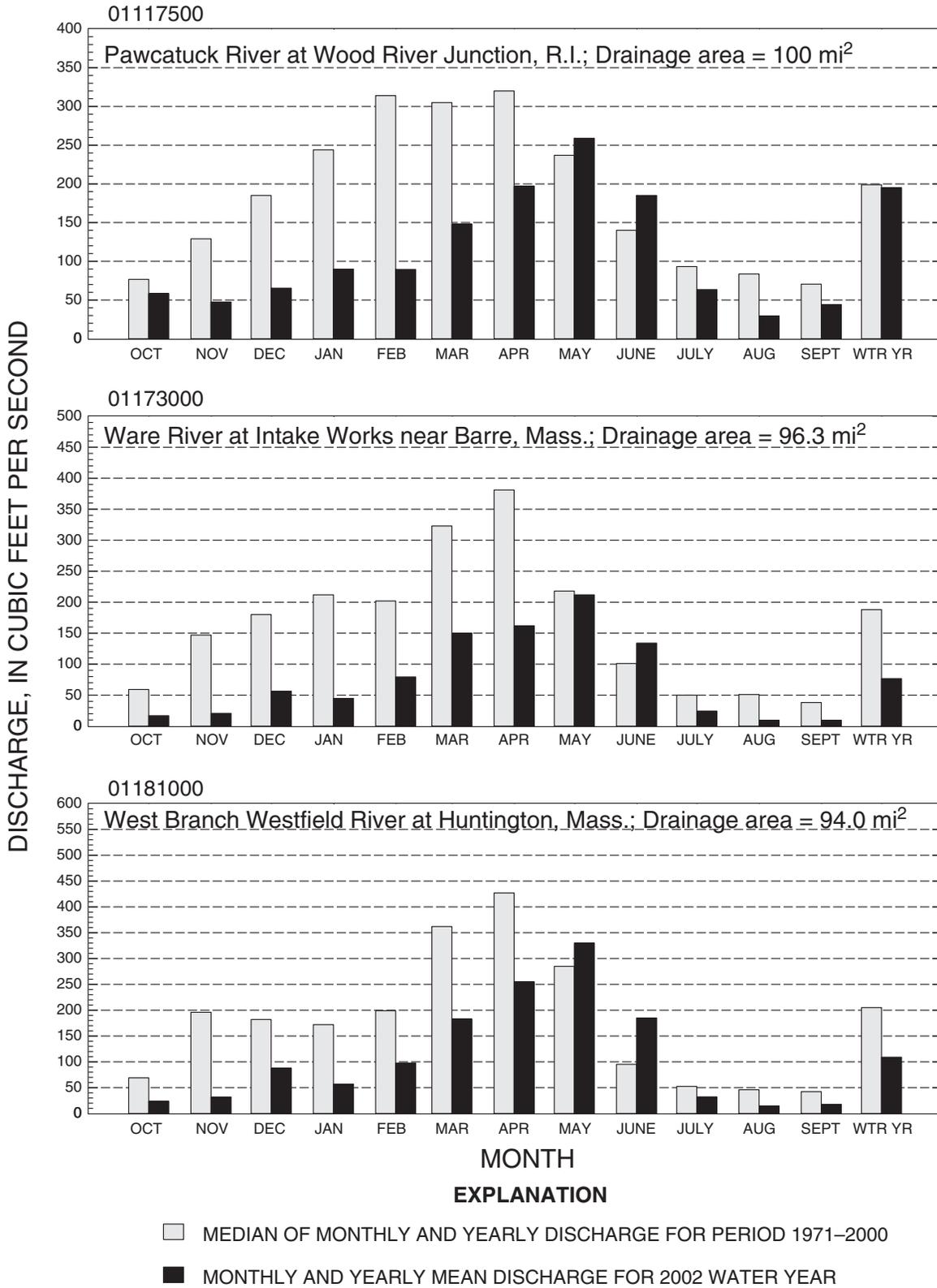


Figure 3. Comparison of discharge at three long-term index stations during the 2002 water year with median discharge for 1971-2000.

WATER RESOURCES DATA FOR MASSACHUSETTS AND RHODE ISLAND, 2002

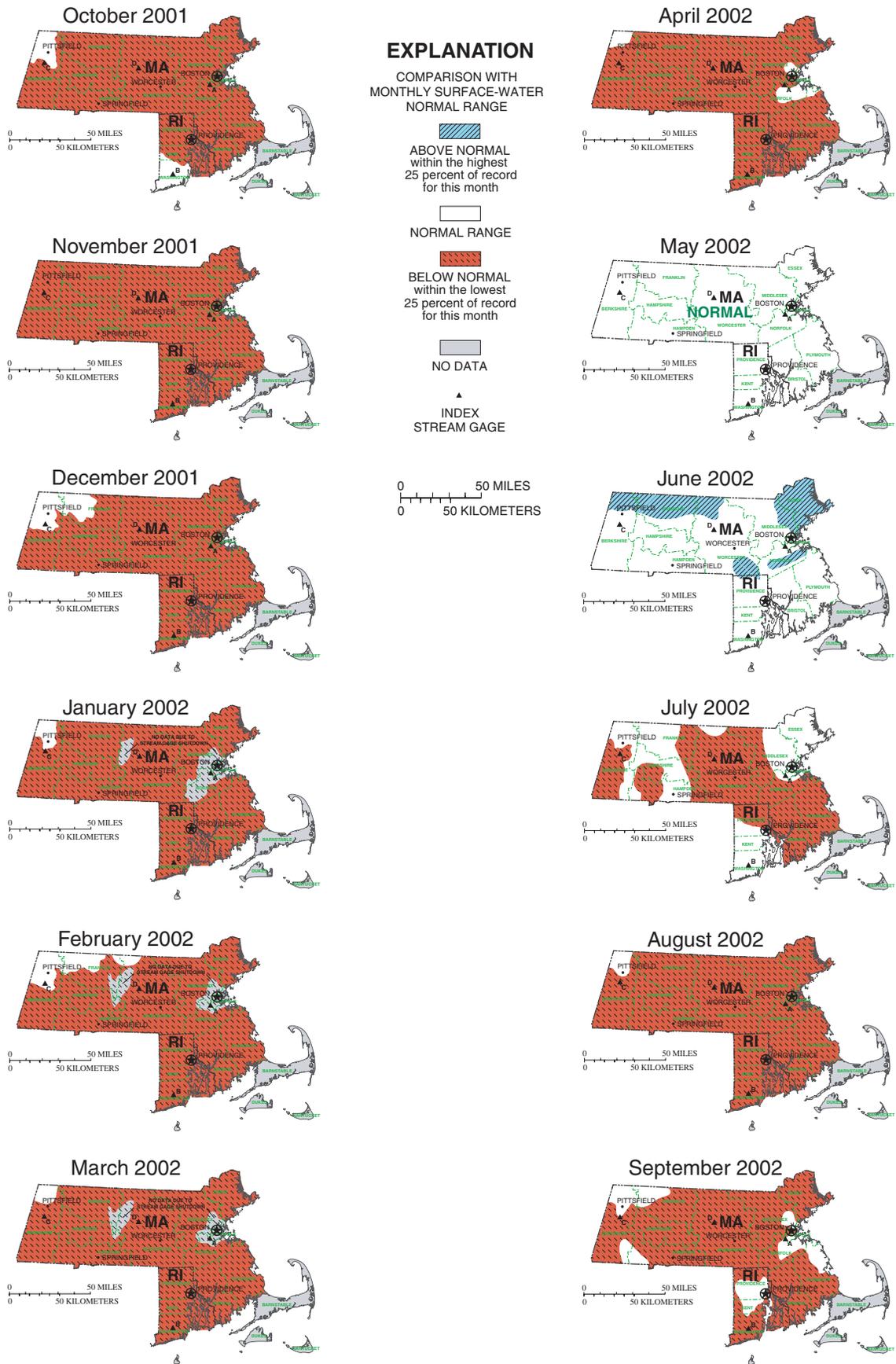


Figure 4. Monthly surface-water conditions during the 2002 water year in Massachusetts and Rhode Island.

Water Quality

Specific conductance and water temperature were recorded at 6 surface-water sites in Massachusetts and 11 surface-water sites in Rhode Island. In Massachusetts five sites were operating before the 2002 water year (Stillwater River, Quinapoxet River, Hobbs Brook, Stony Brook—Unnamed Tributary 1, and Stony Brook Reservoir) and one site was started in the 2002 water year (Stony Brook at Rt 20 at Waltham, MA). In Rhode Island, 11 sites were operating before the 2002 water year. Of those sites, only Wood River at Hope Valley was operated for 10 or more years (since October 1977). The remaining 10 sites were operated for parts of the 2000, 2001, and 2002 water years.

During the 2002 water year, the following new extremes for period of gage operation were recorded: new maximum and minimum specific conductance and water-temperature values were recorded at Stony Brook, Unnamed Tributary 1 near Waltham, MA; a new maximum specific conductance value was recorded at Stillwater River near Sterling, MA; a new maximum water temperature was recorded at Quinapoxet River at Canada Mills near Holden, MA. New extreme values for these stations are listed in the station manuscripts. All readings of specific conductance and water temperature at the continuous-record monitoring station, Wood River at Hope Valley, RI, were within the previous extreme values for the period of daily record.

Ground-Water Levels

During the period October through March new historical low ground-water levels were measured at seven wells in Massachusetts with three of the seven record-low levels in November (see table 1 for new historical low and high ground-water levels). Historical high water levels were measured at two wells in Rhode Island. Also from October through March, 189 new monthly low water levels (including historical low levels) and two new monthly high water levels were measured at wells in Massachusetts and Rhode Island. Analyses of historical high and low ground-water levels are based on wells with 10 or more years of record.

During the period April through September new historical low ground-water levels were measured at nine wells in Massachusetts and Rhode Island with eight of the nine record-low levels occurring in September. An historical high water level was measured at one well in Massachusetts. Also from April through September, 82 new monthly low water levels and eight new monthly high water levels were measured at wells in Massachusetts and Rhode Island.

Monthly water levels and median, maximum, and minimum monthly water levels for periods of record for three index observation wells in Massachusetts and Rhode Island

are compared in figure 5. Maps showing monthly ground-water conditions during the 2002 water year in Massachusetts and Rhode Island are shown in figure 6. The maps show areas of normal (between the highest and lowest 25 percent of levels), above normal (within the highest 25 percent of levels), and below normal (within the lowest 25 percent of levels) ground-water levels for each month. Ground-water levels were below normal in most parts of Massachusetts and Rhode Island from October 2001 through April 2002 and August and September 2002. Levels were below normal for part or all of Cape Cod during the entire 2002 water year. Levels were generally normal during May through June in Massachusetts and Rhode Island except for Cape Cod, which was generally below normal.

Floods and Droughts

Floods

No major floods occurred during the 2002 water year in Massachusetts and Rhode Island.

Droughts

A significant drought during the autumn, winter, and early spring of the 2002 water year resulted in streamflows and ground-water levels being consistently below normal for the period October 2001 through April 2002. Below-normal conditions recovered to near-normal for most of Massachusetts and Rhode Island when significant rainfall occurred during May through July. Although below-normal hydrologic conditions returned in August and September, the severity of drought conditions was much less extreme than those experienced four months earlier.

Severe drought conditions occurred during the first half of the water year when autumn and winter precipitation typically recharges ground-water aquifers and surface-water streams, lakes, and reservoirs. Large rainfall deficits in October and November combined with an extremely low snow pack during December through March resulted in record low flows in many streams throughout Massachusetts and Rhode Island.

Of the 99 discharge stations named in this report, 35 stations with 30 or more years of continuous record recorded new minimum monthly mean discharges for at least one month during the water year. Table 2 lists those stations, their starting water year of continuous record, and months during the 2002 water year when record-low minimum monthly mean flows were recorded.

WATER RESOURCES DATA FOR MASSACHUSETTS AND RHODE ISLAND, 2002

Table 1. Historical low and high ground-water levels at wells in Massachusetts and Rhode during the 2002 water year.

Well name and No.	Starting year of well record	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep
Month of new historical low ground-water level													
Massachusetts													
Brewster 21	1957												X
Chelmsford 384	1987		X										
Chicopee 95	1984												X
Concord 167	1965												X
Edgartown 52	1976						X						
Orange 63	1985		X										
Pelham 24	1984												X
Petersham 16	1984			X									
Sheffield 58	1987												X
Southborough 12	1990			X									
Southwick 95	1986												X
Sunderland 7	1957							X					
Sunderland 68	1983												X
Webster 1	1958–79, 1981		X										
Westhampton 20	1987					X							
Rhode Island													
Richmond 600	1977												
Month of new historical high ground-water level													
Massachusetts													
Blandford 9	1986									X			
Rhode Island													
Charlestown 586	1992						X						
Tiverton 274	1990						X						

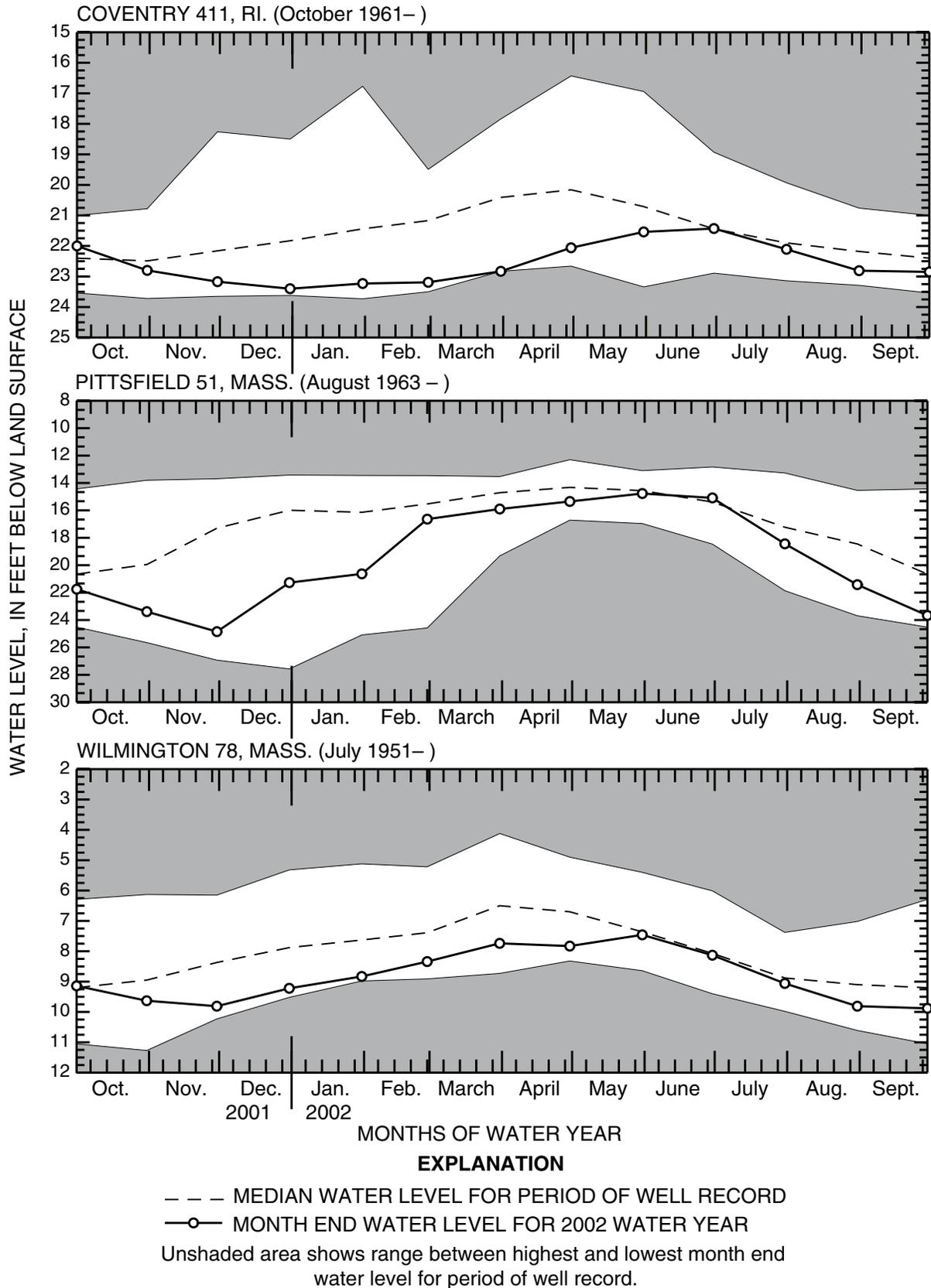


Figure 5. Comparison of monthly water levels in selected observation wells during the 2002 water year with average, maximum, and minimum monthly water levels for periods of record.

WATER RESOURCES DATA FOR MASSACHUSETTS AND RHODE ISLAND, 2002

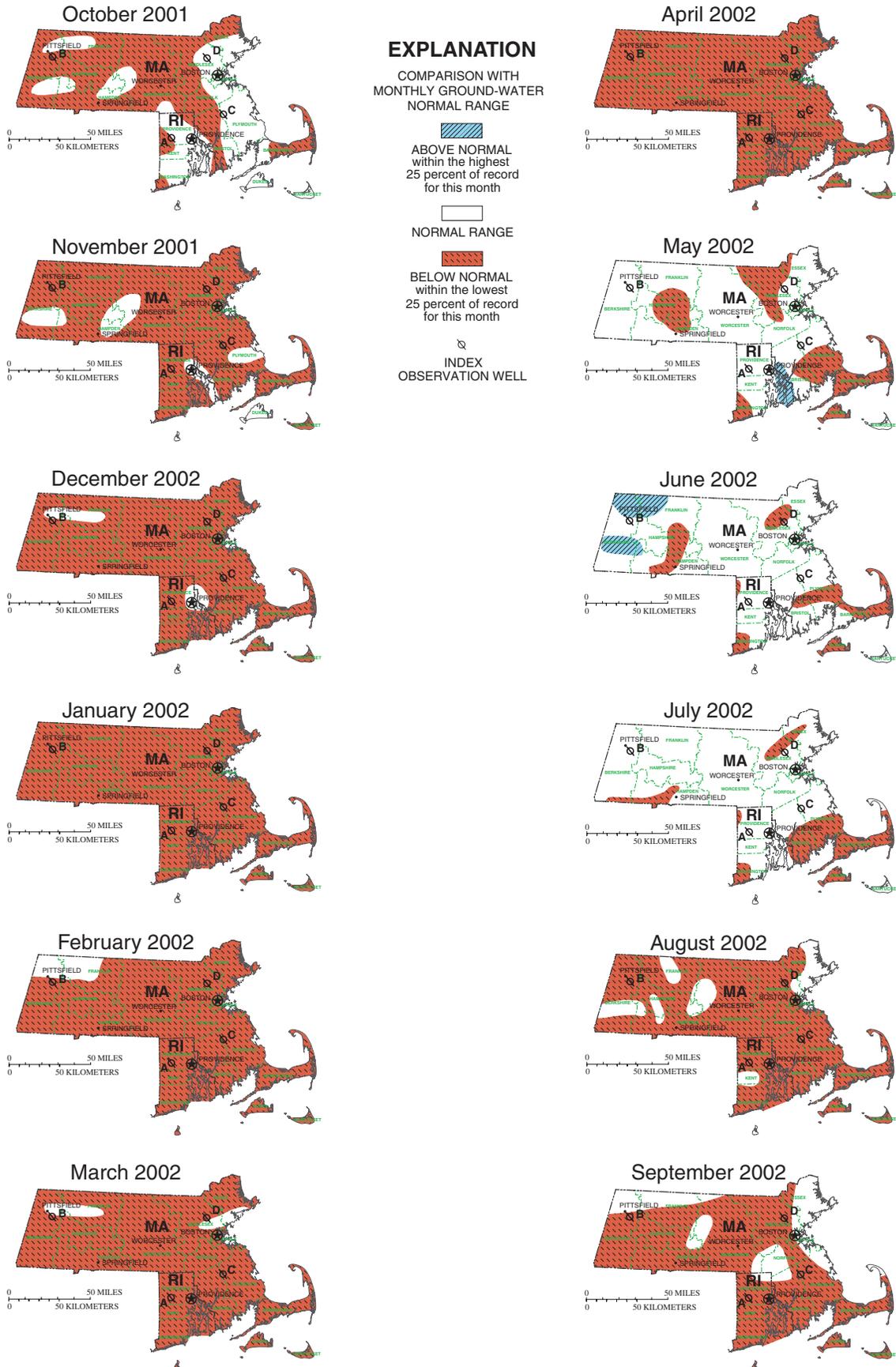


Figure 6. Monthly ground-water conditions during the 2002 water year in Massachusetts and Rhode Island.

Table 2. Historical minimum monthly mean discharges at streamgages in Massachusetts and Rhode Island during the 2002 water year

Station No.	Starting water year of continuous record	Months of new minimum monthly mean discharges											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep
01094400	1973	X	X	X									
01094500	1935	X	X	X								X	
01096500	1936		X									X	X
01097000	1941					X							
01097300	1963		X										
01099500	1937		X										
01100000	1923		X										
01100600	1964		X										
01101000	1946		X					X					
01105000	1940		X										
01105600	1966		X										
01105730	1966		X										
01105870	1966					X							
01109060	1966		X										
01109070	1966		X										
01110000	1940							X					
01110500	1940-77, 1996			X	X	X	X	X					
01111300	1965-91, 1994		X	X			X						
01111500	1940		X				X						X
01112500	1929						X						
01114000	1963		X			X							
01114500	1941					X	X				X		
01116000	1941						X					X	
01116500	1940											X	
01117500	1941					X							
01117800	1964-81, 1983					X	X						
01118000	1941					X	X					X	
01118500	1941		X			X	X						
01163200	1965		X										
01169900	1966		X										
01170100	1968		X										
01173500	1931		X										
01174500	1937	X	X	X			X						
01175670	1961		X										
01177000	1929						X						

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins—the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. 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 to (1) describe the long-term trends and changes in concentration and transport of these constituents; (2) test findings of the National Water-Quality Assessment Program (NAWQA); (3) characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) 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.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to accomplish the following objectives: (1) Provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 181 precipitation chemistry monitoring sites (provide the mechanism to evaluate the effectiveness of the significant reduction in SO₂ emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred), and (3) Provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO₂ and NO_x scheduled to begin in 2000.

Data from the network, as well as information about individual sites, are available through the world wide web at: <http://nadp.sws.uiuc.edu>.

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and

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 provides information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

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 for collaboration among the agencies.

The New England Coastal Basins (NECB) NAWQA study unit encompasses 23,000 square miles (mi²) in western and central Maine, eastern New Hampshire, eastern Massachusetts, most of Rhode Island, and a small part of eastern Connecticut. The NECB NAWQA routine surface-water quality monitoring locations in WY 2002 published in this report are: Stillwater River near Sterling, MA (01095220); Merrimack River below Concord River, at Lowell, MA (01100000); Aberjona River (head of Mystic River) at Winchester, MA (01102500); and Charles River above Watertown Dam at Watertown, MA (01104615).

The Connecticut, Housatonic, and Thames River Basins (CONN) NAWQA study unit encompasses 15,760 mi² in eastern Vermont, western New Hampshire, west-central Massachusetts, most of Connecticut, and small parts of New York, Rhode Island, and the Province of Quebec, Canada. The CONN NAWQA routine surface-water-quality-monitoring location published in this report is the Green River near Colrain, MA (01170100). Additional water samples were collected from 3 groundwater wells as part of the CONN NAWQA program during the 2002 water year.

Additional information about the NAWQA Program is available through the World Wide Web at: <http://water.usgs.gov/nawqa>.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 2002 water year that began October 1, 2001, and ended September 30, 2002. A calendar of the water year is provided on the inside of the front cover. The

records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface water, and ground-water-level data.

The locations of the stations and wells where the data were collected are shown in figures 1 and 2. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station-Identification Numbers

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

Downstream Order System

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

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between continuous-record stations and other types of stations; therefore, the station number for a continuous-record station indicates downstream-order position in a list made up of all types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete station number (usually eight digits, but sometimes nine or more if needed) appears just to the right of the station name in the table of contents. The first two digits indicate the Part number (formerly used in Water-Supply Papers to designate major river systems) and the last six or more digits indicate the downstream order within the Part. For example, in the station number 01094400, “01” is the Part number for “North Atlantic Slope Basins” and “094400” is the downstream order number.

Latitude-Longitude System

The identification numbers for wells are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude is found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See fig. 7.)

Numbering System for Wells

A local well numbering system is also used in this report (fig. 7). 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 in figure 2.

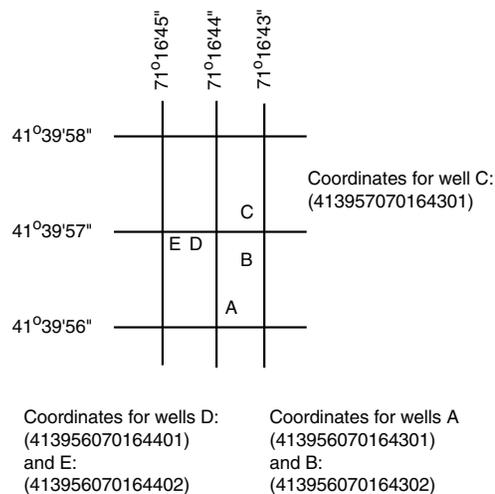


Figure 7. System for numbering wells (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained by using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any

time, or period of time. They may be obtained by using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as “daily stations.”

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as “Crest-stage partial records,” or “Low-flow partial records.” Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. There were no crest-stage stations this year. Location of all complete-record stations for which data are given in this report are shown in figure 1.

Data Collection and Computation

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

Continuous records of stage are obtained with electronic recorders that log data at selected time intervals. Measurements of discharge are made with current meters by using methods adopted by the USGS as a result of experience accumulated since 1880. These methods are described in standard textbooks; in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6; and in U.S. Geological Survey Water-Supply Paper 2175, “Measurement and Computation of Streamflow: Volume 1--Measurement of Stage and Discharge (p. 1–284); Volume 2--Computation of Discharge (p. 285–631)” by S.E. Rantz and others (1982).

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended by using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

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

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

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

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

included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

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

Station Manuscript

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

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

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

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

REVISED RECORDS--Because of new information, published records occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was

revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

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

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

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

EXTREMES OUTSIDE PERIOD OF RECORD--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the USGS.

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

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

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

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information

contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data Table of Daily Mean Values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"); or in inches (line headed "IN."); or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Statistics of Monthly Mean Data

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

Summary Statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the

previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS _ - _," will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period by using complete water years. The other statistical characteristics may be calculated by using partial water years.

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

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

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

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

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

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

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

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

ANNUAL 7-DAY MINIMUM--The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1–March 31). The

date shown in the summary-statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

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

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

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

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

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

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

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

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

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

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

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures for more than 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. Discharges listed for partial-record stations and miscellaneous sites are generally shown to three significant figures.

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

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the District Office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained

from the Massachusetts–Rhode Island District Office at the address given on the back of the title page or by telephone (800) 696-4042.

Records of Surface-Water Quality

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

Classification of Records

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

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

Arrangement of Records

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

On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern is that the data obtained represent the *in situ* quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made on-site when the samples are taken. To ensure that measurements made in the laboratory also represent the *in situ* water, carefully prescribed procedures need to be followed in collecting the

samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory.

Procedures for on-site measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. A1, A3, and A4; Book 9, Chap. A1–A9. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Detailed information on collecting, treating, and shipping samples may be obtained from the Massachusetts–Rhode Island District Office.

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

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

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

Water Temperature

Water temperatures are measured at most of the water-quality stations. 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, maximum, minimum, and mean temperatures for each day are published.

Sediment

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

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

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

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

Laboratory Measurements

Sediment samples, samples for biochemical oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the USGS laboratory at the Denver Federal Center in Lakewood, CO. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1.

Methods used by the USGS laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Analyses of Pesticides in Surface- and Ground-Water Samples (Schedule 2001)

Selected surface- and ground-water samples from NECB and CONN NAWQA study sites were analyzed for pesticides on National Water Quality Laboratory (NWQL) schedule 2001 during the 2002 water year. The following table lists the pesticides on the schedule, the unit of measure (micrograms

per liter, µg/L), the U.S. Geological Survey National Water Information System parameter code, the NWQL compound name, and the laboratory reporting level (LRL).

Estimated values for constituents in the 2001 schedule are preceded by an "E" to alert the data user to decreased confidence in accurate quantitation. Values for analytes in the 2001 schedule are preceded by an "E" in the following situations:

1. An analyte is determined outside the concentration range (upper concentration limits are to 20 mg/L for most compounds). The analyte is reported as greater than the highest calibration standard, and qualified with an "E." For example, a sample with a concentration of cyanazine determined as 41 mg/L from the calibration curve is reported as "E41."
2. The concentration is less than the Laboratory Reporting Level (LRL). The analyte meets all identification criteria to be positively identified, but the amount detected is below where it can be reliably quantified. The LRLs are used as the default reporting values when no analyte is detected in a sample.
3. An analyte demonstrated "poor" performance (that is, low and/or inconsistent recovery). These performance problems are related to either SPE or GC/MS procedures. The analyte is reported with an "E" code, to indicate that the concentration is an estimated measurement.

Only pesticides measured at or above the minimum reporting level for one or more samples are listed in the water-quality tables.

ANALYSES DESCRIPTION--Pesticides are partitioned from the filtered sample water by a C-18 Solid Phase Extraction (SPE) cartridge and analyzed by gas chromatography/mass spectrometry (GC/MS).

SAMPLE REQUIREMENTS--1 liter of water is filtered through a 0.7-micron glass-fiber depth filter, chilled at 4°C (packed in ice).

CONTAINER REQUIREMENTS--1 liter baked amber glass bottle (GCC) from USGS NWQL.

PCODE--The USGS parameter code.

COMPOUND NAME--IUPAC nomenclature.

COMMON NAME--Common or trade name(s) for constituent.

LRL--Laboratory reporting level.

PCode	Compound Name/(Common Name)	LRL (µg/L)
82660	2,6-Diethylaniline (Metabolite of Alachlor)	0.006
49260	Acetochlor (Harness Plus, Surpass)	.006
46342	Alachlor (Lasso, Bullet)	.004
39632	Atrazine (Atrex, Atred)	.007
82686	Azinphos, Methyl- (Guthion, Gusathion)	.050
82673	Benfluralin (Benefin, Balan)	.010
04028	Butylate (Genate Plus, Suntan+)	.002
82680	Carbaryl (Sevin, Denapan)	.041

PCode	Compound Name/(Common Name)	LRL (µg/L)
82674	Carbofuran (Furandan, Curaterr) *****	.020
38933	Chlorpyrifos (Brodan, Dursban)	.005
04041	Cyanazine (Bledex, Fortrol)	.018
82682	DCPA (Dacthal, Chlorthal-dimethyl)	.003
34653	DDE,p,p'-	.003
04040	Deethylatrazine, (Metabolite of Atrazine)	.006
39572	Diazinon (Basudin, Diazatol)	.005
39381	Dieldrin (Panoram D-31, Octalox)	.005
82677	Disulfoton (Disyston, Frumin AL)	.021
82668	EPTC (Eptam, Farmarox)	.002
82663	Ethalfuralin (Sonalan, Curbit)	.009
82672	Ethoprop (Mocap, Ethoprophos)	.005
04095	Fonofos (Dyfonate, Capfos)	.003
34253	HCH,alpha- (alpha-BHC, alpha-lindane)	.005
39341	HCH,gamma- (Lindane, gamma-BHC)	.004
82666	Linuron (Lorex, Linex)	.035
39532	Malathion	.027
39415	Metolachlor (Dual, Pennant)	.013
82630	Metribuzin (Lexon, Sencor)	.006
82671	Molinate (Ordram)	.002
82684	Napropamide (Devrinol)	.007
39542	Parathion, Ethyl- (Roethyl-P, Alkron)	.010
82667	Parathion, Methyl- (Pennacp-M)	.006
82669	Pebulate (Tillam, PEBL)	.004
82683	Pendimethalin (Prowl, Stomp, Pre-M)	.022
82687	Permethrin,cis- (Ambush, Astro)	.006
82664	Phorate (Thimet, Granutox)	.011
04037	Prometon (Pramitol, Princep)	0.015
82676	Pronamide (Kerb) (Propyzamid)	.004
04024	Propachlor (Ramrod, Satecid)	.010
82679	Propanil (Stampede, Stam)	.011
82685	Propargite (Omite, Alkyl sulfite)	.023
04035	Simazine (Princep, Caliber 91)	.005
82670	Tebuthiuron (Spike, Tebusan)	.016
82665	Terbacil (Sinbar)	.034
82675	Terbufos (Counter, Contraven)	.017
82681	Thiobencarb (Bolero, Saturn)	.005
82678	Triallate (Avadex BW, Far-Go)	.002
82661	Trifluralin (Treflan, Gowan)	.009

Analyses of Volatile-Organic Compounds in Ground-Water Samples (Schedule 2020)

Selected ground-water samples from CONN NAWQA study sites were analyzed for volatile organic compounds (VOCs) in the 2002 water year. The NWQL created a method for accurate determination of VOCs in water in the nanogram per liter range, schedule 2020. The method described in USGS Open-File Report 97-829 (Connor and others) is similar to USEPA method 524-2 (Mund, 1995) and the method described by Rose and Schroeder (1995). Minor improvements to instrument operating conditions include the following: additional compounds, quantitation ions that are

different from those recommended in USEPA Method 524.2 because of interferences from the additional compounds, and a data-reporting strategy for measuring detected compounds extrapolated at less than the lowest calibration standard or measured at less than the reporting limit.

The following table lists the VOCs on the schedule, the unit of measure (micrograms per liter, µg/L), the USGS National Water Information System parameter code, the NWQL compound name, and the NWQL LRL. The LRL is a statistically defined reporting limit designed to limit false positives and false negatives to less than 1 percent. Positive detections measured at less than LRL are reported as estimated concentrations (E) to alert the data user to decreased confidence in accurate quantitation. Values for analytes in the 2020 schedule are preceded by an "E" in the following situations:

1. The calculated concentration is less than the lowest calibration standard. The analyte meets all identification criteria to be positively identified, but the amount detected is below where it can be reliably quantified.
2. A sample is diluted for any reason. The method reporting level is multiplied by the dilution factor to obtain the adjusted method reporting level. Values below the lowest calibration standard multiplied by the dilution factor are qualified with an "E." For example, a value of 0.19 in a 1:2 dilution is reported as E0.19.
3. The set spike has recoveries out of the specified range (60-140%).
4. The analyte is also detected in the set blank. If the value in the sample is less than five times the blank value and greater than the blank value plus the long term method detection limit, the value is preceded by an "E" to indicate that the analyte is positively identified but not positively quantified because the analyte was also detected in the blank.

Only VOCs measured at or above the non-detection level for one or more samples are listed in the water-quality tables.

ANALYSES DESCRIPTION--The sample water is actively purged with helium to extract the volatile organic compounds. The volatile organic compounds are collected onto a sorbent trap, thermally desorbed, separated by a gas chromatographic capillary column, and determined by a full scan quadropole mass spectrometer. Compound identification is confirmed by the gas chromatographic retention time and by the resultant mass spectrum, typically identified by three unique ions.

SAMPLE REQUIREMENTS--Water is collected in vials placed in a stainless steel VOC sampler. Samples are preserved with 1:1 hydrochloric acid and chilled at 4°C (packed in ice).

CONTAINER REQUIREMENTS--40 milliliter baked amber septum glass vial, from USGS OCALA Water Quality Service Unit.

PCODE--The USGS parameter code.

COMPOUND NAME--USGS NWQL nomenclature.

LRL--Laboratory reporting level.

PCODE	COMPOUND NAME	LRL (µg/L)
77562	1,1,1,2-Tetrachloroethane	0.030
34506	1,1,1-Trichloroethane	.032
34516	1,1,2,2-Tetrachloroethane	.09
34511	1,1,2-Trichloroethane	.064
77652	1,1,2-Trichlorotrifluoroethane	.060
34496	1,1-Dichloroethane	.035
34501	1,1-Dichloroethylene	.044
77168	1,1-Dichloropropene	.05
49999	1,2,3,4-Tetramethylbenzene	.23
50000	1,2,3,5-Tetramethylbenzene	.20
77613	1,2,3-Trichlorobenzene	.27
77443	1,2,3-Trichloropropane	.16
77221	1,2,3-Trimethylbenzene	.12
34551	1,2,4-Trichlorobenzene	.07
77222	1,2,4-Trimethylbenzene	.056
82625	1,2-Dibromo-3-chloropropane	.05
77651	1,2-Dibromoethane	.036
34536	1,2-Dichlorobenzene	.048
32103	1,2-Dichloroethane	.13
34541	1,2-Dichloropropane	.029
77226	1,3,5-Trimethylbenzene	.044
34566	1,3-Dichlorobenzene	.030
77173	1,3-Dichloropropane	.12
34571	1,4-Dichlorobenzene	0.05
77170	2,2-Dichloropropane	.05
81595	2-Butanone	5.0
77275	2-Chlorotoluene	.042
77103	2-Hexanone	.7
78109	3-Chloropropene	.07
77277	4-Chlorotoluene	.056
77356	4-Isopropyl-1-methylbenzene	.07
78133	4-Methyl-2-pentanone	.37
81552	Acetone	7.1
34215	Acrylonitrile	1.2
34030	Benzene	.021
81555	Bromobenzene	.036
77297	Bromochloromethane	.07
32101	Bromodichloromethane	.048
32104	Bromoform	.06
34413	Bromomethane	.26
77342	Butylbenzene	.19
77041	Carbon disulfide	.075
34301	Chlorobenzene	.028
34311	Chloroethane	.12
32106	Chloroform	.024
34418	Chloromethane	.17

PCODE	COMPOUND NAME	LRL (µg/L)
77093	<i>cis</i> -1,2-Dichloroethylene	.038
34704	<i>cis</i> -1,3-Dichloropropene	.09
32105	Dibromochloromethane	.18
30217	Dibromomethane	.05
34668	Dichlorodifluoromethane	.18
34423	Dichloromethane	.16
81576	Diethyl ether	.17
81577	Diisopropyl ether	.10
73570	Ethyl methacrylate	.18
50004	Ethyl <i>tert</i> -butyl ether	.054
34371	Ethylbenzene	.03
39702	Hexachlorobutadiene	.14
34396	Hexachloroethane	.19
77223	Isopropylbenzene	.06
85795	<i>m</i> - and <i>p</i> -Xylene	.06
49991	Methyl acrylate	1.4
81593	Methyl acrylonitrile	.57
77424	Methyl iodide	.20
81597	Methyl methacrylate	.35
78032	Methyl <i>tert</i> -butyl ether	.17
34696	Naphthalene	.50
77220	<i>o</i> -Ethyl toluene	.06
77135	<i>o</i> -Xylene	.07
77224	Propylbenzene	.042
77350	<i>sec</i> -Butylbenzene	.032
77128	Styrene	.042
77353	<i>tert</i> -Butylbenzene	.048
50005	<i>tert</i> -Pentyl methyl ether	.08
34475	Tetrachloroethylene	0.027
32102	Tetrachloromethane	.060
81607	Tetrahydrofuran	2.2
34010	Toluene	.05
34546	<i>trans</i> -1,2-Dichloroethylene	.032
34699	<i>trans</i> -1,3-Dichloropropene	.09
73547	<i>trans</i> -1,4-Dichloro-2-butene	.7
39180	Trichloroethylene	.038
34488	Trichlorofluoromethane	.09
50002	Vinyl bromide	.1
39175	Vinyl chloride	.11

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

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

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

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

PERIOD OF RECORD--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less frequently 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 thermometer (thermistor), 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. None are given for parameters measured weekly or less frequently because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of USGS water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates. The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

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

Printed output	Remark
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range; non-ideal colony count
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant
V	Analyte was detected in both the environmental sample and the associated blanks.
M	Presence verified, not quantified.

Water-Quality Quality-Control Data

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 are described in the following section. Procedures have been established for the storage of water-quality QC 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.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by 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. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collection process. The types of blank samples collect 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 by 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 whose 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. There are many types of replicate samples 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:

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 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.

Records of Ground-Water Levels

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

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table.

The secondary identification number is the local well number, an alphanumeric number, derived from a two-letter town code followed by the letter W to specify a well. Water-level records are obtained from direct measurements with a chalked steel tape, electric tape, or from digital water-stage recorder. The 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 altitude of the land-surface datum 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 or for every fifth day and the end of each month (eom). 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 to water of several hundred feet, the error of 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 to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of three parts—the station description; the data table of water levels observed during the water year; and the hydrograph showing water-level fluctuations during the most recent 5-year period. Hydrographs are based on end-of-month measurements, including those wells for which 5-day or more frequent water levels are published. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location

designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

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

WELL CHARACTERISTICS--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

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

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

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

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

EXTREMES FOR PERIOD OF RECORD--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence. A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum. For most wells all taped measurements of water level are published. For wells equipped with digital recorders, tables of daily mean water levels and the means, highs, and lows for each month are published.

Records of Ground-Water Quality

Untreated water samples were collected from three wells between October 2001 and October 2002 in the Massachusetts part of the Connecticut, Housatonic, and Thames River Basins NAWQA study. Only one sample was collected from each well. These samples were collected as part of the NAWQA program to determine the occurrence and distribution of selected constituents in the ground waters of major aquifer systems and were analyzed for major ions,

nutrients, trace elements, radon gas, radionuclides, 48 pesticide compounds, and 86 volatile organic compounds (VOCs). Sampling protocols were followed to obtain and evaluate accurate water-quality data (Koterba and others, 1995). Water-quality data for special-study sampling sites appear in separate tables following the continuous ground-water records.

Laboratory Measurements

Samples were analyzed locally (in the field) for alkalinity, specific conductance, dissolved oxygen, pH, and temperature. All other samples were analyzed in the U.S. Geological Survey's National Water-Quality Laboratories in Denver, CO, and the U.S. Geological Survey Kentucky District Sediment Laboratory. Methods used by the U.S. Geological Survey laboratories are given in the TWRI Book 1, Chapter D2; Book 3, Chapter D2; and Book 5, Chapters A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

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 (<http://water.usgs.gov/>).

Some water-quality and ground-water data also are available through the World Wide Web. In addition, data can be provided in various machine-readable formats on magnetic tape or 3-1/2 in. floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Discipline District Offices (See address on the back of the title page.)

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Definitions of common terms such as algae, water level, and precipitation are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting inch/pound units to International System (SI) units on the inside of the back cover.

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.

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 is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is 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.

Bedload is material in transport that is supported primarily 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.")

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

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 is also called the Autotrophic Index.

Blue-green algae (Cyanophyta) are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample. (See also "Phytoplankton.")

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 lithology and porosity of the rock.

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 are generally reported as cells or units per milliliter (mL) or liter (L).

Cells volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are frequently used 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:

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

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 of 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, [(ft³/s)/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 are numerically 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, (ft³/s)/mi²] 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 are usually 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 are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample. (See also “Phytoplankton.”)

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,

etc., 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 0.4926 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:

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

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 are commonly 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 are generally 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) concentration value 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 qualitatively identified 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 (<).

Euglenoids (*Euglenophyta*) are a group of algae that are usually 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.")

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 itself is not an actual physical object, the datum usually is 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 have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating “moss” in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample. (See also “Phytoplankton.”)

Ground-water level is the elevation of the water table or another potentiometric surface at a particular location.

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 are typically 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 (CaCO₃).

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.co-ops.nos.noaa.gov/tideglos.html>

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:

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

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.), 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 uniformly distributed on it. (See also “Annual runoff.”)

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

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) is generally 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. [Note: In several previous NWQL documents (NWQL Technical Memorandum 98.07, 1998), the LRL was called the nondetection value or NDV—a term that is no longer used.]

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:

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

where I_o 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

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

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.co-ops.nos.noaa.gov/tideglos.html>*

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.

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 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.

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

Micrograms per gram (UG/G, $\mu\text{g/g}$) 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, $\mu\text{g/kg}$) 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, $\mu\text{g/L}$) 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, hardboard 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 of 1929) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It was formerly 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.

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

North American Vertical Datum of 1988 (NAVD 1988) 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 (m^2), 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 utilizes 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 streamflows 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 are usually microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and 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.

Precipitation is falling products of condensation in the atmosphere as rain, snow, sleet, and hail.

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 [$\text{mg C}/(\text{m}^2/\text{time})$] 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 from bed (bottom) material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the

constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. (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.")

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. See conversion factors and vertical datum page (inside back cover) for identification of the datum used in this report.

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.

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

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative suspended water-sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in

dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the “total” amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. Determinations of “suspended, recoverable” constituents are made either by directly analyzing the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also “Suspended.”)

Suspended sediment is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (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) x discharge (ft³/s) x 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, 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.”)

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.

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 tons 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 sediment 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 bedload.

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 bedload 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 "Bedload," "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 the reduction in the transparency of a solution due to the presence of suspended and some dissolved substances. The measurement technique records

the collective optical properties of the solution that cause light to be scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to U.S. EPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values.

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.”)

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 are often 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.”

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.”)

PUBLICATIONS OF TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

The reports listed below are for sale by the USGS, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be made in the form of a check or money order payable to the "U.S. Geological Survey." Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations."

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

- 2-D1. *Application of surface geophysics to ground-water investigations*, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS–TWRI book 2, chap. D1. 1974. 116 p.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 p.

Section E. Subsurface Geophysical Methods

- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS–TWRI book 2, chap. E1. 1971. 126 p.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS–TWRI book 2, chap. E2. 1990. 150 p.

Section F. Drilling and Sampling Methods

- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS–TWRI book 2, chap. F1. 1989. 97 p.

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

- 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.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS–TWRI book 3, chap. A3. 1968. 60 p.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS–TWRI book 3, chap. A4. 1967. 44 p.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS–TWRI book 3, chap. A5. 1967. 29 p.
- 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.
- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A8. 1969. 65 p.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS–TWRI book 3, chap. A9. 1989. 27 p.
- 3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A10. 1984. 59 p.
- 3-A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 3, chap. A11. 1969. 22 p.
- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS–TWRI book 3, chap. A12. 1986. 34 p.
- 3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS–TWRI book 3, chap. A13. 1983. 53 p.

- 3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI book 3, chap. A14. 1983. 46 p.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS–TWRI book 3, chap. A15. 1984. 48 p.
- 3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS–TWRI book 3, chap. A16. 1985. 52 p.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS–TWRI book 3, chap. A17. 1985. 38 p.
- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F.A. Kilpatrick, R.E. Rathbun, Nobuhiro Yotsukura, G.W. Parker, and L.L. DeLong: USGS–TWRI book 3, chap. A18. 1989. 52 p.
- 3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A19. 1990. 31 p.
- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS–TWRI book 3, chap. A20. 1993. 38 p.
- 3-A21. *Stream-gaging cableways*, by C.g Russell Wagner: USGS–TWRI book 3, chap. A21. 1995. 56 p.
- Section B. Ground-Water Techniques**
- 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 programmed text for self-instruction*, by G.D. Bennett: USGS–TWRI book 3, chap. B2. 1976. 172 p.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS–TWRI book 3, chap. B3. 1980. 106 p.
- 3-B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS–TWRI book 3, chap. B4. 1990. 232 p.
- 3-B4. *Supplement 1. Regression modeling of ground-water flow--Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R.L. Cooley: USGS–TWRI book 3, chap. B4. 1993. 8 p.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS–TWRI book 3, chap. B5. 1987. 15 p.
- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS–TWRI book 3, chap. B6. 1987. 28 p.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS–TWRI book 3, chap. B7. 1992. 190 p.
- 3-B8. *System and boundary conceptualization in ground-water flow simulation*, by T.E. Reilly: USGS–TWRI book 3, chap. B8. 2001. 29 p.
- Section C. Sedimentation and Erosion Techniques**
- 3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS–TWRI book 3, chap. C1. 1970. 55 p.
- 3-C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS–TWRI book 3, chap. C2. 1999. 89 p.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS–TWRI book 3, chap. C3. 1972. 66 p.
- Book 4. Hydrologic Analysis and Interpretation**
- Section A. Statistical Analysis**
- 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.
- Section B. Surface Water**
- 4-B1. *Low-flow investigations*, by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 p.
- 4-B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS–TWRI book 4, chap. B2. 1973. 20 p.
- 4-B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS–TWRI book 4, chap. B3. 1973. 15 p.
- Section D. Interrelated Phases of the Hydrologic Cycle**
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C.T. Jenkins: USGS–TWRI book 4, chap. D1. 1970. 17 p.
- Book 5. Laboratory Analysis**
- Section A. Water Analysis**
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI book 5, chap. A1. 1989. 545 p.

- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI book 5, chap. A2. 1971. 31 p.
- 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS–TWRI book 5, chap. A3. 1987. 80 p.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greenson, editors: USGS–TWRI book 5, chap. A4. 1989. 363 p.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS–TWRI book 5, chap. A5. 1977. 95 p.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS–TWRI book 5, chap. A6. 1982. 181 p.
- Section C. Sediment Analysis**
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS–TWRI book 5, chap. C1. 1969. 58 p.
- Book 6. Modeling Techniques**
- Section A. Ground Water**
- 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.
- 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S.A. Leake and D.E. Prudic: USGS–TWRI book 6, chap. A2. 1991. 68 p.
- 6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L.J. Torak: USGS–TWRI book 6, chap. A3. 1993. 136 p.
- 6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R.L. Cooley: USGS–TWRI book 6, chap. A4. 1992. 108 p.
- 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. A5, 1996. 125 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.

REMARK CODES

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

PRINT 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.

Dissolved Trace-Element Concentrations

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

Change in National Trends Network Procedures

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

MERRIMACK RIVER BASIN

01094400 NORTH NASHUA RIVER AT FITCHBURG, MA

LOCATION.--Lat 42°34'34", long 71°47'19", Worcester County, Hydrologic Unit 01070004, on right bank 400 ft upstream from Fifth Street Bridge at Fitchburg and 1.8 mi upstream from Baker Brook.

DRAINAGE AREA.--63.4 mi².

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. 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 poor. Flow regulated by mills and reservoirs upstream. Flow affected by diversions for municipal use. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--30 years, 119 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,510 ft³/s, Apr. 5, 1987, gage height, 7.78 ft; maximum gage height, 9.25 ft, Apr. 5, 1987, backwater from landslide; minimum discharge, 1.5 ft³/s, Sept. 11, 12, 1995; minimum daily, 2.7 ft³/s, Sept. 5, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 960 ft³/s, May 14, gage height, 5.48 ft; minimum, 2.2 ft³/s, Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	14	25	27	68	61	332	149	85	42	11	8.9
2	58	14	22	25	67	56	258	152	70	35	26	8.8
3	59	15	20	24	56	114	203	163	58	32	23	10
4	57	12	19	24	49	112	182	121	49	27	15	9.4
5	53	17	17	23	45	87	149	99	51	22	12	8.0
6	16	28	17	23	40	74	129	85	152	17	10	9.1
7	8.2	21	17	30	35	66	112	76	286	15	10	7.1
8	6.5	16	16	30	34	61	102	71	197	14	8.2	5.6
9	7.3	14	22	27	33	58	99	64	134	15	7.6	3.5
10	5.9	13	24	29	32	129	93	69	101	15	4.8	5.1
11	5.8	9.9	22	31	94	106	82	60	79	12	4.0	5.0
12	6.0	9.5	25	31	70	88	76	66	71	9.9	4.3	4.7
13	7.2	9.6	28	37	58	75	73	317	73	9.0	6.6	4.3
14	8.5	9.5	43	37	e42	71	74	756	66	8.7	6.7	5.5
15	17	9.9	73	33	43	63	111	370	92	8.1	5.4	3.4
16	13	9.3	53	31	42	75	106	224	118	8.1	6.1	20
17	10	8.7	45	30	47	74	89	168	135	7.9	6.7	10
18	12	8.5	65	29	50	73	76	282	100	7.2	5.6	6.9
19	9.2	8.8	56	30	44	74	68	289	78	17	3.9	5.5
20	8.3	12	49	31	44	74	65	201	65	13	4.9	5.8
21	7.0	11	44	30	109	93	60	162	54	11	6.3	4.8
22	5.2	9.0	38	30	100	92	59	135	48	9.8	5.4	2.8
23	5.3	8.9	34	30	84	75	72	117	52	32	7.3	14
24	12	11	56	38	71	71	64	101	48	42	7.6	10
25	7.9	17	52	51	65	70	68	87	37	22	6.1	7.6
26	8.0	27	43	47	62	85	96	78	32	15	4.0	8.2
27	8.9	22	37	43	72	292	86	75	74	13	4.5	27
28	6.9	17	42	43	70	244	105	72	109	15	4.3	50
29	5.8	20	32	43	--	203	162	97	72	25	25	22
30	7.8	22	32	57	--	197	184	89	54	19	27	14
31	9.8	---	34	60	--	177	---	79	---	13	15	---
TOTAL	469.5	424.6	1102	1054	1626	3190	3435	4874	2640	551.7	294.3	307.0
MEAN	15.1	14.2	35.5	34.0	58.1	103	114	157	88.0	17.8	9.49	10.2
MAX	59	28	73	60	109	292	332	756	286	42	27	50
MIN	5.2	8.5	16	23	32	56	59	60	32	7.2	3.9	2.8

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2002, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)	MEAN	MAX	(WY)	MIN	(WY)	MEAN	MAX	(WY)	MIN	(WY)
1973	76.4	220	1997	15.1	2002	112	243	1996	14.2	2002	134	347	1997	35.5	2002
1974	133	304	1996	24.6	1981	138	294	1984	34.6	1980	103	294	1983	58.1	1980
1975	229	528	1983	84.1	1989	242	600	1987	84.1	1985	142	277	1984	138	1989
1976	142	277	1982	16.0	1999	197.3	368	1982	12.9	1999	45.5	90.3	1991	44.8	1995
1977	45.5	90.3	1996	8.63	1995	44.8	137	1991	8.63	1995	40.9	121	1991	40.9	1995
1978	44.8	137	1991	8.33	1995	40.9	121	1991	8.33	1995	40.9	121	1991	40.9	1995

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1973 - 2002	
ANNUAL TOTAL	34142.9		19968.1			
ANNUAL MEAN	93.5		54.7		119	
HIGHEST ANNUAL MEAN					169	
LOWEST ANNUAL MEAN					54.7	
HIGHEST DAILY MEAN	1200	Mar 22	756	May 14	2830	Apr 5 1987
LOWEST DAILY MEAN	2.5	Sep 3	2.8	Sep 22	2.5	Sep 3 2001
ANNUAL SEVEN-DAY MINIMUM	6.7	Oct 7	4.5	Sep 9	4.3	Aug 31 1995
MAXIMUM PEAK FLOW			960	May 14	3510	Apr 5 1987
MAXIMUM PEAK STAGE			5.48	May 14	9.25	Apr 5 1987
INSTANTANEOUS LOW FLOW			2.2	Sep 22	1.5	Sep 11 1995
10 PERCENT EXCEEDS	200		113		253	
50 PERCENT EXCEEDS	51		33		77	
90 PERCENT EXCEEDS	9.0		6.8		20	

e Estimated

MERRIMACK RIVER BASIN

01095220 STILLWATER RIVER NEAR STERLING, MA

(National Water Quality Assessment Site)

LOCATION.--Lat 42°24'39", long 71°47'30", Worcester County, Hydrologic Unit 01070004, on left bank at downstream side of bridge on Muddy Pond Road, 1.5 mi upstream of mouth and 2.5 mi southwest of Sterling.

DRAINAGE AREA.--31.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Low-flow partial-record measurements in water years 1971-73, 1991-93. April 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

AVERAGE DISCHARGE.-- 8 years, 50.3 ft³/s, 21.61 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 890 ft³/s, Jan. 28, 1996, gage height, 8.50 ft from rating curve extended above 340 ft³/s; minimum, 0.07 ft³/s, Aug. 19, 20, 27-29, Sept. 13-15, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 384 ft³/s, May 14, gage height, 6.89 ft; minimum, 0.07 ft³/s, Aug. 19, 20, 27-29, Sept. 13-15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.2	e2.6	4.4	6.2	23	21	120	79	26	12	1.8	1.1
2	e2.7	e2.5	4.2	5.2	22	19	139	66	23	10	2.5	1.8
3	e2.7	2.4	3.8	4.9	23	44	97	87	19	9.5	2.3	2.1
4	e2.7	1.7	3.7	4.6	16	65	89	67	15	8.3	1.9	1.9
5	e2.7	2.0	3.3	4.5	16	45	74	51	13	7.2	1.5	1.3
6	e2.8	2.6	3.1	4.6	10	32	62	40	32	6.0	1.3	.87
7	e2.8	2.1	2.9	5.6	9.8	28	53	33	155	5.5	1.1	.59
8	e2.4	1.9	2.7	5.7	9.6	25	46	29	165	5.3	.92	.43
9	e2.4	2.0	3.4	5.8	9.8	23	43	26	87	5.5	.74	.33
10	e2.7	1.9	3.8	5.9	8.6	39	42	25	55	5.4	.59	.25
11	e3.1	1.7	4.2	6.9	32	52	38	21	36	8.7	.45	.20
12	e2.7	1.6	4.3	7.4	37	39	34	20	31	4.2	.36	.14
13	e2.4	1.8	5.1	8.7	22	32	33	60	33	3.1	.29	.12
14	e2.5	1.7	8.0	9.0	18	30	33	342	31	4.1	.25	.11
15	e4.6	1.8	19	8.1	14	28	44	219	38	3.5	.20	.13
16	e2.3	1.9	20	7.2	15	28	54	118	54	5.9	.18	.36
17	e2.7	1.8	17	6.6	17	32	44	79	72	5.4	.16	.33
18	e2.2	1.8	25	6.1	19	30	36	115	58	4.0	.13	.27
19	e2.2	1.6	29	6.2	17	30	33	185	42	3.6	.10	.24
20	e1.9	1.6	22	5.9	16	31	31	122	32	3.6	.20	.19
21	e2.2	1.7	17	5.4	36	39	27	88	25	4.0	.19	.18
22	e1.9	1.7	13	5.2	49	46	25	68	20	3.0	.14	.16
23	e2.2	1.8	10	5.3	39	38	29	55	19	2.8	.16	.81
24	e2.7	1.9	15	7.5	29	33	30	44	20	6.4	.18	.58
25	e2.4	2.2	18	13	24	34	27	37	18	4.5	.23	.51
26	e2.2	5.6	15	14	22	38	45	33	13	3.2	.15	.52
27	e1.1	4.9	12	13	24	196	46	34	13	2.7	.12	1.8
28	e1.3	3.9	9.6	13	24	204	43	30	30	2.6	.10	4.7
29	e2.0	3.9	8.7	14	---	126	75	30	21	3.0	1.2	4.2
30	e2.0	4.3	7.7	23	---	96	95	28	15	2.8	1.9	3.4
31	e2.0	---	6.7	28	---	83	---	25	---	2.3	1.5	---
TOTAL	75.7	70.9	321.6	266.5	601.8	1606	1587	2256	1211	158.1	22.84	29.62
MEAN	2.44	2.36	10.4	8.60	21.5	51.8	52.9	72.8	40.4	5.10	0.74	0.99
MAX	4.6	5.6	29	28	49	204	139	342	165	12	2.5	4.7
MIN	1.1	1.6	2.7	4.5	8.6	19	25	20	13	2.3	0.10	0.11
CFSM	0.08	0.07	0.33	0.27	0.68	1.64	1.67	2.30	1.28	0.16	0.02	0.03
IN.	0.09	0.08	0.38	0.31	0.71	1.89	1.87	2.66	1.43	0.19	0.03	0.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	23.5	37.2	54.0	72.9	68.9	109	108	60.4	40.0
MAX	83.8	106	171	157	120	163	187	100	113
(WY)	1997	1996	1997	1996	1996	1998	2001	1998	1998
MIN	2.44	2.36	10.4	8.60	21.5	51.8	43.8	26.1	4.46
(WY)	2002	2002	2002	2002	2002	2002	1999	1999	1999

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1994 - 2002	
ANNUAL TOTAL	15307.7		8207.06			
ANNUAL MEAN	41.9		22.5		50.3	
HIGHEST ANNUAL MEAN					74.9	
LOWEST ANNUAL MEAN					22.5	
HIGHEST DAILY MEAN	638	Mar 23	342	May 14	742	Jan 28 1996
LOWEST DAILY MEAN	1.1	Oct 27	0.10	Aug 19	0.10	Aug 19 2002
ANNUAL SEVEN-DAY MINIMUM	1.7	Nov 17	0.15	Aug 17	0.15	Aug 17 2002
MAXIMUM PEAK FLOW			384		890	
MAXIMUM PEAK STAGE			6.89		8.50	
INSTANTANEOUS LOW FLOW			0.07		0.07	
ANNUAL RUNOFF (CFSM)	1.33		0.71		1.59	
ANNUAL RUNOFF (INCHES)	18.02		9.66		21.61	
10 PERCENT EXCEEDS	94		54		119	
50 PERCENT EXCEEDS	19		7.5		27	
90 PERCENT EXCEEDS	2.4		0.59		2.3	

e Estimated

MERRIMACK RIVER BASIN

01095220 STILLWATER RIVER NEAR STERLING, MA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1998 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1998 to current year.

WATER TEMPERATURE: April 1998 to current year.

PRECIPITATION: October 1998 to current year.

INSTRUMENTATION.--Heated tipping-bucket precipitation gage, specific conductance and water temperature water-quality monitor.

REMARKS.--Specific conductance and water temperature records good. Extremes for period of daily record and current year are for those values reported.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 274 μ S/cm, Aug. 29, 2002; minimum, 43 μ S/cm, June 14, 1998.

WATER TEMPERATURE: Maximum recorded, 27.6°C, July 6, 1999; minimum, 0.0°C, on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 274 μ S/cm, Aug. 29; minimum, 71 μ S/cm, May 15.

WATER TEMPERATURE: Maximum recorded, 26.8°C, July 4 ;minimum, -0.2°C, Jan. 1.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.12	0.01	0.00	0.21	0.00	0.78	0.01	0.01	0.00	0.00	0.00
2	.00	.00	.00	.00	.00	.04	.00	.56	.09	.00	.69	.56
3	.00	.08	.00	.00	.00	.76	.32	.02	.00	.00	.00	.10
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.07	.00	.00	.00	.00	.00	.00	.11	.00	.00	.00
6	.08	.00	.00	.29	.00	.00	.00	.00	.96	.00	.00	.00
7	.00	.00	.00	.29	.00	.00	.00	.00	.83	.00	.00	.00
8	.00	.00	.16	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.05	.49	.00	.00	.00	.00	.01	.02	.26	.00	.00
10	.00	.00	.00	.00	.21	.65	.07	.09	.00	.00	.00	.00
11	.00	.00	.00	.06	.35	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.50	.19	.00	.00	.00
13	.00	.00	.07	.51	.00	.00	.00	1.86	.00	.00	.00	.00
14	.09	.00	.56	.00	.00	.00	.04	.28	.06	.00	.00	.00
15	.30	.00	.07	.12	.00	.00	.54	.00	.54	.19	.00	.12
16	.13	.00	.00	.00	.00	.34	.00	.00	.34	.00	.01	.29
17	.01	.00	.38	.01	.15	.00	.00	.04	.10	.00	.00	.00
18	.00	.00	.47	.00	.00	.29	.00	1.08	.01	.00	.00	.00
19	.00	.00	.00	.13	.00	.01	.18	.00	.00	.12	.00	.00
20	.00	.04	.00	.02	.07	.64	.02	.00	.00	.00	.23	.00
21	.00	.00	.00	.08	.27	.01	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.18	.00	.03	.00	.03	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.01	.39	.03	.74
24	.00	.07	.56	.07	.00	.00	.00	.02	.00	.00	.08	.00
25	.00	.37	.00	.00	.00	.03	.51	.00	.00	.00	.00	.00
26	.00	.02	.00	.00	.00	.74	.00	.14	.00	.00	.00	.43
27	.00	.00	.00	.00	.25	.37	.00	.00	1.60	.00	.00	.62
28	.00	.13	.00	.00	.00	.00	.58	.03	.00	.27	.00	.46
29	.00	.11	.00	.00	---	.00	.31	.12	.00	.01	1.44	.00
30	.00	.04	.00	.24	---	.10	.03	.00	.00	.00	.09	.00
31	.11	---	.00	.37	---	.05	---	.20	---	.00	.00	---
TOTAL	0.72	1.10	2.77	2.19	1.51	4.03	3.56	4.96	4.90	1.24	2.60	3.32
MAX	0.30	0.37	0.56	0.51	0.35	0.76	0.78	1.86	1.60	0.39	1.44	0.74
CAL YR 2001	TOTAL 35.97		MAX 2.57									
WTR YR 2002	TOTAL 32.90		MAX 1.86									

MERRIMACK RIVER BASIN

01095220 STILLWATER RIVER NEAR STERLING, MA--Continued

SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$ AT 25°C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	175	168	171	170	166	168	146	142	144	144	129	136	
2	182	167	173	170	166	168	143	139	141	150	134	141	
3	184	168	175	170	150	164	143	139	141	155	139	147	
4	187	177	181	170	160	165	143	140	142	151	134	143	
5	192	187	190	160	151	156	144	142	143	160	149	155	
6	193	191	192	153	133	148	146	143	145	165	158	162	
7	194	189	192	157	138	150	146	144	145	164	151	159	
8	193	142	154	158	143	152	152	146	149	158	146	153	
9	176	157	163	156	140	150	153	144	147	159	144	153	
10	187	176	183	156	142	151	150	142	147	159	155	157	
11	196	186	189	156	151	154	151	147	149	155	149	152	
12	204	196	199	160	154	157	151	146	149	150	145	148	
13	203	193	199	161	148	156	152	147	149	145	133	139	
14	199	195	196	162	150	155	159	144	149	146	129	137	
15	201	195	198	157	148	152	159	133	142	147	129	142	
16	219	198	207	151	147	149	134	129	130	150	143	147	
17	212	207	210	153	142	149	134	126	129	151	142	146	
18	207	193	201	163	140	152	163	134	153	146	131	139	
19	193	188	191	156	148	152	144	128	133	139	124	131	
20	188	176	183	154	149	151	131	128	130	139	124	131	
21	181	175	177	159	153	156	132	130	131	135	127	132	
22	182	174	179	161	153	157	136	126	131	158	132	144	
23	176	172	174	159	152	155	145	123	136	157	128	145	
24	177	172	174	153	149	151	164	145	156	166	156	161	
25	180	175	177	152	146	150	154	140	144	165	134	153	
26	177	151	171	146	135	138	142	136	139	140	129	135	
27	174	151	164	138	135	136	137	124	132	143	129	138	
28	174	168	170	140	138	139	141	118	130	150	132	143	
29	170	166	168	148	140	145	144	132	139	148	139	144	
30	170	166	168	150	143	147	144	130	137	144	130	139	
31	174	168	170	---	---	---	145	130	136	130	101	115	
MONTH	219	142	182	170	133	152	164	118	141	166	101	144	

DAY	MAX	FEBRUARY			MARCH			APRIL			MAY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	137	102	116	129	116	123	105	91	98	95	92	94	
2	136	108	122	129	118	125	92	89	89	102	94	98	
3	127	108	115	149	112	133	96	89	92	97	94	95	
4	130	106	118	112	104	107	99	94	96	101	94	97	
5	129	106	117	117	108	112	100	96	98	109	98	104	
6	137	114	125	119	109	114	104	100	101	111	103	106	
7	141	118	130	125	116	121	107	104	105	116	109	113	
8	142	122	134	130	123	126	109	107	108	121	116	119	
9	144	127	137	130	117	122	115	109	112	123	120	122	
10	151	119	133	132	109	121	121	113	117	127	123	125	
11	166	106	140	112	105	108	120	114	118	128	124	126	
12	125	106	114	118	112	115	125	115	120	138	128	132	
13	147	114	130	118	115	116	126	122	124	136	108	129	
14	145	124	133	117	113	115	126	123	124	108	71	80	
15	146	127	138	117	113	115	132	118	126	75	71	73	
16	144	140	142	127	117	122	120	116	118	85	75	79	
17	141	133	137	128	118	123	120	116	119	93	85	90	
18	137	124	131	126	120	122	122	117	120	103	80	94	
19	137	112	126	129	123	125	124	119	121	82	79	79	
20	135	126	131	129	118	125	126	122	124	82	79	80	
21	147	122	135	140	121	127	127	124	125	89	82	86	
22	122	108	113	138	117	122	126	123	124	97	89	93	
23	117	107	112	118	113	116	125	118	122	103	97	100	
24	120	102	112	123	118	120	121	118	119	111	103	108	
25	122	110	116	124	119	121	124	119	122	115	111	113	
26	122	118	119	128	118	121	126	111	120	121	115	119	
27	127	121	122	129	90	105	114	110	112	122	119	120	
28	129	122	125	92	89	90	116	108	112	127	122	124	
29	---	---	---	94	89	91	113	102	106	130	126	128	
30	---	---	---	95	92	93	105	93	99	130	125	128	
31	---	---	---	98	94	96	---	---	---	131	127	130	
MONTH	166	102	126	149	89	116	132	89	113	138	71	106	

MERRIMACK RIVER BASIN

01095220 STILLWATER RIVER NEAR STERLING, MA--Continued

SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$ AT 25°C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN									
1	132	126	129	155	147	150	194	185	189	226	217	222
2	134	127	131	156	148	151	216	174	195	241	214	229
3	137	132	136	155	137	149	226	210	220	242	234	238
4	144	136	142	159	137	150	215	206	210	235	224	231
5	156	143	151	166	156	163	212	200	206	227	224	226
6	151	128	141	171	164	169	205	198	201	229	225	227
7	128	91	111	182	169	176	204	194	199	230	224	227
8	91	85	86	180	173	177	232	197	205	235	230	232
9	91	86	88	178	165	175	251	175	208	242	235	239
10	99	91	96	184	169	180	240	188	216	246	241	243
11	108	98	105	176	144	154	226	216	221	251	244	247
12	114	108	112	180	155	172	226	219	222	257	251	254
13	114	106	111	192	180	188	229	219	224	262	256	259
14	116	108	112	186	169	174	230	222	225	265	260	262
15	126	116	122	190	172	182	232	223	227	267	264	265
16	124	107	113	191	155	172	233	224	228	265	255	259
17	112	100	104	168	154	162	230	223	226	255	247	250
18	104	101	103	175	167	172	232	223	226	247	245	246
19	104	103	103	180	171	178	232	225	228	248	244	246
20	112	104	108	184	180	182	233	225	228	246	243	244
21	118	111	115	182	167	177	227	221	224	243	239	241
22	125	116	121	184	174	180	230	223	225	239	236	237
23	127	123	125	191	178	186	226	222	224	267	231	247
24	126	120	124	191	150	163	229	225	228	261	235	245
25	127	119	123	171	155	165	227	218	222	235	226	228
26	136	126	132	179	168	176	228	220	224	226	223	224
27	186	135	142	188	175	181	227	222	224	255	226	244
28	183	142	147	191	179	185	230	224	226	268	205	239
29	148	139	143	195	185	190	274	218	238	205	198	201
30	148	141	145	187	179	181	263	234	242	202	188	194
31	---	---	---	190	179	184	252	226	239	---	---	---
MONTH	186	85	121	195	137	172	274	174	220	268	188	238
YEAR	274	71	153									

WATER TEMPERATURE (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.2	12.0	12.4	10.1	6.7	8.5	10.6	8.7	9.6	0.6	-0.2	0.2
2	13.9	10.9	12.3	12.5	8.8	10.7	8.8	6.5	7.5	.9	-.1	.3
3	14.8	11.7	13.1	12.9	10.4	11.7	6.5	4.9	5.9	1.1	.0	.5
4	15.9	13.3	14.5	11.0	8.7	9.7	6.4	4.6	5.6	1.0	-.1	.4
5	16.4	14.2	15.2	9.0	7.7	8.4	8.2	6.1	7.2	1.9	.6	1.2
6	15.4	13.2	14.8	8.6	6.6	7.5	9.4	7.3	8.3	2.7	1.0	2.0
7	13.2	10.5	11.8	8.9	6.1	7.2	8.7	5.6	7.3	1.8	.6	1.2
8	10.5	8.8	9.8	7.4	5.0	6.5	5.6	3.5	4.8	1.2	.2	.8
9	10.2	7.4	8.8	8.4	6.0	7.4	3.5	1.6	2.4	2.0	.4	1.2
10	11.6	9.0	10.1	6.9	5.4	6.0	2.7	.8	1.9	3.1	1.4	2.2
11	12.3	9.6	10.8	6.7	4.2	5.6	4.2	2.7	3.4	2.2	1.5	1.8
12	13.2	10.9	12.0	5.3	2.9	3.9	3.9	2.0	3.1	2.5	1.3	1.8
13	12.7	11.6	12.3	4.6	1.8	3.2	4.6	3.8	4.2	1.4	.4	.9
14	13.0	12.0	12.4	6.1	3.0	4.7	5.4	4.4	4.9	1.4	.1	.7
15	14.3	12.4	13.1	7.7	4.6	6.1	5.4	3.0	4.6	1.6	.3	1.1
16	13.2	10.2	12.0	9.6	6.6	8.1	3.0	2.0	2.5	2.0	1.0	1.4
17	12.7	10.7	12.0	7.9	4.5	6.2	2.7	1.6	2.2	2.0	.9	1.3
18	11.2	9.0	10.1	6.1	3.3	4.8	2.8	2.0	2.6	1.5	.1	.8
19	10.6	7.2	8.9	7.4	4.5	6.1	2.6	1.6	2.0	.8	-.1	.3
20	11.5	8.6	9.8	7.9	5.2	6.9	2.8	1.5	2.1	.8	-.1	.3
21	12.1	8.0	10.0	5.2	3.2	4.2	2.3	1.2	1.8	.5	.0	.2
22	13.1	10.7	11.8	5.3	3.0	4.1	1.7	.6	1.1	1.6	.2	.7
23	11.4	9.1	10.4	5.2	3.0	4.1	1.8	.0	1.0	2.1	.1	1.2
24	13.9	10.9	12.1	6.2	4.3	5.3	2.9	1.8	2.3	2.4	1.3	1.9
25	15.0	12.1	13.2	8.8	6.2	7.5	2.0	1.0	1.4	2.4	.9	1.7
26	12.2	9.6	10.9	9.4	7.5	8.6	2.0	.8	1.3	2.6	.7	1.5
27	10.2	7.8	9.1	8.0	6.5	7.4	1.2	.3	.7	2.8	.7	1.6
28	9.4	6.7	8.2	8.8	7.2	8.1	1.2	-.1	.5	2.7	.5	1.6
29	8.5	5.1	6.9	7.9	6.2	6.8	1.6	.5	1.0	3.4	1.3	2.2
30	8.4	5.8	7.0	8.7	6.3	7.3	1.1	.1	.6	2.2	1.5	2.0
31	7.0	4.2	5.8	---	---	---	0.8	-.1	.3	1.5	.0	.7
MONTH	16.4	4.2	11.0	12.9	1.8	6.8	10.6	-0.1	3.4	3.4	-0.2	1.2

MERRIMACK RIVER BASIN

01095220 STILLWATER RIVER NEAR STERLING, MA--Continued
(National Water Quality Assessment Site)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1998 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
NOV													
23...	1200	1.8	758	12.1	7.4	172	10.5	4.4	15	19	32.0	8.7	E0.03
DEC													
10...	1045	3.8	760	11.8	7.4	160	4.6	1.5	12	15	30.7	7.3	<.04
JAN													
15...	1030	8.1	746	10.9	7.4	167	4.2	.7	9	10	32.9	8.7	.05
FEB													
12...	1045	35	747	12.9	6.7	134	-.3	.1	8	10	26.5	8.8	E.04
MAR													
19...	0945	30	767	12.5	6.7	132	10.5	3.5	6	7	26.0	8.6	<.04
APR													
16...	1045	54	752	9.9	6.4	123	24.0	14.7	5	7	25.2	7.7	<.04
MAY													
16...	1100	117	749	10.2	6.2	86	20.9	10.6	4	5	17.2	6.1	<.04
JUL													
26...	1030	3.3	754	9.7	7.0	188	19.9	17.2	16	19	38.1	7.7	<.04
AUG													
20...	1530	.24	753	8.6	6.7	229	23.0	20.3	--	--	--	--	--
SEP													
09...	0945	.37	752	10.2	6.6	243	23.4	16.9	20	24	48.5	11.6	<.04

MERRIMACK RIVER BASIN

01095220 STILLWATER RIVER NEAR STERLING, MA--Continued
(National Water Quality Assessment Site)

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITROGEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	ORTHO- PHOSPHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CHLOR-A PERIPHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
NOV								
23...	0.49	0.30	<0.008	<0.02	0.013	--	83	2.0
DEC								
10...	.64	.26	<.008	<.02	.094	--	64	4.0
JAN								
15...	.27	.35	<.008	<.02	.012	--	71	4.0
FEB								
12...	.24	.33	<.008	<.02	.016	--	75	4.0
MAR								
19...	.19	.14	<.008	<.02	.008	--	70	3.0
APR								
16...	.28	.06	<.008	<.02	.015	--	--	2.2
MAY								
16...	.24	E.04	<.008	<.02	.015	--	--	2.3
JUL								
26...	.35	.14	<.008	<.02	.025	--	--	8.8
AUG								
20...	--	--	--	--	--	56.3	--	--
SEP								
09...	.16	.19	<.008	<.02	.009	--	--	2.7

< Less than
E Estimated value

MERRIMACK RIVER BASIN

01095375 QUINAPOXET RIVER AT CANADA MILLS NEAR HOLDEN, MA

LOCATION.--Lat 42°22'25" (revised), long 71°49'43", Worcester County, Hydrologic Unit 01070004, on left bank, 300 ft upstream from bridge on Harris Street at Canada Mills, 2.1 mi north of Holden, MA, and about 3.5 mi upstream from mouth at Wachusett Reservoir.

DRAINAGE AREA.--44.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1996 to current year.

GAGE.--Water stage recorder. Elevation of gage is 560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Flow regulated by Quinapoxet Reservoir. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--5 years, 49.7 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,670 ft³/s, Mar. 10, 1998, gage height, 13.76 ft; minimum, 0.48 ft³/s, Aug. 10, 1999.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 21, 1996, reached a discharge of 890 ft³/s, gage height, 12.45 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 253 ft³/s, May 14, gage height, 8.86 ft; minimum daily, 1.2 ft³/s, Aug. 19, 22, 27, 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	4.3	6.8	5.9	15	10	54	37	21	23	3.2	2.6
2	3.9	4.5	5.8	5.5	14	9.4	46	40	18	16	4.8	5.1
3	3.5	4.4	4.9	5.5	11	33	39	48	16	14	7.8	6.3
4	3.3	4.1	4.9	4.9	10	29	41	34	14	11	4.5	4.9
5	3.5	3.7	5.0	4.8	9.3	19	34	29	14	9.1	3.4	3.9
6	3.5	4.8	5.5	5.0	8.6	16	29	25	37	7.7	3.0	3.5
7	3.3	5.0	5.3	6.1	7.9	14	26	23	146	7.0	2.5	3.0
8	2.7	4.6	4.7	7.0	7.7	13	25	20	138	6.7	2.1	2.4
9	3.0	4.6	6.2	6.7	7.2	12	24	19	83	7.3	1.8	1.7
10	3.9	4.2	6.0	6.4	6.1	24	25	18	64	8.3	1.6	1.5
11	3.9	3.5	5.8	6.8	22	20	22	16	50	5.7	1.5	1.8
12	3.6	3.2	5.5	7.1	16	16	20	17	48	5.0	1.5	1.6
13	3.4	3.1	6.4	8.1	12	14	19	57	47	4.4	1.8	1.4
14	3.4	3.3	8.9	8.8	9.7	13	18	207	42	3.8	2.1	1.3
15	5.2	3.4	17	7.9	8.8	12	32	150	57	2.9	2.0	1.3
16	3.6	3.5	12	7.4	9.0	17	31	87	64	3.5	2.1	2.0
17	3.5	3.2	10	6.8	9.9	18	27	64	74	4.2	2.0	3.2
18	2.8	3.1	26	6.5	11	15	21	114	59	3.7	1.5	2.7
19	2.6	3.4	22	5.9	9.8	17	21	143	45	4.8	1.2	2.3
20	2.6	3.4	16	6.0	9.6	17	22	91	37	5.1	1.3	1.9
21	3.0	3.5	12	6.2	20	23	18	68	32	4.3	1.3	1.7
22	2.3	3.9	10	6.4	18	24	17	55	27	3.6	1.2	1.4
23	3.5	3.5	8.6	7.7	14	18	21	46	24	4.7	1.3	6.7
24	3.8	3.4	16	9.3	12	16	19	35	26	6.7	1.4	4.9
25	3.2	4.3	16	11	11	17	22	27	16	5.3	1.5	3.1
26	2.8	9.2	12	9.3	11	20	34	23	15	3.8	1.3	3.8
27	2.6	7.3	10	8.5	12	83	28	23	26	3.1	1.2	11
28	2.5	6.0	8.9	8.8	12	57	28	27	98	3.4	1.2	22
29	2.4	5.7	8.1	9.7	---	42	44	30	53	5.3	6.0	9.2
30	2.5	6.4	7.0	16	---	36	44	25	34	4.0	9.7	5.8
31	2.5	---	6.3	15	---	30	---	22	---	3.5	4.2	---
TOTAL	100.6	130.5	299.6	237.0	324.6	704.4	851	1620	1425	200.9	82.0	124.0
MEAN	3.25	4.35	9.66	7.65	11.6	22.7	28.4	52.3	47.5	6.48	2.65	4.13
MAX	5.2	9.2	26	16	22	83	54	207	146	23	9.7	22
MIN	2.3	3.1	4.7	4.8	6.1	9.4	17	16	14	2.9	1.2	1.3
CFSM	0.07	0.10	0.22	0.17	0.26	0.51	0.64	1.18	1.07	0.15	0.06	0.09
IN.	0.08	0.11	0.25	0.20	0.27	0.59	0.71	1.36	1.19	0.17	0.07	0.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

	1997	1998	1999	2000	2001	2002
MEAN	8.83	12.4	53.2	52.9	63.3	137
MAX	14.3	16.3	247	104	119	267
(WY)	1999	1998	1997	1997	1998	1998
MIN	3.25	4.35	8.81	7.65	11.6	22.7
(WY)	2002	2002	1999	2002	2002	2002

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1997 - 2002
ANNUAL TOTAL	18470.3	6099.6	
ANNUAL MEAN	50.6	16.7	49.7
HIGHEST ANNUAL MEAN			84.1
LOWEST ANNUAL MEAN			16.7
HIGHEST DAILY MEAN	780	Apr 10	1270
LOWEST DAILY MEAN	2.0	Sep 10	0.57
ANNUAL SEVEN-DAY MINIMUM	2.4	Sep 6	0.63
MAXIMUM PEAK FLOW		253	1670
MAXIMUM PEAK STAGE		8.86	13.76
INSTANTANEOUS LOW FLOW		0.90	0.48
ANNUAL RUNOFF (CFSM)	1.14	0.38	1.12
ANNUAL RUNOFF (INCHES)	15.48	5.11	15.22
10 PERCENT EXCEEDS	119	39	130
50 PERCENT EXCEEDS	16	8.1	17
90 PERCENT EXCEEDS	3.2	2.5	3.5

MERRIMACK RIVER BASIN

01095375 QUINAPOXET RIVER AT CANADA MILLS NEAR HOLDEN, MA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--April 1997 to current year.

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor.

REMARKS.--Specific conductance and water temperature records good. Extremes for period of daily record and current year are for those values reported.

EXTREMES FOR PERIOD OF DAILY RECORD, APRIL 1997 TO CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 659 $\mu\text{S}/\text{cm}$, Jan. 9, 1999; minimum, 61 $\mu\text{S}/\text{cm}$, June 18, 1998.

WATER TEMPERATURE: Maximum recorded, 29.5°C, Aug. 19, 2002; minimum, -0.8°C, Feb. 19, 2001.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 372 $\mu\text{S}/\text{cm}$, Sept. 5; minimum, 131 $\mu\text{S}/\text{cm}$, May 15.

WATER TEMPERATURE: Maximum recorded, 29.5°C, Aug. 19; minimum, -0.1°C, many days during winter period.

SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$ AT 25°C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN									
1	193	190	191	200	197	198	202	197	199	220	199	208
2	199	186	191	205	198	201	198	196	196	222	201	210
3	197	190	194	206	202	204	199	196	197	229	207	216
4	197	195	196	203	199	200	201	196	199	227	205	216
5	198	196	197	200	198	199	198	195	196	234	218	228
6	198	196	197	199	198	199	197	195	196	243	229	236
7	197	192	194	200	198	199	198	195	196	235	222	231
8	195	189	191	203	198	200	205	197	201	238	219	228
9	196	189	192	201	198	199	208	205	207	242	225	234
10	200	192	195	204	200	202	208	199	205	249	237	243
11	203	196	200	211	200	205	209	206	208	248	241	245
12	216	202	205	213	205	211	210	204	208	250	239	245
13	209	208	209	212	206	210	210	209	209	245	228	237
14	210	208	209	212	204	209	209	205	208	238	216	228
15	214	205	211	211	201	207	211	205	206	242	222	234
16	210	204	208	210	201	203	213	210	212	246	234	240
17	210	201	207	211	200	205	212	207	211	249	233	241
18	201	191	195	211	199	207	213	212	213	243	224	234
19	198	189	192	207	199	202	213	212	213	236	217	225
20	199	192	194	203	198	200	215	213	214	238	216	225
21	200	191	195	208	200	205	215	211	214	226	218	222
22	199	189	195	208	199	205	214	205	209	249	221	232
23	193	186	188	208	199	205	217	195	207	254	220	238
24	206	193	200	207	201	203	221	216	219	258	244	252
25	210	206	208	201	196	198	222	216	219	261	249	255
26	207	202	204	199	197	198	222	214	218	270	246	259
27	206	200	202	198	197	197	218	204	211	277	258	269
28	205	199	201	198	196	197	219	199	210	283	261	274
29	207	198	202	197	196	197	221	208	215	288	280	284
30	207	197	202	197	195	196	220	201	210	291	288	289
31	210	198	203	---	---	---	218	197	207	292	267	284
MONTH	216	186	199	213	195	202	222	195	208	292	199	241

MERRIMACK RIVER BASIN

01095375 QUINAPOXET RIVER AT CANADA MILLS NEAR HOLDEN, MA--Continued

WATER TEMPERATURE (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	13.2	11.7	12.3	10.1	5.7	8.1	11.4	9.3	10.2	0.9	0.0	0.3	
2	14.6	10.1	12.3	12.9	9.2	10.8	9.7	7.2	8.3	1.0	.0	.4	
3	15.8	11.0	13.4	12.7	10.6	11.8	7.2	5.2	6.1	1.4	.2	.6	
4	17.8	13.6	15.5	11.2	8.7	9.7	6.5	4.6	5.4	1.0	.0	.5	
5	18.3	14.7	16.4	9.0	7.5	8.2	8.3	5.8	6.9	1.3	.4	.9	
6	17.1	13.8	15.9	8.8	6.5	7.2	9.2	7.2	8.1	2.0	.8	1.4	
7	13.8	10.6	11.7	7.9	6.0	6.8	8.8	6.2	7.4	1.0	.4	.8	
8	12.0	8.1	9.4	7.6	5.0	6.2	6.2	3.5	5.0	1.1	.2	.6	
9	12.2	6.5	8.6	8.7	6.1	7.2	3.5	2.3	2.6	1.3	.4	.8	
10	13.3	9.2	10.7	6.5	5.1	5.7	2.3	1.0	1.7	2.2	.9	1.5	
11	14.5	10.5	12.2	7.0	3.5	5.1	3.3	1.8	2.3	1.7	1.1	1.4	
12	15.5	12.0	13.5	4.9	2.0	3.1	2.8	1.4	2.1	2.0	1.0	1.4	
13	13.6	12.4	12.8	4.8	1.6	2.5	3.7	2.8	3.1	1.4	.4	.9	
14	13.2	12.4	12.8	5.2	2.1	3.7	4.9	3.6	4.1	1.1	.1	.6	
15	15.2	11.0	13.5	7.6	3.7	5.0	5.2	3.5	4.8	1.4	.3	.9	
16	13.1	10.1	11.8	8.7	5.5	7.2	3.5	1.9	2.6	1.8	.8	1.2	
17	13.3	10.7	12.3	7.2	3.4	5.6	2.1	1.3	1.8	1.9	.7	1.2	
18	13.2	8.1	10.1	7.3	3.0	4.5	2.8	2.1	2.4	1.2	.2	.6	
19	12.2	6.8	8.8	8.2	4.3	5.8	3.2	2.2	2.6	.7	-.1	.2	
20	13.2	8.8	10.1	7.5	5.0	6.5	3.3	2.3	2.7	.7	-.1	.2	
21	13.6	7.7	10.1	5.6	3.2	4.1	2.6	1.5	2.2	.2	-.1	.1	
22	14.2	10.5	11.9	5.6	2.9	3.8	1.7	.9	1.2	1.2	.0	.4	
23	11.0	9.3	10.2	5.6	2.7	3.7	1.9	.3	1.1	1.7	-.1	.7	
24	15.0	11.0	12.7	5.1	3.3	4.4	2.8	1.7	2.2	2.0	.9	1.4	
25	15.8	12.7	13.9	8.0	5.1	6.5	2.3	1.3	1.8	2.1	.9	1.4	
26	12.7	9.0	11.2	9.4	8.0	8.6	2.0	1.1	1.5	2.4	.6	1.4	
27	11.7	8.0	9.1	8.4	7.5	8.0	1.3	.5	.9	2.6	.8	1.6	
28	10.7	5.3	7.8	9.2	7.7	8.3	1.4	.2	.8	2.5	.7	1.6	
29	10.4	4.5	6.5	8.3	6.3	7.0	1.5	.6	1.0	3.6	1.6	2.5	
30	10.2	4.2	6.4	9.3	6.4	7.5	1.2	.2	.6	2.8	2.4	2.6	
31	6.6	3.4	5.0	---	---	---	1.0	.0	.4	2.4	.5	1.6	
MONTH	18.3	3.4	11.3	12.9	1.6	6.4	11.4	0.0	3.4	3.6	-0.1	1.0	

DAY	MAX	FEBRUARY			MARCH			APRIL			MAY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	1.2	0.5	0.9	4.8	0.8	2.5	9.9	7.7	8.9	11.8	7.4	9.4	
2	1.7	.2	.8	4.0	1.1	2.5	9.7	6.3	8.1	10.0	8.5	8.8	
3	1.7	.1	.8	5.7	2.6	4.1	11.8	8.1	9.4	11.6	8.3	9.6	
4	1.9	.2	1.0	5.2	2.4	3.9	9.7	6.9	8.2	14.0	8.1	10.9	
5	1.0	-.1	.4	3.5	1.0	2.1	8.5	5.8	7.3	15.9	10.0	12.8	
6	1.6	.0	.7	3.5	1.2	2.2	8.9	5.5	6.9	17.7	11.3	14.4	
7	1.6	.0	.8	6.1	1.6	3.6	8.8	4.3	6.4	18.2	13.7	15.9	
8	2.3	.1	1.1	6.2	3.6	4.7	9.0	6.2	7.4	18.5	14.7	16.4	
9	2.4	.4	1.3	8.7	4.5	6.5	13.2	7.8	10.2	15.9	13.7	14.4	
10	1.4	-.1	.5	8.9	4.8	7.6	15.1	10.8	12.6	18.6	13.1	15.5	
11	1.8	-.1	1.0	5.8	2.9	4.2	13.7	9.4	11.4	17.5	12.8	15.1	
12	1.4	-.1	.6	4.6	3.0	3.7	13.7	8.4	11.2	14.8	11.9	13.2	
13	2.3	.2	1.0	4.5	2.5	3.6	16.3	12.2	14.0	11.9	9.5	10.9	
14	1.6	-.1	.6	8.4	3.8	5.8	18.2	13.6	15.7	13.5	9.0	11.3	
15	2.5	.3	1.4	6.1	4.7	5.3	16.1	13.2	14.5	12.1	10.6	11.4	
16	3.8	1.6	2.5	5.9	4.4	5.3	19.1	13.0	15.8	14.9	10.3	12.5	
17	2.5	1.5	2.0	6.3	2.9	4.5	21.6	15.9	18.6	15.5	13.2	14.2	
18	3.4	1.2	2.2	4.7	2.6	3.5	22.3	17.1	19.5	14.4	9.8	11.6	
19	3.6	.6	2.1	3.5	2.7	3.1	19.4	16.1	17.8	13.6	9.9	11.6	
20	4.0	1.8	2.9	3.4	1.0	2.6	17.8	14.4	16.2	12.9	10.1	11.5	
21	4.9	3.3	4.0	5.5	1.3	3.1	15.0	12.0	13.5	13.2	9.5	11.4	
22	4.3	2.7	3.5	4.2	1.4	2.8	12.7	9.4	10.6	15.2	10.2	12.7	
23	5.0	1.8	3.0	4.0	.6	2.2	9.6	8.5	9.1	16.7	11.4	14.1	
24	4.9	1.2	2.7	6.1	1.8	3.7	11.5	7.2	9.2	18.1	13.3	15.7	
25	5.2	1.6	3.2	6.8	3.3	4.8	10.8	8.1	9.4	17.6	14.0	15.9	
26	7.0	2.7	4.7	4.8	3.6	4.2	10.2	6.9	8.6	15.8	13.9	15.0	
27	5.7	3.1	4.8	5.3	3.0	4.0	12.6	7.0	9.5	17.8	14.1	15.8	
28	4.4	1.5	2.7	7.4	3.3	5.3	10.3	7.9	8.8	18.4	15.9	16.8	
29	---	---	---	8.5	4.2	6.3	8.3	7.1	7.6	18.4	15.7	17.0	
30	---	---	---	10.2	6.7	8.1	10.1	6.8	8.3	20.5	16.6	18.4	
31	---	---	---	11.0	7.3	9.1	---	---	---	21.6	17.9	19.5	
MONTH	7.0	-0.1	1.9	11.0	0.6	4.4	22.3	4.3	11.2	21.6	7.4	13.7	

MERRIMACK RIVER BASIN

01097000 ASSABET RIVER AT MAYNARD, MA

LOCATION.--Lat 42°25'55", long 71°27'01", Middlesex County, Hydrologic Unit 01070005, on right bank at Maynard, 150 ft upstream from bridge on State Highway 27, 1.7 mi downstream from Assabet Brook, and 7.1 mi upstream from confluence with Sudbury River.

DRAINAGE AREA.--116 mi².

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

Water-quality records: Water years 1954, 1967-74.

REVISED RECORDS.--WSP 1231: 1945-46.

GAGE.--Water-stage recorder. Datum of gage is 142.12 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Occasional diurnal fluctuation at low flow by mills upstream; greater regulation prior to 1969. Since 1962, high flow affected by retarding reservoirs and, since 1970, occasional release at low flow by these reservoirs.

AVERAGE DISCHARGE.--61 years, 188 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,250 ft³/s, Aug. 20, 1955, gage height, 8.94 ft; maximum gage height, 8.96 ft, Aug. 20, 1955 (backwater from debris); minimum daily, 0.20 ft³/s, Feb. 7, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1886, that of Aug. 20, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 602 ft³/s, May 15, gage height, 3.94 ft; minimum daily, 12 ft³/s, Aug. 23-28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	45	37	32	107	66	280	246	143	84	23	26
2	20	47	32	29	106	58	337	220	156	68	30	27
3	19	46	29	29	88	127	320	241	135	55	28	35
4	18	40	28	28	70	206	288	248	105	45	22	29
5	18	39	28	27	59	184	269	216	90	37	24	23
6	19	41	28	27	48	125	247	185	125	33	20	21
7	18	40	26	42	42	96	218	153	267	31	20	19
8	17	37	24	48	40	84	195	131	361	29	21	17
9	17	38	32	43	40	78	192	115	348	33	23	19
10	18	35	32	41	37	102	171	112	260	58	20	20
11	20	34	32	47	81	119	150	102	180	55	18	17
12	20	33	33	52	104	101	137	92	146	41	21	15
13	20	33	37	75	79	82	126	160	134	29	20	16
14	21	33	48	85	59	76	114	419	124	27	20	17
15	26	33	85	77	49	69	136	574	128	29	18	16
16	26	33	77	63	47	98	169	515	154	52	18	19
17	37	31	61	55	51	134	161	385	188	38	17	27
18	34	32	114	49	59	138	135	350	198	28	16	21
19	36	32	160	43	60	125	117	443	167	32	16	21
20	41	32	126	42	53	115	113	474	126	36	14	18
21	49	32	84	40	77	151	109	404	101	32	13	16
22	45	31	62	40	105	185	107	317	86	26	13	15
23	44	34	50	41	89	172	117	255	83	24	12	33
24	46	34	83	54	70	140	120	212	82	27	12	36
25	54	30	114	70	60	141	125	178	72	31	12	28
26	42	35	89	74	55	131	174	153	65	29	12	26
27	38	34	67	68	59	252	191	145	59	27	12	31
28	43	31	52	64	69	346	173	199	128	25	12	52
29	43	33	44	63	---	345	213	219	181	29	15	55
30	42	35	40	81	---	280	256	187	139	26	34	45
31	40	---	35	103	---	228	---	160	---	24	35	---
TOTAL	951	1063	1789	1632	1863	4554	5460	7810	4531	1140	591	760
MEAN	30.7	35.4	57.7	52.6	66.5	147	182	252	151	36.8	19.1	25.3
MAX	54	47	160	103	107	346	337	574	361	84	35	55
MIN	17	30	24	27	37	58	107	92	59	24	12	15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2002, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
1941	90.5	375	19.92	1956	216	670	37.6	1979	245	776	66.5	1983
1942	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1943	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1944	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1945	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1946	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1947	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1948	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1949	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1950	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1951	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1952	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1953	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1954	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1955	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1956	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1957	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1958	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1959	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1960	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1961	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1962	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1963	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1964	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1965	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1966	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1967	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1968	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1969	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1970	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1971	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1972	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1973	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1974	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1975	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1976	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1977	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1978	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1979	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1980	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1981	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1982	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1983	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1984	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1985	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1986	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1987	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1988	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1989	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1990	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1991	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1992	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1993	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1994	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1995	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1996	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1997	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1998	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
1999	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
2000	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
2001	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983
2002	147	542	22.1	1956	191	547	35.6	1979	404	776	143	1983

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1941 - 2002	
ANNUAL TOTAL	62997.1		32144			
ANNUAL MEAN	173		88.1			

MERRIMACK RIVER BASIN

01098530 SUDBURY RIVER AT SAXONVILLE, MA

LOCATION.--Lat 42°19'31", long 71°23'53", Middlesex County, Hydrologic Unit 01070005, on left bank at downstream side of new Danforth Street Bridge, at Saxonville, 600 ft east of Elm Street, 700 ft downstream from confluence with Lake Cochituate Outlet, and 0.7 mi downstream from Saxonville Dam.

DRAINAGE AREA.--106 mi².

PERIOD OF RECORD.--November 1979 to current year.

Water-quality records: Water years 1994-95.

GAGE.--Water-stage recorder. Datum of gage is 110.55 ft above National Geodetic Vertical Datum of 1929 (Massachusetts Department of Public Works benchmark).

REMARKS.--Records good. Flow regulated by reservoirs upstream and affected by diversions and spill. Flow diverted as needed for use of Boston metropolitan district. Part of flow from Wachusett Reservoir on Nashua River is diverted into Sudbury Reservoir en route to Boston metropolitan district.

AVERAGE DISCHARGE.--22 years (water years 1981-2002), 191 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft³/s, June 7, 1982, gage height, 13.30 ft; maximum gage height, 13.47 ft, Apr. 8, 1987; minimum daily, 4.0 ft³/s, Sept. 12, 13, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 474 ft³/s, May 18, gage height, 7.81 ft; minimum daily, 4.8 ft³/s, Oct. 9-12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	20	15	17	114	41	302	192	232	45	14	9.4
2	6.6	16	15	16	104	39	275	209	203	38	29	14
3	6.2	11	16	15	91	102	269	244	182	34	25	29
4	6.1	8.0	15	14	88	97	279	215	166	30	16	123
5	5.9	11	16	13	84	102	233	203	157	25	15	130
6	6.1	19	16	13	80	96	212	178	276	20	15	129
7	6.1	16	16	49	78	90	194	156	387	18	47	130
8	5.2	15	15	88	77	84	181	143	376	18	61	133
9	4.8	14	21	96	74	82	173	136	335	20	61	135
10	4.8	14	21	119	72	115	168	138	285	46	61	155
11	4.8	16	18	124	132	88	155	77	239	27	60	174
12	4.8	19	17	124	103	92	149	74	218	21	59	177
13	4.9	18	18	164	103	112	144	184	211	20	27	202
14	5.2	17	22	150	102	110	141	416	195	18	12	212
15	6.3	14	37	153	103	101	141	426	227	28	8.7	218
16	7.0	12	24	145	94	114	141	374	227	45	8.2	227
17	15	10	23	142	94	102	137	316	245	23	7.8	212
18	7.2	11	72	123	99	101	129	390	258	23	7.4	147
19	6.0	16	50	51	92	107	107	414	227	34	7.2	26
20	5.9	17	35	42	90	116	72	371	195	24	11	12
21	6.3	15	29	39	113	163	58	331	180	21	8.8	9.9
22	7.6	14	25	41	105	162	54	291	168	20	7.9	8.9
23	8.1	12	22	41	98	141	65	258	161	25	9.7	58
24	10	12	61	66	92	133	57	214	148	38	8.4	34
25	12	12	47	76	89	126	59	209	121	26	9.2	22
26	16	20	35	74	79	142	138	185	63	21	8.2	15
27	15	22	31	72	55	265	157	207	77	18	7.5	30
28	13	19	26	73	53	229	167	238	101	19	7.2	32
29	12	15	23	75	---	214	197	221	65	24	28	19
30	13	14	21	89	---	209	201	213	54	21	35	14
31	14	---	19	89	---	193	---	210	---	17	12	---
TOTAL	253.2	449.0	821	2393	2558	3868	4755	7433	5979	807	694.2	2837.2
MEAN	8.17	15.0	26.5	77.2	91.4	125	158	240	199	26.0	22.4	94.6
MAX	16	22	72	164	132	265	302	426	387	46	61	227
MIN	4.8	8.0	15	13	53	39	54	74	54	17	7.2	8.9
CFSM	0.08	0.14	0.25	0.73	0.86	1.18	1.50	2.26	1.88	0.25	0.21	0.89
IN.	0.09	0.16	0.29	0.84	0.90	1.36	1.67	2.61	2.10	0.28	0.24	1.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	106	160	232	220	254	346	367	214	176	71.9	74.4	61.9											
MAX	376	385	572	471	480	757	920	415	739	156	192	147											
(WY)	1997	1990	1997	1982	1990	1983	1987	1998	1982	1998	1989	1989											
MIN	8.17	15.0	26.5	59.5	67.6	121	98.7	75.2	31.3	10.9	10.7	8.78											
(WY)	2002	2002	2002	1981	1980	1985	1985	1986	1993	1993	1999	2001											

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1980 - 2002	
ANNUAL TOTAL	57543.4		32847.6			
ANNUAL MEAN	158		90.0		191	
HIGHEST ANNUAL MEAN					253	
LOWEST ANNUAL MEAN					90.0	
HIGHEST DAILY MEAN	1830		426		2250	
LOWEST DAILY MEAN	4.0		4.8		4.0	
ANNUAL SEVEN-DAY MINIMUM	4.3		4.9		4.3	
MAXIMUM PEAK FLOW			474		2420	
MAXIMUM PEAK STAGE			7.81		13.47	
INSTANTANEOUS LOW FLOW			7.1			
ANNUAL RUNOFF (CFSM)	1.49		0.85		1.81	
ANNUAL RUNOFF (INCHES)	20.19		11.53		24.53	
10 PERCENT EXCEEDS	360		214		425	
50 PERCENT EXCEEDS	64		59		131	
90 PERCENT EXCEEDS	6.3		9.3		24	

MERRIMACK RIVER BASIN

01099500 CONCORD RIVER BELOW RIVER MEADOW BROOK AT LOWELL, MA

LOCATION.--Lat 42°38'12", long 71°18'09", Middlesex County, Hydrologic Unit 01070005, on right bank 300 ft downstream from Rogers Street Bridge at Lowell, 0.3 mi downstream from River Meadow Brook, and 0.8 mi upstream from mouth.

DRAINAGE AREA.--Total above gage, 400 mi²; net above gage, 307 mi² — diversion as needed from 92.6 mi² for use by Boston metropolitan district.

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

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

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 67.41 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Low flow regulated by mills upstream. Daily discharge includes undiverted water from 92.6 mi² in basins of Sudbury River and Lake Cochituate. Prior to December 1961, diversion upstream for use of city of Lowell. Satellite and telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--66 years, 645 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,410 ft³/s, Jan. 28, 1979, gage height, 9.60 ft; maximum gage height of 9.60 ft also occurred Apr. 10, 1987; minimum daily, 4.0 ft³/s, Sept. 29, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,380 ft³/s, May 18, 19; gage height, 6.33 ft; minimum daily, 27 ft³/s, Aug. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	92	100	154	361	319	933	698	783	361	76	58
2	41	100	94	139	389	304	974	724	726	299	68	66
3	68	115	93	140	386	381	1030	759	693	252	67	71
4	65	76	89	132	363	459	1040	758	655	216	64	85
5	61	88	88	122	334	507	1010	760	610	191	64	105
6	59	85	90	119	310	497	958	741	628	152	51	119
7	53	93	87	135	287	470	915	700	738	131	48	128
8	49	93	83	170	273	441	875	639	834	104	51	130
9	49	90	97	197	249	403	837	597	908	90	60	150
10	47	88	107	216	252	429	779	568	922	126	68	137
11	46	78	117	246	306	413	724	524	897	134	71	138
12	45	83	100	273	343	414	681	474	836	133	71	145
13	44	86	101	318	360	393	640	573	792	125	71	170
14	46	85	133	368	346	375	597	929	740	86	64	171
15	58	82	168	380	326	360	590	1050	707	90	54	187
16	60	81	183	383	305	373	575	1160	704	89	45	211
17	88	75	207	371	301	403	570	1200	726	112	38	219
18	82	78	249	352	303	424	542	1300	718	108	35	228
19	78	80	303	332	315	444	517	1360	707	153	33	213
20	75	77	321	293	311	455	485	1350	682	140	32	173
21	77	77	316	258	351	497	458	1340	634	92	30	101
22	73	81	293	218	402	541	424	1300	583	107	32	83
23	74	82	247	220	413	573	403	1230	538	101	34	147
24	77	79	269	227	396	565	404	1130	497	104	33	113
25	86	85	288	260	379	547	407	1030	457	102	34	116
26	86	86	296	285	356	543	479	943	404	97	30	107
27	84	92	287	291	344	652	511	870	379	95	29	131
28	78	95	252	292	340	720	550	825	455	92	27	119
29	84	92	229	293	---	790	612	824	388	89	33	141
30	80	96	208	301	---	826	669	859	388	101	38	139
31	84	---	189	324	---	808	---	829	---	95	35	---
TOTAL	2093	2590	5684	7809	9401	15326	20189	28044	19729	4167	1486	4101
MEAN	67.5	86.3	183	252	336	494	673	905	658	134	47.9	137
MAX	96	115	321	383	413	826	1040	1360	922	361	76	228
MIN	41	75	83	119	249	304	403	474	379	86	27	58

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2002, BY WATER YEAR (WY)

MEAN	322	517	698	726	857	1261	1306	814	529	265	229	229
MAX	1320	1866	1853	1996	1856	2510	3149	1599	2502	1512	1403	1694
(WY)	1997	1956	1997	1979	1970	1983	1987	1954	1982	1938	1955	1954
MIN	38.3	86.3	133	150	230	479	377	283	116	50.0	33.1	25.4
(WY)	1942	2002	1966	1981	1980	1989	1966	1941	1964	1949	1966	1957

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1937 - 2002
ANNUAL TOTAL	208802	120619	
ANNUAL MEAN	572	330	645
HIGHEST ANNUAL MEAN			1112
LOWEST ANNUAL MEAN			242
HIGHEST DAILY MEAN	4100	Mar 26	5340
LOWEST DAILY MEAN	35	Sep 13	27
ANNUAL SEVEN-DAY MINIMUM	39	Sep 11	31
MAXIMUM PEAK FLOW			1380
MAXIMUM PEAK STAGE			6.33
INSTANTANEOUS LOW FLOW			25
10 PERCENT EXCEEDS	1190	786	1390
50 PERCENT EXCEEDS	315	229	478
90 PERCENT EXCEEDS	74	64	98

MERRIMACK RIVER BASIN

01100000 MERRIMACK RIVER BELOW CONCORD RIVER AT LOWELL, MA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1966-74, 1999-2002.

REMARKS.--Selected samples were analyzed for pesticide compounds on schedule 2001 (listed with non-detection values or minimum reporting levels in the section "Explanation of the Records."); only pesticide compounds identified by the analyses (either as estimated values or as values at or above the non-detection level or minimum reporting level) for one or more samples are listed in the water-quality data tables.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LILITY WAT DIS TOT IT MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
NOV											
23...	1000	1,480	767	12.3	7.2	219	13.0	6.3	15	19	41.2
DEC											
10...	0930	1,580	759	12.2	7.3	193	6.4	4.8	15	18	39.4
JAN											
14...	1030	2,480	760	12.4	7.4	306	4.1	.8	17	21	64.4
FEB											
11...	1000	3,410	748	12.8	7.5	322	.3	1.9	15	19	69.7
APR											
15...	1015	11,300	757	10.8	6.6	126	9.6	14.8	7	8	24.9
MAY											
15...	0930	24,500	750	10.4	7.0	143	8.3	11.8	17	21	29.7
JUN											
05...	0930	5,670	757	8.8	7.2	165	18.3	20.2	13	16	35.9
JUL											
25...	0900	1,630	765	7.3	6.9	230	20.3	24.4	15	19	45.1
AUG											
12...	0930	1,290	758	7.4	7.1	131	26.4	25.9	15	19	50.9
SEP											
09...	1115	1,110	759	10.4	7.6	302	28.0	23.4	18	22	64.9

MERRIMACK RIVER BASIN

01100000 MERRIMACK RIVER BELOW CONCORD RIVER AT LOWELL, MA--Continued

Date	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)
NOV									
23...	0.83	0.83	0.70	0.018	0.10	0.151	E0.003	<0.041	<0.006
DEC									
10...	.23	.23	.55	.010	.04	.010	--	--	--
JAN									
14...	1.1	1.1	.74	.020	.07	.21	--	--	--
FEB									
11...	.89	.89	.60	.030	.05	.102	E.003	<.041	<.006
APR									
15...	.41	.41	.18	E.007	E.01	.060	<.007	<.041	<.006
MAY									
15...	.57	.57	.17	.008	E.01	.109	.007	E.004	<.006
JUN									
05...	.56	.56	.26	.012	.02	.073	E.007	E.006	E.005
JUL									
25...	.44	.44	.65	E.006	.04	.085	<.007	E.008	<.006
AUG									
12...	.48	.48	.83	.014	.08	.125	E.006	E.007	E.004
SEP									
09...	.59	.59	.86	.034	.06	.131	E.005	E.007	<.006

Date	DI- AZINON, DIS- SOLVED (UG/L) (39572)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
NOV							
23...	<0.005	<0.013	<0.01	<0.004	<0.011	87	2.0
DEC							
10...	--	--	--	--	--	82	3.0
JAN							
14...	--	--	--	--	--	74	21
FEB							
11...	<.005	<.013	<.01	<.004	<.005	26	7.0
APR							
15...	<.005	<.013	<.01	<.004	<.005	--	7.1
MAY							
15...	E.004	E.004	<.01	.005	<.005	--	40
JUN							
05...	.005	E.006	<.01	<.004	<.005	--	5.3
JUL							
25...	.007	E.004	<.01	<.004	.014	--	3.4
AUG							
12...	.011	E.004	E.01	<.004	<.005	--	2.8
SEP							
09...	<.005	<.013	E.01	<.004	E.004	--	3.1

< Less than
E Estimated value

MERRIMACK RIVER BASIN

01100568 SHAW SHEEN RIVER AT HANSCOM FIELD NEAR BEDFORD, MA

LOCATION.--Lat 42°28'01", long 71°16'22", Middlesex County, Hydrologic Unit 01070002, on left bank 300 ft downstream from FAA hangar, on Hanscom Field (revised), and 1.6 mi south of Bedford.

DRAINAGE AREA.--2.09 mi².

PERIOD OF RECORD.--Discharge: October 1995 to current year.

Precipitation: March 1996 to current year.

Water quality: September 1995 to September 2001.

GAGE.--Water-stage recorder and tipping bucket rain gage. Elevation of gage is 115 ft above National Geodetic Vertical Datum of 1929, from topographic map. Telephone gage-height and rainfall telemeter at station.

REMARKS.--Records poor (discharge affected by backwater from beaver dam all year). Collection, computation, and publication of precipitation data do not necessarily conform to standards used by the National Weather Service.

AVERAGE DISCHARGE.--7 years, 4.53 ft³/s, 29.44 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 684 ft³/s, June 13, 1998, gage height, 8.69 ft, from rating curve extended above 170 ft³/s; minimum, 0.10 ft³/s, many days in water years 2001 and 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 305 ft³/s, May 29, gage height, 6.73 ft (affected by backwater from beaver dam); minimum, 0.10 ft³/s, June 20, 21, July 4, 5, 10-15, 23, 25-28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	3.3	3.4	3.7	5.0	1.8	14	1.6	1.7	0.32	0.25	1.5
2	4.5	2.8	3.4	3.6	3.3	1.6	2.8	2.9	1.7	.24	.52	2.2
3	4.5	3.2	3.3	3.6	3.1	5.4	4.0	2.0	1.6	.16	.32	2.7
4	4.3	3.3	3.0	3.4	3.2	2.0	2.9	1.6	1.5	.13	.33	1.5
5	4.0	4.0	3.1	3.5	2.8	1.8	2.6	1.7	1.5	e.10	.31	1.2
6	4.2	3.5	3.2	3.9	2.9	1.6	2.6	1.5	5.4	e.10	.30	1.4
7	4.0	2.8	3.0	6.0	3.0	1.5	2.5	1.4	6.2	e.10	.31	1.3
8	4.0	2.8	2.7	3.4	3.1	1.6	2.4	1.1	1.7	e.10	.39	1.1
9	3.6	3.0	3.4	3.3	2.5	1.6	2.5	0.99	1.7	e4.2	.34	1.0
10	3.3	3.1	3.1	3.4	2.7	4.1	2.6	1.8	1.6	e1.1	.31	1.1
11	3.0	3.1	3.2	4.0	6.0	1.4	2.2	1.1	1.3	e.11	.31	.41
12	2.8	3.1	3.2	3.7	2.6	1.4	2.2	2.1	1.9	e.11	.29	.37
13	3.1	3.0	3.8	6.1	2.7	1.5	2.1	17	1.4	.13	.24	.40
14	3.5	3.0	4.9	3.8	2.8	1.7	1.8	4.6	1.4	.11	.20	.46
15	3.8	3.1	4.1	3.9	2.7	1.6	2.5	1.8	3.5	.48	.24	.54
16	5.9	3.2	3.0	3.7	2.7	4.7	1.6	1.6	2.9	.17	.30	3.5
17	6.5	3.2	4.2	3.8	3.0	1.5	1.6	1.5	1.3	.22	.38	.74
18	3.1	3.0	6.4	3.8	2.7	1.7	1.7	11	.91	.21	.40	.76
19	2.7	3.0	3.5	3.7	2.5	2.0	1.6	1.6	.29	3.5	.37	.78
20	2.8	3.1	3.6	3.9	2.5	2.9	1.5	1.4	.12	.24	.74	.82
21	2.8	3.0	3.8	4.0	3.4	4.4	1.4	1.2	.38	.23	.40	.85
22	2.9	2.8	3.7	3.8	2.4	2.4	1.6	1.0	.44	.18	.56	.90
23	3.0	2.9	3.6	4.0	2.2	2.2	1.5	.95	.67	4.9	.91	12
24	3.0	3.0	9.1	3.9	2.0	2.3	1.3	.81	.42	.43	1.4	1.00
25	3.1	3.0	3.6	4.0	2.0	2.3	4.1	.69	.39	.14	.98	.65
26	3.0	3.7	3.6	3.9	2.0	5.0	2.4	.72	.38	e.12	.74	.71
27	2.4	3.1	3.7	3.9	3.4	5.8	1.3	.87	5.8	e.20	.88	1.9
28	2.3	3.2	3.7	3.9	2.1	2.4	2.6	.91	3.3	.19	.97	2.3
29	2.6	3.5	3.8	4.0	---	2.4	2.1	25	.42	.27	6.1	.77
30	2.4	3.3	3.8	4.5	---	2.6	1.7	2.1	.35	.21	1.9	.66
31	2.4	---	3.7	3.6	---	2.6	---	1.8	---	.22	1.4	---
TOTAL	107.9	94.1	117.6	121.7	81.3	77.8	77.7	96.34	52.17	18.92	23.09	45.52
MEAN	3.48	3.14	3.79	3.93	2.90	2.51	2.59	3.11	1.74	0.61	0.74	1.52
MAX	6.5	4.0	9.1	6.1	6.0	5.8	14	25	6.2	4.9	6.1	12
MIN	2.3	2.8	2.7	3.3	2.0	1.4	1.3	0.69	0.12	0.10	0.20	0.37
CFSM	1.67	1.50	1.82	1.88	1.39	1.20	1.24	1.49	0.83	0.29	0.36	0.73
IN.	1.92	1.67	2.09	2.17	1.45	1.38	1.38	1.71	0.93	0.34	0.41	0.81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2002, BY WATER YEAR (WY)

MEAN	5.62	3.93	3.82	4.88	4.59	6.30	5.74	4.66	6.20	3.03	2.10	3.54
MAX	19.6	4.88	8.14	7.57	7.65	15.8	8.94	8.65	21.9	6.62	4.43	7.83
(WY)	1997	1997	1997	1999	1998	2001	2001	1998	1998	1996	2001	1999
MIN	0.94	2.29	2.19	2.12	2.59	2.51	2.59	1.96	1.08	0.73	0.74	1.45
(WY)	2001	2001	1996	2001	2000	2002	2002	1999	1999	2002	2002	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1995 - 2002
ANNUAL TOTAL	2094.72	917.85	
ANNUAL MEAN	5.74	2.51	4.53
HIGHEST ANNUAL MEAN			6.25 1998
LOWEST ANNUAL MEAN			2.51 2002
HIGHEST DAILY MEAN	198 Mar 22	25 May 29	209 Oct 21 1996
LOWEST DAILY MEAN	0.18 Jan 29	0.05 Jul 8	0.05 Jul 8 2002
ANNUAL SEVEN-DAY MINIMUM	0.46 Jan 23	0.13 Jul 2	0.13 Jul 2 2002
MAXIMUM PEAK FLOW		305 May 29	684 Jun 13 1998
MAXIMUM PEAK STAGE		6.73 May 29	8.69 Jun 13 1998
INSTANTANEOUS LOW FLOW			0.10 Oct 2 2000
ANNUAL RUNOFF (CFSM)	2.75	1.20	2.17
ANNUAL RUNOFF (INCHES)	37.28	16.34	29.44
10 PERCENT EXCEEDS	9.6	4.0	7.6
50 PERCENT EXCEEDS	3.6	2.4	2.8
90 PERCENT EXCEEDS	1.7	0.32	0.94

e Estimated

MERRIMACK RIVER BASIN

01100568 SHAWSHEEN RIVER AT HANSCOM FIELD NEAR BEDFORD, MA--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.08	0.00	0.00	0.46	0.00	0.69	0.00	0.00	0.00	0.00	0.00
2	.00	.00	.00	.00	.01	.00	.00	.34	.02	.00	.10	.31
3	.00	.03	.00	.00	.00	.44	.11	.02	.00	.00	.00	.18
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
5	.00	.11	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
6	.03	.00	.00	.18	.00	.00	.00	.00	.73	.00	.00	.00
7	.00	.00	.00	.14	.00	.00	.00	.00	.53	.00	.00	.00
8	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.01	.49	.00	.00	.00	.00	.03	.01	.44	.00	.00
10	.00	.00	.00	.00	.08	.27	.01	.11	.00	.02	.00	.00
11	.00	.00	.00	.08	.22	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.01	.00	.00	.28	.11	.00	.00	.00
13	.00	.00	.01	.50	.00	.00	.00	1.42	.00	.00	.00	.00
14	.01	.00	.35	.00	.00	.00	.00	.20	.02	.00	.00	.00
15	.09	.00	.05	.14	.00	.00	.16	.00	.39	.10	.00	.08
16	.57	.00	.00	.00	.00	.41	.00	.00	.21	.00	.02	.51
17	.03	.00	.30	.00	.02	.00	.00	.00	.07	.00	.00	.00
18	.00	.00	.39	.00	.00	.11	.00	.75	.00	.00	.00	.00
19	.00	.00	.00	.04	.00	.03	.00	.00	.00	.63	.00	.00
20	.00	.02	.00	.04	.00	.38	.01	.00	.00	.00	.18	.00
21	.00	.00	.00	.11	.15	.07	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.07	.00	.02	.00	.13	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.03	.60	.05	1.20
24	.00	.00	.45	.02	.00	.00	.00	.00	.00	.07	.19	.00
25	.00	.03	.00	.00	.00	.00	.46	.00	.00	.00	.01	.00
26	.00	.08	.00	.00	.01	.41	.01	.00	.00	.00	.00	.08
27	.00	.01	.00	.00	.36	.27	.00	.04	.66	.08	.00	.39
28	.00	.00	.00	.00	.00	.00	.23	.05	.30	.06	.00	.27
29	.00	.02	.00	.00	---	.00	.09	2.67	.00	.01	.97	.00
30	.00	.04	.00	.12	---	.02	.01	.00	.00	.00	.07	.00
31	.05	---	.00	.26	---	.05	---	.06	---	.00	.00	---
TOTAL	0.78	0.43	2.05	1.63	1.32	2.46	1.85	5.97	3.11	2.01	1.72	3.03
MAX	0.57	0.11	0.49	0.50	0.46	0.44	0.69	2.67	0.73	0.63	0.97	1.20
WTR YR 2002	TOTAL 26.36		MAX 2.67									

SAUGUS RIVER BASIN

01102345 SAUGUS RIVER AT SAUGUS IRONWORKS AT SAUGUS, MA

LOCATION.--Lat 42°28'05", long 71°00'27", Essex County, Hydrologic Unit 01090001, on left bank 20 ft upstream from Bridge Street opposite Saugus Ironworks National Historic Site, at Saugus.

DRAINAGE AREA.--23.3 mi².

PERIOD OF RECORD.--Discharge: March 1994 to current year.

Water-quality records: Water Years 1999-2001.

GAGE.--Water stage recorder. Elevation of gage is 15 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. There is evidence of seasonal regulation by ponds upstream.

Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--9 years, 29.1 ft³/s, 16.97 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 942 ft³/s, Oct. 21, 1996, gage height, 6.58 ft; minimum, about 0.60 ft³/s, Sept. 5, 6, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 131 ft³/s, May 14, gage height, 3.60 ft; minimum, 1.0 ft³/s, Aug. 19, 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	3.4	2.9	6.8	19	14	84	23	46	8.5	2.8	3.3
2	4.3	3.3	2.6	7.9	23	12	69	26	40	7.4	2.8	4.1
3	3.8	2.8	2.4	4.9	15	27	49	36	37	6.7	3.0	10
4	3.4	2.5	2.2	4.7	14	23	46	26	33	6.3	2.8	6.0
5	3.0	2.8	2.2	4.5	13	16	38	22	27	5.6	2.5	4.0
6	2.8	3.6	3.9	4.5	e11	14	34	20	36	5.0	2.3	3.2
7	2.6	3.6	3.8	16	9.5	13	31	18	58	4.9	2.1	2.8
8	2.3	3.0	3.2	9.8	9.5	13	25	16	48	4.7	2.0	2.5
9	2.0	2.7	4.8	7.1	9.5	12	22	15	36	6.9	1.9	2.4
10	1.9	2.6	4.7	6.8	8.9	16	21	19	33	18	1.9	2.3
11	1.9	2.4	4.6	7.8	28	13	18	14	30	7.9	1.8	2.0
12	1.9	2.4	4.9	8.4	19	11	16	14	28	6.0	1.7	1.8
13	1.8	2.3	6.2	18	14	11	16	48	26	5.2	1.7	1.7
14	1.8	2.3	9.2	20	12	11	15	120	23	4.5	1.5	1.6
15	2.2	2.4	15	15	11	10	15	93	35	4.0	1.4	1.7
16	3.8	2.4	8.8	13	11	22	15	90	37	3.6	1.3	10
17	15	2.4	7.7	11	12	19	14	80	36	3.4	1.3	8.9
18	7.4	2.3	27	9.8	14	16	15	100	31	3.3	1.2	4.2
19	4.1	2.3	19	8.5	11	19	15	97	27	6.2	1.1	3.0
20	3.2	2.4	11	8.2	10	21	15	76	24	5.0	1.9	2.5
21	2.9	2.3	8.4	8.6	16	39	14	67	20	4.2	1.8	2.3
22	2.6	2.2	6.6	9.8	15	35	14	63	17	3.7	1.6	2.1
23	2.4	2.1	5.6	9.9	13	25	15	41	17	5.3	4.4	30
24	2.4	2.0	18	14	11	22	13	28	16	9.8	3.0	15
25	2.5	2.1	17	15	10	19	16	25	13	6.0	5.1	5.9
26	2.4	3.5	9.9	13	10	23	40	23	11	4.2	2.9	4.5
27	2.3	3.3	8.6	11	16	55	23	21	11	4.0	2.2	7.1
28	2.1	2.9	7.4	11	19	47	26	22	22	3.9	1.8	11
29	2.0	2.9	6.4	10	---	38	34	37	16	3.7	5.9	6.5
30	2.0	3.1	5.7	14	---	36	28	85	11	3.4	11	4.6
31	2.2	---	7.4	13	---	33	---	56	---	3.1	5.1	---
TOTAL	99.6	80.3	247.1	322.0	384.4	685	796	1421	845	174.4	83.8	167.0
MEAN	3.21	2.68	7.97	10.4	13.7	22.1	26.5	45.8	28.2	5.63	2.70	5.57
MAX	15	3.6	27	20	28	55	84	120	58	18	11	30
MIN	1.8	2.0	2.2	4.5	8.9	10	13	14	11	3.1	1.1	1.6
CFSM	0.14	0.11	0.34	0.45	0.59	0.95	1.14	1.97	1.21	0.24	0.12	0.24
IN.	0.16	0.13	0.39	0.51	0.61	1.09	1.27	2.27	1.35	0.28	0.13	0.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	23.5	22.6	31.8	36.8	39.9	64.2	52.4	30.3	26.7
MAX	122	49.2	108	62.3	80.7	139	96.3	65.3	117
(WY)	1997	1997	1997	1996	1998	2001	1997	1998	1998
MIN	2.35	2.68	6.45	10.4	13.7	22.1	13.0	7.89	3.06
(WY)	1998	2002	1999	2002	2002	2002	1995	1995	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1994 - 2002
ANNUAL TOTAL	11168.5	5305.6	
ANNUAL MEAN	30.6	14.5	29.1
HIGHEST ANNUAL MEAN			45.0
LOWEST ANNUAL MEAN			14.5
HIGHEST DAILY MEAN	494	Mar 22	812
LOWEST DAILY MEAN	1.8	Oct 13	0.50
ANNUAL SEVEN-DAY MINIMUM	1.9	Oct 9	0.53
MAXIMUM PEAK FLOW			942
MAXIMUM PEAK STAGE			6.58
INSTANTANEOUS LOW FLOW			0.06
ANNUAL RUNOFF (CFSM)	1.31		1.25
ANNUAL RUNOFF (INCHES)	17.83		8.47
10 PERCENT EXCEEDS	68		70
50 PERCENT EXCEEDS	13		14
90 PERCENT EXCEEDS	2.5		2.4

e Estimated

MYSTIC RIVER BASIN

01102500 ABERJONA RIVER AT WINCHESTER, MA
(National Water Quality Assessment Site)

LOCATION.--Lat 42°26'50", long 71°08'22", Middlesex County, Hydrologic Unit 01090001, on left bank at Winchester, 0.5 mi upstream from head of Mystic Lakes.

DRAINAGE AREA.--Total above gage is 24.7 mi²; net above gage is 24.1 mi², excludes 0.6 mi² drained by Winchester North Reservoir.

WATER-DISCHARGE RECORDS

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

Water-quality records: Water year 1958-59, 1973, 1999 to current year.

REVISED RECORDS.--WDR MA-RI-79-1: 1955. WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is zero ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow affected by diversions for industrial use and for municipal supply of Woburn and Winchester, and by wastage and leakage from Winchester North Reservoir. Some regulation by Winchester at dam 1,800 ft upstream. Telephone and satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--63 years, 29.6 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,590 ft³/s, Mar. 22, 2001, gage height, 16.90 ft (affected by backwater from Upper Mystic Lake), from rating curve extended above 400 ft³/s on basis of slope-area measurement of peak flow; no flow for part of Oct. 10, 12, 1950, caused by pumpage from gage pool; minimum daily discharge, 0.25 ft³/s, Oct. 10, 1950.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since 1886, that of Mar. 22, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 231 ft³/s, May 14, gage height, 12.20 ft; minimum, 2.3 ft³/s, Oct. 10, 11, Dec. 7, 8; minimum daily, 2.3 ft³/s, Oct. 10, 11, Dec. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	6.5	3.3	5.8	26	18	125	33	69	13	4.7	6.0
2	2.8	4.4	2.8	5.4	25	14	90	38	51	11	5.1	10
3	2.8	3.6	2.7	5.0	15	45	61	50	41	10	7.3	24
4	2.7	3.7	2.7	4.9	13	39	57	34	33	9.3	5.1	10
5	2.7	5.0	2.6	4.7	12	26	46	27	29	8.2	4.6	6.7
6	2.7	7.2	2.5	4.9	10	20	39	23	62	7.3	4.2	5.1
7	2.6	4.3	2.4	24	10	18	33	21	102	7.1	4.1	4.6
8	2.5	3.7	2.3	10	10	17	30	19	73	6.7	4.1	4.2
9	2.4	3.7	5.1	7.7	9.9	15	29	18	49	9.9	4.1	3.9
10	2.3	3.6	4.7	7.4	9.4	27	29	34	38	34	4.1	3.8
11	2.3	3.2	4.1	9.0	39	21	26	24	32	12	3.9	3.6
12	2.6	2.9	4.4	9.4	20	16	24	22	31	8.3	3.6	2.9
13	2.7	3.0	7.6	31	14	16	23	87	32	7.3	3.4	10
14	2.6	3.1	10	24	12	16	22	220	29	6.6	3.3	5.1
15	2.7	3.2	22	17	11	15	25	137	47	6.3	3.3	3.7
16	6.1	3.0	9.3	13	11	41	24	74	47	6.1	3.1	22
17	34	2.7	10	11	12	31	21	53	44	5.7	2.9	20
18	9.4	2.6	43	9.7	15	24	21	70	34	5.5	2.9	7.2
19	5.5	2.4	23	8.7	12	30	20	108	27	13	2.8	5.2
20	4.4	2.6	12	8.8	12	31	18	78	25	8.0	3.0	4.4
21	3.8	2.6	9.5	9.8	25	54	17	56	16	6.5	3.4	3.5
22	3.3	2.6	8.3	11	19	48	18	45	17	5.7	3.6	3.2
23	3.1	2.4	7.0	12	15	32	20	39	17	13	8.6	35
24	3.4	2.4	38	14	13	26	17	34	15	37	6.7	27
25	4.1	2.5	21	14	12	25	23	30	13	14	13	10
26	3.3	5.7	13	12	12	35	66	26	12	8.0	4.6	5.7
27	2.9	4.3	10	10	22	88	38	24	18	7.5	3.6	13
28	2.8	3.4	8.1	9.6	26	64	41	29	47	6.8	3.1	19
29	2.8	4.3	7.3	9.2	---	43	49	39	22	6.5	23	10
30	3.2	3.9	6.6	16	---	35	43	113	16	5.7	35	7.1
31	2.7	---	6.0	13	---	31	---	110	---	4.9	10	---
TOTAL	134.0	108.5	311.3	352.0	442.3	961	1095	1715	1088	310.9	194.2	295.9
MEAN	4.32	3.62	10.0	11.4	15.8	31.0	36.5	55.3	36.3	10.0	6.26	9.86
MAX	34	7.2	43	31	39	88	125	220	102	37	35	35
MIN	2.3	2.4	2.3	4.7	9.4	14	17	18	12	4.9	2.8	2.9
MED	2.8	3.3	7.3	9.8	13	27	27	38	32	7.5	4.1	6.3
CFSM	0.18	0.15	0.42	0.47	0.66	1.29	1.51	2.30	1.50	0.42	0.26	0.41
IN.	0.21	0.17	0.48	0.54	0.68	1.48	1.69	2.65	1.68	0.48	0.30	0.46
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2002, BY WATER YEAR (WY)												
MEAN	14.7	23.6	31.5	36.8	41.3	65.1	53.9	33.7	23.6	10.6	10.0	10.2
MAX	125	102	95.7	169	104	172	175	134	159	40.4	79.4	78.2
(WY)	1997	1956	1970	1979	1984	2001	1987	1954	1982	1959	1955	1954
MIN	0.48	0.59	0.63	2.34	4.39	19.2	12.5	11.3	3.01	0.69	0.62	0.49
(WY)	1942	1942	1942	1966	1980	1989	1966	1965	1957	1950	1957	1957

MYSTIC RIVER BASIN

01102500 ABERJONA RIVER AT WINCHESTER, MA--Continued

WATER-DISCHARGE RECORDS--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1939 - 2002	
ANNUAL TOTAL	13305.7		7008.1			
ANNUAL MEAN	36.5		19.2		29.6	
HIGHEST ANNUAL MEAN					58.3 1984	
LOWEST ANNUAL MEAN					8.23 1966	
HIGHEST DAILY MEAN	1110	Mar 23	220	May 14	1110	Mar 23 2001
LOWEST DAILY MEAN	2.3	Oct 10	2.3	Oct 10	0.25	Oct 10 1950
ANNUAL SEVEN-DAY MINIMUM	2.5	Oct 6	2.5	Oct 6	0.31	Dec 6 1941
MAXIMUM PEAK FLOW			231	May 14	1590	Mar 22 2001
MAXIMUM PEAK STAGE			12.20	May 14	16.90	Mar 22 2001
INSTANTANEOUS LOW FLOW			2.3	Oct 10	0.00	Oct 10 1950
ANNUAL RUNOFF (CFSM)	1.51		0.80		1.23	
ANNUAL RUNOFF (INCHES)	20.54		10.82		16.68	
10 PERCENT EXCEEDS	77		43		69	
50 PERCENT EXCEEDS	15		11		17	
90 PERCENT EXCEEDS	2.9		2.9		1.6	

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-59, 1973, October 1998 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1999 to September 2000 (discontinued).

WATER TEMPERATURE: July 1999 to September 2000 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 4,710 μ S/cm, Jan. 31, 2000; minimum, 65 μ S/cm, Sept. 14, 1999.

WATER TEMPERATURE: Maximum recorded, 26.0°C, July 7, 1999; minimum, 0.1°C, Jan. 31, 2000.

REMARKS.--Selected samples were analyzed for pesticide compounds on schedule 2001 (listed with non-detection values or minimum reporting levels in the section "Explanation of the Records."); only pesticide compounds identified by the analyses (either as estimated values or as values at or above the non-detection level or minimum reporting level) for one or more samples are listed in the water-quality data tables.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	ALKA-LINITY WAT DIS TOT IT FIELD CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD HCO3 (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
NOV													
26...	1045	6.3	762	8.4	7.1	748	19.6	9.0	67	81	134	54.7	2.96
DEC													
14...	1000	7.8	760	9.7	7.1	1,350	16.1	5.8	60	73	318	49.9	2.93
JAN													
14...	0900	24	761	12.4	7.4	1,670	.9	.5	31	38	451	32.6	1.47
FEB													
11...	0930	41	746	12.3	7.4	942	11.6	4.7	25	30	242	17.5	.88
MAR													
19...	1115	29	769	12.2	7.5	1,780	6.0	4.5	41	50	492	27.4	1.41
APR													
15...	0845	24	768	10.7	7.2	785	11.3	14.8	45	55	185	26.6	.57
MAY													
15...	1115	133	754	9.9	7.2	508	15.3	10.9	31	38	114	22.0	.92
JUN													
05...	1030	29	759	7.4	7.1	608	19.5	17.3	46	56	142	21.6	.52
JUL													
25...	1030	13	766	5.5	7.1	511	24.2	20.6	43	52	87.1	40.9	2.45
AUG													
12...	1030	3.7	761	7.6	7.2	728	32.0	22.2	68	82	152	30.4	.05
20...	0830	3.3	753	6.6	6.9	731	19.7	21.1	--	--	--	--	--
SEP													
10...	0845	3.9	756	7.3	6.9	712	24.0	20.7	58	71	147	37.8	.14

MYSTIC RIVER BASIN

01102500 ABERJONA RIVER AT WINCHESTER, MA--Continued

Date	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITROGEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	ORTHO- PHOS- PHATE, DISSOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CHLOR-A PERIPHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)
NOV											
26...	3.3	2.48	0.042	<0.02	0.024	--	E0.006	<0.041	E0.002	0.007	<0.013
DEC											
14...	3.3	1.71	.023	<.02	.038	--	--	--	--	--	--
JAN											
14...	1.8	.77	.009	<.02	.042	--	--	--	--	--	--
FEB											
11...	1.5	.92	.014	<.02	.150	--	E.004	E.032	<.006	.044	<.013
MAR											
19...	1.9	1.04	.012	<.02	.035	--	--	--	--	--	--
APR											
15...	1.1	1.52	.048	<.02	.035	--	<.007	<.041	<.006	<.005	<.013
MAY											
15...	1.5	.70	.015	<.02	.056	--	.007	E.008	<.006	.022	E.005
JUN											
05...	1.0	1.32	.071	<.02	.044	--	.009	E.013	E.005	.020	E.007
JUL											
25...	3.3	1.31	.169	<.02	.052	--	E.006	E.030	<.006	.018	E.004
AUG											
12...	.49	1.46	.020	<.02	.028	--	.007	E.006	E.005	<.010	<.013
20...	--	--	--	--	--	56.0	--	--	--	--	--
SEP											
10...	.53	2.40	.063	<.02	.034	--	E.006	E.004	E.004	.006	<.013

Date	PROMETON, WATER, DISS, REC (UG/L) (04037)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDIMENT, SUSPENDED (MG/L) (80154)
NOV					
26...	<0.01	<0.011	E.01	69	7.0
DEC					
14...	--	--	--	83	9.0
JAN					
14...	--	--	--	94	13
FEB					
11...	.02	E.004	<.02	98	51
MAR					
19...	--	--	--	93	7.0
APR					
15...	E.003	<.005	<.02	--	6.4
MAY					
15...	E.01	<.005	<.02	--	14
JUN					
05...	E.01	.005	<.02	--	9.5
JUL					
25...	.02	<.005	<.02	--	5.6
AUG					
12...	.02	E.004	E.01	--	4.0
20...	--	--	--	--	--
SEP					
10...	E.01	<.005	E.01	--	5.1

< Less than
E Estimated value

CHARLES RIVER BASIN

01103220 MISCOE BROOK NEAR FRANKLIN, MA

LOCATION.--Lat 42°02'27", long 71°25'38", Norfolk County, Hydrologic Unit 01090001, on left bank 20 ft upstream from South Street and 3.5 mi southwest of Franklin, MA.

DRAINAGE AREA.--1.15 mi².

PERIOD OF RECORD.--October 2000 to current year.

GAGE.--Water-stage recorder with satellite telemeter. Elevation of gage is 260 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--2 years, 0.66 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24 ft³/s, Mar. 22, gage height, 2.65 ft; minimum, 0.02 ft³/s, 0.02 ft³/s, Oct. 15, Aug. 16, 18, 19.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4.9 ft³/s, May 14, gage height, 1.52 ft; minimum, 0.02 ft³/s, Oct. 15, Aug. 16, 18, 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.18	0.21	0.17	0.20	0.58	0.31	1.9	0.68	0.80	0.25	0.08	0.13
2	.17	.22	.16	.19	.63	.29	1.5	.76	.65	.23	.15	.29
3	.16	.24	.15	.18	.41	1.5	1.0	2.4	.58	.22	.18	.39
4	.13	.21	.15	.17	.36	1.2	.83	1.5	.55	.20	.13	.23
5	.11	.23	.15	.17	.30	.73	.69	.83	.58	.19	.12	.17
6	.10	.27	.16	.19	.27	.48	.60	.64	1.4	.18	.12	.15
7	.12	.25	.16	.47	.25	.40	.54	.60	2.7	.19	.11	.14
8	.09	.23	.15	.32	.25	.35	.48	.55	2.0	.18	.11	.11
9	.08	.24	.19	.29	.25	.33	.48	.52	1.1	.17	.11	.10
10	.07	.23	.18	.30	.24	.63	.51	.66	.79	.22	.10	.10
11	.06	.22	.22	.41	.69	.48	.46	.53	.66	.18	.08	.10
12	.05	.22	.25	.39	.43	.38	.44	.62	.63	.15	.09	.10
13	.07	.22	.32	.63	.36	.35	.44	1.9	.65	.13	.06	.10
14	.09	.21	.40	.54	.31	.34	.46	4.7	.64	.13	.04	.10
15	.06	.20	.53	.54	.29	.30	.57	3.2	.99	.11	.04	.11
16	.05	.20	.34	.47	.30	.35	.53	1.7	.90	.11	.04	.30
17	.10	.20	.33	.41	.31	.34	.46	1.2	.81	.10	.04	.23
18	.10	.19	1.2	.36	.38	.33	.43	2.4	.61	.10	.04	.17
19	.10	.18	.89	.30	.33	.42	.42	2.9	.53	.12	.03	.15
20	.11	.18	.55	.29	.31	.54	.43	1.9	.50	.14	.17	.14
21	.11	.17	.43	.30	.66	1.1	.40	1.4	.45	.13	.12	.12
22	.11	.17	.35	.31	.48	.97	.42	1.2	.41	.11	.10	.11
23	.11	.16	.30	.34	.36	.64	.48	1.1	.39	.12	.12	.21
24	.12	.17	.87	.47	.28	.49	.42	.97	.35	.16	.12	.17
25	.12	.18	.71	.53	.27	.43	.45	.91	.32	.13	.15	.15
26	.13	.25	.46	.43	.25	.48	1.0	.87	.34	.13	.11	.15
27	.13	.21	.35	.40	.33	1.4	.65	.86	.31	.14	.09	.33
28	.13	.18	.29	.37	.35	1.2	.71	.88	.30	.15	.08	.27
29	.14	.18	.27	.37	---	.77	.97	.89	.28	.16	.16	.19
30	.17	.17	.24	.47	---	.70	.89	.80	.27	.12	.24	.17
31	.18	---	.22	.39	---	.63	---	.76	---	.11	.15	---
TOTAL	3.45	6.19	11.14	11.20	10.23	18.86	19.56	40.83	21.49	4.76	3.28	5.18
MEAN	0.11	0.21	0.36	0.36	0.37	0.61	0.65	1.32	0.72	0.15	0.11	0.17
MAX	0.18	0.27	1.2	0.63	0.69	1.5	1.9	4.7	2.7	0.25	0.24	0.39
MIN	0.05	0.16	0.15	0.17	0.24	0.29	0.40	0.52	0.27	0.10	0.03	0.10
CFSM	0.10	0.18	0.31	0.31	0.32	0.53	0.57	1.15	0.62	0.13	0.09	0.15
IN.	0.11	0.20	0.36	0.36	0.33	0.61	0.63	1.32	0.70	0.15	0.11	0.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

	2000	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001
MEAN	0.22	0.39	0.61	0.41	0.45	1.86	1.22	1.01	1.05	0.33	0.23	0.16
MAX	0.33	0.58	0.85	0.46	0.54	3.10	1.78	1.32	1.38	0.51	0.36	0.17
(WY)	2001	2001	2001	2001	2001	2001	2001	2002	2001	2001	2001	2002
MIN	0.11	0.21	0.36	0.36	0.37	0.61	0.65	0.70	0.72	0.15	0.11	0.14
(WY)	2002	2002	2002	2002	2002	2002	2002	2001	2002	2002	2002	2001

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL TOTAL	294.22		156.17			
ANNUAL MEAN	0.81		0.43		0.66	
HIGHEST ANNUAL MEAN					0.90	
LOWEST ANNUAL MEAN					0.43	
HIGHEST DAILY MEAN	16	Mar 23	4.7	May 14	16	Mar 23 2001
LOWEST DAILY MEAN	0.05	Oct 12	0.03	Aug 19	0.03	Aug 19 2002
ANNUAL SEVEN-DAY MINIMUM	0.06	Oct 10	0.04	Aug 13	0.04	Aug 13 2002
MAXIMUM PEAK FLOW			4.9		24	Mar 22 2001
MAXIMUM PEAK STAGE			1.52		2.65	Mar 22 2001
INSTANTANEOUS LOW FLOW			0.02		0.02	Oct 15 2001
ANNUAL RUNOFF (CFSM)	0.70		0.37		0.58	
ANNUAL RUNOFF (INCHES)	9.52		5.05		7.83	
10 PERCENT EXCEEDS	1.5		0.88		1.2	
50 PERCENT EXCEEDS	0.42		0.29		0.39	
90 PERCENT EXCEEDS	0.13		0.11		0.13	

CHARLES RIVER BASIN

01103280 CHARLES RIVER AT MEDWAY, MA

LOCATION.--Lat 42°08'23", long 71°23'24", Norfolk County, Hydrologic Unit 01090001, on right bank at upstream side of Walker Street bridge at intersection with Populatic Street, 0.5 mi east of Medway, MA.

DRAINAGE AREA.--65.7 mi².

PERIOD OF RECORD.--November 1997 to current year.

GAGE.--Water-stage recorder with satellite telemeter. Elevation of gage is 175 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

AVERAGE DISCHARGE.--4 years, 93.8 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,490 ft³/s, Mar. 23, 2001, gage height, 6.35 ft; minimum, 2.0 ft³/s, Sept. 5, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 423 ft³/s, May 15, gage height, 2.68 ft; minimum, 3.8 ft³/s, Aug. 19, 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	12	14	e20	69	61	205	116	101	22	13	18
2	15	12	13	e18	92	56	217	106	94	19	13	17
3	13	14	11	18	79	114	214	152	81	22	16	29
4	12	18	11	17	68	148	191	158	67	16	20	31
5	12	16	10	16	58	127	162	146	58	15	14	24
6	11	15	11	17	50	104	139	121	101	13	12	17
7	11	15	11	49	44	89	118	93	207	12	9.7	13
8	11	15	11	e56	43	76	104	77	236	12	9.3	12
9	11	14	13	44	42	68	94	68	218	15	7.5	11
10	10	14	14	39	40	81	90	71	178	20	6.3	9.3
11	10	13	26	41	86	86	86	69	137	21	5.5	8.1
12	9.3	11	15	47	96	75	80	65	102	16	5.2	9.0
13	8.3	12	17	60	78	69	77	139	84	14	5.1	7.6
14	7.6	12	20	77	62	66	73	388	73	13	4.8	6.3
15	7.7	12	42	76	53	61	75	410	91	11	4.4	6.8
16	8.4	12	41	72	52	71	77	354	112	11	4.2	14
17	12	12	35	63	53	85	70	263	147	9.5	4.1	40
18	15	12	78	55	59	78	65	288	163	8.7	4.2	46
19	13	13	96	e45	57	82	62	324	147	8.6	4.0	33
20	11	14	76	e41	52	90	61	297	126	10	7.6	21
21	11	13	54	e38	69	125	59	252	102	11	12	15
22	9.3	12	43	41	79	145	55	206	78	11	13	12
23	9.2	11	31	42	68	129	65	164	64	10	11	15
24	9.7	11	52	59	58	109	64	134	69	11	9.2	19
25	10	11	75	70	52	95	57	109	46	14	8.8	20
26	9.0	15	63	66	50	89	107	92	37	13	8.1	22
27	8.6	18	48	60	57	158	110	83	36	12	7.3	22
28	8.8	14	e36	54	67	179	102	87	33	10	6.9	30
29	9.3	13	31	51	---	169	121	119	29	12	9.1	27
30	11	14	e25	57	---	156	126	112	25	13	15	21
31	10	---	e24	61	---	139	---	97	---	14	22	---
TOTAL	329.2	400	1047	1470	1733	3180	3126	5160	3042	419.8	292.3	576.1
MEAN	10.6	13.3	33.8	47.4	61.9	103	104	166	101	13.5	9.43	19.2
MAX	15	18	96	77	96	179	217	410	236	22	22	46
MIN	7.6	11	10	16	40	56	55	65	25	8.6	4.0	6.3
CFSM	0.16	0.20	0.51	0.72	0.94	1.56	1.59	2.53	1.54	0.21	0.14	0.29
IN.	0.19	0.23	0.59	0.83	0.98	1.80	1.77	2.92	1.72	0.24	0.17	0.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
MEAN	45.2	48.7	66.1	121	157	264	188	144	151	53.4	18.8	33.1			
MAX	82.8	74.0	120	227	257	406	279	271	339	138	28.9	94.8			
(WY)	1999	2000	2001	1999	1998	2001	2001	1998	1998	1998	1998	1999			
MIN	10.6	13.3	33.8	47.4	61.9	103	99.7	64.8	15.7	13.5	4.63	13.5			
(WY)	2002	2002	2002	2002	2002	2002	1999	2001	1999	2002	1999	2001			

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	36749.1		20775.4			
ANNUAL MEAN	101		56.9		93.8	
HIGHEST ANNUAL MEAN					113	
LOWEST ANNUAL MEAN					56.9	
HIGHEST DAILY MEAN	1410	Mar 23	410	May 15	1410	Mar 23 2001
LOWEST DAILY MEAN	7.6	Oct 14	4.0	Aug 19	2.1	Sep 4 1999
ANNUAL SEVEN-DAY MINIMUM	8.8	Oct 10	4.4	Aug 13	3.0	Sep 1 1999
MAXIMUM PEAK FLOW			423	May 15	1490	Mar 23 2001
MAXIMUM PEAK STAGE			2.68	May 15	6.35	Mar 23 2001
INSTANTANEOUS LOW FLOW			3.8	Aug 19	2.0	Sep 5 1999
ANNUAL RUNOFF (CFSM)	1.53		0.87		1.43	
ANNUAL RUNOFF (INCHES)	20.81		11.76		19.39	
10 PERCENT EXCEEDS	245		131		224	
50 PERCENT EXCEEDS	46		38		55	
90 PERCENT EXCEEDS	11		9.3		11	

e Estimated

CHARLES RIVER BASIN

01103500 CHARLES RIVER AT DOVER, MA

LOCATION.--Lat 42°15'22", long 71°15'38", Norfolk County, Hydrologic Unit 01090001, on right bank 0.3 mi downstream from highway bridge, 0.8 mi downstream from Noanet Brook, and 1.3 mi northeast of intersection of Centre and Walpole Streets in Dover.

DRAINAGE AREA.--183 mi².

PERIOD OF RECORD.--Discharge: October 1937 to current year. Prior to October 1977, published as "at Charles River Village."

Water-quality records: Water years 1975-95 (National stream-quality accounting network station).

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 89.76 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow affected by diversions to and from basin for municipal supplies. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--65 years, 305 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,220 ft³/s, Aug. 23, 1955, gage height, 9.24 ft and Mar. 22, 1968, gage height, 8.72 ft; minimum, 0.5 ft³/s, Oct. 24, 1952 (caused by unusual regulation); minimum daily, 0.9 ft³/s, Oct. 24, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since flood in 1886, that of August 1955 and March 1968. Flood in March 1936 reached a discharge of 3,170 ft³/s, by computation of flow over dam at site 0.2 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 724 ft³/s, May 18; gage height, 2.98 ft; minimum 8.8 ft³/s, Aug. 28, 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	44	47	70	175	155	433	295	372	101	34	25
2	46	43	45	63	198	151	442	295	339	93	35	36
3	45	41	45	58	204	193	469	312	308	82	43	49
4	42	41	43	54	193	249	479	312	277	77	41	49
5	39	41	41	52	172	275	463	319	248	71	39	49
6	37	44	41	50	152	273	434	318	262	63	36	47
7	36	45	40	69	135	254	395	303	346	55	33	42
8	34	45	39	92	123	227	354	271	399	51	31	36
9	32	46	41	108	114	197	318	238	447	48	28	30
10	30	45	41	109	111	194	286	233	465	57	25	27
11	29	44	43	109	161	196	260	211	455	58	20	24
12	28	42	46	110	195	200	242	200	432	55	13	20
13	28	41	50	141	208	197	221	249	397	53	15	18
14	28	40	54	164	199	194	207	422	355	49	15	16
15	28	39	71	187	198	176	201	486	332	47	15	16
16	31	38	85	192	169	186	200	554	320	54	13	24
17	40	37	93	187	155	198	197	583	348	46	13	25
18	39	37	136	168	151	208	189	660	385	42	12	37
19	38	38	172	148	150	212	188	692	380	46	11	51
20	40	39	193	130	148	217	186	681	372	47	10	53
21	41	37	181	123	156	254	179	672	350	44	11	48
22	41	37	149	116	173	288	172	646	314	41	12	40
23	41	37	122	119	179	301	176	609	281	41	14	50
24	41	37	134	132	168	298	176	572	244	46	16	42
25	43	37	151	153	151	279	179	509	205	43	18	40
26	45	41	161	167	137	264	223	455	172	39	18	40
27	45	43	152	164	139	305	241	413	146	37	18	56
28	43	45	128	155	150	330	260	431	129	37	14	67
29	41	47	106	146	---	359	273	408	114	37	9.1	63
30	46	48	89	145	---	372	286	397	106	35	12	62
31	45	---	77	150	---	364	---	379	---	34	19	---
TOTAL	1190	1239	2816	3831	4564	7566	8329	13125	9300	1629	643.1	1182
MEAN	38.4	41.3	90.8	124	163	244	278	423	310	52.5	20.7	39.4
MAX	48	48	193	192	208	372	479	692	465	101	43	67
MIN	28	37	39	50	111	151	172	200	106	34	9.1	16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2002, BY WATER YEAR (WY)

MEAN	141	244	337	364	425	614	583	360	241	126	112	99.0
MAX	600	892	866	1180	998	1172	1474	746	1129	1060	956	640
(WY)	1956	1956	1997	1979	1970	1983	1987	1954	1982	1938	1955	1954
MIN	13.4	33.1	54.6	45.3	86.7	227	169	138	57.5	19.5	9.01	7.78
(WY)	1958	1966	1966	1981	1980	1985	1966	1986	1999	1957	1957	1957

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1938 - 2002	
ANNUAL TOTAL	100212		55414.1			
ANNUAL MEAN	275		152		303	
HIGHEST ANNUAL MEAN					496	
LOWEST ANNUAL MEAN					117	
HIGHEST DAILY MEAN	2100		Mar 25		692	
LOWEST DAILY MEAN	28		Oct 12		9.1	
ANNUAL SEVEN-DAY MINIMUM	29		Oct 10		12	
MAXIMUM PEAK FLOW			May 18		724	
MAXIMUM PEAK STAGE			May 18		2.98	
INSTANTANEOUS LOW FLOW			Aug 28		8.8	
10 PERCENT EXCEEDS	671		367		682	
50 PERCENT EXCEEDS	156		108		208	
90 PERCENT EXCEEDS	39		29		42	

CHARLES RIVER BASIN

01104200 CHARLES RIVER AT WELLESLEY, MA

LOCATION.--Lat 42°18'59", long 71°13'42", Norfolk County, Hydrologic Unit 01090001, on left bank at east limits of Wellesley, 30 ft upstream from a horseshoe-shaped dam and 50 ft upstream from bridge on State Highway 9.

DRAINAGE AREA.--211 mi².

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

Water-quality records: Water year 1968.

GAGE.--Water-stage recorder and masonry dam. Datum of gage is 67.92 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharge, which are fair. Flow affected by diversion to Mother Brook (station 01104000), and by diversions to and from basin for municipal supplies. Occasional regulation at dam 0.2 mi upstream and by other ponds upstream.

AVERAGE DISCHARGE.--43 years, 285 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,410 ft³/s, Mar. 21, 1968, gage height, 6.20 ft; no flow Sept. 15, Oct. 6, 1959 (caused by closing of gates at dam at gage); minimum daily, 1.0 ft³/s, Aug. 24, 31, Sept. 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 691 ft³/s, May 18, gage height, 4.17 ft; minimum daily, 6.8 ft³/s, Aug. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	48	63	79	186	147	509	333	e460	102	38	21
2	35	48	63	56	207	150	505	348	e420	97	38	31
3	37	54	63	53	211	200	495	372	e340	94	40	37
4	36	58	62	56	202	225	500	364	248	88	40	34
5	37	58	60	55	184	252	490	362	245	80	41	48
6	37	61	59	56	166	237	463	362	296	80	40	55
7	39	65	57	86	151	227	435	352	390	76	40	53
8	39	69	57	89	138	214	365	225	416	70	39	48
9	32	65	66	99	131	197	341	204	428	66	35	32
10	24	69	44	107	130	196	323	211	395	95	34	26
11	28	64	39	113	174	195	301	195	396	63	33	26
12	32	66	50	116	198	197	275	194	394	59	29	28
13	35	63	56	142	208	197	256	268	401	65	26	28
14	37	61	65	166	208	198	241	467	331	64	23	26
15	33	60	90	182	209	190	233	470	321	63	20	24
16	31	58	93	188	191	211	229	499	325	85	17	26
17	42	59	90	187	173	219	223	523	345	71	13	23
18	40	59	140	176	167	221	223	617	352	45	10	24
19	46	42	156	159	167	232	216	675	345	45	8.6	33
20	46	31	161	146	164	238	214	650	347	60	8.1	50
21	48	43	160	141	119	285	200	634	317	59	7.4	58
22	38	49	149	137	134	295	199	620	300	45	6.8	56
23	37	51	130	135	150	315	202	599	284	42	8.4	54
24	41	55	153	145	152	314	202	573	230	49	9.5	42
25	41	58	156	158	145	306	204	537	203	43	11	51
26	42	42	156	172	135	297	268	494	168	45	12	53
27	47	38	154	175	138	363	277	465	148	45	11	72
28	50	51	136	147	146	368	299	496	129	44	11	82
29	43	59	121	143	---	379	323	484	120	42	14	83
30	38	64	104	151	---	396	329	463	113	38	31	53
31	44	---	91	155	---	398	---	449	---	38	23	---
TOTAL	1208	1668	3044	3970	4684	7859	9340	13505	9207	1958	717.8	1277
MEAN	39.0	55.6	98.2	128	167	254	311	436	307	63.2	23.2	42.6
MAX	53	69	161	188	211	398	509	675	460	102	41	83
MIN	24	31	39	53	119	147	199	194	113	38	6.8	21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2002, BY WATER YEAR (WY)

MEAN	150	237	324	339	398	550	546	342	244	116	98.8	91.4
MAX	495	561	805	1018	766	1048	1223	697	951	439	430	253
(WY)	1997	1990	1997	1979	1970	1983	1987	1998	1982	1998	1990	1961
MIN	23.2	34.0	52.6	43.8	95.7	211	154	124	64.7	24.5	13.0	14.9
(WY)	1966	1966	1966	1981	1980	1985	1985	1986	1999	1997	1965	1965

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1959 - 2002	
ANNUAL TOTAL	98789		58437.8			
ANNUAL MEAN	271		160		285	
HIGHEST ANNUAL MEAN					458	
LOWEST ANNUAL MEAN					108	
HIGHEST DAILY MEAN	1710		Mar 26		2330	
LOWEST DAILY MEAN	20		Sep 18		1.0	
ANNUAL SEVEN-DAY MINIMUM	29		Sep 14		8.4	
MAXIMUM PEAK FLOW			691		May 18	
MAXIMUM PEAK STAGE			4.17		May 18	
INSTANTANEOUS LOW FLOW			5.5		Aug 22	
10 PERCENT EXCEEDS	657		383		625	
50 PERCENT EXCEEDS	159		113		208	
90 PERCENT EXCEEDS	39		32		43	

e Estimated

CHARLES RIVER BASIN

01104430 HOBBS BROOK BELOW CAMBRIDGE RESERVOIR NEAR KENDAL GREEN, MA

LOCATION.--Lat 42°23'53", Long 71°16'26", Middlesex County, Hydrologic Unit 01090001, 50 ft downstream of culvert on Winter Street, 300 ft downstream of gate house outlet from Cambridge Reservoir, and 1.3 mi north of Kendal Green.

DRAINAGE AREA.--6.86 mi²

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Flow affected by regulation of dam 300 ft upstream at outflow of Cambridge Reservoir.

AVERAGE DISCHARGE.--5 years, 9.38 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46 ft³/s, Sept. 17, 18, 20, 2002, gage height, 1.86 ft; maximum gage height, 1.93 ft, Apr. 22, 2000; minimum, no flow, many days for period of record; minimum daily, no flow, Jan. 5-7, 19, 20, 24-26, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46 ft³/s, Sept. 17, 18, 20, gage height, 1.86 ft; minimum, no flow, Jan. 5-7, 19, 20, 24-29, minimum daily, no flow, Jan. 5-7, 19, 20, 24-26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	1.6	1.5	0.16	0.02	0.10	3.9	1.9	3.7	4.6	27	2.8
2	23	1.7	1.3	.08	.06	.05	3.9	2.0	3.7	4.5	26	2.8
3	22	1.8	1.2	.04	.09	.12	3.8	2.2	3.7	4.6	26	2.8
4	19	1.6	1.0	.04	.11	.09	2.7	2.2	3.4	4.6	25	2.9
5	14	1.6	.58	.0	.13	.14	2.3	2.2	3.4	4.6	25	2.8
6	3.6	2.0	.37	.00	.13	.39	2.9	2.2	3.4	4.4	25	2.8
7	.99	2.4	.53	.0	.13	.43	2.7	2.3	3.6	4.3	25	2.8
8	.99	1.9	.60	.10	.12	.56	2.5	2.3	3.2	4.3	25	2.8
9	.97	1.5	.46	.25	.12	.68	1.7	2.5	3.2	11	25	2.6
10	.90	1.5	.55	.26	.14	.73	1.6	2.5	3.2	30	25	2.6
11	.98	1.6	.24	.11	.26	.48	1.1	2.5	3.3	40	25	2.7
12	1.1	1.9	.25	.04	.25	.46	1.1	2.3	4.1	40	25	7.7
13	1.1	2.0	.22	.06	.41	.44	1.3	2.5	3.6	39	24	19
14	1.1	2.2	.29	.01	.42	.35	1.4	2.7	3.7	38	24	19
15	1.2	1.7	.51	.01	.45	.44	1.4	2.8	6.1	35	23	19
16	1.4	.48	.53	.01	.61	.51	1.3	2.8	6.7	32	24	31
17	1.6	.03	.43	.01	.93	1.2	1.3	2.9	8.2	30	24	42
18	1.9	.02	.56	.01	.96	2.0	1.3	3.2	8.3	31	24	43
19	2.6	2.2	.77	.0	.99	2.3	1.5	3.3	7.5	31	24	43
20	2.9	6.4	.78	.0	1.1	2.2	1.6	3.2	6.8	31	23	43
21	2.7	5.1	.89	.01	1.1	2.9	1.6	3.1	5.9	31	24	43
22	2.8	1.7	.66	.01	.93	3.6	1.5	3.2	5.6	31	24	42
23	2.7	.80	.64	.01	.97	4.4	1.6	3.2	5.1	31	24	19
24	1.8	.89	.87	.00	1.0	4.5	1.7	3.2	4.9	29	24	9.7
25	.86	.29	.76	.0	1.1	4.4	1.8	3.1	4.3	27	23	26
26	1.1	.40	.82	.0	1.1	4.5	1.8	3.0	4.3	27	23	33
27	1.4	.46	.78	.00	.85	4.0	1.8	3.0	4.5	27	11	30
28	1.9	.83	.34	.00	.30	2.9	1.8	3.1	5.8	27	3.0	30
29	2.0	.99	.18	.00	---	2.9	1.8	3.2	5.6	27	2.9	32
30	1.9	1.5	.10	.01	---	3.2	1.9	3.4	4.9	27	2.9	32
31	1.9	---	.09	.01	---	3.6	---	3.6	---	27	2.9	---
TOTAL	145.39	49.09	18.80	1.24	14.78	54.57	58.6	85.6	143.7	734.9	658.7	593.8
MEAN	4.69	1.64	0.61	0.040	0.53	1.76	1.95	2.76	4.79	23.7	21.2	19.8
MAX	23	6.4	1.5	0.26	1.1	4.5	3.9	3.6	8.3	40	27	43
MIN	0.86	0.02	0.09	0.00	0.02	0.05	1.1	1.9	3.2	4.3	2.9	2.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

	1997	1998	1999	2000	2001	2002
MEAN	13.5	9.75	8.34	3.40	2.44	4.35
MAX	29.7	24.0	19.1	6.11	6.74	16.1
(WY)	2001	1999	2001	2000	2000	2000
MIN	0.75	0.42	0.61	0.040	0.32	0.23
(WY)	2000	2000	2002	2002	1999	1999

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002	
ANNUAL TOTAL	2820.16		2559.17			
ANNUAL MEAN	7.73		7.01			
HIGHEST ANNUAL MEAN					9.38	
LOWEST ANNUAL MEAN					12.8	1998
HIGHEST DAILY MEAN	33	Apr 9	43	Sep 18	6.14	1999
LOWEST DAILY MEAN	0.01	Apr 12	0.00	Jan 5	4.3	Sep 18 2002
ANNUAL SEVEN-DAY MINIMUM	0.07	Apr 12	0.00	Jan 23	0.00	Jan 5 2002
MAXIMUM PEAK FLOW					0.00	Jan 23 2002
MAXIMUM PEAK STAGE					46	Sep 17 2002
INSTANTANEOUS LOW FLOW					1.86	Sep 17
10 PERCENT EXCEEDS	23		26	Jan 5	1.98	Oct 10 1997
50 PERCENT EXCEEDS	1.6		2.2		0.00	Apr 10 2001
90 PERCENT EXCEEDS	0.32		0.10		27	

CHARLES RIVER BASIN

01104430 HOBBS BROOK BELOW CAMBRIDGE RESERVOIR NEAR KENDAL GREEN, MA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1997 to current year.
 WATER TEMPERATURE: July 1997 to current year.
 CALCIUM CONCENTRATION: October 1997 to September 1998.
 CALCIUM LOAD: October 1997 to September 1998.
 SODIUM CONCENTRATION: October 1997 to September 1998.
 SODIUM LOAD: October 1997 to September 1998.
 CHLORIDE CONCENTRATION: October 1997 to September 1998.
 CHLORIDE LOAD: October 1997 to September 1998.
 PRECIPITATION: October 2001 to September 2002.

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor.

REMARKS.--Records good. Specific conductance and water temperature water-quality probes located in brook at outflow below Cambridge Reservoir.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,940 $\mu\text{S}/\text{cm}$, March 20, 2001; minimum, 163 $\mu\text{S}/\text{cm}$, Nov. 26, 2000.
 WATER TEMPERATURE: Maximum recorded, 26.5°C, June 26, 2001; minimum, 0.2°C, Jan. 18, 2001.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 964 $\mu\text{S}/\text{cm}$, May 9; minimum, 689 $\mu\text{S}/\text{cm}$, Jan. 7.
 WATER TEMPERATURE: Maximum recorded, 26.1°C, Aug. 20; minimum, 1.7°C, Jan. 20.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$ AT 25°C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN									
1	773	767	770	828	816	823	795	789	792	760	753	756
2	768	763	765	835	823	829	797	791	794	760	752	755
3	770	762	766	839	828	833	794	790	792	764	756	759
4	778	769	773	834	822	829	794	788	791	771	756	760
5	789	775	782	827	815	822	795	789	792	779	755	763
6	795	769	783	817	810	813	796	788	792	776	724	762
7	772	765	768	816	809	812	797	789	793	760	689	737
8	772	763	767	816	806	810	793	783	790	784	723	769
9	779	769	774	815	808	811	784	777	781	795	770	783
10	791	779	784	814	806	810	781	777	779	786	756	770
11	808	789	797	813	803	808	782	770	777	775	748	758
12	821	806	814	808	800	803	778	770	775	773	751	764
13	832	818	825	810	796	800	777	772	775	777	738	759
14	832	827	830	806	795	801	780	769	775	772	739	752
15	836	826	832	806	794	798	777	767	771	775	748	758
16	838	830	834	807	783	797	770	764	767	770	745	754
17	837	830	834	788	775	782	766	758	763	779	751	762
18	834	826	829	792	778	785	761	750	756	777	753	767
19	834	825	829	793	782	788	756	751	753	782	766	774
20	832	824	828	793	787	791	760	751	755	783	762	772
21	828	822	825	793	786	789	757	752	754	779	762	770
22	831	821	827	789	779	786	753	749	751	777	764	769
23	830	824	827	789	782	786	754	748	751	788	760	771
24	834	824	828	792	782	789	754	741	747	798	761	783
25	831	823	827	791	783	788	750	744	747	795	775	784
26	830	822	825	794	783	789	750	745	748	796	778	785
27	827	819	823	792	785	789	749	744	746	802	764	786
28	825	814	820	795	785	790	752	744	748	782	771	777
29	824	811	816	793	786	789	757	749	752	802	767	781
30	829	816	822	793	787	790	755	749	752	801	760	781
31	826	816	821	---	---	---	757	750	753	800	764	782
MONTH	838	762	808	839	775	801	797	741	768	802	689	768

CHARLES RIVER BASIN

01104430 HOBBS BROOK BELOW CAMBRIDGE RESERVOIR NEAR KENDAL GREEN, MA--Continued

WATER TEMPERATURE (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.8	17.2	17.5	12.1	11.3	11.6	9.3	8.6	8.9	3.5	2.6	3.0
2	17.3	16.9	17.1	12.2	11.4	11.8	9.2	8.8	9.0	3.6	2.7	3.1
3	17.4	16.9	17.1	12.4	11.8	12.0	8.8	8.4	8.6	3.7	2.8	3.1
4	17.6	17.1	17.3	12.5	11.7	11.9	8.9	8.2	8.5	3.6	2.6	3.0
5	17.7	17.3	17.5	12.0	11.2	11.7	9.2	8.5	8.7	3.8	2.7	3.2
6	17.8	17.3	17.5	11.6	10.8	11.2	9.2	8.7	8.9	4.4	3.1	3.7
7	17.3	16.4	16.9	11.2	10.4	10.8	9.2	8.6	8.9	3.8	2.4	3.2
8	16.5	15.5	16.0	10.8	9.9	10.2	8.6	7.7	8.3	3.3	2.1	2.5
9	15.7	14.9	15.3	10.5	9.7	10.1	7.7	7.0	7.5	3.4	2.4	2.9
10	15.0	14.7	14.8	10.1	9.5	9.7	7.3	6.8	7.0	3.8	2.9	3.2
11	15.0	14.5	14.8	9.6	8.8	9.3	7.4	6.7	7.0	3.4	2.8	3.0
12	15.3	14.8	15.0	9.1	8.2	8.7	6.9	6.5	6.7	3.5	2.7	3.0
13	15.4	14.9	15.1	8.9	7.9	8.3	6.8	6.5	6.6	3.1	2.1	2.6
14	15.5	15.1	15.4	8.6	8.0	8.2	7.1	6.6	6.8	3.2	2.3	2.6
15	15.9	15.1	15.3	8.7	8.0	8.2	7.0	6.0	6.6	3.0	2.1	2.6
16	15.6	14.9	15.3	9.2	8.2	8.6	6.1	5.4	5.7	2.9	2.1	2.4
17	15.6	15.1	15.4	8.8	7.1	7.7	5.6	5.2	5.5	2.8	2.2	2.4
18	15.1	14.1	14.6	9.3	7.0	7.8	5.5	5.0	5.3	3.0	2.0	2.3
19	14.2	13.6	13.9	9.7	7.2	8.2	5.4	4.8	5.0	2.8	1.9	2.2
20	14.2	13.6	13.8	8.4	7.9	8.2	5.3	4.7	5.0	3.0	1.7	2.2
21	13.8	13.3	13.6	8.1	7.5	7.8	4.9	3.9	4.5	2.7	2.0	2.4
22	14.2	13.6	13.8	8.0	7.4	7.7	4.0	3.5	3.7	3.4	2.3	2.6
23	14.2	13.6	13.8	7.9	7.1	7.5	4.3	3.5	3.9	3.9	2.4	3.1
24	14.5	13.8	14.0	7.9	7.5	7.6	4.3	4.0	4.1	3.8	3.0	3.3
25	14.6	13.9	14.1	8.2	7.5	7.8	4.4	3.8	4.0	4.0	3.0	3.4
26	14.2	13.4	13.7	8.7	7.8	8.1	4.2	3.6	3.9	4.1	3.2	3.5
27	13.6	13.0	13.2	8.8	8.0	8.3	4.1	3.6	3.8	4.4	3.2	3.5
28	13.3	12.3	12.7	9.4	8.1	8.7	4.2	3.6	3.8	4.4	3.4	3.7
29	12.7	11.9	12.2	8.9	8.4	8.6	3.9	3.3	3.5	4.8	3.3	3.9
30	12.7	11.6	12.0	8.8	8.4	8.6	3.7	2.9	3.3	4.1	3.1	3.7
31	11.8	11.2	11.5	---	---	---	3.5	2.7	3.1	3.4	2.6	3.1
MONTH	17.8	11.2	14.8	12.5	7.0	9.2	9.3	2.7	6.0	4.8	1.7	3.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.3	2.8	3.0	5.7	3.7	4.3	8.2	6.6	7.2	12.2	11.1	11.6
2	3.5	2.5	2.9	5.5	3.8	4.4	8.5	6.7	7.2	11.9	11.6	11.7
3	3.8	2.7	3.1	6.3	4.6	5.3	8.5	7.0	7.6	12.4	11.5	11.8
4	3.9	2.9	3.2	6.1	4.1	5.0	9.2	7.3	7.9	12.9	11.5	12.0
5	3.8	2.7	3.2	5.5	3.8	4.4	8.9	7.5	8.1	12.7	11.8	12.2
6	4.2	3.1	3.5	5.2	4.1	4.5	9.6	7.9	8.5	12.8	11.9	12.3
7	4.3	3.3	3.7	5.8	4.2	4.9	9.3	7.8	8.2	13.1	12.2	12.6
8	4.8	3.5	4.0	5.5	5.0	5.3	8.6	7.8	8.1	14.7	12.8	13.8
9	4.9	3.6	4.1	6.3	5.1	5.5	9.2	8.1	8.6	14.0	13.5	13.7
10	4.7	3.7	4.2	7.0	5.4	6.0	10.8	8.8	9.5	14.5	13.5	13.9
11	4.7	3.7	4.2	6.6	5.1	5.6	10.8	9.5	10.1	14.7	13.6	14.1
12	4.7	3.6	4.0	6.2	5.3	5.6	10.8	9.9	10.2	14.4	13.9	14.1
13	4.3	3.2	3.8	6.1	5.2	5.7	10.7	10.0	10.4	14.9	14.0	14.3
14	4.0	3.0	3.3	7.5	5.5	6.2	12.0	10.4	11.1	14.6	13.8	14.0
15	4.0	3.1	3.4	6.5	5.7	6.1	12.1	11.4	11.7	14.2	13.5	13.8
16	4.1	3.2	3.6	6.6	5.5	6.1	13.1	11.4	12.2	14.3	13.3	13.7
17	3.6	3.1	3.3	7.1	5.1	5.9	13.3	11.9	12.5	14.4	13.7	14.0
18	3.4	2.8	3.0	6.2	5.6	5.8	14.1	12.7	13.4	14.4	13.7	14.0
19	3.8	2.8	3.2	5.8	5.3	5.6	13.6	12.5	13.0	14.2	13.5	13.8
20	3.9	3.3	3.5	5.8	4.8	5.3	13.2	12.5	12.9	14.3	13.6	13.9
21	4.0	3.5	3.7	7.2	4.7	5.4	13.1	12.4	12.7	14.6	13.8	14.1
22	4.5	3.6	3.8	6.3	4.4	5.0	13.4	12.6	13.0	14.7	13.9	14.2
23	4.4	3.7	4.0	5.9	4.5	4.9	13.0	12.3	12.5	14.6	13.9	14.1
24	4.4	3.8	4.0	6.4	4.7	5.2	13.4	12.0	12.5	15.3	13.9	14.5
25	4.7	4.0	4.3	6.6	4.9	5.5	13.0	12.2	12.5	15.9	14.9	15.3
26	5.2	4.1	4.6	5.8	5.3	5.5	13.1	12.1	12.5	15.3	14.7	14.9
27	5.2	4.4	4.8	6.0	5.2	5.5	12.7	11.7	12.2	15.9	15.0	15.4
28	5.3	3.7	4.2	7.5	5.1	5.9	12.4	11.7	12.1	16.2	15.2	15.6
29	---	---	---	7.1	5.4	6.0	11.8	11.3	11.6	16.8	15.5	16.1
30	---	---	---	7.0	5.7	6.2	12.2	11.2	11.5	16.2	15.4	15.8
31	---	---	---	7.8	6.2	6.7	---	---	---	16.6	15.5	16.0
MONTH	5.3	2.5	3.7	7.8	3.7	5.5	14.1	6.6	10.7	16.8	11.1	13.9

CHARLES RIVER BASIN

01104430 HOBBS BROOK BELOW CAMBRIDGE RESERVOIR NEAR KENDAL GREEN, MA--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	0.11	0.00	0.00	0.56	0.01	1.07	0.00	0.01	0.00	0.00	0.00
2	---	.00	.00	.00	.00	.02	.00	.55	.03	.00	.21	.44
3	---	.02	.00	.00	.00	.62	.24	.10	.00	.00	.00	.21
4	---	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
5	---	.29	.01	.00	.00	.00	.00	.00	.07	.00	.00	.00
6	---	.00	.00	.43	.00	.00	.00	.00	1.26	.00	.00	.00
7	---	.00	.00	.29	.00	.00	.00	.00	.59	.00	.00	.00
8	---	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
9	---	.04	.06	.00	.00	.00	.00	.04	.01	.75	.00	.00
10	---	.00	.12	.00	.16	.37	.08	.20	.00	.01	.00	.00
11	---	.00	.26	.17	.29	.00	.00	.00	.06	.00	.00	.00
12	---	.00	.08	.00	.00	.00	.00	.40	.00	.00	.00	.00
13	---	.00	.06	.98	.00	.01	.00	1.94	.00	.00	.00	.00
14	---	.00	.50	.00	.00	.00	.03	.26	.00	.00	.00	.00
15	---	.00	.06	.23	.00	.00	.11	.00	.00	.32	.00	.13
16	---	.00	.00	.00	.00	.57	.00	.00	.00	.00	.00	.92
17	---	.00	.51	.03	.14	.00	.00	.00	.11	.00	.00	.00
18	---	.00	.51	.00	.01	.31	.06	1.31	.00	.00	.00	.00
19	---	.00	.00	.10	.00	.07	.06	.00	.01	.46	.00	.00
20	---	.05	.00	.14	.00	.66	.02	.00	.00	.00	.24	.00
21	---	.00	.00	.21	.26	.07	.00	.00	.00	.00	.00	.00
22	---	.00	.00	.00	.00	.00	.24	.00	.03	.00	.18	.00
23	---	.00	.00	.00	.00	.00	.01	.00	.04	.68	.04	1.30
24	---	.00	.76	.02	.00	.00	.00	.00	.00	.01	.23	.00
25	---	.08	.00	.00	.00	.01	.87	.00	.00	.00	.01	.00
26	---	.11	.00	.00	.03	.75	.02	.00	.00	.00	.00	.15
27	---	.00	.00	.00	.50	.36	.00	.17	.66	.01	.00	.42
28	---	.01	.00	.00	.00	.00	.41	.24	.01	.03	.00	.21
29	---	.12	.00	.00	---	.00	.21	.88	.00	.03	1.31	.00
30	---	.06	.00	.18	---	.06	.01	.00	.00	.00	.05	.00
31	.10	---	.00	.45	---	.11	---	.31	---	.00	.00	---
TOTAL	---	0.89	2.93	3.25	1.95	4.00	3.44	6.40	2.89	2.30	2.27	3.79
MAX	---	0.29	0.76	0.98	0.56	0.75	1.07	1.94	1.26	0.75	1.31	1.30

CHARLES RIVER BASIN

01104455 STONY BROOK, UNNAMED TRIBUTARY 1, NEAR WALTHAM, MA

LOCATION.--Lat 42°22'21", Long 71°16'15", Middlesex County, Hydrologic Unit 01090001, 20 ft downstream of culvert on ramp from southbound lane of State Highway 128 to State Highway 20, 800 ft upstream from mouth, 1.8 mi west of Waltham.

DRAINAGE AREA.--0.48 mi²

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1997 to September 1998; October 2000 to current year.

Water-quality records: Water years 1998; October 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 85 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.-- 3 years , 0.72 ft³/s, 20.29 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 119 ft³/s, June 17, 2001, gage height, 3.82 ft; minimum, 0.12 ft³/s, Sept. 26, 2001; minimum daily, 0.07 ft³/s, Oct. 1, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76 ft³/s, June 27, gage height, 3.20 ft; minimum, 0.11 ft³/s, Oct. 1 ; minimum daily, 0.14 ft³/s, Oct. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.15	0.39	0.27	0.23	1.0	0.34	4.1	0.44	0.63	0.26	0.19	0.19
2	.14	.26	.26	.24	.40	.32	1.0	1.5	.58	.25	.41	.50
3	.15	.27	.26	.24	.36	1.7	1.3	.66	.44	.25	.19	.54
4	.19	.27	.26	.24	.36	.41	.93	.51	.40	.24	.18	.20
5	.20	.51	.26	.24	.31	.38	.83	.48	.41	.24	.18	.19
6	.23	.26	.27	.75	.31	.37	.77	.47	3.7	.23	.18	.19
7	.22	.26	.27	.95	.30	.37	.71	.46	2.5	.23	.18	.18
8	.22	.26	.28	.27	.30	.36	.68	.43	.81	.22	.18	.19
9	.21	.29	.40	.26	.27	.38	.67	.45	.70	.95	.18	.20
10	.20	.26	.24	.26	.37	1.1	.70	.89	.64	.29	.18	.20
11	.21	.27	.25	.37	1.2	.38	.57	.42	.72	.21	.18	.21
12	.21	.27	.27	.25	.31	.36	.53	1.1	.86	.22	.18	.21
13	.20	.28	.32	1.5	.30	.36	.52	5.6	.57	.21	.18	.22
14	.20	.28	1.1	.31	.31	.36	.51	2.5	.54	.21	.35	.21
15	.25	.28	.37	.49	.30	.35	.55	1.1	1.8	.45	.67	.33
16	1.2	.28	.24	.30	.31	1.5	.46	.97	1.1	.20	.22	1.1
17	.46	.27	.95	.29	.38	.45	.46	.86	.82	.20	.20	.21
18	.28	.27	1.4	.27	.34	.63	.50	4.5	.53	.19	.18	.19
19	.26	.28	.27	.28	.32	.65	.48	1.2	.44	.54	.17	.19
20	.26	.28	.26	.33	.29	1.1	.42	1.0	.40	.19	.42	.18
21	.26	.28	.26	.46	.76	1.1	.39	.90	.37	.19	.18	.18
22	.28	.28	.26	.34	.32	.68	.68	.80	.35	.19	.36	.19
23	.28	.28	.23	.32	.32	.61	.41	.89	.47	1.3	.26	3.3
24	.28	.28	1.8	.28	.31	.58	.37	.71	.32	.23	.33	.22
25	.28	.32	.23	.27	.31	.56	1.8	.61	.30	.21	.23	.21
26	.28	.35	.23	.27	.32	2.0	.83	.58	.30	.20	.19	.27
27	.28	.23	.23	.27	1.00	1.9	.46	.64	3.3	.20	.18	.79
28	.28	.24	.23	.27	.43	.88	1.00	2.0	.43	.21	.17	.54
29	.29	.27	.23	.28	---	.77	.71	2.1	.29	.26	2.4	.22
30	.29	.25	.23	.49	---	.84	.50	.74	.27	.20	.24	.22
31	.30	---	.23	.44	---	.77	---	1.2	---	.20	.19	---
TOTAL	8.54	8.57	12.36	11.76	11.81	22.56	23.84	36.71	24.99	9.17	9.53	11.77
MEAN	0.28	0.29	0.40	0.38	0.42	0.73	0.79	1.18	0.83	0.30	0.31	0.39
MAX	1.2	0.51	1.8	1.5	1.2	2.0	4.1	5.6	3.7	1.3	2.4	3.3
MIN	0.14	0.23	0.23	0.23	0.27	0.32	0.37	0.42	0.27	0.19	0.17	0.18
MED	0.26	0.28	0.26	0.28	0.32	0.58	0.62	0.86	0.54	0.22	0.19	0.21
CFSM	0.57	0.60	0.83	0.79	0.88	1.52	1.66	2.47	1.74	0.62	0.64	0.82
IN.	0.66	0.66	0.96	0.91	0.92	1.75	1.85	2.85	1.94	0.71	0.74	0.91

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	0.44	0.68	0.53	0.96	1.11	1.83	1.04	1.27	1.80	0.53	0.40	0.31
MAX	0.92	1.18	0.86	1.51	1.90	3.41	1.24	2.06	3.19	0.82	0.47	0.39
(WY)	1999	1998	2001	1999	1998	2001	2001	1998	1998	1998	1998	2002
MIN	0.17	0.29	0.23	0.38	0.42	0.73	0.79	0.56	0.83	0.30	0.31	0.24
(WY)	1998	2002	1999	2002	2002	2002	2002	2001	2002	2002	2002	2001

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1998 - 2002

ANNUAL TOTAL	304.71	191.61										
ANNUAL MEAN	0.83	0.52								0.72		
HIGHEST ANNUAL MEAN										0.91		2001
LOWEST ANNUAL MEAN										0.52		2002
HIGHEST DAILY MEAN				36	Mar 22		5.6	May 13		50	Jun 13	1998
LOWEST DAILY MEAN				0.13	Sep 26		0.14	Oct 2		0.07	Oct 1	1997
ANNUAL SEVEN-DAY MINIMUM				0.14	Sep 26		0.18	Aug 4		0.07	Oct 13	1997
MAXIMUM PEAK FLOW							76	Jun 27		119	Jun 17	2001
MAXIMUM PEAK STAGE							3.20	Jun 27		3.82	Jun 17	2001
INSTANTANEOUS LOW FLOW							0.11	Oct 1		0.11	Oct 1	2001
ANNUAL RUNOFF (CFSM)				1.74			1.09			1.49		
ANNUAL RUNOFF (INCHES)				23.62			14.85			20.29		
10 PERCENT EXCEEDS				1.6			1.0			1.4		
50 PERCENT EXCEEDS				0.40			0.31			0.37		
90 PERCENT EXCEEDS				0.20			0.19			0.20		

CHARLES RIVER BASIN

01104455 STONY BROOK, UNNAMED TRIBUTARY 1, NEAR WALTHAM, MA--Continued

PERIOD OF RECORD.-- Water year 1998, October 2000 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 2000 to current year.

WATER TEMPERATURE: October 2000 to current year.

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 72,700 $\mu\text{S}/\text{cm}$, Jan.20, 2002; minimum, 13.0 $\mu\text{S}/\text{cm}$, Dec. 24, 2001

WATER TEMPERATURE: Maximum recorded, 26.5°C, July 23, 2002; minimum, 0.1°C, Jan. 13, 2002.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 72,700 $\mu\text{S}/\text{cm}$, Jan. 20; minimum, 13.0 $\mu\text{S}/\text{cm}$, Dec. 24.

WATER TEMPERATURE: Maximum recorded, 26.5°C, July 23; minimum, 0.1°C, Jan. 13.

SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$ AT 25°C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1,260	1,210	1,230	1,150	229	752	1,110	967	1,050	1,140	1,120	1,130			
2	1,240	1,220	1,230	1,170	1,100	1,150	1,210	984	1,080	1,130	1,110	1,120			
3	1,240	1,210	1,230	1,180	1,100	1,150	1,100	1,000	1,070	1,120	1,100	1,110			
4	1,240	1,200	1,230	1,190	1,150	1,160	1,100	1,020	1,060	1,100	1,080	1,090			
5	1,240	1,210	1,220	1,160	81	658	1,110	1,010	1,060	1,090	1,080	1,080			
6	1,280	712	1,130	1,190	271	893	1,120	933	1,040	1,120	165	1,040			
7	1,220	1,110	1,190	1,180	1,080	1,140	1,120	948	1,040	13,000	55	2,810			
8	1,280	1,200	1,220	1,200	1,110	1,150	1,100	1,030	1,060	24,400	13,000	21,800			
9	1,250	1,190	1,220	1,190	631	992	34,900	992	22,300	21,200	9,930	15,700			
10	1,240	1,160	1,210	1,150	1,130	1,140	26,000	9,310	16,000	9,930	5,890	7,800			
11	1,230	1,180	1,210	1,210	1,100	1,140	9,310	4,490	5,770	12,000	1,580	4,830			
12	1,260	1,170	1,210	1,200	1,120	1,150	5,910	1,890	4,320	1,580	1,220	1,320			
13	1,240	1,150	1,200	1,170	1,120	1,150	6,790	870	1,530	24,200	1,110	6,600			
14	1,220	1,200	1,210	1,160	1,080	1,130	2,110	58	928	2,670	1,360	1,750			
15	1,210	281	918	1,170	1,110	1,140	1,140	60	592	19,100	1,350	6,940			
16	1,210	25	1,070	1,200	1,080	1,130	1,210	1,140	1,170	1,830	1,260	1,500			
17	1,180	31	780	1,160	1,110	1,130	38,900	388	10,400	17,900	1,250	10,100			
18	1,230	1,140	1,180	1,150	1,050	1,130	1,020	175	460	17,200	8,440	11,900			
19	1,220	1,180	1,200	1,150	1,110	1,130	1,300	1,020	1,210	34,700	6,400	10,100			
20	1,220	1,170	1,190	1,150	1,040	1,110	1,290	1,210	1,240	72,700	34,700	67,100			
21	1,210	1,160	1,190	1,130	1,050	1,110	1,310	1,210	1,230	67,600	5,720	49,900			
22	1,210	1,140	1,190	1,140	1,100	1,110	1,250	1,220	1,230	5,720	2,780	3,830			
23	1,220	1,180	1,200	1,160	1,090	1,110	1,240	1,210	1,230	2,780	2,100	2,490			
24	1,210	1,170	1,190	1,160	1,090	1,100	1,250	13	548	2,100	1,920	1,960			
25	1,210	1,160	1,180	1,290	643	1,090	1,110	891	1,020	2,050	1,950	1,990			
26	1,660	1,160	1,270	1,080	85	698	1,140	1,110	1,120	2,110	2,050	2,080			
27	1,200	1,150	1,180	1,120	1,020	1,090	1,160	1,140	1,140	2,090	2,020	2,060			
28	1,230	1,160	1,190	1,120	1,040	1,090	1,150	1,150	1,150	2,050	1,990	2,020			
29	1,190	1,160	1,180	1,070	687	882	1,150	1,150	1,150	2,000	1,880	1,940			
30	1,210	1,160	1,180	1,120	1,000	1,060	1,150	1,140	1,150	2,180	1,850	1,990			
31	1,200	868	1,180	---	---	---	1,150	1,140	1,140	29,900	1,750	8,850			
MONTH	1,660	25	1,170	1,290	81	1,060	38,900	13	2,790	72,700	55	8,260			

CHARLES RIVER BASIN

01104455 STONY BROOK, UNNAMED TRIBUTARY 1, NEAR WALTHAM, MA--Continued

WATER TEMPERATURE (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	13.4	13.0	13.3	13.0	11.3	12.5	12.9	12.6	12.8	10.9	9.7	10.2	
2	13.4	12.8	13.2	13.4	12.8	13.2	12.7	11.3	12.1	10.9	9.8	10.3	
3	13.6	13.0	13.3	13.4	12.8	13.2	11.7	10.8	11.4	11.0	9.9	10.3	
4	13.6	13.4	13.5	13.1	12.3	12.7	12.0	10.9	11.6	10.9	9.9	10.2	
5	13.7	13.5	13.5	12.8	9.1	11.6	12.4	11.9	12.2	11.0	10.0	10.4	
6	16.0	13.4	14.2	12.2	10.5	11.7	12.5	12.0	12.3	11.2	3.8	10.4	
7	13.5	12.9	13.2	12.8	11.6	12.3	12.4	11.0	12.0	8.9	3.1	7.1	
8	13.3	12.1	12.9	12.4	11.5	12.1	11.6	10.7	11.2	9.6	8.8	9.2	
9	13.2	12.0	12.6	12.8	11.4	12.1	11.5	2.1	7.2	10.2	9.4	9.8	
10	13.3	12.7	13.1	12.2	11.3	11.8	10.6	7.9	9.6	10.4	9.7	10.1	
11	13.5	13.0	13.3	12.7	11.1	12.0	11.3	10.3	10.9	10.6	6.8	9.3	
12	13.6	13.4	13.5	12.4	10.8	11.5	11.7	9.9	10.6	10.5	9.2	10.1	
13	13.5	13.4	13.5	12.1	10.7	11.3	10.8	8.5	9.8	10.6	.1	5.4	
14	13.5	13.4	13.5	12.3	11.4	11.9	11.8	9.1	10.8	8.7	6.6	7.7	
15	15.6	13.2	14.1	12.5	11.6	12.1	11.0	9.2	10.2	9.1	2.4	6.7	
16	16.0	12.7	13.5	12.8	12.3	12.6	11.5	10.4	11.0	9.3	7.7	8.6	
17	15.4	13.5	14.2	12.4	11.4	11.9	10.8	3.9	8.3	9.3	8.8	9.1	
18	13.5	12.5	13.1	12.2	11.2	11.7	9.2	3.6	5.9	9.8	9.1	9.4	
19	13.1	12.2	12.7	12.4	11.9	12.2	10.8	9.2	10.1	9.5	6.8	9.1	
20	13.4	12.8	13.1	12.8	10.9	12.2	11.4	10.3	10.9	8.4	4.8	6.9	
21	13.4	12.6	13.0	11.9	10.8	11.2	11.6	10.8	11.1	9.2	3.8	7.7	
22	13.5	13.1	13.4	12.2	11.1	11.5	11.4	10.6	11.1	9.3	6.9	8.0	
23	13.4	12.6	13.0	12.2	10.9	11.5	11.2	10.3	10.8	9.4	7.2	8.5	
24	13.5	13.4	13.5	12.4	11.4	11.9	11.5	4.6	8.4	9.8	9.1	9.6	
25	13.5	13.3	13.5	12.8	11.7	12.2	10.5	9.7	10.0	9.9	9.4	9.8	
26	13.3	12.5	13.0	12.9	12.0	12.7	10.8	10.2	10.5	10.0	9.4	9.7	
27	13.1	12.3	12.7	12.6	12.0	12.4	11.0	10.1	10.5	10.2	9.6	9.9	
28	13.0	11.7	12.5	12.7	12.0	12.4	10.4	9.9	10.2	10.3	9.8	10.0	
29	12.8	11.5	12.1	12.4	11.2	11.8	10.5	10.2	10.3	10.4	9.7	10.0	
30	13.0	11.8	12.4	12.7	11.9	12.3	10.8	10.0	10.4	10.3	7.2	9.3	
31	12.8	11.3	12.0	---	---	---	10.9	9.9	10.3	9.8	2.2	7.8	
MONTH	16.0	11.3	13.2	13.4	9.1	12.1	12.9	2.1	10.5	11.2	0.1	9.1	

DAY	MAX	FEBRUARY			MARCH			APRIL			MAY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	6.5	2.5	4.4	9.2	8.1	8.6	10.2	8.2	9.2	11.7	10.1	10.7	
2	7.8	6.5	7.3	9.4	8.4	8.9	10.8	8.2	9.3	10.9	9.4	10.5	
3	8.2	7.0	7.6	10.1	5.9	8.9	11.7	9.0	10.2	11.4	9.7	10.6	
4	8.7	8.0	8.3	9.6	8.2	8.8	10.8	9.0	9.6	12.2	10.2	11.0	
5	8.7	7.9	8.1	8.7	7.8	8.2	10.2	8.6	9.3	12.5	10.6	11.4	
6	8.8	8.1	8.4	9.2	8.0	8.6	10.3	8.8	9.3	12.7	10.9	11.6	
7	9.3	8.5	8.8	9.8	8.5	9.1	10.5	8.3	9.2	12.5	11.3	11.9	
8	9.4	8.6	9.0	9.6	9.0	9.3	10.5	9.2	9.7	12.2	11.4	11.8	
9	9.3	8.8	9.2	10.7	9.5	10	12.2	9.9	10.8	12.4	11.2	11.4	
10	9.5	7.6	8.9	13.3	8.7	10.5	12.4	10.8	11.4	13.5	11.8	12.5	
11	8.7	6.8	7.8	9.5	8.3	8.7	11.5	10.1	10.7	11.9	11.1	11.5	
12	8.5	7.3	7.8	9.5	8.6	9.0	11.8	9.7	10.7	13.4	11.3	11.8	
13	8.8	8.1	8.5	9.7	8.8	9.3	12.3	10.9	11.5	11.8	8.6	10.8	
14	8.7	7.8	8.2	10.7	9.4	9.9	12.5	11.2	11.7	12.2	8.8	10.9	
15	9.2	8.4	8.8	9.9	9.2	9.7	12.2	11.1	11.5	11.5	10.6	11.1	
16	9.9	9.2	9.4	9.7	6.3	8.6	12.7	10.9	11.6	13.0	10.8	11.8	
17	9.5	6.5	8.8	9.6	8.0	8.7	13.2	11.4	12.2	12.9	12.2	12.4	
18	9.2	6.9	8.4	9.0	4.6	7.9	14.1	11.5	12.2	12.2	8.1	10.5	
19	9.1	8.0	8.5	8.3	6.2	7.6	15.7	11.2	12.0	12.1	10.3	11.1	
20	9.8	8.9	9.4	8.8	1.4	6.6	12.1	11.2	11.7	11.9	10.7	11.3	
21	10.1	8.0	9.4	10.9	3.6	7.7	11.3	10.7	11.0	11.9	10.7	11.3	
22	9.8	9.4	9.6	8.1	6.2	7.2	10.7	9.4	10.2	12.6	11.0	11.7	
23	9.7	9.1	9.4	8.8	6.8	7.7	10.6	9.8	10.3	13.8	11.4	12.6	
24	9.7	8.8	9.2	9.6	7.9	8.5	11.3	9.9	10.6	13.4	12.1	12.7	
25	9.8	9.1	9.4	9.8	8.3	8.9	11.2	4.2	9.9	12.7	11.7	12.1	
26	10.2	9.3	9.7	8.9	5.1	7.7	10.6	5.4	9.1	12.5	11.7	12.0	
27	10.2	3.2	7.9	8.4	5.8	7.3	11.5	9.5	10.3	16.9	12.0	12.7	
28	8.3	7.1	7.8	10.2	7.5	8.6	10.6	9.6	10.3	19.6	12.5	14.2	
29	---	---	---	10.6	8.1	9.1	10.5	9.2	10	20.8	13.2	15.0	
30	---	---	---	10.5	9.0	9.7	11.3	9.3	10.4	15.1	13.5	14.0	
31	---	---	---	10.8	9.2	9.8	---	---	---	20.0	13.3	14.5	
MONTH	10.2	2.5	8.5	13.3	1.4	8.7	15.7	4.2	10.5	20.8	8.1	11.9	

CHARLES RIVER BASIN

01104480 STONY BROOK RESERVOIR AT DAM NEAR WALTHAM, MA

LOCATION.--Lat 42°21'20", Long 71°15'56", Middlesex County, Hydrologic Unit 01090001, 10 ft upstream from bridge on River Road, 300 ft downstream from gate house outlet for Stony Brook Reservoir, and 2.0 mi southwest of Waltham.

DRAINAGE AREA.--23.7 mi²

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: October 1999 to current year.

Water-quality records (Stony Brook Reservoir): Water years 2000, 2002.

GAGE.--Water-stage recorder located about 300 ft downstream from Stony Brook Dam. Elevation of gage is 43 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. Flow affected by regulation of dam, 300 ft upstream at outflow of Stony Brook Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 479 ft³/s, Mar. 23, 2001, gage height, 5.27 ft; minimum, no flow, many days throughout the period of record (controlled shutdown); minimum daily, no flow, Jan. 22--29, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 166 ft³/s, Dec. 12, gage height, 2.91 ft; minimum, no flow, many days throughout the water year (controlled shutdown); minimum daily, no flow, Sept. 15, 18--22.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.8	4.2	0.05	16	0.22	20	14	30	0.07	0.06	0.04
2	1.2	2.6	1.2	.05	17	.13	46	15	23	.07	.06	.04
3	1.2	3.5	.90	.05	7.1	.19	37	24	22	.07	.06	.04
4	1.3	3.5	.95	.05	.05	.29	30	17	18	.07	.06	.04
5	1.2	3.8	.97	.05	5.0	.21	23	8.3	3.6	.06	.06	.04
6	2.0	3.9	1.1	.05	8.6	.19	17	.15	9.9	.06	.06	.04
7	.12	3.7	2.1	.06	8.3	.48	13	.07	38	.06	.07	.04
8	.11	3.7	1.8	.05	8.7	.44	10	.07	38	.06	.07	.04
9	.18	4.4	1.6	17	9.0	.27	9.1	.07	21	.06	.07	.04
10	.27	4.2	.87	22	7.7	.43	9.8	.08	11	.07	.12	30
11	.31	4.6	.54	.06	9.3	.26	7.8	.07	15	.06	.18	89
12	.42	4.1	11	.06	8.3	.17	5.1	.07	14	.06	.27	52
13	.44	3.9	.06	22	9.2	.13	3.6	.22	14	.06	.27	.02
14	.38	3.9	.09	11	8.6	.29	3.0	56	13	.06	.11	.01
15	.66	4.2	.44	19	8.4	.12	2.2	68	19	.06	.06	.00
16	.65	4.6	.38	23	8.8	.15	2.1	43	26	.06	.07	.02
17	1.2	4.7	9.0	12	8.7	.09	1.3	27	30	.06	.07	.01
18	.92	4.3	.22	.05	9.0	.08	.18	40	27	.06	.07	.00
19	.84	4.3	13	.05	11	.11	.11	58	21	.07	.10	.00
20	1.1	5.1	18	13	14	.15	.14	48	16	.06	.16	.00
21	1.0	4.6	.05	22	14	.16	.10	42	8.4	.06	.10	.00
22	1.4	4.7	.05	22	15	.16	.09	34	4.3	.06	.07	.00
23	1.2	4.7	12	21	14	.14	.07	28	2.3	.10	.14	.03
24	1.5	4.3	16	21	14	.23	.07	17	1.6	.07	.20	.03
25	1.8	4.2	19	22	5.9	.41	.10	12	2.3	.06	.22	.03
26	2.0	4.7	18	21	.05	.20	.53	9.2	1.7	.06	.21	.03
27	2.2	4.5	8.6	9.6	.22	.16	6.5	8.1	.27	.06	.23	.04
28	2.6	4.9	.05	5.1	.19	.10	6.4	15	e .07	.06	.20	.04
29	2.5	4.7	.05	16	---	.11	11	27	e .07	.06	.22	.05
30	2.7	4.4	.05	17	---	.16	15	37	e .07	.06	.04	.05
31	2.7	---	.05	16	---	.21	---	32	---	.06	.04	---
TOTAL	37.20	125.5	142.32	332.33	246.11	6.44	280.29	680.40	430.58	1.97	3.72	171.72
MEAN	1.20	4.18	4.59	10.7	8.79	0.21	9.34	21.9	14.4	0.064	0.12	5.72
MAX	2.7	5.1	19	23	17	0.48	46	68	38	0.10	0.27	89
MIN	0.11	2.6	0.05	0.05	0.05	0.08	0.07	0.07	0.07	0.06	0.04	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

	1999	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000
MEAN	32.5	18.7	25.6	16.6	20.8	57.6	58.9	26.3	14.6	3.84	4.88	12.5
MAX	45.1	32.3	46.1	31.7	47.3	102	88.6	56.6	24.6	9.98	14.3	22.7
(WY)	2001	2001	2001	2000	2000	2001	2000	2000	2000	2000	2000	2000
MIN	19.9	4.18	4.59	7.35	5.32	0.21	9.34	0.26	4.96	0.064	0.12	0.73
(WY)	2000	2002	2002	2001	2001	2002	2002	2001	2001	2002	2002	2001

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1999 - 2002
ANNUAL MEAN			31.6
HIGHEST ANNUAL MEAN			35.9
LOWEST ANNUAL MEAN			27.2
HIGHEST DAILY MEAN	320	Mar 23	89
LOWEST DAILY MEAN	0.00	Jan 22	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 22	0.00
MAXIMUM PEAK FLOW			166
MAXIMUM PEAK STAGE			2.91
INSTANTANEOUS LOW FLOW			0.00
10 PERCENT EXCEEDS			75
50 PERCENT EXCEEDS			20
90 PERCENT EXCEEDS			0.15

e Estimated

CHARLES RIVER BASIN

01104480 STONY BROOK RESERVOIR AT DAM NEAR WALTHAM, MA--Continued

RESERVOIR ELEVATION RECORDS

PERIOD OF RECORD.--October 2001 to September 2002.

GAGE.--Water-stage recorder. Datum of gage is 80.30 ft (city of Cambridge datum). Add 10.34 ft to elevations to adjust to National Geodetic Vertical Datum of 1929.

INSTRUMENTATION.--Submersible pressure sensor.

REMARKS.--Records excellent.

EXTREMES FOR THE PERIOD OCTOBER 2001 TO SEPTEMBER 2002.--Maximum recorded elevation, 81.13 ft, May 15; minimum, 62.60 ft (manual measurement when reservoir elevation was below sensor), Sept. 16.

RESERVOIR ELEVATION SURFACE WATER (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73.63	75.16	76.44	78.10	75.94	78.40	80.51	80.51	80.68	79.31	76.40	70.62
2	73.70	75.21	76.49	78.17	75.97	78.43	80.82	80.53	80.62	78.93	76.43	69.95
3	73.76	75.27	76.51	78.23	75.93	78.60	80.74	80.64	80.62	78.41	76.45	69.40
4	73.75	75.30	76.54	78.29	76.19	78.69	80.68	80.55	80.57	77.86	76.48	68.80
5	73.69	75.36	76.57	78.34	76.43	78.48	80.60	80.43	80.33	77.31	76.56	68.31
6	73.72	75.42	76.60	78.39	76.45	78.16	80.54	80.12	80.45	76.73	76.60	67.85
7	73.78	75.46	76.64	78.66	76.41	77.82	80.48	80.12	80.76	76.16	76.57	67.49
8	73.82	75.50	76.65	78.91	76.39	77.44	80.44	79.67	80.75	75.59	76.54	67.24
9	73.85	75.55	76.74	78.91	76.36	77.03	80.42	79.57	80.58	75.04	76.44	67.06
10	73.90	75.58	76.78	78.41	76.29	76.77	80.44	79.60	80.47	74.96	76.32	66.60
11	73.95	75.63	76.83	78.37	76.55	76.53	80.41	79.58	80.53	75.25	76.20	---
12	74.00	75.65	76.82	78.57	76.81	76.30	80.35	79.46	80.53	75.61	76.07	---
13	74.05	75.67	76.83	78.66	76.96	76.07	80.33	79.69	80.52	75.86	75.95	---
14	74.10	75.70	76.93	78.54	76.99	75.88	80.32	80.90	80.50	76.02	75.83	---
15	74.16	75.74	77.19	78.66	76.99	75.84	80.31	81.02	80.59	76.13	75.71	---
16	74.22	75.79	77.32	78.32	77.00	75.97	80.30	80.80	80.65	76.19	75.58	---
17	74.44	75.82	77.32	78.03	77.03	76.25	80.28	80.66	80.68	76.10	75.48	---
18	74.55	75.83	77.59	78.17	77.11	76.43	80.24	80.79	80.67	75.99	75.38	66.36
19	74.60	75.86	77.83	78.33	77.17	76.60	80.12	80.93	80.60	75.98	75.28	67.39
20	74.67	75.90	77.72	78.42	77.15	76.81	80.03	80.84	80.54	75.94	75.15	68.27
21	74.72	75.95	77.78	78.03	77.18	77.14	79.90	80.80	80.43	75.84	74.97	69.02
22	74.78	76.01	77.99	77.64	77.28	77.63	79.75	80.73	80.36	75.72	74.78	69.68
23	74.83	76.06	77.97	77.23	77.29	77.92	79.72	80.67	80.32	75.66	74.64	70.49
24	74.88	76.09	77.96	76.89	77.24	78.04	79.77	80.56	80.32	75.83	74.47	70.43
25	74.94	76.12	77.91	76.62	77.20	77.86	79.77	80.50	80.33	75.93	74.32	70.11
26	74.98	76.19	77.71	76.34	77.43	77.62	80.16	80.45	80.31	76.01	74.15	70.29
27	75.01	76.25	77.54	76.13	77.76	78.01	80.39	80.43	80.27	76.09	73.93	70.56
28	75.03	76.29	77.66	76.31	78.15	78.68	80.39	80.53	---	76.17	73.30	70.82
29	75.05	76.33	77.81	76.22	---	79.18	80.48	80.66	---	76.27	72.56	70.97
30	75.08	76.38	77.92	76.09	---	79.56	80.51	80.76	---	76.33	72.09	71.15
31	---	---	78.02	75.97	---	79.85	---	80.70	---	76.37	71.39	---
MEAN	---	75.77	77.25	77.80	76.84	77.55	80.31	80.42	---	76.31	75.23	---
MAX	---	76.38	78.02	78.91	78.15	79.85	80.82	81.02	---	79.31	76.60	---
MIN	---	75.16	76.44	75.97	75.93	75.84	79.72	79.46	---	74.96	71.39	---

CHARLES RIVER BASIN

01104480 STONY BROOK RESERVOIR AT DAM NEAR WALTHAM, MA--Continued

RESERVOIR WATER-QUALITY AND METEOROLOGICAL RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 2001 to September 2002.

WATER TEMPERATURE: October 2001 to April 2002.

pH: November 2001 to September 2002.

DISSOLVED OXYGEN: November 2001 to September 2002.

TURBIDITY: November 2001 to September 2002.

AIR TEMPERATURE: November 2001 to September 2002.

PRECIPITATION: November 2001 to September 2002.

INSTRUMENTATION.--Specific conductance, water temperature, pH, dissolved oxygen, and turbidity water-quality monitor equipped with a flow-through system that receives reservoir water from a submersible pump; air temperature monitor; and heated tipping-bucket precipitation gage with wind screen.

REMARKS.--Specific conductance and precipitation records excellent; water temperature, pH, dissolved oxygen, turbidity, and air temperature records good.

EXTREMES FOR THE PERIOD OCTOBER 2001 TO SEPTEMBER 2002.--

SPECIFIC CONDUCTANCE: Maximum recorded, 865 mS/cm, Aug. 26, 27; minimum, 364 mS/cm, May 24-26, 28.

WATER TEMPERATURE: Maximum recorded, 19.2°C, Oct. 2; minimum, 2.5°C, Jan. 2, Feb. 2.

pH: Maximum recorded, 7.5 units, Sept. 23; minimum, 6.6 units, July 6-9.

DISSOLVED OXYGEN: Maximum recorded, 13.0 mg/L, Jan. 24; minimum, 4.6 mg/L, Aug. 27.

TURBIDITY: Maximum recorded, 97 NTUs, Apr. 30; minimum, 0.4 NTUs, June 10, 11.

AIR TEMPERATURE: Maximum recorded, 36.5°C, Aug. 14; minimum, -10.0°C, Feb. 3, 12.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	730	724	728	738	720	731	716	711	714	676	670	674
2	737	726	732	737	730	734	716	705	713	677	671	674
3	736	732	734	736	730	733	716	711	714	678	675	677
4	738	732	735	739	728	733	715	710	713	679	675	677
5	737	732	735	735	726	732	714	711	712	680	678	679
6	739	728	734	736	725	733	715	708	712	681	678	680
7	740	735	737	735	727	732	714	707	711	680	665	672
8	737	730	734	734	727	732	714	708	711	674	656	667
9	737	732	734	734	727	731	713	705	709	675	667	672
10	738	731	734	733	729	731	715	710	713	675	651	669
11	741	733	735	732	725	730	714	707	712	678	630	664
12	743	736	739	732	727	729	710	698	706	677	633	665
13	743	724	739	731	726	729	708	694	702	677	628	654
14	742	732	736	732	727	729	708	700	705	674	631	647
15	741	736	738	731	726	729	709	693	701	669	622	647
16	743	728	739	731	721	727	704	698	702	658	636	642
17	740	716	732	728	721	726	701	692	697	672	623	650
18	740	728	735	728	725	727	696	657	679	677	629	650
19	747	735	740	728	724	726	690	665	681	675	650	665
20	748	731	740	726	714	721	692	673	685	681	633	648
21	741	735	737	725	720	722	697	679	689	658	646	650
22	740	734	737	725	721	723	696	687	691	649	637	644
23	739	732	736	725	721	723	692	687	690	660	641	647
24	740	731	736	725	721	722	692	658	682	647	597	638
25	741	729	734	723	714	719	682	666	677	643	610	621
26	751	729	733	722	708	717	682	672	679	654	615	632
27	734	727	732	722	713	719	674	663	668	667	602	637
28	735	728	732	722	715	718	676	671	674	659	626	643
29	737	733	735	718	712	716	676	671	674	651	583	617
30	736	730	735	719	713	717	676	671	673	639	573	597
31	---	---	---	---	---	---	676	669	673	642	575	594
MONTH	---	---	---	739	708	726	716	657	696	681	573	651

CHARLES RIVER BASIN

01104480 STONY BROOK RESERVOIR AT DAM NEAR WALTHAM, MA--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	FEBRUARY			MAX	MARCH			MAX	APRIL			MAX	MAY		
		MIN	MEAN	MAX		MIN	MEAN	MAX		MIN	MEAN	MAX		MIN	MEAN	
1	634	563	583	637	584	593	533	485	503	446	427	440				
2	600	574	586	667	593	611	531	495	508	447	440	443				
3	648	600	624	612	590	603	518	474	503	447	443	445				
4	644	602	627	598	585	592	519	469	486	445	442	444				
5	638	602	624	592	580	586	517	471	488	445	441	443				
6	637	600	618	591	584	589	486	453	462	443	439	441				
7	641	618	631	590	573	584	500	454	465	443	439	441				
8	633	612	621	587	574	582	477	451	461	443	439	441				
9	621	609	615	589	584	585	471	454	461	441	437	439				
10	641	612	622	587	572	579	513	445	462	441	437	439				
11	635	576	615	575	568	572	465	449	455	441	439	440				
12	660	622	634	572	567	570	476	447	456	441	439	440				
13	635	619	627	571	558	568	457	447	451	441	435	439				
14	636	626	633	566	554	561	461	444	451	436	421	431				
15	648	629	635	566	551	561	457	442	449	434	426	430				
16	643	616	632	562	539	550	458	446	450	427	411	423				
17	630	606	617	559	551	556	467	447	453	419	407	413				
18	625	611	619	559	556	557	478	449	455	409	400	403				
19	626	612	621	557	528	545	460	447	452	401	390	397				
20	625	577	608	554	526	542	462	448	453	391	379	385				
21	597	577	590	550	526	540	458	445	452	381	375	378				
22	589	559	573	545	530	540	453	442	448	376	371	372				
23	577	540	565	544	533	539	449	434	443	371	366	368				
24	546	538	542	543	534	539	458	429	441	367	364	366				
25	561	544	551	546	528	542	456	436	443	366	364	365				
26	576	549	558	548	537	545	444	435	438	367	364	365				
27	592	551	572	547	514	528	448	437	441	368	367	367				
28	592	578	583	533	520	526	443	433	439	368	364	366				
29	---	---	---	536	522	530	438	429	436	369	365	368				
30	---	---	---	532	513	527	450	433	439	369	367	368				
31	---	---	---	536	511	526	---	---	---	375	367	370				
MONTH	660	538	604	667	511	560	533	429	458	447	364	409				

DAY	MAX	JUNE			MAX	JULY			MAX	AUGUST			MAX	SEPTEMBER		
		MIN	MEAN	MAX		MIN	MEAN	MAX		MIN	MEAN	MAX		MIN	MEAN	
1	375	372	374	426	412	418	664	644	653	830	827	829				
2	380	374	377	429	414	420	670	658	665	828	825	827				
3	382	379	380	432	420	426	658	610	638	825	818	821				
4	382	375	380	428	414	424	610	578	594	819	814	817				
5	384	380	383	445	424	433	716	605	688	821	811	815				
6	384	381	383	452	438	445	755	716	752	811	809	809				
7	384	380	382	454	438	445	759	755	757	---	---	---				
8	387	382	384	468	445	459	763	759	762	---	---	---				
9	387	382	385	480	463	472	793	763	771	---	---	---				
10	387	381	384	505	471	483	808	793	801	---	---	---				
11	384	370	377	536	483	495	---	---	---	---	---	---				
12	370	367	368	537	498	519	---	---	---	---	---	---				
13	372	367	370	557	537	546	---	---	---	---	---	---				
14	374	372	373	574	557	567	830	826	828	---	---	---				
15	375	373	374	588	574	582	832	826	830	---	---	---				
16	376	375	376	597	588	593	833	830	831	---	---	---				
17	376	376	376	608	597	602	838	830	835	---	---	---				
18	378	376	377	619	608	614	846	837	840	---	---	---				
19	379	378	378	630	619	624	849	843	845	---	---	---				
20	382	379	380	638	630	634	846	843	844	---	---	---				
21	383	382	382	644	638	642	846	843	844	---	---	---				
22	386	383	385	643	637	640	857	844	853	---	---	---				
23	389	386	388	637	623	627	860	855	857	839	831	837				
24	393	389	391	645	623	631	861	857	859	840	827	839				
25	398	393	396	653	645	650	863	857	859	840	834	839				
26	400	398	399	652	645	647	865	858	862	838	832	836				
27	402	400	401	645	548	617	865	860	863	832	814	823				
28	---	---	---	627	516	565	862	860	861	814	809	812				
29	---	---	---	636	627	632	863	828	852	811	810	811				
30	---	---	---	637	633	635	831	828	829	810	807	808				
31	---	---	---	644	637	640	831	828	829	---	---	---				
MONTH	---	---	---	653	412	552	---	---	---	---	---	---				

CHARLES RIVER BASIN

01104480 STONY BROOK RESERVOIR AT DAM NEAR WALTHAM, MA--Continued

WATER TEMPERATURE (DEG. C), WATER YEAR OCTOBER 2001 TO MAY 2002

DAY	MAX	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	18.3	17.8	18.0	13.0	12.2	12.3	9.7	8.7	9.1	3.5	2.8	3.2	
2	19.2	17.4	18.1	12.8	12.3	12.5	9.5	9.3	9.4	3.3	2.5	2.8	
3	18.6	17.5	17.8	13.2	12.8	13.1	9.3	8.8	8.9	3.6	3.1	3.3	
4	18.5	17.4	17.9	13.3	12.8	13.0	9.0	8.6	8.8	3.3	2.8	3.0	
5	18.8	17.8	18.2	13.0	12.0	12.5	9.4	8.7	9.0	3.4	3.2	3.3	
6	18.4	17.7	18.0	12.0	11.4	11.7	9.3	8.8	9.0	3.6	3.4	3.5	
7	17.7	16.8	17.4	11.6	11.1	11.3	9.3	9.0	9.2	3.6	3.1	3.3	
8	16.8	15.8	16.2	11.2	10.7	11.0	9.1	8.5	8.7	3.4	2.7	3.0	
9	16.6	15.3	15.8	11.0	10.6	10.8	8.6	7.9	8.1	3.6	3.3	3.5	
10	16.1	15.3	15.6	10.6	10.3	10.5	7.9	7.6	7.7	3.7	3.3	3.5	
11	16.2	15.3	15.7	10.5	9.8	10.1	7.7	7.5	7.6	3.8	3.2	3.6	
12	17.0	15.9	16.3	9.8	9.2	9.5	7.6	7.1	7.3	3.8	3.2	3.6	
13	16.8	16.3	16.6	9.6	8.9	9.2	7.2	7.0	7.1	3.9	2.6	3.3	
14	16.4	15.8	16.1	9.3	9.1	9.2	7.4	7.1	7.3	3.7	2.8	3.1	
15	16.7	15.8	16.1	9.3	9.0	9.1	7.4	6.7	7.2	3.7	2.7	3.2	
16	16.1	15.5	15.8	9.9	9.1	9.5	6.7	6.1	6.4	3.3	2.9	3.1	
17	16.0	15.2	15.7	9.6	9.0	9.2	6.2	5.9	6.0	3.6	3.1	3.4	
18	15.5	14.7	15.1	9.1	8.8	8.9	6.0	5.6	5.8	3.7	3.0	3.4	
19	15.0	14.5	14.7	8.9	8.7	8.8	5.8	5.4	5.6	3.6	3.4	3.5	
20	15.3	14.2	14.7	9.0	8.5	8.8	5.7	5.5	5.6	3.4	2.6	3.0	
21	14.7	14.2	14.4	8.7	8.2	8.5	5.5	4.8	5.2	3.3	3.1	3.2	
22	15.5	14.1	14.8	8.7	8.3	8.5	4.8	4.4	4.6	3.3	3.0	3.2	
23	15.0	14.3	14.5	8.5	8.1	8.2	4.5	4.0	4.3	3.5	3.2	3.3	
24	14.7	14.3	14.5	8.1	7.9	8.0	4.7	4.4	4.5	3.5	3.3	3.4	
25	15.2	14.5	14.9	8.3	8.0	8.1	4.6	4.2	4.4	3.5	3.1	3.3	
26	15.1	14.5	14.8	9.4	8.3	8.8	4.3	3.8	4.1	3.8	3.4	3.6	
27	14.5	13.9	14.2	9.3	8.6	9.0	3.8	3.2	3.4	3.8	3.0	3.5	
28	14.0	13.3	13.6	9.4	8.6	9.0	3.8	3.5	3.7	4.1	3.7	3.9	
29	13.8	12.9	13.3	9.1	8.8	8.9	4.0	3.5	3.7	4.7	3.7	4.1	
30	13.2	12.4	12.9	8.9	8.7	8.8	4.0	2.8	3.3	4.5	4.3	4.5	
31	12.4	12.0	12.3	---	---	---	3.6	2.7	3.1	4.3	3.7	3.9	
MONTH	19.2	12.0	15.6	13.3	7.9	9.9	9.7	2.7	6.4	4.7	2.5	3.4	

DAY	MAX	FEBRUARY			MARCH			APRIL			MAY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	3.9	3.0	3.2	5.1	4.2	4.6	8.4	6.8	7.8	---	---	---	
2	3.0	2.5	2.8	4.9	4.6	4.8	8.1	7.1	7.6	---	---	---	
3	3.6	2.9	3.2	5.3	4.8	5.0	8.8	7.1	7.8	---	---	---	
4	3.7	3.5	3.6	5.8	5.0	5.3	9.5	7.6	8.6	---	---	---	
5	3.6	3.2	3.4	5.4	4.6	5.0	8.9	7.8	8.4	---	---	---	
6	3.7	2.9	3.4	5.2	4.8	5.0	9.3	8.3	8.9	---	---	---	
7	3.8	3.4	3.7	5.3	4.8	5.0	9.1	8.0	8.5	---	---	---	
8	3.8	3.5	3.7	5.1	4.8	5.0	8.6	8.1	8.2	---	---	---	
9	3.9	3.2	3.6	5.5	5.0	5.2	9.2	8.2	8.5	---	---	---	
10	3.9	3.3	3.6	6.6	5.3	6.0	11.1	8.9	9.9	---	---	---	
11	3.9	3.2	3.7	6.5	5.4	5.9	10.3	9.2	9.7	---	---	---	
12	3.7	3.0	3.4	6.1	5.8	5.9	10.5	9.1	9.8	---	---	---	
13	3.6	2.6	3.3	6.0	5.6	5.8	10.6	10.0	10.2	---	---	---	
14	3.4	2.6	3.0	7.5	5.9	6.5	12.8	9.9	11.0	---	---	---	
15	3.7	3.4	3.5	6.9	6.4	6.6	12.2	10.4	11.3	---	---	---	
16	4.0	3.5	3.7	6.7	6.0	6.5	11.9	11.0	11.4	---	---	---	
17	3.7	3.2	3.6	6.5	5.6	6.0	12.6	10.5	11.6	---	---	---	
18	3.9	3.3	3.6	6.0	5.7	5.8	13.1	11.0	12.0	---	---	---	
19	4.0	3.0	3.5	5.9	5.4	5.7	13.2	11.9	12.3	---	---	---	
20	4.0	3.5	3.7	5.8	5.3	5.7	13.3	11.9	12.6	---	---	---	
21	4.6	3.9	4.1	6.4	5.0	5.5	15.4	12.6	13.5	---	---	---	
22	4.8	4.0	4.5	5.6	4.9	5.2	13.8	12.7	13.2	---	---	---	
23	5.0	4.3	4.6	5.4	4.8	5.1	13.7	12.3	13.2	---	---	---	
24	4.7	4.2	4.4	6.0	4.9	5.5	13.3	12.1	12.6	---	---	---	
25	4.5	4.2	4.4	6.6	5.4	5.9	12.9	11.6	12.3	---	---	---	
26	4.9	4.3	4.5	5.9	5.5	5.7	13.3	12.1	12.7	---	---	---	
27	5.5	4.8	5.1	6.1	5.5	5.8	12.8	12.0	12.3	---	---	---	
28	5.2	4.3	4.7	6.9	5.4	6.1	12.4	11.6	12.0	---	---	---	
29	---	---	---	6.3	5.8	6.1	12.2	11.7	11.9	---	---	---	
30	---	---	---	7.5	6.0	6.6	11.9	11.5	11.6	---	---	---	
31	---	---	---	7.2	6.5	6.9	---	---	---	---	---	---	
MONTH	5.5	2.5	3.8	7.5	4.2	5.7	15.4	6.8	10.7	---	---	---	

CHARLES RIVER BASIN

01104480 STONY BROOK RESERVOIR AT DAM NEAR WALTHAM, MA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	7.2	7.1	7.2	7.1	7.0	7.0	---	7.0	e6.8	7.0	7.2
2	---	7.2	7.1	7.2	7.1	7.0	7.0	e6.8	7.0	6.8	6.9	7.2
3	---	7.2	7.1	7.2	7.0	6.9	6.9	6.8	7.0	6.8	7.0	7.2
4	---	7.2	7.1	7.2	7.0	7.0	7.0	6.9	7.0	6.8	6.9	7.2
5	---	7.2	7.1	7.2	7.1	6.9	7.0	6.8	7.0	6.8	6.9	7.3
6	---	7.3	7.1	7.2	7.1	6.9	7.0	6.9	7.0	6.7	7.1	e7.3
7	---	7.3	7.2	7.2	7.0	6.9	7.0	7.0	7.1	6.7	7.1	---
8	---	7.3	7.2	7.2	7.1	6.9	6.9	7.0	7.1	6.6	e7.1	---
9	---	7.3	7.1	7.2	7.1	6.9	6.9	7.0	7.1	6.7	7.1	---
10	---	7.3	7.1	7.2	7.0	6.9	6.9	7.0	7.1	6.9	e7.1	---
11	---	7.3	7.1	7.2	7.0	7.0	6.9	7.0	7.0	7.1	---	---
12	---	7.2	---	7.1	7.0	6.9	6.8	7.0	6.9	7.0	---	---
13	---	7.2	7.1	7.2	7.0	6.9	6.8	6.9	6.9	6.9	---	---
14	---	7.2	7.1	7.2	7.0	6.9	6.8	6.9	6.9	6.9	e7.0	---
15	---	7.2	7.1	7.2	7.0	6.9	6.8	7.0	6.9	6.9	7.0	---
16	---	7.2	7.2	7.2	7.0	6.9	6.9	7.0	6.9	7.1	7.0	---
17	---	7.2	7.2	7.1	7.0	6.9	7.0	6.9	6.9	7.1	7.0	---
18	---	7.2	7.2	7.1	7.0	6.9	6.9	6.9	6.9	6.9	7.0	---
19	---	7.2	7.2	7.1	7.0	6.9	6.9	6.9	6.9	6.9	7.0	---
20	---	7.1	7.2	7.2	7.0	6.8	e6.8	6.9	6.9	7.0	7.0	---
21	---	7.2	7.2	7.2	6.9	6.9	---	6.9	6.9	7.0	7.0	---
22	---	7.2	7.3	7.2	7.0	6.9	---	6.9	6.9	7.0	7.0	---
23	---	7.2	7.3	7.2	e7.0	6.9	---	6.9	6.9	7.0	7.0	e7.4
24	---	7.2	7.2	7.2	---	7.1	---	6.9	6.9	6.9	7.0	7.3
25	---	7.1	7.3	7.2	---	7.1	---	6.9	6.9	7.0	6.9	7.3
26	---	7.2	7.2	7.1	---	7.0	---	6.9	6.9	7.0	6.9	7.1
27	---	7.1	7.2	7.1	e6.9	7.0	---	6.9	e6.9	7.0	6.9	7.1
28	---	7.1	7.2	7.1	7.0	7.0	---	6.9	---	7.0	6.9	7.2
29	---	7.1	7.2	7.1	---	7.0	---	6.9	---	7.0	7.0	7.2
30	---	7.1	7.2	7.1	---	7.0	---	7.0	---	7.0	7.3	7.1
31	---	---	7.2	7.1	---	6.9	---	7.0	---	6.9	7.2	---
MAX	---	7.3	---	7.2	---	7.1	---	---	---	7.1	---	---
MIN	---	7.1	---	7.1	---	6.8	---	---	---	6.6	---	---
MED	---	7.2	---	7.2	---	6.9	---	---	---	6.9	---	---

e Estimated

CHARLES RIVER BASIN

01104480 STONY BROOK RESERVOIR AT DAM NEAR WALTHAM, MA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	JUNE			JULY			AUGUST			SEPTEMBER		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	---	---	---	---	---	7.7	9.3	8.1	8.6	6.0	5.7	5.9	
2	---	---	---	7.8	7.6	7.7	9.8	7.2	8.4	5.8	5.4	5.6	
3	---	---	---	7.8	7.5	7.6	9.0	8.0	8.4	5.6	5.3	5.5	
4	---	---	---	7.8	7.4	7.6	9.1	7.4	8.1	5.6	5.1	5.4	
5	---	---	---	7.7	7.0	7.3	8.9	8.0	8.4	5.7	5.4	5.6	
6	---	---	---	7.3	6.5	6.9	10.1	8.2	9.4	---	---	5.4	
7	---	---	---	7.1	6.5	6.8	9.3	8.2	8.9	---	---	---	
8	---	---	---	---	---	6.6	---	---	7.2	---	---	---	
9	---	---	---	---	---	---	6.8	6.2	6.5	---	---	---	
10	---	---	---	---	---	---	---	---	6.6	---	---	---	
11	---	---	7.8	---	---	---	---	---	---	---	---	---	
12	8.2	7.4	7.9	---	---	---	---	---	---	---	---	---	
13	8.0	7.8	8.0	---	---	---	---	---	---	---	---	---	
14	8.2	7.9	8.0	---	---	---	---	---	6.0	---	---	---	
15	8.2	8.0	8.1	---	---	---	6.4	5.8	6.1	---	---	---	
16	8.3	8.0	8.1	---	---	---	6.3	5.8	6.0	---	---	---	
17	8.2	8.0	8.1	---	---	---	6.2	5.4	5.9	---	---	---	
18	8.4	8.0	8.2	---	---	6.5	6.0	5.6	5.8	---	---	---	
19	8.4	8.1	8.2	---	---	---	6.1	5.4	5.8	---	---	---	
20	8.6	8.0	8.3	---	---	---	6.0	5.3	5.8	---	---	---	
21	8.4	8.0	8.2	---	---	---	5.9	5.5	5.7	---	---	---	
22	8.4	8.0	8.2	9.8	8.8	9.1	5.9	5.5	5.7	---	---	---	
23	8.3	8.2	8.2	10.3	8.5	9.2	5.9	5.5	5.7	---	---	7.4	
24	8.7	8.1	8.4	9.3	8.5	8.9	5.7	5.4	5.5	7.8	6.9	7.4	
25	8.5	8.3	8.4	10.0	8.7	9.0	5.6	5.0	5.3	7.7	7.0	7.3	
26	8.5	8.2	8.4	9.7	9.0	9.2	5.5	5.0	5.4	7.6	7.0	7.2	
27	---	---	8.5	9.3	9.0	9.1	5.6	4.6	5.4	7.3	7.0	7.1	
28	---	---	---	9.9	9.1	9.3	5.8	5.5	5.6	7.5	7.0	7.2	
29	---	---	---	10.0	8.9	9.4	6.4	5.5	5.8	7.5	7.1	7.3	
30	---	---	---	9.8	8.6	9.1	6.4	5.9	6.2	7.6	7.1	7.4	
31	---	---	---	9.1	8.0	8.4	6.1	5.6	5.9	---	---	---	
MONTH	---	---	---	---	---	---	---	---	---	---	---	---	

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	---	---	---	14	1.0	3.1	---	---	---	1.0	1.0	1.0	
2	---	---	---	3.4	1.0	1.7	---	---	---	1.0	1.0	1.0	
3	---	---	---	2.4	1.0	1.6	---	---	---	7.4	1.0	1.8	
4	---	---	---	2.3	1.0	1.4	---	---	---	3.1	1.0	1.7	
5	---	---	---	10	1.0	1.9	---	---	---	3.2	1.0	1.5	
6	---	---	---	2.2	1.0	1.6	---	---	---	12	2.1	5.0	
7	---	---	---	3.1	1.0	1.5	---	---	---	11	2.1	6.0	
8	---	---	---	9.1	1.0	1.6	---	---	---	12	2.0	4.0	
9	---	---	---	1.5	1.0	1.3	---	---	---	4.0	1.0	2.2	
10	---	---	---	1.4	1.0	1.2	---	---	---	2.9	1.0	1.7	
11	---	---	---	1.8	1.0	1.4	---	---	---	2.8	.9	1.8	
12	---	---	---	1.8	1.0	1.4	---	---	---	2.8	.9	1.7	
13	---	---	---	1.7	1.0	1.4	---	---	---	2.7	.9	1.8	
14	---	---	---	1.7	1.3	1.3	---	---	---	2.6	.9	1.8	
15	---	---	---	1.6	1.0	1.3	---	---	---	2.5	.9	1.7	
16	---	---	---	1.3	1.3	1.3	---	---	---	2.5	.8	1.6	
17	---	---	---	1.5	1.2	1.2	---	---	---	6.4	.8	1.6	
18	---	---	---	1.4	1.0	1.2	---	---	---	2.3	1.5	1.6	
19	---	---	---	1.4	1.2	1.2	3.8	1.0	1.1	1.5	.7	1.5	
20	---	---	---	1.3	1.1	1.2	1.0	1.0	1.0	2.2	1.4	1.5	
21	---	---	---	2.2	1.1	1.2	1.0	1.0	1.0	2.1	.7	1.4	
22	---	---	---	1.2	1.1	1.1	1.0	1.0	1.0	2.0	1.3	1.4	
23	---	---	---	1.1	1.0	1.1	1.0	1.0	1.0	2.0	1.3	1.3	
24	---	---	---	---	---	---	7.9	1.0	1.4	1.9	1.2	1.3	
25	---	---	---	---	---	---	1.0	1.0	1.0	1.9	1.2	1.3	
26	---	---	---	---	---	---	1.0	1.0	1.0	1.8	1.1	1.2	
27	---	---	---	---	---	---	1.0	1.0	1.0	1.7	1.1	1.2	
28	---	---	---	---	---	---	1.0	1.0	1.0	1.6	1.1	1.1	
29	---	---	---	---	---	---	2.0	1.0	1.0	1.6	1.0	1.1	
30	---	---	---	---	---	---	1.0	1.0	1.0	1.5	1.0	1.1	
31	---	---	---	---	---	---	1.0	1.0	1.0	1.9	.9	1.3	
MONTH	---	---	---	---	---	---	---	---	---	12	0.7	1.8	

CHARLES RIVER BASIN

01104480 STONY BROOK RESERVOIR AT DAM NEAR WALTHAM, MA--Continued

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	---	---	---	20.5	8.9	14.3	21.4	9.9	17.0	0.8	-9.4	-3.7	
2	---	---	---	23.3	10.2	17.7	11.1	2.3	7.6	3.0	-5.8	-1.8	
3	---	---	---	19.2	10.4	16.0	12.6	- .8	6.6	3.5	-3.9	- .9	
4	---	---	---	14.8	4.9	9.3	14.8	1.6	7.8	1.0	-6.0	-2.4	
5	---	---	---	8.9	3.9	6.7	19.0	8.0	12.7	4.1	-2.2	1.1	
6	---	---	---	11.0	3.6	7.7	21.6	10.3	16.5	8.8	-2.1	3.1	
7	---	---	---	13.4	3.0	9.0	13.7	4.1	10.3	4.0	-2.7	1.0	
8	---	---	---	13.3	- .5	7.6	4.1	-1.0	2.2	1.4	-6.5	-2.9	
9	---	---	---	11.9	1.4	7.9	2.1	-3.5	.2	4.4	-3.0	.9	
10	---	---	---	10.4	-1.6	4.4	6.1	-5.5	.6	10.0	2.6	6.5	
11	---	---	---	7.1	-2.0	4.5	9.0	.3	3.8	5.8	.8	3.1	
12	---	---	---	5.7	-4.0	.8	---	.9	3.1	5.7	-1.1	2.2	
13	---	---	---	9.3	-5.8	1.9	9.4	2.1	4.2	3.3	- .4	1.3	
14	---	---	---	13.9	1.6	8.5	12.8	8.1	10.3	2.9	-1.0	.6	
15	---	---	---	17.2	4.3	10.5	8.1	- .8	3.2	1.6	- .2	.4	
16	---	---	---	20.5	7.3	14.9	3.8	-2.0	- .1	3.3	- .6	1.9	
17	---	---	---	7.3	-1.2	3.0	2.4	-2.0	- .2	5.8	- .8	1.6	
18	---	---	---	15.8	-2.2	6.8	3.3	1.2	2.2	1.6	-3.8	- .8	
19	---	---	---	16.8	4.2	10.9	8.2	-1.5	3.5	- .8	-5.4	-3.2	
20	---	---	---	15.3	.1	8.4	6.8	-1.2	3.0	2.8	-8.2	-2.6	
21	---	---	---	6.5	-2.2	1.6	3.6	- .6	1.4	1.3	-6.2	-1.5	
22	---	---	---	12.3	-1.7	3.9	3.4	-2.9	- .3	6.6	-3.2	2.1	
23	---	---	---	10.9	- .7	4.2	7.1	-7.2	.1	11.8	-3.2	5.1	
24	---	---	---	10.9	1.8	7.0	8.7	.6	5.1	9.4	3.0	6.0	
25	---	---	---	18.3	3.9	11.6	3.2	-2.1	.1	6.2	.5	3.3	
26	---	---	---	18.4	9.7	14.1	2.4	-2.8	- .3	10.4	1.0	5.6	
27	---	---	---	13.0	7.0	10.4	.4	-4.8	-2.5	14.9	-1.5	5.3	
28	---	---	---	15.5	4.8	9.8	2.2	-5.9	-1.5	12.6	.8	5.2	
29	---	---	---	8.3	2.7	5.3	2.6	-3.4	- .7	17.9	1.7	9.5	
30	---	---	---	18.6	4.4	11.0	1.0	-4.0	-1.8	9.5	1.1	3.8	
31	---	---	---	---	---	---	- .6	-5.9	-3.3	1.1	-1.6	- .4	
MONTH	---	---	---	23.3	-5.8	8.3	---	-7.2	3.6	17.9	-9.4	1.6	

DAY	MAX	FEBRUARY			MARCH			APRIL			MAY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	3.0	-1.4	0.2	6.4	-6.6	0.4	13.1	5.8	8.2	14.2	4.2	9.4	
2	1.8	-8.2	-3.5	8.8	-4.8	2.9	14.6	2.9	8.6	9.2	4.5	7.2	
3	3.4	-10.0	-2.9	16.6	3.7	11.3	20.7	3.5	12.2	12.9	6.5	9.5	
4	4.0	-4.0	- .3	6.5	-4.4	.9	8.1	.8	4.7	20.3	6.9	12.9	
5	-2.0	-7.6	-4.6	.0	-6.4	-3.4	6.1	-1.6	2.4	22.4	5.5	14.7	
6	3.6	-7.5	-2.2	11.0	-4.6	2.3	6.8	- .2	2.9	25.8	7.3	16.9	
7	6.2	-5.0	.5	12.6	-1.7	4.3	8.6	-2.8	2.5	25.5	12.9	18.8	
8	8.3	-3.5	3.2	5.9	.0	4.1	14.9	4.0	8.6	18.0	10.9	14.5	
9	3.4	-5.4	- .6	20.4	5.0	11.9	22.4	9.1	15.9	14.1	9.8	11.7	
10	11.4	-7.8	1.1	15.6	-2.4	6.4	17.6	8.5	14.0	24.3	11.9	17.7	
11	11.8	-9.4	.8	3.7	-3.1	- .3	11.8	4.0	8.6	18.8	8.8	13.9	
12	4.9	-10.0	1.1	8.2	-2.4	2.7	18.4	1.5	10.8	13.8	8.3	10.9	
13	3.2	-6.7	- .3	7.7	-1.5	3.8	23.8	13.5	18.4	8.8	6.1	7.9	
14	3.2	-9.9	-3.0	16.2	2.3	9.0	24.2	11.7	17.3	16.5	6.1	9.5	
15	9.0	-1.8	4.2	8.6	1.0	5.5	18.8	8.7	12.1	15.7	5.5	10.1	
16	13.0	- .2	7.3	8.0	-1.3	4.5	29.8	8.5	18.2	25.8	4.6	17.1	
17	3.9	- .9	1.5	6.7	-4.1	1.4	33.9	14.8	23.8	21.2	14.3	18.4	
18	4.9	-2.2	1.3	2.6	- .1	1.0	23.2	8.7	14.5	14.3	2.4	6.5	
19	11.2	-5.1	2.5	2.4	.3	1.5	27.7	8.1	15.1	14.2	2.6	8.6	
20	11.3	- .8	6.1	4.4	- .3	1.4	21.7	9.3	15.5	12.8	2.3	8.3	
21	15.9	7.6	10.9	11.5	1.0	5.0	12.5	5.9	9.0	15.5	4.3	10.2	
22	8.9	1.3	5.5	1.1	-8.0	-3.9	6.9	3.1	4.7	21.1	5.7	13.4	
23	6.9	-1.3	1.9	6.0	-5.4	.6	8.4	1.3	4.8	25.1	6.2	16.3	
24	5.6	-2.7	.9	8.9	.8	4.9	12.7	1.7	7.5	28.3	8.3	19.7	
25	11.0	-2.8	3.8	6.4	- .4	3.0	14.9	1.2	6.9	18.1	9.2	13.5	
26	16.9	1.1	9.1	5.4	1.4	3.4	9.9	1.2	5.9	21.0	8.6	14.4	
27	12.9	-2.0	5.6	9.4	3.2	5.5	15.2	.0	7.9	24.5	12.7	17.6	
28	2.1	-4.4	-1.5	12.5	.2	6.0	9.1	3.6	6.9	22.4	15.3	18.2	
29	---	---	---	16.2	-1.0	7.6	5.3	2.3	3.8	25.0	15.7	18.4	
30	---	---	---	17.6	5.2	11.5	11.9	2.2	6.4	27.2	15.2	20.8	
31	---	---	---	17.6	4.3	10.5	---	---	---	27.1	17.3	21.3	
MONTH	16.9	-10.0	1.7	20.4	-8.0	4.1	33.9	-2.8	9.9	28.3	2.3	13.8	

CHARLES RIVER BASIN

01104480 STONY BROOK RESERVOIR AT DAM NEAR WALTHAM, MA--Continued

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	29.0	17.1	22.6	31.1	26.4	29.5	32.6	20.2	26.2	20.2	9.9	15.0
2	22.1	11.8	18.1	33.1	22.8	28.2	31.4	19.2	23.0	18.6	15.7	17.2
3	20.3	8.9	14.6	35.0	25.5	29.6	32.8	19.0	25.0	21.8	18.2	19.8
4	20.7	7.3	15.1	34.4	22.8	29.0	33.0	20.2	26.5	29.2	16.0	21.8
5	23.2	15.3	19.0	27.9	19.1	23.9	31.8	22.9	26.8	22.9	15.4	19.4
6	21.4	12.9	16.8	26.0	16.7	21.4	24.8	17.3	21.1	26.1	11.5	17.9
7	15.4	7.6	12.2	24.0	17.9	20.9	25.2	15.9	20.3	29.3	11.0	20.1
8	21.0	6.1	14.2	30.6	16.7	24.3	26.0	13.8	20.3	31.5	14.3	22.8
9	26.8	10.8	18.7	30.7	19.9	24.3	27.7	14.7	21.2	33.9	17.2	25.3
10	23.8	15.5	19.0	24.2	17.6	20.9	29.9	16.2	23.5	31.9	19.0	25.2
11	31.4	13.3	19.0	21.8	12.2	17.0	33.8	17.5	25.3	25.8	14.8	20.5
12	13.3	10.2	12.0	26.5	12.3	19.5	34.3	18.9	26.3	20.6	10.8	15.1
13	19.6	10.1	14.0	29.0	14.5	22.3	35.8	20.5	28.5	26.9	9.9	19.0
14	18.7	11.9	13.9	29.0	17.7	23.3	36.5	21.9	29.0	29.0	14.1	21.7
15	12.8	9.9	11.5	29.5	18.1	22.9	33.6	21.8	27.4	26.6	20.8	22.7
16	16.5	9.8	12.0	24.3	16.9	20.2	34.3	23.9	27.8	25.7	16.5	20.0
17	24.8	12.4	17.9	28.7	13.5	21.4	33.2	22.4	27.6	24.9	15.4	18.5
18	25.2	12.2	18.4	30.7	20.7	25.9	34.3	21.5	27.9	24.6	12.3	17.9
19	24.4	12.9	18.3	25.2	18.6	21.7	32.6	20.8	26.6	26.2	13.2	18.8
20	26.4	12.9	19.8	23.1	16.0	19.4	25.0	17.9	20.8	25.9	14.0	19.7
21	28.8	12.9	21.7	28.3	14.6	21.5	26.9	17.1	21.5	27.8	17.5	22.2
22	27.3	16.9	20.8	30.6	18.2	24.5	29.0	15.6	21.8	28.1	19.6	23.2
23	28.2	16.9	21.9	34.0	21.1	25.6	23.1	13.8	19.4	24.2	18.3	21.6
24	28.0	15.0	23.8	22.2	13.4	19.0	19.9	12.3	16.1	19.0	12.9	16.8
25	28.7	11.9	21.5	23.2	11.4	17.8	27.0	14.1	19.4	21.8	10.9	15.6
26	33.4	19.1	26.0	21.5	11.6	17.1	28.8	14.6	21.8	18.7	12.7	15.4
27	28.3	23.1	24.9	22.0	15.2	18.7	26.7	16.4	20.9	20.9	13.3	15.1
28	---	---	---	24.2	16.7	20.8	22.2	16.4	18.5	23.2	11.8	19.0
29	---	---	---	31.6	21.4	26.1	17.1	14.6	16.1	19.6	7.8	12.9
30	---	---	---	32.4	20.7	26.8	24.5	14.8	17.5	21.6	9.1	15.3
31	---	---	---	32.2	20.6	26.3	20.2	10.5	16.5	---	---	---
MONTH	---	---	---	35.0	11.4	22.9	36.5	10.5	22.9	33.9	7.8	19.2

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	0.11	0.00	0.00	0.31	0.00	1.17	0.00	0.00	---	0.00	0.00
2	---	.00	.00	.00	.00	.02	.00	.63	.06	.00	.18	.46
3	---	.02	.00	.00	.00	.65	.23	.02	.00	.00	.00	.15
4	---	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
5	---	.25	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	---	.00	.00	.45	.00	.00	.00	.00	1.49	.00	.00	.00
7	---	.00	.00	.22	.00	.00	.00	.00	.69	.00	.00	.00
8	---	.00	.21	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	---	.05	.45	.00	.00	.00	.00	.04	.00	.30	.00	.00
10	---	.00	.00	.00	.21	.45	.09	.29	.00	.05	.00	.00
11	---	.00	.00	.16	.37	.00	.00	.00	.05	.00	.00	.00
12	---	.00	---	.00	.00	.00	.00	.47	.16	.00	.00	.00
13	---	.00	.03	.75	.00	.03	.00	1.95	.00	.00	.00	.00
14	---	.00	.55	.00	.00	.00	.03	.29	.05	.00	.00	.00
15	---	.00	.07	.24	.00	.00	.07	.00	.67	.17	.00	.29
16	---	.00	.00	.00	.00	.47	.00	.00	.28	.00	.05	.36
17	---	.00	.54	.04	.06	.00	.00	.00	.15	.00	.00	.00
18	---	.00	.45	.00	.00	.25	.01	1.32	.00	.00	.00	.00
19	---	.00	.00	.14	.00	.04	.07	.00	.01	.18	.00	.00
20	---	.04	.00	.04	.00	.78	.01	.00	.00	.00	.28	.00
21	---	.00	.00	.23	.30	.00	.00	.00	.00	.00	.00	.00
22	---	.00	.00	.00	.00	.00	.31	.00	.03	.00	.24	.01
23	---	.00	.00	.00	.00	.00	.00	.00	.01	.75	.03	1.09
24	---	.00	.84	.04	.00	.00	.00	.00	.00	.00	.14	.00
25	---	.09	.00	.00	.00	.01	.77	.00	.00	.00	.02	.01
26	---	.11	.00	.00	.08	.69	.01	.00	.00	.00	.00	.21
27	---	.00	.00	.00	.48	.34	.00	.28	---	.01	.00	.40
28	---	.09	.00	.00	.00	.00	.40	.07	---	.01	.00	.23
29	---	.12	.00	.00	---	.00	.14	.66	---	.22	1.58	.00
30	---	.02	.00	.19	---	.12	.03	.01	---	.00	.02	.00
31	---	---	.00	.62	---	.12	---	.38	---	.00	.00	---
TOTAL	---	0.90	---	3.12	1.81	3.97	3.34	6.41	---	---	2.54	3.23
MAX	---	0.25	---	0.75	0.48	0.78	1.17	1.95	---	---	1.58	1.09

CHARLES RIVER BASIN

01104615 CHARLES RIVER ABOVE WATERTOWN DAM AT WATERTOWN, MA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SULFATE DIS- SOLVED (MG/L AS S04) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)
NOV										
26...	17.5	0.05	0.60	0.58	0.008	<0.02	0.043	--	E0.006	E0.004
DEC										
14...	17.1	.05	.52	.78	E.007	<.02	.048	--	--	--
JAN										
15...	22.3	.15	.57	1.06	.010	<.02	.041	--	--	--
FEB										
12...	19.2	.07	.44	1.05	.012	<.02	.035	--	E.005	<.041
APR										
16...	13.9	.04	.75	.53	.010	<.02	.062	--	E.001	<.041
MAY										
16...	10.2	.06	.72	.43	E.007	<.02	.067	--	.007	E.010
JUN										
06...	9.7	.12	.87	.52	.018	E.01	.116	--	.015	E.062
JUL										
26...	11.2	E.04	.58	.33	.010	E.02	.061	--	.011	E.015
AUG										
13...	12.4	<.04	.49	.15	.008	<.02	.042	--	.009	<.041
SEP										
10...	14.5	<.04	.48	.19	.008	<.02	.047	--	.008	<.041
17...	--	--	--	--	--	--	--	114	--	--

Date	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDIMENT, SUSPENDED (MG/L) (80154)
NOV							
26...	<0.006	<0.005	<0.013	<0.01	<0.011	89	5.0
DEC							
14...	--	--	--	--	--	87	7.0
JAN							
15...	--	--	--	--	--	86	6.0
FEB							
12...	<.006	<.005	<.013	<.01	<.005	65	5.0
APR							
16...	<.006	E.001	<.013	<.01	<.005	--	8.6
MAY							
16...	E.003	.011	E.003	E.004	<.005	--	7.9
JUN							
06...	E.009	.018	E.006	E.004	<.005	--	18
JUL							
26...	E.004	.013	E.003	E.01	<.005	--	5.8
AUG							
13...	<.006	--	<.013	E.01	E.004	--	.8
SEP							
10...	E.004	.007	<.013	E.01	<.005	--	1.1
17...	--	--	--	--	--	--	--

< Less than
E Estimated value

CHARLES RIVER BASIN

01104683 MUDDY RIVER AT BROOKLINE, MA

LOCATION.--Lat 42°20'14", long 71°06'42", Norfolk County, Hydrologic Unit 01090001, on right bank, 10 ft downstream of Netherlands Road bridge in Olmsted Park, and 0.5 mi north of Brookline.

DRAINAGE AREA.--5.71 mi².

PERIOD OF RECORD.--Gage height: November 1999 to October 2000, August 2001 to September 2002.

Precipitation: August 2001 to September 2002.

GAGE.--Water-stage recorder. Elevation of gage is 10.0 ft (Boston City Base Datum). Subtract 5.65 ft from gage height readings to obtain elevation above National Geodetic Vertical Datum (NGVD) of 1929.

REMARKS.--Gage height records good; precipitation records not rated. Daily or more frequent fluctuations related to pool stage fluctuations in lower Charles River Basin and operation of flood-control gates and pumps at Charles River Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 12.86 ft, June 6, 2000, but may have been higher during periods of no gage height record; minimum, 7.28 ft, Sept. 15, 2002, but may have been lower during periods of no gage height record.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 10.33 ft, Apr. 1, 2002, but may have been higher during periods of no gage height record; minimum, 7.28 ft, Sept. 15, 2002, but may have been lower during periods of no gage height record.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	8.32	7.92	8.08	7.88	7.70	7.77			
2	---	---	---	7.88	7.41	7.63	8.00	7.74	7.85	7.88	7.68	7.75			
3	---	---	---	8.73	7.51	8.16	8.03	7.73	7.87	7.86	7.52	7.69			
4	---	---	---	8.01	7.75	7.84	8.03	7.72	7.86	8.95	7.48	7.63			
5	---	---	---	8.12	7.85	7.98	7.88	7.74	7.80	9.40	7.76	8.34			
6	---	---	---	8.13	7.84	7.97	7.97	7.63	7.78	7.89	7.65	7.75			
7	---	---	---	8.03	7.76	7.88	9.47	7.73	8.68	7.86	7.64	7.74			
8	---	---	---	8.07	7.81	7.94	7.95	7.71	7.83	7.84	7.64	7.73			
9	---	---	---	8.06	7.75	7.91	7.94	7.64	7.78	7.94	7.70	7.82			
10	---	---	---	8.02	7.76	7.87	7.67	7.58	7.63	9.05	7.57	8.04			
11	---	---	---	8.21	7.74	8.03	7.74	7.58	7.65	8.58	7.65	7.88			
12	---	---	---	7.94	7.73	7.84	7.78	7.60	7.66	7.91	7.65	7.80			
13	---	---	---	8.11	7.86	7.97	7.76	7.63	7.69	7.77	7.60	7.68			
14	---	---	---	8.08	7.81	7.91	7.75	7.56	7.67	7.78	7.59	7.67			
15	---	---	---	8.04	7.86	7.93	8.02	7.53	7.85	7.78	7.54	7.64			
16	---	---	---	7.96	7.83	7.88	7.83	7.61	7.69	7.88	7.57	7.69			
17	---	---	---	7.95	7.78	7.86	7.73	7.50	7.60	7.84	7.50	7.65			
18	---	---	---	7.93	7.78	7.85	8.01	7.63	7.83	7.79	7.50	7.62			
19	---	---	---	7.97	7.74	7.84	8.14	7.78	7.91	7.76	7.48	7.62			
20	---	---	---	7.98	7.73	7.84	7.97	7.56	7.76	7.78	7.38	7.59			
21	---	---	---	7.96	7.81	7.88	7.98	7.61	7.78	7.78	7.39	7.58			
22	---	---	---	7.91	7.80	7.84	7.91	7.67	7.77	7.77	7.51	7.64			
23	---	---	---	7.91	7.79	7.84	7.98	7.65	7.77	7.81	7.53	7.68			
24	---	---	---	7.95	7.79	7.87	7.92	7.68	7.79	7.83	7.54	7.68			
25	---	---	---	8.14	7.79	7.93	7.98	7.59	7.81	7.75	7.46	7.58			
26	---	---	---	7.82	7.59	7.75	7.85	7.59	7.70	7.69	7.47	7.59			
27	---	---	---	8.65	7.56	8.03	7.86	7.65	7.75	7.92	7.50	7.70			
28	---	---	---	7.92	7.67	7.75	7.95	7.66	7.82	7.73	7.53	7.62			
29	---	---	---	7.94	7.59	7.73	7.85	7.63	7.75	7.78	7.53	7.64			
30	---	---	---	8.14	7.64	7.81	7.86	7.66	7.75	7.76	7.37	7.54			
31	---	---	---	---	---	---	7.88	7.68	7.77	7.82	7.35	7.64			
MONTH	---	---	---	---	---	---	9.47	7.50	7.80	9.40	7.35	7.71			

CHARLES RIVER BASIN

01104683 MUDDY RIVER AT BROOKLINE, MA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	FEBRUARY			MAX	MARCH			MAX	APRIL			MAX	MAY		
		MIN	MEAN			MIN	MEAN			MIN	MEAN			MIN	MEAN	
1	7.82	7.52	7.66		8.07	7.68	7.84	7.89	7.52	7.69	7.93	7.38	7.60			
2	7.75	7.54	7.64		8.03	7.64	7.80	7.86	7.53	7.69	8.11	7.54	7.80			
3	7.78	7.53	7.66		8.05	7.62	7.79	7.93	7.47	7.65	8.08	7.49	7.78			
4	7.78	7.53	7.66		7.89	7.55	7.70	7.93	7.55	7.72	8.27	7.62	7.91			
5	7.75	7.49	7.62		7.97	7.58	7.74	7.95	7.48	7.66	8.23	7.78	7.97			
6	7.73	7.54	7.62		8.05	7.52	7.69	7.73	7.45	7.57	8.19	7.77	7.97			
7	7.76	7.51	7.64		7.89	7.51	7.67	7.91	7.52	7.69	8.12	7.72	7.90			
8	7.78	7.46	7.63		7.77	7.53	7.65	7.64	7.41	7.49	8.05	7.68	7.85			
9	7.86	7.49	7.64		7.85	7.49	7.62	8.74	7.45	8.06	8.03	7.66	7.84			
10	8.06	7.60	7.86		7.77	7.45	7.57	7.65	7.49	7.57	8.28	7.65	7.96			
11	7.83	7.59	7.73		8.93	7.37	7.77	7.66	7.50	7.57	8.05	7.48	7.74			
12	7.84	7.60	7.70		9.05	7.87	8.44	7.81	7.51	7.62	8.04	7.44	7.70			
13	7.77	7.34	7.51		7.91	7.60	7.74	7.73	7.51	7.60	8.06	7.52	7.78			
14	9.91	7.35	8.71		7.88	7.51	7.65	7.81	7.50	7.61	8.11	7.55	7.73			
15	8.45	7.72	7.94		7.86	7.48	7.61	7.68	7.44	7.55	8.07	7.63	7.85			
16	7.93	7.62	7.76		7.71	7.37	7.46	7.93	7.55	7.72	8.09	7.48	7.74			
17	7.92	7.47	7.67		9.00	7.71	8.27	7.81	7.50	7.64	8.02	7.48	7.72			
18	7.59	7.39	7.46		7.85	7.55	7.68	8.02	7.54	7.71	7.84	7.36	7.53			
19	7.62	7.42	7.51		7.89	7.55	7.71	8.09	7.55	7.87	7.99	7.41	7.63			
20	7.68	7.46	7.55		8.03	7.54	7.79	7.78	7.38	7.60	7.89	7.41	7.60			
21	7.85	7.50	7.66		7.86	7.49	7.65	9.77	7.34	7.75	7.82	7.36	7.58			
22	7.90	7.59	7.73		7.83	7.44	7.59	11.80	7.88	9.53	7.89	7.41	7.65			
23	7.97	7.61	7.79		7.98	7.46	7.68	8.41	7.66	7.99	8.12	7.33	7.71			
24	7.92	7.64	7.75		7.84	7.45	7.63	8.13	7.57	7.87	8.59	7.33	7.90			
25	8.44	7.62	7.89		7.82	7.45	7.60	8.16	7.53	7.81	7.83	7.50	7.66			
26	8.29	7.71	7.93		7.82	7.42	7.60	8.34	7.49	7.87	7.94	7.48	7.72			
27	8.00	7.66	7.84		7.83	7.37	7.61	8.21	7.49	7.78	7.89	7.44	7.66			
28	7.98	7.61	7.81		9.82	7.33	8.27	7.97	7.43	7.64	7.97	7.57	7.77			
29	7.97	7.66	7.79		8.13	7.59	7.88	8.01	7.42	7.64	7.98	7.60	7.79			
30	---	---	---		8.03	7.57	7.74	7.84	7.39	7.55	7.96	7.62	7.78			
31	---	---	---		8.05	7.62	7.81	---	---	---	7.96	7.63	7.77			
MONTH	9.91	7.34	7.74		9.82	7.33	7.75	11.80	7.34	7.76	8.59	7.33	7.76			

DAY	MAX	JUNE			MAX	JULY			MAX	AUGUST			MAX	SEPTEMBER		
		MIN	MEAN			MIN	MEAN			MIN	MEAN			MIN	MEAN	
1	7.96	7.60	7.78		8.07	7.85	7.97	7.87	7.44	7.63	7.93	7.63	7.82			
2	8.01	7.61	7.83		8.19	7.81	7.98	7.93	7.46	7.71	8.40	7.64	7.97			
3	8.23	7.78	7.97		8.13	7.63	7.82	7.84	7.61	7.73	7.89	7.73	7.80			
4	8.02	7.65	7.82		7.93	7.68	7.79	7.81	7.62	7.70	7.98	7.77	7.87			
5	8.00	7.32	7.72		8.16	7.83	7.97	7.90	7.60	7.73	8.01	7.79	7.93			
6	12.86	7.32	9.08		7.96	7.69	7.82	7.80	7.52	7.67	7.93	7.78	7.84			
7	12.47	7.64	9.00		8.10	7.72	7.93	7.78	7.50	7.62	8.02	7.89	7.97			
8	7.88	7.52	7.68		7.99	7.71	7.84	7.99	7.78	7.86	7.90	7.79	7.83			
9	8.04	7.44	7.72		8.36	7.67	7.84	7.92	7.62	7.77	7.96	7.68	7.86			
10	8.12	7.65	7.87		8.15	7.73	7.84	7.95	7.73	7.85	7.81	7.71	7.75			
11	8.77	7.47	7.78		7.95	7.68	7.81	7.95	7.69	7.82	7.92	7.81	7.86			
12	8.79	7.64	8.01		8.06	7.80	7.93	7.79	7.65	7.71	8.00	7.77	7.91			
13	8.06	7.59	7.83		8.04	7.76	7.90	7.75	7.48	7.62	7.93	7.78	7.87			
14	8.14	7.58	7.83		7.95	7.72	7.84	7.76	7.53	7.65	7.92	7.67	7.84			
15	8.03	7.50	7.73		7.84	7.38	7.65	7.70	7.55	7.62	10.32	7.67	8.44			
16	8.13	7.66	7.87		8.05	7.39	7.64	8.33	7.57	7.84	7.85	7.69	7.75			
17	8.11	7.54	7.83		7.79	7.54	7.67	7.92	7.71	7.81	7.95	7.73	7.84			
18	8.13	7.66	7.88		10.56	7.65	8.51	7.91	7.57	7.77	---	---	---			
19	8.02	7.64	7.82		8.60	7.64	7.91	7.87	7.69	7.80	8.38	7.46	7.73			
20	8.02	7.46	7.73		7.98	7.67	7.85	7.85	7.60	7.72	8.46	7.80	7.97			
21	7.76	7.49	7.63		8.03	7.63	7.88	7.85	7.60	7.74	8.08	7.80	7.97			
22	7.84	7.53	7.68		7.93	7.60	7.73	8.06	7.85	7.95	8.07	7.84	7.94			
23	8.01	7.58	7.85		7.93	7.71	7.81	8.39	7.80	7.96	7.91	7.60	7.76			
24	8.11	7.75	7.95		7.98	7.78	7.91	8.13	7.79	7.89	8.03	7.67	7.82			
25	7.89	7.60	7.75		7.84	7.53	7.75	8.11	7.88	7.99	8.06	7.68	7.82			
26	8.01	7.61	7.80		7.62	7.43	7.52	8.12	7.85	7.95	8.15	7.67	7.86			
27	8.25	7.60	7.93		10.30	7.56	8.69	8.13	7.93	8.02	8.04	7.82	7.92			
28	8.02	7.55	7.68		8.10	7.61	7.79	8.16	7.79	8.00	8.11	7.80	7.96			
29	7.94	7.64	7.76		7.85	7.58	7.69	7.89	7.80	7.84	8.06	7.81	7.93			
30	8.04	7.79	7.91		7.80	7.54	7.66	8.03	7.77	7.94	8.06	7.77	7.92			
31	---	---	---		8.73	7.63	8.06	7.89	7.78	7.84	---	---	---			
MONTH	12.86	7.32	7.89		10.56	7.38	7.87	8.39	7.44	7.80	---	---	---			

CHARLES RIVER BASIN

01104683 MUDDY RIVER AT BROOKLINE, MA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	JUNE		MAX	JULY		MAX	AUGUST		MAX	SEPTEMBER	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	---	---	---	---	---	---	---	---	---	7.93	7.85	7.89
2	---	---	---	---	---	---	---	---	---	7.94	7.86	7.89
3	---	---	---	---	---	---	---	---	---	8.00	7.92	7.95
4	---	---	---	---	---	---	---	---	---	8.01	7.86	7.92
5	---	---	---	---	---	---	---	---	---	7.93	7.87	7.90
6	---	---	---	---	---	---	---	---	---	7.92	7.87	7.89
7	---	---	---	---	---	---	---	---	---	7.92	7.86	7.89
8	---	---	---	---	---	---	---	---	---	7.91	7.87	7.89
9	---	---	---	---	---	---	---	---	---	7.95	7.89	7.92
10	---	---	---	---	---	---	---	---	---	7.93	7.88	7.90
11	---	---	---	---	---	---	---	---	---	7.92	7.87	7.90
12	---	---	---	---	---	---	---	---	---	7.92	7.87	7.89
13	---	---	---	---	---	---	---	---	---	8.09	7.87	7.91
14	---	---	---	---	---	---	---	---	---	8.10	7.87	7.96
15	---	---	---	---	---	---	---	---	---	7.93	7.87	7.90
16	---	---	---	---	---	---	---	---	---	7.96	7.87	7.91
17	---	---	---	---	---	---	---	---	---	7.96	7.90	7.92
18	---	---	---	---	---	---	---	---	---	7.96	7.88	7.90
19	---	---	---	---	---	---	---	---	---	7.92	7.83	7.89
20	---	---	---	---	---	---	---	---	---	7.84	7.71	7.75
21	---	---	---	---	---	---	---	---	---	8.03	7.74	7.80
22	---	---	---	---	---	---	---	---	---	8.08	7.83	7.92
23	---	---	---	---	---	---	7.91	7.82	7.87	7.88	7.81	7.85
24	---	---	---	---	---	---	7.94	7.84	7.89	7.89	7.71	7.77
25	---	---	---	---	---	---	7.97	7.89	7.93	7.86	7.71	7.75
26	---	---	---	---	---	---	7.95	7.85	7.89	7.77	7.72	7.74
27	---	---	---	---	---	---	7.94	7.82	7.89	7.83	7.77	7.80
28	---	---	---	---	---	---	7.91	7.79	7.85	8.12	7.83	7.90
29	---	---	---	---	---	---	7.90	7.82	7.86	7.89	7.85	7.87
30	---	---	---	---	---	---	7.93	7.88	7.90	7.93	7.87	7.89
31	---	---	---	---	---	---	7.92	7.81	7.86	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	8.12	7.71	7.88

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER		MAX	NOVEMBER		MAX	DECEMBER		MAX	JANUARY	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	7.94	7.89	7.91	7.94	7.87	7.91	8.01	7.98	7.99	7.99	7.98	7.98
2	7.94	7.85	7.90	7.94	7.84	7.91	8.05	7.98	8.01	7.99	7.97	7.98
3	7.88	7.83	7.86	7.92	7.84	7.88	8.07	8.04	8.05	8.00	7.97	7.99
4	7.89	7.84	7.86	7.94	7.90	7.92	8.08	8.05	8.06	8.00	7.97	7.98
5	7.87	7.80	7.84	7.99	7.92	7.95	8.08	8.04	8.06	7.99	7.97	7.98
6	7.87	7.81	7.85	8.01	7.94	7.97	8.12	8.08	8.10	8.27	7.97	7.98
7	7.88	7.84	7.86	7.96	7.92	7.94	8.12	8.08	8.10	8.70	8.06	8.34
8	7.91	7.87	7.89	7.96	7.92	7.93	8.08	8.04	8.06	8.06	7.95	7.98
9	7.92	7.82	7.87	8.02	7.96	7.99	8.20	8.05	8.15	8.03	7.96	7.99
10	7.87	7.80	7.84	7.99	7.95	7.97	8.17	8.11	8.13	7.96	7.94	7.95
11	7.85	7.81	7.83	8.01	7.95	7.98	8.15	8.11	8.13	8.07	7.95	7.99
12	7.88	7.85	7.87	8.04	7.97	8.00	8.12	8.08	8.09	8.01	7.95	7.98
13	7.92	7.82	7.87	8.04	7.86	7.94	8.09	8.03	8.07	8.45	7.95	8.23
14	7.88	7.83	7.85	7.94	7.86	7.90	8.48	8.01	8.08	8.23	7.96	8.05
15	7.90	7.83	7.85	8.00	7.93	7.96	8.49	8.09	8.28	8.14	7.96	8.07
16	8.13	7.70	7.81	7.98	7.92	7.94	8.09	8.03	8.05	8.00	7.97	7.99
17	8.15	7.78	7.88	7.96	7.92	7.94	8.34	8.04	8.10	7.99	7.97	7.98
18	7.85	7.79	7.82	7.96	7.91	7.94	8.64	8.21	8.43	7.98	7.97	7.97
19	7.88	7.78	7.85	8.01	7.94	7.98	8.21	8.05	8.09	7.97	7.96	7.97
20	7.83	7.78	7.80	8.03	7.92	7.98	8.05	8.00	8.02	8.00	7.97	7.99
21	7.91	7.83	7.87	7.94	7.91	7.92	8.02	7.99	8.00	8.14	7.97	8.03
22	7.94	7.87	7.90	7.99	7.94	7.97	8.00	7.99	7.99	8.10	7.97	8.02
23	7.88	7.85	7.86	7.98	7.94	7.96	8.00	7.98	7.99	8.00	7.96	7.98
24	7.89	7.84	7.86	7.99	7.96	7.98	8.70	7.98	8.36	7.99	7.96	7.97
25	7.93	7.88	7.90	8.03	7.96	7.97	8.22	8.00	8.07	7.98	7.95	7.97
26	7.92	7.88	7.90	8.05	7.97	7.99	8.01	7.99	8.00	7.96	7.94	7.95
27	7.92	7.88	7.90	8.03	7.93	7.99	8.03	7.99	8.01	7.96	7.94	7.95
28	7.91	7.87	7.88	7.97	7.93	7.94	8.02	7.99	8.01	7.96	7.94	7.95
29	7.94	7.90	7.92	8.02	7.95	7.98	8.01	7.98	7.99	7.98	7.94	7.95
30	7.96	7.88	7.93	8.03	7.95	7.98	8.00	7.98	7.99	8.04	7.93	7.97
31	7.89	7.85	7.88	---	---	---	7.99	7.97	7.98	8.02	7.91	7.94
MONTH	8.15	7.70	7.87	8.05	7.84	7.95	8.70	7.97	8.08	8.70	7.91	8.00

CHARLES RIVER BASIN

01104683 MUDDY RIVER AT BROOKLINE, MA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	FEBRUARY			MAX	MARCH			MAX	APRIL			MAX	MAY		
		MIN	MEAN	MEAN		MIN	MEAN	MEAN		MIN	MEAN	MEAN		MIN	MEAN	MEAN
1	8.38	8.02	8.19	7.64	7.61	7.63	10.33	7.61	8.63	7.90	7.58	7.74				
2	8.25	8.02	8.10	7.61	7.54	7.57	7.89	7.57	7.71	8.06	7.58	7.75				
3	8.02	8.00	8.01	9.03	7.54	8.31	8.06	7.53	7.73	8.04	7.48	7.71				
4	---	---	---	7.96	7.67	7.78	7.91	7.53	7.69	7.99	7.62	7.80				
5	---	---	---	7.84	7.65	7.72	7.76	7.46	7.58	8.09	7.69	7.88				
6	---	---	---	7.98	7.67	7.84	7.83	7.46	7.60	8.03	7.81	7.91				
7	---	---	---	7.82	7.66	7.73	7.74	7.42	7.54	8.06	7.62	7.87				
8	---	---	---	7.76	7.66	7.69	7.66	7.42	7.51	7.98	7.67	7.81				
9	---	---	---	7.72	7.62	7.65	7.64	7.42	7.51	7.82	7.59	7.71				
10	---	---	---	8.41	7.67	8.01	7.73	7.43	7.55	8.37	7.63	7.92				
11	---	---	---	7.77	7.60	7.67	7.73	7.37	7.51	7.86	7.53	7.72				
12	---	---	---	7.77	7.60	7.68	7.58	7.35	7.43	8.05	7.57	7.73				
13	---	---	---	7.95	7.70	7.80	7.51	7.35	7.40	10.28	7.55	8.44				
14	---	---	---	7.89	7.83	7.85	7.49	7.36	7.40	9.71	7.75	8.52				
15	---	---	---	7.84	7.78	7.81	7.51	7.36	7.41	8.16	7.58	7.81				
16	---	---	---	9.05	7.78	8.31	7.64	7.38	7.52	8.04	7.47	7.74				
17	---	---	---	8.01	7.61	7.74	7.95	7.63	7.82	8.03	7.51	7.72				
18	---	---	---	7.85	7.60	7.69	7.99	7.69	7.84	9.77	7.50	8.46				
19	---	---	---	7.94	7.72	7.86	8.02	7.69	7.84	8.04	7.61	7.83				
20	---	---	---	8.86	7.64	7.87	7.91	7.64	7.75	8.08	7.57	7.83				
21	---	---	---	8.87	7.90	8.31	7.91	7.69	7.78	7.95	7.52	7.75				
22	---	---	---	7.90	7.67	7.77	8.08	7.78	7.91	8.22	7.59	7.83				
23	---	---	---	7.71	7.63	7.66	7.98	7.68	7.78	7.96	7.45	7.67				
24	---	---	---	7.76	7.63	7.68	7.92	7.64	7.78	7.99	7.51	7.73				
25	---	---	---	7.75	7.64	7.68	8.57	7.43	7.83	8.01	7.59	7.80				
26	---	---	---	8.43	7.65	7.86	8.58	7.58	7.82	8.07	7.45	7.74				
27	---	---	---	8.69	7.67	8.26	7.98	7.39	7.75	7.87	7.55	7.69				
28	---	---	---	7.75	7.48	7.62	7.91	7.35	7.57	8.06	7.59	7.78				
29	---	---	---	7.71	7.46	7.57	7.86	7.52	7.67	8.07	7.58	7.82				
30	---	---	---	7.76	7.51	7.63	8.07	7.60	7.86	8.03	7.48	7.73				
31	---	---	---	7.74	7.43	7.54	---	---	---	7.99	7.34	7.63				
MONTH	---	---	---	9.05	7.43	7.80	10.33	7.35	7.69	10.28	7.34	7.84				

DAY	MAX	JUNE			MAX	JULY			MAX	AUGUST			MAX	SEPTEMBER		
		MIN	MEAN	MEAN		MIN	MEAN	MEAN		MIN	MEAN	MEAN		MIN	MEAN	MEAN
1	8.01	7.49	7.74	8.02	7.67	7.83	7.76	7.70	7.73	7.47	7.40	7.43				
2	7.95	7.45	7.67	8.01	7.75	7.87	8.22	7.76	7.89	8.00	7.46	7.63				
3	7.86	7.41	7.66	7.98	7.76	7.86	8.03	7.73	7.77	8.88	7.60	8.08				
4	7.75	7.38	7.51	7.90	7.66	7.77	7.88	7.80	7.83	7.95	7.64	7.77				
5	7.59	7.31	7.41	8.02	7.88	7.94	7.91	7.65	7.81	7.76	7.67	7.71				
6	8.13	7.32	7.77	8.11	7.74	7.96	7.74	7.69	7.71	7.88	7.73	7.81				
7	8.39	7.48	7.95	7.96	7.77	7.86	7.76	7.64	7.71	7.88	7.77	7.82				
8	7.73	7.38	7.57	8.10	7.93	8.01	7.75	7.67	7.71	7.93	7.83	7.88				
9	7.92	7.49	7.72	8.01	7.57	7.85	7.82	7.74	7.78	7.98	7.88	7.93				
10	8.07	7.54	7.82	8.08	7.64	7.78	7.87	7.76	7.82	8.01	7.65	7.87				
11	8.14	7.33	7.62	7.88	7.73	7.82	7.88	7.81	7.85	7.91	7.64	7.78				
12	7.80	7.39	7.55	7.93	7.69	7.85	7.92	7.74	7.87	8.13	7.91	8.02				
13	7.82	7.40	7.62	7.82	7.69	7.76	7.78	7.73	7.76	7.96	7.75	7.91				
14	7.92	7.33	7.58	7.84	7.74	7.79	7.85	7.77	7.80	7.75	7.49	7.62				
15	7.98	7.33	7.60	7.91	7.68	7.80	7.89	7.83	7.86	7.66	7.28	7.35				
16	7.74	7.32	7.49	7.93	7.73	7.83	7.95	7.88	7.91	7.64	7.41	7.49				
17	7.79	7.43	7.59	7.84	7.61	7.72	7.96	7.85	7.92	7.52	7.41	7.45				
18	7.89	7.43	7.65	7.85	7.67	7.75	7.93	7.88	7.90	7.57	7.49	7.52				
19	7.81	7.45	7.63	8.11	7.73	7.87	7.95	7.81	7.91	7.63	7.51	7.57				
20	8.05	7.53	7.76	7.88	7.75	7.80	8.18	7.82	7.98	7.67	7.58	7.64				
21	8.04	7.47	7.74	7.95	7.71	7.85	7.99	7.97	7.98	7.77	7.67	7.72				
22	7.98	7.39	7.69	7.80	7.73	7.76	8.02	7.74	7.92	7.82	7.54	7.76				
23	7.86	7.41	7.60	8.18	7.58	7.81	8.03	7.84	7.90	8.99	7.50	8.08				
24	7.97	7.70	7.84	7.89	7.66	7.73	7.97	7.80	7.86	7.62	7.50	7.57				
25	8.00	7.54	7.76	7.85	7.76	7.82	7.98	7.80	7.85	7.69	7.57	7.64				
26	7.77	7.44	7.64	7.91	7.72	7.86	7.84	7.80	7.83	7.73	7.35	7.60				
27	9.78	7.48	7.98	7.83	7.71	7.80	7.86	7.81	7.84	7.64	7.32	7.47				
28	8.74	7.59	7.83	7.92	7.72	7.87	7.89	7.68	7.85	7.63	7.30	7.43				
29	8.04	7.64	7.86	8.12	7.65	7.80	8.77	7.62	7.89	7.59	7.40	7.49				
30	7.93	7.62	7.78	7.86	7.67	7.76	8.73	7.34	7.66	7.73	7.55	7.63				
31	---	---	---	7.92	7.69	7.80	7.41	7.34	7.36	---	---	---				
MONTH	9.78	7.31	7.69	8.18	7.57	7.83	8.77	7.34	7.82	8.99	7.28	7.69				

CHARLES RIVER BASIN

01104683 MUDDY RIVER AT BROOKLINE, MA--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	0.01
2	---	---	---	---	---	---	---	---	---	---	---	.00
3	---	---	---	---	---	---	---	---	---	---	---	.00
4	---	---	---	---	---	---	---	---	---	---	---	.18
5	---	---	---	---	---	---	---	---	---	---	---	.00
6	---	---	---	---	---	---	---	---	---	---	---	.00
7	---	---	---	---	---	---	---	---	---	---	---	.00
8	---	---	---	---	---	---	---	---	---	---	---	.00
9	---	---	---	---	---	---	---	---	---	---	---	.00
10	---	---	---	---	---	---	---	---	---	---	---	.00
11	---	---	---	---	---	---	---	---	---	---	---	.00
12	---	---	---	---	---	---	---	---	---	---	---	.00
13	---	---	---	---	---	---	---	---	---	---	---	.29
14	---	---	---	---	---	---	---	---	---	---	---	.24
15	---	---	---	---	---	---	---	---	---	---	---	.00
16	---	---	---	---	---	---	---	---	---	---	---	.00
17	---	---	---	---	---	---	---	---	---	---	---	.00
18	---	---	---	---	---	---	---	---	---	---	---	.00
19	---	---	---	---	---	---	---	---	---	---	---	.00
20	---	---	---	---	---	---	---	---	---	---	---	.24
21	---	---	---	---	---	---	---	---	---	---	---	.47
22	---	---	---	---	---	---	---	---	---	---	---	.02
23	---	---	---	---	---	---	---	---	---	---	0.00	.00
24	---	---	---	---	---	---	---	---	---	---	.00	.00
25	---	---	---	---	---	---	---	---	---	---	.00	.31
26	---	---	---	---	---	---	---	---	---	---	.00	.00
27	---	---	---	---	---	---	---	---	---	---	.15	.00
28	---	---	---	---	---	---	---	---	---	---	.00	.40
29	---	---	---	---	---	---	---	---	---	---	.00	.00
30	---	---	---	---	---	---	---	---	---	---	.00	.00
31	---	---	---	---	---	---	---	---	---	---	.03	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	2.16
MAX	---	---	---	---	---	---	---	---	---	---	---	0.47

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.11	0.00	0.00	0.42	0.12	1.13	0.00	0.00	0.00	0.00	0.00
2	.00	.00	.00	.00	.00	.01	.00	.58	.05	.00	.12	.54
3	.00	.07	.00	.00	.00	.66	.25	.04	.00	.00	.00	.71
4	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.21
5	.00	.12	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
6	.03	.00	.00	.47	---	.00	.00	.00	1.17	.00	.00	.00
7	.00	.00	.00	.30	---	.00	.00	.00	.71	.01	.00	.00
8	.00	.00	.14	.02	---	.00	.00	.00	.00	.00	.00	.00
9	.00	.03	.61	.00	---	.00	.00	.05	.00	.37	.00	.00
10	.00	.00	.00	.00	---	.32	.11	.30	.00	.09	.00	.00
11	.01	.00	.00	.14	---	.00	.00	.00	.05	.00	.00	.00
12	.00	.00	.00	.00	---	.00	.00	.41	.18	.00	.00	.00
13	.00	.00	.02	.90	---	.08	.00	1.89	.00	.00	.00	.00
14	.02	.00	.56	.00	---	.00	.01	.35	.05	.00	.00	.00
15	.07	.00	.08	.25	---	.00	.06	.00	.58	.16	.00	.27
16	.53	.00	.00	.00	---	.60	.00	.00	.20	.00	.05	.28
17	.01	.00	.45	.03	---	.00	.00	.00	.15	.00	.00	.00
18	.00	.00	.57	.00	---	.25	.04	1.35	.01	.00	.00	.00
19	.00	.00	.00	.12	---	.16	.02	.00	.00	.32	.00	.00
20	.00	.02	.00	.10	---	.77	.00	.00	.00	.00	.35	.00
21	.00	.00	.00	.23	---	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	---	.00	.20	.00	.04	.00	.25	.07
23	.00	.00	.00	.00	---	.00	.00	.00	.09	.46	.07	1.05
24	.00	.00	.78	.04	---	.00	.00	.00	.00	.00	.25	.00
25	.00	.07	.00	.00	---	.00	.79	.00	.00	.00	.03	.00
26	.00	.07	.00	.00	---	.59	.02	.00	.00	.00	.00	.15
27	.00	.00	.00	.00	---	.42	.00	.09	1.13	.10	.00	.39
28	.00	.04	.00	.00	---	.00	.39	.08	.02	.00	.00	.18
29	.00	.10	.00	.00	---	.00	.12	.16	.00	.24	1.15	.00
30	.00	.01	.00	.14	---	.15	.01	.00	.00	.00	.08	.00
31	.07	---	.00	.49	---	.14	---	.32	---	.00	.00	---
TOTAL	0.74	0.64	3.21	3.23	---	4.27	3.15	5.62	4.43	1.75	2.35	3.85
MAX	0.53	0.12	0.78	0.90	---	0.77	1.13	1.89	1.17	0.46	1.15	1.05

NEPONSET RIVER BASIN

01105000 NEPONSET RIVER AT NORWOOD, MA

LOCATION.--Lat 42°10'39", long 71°12'05", Norfolk County, Hydrologic Unit 01090001, on left bank 200 ft upstream from Pleasant Street Bridge, 200 ft downstream from railroad bridge, 0.45 mi downstream from Hawes Brook, and 0.5 mi south of Norwood.

DRAINAGE AREA.--34.7 mi².

PERIOD OF RECORD.--Discharge: October 1939 to current year. October 1939 monthly discharge only, published in WSP 1301.

Water-quality records: Water years 1958-59, 1966-68, 1999-2001.

REVISED RECORDS.--WDR MA-RI-78-1: 1976(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 44.04 ft above National Geodetic Vertical Datum of 1929. Since Oct. 1, 1960, recording orifice at upstream side of railroad bridge, at same datum.

REMARKS.--Records good except those for estimated daily discharge, which are fair. Flow regulated by mills and reservoirs upstream. Flow affected by several diversions upstream for municipal and industrial use. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--62 years, 55.7 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,490 ft³/s, Aug. 19, 1955, gage height, 14.65 ft, from floodmarks; minimum daily, 0.58 ft³/s, Aug. 13, 2002 (unusual regulation).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since 1886, that of Aug. 19, 1955. Flood of July 24, 1938, reached a stage of 11.05 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 259 ft³/s, May 14, gage height, 7.43 ft, minimum daily, 0.58 ft³/s, Aug. 13 (unusual regulation).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	7.6	5.1	7.6	40	31	133	47	62	16	3.0	6.2
2	7.9	8.4	4.8	8.5	47	28	119	48	50	15	3.3	12
3	9.2	9.0	4.3	9.0	38	72	98	71	41	14	3.8	19
4	11	6.7	4.1	8.5	31	77	87	67	36	12	3.0	16
5	11	6.4	4.2	8.2	27	59	75	52	33	11	5.7	10
6	11	6.2	3.9	9.8	24	46	67	42	81	9.3	10	e8.2
7	10	5.4	3.9	30	22	38	e60	38	150	7.0	1.6	7.2
8	8.6	5.1	4.1	26	21	37	54	34	134	e7.6	.91	6.0
9	7.5	4.5	6.6	20	21	35	51	30	99	e9.5	.78	5.0
10	7.1	4.1	6.1	18	20	50	50	36	76	e13	.66	4.7
11	8.5	4.0	6.7	20	47	45	e45	31	62	10	.61	4.9
12	11	4.0	6.7	22	44	37	e41	32	53	8.7	.61	4.2
13	11	4.1	7.7	38	35	34	41	101	49	7.5	.58	4.3
14	11	3.9	11	40	29	33	41	218	45	6.7	1.9	4.1
15	11	3.9	22	39	25	31	41	180	64	6.5	4.1	6.2
16	12	3.8	17	35	24	e36	e39	124	80	7.2	3.6	29
17	14	3.7	16	30	25	e39	e38	94	83	5.6	3.6	27
18	8.6	3.8	49	28	27	e33	e42	154	77	5.3	3.3	21
19	7.1	3.8	42	24	26	e35	e31	172	60	8.8	3.2	12
20	9.0	4.1	29	23	24	e37	e28	143	51	6.8	12	8.3
21	6.4	4.0	21	23	35	e60	e28	105	41	6.4	6.5	7.1
22	5.4	3.8	18	24	37	e54	e29	85	40	5.3	4.9	7.5
23	4.6	4.1	17	24	31	e39	30	75	36	7.7	5.6	44
24	5.8	3.7	32	30	28	e35	29	68	32	7.4	e4.8	32
25	10	4.0	38	33	25	e34	33	53	e28	5.6	e5.0	21
26	6.2	6.0	30	30	24	e36	61	50	25	4.4	e4.8	13
27	4.9	e5.4	24	27	32	90	50	47	23	3.9	e3.8	20
28	3.9	5.3	20	24	37	89	47	57	21	3.8	3.8	20
29	3.6	5.5	18	23	---	74	54	68	18	7.9	10	15
30	3.7	5.2	17	27	---	67	53	56	17	4.3	12	11
31	4.3	---	15	29	---	60	---	53	---	3.4	7.6	---
TOTAL	253.8	149.5	504.2	738.6	846	1471	1595	2431	1667	247.6	135.05	405.9
MEAN	8.19	4.98	16.3	23.8	30.2	47.5	53.2	78.4	55.6	7.99	4.36	13.5
MAX	14	9.0	49	40	47	90	133	218	150	16	12	44
MIN	3.6	3.7	3.9	7.6	20	28	28	30	17	3.4	0.58	4.1

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

	MEAN	MAX	MIN	(WY)
1940	28.3	135	5.14	1997
1941	45.9	188	4.98	1956
1942	61.7	187	7.78	1987
1943	69.7	224	5.35	1979
1944	78.0	188	13.4	1970
1945	112	236	45.3	1983
1946	102	284	31.8	1987
1947	63.7	147	21.2	1998
1948	43.1	236	8.71	1998
1949	21.4	79.3	5.44	1959
1950	23.1	226	4.30	1955
1951	21.3	87.7	5.85	1954
1952	21.3	87.7	5.85	1954
1953	21.3	87.7	5.85	1954
1954	21.3	87.7	5.85	1954
1955	21.3	87.7	5.85	1954
1956	21.3	87.7	5.85	1954
1957	21.3	87.7	5.85	1954
1958	21.3	87.7	5.85	1954
1959	21.3	87.7	5.85	1954
1960	21.3	87.7	5.85	1954
1961	21.3	87.7	5.85	1954
1962	21.3	87.7	5.85	1954
1963	21.3	87.7	5.85	1954
1964	21.3	87.7	5.85	1954
1965	21.3	87.7	5.85	1954
1966	21.3	87.7	5.85	1954
1967	21.3	87.7	5.85	1954
1968	21.3	87.7	5.85	1954
1969	21.3	87.7	5.85	1954
1970	21.3	87.7	5.85	1954
1971	21.3	87.7	5.85	1954
1972	21.3	87.7	5.85	1954
1973	21.3	87.7	5.85	1954
1974	21.3	87.7	5.85	1954
1975	21.3	87.7	5.85	1954
1976	21.3	87.7	5.85	1954
1977	21.3	87.7	5.85	1954
1978	21.3	87.7	5.85	1954
1979	21.3	87.7	5.85	1954
1980	21.3	87.7	5.85	1954
1981	21.3	87.7	5.85	1954
1982	21.3	87.7	5.85	1954
1983	21.3	87.7	5.85	1954
1984	21.3	87.7	5.85	1954
1985	21.3	87.7	5.85	1954
1986	21.3	87.7	5.85	1954
1987	21.3	87.7	5.85	1954
1988	21.3	87.7	5.85	1954
1989	21.3	87.7	5.85	1954
1990	21.3	87.7	5.85	1954
1991	21.3	87.7	5.85	1954
1992	21.3	87.7	5.85	1954
1993	21.3	87.7	5.85	1954
1994	21.3	87.7	5.85	1954
1995	21.3	87.7	5.85	1954
1996	21.3	87.7	5.85	1954
1997	21.3	87.7	5.85	1954
1998	21.3	87.7	5.85	1954
1999	21.3	87.7	5.85	1954
2000	21.3	87.7	5.85	1954
2001	21.3	87.7	5.85	1954
2002	21.3	87.7	5.85	1954

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1940 - 2002
ANNUAL TOTAL	19427.9	10444.65	
ANNUAL MEAN	53.2	28.6	55.7
HIGHEST ANNUAL MEAN			106
LOWEST ANNUAL MEAN			21.7
HIGHEST DAILY MEAN	428	Mar 31	218
LOWEST DAILY MEAN	2.0	Aug 7	0.58
ANNUAL SEVEN-DAY MINIMUM	3.9	Nov 13	0.82
MAXIMUM PEAK FLOW		259	May 14
MAXIMUM PEAK STAGE		7.43	May 14
INSTANTANEOUS LOW FLOW		0.49	Aug 12
10 PERCENT EXCEEDS	141	63	125
50 PERCENT EXCEEDS	30	21	37
90 PERCENT EXCEEDS	5.1	4.0	8.7

e Estimated

NEPONSET RIVER BASIN

011055566 NEPONSET RIVER AT MILTON VILLAGE, MA

LOCATION.--Lat 42°16'15", long 71°04'08", Norfolk County, Hydrologic Unit 01090001, 100 ft upstream from bridge on Adams Street, at Milton Village.

DRAINAGE AREA.--101 mi².

PERIOD OF RECORD.--November 1996 to current year.

GAGE.--Water stage recorder. Elevation of gage is 20 ft below sea level, from topographic map.

REMARKS.--Records good except those below 40 ft³/s, which are fair. Record on most days is adjusted for tidal backwater, which lasts as much as 4 hours during times of high tide. Flow regulated by mills and reservoirs upstream. Flow affected by diversion from Charles River basin to Neponset River basin by Mother Brook (station 01104000) through Dedham and Hyde Park and by diversions to and from basin for municipal supplies. Telephone and satellite gage-height telemeter at station.AVERAGE DISCHARGE.--6 years (water years 1997--2002), 266 ft³/s.EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,720 ft³/s, June 18, 1998, gage height, 36.93 ft; minimum, 4.8 ft³/s, Oct. 24, 1997, minimum daily, 10 ft³/s, Oct. 23, 1997.EXTREMES FOR CURRENT YEAR.--Maximum discharge, 676 ft³/s, May 19, gage height, 34.21 ft; maximum gage height, 35.44 ft, Apr. 29, backwater from tide; minimum discharge, 7.7 ft³/s, Aug. 17, minimum daily, 11 ft³/s, Aug. 17.DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	22	29	54	158	145	419	162	221	52	24	27
2	36	29	28	45	186	127	449	159	196	58	26	46
3	35	34	23	47	165	217	407	212	157	46	35	69
4	31	39	25	47	134	282	381	208	169	49	28	65
5	34	34	26	45	120	260	335	180	142	44	20	42
6	33	33	26	46	106	214	291	142	216	40	26	35
7	32	32	25	117	90	199	252	131	415	40	22	29
8	29	25	24	117	84	178	215	112	445	29	18	25
9	21	29	34	100	80	159	213	138	415	45	18	19
10	25	28	34	84	75	183	197	154	347	76	17	21
11	21	27	35	88	148	193	180	151	317	44	16	20
12	27	26	35	96	166	170	165	139	291	39	15	17
13	29	19	33	145	149	150	154	264	240	36	16	16
14	30	23	42	170	125	145	144	558	207	33	14	16
15	30	19	95	173	108	134	138	585	271	49	19	17
16	23	23	80	157	100	154	127	568	297	67	17	44
17	56	24	67	141	95	165	129	533	336	38	17	107
18	47	23	183	124	103	151	121	577	300	37	24	76
19	37	19	197	104	97	148	120	661	283	84	24	44
20	34	23	167	95	82	160	113	602	239	47	32	37
21	32	23	133	94	119	224	101	568	208	40	34	30
22	24	23	104	95	155	244	93	513	188	30	28	30
23	28	24	83	98	160	220	106	443	170	41	32	137
24	28	24	142	111	143	196	93	373	137	45	31	98
25	24	26	155	121	126	171	94	306	126	38	38	74
26	32	27	133	118	114	175	178	245	111	33	23	46
27	30	33	103	108	131	276	177	214	86	31	20	69
28	27	26	89	96	154	310	158	231	86	28	14	80
29	20	29	76	97	---	297	169	266	75	29	26	60
30	24	30	67	105	---	271	181	240	66	31	52	37
31	26	---	59	112	---	255	---	200	---	27	35	---
TOTAL	939	796	2352	3150	3473	6173	5900	9835	6757	1326	761	1433
MEAN	30.3	26.5	75.9	102	124	199	197	317	225	42.8	24.5	47.8
MAX	56	39	197	173	186	310	449	661	445	84	52	137
MIN	20	19	23	45	75	127	93	112	66	27	14	16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

	1997	1998	1999	2000	2001	2002
MEAN	104	139	263	322	392	582
MAX	244	274	860	577	611	872
(WY)	1999	1997	1997	1999	1999	2001
MIN	20.9	26.5	75.9	102	124	199
(WY)	1998	2002	2002	2002	2002	2002

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1997 - 2002
ANNUAL TOTAL	93352	42895	
ANNUAL MEAN	256	118	266
HIGHEST ANNUAL MEAN			426
LOWEST ANNUAL MEAN			118
HIGHEST DAILY MEAN	2040	Mar 25	661
LOWEST DAILY MEAN	18	Sep 13	14
ANNUAL SEVEN-DAY MINIMUM	21	Nov 13	16
MAXIMUM PEAK FLOW			676
MAXIMUM PEAK STAGE			34.21
INSTANTANEOUS LOW FLOW			7.7
10 PERCENT EXCEEDS	635	262	660
50 PERCENT EXCEEDS	129	84	145
90 PERCENT EXCEEDS	26	23	30

WEYMOUTH FORE RIVER BASIN

01105584 TOWN BROOK AT DIVERSION TUNNEL AT QUINCY, MA

LOCATION.--Lat 42°14'40", long 71°00'16", Norfolk County, Hydrologic Unit 01090001, on left bank at spillway into Burgin Brook and diversion tunnel, 100 ft west of Burgin Parkway, and 0.5 mi south of Quincy.

DRAINAGE AREA.--About 2.0 mi² (partially culverted).

PERIOD OF RECORD.--Gage height: February 1999 to September 2000; March 2001 to current year.

Precipitation: February 1999 to September 2000; March 2001 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 14.90 ft above National Geodetic Vertical Datum (NGVD) of 1929. Elevation of spillway into diversion tunnel is 18.0 ft above NGVD. Elevation data provided by U.S. Army Corps of Engineers.

REMARKS.--Records not rated.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 18.85 ft above NGVD, June 30, 2001, but may have been higher during periods of no gage height record; minimum gage height, 14.78 ft, Sept. 7, 2001, but may have been lower during periods of no gage height record.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 18.44 ft above NGVD, July 19, but may have been higher during periods of no gage height record; minimum gage height, 16.20 ft, Aug. 18, 19, 20, but may have been lower during periods of no gage height record.

WATER LEVEL, IN FEET ABOVE NGVD OF 1929, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.48	16.37	16.43	16.59	16.36	16.40	---	---	---	16.45	16.40	16.42
2	16.38	16.37	16.37	16.39	16.36	16.37	---	---	---	16.44	16.38	16.41
3	16.37	16.36	16.37	17.30	16.38	16.48	---	---	---	16.44	16.40	16.42
4	16.37	16.36	16.37	16.39	16.36	16.37	---	---	---	16.46	16.34	16.41
5	16.38	16.36	16.36	16.99	16.36	16.46	---	---	---	16.43	16.40	16.41
6	16.41	16.35	16.37	16.57	16.42	16.45	---	---	---	18.04	16.40	16.50
7	16.37	16.34	16.35	16.50	16.44	16.47	---	---	---	18.11	16.69	17.03
8	16.35	16.33	16.35	16.51	16.48	16.49	---	---	---	16.69	16.47	16.57
9	16.36	16.34	16.35	16.82	16.49	16.53	---	---	---	16.53	16.46	16.49
10	16.36	16.34	16.35	16.51	16.48	16.50	---	---	---	16.51	16.40	16.46
11	16.36	16.35	16.35	16.72	16.49	16.64	---	---	---	16.82	16.40	16.51
12	16.36	16.34	16.36	16.72	16.70	16.71	---	---	---	16.47	16.43	16.44
13	16.35	16.34	16.35	16.76	16.72	16.74	---	---	---	17.64	16.43	16.81
14	16.36	16.34	16.35	16.81	16.75	16.77	---	---	---	16.68	16.54	16.59
15	16.39	16.35	16.36	16.79	16.32	16.58	---	---	---	17.35	16.53	16.68
16	18.41	16.35	16.52	16.34	16.32	16.33	---	---	---	16.55	16.52	16.54
17	17.48	16.36	16.66	16.33	16.32	16.33	---	---	---	16.54	16.40	16.49
18	16.53	16.48	16.50	16.33	16.32	16.33	---	---	---	16.41	16.38	16.39
19	16.50	16.48	16.49	16.35	16.33	16.33	---	---	---	16.40	16.36	16.38
20	16.50	16.49	16.49	16.36	16.33	16.34	16.64	16.46	16.56	16.45	16.38	16.41
21	16.51	16.48	16.49	16.34	16.33	16.33	16.48	16.44	16.46	16.82	16.37	16.48
22	16.53	16.50	16.51	16.34	16.33	16.33	16.52	16.43	16.44	16.56	16.39	16.44
23	16.52	16.50	16.51	16.34	16.33	16.33	16.45	16.41	16.43	16.50	16.38	16.43
24	16.55	16.36	16.44	16.34	16.33	16.33	17.79	16.42	16.88	16.51	16.40	16.42
25	16.37	16.35	16.36	16.53	16.33	16.35	16.65	16.51	16.56	16.46	16.38	16.40
26	16.36	16.35	16.35	16.79	16.36	16.42	16.53	16.43	16.50	16.39	16.37	16.38
27	16.35	16.35	16.35	16.37	16.36	16.37	16.50	16.45	16.47	16.38	16.37	16.37
28	16.35	16.34	16.35	16.39	16.37	16.37	16.47	16.44	16.46	16.38	16.36	16.37
29	16.37	16.34	16.36	---	---	---	16.47	16.43	16.45	16.38	16.36	16.37
30	16.37	16.35	16.36	---	---	---	16.46	16.42	16.44	16.75	16.36	16.44
31	16.39	16.35	16.36	---	---	---	16.51	16.34	16.43	16.62	16.36	16.43
MONTH	18.41	16.33	16.40	---	---	---	---	---	---	18.11	16.34	16.48

WEYMOUTH FORE RIVER BASIN

01105584 TOWN BROOK AT DIVERSION TUNNEL AT QUINCY, MA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	FEBRUARY			MAX	MARCH			MAX	APRIL			MAX	MAY		
		MIN	MEAN			MIN	MEAN			MIN	MEAN			MIN	MEAN	
1	17.35	16.58	16.79		16.55	16.53	16.54	18.09	17.08	17.43		16.63	16.61	16.62		
2	16.58	16.42	16.47		16.54	16.52	16.52	17.08	16.91	16.97		17.84	16.61	16.83		
3	16.45	16.41	16.42		17.84	16.53	17.08	17.21	16.89	16.93		17.30	16.92	17.06		
4	16.42	16.39	16.40		16.89	16.73	16.80	16.98	16.86	16.91		16.92	16.86	16.89		
5	16.40	16.37	16.38		16.73	16.65	16.68	16.86	16.82	16.84		16.91	16.87	16.88		
6	16.38	16.37	16.37		16.65	16.63	16.64	16.83	16.79	16.81		16.91	16.57	16.68		
7	16.37	16.35	16.36		16.64	16.62	16.63	16.79	16.76	16.78		16.59	16.57	16.58		
8	16.38	16.35	16.36		16.63	16.60	16.61	16.77	16.67	16.71		16.58	16.56	16.57		
9	16.36	16.34	16.34		16.64	16.59	16.60	16.69	16.66	16.67		16.68	16.57	16.57		
10	16.62	16.33	16.36		18.04	16.62	16.98	16.82	16.66	16.70		17.25	16.58	16.66		
11	18.00	16.41	16.77		16.84	16.67	16.73	16.67	16.64	16.66		16.58	16.56	16.57		
12	16.43	16.39	16.40		16.67	16.64	16.65	16.65	16.63	16.64		17.49	16.56	16.71		
13	16.39	16.36	16.38		16.69	16.63	16.65	16.65	16.63	16.64		18.24	16.63	17.27		
14	16.37	16.36	16.36		16.66	16.62	16.63	16.74	16.63	16.65		18.01	17.03	17.31		
15	16.37	16.35	16.36		16.62	16.61	16.62	16.94	16.63	16.66		17.03	16.79	16.90		
16	16.37	16.36	16.37		18.03	16.61	16.90	16.63	16.62	16.62		16.79	16.75	16.77		
17	16.74	16.36	16.43		16.79	16.66	16.71	16.63	16.61	16.62		16.75	16.72	16.74		
18	16.67	16.36	16.41		16.97	16.65	16.74	16.99	16.61	16.65		18.05	16.71	17.22		
19	16.36	16.35	16.36		16.84	16.62	16.71	16.62	16.60	16.61		17.05	16.86	16.94		
20	16.36	16.35	16.35		17.49	16.60	16.78	16.61	16.60	16.60		16.87	16.78	16.82		
21	17.81	16.36	16.63		17.17	16.81	16.92	16.61	16.59	16.60		16.78	16.75	16.77		
22	16.42	16.39	16.40		16.81	16.70	16.75	16.82	16.57	16.62		16.76	16.72	16.74		
23	16.40	16.38	16.39		16.72	16.68	16.70	16.64	16.57	16.59		16.73	16.69	16.71		
24	16.38	16.37	16.38		16.72	16.67	16.69	16.57	16.56	16.57		16.70	16.66	16.68		
25	16.40	16.37	16.38		16.70	16.61	16.65	17.82	16.56	16.71		16.67	16.63	16.64		
26	16.40	16.37	16.38		17.79	16.61	16.78	17.41	16.63	16.74		16.63	16.61	16.63		
27	17.92	16.39	16.94		17.42	16.91	17.10	16.63	16.60	16.61		17.28	16.61	16.67		
28	16.76	16.55	16.62		16.92	16.77	16.84	17.20	16.60	16.76		18.06	16.68	16.87		
29	---	---	---		16.78	16.73	16.75	16.86	16.65	16.72		17.06	16.73	16.82		
30	---	---	---		17.23	16.72	16.81	16.78	16.62	16.66		16.73	16.66	16.69		
31	---	---	---		17.56	16.72	16.75	---	---	---		17.81	16.64	16.77		
MONTH	18.00	16.33	16.45		18.04	16.52	16.74	18.09	16.56	16.72		18.24	16.56	16.79		
DAY	MAX	JUNE			MAX	JULY			MAX	AUGUST			MAX	SEPTEMBER		
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN	MIN	MEAN		
1	16.97	16.68	16.78		16.52	16.47	16.50	16.34	16.31	16.33		16.36	16.32	16.34		
2	16.82	16.63	16.68		16.53	16.47	16.50	16.88	16.30	16.38		17.90	16.32	16.74		
3	16.63	16.62	16.62		16.48	16.44	16.47	16.47	16.36	16.40		17.76	16.63	16.83		
4	16.63	16.37	16.56		16.49	16.45	16.47	16.36	16.32	16.34		17.42	16.56	16.65		
5	16.42	16.35	16.37		16.48	16.43	16.45	16.34	16.32	16.33		16.56	16.42	16.48		
6	17.87	16.42	17.03		16.44	16.43	16.44	16.33	16.29	16.30		16.47	16.37	16.41		
7	17.64	16.88	17.16		16.46	16.44	16.45	16.29	16.27	16.28		16.37	16.33	16.35		
8	16.88	16.73	16.79		16.47	16.45	16.46	16.28	16.26	16.27		16.34	16.32	16.33		
9	16.73	16.66	16.70		17.51	16.45	16.57	16.27	16.26	16.27		16.33	16.31	16.32		
10	16.67	16.62	16.64		16.96	16.58	16.72	16.28	16.25	16.26		16.32	16.31	16.31		
11	16.63	16.58	16.60		16.58	16.49	16.52	16.27	16.25	16.26		16.34	16.30	16.31		
12	16.75	16.57	16.61		16.49	16.47	16.48	16.27	16.25	16.26		16.33	16.26	16.28		
13	16.63	16.58	16.60		16.48	16.46	16.47	16.27	16.25	16.26		16.30	16.25	16.27		
14	16.63	16.57	16.58		16.47	16.45	16.46	16.28	16.26	16.27		16.28	16.24	16.25		
15	17.72	16.62	17.06		18.16	16.44	16.69	16.35	16.25	16.26		17.57	16.25	16.38		
16	18.15	16.71	16.88		17.45	16.64	16.99	16.25	16.22	16.24		18.24	16.65	16.97		
17	17.94	16.76	16.90		16.64	16.46	16.54	16.24	16.22	16.23		16.97	16.60	16.75		
18	17.03	16.72	16.81		17.46	16.40	16.47	16.23	16.20	16.22		16.60	16.45	16.51		
19	17.42	16.69	16.76		18.44	16.86	17.21	16.23	16.20	16.21		16.46	16.40	16.43		
20	16.69	16.63	16.66		16.86	16.55	16.67	17.43	16.20	16.64		16.40	16.38	16.39		
21	16.64	16.60	16.62		16.55	16.47	16.51	16.62	16.34	16.45		16.39	16.36	16.38		
22	16.63	16.57	16.59		16.48	16.44	16.46	17.28	16.29	16.35		16.37	16.36	16.37		
23	16.86	16.60	16.64		18.18	16.41	16.76	17.12	16.38	16.53		17.89	16.35	16.97		
24	16.61	16.54	16.57		17.11	16.60	16.82	16.91	16.31	16.38		16.71	16.47	16.56		
25	16.55	16.52	16.53		16.60	16.46	16.52	16.89	16.41	16.55		16.48	16.42	16.45		
26	16.52	16.51	16.51		16.46	16.40	16.42	16.41	16.32	16.36		16.93	16.41	16.45		
27	16.53	16.49	16.51		16.40	16.39	16.39	16.32	16.27	16.29		17.47	16.86	17.08		
28	16.54	16.49	16.51		16.41	16.39	16.39	16.28	16.25	16.26		17.85	16.72	16.99		
29	16.49	16.47	16.48		17.00	16.39	16.48	17.33	16.25	16.59		16.72	16.52	16.60		
30	16.48	16.46	16.47		16.41	16.36	16.39	16.87	16.52	16.65		16.77	16.49	16.52		
31	---	---	---		16.37	16.33	16.35	16.52	16.36	16.43		---	---	---		
MONTH	18.15	16.35	16.67		18.44	16.33	16.55	17.43	16.20	16.35		18.24	16.24	16.52		

WEYMOUTH FORE RIVER BASIN

01105584 TOWN BROOK AT DIVERSION TUNNEL AT QUINCY, MA--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.09	---	0.00	0.35	0.00	1.00	0.00	0.00	0.00	0.00	0.00
2	.00	.00	---	.00	.00	.02	.00	.53	.07	.00	.12	1.15
3	.00	.29	---	.00	.00	.85	.08	.02	.00	.00	.00	.43
4	.00	.00	---	.00	.00	.00	.00	.00	.00	.00	.00	.12
5	.00	.17	---	.00	.00	.00	.00	.00	.03	.00	.00	.00
6	.03	.00	---	.52	.00	.00	.00	.00	1.17	.00	.00	.00
7	.00	.00	---	.41	.00	.00	.00	.00	.95	.01	.00	.00
8	.00	.00	---	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.05	---	.01	.00	.05	.00	.05	.00	.55	.00	.00
10	.00	.00	---	.00	.13	.68	.09	.13	.00	.05	.00	.00
11	.00	.00	---	.17	.65	.00	.00	.00	.03	.00	.00	.00
12	.00	.00	---	.00	.00	.00	.00	.40	.08	.00	.00	.00
13	.00	.00	---	.99	.00	.06	.00	2.29	.00	.00	.00	.00
14	.02	.01	---	.00	.00	.00	.04	.30	.08	.00	.00	.00
15	.04	.00	---	.21	.00	.00	.11	.00	1.14	1.06	.00	.49
16	1.24	.00	---	.00	.00	.45	.00	.00	.46	.00	.00	.73
17	.03	.00	---	.02	.17	.00	.00	.00	.25	.00	.00	.00
18	.00	.00	---	.00	.00	.17	.07	1.64	.00	.06	.00	.00
19	.00	.00	---	.03	.00	.03	.01	.00	.18	1.98	.00	.00
20	.00	.02	0.00	.19	.00	.62	.01	.00	.00	.00	.52	.00
21	.00	.00	.00	.20	.40	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.16	.00	.04	.00	.23	.01
23	.00	.00	.00	.00	.00	.00	.01	.00	.03	.63	.03	.52
24	.00	.00	.78	.05	.00	.00	.00	.00	.00	.03	.14	.00
25	.00	.07	.00	.00	.00	.01	.76	.00	.00	.00	.08	.00
26	.00	.09	.00	.00	.01	.57	.03	.00	.00	.00	.00	.15
27	.00	.00	.00	.00	.73	.46	.00	.14	.01	.01	.00	.35
28	.00	.00	.00	.00	.00	.00	.38	.44	.03	.00	.00	.16
29	.00	---	.00	.00	---	.00	.11	.11	.00	.06	.90	.00
30	.00	---	.00	.15	---	.12	.00	.00	.00	.00	.11	.00
31	.04	---	.00	.39	---	.15	---	.43	---	.00	.00	---
TOTAL	1.40	---	---	3.34	2.44	4.24	2.86	6.48	4.55	4.44	2.13	4.11
MAX	1.24	---	---	0.99	0.73	0.85	1.00	2.29	1.17	1.98	0.90	1.15

WEYMOUTH FORE RIVER BASIN
01105585 TOWN BROOK AT QUINCY, MA

LOCATION.--Lat 42°14'52", long 70°59'52", Norfolk County, Hydrologic Unit 01090001, on left bank 200 ft downstream from Miller Stile Road at Quincy and 0.8 mi upstream from Town River Bay.

DRAINAGE AREA.--4.22 mi².

PERIOD OF RECORD.--Discharge: Water years 1972–86; 1999. Prior to October 1974 published as Town River at Quincy.

Water-quality records: May to August 1999, November 1999 to June 2000.

REVISED RECORDS.--WDR MA-RI-81-1: 1975–80 (P). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for discharges greater than 50 ft³/s, which are poor. Flow affected by unknown regulation. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--18 years (water years 1972–86, 1999–2002) 7.93 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 381 ft³/s May 13, 1975, gage height, 7.40 ft, from rating curve extended above 210 ft³/s on basis of U.S. Army Corps of Engineers computation of the backwater effect from culvert downstream; minimum daily, 0.16 ft³/s Dec. 6, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 260 ft³/s Oct. 16, gage height, 5.62 ft; minimum daily, 0.16 ft³/s, Dec. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.00	1.6	0.66	1.7	11	3.3	27	5.0	6.7	3.0	0.89	1.1
2	.85	1.1	.60	1.6	2.8	3.3	9.5	11	5.0	2.5	1.6	11
3	.93	2.5	.70	1.7	2.2	21	9.0	8.0	3.8	1.9	1.2	9.3
4	.86	.68	.35	1.7	2.5	7.6	7.8	5.5	3.5	2.2	.97	4.2
5	.83	1.6	.18	1.6	2.0	5.6	6.6	4.9	1.8	1.9	.64	2.1
6	.95	.93	.16	4.6	2.0	4.5	6.0	5.0	21	1.7	.80	1.6
7	.67	.98	.25	12	2.1	4.5	5.9	5.1	23	1.9	.37	.92
8	.69	.75	.31	3.1	1.9	4.0	5.1	3.9	8.0	1.8	.56	1.1
9	.64	1.0	6.4	2.6	2.0	4.3	5.4	3.8	5.8	7.3	.57	.75
10	.74	.90	1.7	2.5	2.1	16	5.7	5.4	5.0	4.9	.32	.94
11	.65	.83	1.3	4.0	13	5.7	4.9	3.8	4.6	2.1	.55	1.0
12	.92	.87	.97	2.3	2.6	4.7	4.7	7.7	4.8	1.9	.31	.54
13	.88	1.3	1.0	14	2.3	4.3	4.3	34	4.5	1.6	.55	.79
14	1.0	1.3	5.9	4.3	1.9	4.4	4.9	19	4.1	1.8	.54	.38
15	.94	1.2	4.9	6.8	2.1	3.9	4.8	9.3	22	14	.33	4.3
16	12	1.2	1.4	3.5	1.9	11	4.4	7.5	13	9.3	.48	14
17	3.9	1.3	4.8	3.1	3.3	4.9	4.2	6.6	11	2.0	.22	4.8
18	1.2	1.2	12	2.1	2.4	6.0	5.0	32	7.8	2.1	.42	2.3
19	1.1	1.2	3.1	1.8	2.1	5.3	4.5	11	7.3	21	.40	1.3
20	1.0	1.3	2.5	2.2	1.7	12	4.3	8.4	4.7	2.7	7.9	1.3
21	1.1	1.2	2.2	3.8	7.9	11	4.2	7.6	4.4	1.5	2.0	.87
22	.90	.96	1.9	2.8	1.9	6.6	5.8	6.8	4.1	1.4	1.6	1.1
23	.96	.94	1.8	2.5	2.0	5.2	4.7	5.9	4.2	7.6	3.0	7.4
24	.96	.97	13	2.4	1.6	5.0	4.5	5.8	3.7	3.8	2.0	1.9
25	.98	1.4	3.1	2.4	1.8	4.3	13	4.6	3.3	1.6	3.2	1.4
26	1.1	1.6	2.4	1.9	1.6	11	7.3	4.6	2.9	1.3	1.2	1.2
27	.90	.66	2.2	1.9	12	17	5.1	6.0	3.1	1.2	.60	6.0
28	.89	.62	2.0	2.1	4.1	8.3	9.1	12	3.0	.98	.64	4.7
29	.79	.87	2.1	2.0	---	6.4	8.2	8.2	2.6	2.2	7.9	1.8
30	1.0	.63	1.9	3.7	---	7.4	6.1	5.1	2.5	1.3	4.7	1.3
31	.96	---	1.8	2.7	---	6.5	---	9.0	---	.81	1.5	---
TOTAL	42.29	33.59	83.58	105.4	96.8	225.0	202.0	272.5	201.2	111.29	47.96	91.39
MEAN	1.36	1.12	2.70	3.40	3.46	7.26	6.73	8.79	6.71	3.59	1.55	3.05
MAX	12	2.5	13	14	13	21	27	34	23	21	7.9	14
MIN	0.64	0.62	0.16	1.6	1.6	3.3	4.2	3.8	1.8	0.81	0.22	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2002, BY WATER YEAR (WY)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
MEAN	5.49	7.13	8.41	10.7	11.1	13.1	10.2	7.57	7.75	4.29	5.28	4.23																				
MAX	15.1	18.5	20.3	36.0	29.3	33.8	26.5	18.9	32.2	9.33	12.3	7.97																				
(WY)	1978	1973	1973	1979	1984	1983	1983	1984	1982	1973	1976	1975																				
MIN	1.36	1.12	2.13	2.52	2.38	6.10	4.86	3.09	1.82	2.03	1.55	1.16																				
(WY)	2002	2002	1999	1981	1980	1973	1985	2001	1999	1974	2002	1980																				

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR				FOR 2002 WATER YEAR				WATER YEARS 1972 - 2002			
ANNUAL TOTAL	1529.20				1513.00							
ANNUAL MEAN	4.19				4.15				7.93			
HIGHEST ANNUAL MEAN									15.6			
LOWEST ANNUAL MEAN									4.15			
HIGHEST DAILY MEAN	75				Mar 22				34			
LOWEST DAILY MEAN	0.16				Dec 6				0.16			
ANNUAL SEVEN-DAY MINIMUM	0.36				Dec 2				0.36			
MAXIMUM PEAK FLOW					260				Oct 16			
MAXIMUM PEAK STAGE					5.62				Oct 16			
INSTANTANEOUS LOW FLOW					0.05				Dec 6			
10 PERCENT EXCEEDS	9.4								9.2			
50 PERCENT EXCEEDS	2.4								2.4			
90 PERCENT EXCEEDS	0.87								0.75			

WEYMOUTH BACK RIVER BASIN

01105600 OLD SWAMP RIVER NEAR SOUTH WEYMOUTH, MA

LOCATION.--Lat 42°11'25", long 70°56'43", Norfolk County, Hydrologic Unit 01090001, on left bank between divided lanes of State Highways 3 and 128, 50 ft (revised) downstream from unnamed tributary entering from left, 0.4 mi upstream from Whitmans Pond, and 1.2 mi north of South Weymouth.

DRAINAGE AREA.--4.50 mi².

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

Water-quality records: Water years 1967-68, 1999-2000.

GAGE.--Water-stage recorder. Elevation of gage is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 3, 1996, at site 50 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--36 years, 9.02 ft³/s, 27.25 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 590 ft³/s, May 31, 1984, gage height, 5.02 ft; maximum gage height, 5.35 ft, Feb. 15, 1971 (ice jam); minimum discharge, 0.05 ft³/s, Sept. 10-13, 15, 16, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge; 83 ft³/s, May 14, (from rating curve extended above 140 ft³/s), gage height, 3.96 ft; minimum, 0.10 ft³/s, Aug. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.0	1.6	3.0	9.4	6.2	32	4.8	7.0	1.3	0.39	0.52
2	1.5	1.0	1.4	e1.7	11	5.0	22	5.4	4.0	.84	.39	2.2
3	1.4	1.4	1.3	1.6	e6.2	22	12	15	3.2	.76	.42	4.7
4	1.3	1.3	1.2	e1.5	4.9	17	9.1	7.9	2.7	.64	.28	2.6
5	1.3	1.5	1.2	1.5	4.1	9.1	7.2	5.0	2.7	.61	.29	1.5
6	1.4	2.0	1.2	1.7	3.4	7.0	6.3	4.1	13	.53	.29	.93
7	1.3	1.3	1.1	7.7	3.3	6.2	5.5	3.6	32	.53	.27	.73
8	1.2	.98	1.0	4.6	3.3	5.4	5.1	3.2	19	.53	.26	.51
9	1.1	1.00	2.9	3.4	3.2	5.1	4.8	2.9	8.1	.77	.25	.44
10	1.1	.88	2.5	3.5	2.9	12	5.0	5.2	5.6	.4	.24	.48
11	1.2	.88	2.3	4.9	14	8.8	4.4	3.3	4.3	.68	.23	.46
12	1.2	.81	2.3	4.9	e8.7	6.3	4.1	4.7	4.0	.53	.17	.46
13	1.3	.78	2.2	11	5.9	5.5	4.1	28	3.9	.47	.21	.43
14	1.5	.82	2.6	11	e4.3	5.5	4.0	68	3.7	.42	.18	.42
15	1.9	.89	6.4	9.7	3.8	4.6	3.9	25	20	2.9	.19	1.5
16	3.2	.92	3.8	7.8	4.3	7.1	3.7	11	18	3.8	.21	11
17	6.3	.86	3.9	5.9	4.7	6.0	3.7	8.1	13	1.2	.19	4.3
18	2.1	.86	16	4.9	8.0	5.4	3.6	29	7.5	1.1	.18	1.8
19	1.1	.92	11	4.0	5.5	6.3	3.4	32	5.3	2.6	.16	1.2
20	.86	.94	5.6	3.7	4.6	8.2	3.2	13	4.5	1.1	4.6	.96
21	.77	.92	4.0	4.2	12	18	3.0	8.9	3.8	.71	.68	.82
22	.79	.97	3.1	4.8	8.4	11	3.6	7.1	3.4	.60	.39	.74
23	.74	.94	2.6	5.1	5.7	7.1	4.4	5.9	5.2	.83	.99	8.8
24	.71	.92	10	7.2	4.6	5.9	3.4	5.1	3.7	1.3	.45	4.3
25	.75	.97	7.8	6.4	4.2	5.3	4.0	4.4	3.0	.61	.91	2.2
26	.73	1.9	4.6	4.8	4.0	6.9	13	3.9	2.7	.49	.43	1.6
27	.66	1.6	3.6	4.2	e9.5	30	6.6	3.8	2.6	.51	.35	4.1
28	.59	1.4	2.8	3.8	9.4	21	7.0	5.8	2.5	.52	.31	3.5
29	.56	1.4	2.6	3.7	---	11	9.2	5.7	2.3	2.0	.90	2.1
30	.55	1.4	2.3	4.5	---	8.8	6.6	4.3	2.1	.60	2.0	1.6
31	.55	---	2.2	4.1	---	7.5	---	4.8	---	.43	.70	---
TOTAL	41.26	33.46	117.1	150.8	173.3	291.2	207.9	338.9	212.8	31.31	17.51	66.90
MEAN	1.33	1.12	3.78	4.86	6.19	9.39	6.93	10.9	7.09	1.01	0.56	2.23
MAX	6.3	2.0	16	11	14	30	32	68	32	3.8	4.6	11
MIN	0.55	0.78	1.0	1.5	2.9	4.6	3.0	2.9	2.1	0.42	0.16	0.42
CFSM	0.30	0.25	0.84	1.08	1.38	2.09	1.54	2.43	1.58	0.22	0.13	0.50
IN.	0.34	0.28	0.97	1.25	1.43	2.41	1.72	2.80	1.76	0.26	0.14	0.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2002, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002		
MEAN	5.05	9.44	12.2	12.1	12.9	17.5	13.6	9.46	7.09	2.82	2.97	3.29																											
MAX	26.0	24.7	30.9	30.8	30.4	51.5	38.7	21.6	46.2	7.78	8.99	12.9																											
(WY)	1997	1992	1970	1979	1998	1983	1987	1967	1982	1988	1990	1996																											
MIN	1.14	1.12	2.77	2.16	2.86	6.25	4.95	4.11	1.08	0.54	0.50	0.18																											
(WY)	1998	2002	1981	1981	1980	1981	1985	1986	1999	1991	1971	1980																											

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1966 - 2002
ANNUAL TOTAL	2742.56	1682.44	
ANNUAL MEAN	7.51	4.61	9.03
HIGHEST ANNUAL MEAN			14.4
LOWEST ANNUAL MEAN			3.91
HIGHEST DAILY MEAN	209	Mar 22	361
LOWEST DAILY MEAN	0.46	Aug 2	0.05
ANNUAL SEVEN-DAY MINIMUM	0.62	Sep 13	0.06
MAXIMUM PEAK FLOW			83
MAXIMUM PEAK STAGE			3.96
INSTANTANEOUS LOW FLOW			0.10
ANNUAL RUNOFF (CFSM)	1.67	1.02	2.01
ANNUAL RUNOFF (INCHES)	22.67	13.91	27.25
10 PERCENT EXCEEDS	15	9.6	19
50 PERCENT EXCEEDS	3.1	3.2	5.3
90 PERCENT EXCEEDS	0.81	0.52	0.83

e Estimated

WEYMOUTH BACK RIVER BASIN

01105606 WHITMANS POND, WHITMANS POND DAM AT EAST WEYMOUTH, MA

LOCATION.--Lat 42°12'40", long 70°55'47", Norfolk County, Hydrologic Unit 01090001, on Whitmans Pond Dam, approximately 1,000 ft upstream from Iron Hill Dam and flood by-pass system, and 1,300 ft upstream from the gage, Whitmans Pond Fish Ladder at East Weymouth, MA.

DRAINAGE AREA.--12.4 mi².

PERIOD OF RECORD.--March to September 2002.

GAGE.--Water-stage recorder. Datum of gage is 67.96 ft above National Geodetic Vertical Datum of 1929 (NGVD) (Town of Weymouth Datum). Subtract 5.83 ft from gage height values to adjust to NGVD.

REMARKS.--Records not rated. Missing record not estimated. Satellite gage-height telemeter at station.

EXTREMES FOR THE PERIOD MARCH 9 TO SEPTEMBER 30, 2002.--Maximum gage height, 73.23 ft, May 14; minimum, 70.29, Aug. 28.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	72.86	72.57	72.67	---	71.81	---
2	---	---	---	---	---	---	72.95	72.55	72.64	---	71.73	---
3	---	---	---	---	---	---	72.88	72.68	72.60	72.26	71.64	---
4	---	---	---	---	---	---	72.79	72.70	72.57	72.23	71.56	70.58
5	---	---	---	---	---	---	72.72	72.69	72.55	---	71.47	70.61
6	---	---	---	---	---	---	72.67	72.66	72.65	---	71.37	70.64
7	---	---	---	---	---	---	72.63	72.62	72.88	---	71.28	70.66
8	---	---	---	---	---	---	72.59	72.60	72.96	---	71.19	70.68
9	---	---	---	---	---	72.56	72.58	72.57	72.88	---	71.13	70.69
10	---	---	---	---	---	72.61	72.60	72.60	72.78	72.00	71.07	70.71
11	---	---	---	---	---	72.62	72.60	72.57	72.71	71.96	71.01	70.73
12	---	---	---	---	---	72.59	72.61	72.57	72.65	71.93	70.95	70.73
13	---	---	---	---	---	72.57	72.61	72.73	72.63	71.90	70.89	70.75
14	---	---	---	---	---	72.55	72.60	73.23	72.60	71.87	70.83	70.76
15	---	---	---	---	---	72.52	72.59	73.20	72.72	71.86	70.78	70.78
16	---	---	---	---	---	72.53	72.59	73.02	72.85	72.02	70.72	70.87
17	---	---	---	---	---	72.54	72.58	72.89	72.87	72.01	70.66	70.96
18	---	---	---	---	---	72.53	72.57	72.95	72.81	71.99	70.60	71.00
19	---	---	---	---	---	72.53	72.56	73.11	72.74	72.05	70.53	71.03
20	---	---	---	---	---	72.54	72.51	73.01	72.69	72.06	70.56	71.05
21	---	---	---	---	---	72.69	72.45	72.90	72.64	72.05	70.58	71.07
22	---	---	---	---	---	72.72	72.40	72.82	72.59	72.03	70.53	71.09
23	---	---	---	---	---	72.67	72.37	72.76	72.59	72.01	70.50	71.15
24	---	---	---	---	---	72.61	72.34	72.71	72.57	72.00	70.45	71.20
25	---	---	---	---	---	72.57	72.30	72.67	72.53	71.98	70.45	71.23
26	---	---	---	---	---	72.55	72.43	72.64	72.51	71.95	70.41	71.26
27	---	---	---	---	---	72.77	72.50	72.62	72.48	71.92	70.35	71.30
28	---	---	---	---	---	72.89	72.53	72.62	72.45	71.90	70.29	71.35
29	---	---	---	---	---	72.83	72.59	72.65	72.41	71.90	---	71.38
30	---	---	---	---	---	72.75	72.60	72.65	72.38	71.89	---	71.40
31	---	---	---	---	---	72.70	---	72.63	---	71.86	---	---
MEAN	---	---	---	---	---	---	72.59	72.75	72.65	---	---	---
MAX	---	---	---	---	---	---	72.95	73.23	72.96	---	---	---
MIN	---	---	---	---	---	---	72.30	72.55	72.38	---	---	---

WEYMOUTH BACK RIVER BASIN

01105607 WHITMANS POND FLOOD BY-PASS AT EAST WEYMOUTH, MA

LOCATION.--Lat 42°12'40", long 70°55'47", Norfolk County, Hydrologic Unit 01090001, on Whitmans Pond Dam, approximately 1,000 ft upstream from Iron Hill Dam and flood by-pass system, and 1,300 ft upstream from the gage, Whitmans Pond Fish Ladder at East Weymouth, MA.

DRAINAGE AREA.--12.4 mi².

PERIOD OF RECORD.--January to September 2002.

GAGE.--Water-stage recorder. Datum of gage is 55.29 ft above National Geodetic Vertical Datum of 1929 (NGVD) (Town of Weymouth Datum). Subtract 5.83 ft from gage height values to adjust to NGVD.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow occurs only when gage height in Iron Hill Pond exceeds 65.25 ft. No flow on many days during the year. Daily mean discharges are added to those for the downstream gage, Whitmans Pond Fish Ladder at East Weymouth (01105608), to obtain total discharge from Whitmans Pond, published in the station, Whitmans Pond Combined By-pass and Fish Ladder Flow (011056081). Satellite gage-height telemeter at station.

EXTREMES FOR THE PERIOD JANUARY 25 TO SEPTEMBER 30, 2002.--Maximum discharge, 85 ft³/s, May 14, gage height, 66.32 ft, minimum, no flow, many days during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	0.00	2.9	18	4.5	9.2	e0.48	0.00	e0.00
2	---	---	---	---	.00	.90	23	3.3	7.3	e.00	.00	e.00
3	---	---	---	---	.00	7.5	18	9.0	6.2	.00	.00	e.00
4	---	---	---	---	.00	11	14	10	5.2	.00	.00	.00
5	---	---	---	---	.00	6.9	11	9.3	3.3	e.00	.00	.00
6	---	---	---	---	.00	3.5	8.5	8.4	7.3	e.00	.00	.00
7	---	---	---	---	.00	.47	7.0	7.5	18	e.00	.00	.00
8	---	---	---	---	.00	.21	5.8	6.4	23	e.00	.00	.00
9	---	---	---	---	.00	.00	5.5	5.3	17	e.00	.00	.00
10	---	---	---	---	.00	1.1	6.1	6.2	13	.00	.00	.00
11	---	---	---	---	.00	.22	6.4	5.4	10	.00	.00	.00
12	---	---	---	---	.00	.00	6.9	4.6	8.0	.00	.00	.00
13	---	---	---	---	.00	.00	7.1	12	7.2	.00	.00	.00
14	---	---	---	---	.00	.00	6.6	63	6.3	.00	.00	.00
15	---	---	---	---	.00	.00	6.3	54	10	.00	.00	.00
16	---	---	---	---	.00	.00	6.0	29	16	.00	.00	.00
17	---	---	---	---	.00	.00	6.1	19	17	.00	.00	.00
18	---	---	---	---	.00	.00	4.9	23	e14	.00	.00	.00
19	---	---	---	---	.00	.00	4.4	36	e12	.00	.00	.00
20	---	---	---	---	.00	.23	1.9	27	e11	.00	.00	.00
21	---	---	---	---	1.1	7.3	.45	19	e10	.00	.00	.00
22	---	---	---	---	4.2	9.1	.14	15	e9.3	.00	.00	.00
23	---	---	---	---	3.7	7.6	.54	12	e9.3	.00	.00	.00
24	---	---	---	---	1.7	2.8	.76	10	e8.5	.00	.00	.00
25	---	---	---	0.00	.03	.00	.38	9.1	e7.3	.00	.00	.00
26	---	---	---	.00	.00	.03	1.4	7.9	e5.8	.00	.00	.00
27	---	---	---	.00	.66	11	3.0	6.9	e4.0	.00	.00	.00
28	---	---	---	.00	3.7	18	3.8	7.3	e3.1	.00	.00	.00
29	---	---	---	.00	---	16	5.6	8.5	e1.9	.00	e.00	.00
30	---	---	---	.00	---	13	5.5	8.2	e1.2	.00	e.00	.00
31	---	---	---	.00	---	11	---	7.9	---	.00	e.00	---
TOTAL	---	---	---	---	15.09	130.76	195.07	454.7	281.4	0.48	0.00	0.00
MEAN	---	---	---	---	0.54	4.22	6.50	14.7	9.38	0.015	0.000	0.000
MAX	---	---	---	---	4.2	18	23	63	23	0.48	0.00	0.00
MIN	---	---	---	---	0.00	0.00	0.14	3.3	1.2	0.00	0.00	0.00
CFSM	---	---	---	---	0.04	0.34	0.52	1.18	0.76	0.00	0.00	0.00
IN.	---	---	---	---	0.05	0.39	0.59	1.36	0.84	0.00	0.00	0.00

e Estimated

WEYMOUTH BACK RIVER BASIN

01105608 WHITMANS POND FISH LADDER AT EAST WEYMOUTH, MA

LOCATION.--Lat 42°12'47", long 70°55'35", Norfolk County, Hydrologic Unit 01090001, on left bank at base of fish ladder, 100 ft downstream from Iron Hill Street, 300 ft downstream from Iron Hill Dam, at East Weymouth, MA.

DRAINAGE AREA.--12.5 mi².

PERIOD OF RECORD.--December 2001 to September 2002.

GAGE.--Water-stage recorder. Datum of gage is 25.00 ft above National Geodetic Vertical Datum of 1929 (NGVD) (Town of Weymouth Datum). Subtract 5.83 ft from gage height values to adjust to NGVD.

REMARKS.--Records good except those for discharges less than 0.1 ft³/s, which are fair. Discharge includes flow through fish-ladder system. When present, daily mean discharge for Whitmans Pond Flood By-pass at East Weymouth (01105607) are added to daily mean discharges for this station to obtain total daily mean discharge from Whitmans Pond. The combined data are published in the station, Whitmans Pond Combined By-pass and Fish Ladder Flow (011056081). Satellite gage-height telemeter at station.

EXTREMES FOR THE PERIOD DECEMBER 21, 2001 TO SEPTEMBER 30, 2002.--Maximum discharge, 30 ft³/s, May 14, gage height, 32.06 ft, minimum, less than 0.01 ft³/s, Aug. 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	0.06	2.4	6.8	12	7.4	6.7	4.0	1.4	0.02
2	---	---	---	.06	3.4	6.1	15	6.7	7.3	3.8	1.1	.02
3	---	---	---	.05	4.3	11	12	8.9	6.5	3.5	.77	.03
4	---	---	---	.04	5.1	19	9.0	9.4	5.8	3.3	.49	.02
5	---	---	---	.03	5.0	19	8.0	9.6	6.2	3.0	.34	.02
6	---	---	---	.04	5.0	16	8.4	8.7	7.6	2.7	.19	.03
7	---	---	---	.08	4.9	12	7.5	7.5	13	2.5	.08	.02
8	---	---	---	.05	4.6	8.9	6.8	6.7	16	2.4	.06	.02
9	---	---	---	.04	4.2	7.4	6.5	6.4	12	2.3	.06	.02
10	---	---	---	.04	3.8	9.4	6.9	7.0	9.6	2.3	.04	.02
11	---	---	---	.04	4.4	10	6.9	6.6	8.2	2.1	.03	.03
12	---	---	---	.05	5.1	8.6	7.1	6.8	7.3	2.0	.03	.03
13	---	---	---	.14	5.4	7.2	7.3	11	6.9	1.8	.03	.03
14	---	---	---	.11	5.1	6.4	7.0	26	6.6	1.7	.03	.03
15	---	---	---	.17	4.5	5.4	6.8	25	8.3	1.8	.04	.05
16	---	---	---	.43	4.0	5.5	6.6	19	11	2.3	.04	.20
17	---	---	---	.72	3.9	5.8	6.1	14	12	2.3	.04	.06
18	---	---	---	1.1	4.1	5.7	6.6	16	9.8	2.2	.04	.06
19	---	---	---	1.2	4.3	6.4	6.7	22	8.3	2.5	.02	.07
20	---	---	---	1.2	4.3	6.6	5.7	18	7.7	2.6	.04	.08
21	---	---	---	1.2	5.9	11	5.0	14	7.0	2.4	.01	.09
22	---	---	0.02	1.3	7.2	12	4.6	11	6.6	2.3	.01	.10
23	---	---	.02	1.4	7.0	9.9	4.5	9.5	7.2	2.3	.02	.14
24	---	---	.04	1.6	6.3	9.5	4.2	8.3	6.5	2.3	.02	.13
25	---	---	.03	1.8	5.6	8.2	4.2	7.3	5.6	2.2	.02	.15
26	---	---	.07	2.0	4.7	7.3	4.6	6.9	5.1	2.0	.02	.18
27	---	---	.09	2.0	5.4	15	5.3	6.5	4.8	1.9	.01	.28
28	---	---	.09	2.0	7.2	15	5.6	6.6	4.6	1.8	.02	.87
29	---	---	.08	1.9	---	9.9	7.2	6.8	4.5	1.8	.02	.74
30	---	---	.08	1.9	---	7.6	8.1	6.6	4.3	1.7	.02	1.1
31	---	---	.07	1.9	---	6.3	---	6.3	---	1.6	.02	---
TOTAL	---	---	---	24.65	137.1	294.9	212.2	332.5	233.0	73.4	5.06	4.64
MEAN	---	---	---	0.80	4.90	9.51	7.07	10.7	7.77	2.37	0.16	0.15
MAX	---	---	---	2.0	7.2	19	15	26	16	4.0	1.4	1.1
MIN	---	---	---	0.03	2.4	5.4	4.2	6.3	4.3	1.6	0.01	0.02
MED	---	---	---	0.43	4.8	8.6	6.8	8.3	7.1	2.3	0.03	0.06
AC-FT	---	---	---	.49	272	585	421	660	462	146	10	9.2
CFSM	---	---	---	0.06	0.39	0.76	0.57	0.86	0.62	0.19	0.01	0.01
IN.	---	---	---	0.07	0.41	0.88	0.63	0.99	0.69	0.22	0.02	0.01

WEYMOUTH BACK RIVER BASIN

011056081 WHITMANS POND COMBINED BY-PASS AND FISH LADDER FLOW AT EAST WEYMOUTH, MA

LOCATION.--Lat 42°12'47", long 70°55'35", Norfolk County, Hydrologic Unit 01090001, on left bank at base of fish ladder, 100 ft downstream from Iron Hill Street, 300 ft downstream from Iron Hill Dam, at East Weymouth, MA.

DRAINAGE AREA.--12.5 mi².

PERIOD OF RECORD.--December 2001 to September 2002.

GAGE.--This station includes no instrumentation and contains only combined daily mean discharges from stations 01105607 and 01105608.

REMARKS.--Records good except those for discharges less than 0.1 ft³/s and those for estimated daily mean discharge, which are fair. Daily mean discharge values for Whitmans Pond Flood By-pass at East Weymouth (01105607) are added to daily mean discharge values for Whitmans Pond Fish Ladder at East Weymouth (01105608) to obtain total daily mean discharge from Whitmans Pond.

EXTREMES FOR THE PERIOD DECEMBER 21, 2001 TO SEPTEMBER 30, 2002.--Maximum discharge, 115 ft³/s (85 ft³/s from station 01105607 plus 30 ft³/s from station 01105608), May 14, gage height not applicable, minimum, less than 0.01 ft³/s, Aug. 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	0.06	2.4	9.7	30	12	16	e4.5	1.4	e0.02
2	---	---	---	.06	3.4	7.0	38	10	15	e3.8	1.1	e.02
3	---	---	---	.05	4.3	18	30	18	13	3.5	.77	e.03
4	---	---	---	.04	5.1	30	23	19	11	3.3	.49	.02
5	---	---	---	.03	5.0	26	19	19	9.5	e3.0	.34	.02
6	---	---	---	.04	5.0	20	17	17	15	e2.7	.19	.03
7	---	---	---	.08	4.9	12	14	15	31	e2.5	.08	.02
8	---	---	---	.05	4.6	9.1	13	13	39	e2.4	.06	.02
9	---	---	---	.04	4.2	7.4	12	12	29	e2.3	.06	.02
10	---	---	---	.04	3.8	10	13	13	23	2.3	.04	.02
11	---	---	---	.04	4.4	10	13	12	18	2.1	.03	.03
12	---	---	---	.05	5.1	8.6	14	11	15	2.0	.03	.03
13	---	---	---	.14	5.4	7.2	14	23	14	1.8	.03	.03
14	---	---	---	.11	5.1	6.4	14	89	13	1.7	.03	.03
15	---	---	---	.17	4.5	5.4	13	79	18	1.8	.04	.05
16	---	---	---	.43	4.0	5.5	13	48	27	2.3	.04	.20
17	---	---	---	.72	3.9	5.8	12	33	29	2.3	.04	.06
18	---	---	---	1.1	4.1	5.7	12	39	e24	2.2	.04	.06
19	---	---	---	1.2	4.3	6.4	11	58	e20	2.5	.02	.07
20	---	---	---	1.2	4.3	6.8	7.6	45	e19	2.6	.04	.08
21	---	---	e0.02	1.2	7.0	18	5.5	33	e17	2.4	.01	.09
22	---	---	.02	1.3	11	21	4.7	26	e16	2.3	.01	.10
23	---	---	.02	1.4	11	18	5.0	22	e16	2.3	.02	.14
24	---	---	.04	1.6	8.0	12	5.0	18	e15	2.3	.02	.13
25	---	---	.03	1.8	5.6	8.2	4.6	16	e13	2.2	.02	.15
26	---	---	.07	2.0	4.7	7.3	6.0	15	e11	2.0	.02	.18
27	---	---	.09	2.0	6.1	26	8.3	13	e8.8	1.9	.01	.28
28	---	---	.09	2.0	11	33	9.4	14	e7.7	1.8	.02	.87
29	---	---	.08	1.9	---	26	13	15	e6.4	1.8	e.02	.74
30	---	---	.08	1.9	---	21	14	15	e5.5	1.7	e.02	1.1
31	---	---	.07	1.9	---	17	---	14	---	1.6	e.02	---
TOTAL	---	---	---	24.65	152.2	424.5	408.1	786	514.9	73.9	5.06	4.64
MEAN	---	---	---	0.80	5.44	13.7	13.6	25.4	17.2	2.38	0.16	0.15
MAX	---	---	---	2.0	11	33	38	89	39	4.5	1.4	1.1
MIN	---	---	---	0.03	2.4	5.4	4.6	10	5.5	1.6	0.01	0.02
MED	---	---	---	0.43	4.8	10	13	17	16	2.3	0.03	0.06
AC-FT	---	---	---	49	302	842	809	1560	1020	147	10	9.2
CFSM	---	---	---	0.06	0.43	1.10	1.09	2.03	1.37	0.19	0.01	0.01
IN.	---	---	---	0.07	0.45	1.26	1.21	2.34	1.53	0.22	0.02	0.01

e Estimated

QUASHNET RIVER BASIN

011058837 QUASHNET RIVER AT WAQUOIT VILLAGE, MA

LOCATION.--Lat 41°35'32", long 70°30'30", Barnstable County, Hydrologic Unit 01090002, on right bank 15 ft upstream from bridge on Martins Road, 0.5 mi northeast of Waquoit Village, and 1.4 mi upstream from mouth.

DRAINAGE AREA.--Surface drainage, from topography, about 2.58 mi², excludes area drained by Johns Pond. This stream drains from a ground-water basin which is larger than, and not coincident with, the surface-water basin.

PERIOD OF RECORD.--October 1988 to current year.

REVISED RECORDS.--WDR MA-RI-92-1: 1990 (M), 1991.

GAGE.--Water-stage recorder. Elevation of gage is 0.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow at times includes overflow and leakage from Johns Pond. Occasional regulation by cranberry bog upstream. Occasional backwater from tidal surge.

AVERAGE DISCHARGE.--14 years, 15.3 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42 ft³/s, July 1, 1998, gage height, 3.09 ft; maximum gage height, 4.55 ft, Aug. 19, 1991 (tidal surge); minimum discharge, 5.7 ft³/s, Oct. 24, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26 ft³/s, Apr. 4, gage height, 2.52 ft; minimum, 6.3 ft³/s, Jan. 19, 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	11	11	9.2	8.7	8.2	15	13	12	13	9.5	11
2	12	11	11	9.1	8.6	8.2	11	13	12	13	9.5	12
3	12	11	11	9.2	8.2	10	14	14	12	12	9.4	16
4	12	11	10	9.1	8.3	9.9	24	13	12	12	9.3	17
5	12	12	10	9.1	8.2	8.7	17	13	12	12	9.5	12
6	12	12	10	9.2	8.1	8.5	15	13	13	12	9.6	11
7	11	12	10	11	8.2	8.5	14	13	18	12	9.5	10
8	11	12	9.8	9.8	8.3	8.3	15	13	15	12	9.5	10
9	11	12	12	9.5	8.2	8.4	13	13	13	12	9.4	10
10	11	11	11	9.5	8.1	8.8	14	14	13	12	9.4	10
11	11	11	11	11	8.6	8.5	13	13	12	11	9.3	10
12	11	11	10	10	8.2	8.3	13	13	12	10	9.3	9.8
13	11	11	11	18	8.2	8.9	13	16	12	10	9.3	9.7
14	11	11	11	14	8.0	9.1	13	20	12	10	9.3	9.7
15	11	11	11	7.9	8.0	8.6	13	14	15	10	9.4	9.8
16	11	11	9.9	7.0	8.1	8.5	13	13	14	10	9.5	11
17	13	11	10	6.6	8.4	8.2	13	13	13	10	9.4	11
18	12	11	15	6.4	11	8.4	13	17	13	9.0	9.4	10
19	11	11	12	6.3	8.9	8.6	13	16	13	9.2	9.4	9.8
20	11	11	11	6.4	8.5	9.5	13	14	14	9.4	9.5	9.7
21	11	11	10	7.3	9.6	12	13	14	13	9.3	9.1	9.6
22	11	11	9.8	8.3	9.1	9.3	13	14	13	9.2	8.9	9.6
23	11	11	9.7	8.4	8.5	8.6	13	13	13	9.2	9.1	13
24	14	11	13	8.9	8.3	8.5	12	12	13	9.3	9.1	14
25	13	11	12	8.7	8.3	8.5	13	12	12	9.3	9.1	12
26	12	11	11	8.3	8.3	8.9	15	12	11	9.4	9.0	11
27	11	11	11	8.3	8.4	15	13	12	12	9.4	9.0	12
28	11	11	9.8	8.3	8.6	12	14	12	13	9.5	9.1	12
29	11	11	9.7	8.3	---	9.7	15	13	13	9.9	9.7	11
30	11	11	9.5	8.3	---	9.4	13	12	13	9.8	13	10
31	11	---	9.3	8.3	---	9.3	---	11	---	9.5	11	---
TOTAL	357	335	332.5	279.7	237.9	285.3	416	418	388	324.4	294.5	333.7
MEAN	11.5	11.2	10.7	9.02	8.50	9.20	13.9	13.5	12.9	10.5	9.50	11.1
MAX	14	12	15	18	11	15	24	20	18	13	13	17
MIN	11	11	9.3	6.3	8.0	8.2	11	11	11	9.0	8.9	9.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2002, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	13.3	14.3	13.0	13.4	14.0	16.4	19.8	19.3	17.2	15.0	14.5	13.9		
MAX	23.9	22.9	20.3	18.5	23.6	28.4	30.0	27.4	24.3	21.0	21.1	20.7		
(WY)	1997	1997	1997	1993	1998	1998	1998	1997	1998	1997	1997	1996		
MIN	10.2	11.2	9.56	9.03	8.51	9.20	12.9	11.7	12.2	10.5	9.50	10.7		
(WY)	1996	2002	1996	2002	2002	2002	1992	1995	1995	2002	2002	1995		

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1989 - 2002	
ANNUAL TOTAL	5420.4		4005.5			
ANNUAL MEAN	14.9		11.0		15.3	
HIGHEST ANNUAL MEAN					21.8	
LOWEST ANNUAL MEAN					11.0	
HIGHEST DAILY MEAN	31	Mar 31	24	Apr 4	41	Jul 1 1998
LOWEST DAILY MEAN	7.7	Jan 4	6.3	Jan 19	5.9	Oct 24 1995
ANNUAL SEVEN-DAY MINIMUM	7.8	Jan 2	6.8	Jan 15	6.8	Jan 15 2002
MAXIMUM PEAK FLOW			26		41	
MAXIMUM PEAK STAGE			2.52		4.55	
INSTANTANEOUS LOW FLOW			6.3		5.7	
10 PERCENT EXCEEDS	21		13		22	
50 PERCENT EXCEEDS	14		11		14	
90 PERCENT EXCEEDS	10		8.4		10	

SLOCUMS RIVER BASIN

01105933 PASKAMANSET RIVER NEAR SOUTH DARTMOUTH, MA

LOCATION.--Lat 41°35'07", long 70°59'27", Bristol County, Hydrologic Unit 01090002, at bridge on Russells Mills Road, 3.0 mi west of South Dartmouth.

DRAINAGE AREA.--26.2 mi².

PERIOD OF RECORD.--October 1995 to current year. Discharge measurements made in water years 1972-74, 1991-92.

GAGE.--Water-stage recorder. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. Telephone gage-height telemeter at station.

REMARKS.--Records good except those for estimated daily discharge, which are fair. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--7 years, 49.9 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 772 ft³/s, Mar. 31, 2001, gage height, 14.33 ft; minimum, 0.09 ft³/s, Aug. 22, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 207 ft³/s, May 19, gage height, 11.58 ft; minimum, 0.09 ft³/s, Aug. 22.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	6.8	5.1	e16	30	30	136	76	49	6.7	0.60	0.25
2	13	6.9	5.1	e14	31	26	200	69	44	5.6	.51	1.1
3	11	6.4	4.7	13	28	44	176	85	34	4.6	.51	5.7
4	9.6	6.3	4.3	12	26	64	141	79	29	3.7	.47	5.8
5	8.5	7.1	4.1	11	23	60	114	64	24	3.0	.45	4.1
6	7.5	7.4	4.5	11	21	45	94	50	43	2.3	.62	2.2
7	6.4	7.1	4.0	20	19	37	81	42	98	2.0	.37	1.4
8	5.5	6.4	3.8	21	19	35	68	37	157	2.1	.25	1.1
9	4.8	6.0	5.8	19	18	33	58	33	140	2.6	.21	1.1
10	4.3	5.7	8.5	19	17	42	57	35	103	2.3	.19	.88
11	4.2	5.4	8.6	21	23	46	56	33	79	1.8	.17	.79
12	4.0	5.3	8.0	29	23	38	48	30	67	1.5	.17	.55
13	3.9	5.1	7.4	40	21	34	42	51	67	1.5	.18	.48
14	3.9	4.8	7.9	64	18	38	38	144	56	1.6	.17	.50
15	3.8	4.6	11	68	16	35	36	188	55	1.6	.16	.63
16	4.0	4.7	11	66	17	32	34	154	62	1.5	.19	4.3
17	11	4.4	10	55	16	30	32	106	60	1.3	.25	4.6
18	8.2	4.1	27	44	19	30	29	115	50	1.2	.21	3.2
19	7.2	4.0	39	38	19	41	27	200	37	1.1	.17	2.4
20	6.0	4.1	33	35	18	52	26	181	31	1.3	.13	1.7
21	4.6	4.1	24	35	33	91	23	144	27	1.3	.24	1.4
22	4.3	3.9	18	50	36	105	24	105	22	1.1	.13	1.2
23	4.1	3.7	16	52	31	85	27	84	19	1.1	.12	6.5
24	19	3.8	25	60	25	66	25	70	16	1.3	.16	6.2
25	18	3.7	36	62	22	53	24	57	11	1.1	.34	4.8
26	16	5.1	33	54	20	48	87	45	12	.79	.35	3.7
27	13	5.7	27	43	22	85	101	39	12	.86	.30	7.6
28	10	5.3	22	37	33	164	85	35	11	1.0	.22	7.1
29	8.4	4.9	20	33	---	150	94	41	9.3	1.2	.17	5.7
30	7.6	4.8	18	31	---	115	88	51	8.3	1.1	.44	4.3
31	7.0	---	16	29	---	94	---	42	---	.85	.36	---
TOTAL	250.8	157.6	467.8	1102	644	1848	2071	2485	1432.6	61.00	8.81	91.28
MEAN	8.09	5.25	15.1	35.5	23.0	59.6	69.0	80.2	47.8	1.97	0.28	3.04
MAX	19	7.4	39	68	36	164	200	200	157	6.7	0.62	7.6
MIN	3.8	3.7	3.8	11	16	26	23	30	8.3	0.79	0.12	0.25
CFSM	0.31	0.20	0.58	1.36	0.88	2.28	2.63	3.06	1.82	0.08	0.01	0.12
IN.	0.36	0.22	0.66	1.56	0.91	2.62	2.94	3.53	2.03	0.09	0.01	0.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2002, BY WATER YEAR (WY)

	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	31.3	34.4	49.0	64.7	72.2	105	96.8	55.6
MAX	105	69.2	150	120	145	186	147	87.9
(WY)	1997	1996	1997	1998	1998	2001	2001	1998
MIN	3.97	5.25	15.1	35.5	23.0	59.6	32.0	28.2
(WY)	1998	2002	2002	2002	2002	2002	1999	1999

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1995 - 2002	
ANNUAL TOTAL	20163.1		10619.89			
ANNUAL MEAN	55.2		29.1		49.9	
HIGHEST ANNUAL MEAN					70.3	
LOWEST ANNUAL MEAN					29.1	
HIGHEST DAILY MEAN	741	Mar 31	200	Apr 2	741	Mar 31 2001
LOWEST DAILY MEAN	2.4	Sep 19	0.12	Aug 23	0.12	Aug 23 2002
ANNUAL SEVEN-DAY MINIMUM	2.7	Sep 14	0.17	Aug 18	0.17	Aug 18 2002
MAXIMUM PEAK FLOW			207		772	
MAXIMUM PEAK STAGE			11.58		14.33	
INSTANTANEOUS LOW FLOW			0.09		0.09	
ANNUAL RUNOFF (CFSM)	2.11		1.11		1.90	
ANNUAL RUNOFF (INCHES)	28.63		15.08		25.86	
10 PERCENT EXCEEDS	150		79		116	
50 PERCENT EXCEEDS	22		16		31	
90 PERCENT EXCEEDS	4.6		0.73		3.6	

e Estimated

TAUNTON RIVER BASIN

01108000 TAUNTON RIVER NEAR BRIDGEWATER, MA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953, 1967-74, 1997 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	COLOR (PLAT-INUM-COBALT UNITS (00080)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATURATION (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-AIRE (DEG C) (00020)	TEMPER-AIRE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM, DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	
DEC														
11...	1420	135	60	9.1	71	6.7	385	10.6	4.8	65	19.6	3.82	5.17	
JAN														
02...	1030	143	--	12.0	82	6.0	314	7.0	.2	--	--	--	--	
APR														
24...	0815	294	--	11.2	98	6.7	254	10.5	9.5	--	--	--	--	
JUN														
11...	0845	400	80	6.8	72	6.5	173	20.5	18.0	27	7.57	2.03	1.43	
AUG														
07...	0920	44	--	5.1	61	7.1	432	22.5	24.5	--	--	--	--	
DATE	TIME	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT (MG/L AS HCO3) (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L) (00500)	NITRO-GEN, AMMONIA + DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + DIS-SOLVED (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
DEC														
11...		43.4	42	52	72.5	0.2	16.0	<10	210	0.85	1.5	2.50	0.044	4.0
JAN														
02...		--	--	--	--	--	--	--	--	--	--	--	--	--
APR														
24...		--	19	24	--	--	--	--	--	.66	1.3	.92	.063	2.2
JUN														
11...		24.3	13	16	37.8	E.09	7.1	27	122	.23	1.1	.40	.033	1.5
AUG														
07...		--	41	50	--	--	--	--	--	<.04	.80	2.96	.032	3.8
DATE	TIME	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	E COLI, MTEC MF (COL/100 ML) (31633)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL- DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)
DEC														
11...		0.20	0.28	7.9	20	220	74	16	49	0.12	E1	13	<0.06	E0.03
JAN														
02...		--	--	--	--	--	--	--	--	--	--	--	--	--
APR														
24...		.19	.27	10.0	--	<52	50	48	102	.14	M	14	<.06	<.04
JUN														
11...		.04	.18	--	40	300	187	98	373	.10	<4	15	E.03	.04
AUG														
07...		.03	.11	--	--	34	36	9	73	.18	E1	18	<.06	<.04

TAUNTON RIVER BASIN

01108000 TAUNTON RIVER NEAR BRIDGEWATER, MA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	PHENOLS TOTAL (UG/L AS ZN)
	(01030)	(01035)	(01040)	(01045)	(01049)	(01056)	(01055)	(71900)	(01060)	(01065)	(01075)	(01090)	(32730)
DEC													
11...	<0.8	0.44	1.4	540	0.29	123	--	<0.01	0.9	1.56	<0.1	10	<16
JAN													
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
24...	<.8	.55	1.6	900	.58	139	149	E.01	.3	1.51	<.1	8	--
JUN													
11...	<.8	.46	1.8	1870	.92	98.0	156	.02	E.2	1.72	<.1	14	<16
AUG													
07...	<.8	.50	1.7	540	.20	93.0	133	<.01	1.8	2.01	<.1	5	--
DATE	ALDRIN, SED, BM WS, <2MM DW, REC (UG/KG)	ALPHA- BHC, D6 SURROGT SED, BM WS, <2MM DW, REC (UG/KG)	ALPHA, BHC, SED, BM WS, <2MM DW, REC (UG/KG)	BENZENE HEXA- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG)	BETA- BHC SED, BM WS, <2MM DW, REC (UG/KG)	CHLORO- NEB, SED, BM WS, <2MM DW, REC (UG/KG)	CIS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG)	CIS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG)	CIS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG)	DCPA, SED, BM WS, <2MM DW, REC (UG/KG)	DIEL- DRIN, SED, BM WS, <2MM DW, REC (UG/KG)	ENDO- SULFAN I, SED, BM WS, <2MM DW, REC (UG/KG)	ENDRIN, SED, BM WS, <2MM DW, REC (UG/KG)
	(49319)	(49275)	(49338)	(49343)	(49339)	(49322)	(49320)	(49316)	(49349)	(49324)	(49331)	(49332)	(49335)
DEC													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
07...	<1	63	<1	<1	<1	<5	1	<1	<5	<5	M	<1	<2
DATE	HEPTA- CHLOR EPOXIDE SED, BM WS, <2MM DW, REC (UG/KG)	HEPTA- CHLOR SED, BM WS, <2MM DW, REC (UG/KG)	ISODRIN SED, BM WS, <2MM DW, REC (UG/KG)	LINDANE SED, BM WS, <2MM DW, REC (UG/KG)	METHOXY CHLOR, O, P'-, SED, BM WS, <2MM DW, REC (UG/KG)	METHOXY CHLOR, P, P'-, SED, BM WS, <2MM DW, REC (UG/KG)	MIREX SED, BM WS, <2MM DW, REC (UG/KG)	O, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG)	O, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG)	O, P', DDT, SED, BM WS, <2MM DW, REC (UG/KG)	OXY- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG)	P, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG)	P, P'- DDE SED, BM WS, <2MM DW, REC (UG/KG)
	(49342)	(49341)	(49344)	(49345)	(49347)	(49346)	(49348)	(49325)	(49327)	(49329)	(49318)	(49326)	(49328)
DEC													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
07...	<1	<1	<1	<1	<5	<5	<1	<1	<1	<2	<1	E3	3

TAUNTON RIVER BASIN

01108000 TAUNTON RIVER NEAR BRIDGEWATER, MA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	P, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS, <2MM DW, REC (UG/KG) (49459)	PENTA- CHLORO- ANISOLE SED, BM WS, <2MM DW, REC (UG/KG) (49460)	TOXA- PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY) (80155)
DEC											
11...	--	--	--	--	--	--	--	E0.01	99	102	37.2
JAN											
02...	--	--	--	--	--	--	--	--	--	--	--
APR											
24...	--	--	--	--	--	--	--	E.02	99	132	105
JUN											
11...	--	--	--	--	--	--	--	.02	95	115	124
AUG											
07...	2	E20	<1	<200	M	M	<5	E.01	100	170	20.2

TAUNTON RIVER BASIN

01109060 THREEMILE RIVER AT NORTH DIGHTON, MA

LOCATION.--Lat 41°51'58", long 71°07'24", Bristol County, Hydrologic Unit 01090004, on right bank 800 ft downstream from Warner Boulevard at North Dighton and 1.4 mi upstream from mouth.

DRAINAGE AREA.--84.3 mi².

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

PERIOD OF RECORD.--Discharge: July 1966 to current year.

Water-quality records: Water years 1967-68.

GAGE.--Water-stage recorder. Datum of gage is 11.38 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Lake Mirimichi and other lakes and reservoirs upstream. Diversions to and from basin upstream for municipal supplies may be compensating.

AVERAGE DISCHARGE.--36 years, 165 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,870 ft³/s, June 16, 1998, gage height, 8.89 ft; minimum, 1.9 ft³/s, Sept. 12, 1995, but was less during period of unusual regulation on Aug. 4, 5, 1997 (gage height below minimum recordable at this station.)

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 504 ft³/s, May 15, gage height, 4.49 ft; minimum, 4.7 ft³/s, Aug. 19.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	23	30	45	96	108	272	142	e131	e37	e15	12
2	42	23	30	42	111	99	311	137	e127	e33	e14	15
3	38	25	28	40	113	142	336	168	e115	e29	e13	26
4	36	29	27	37	104	200	298	197	e102	e26	e13	27
5	33	31	27	36	94	220	257	211	e97	e23	e13	21
6	30	32	26	37	85	203	224	176	e123	e21	e12	17
7	29	30	26	56	77	173	197	149	e206	e19	e10	15
8	26	28	25	68	72	148	177	133	e274	e17	e9.0	13
9	25	28	30	67	69	135	161	119	e258	e17	8.0	11
10	24	26	33	64	65	147	153	123	e220	e18	7.8	9.5
11	24	25	35	67	94	158	143	124	e186	e18	7.7	8.8
12	23	24	38	76	111	155	134	110	e162	e16	7.4	8.1
13	23	24	40	98	109	141	129	145	e145	e15	7.4	8.1
14	22	24	41	131	98	133	124	335	e133	e15	8.7	7.7
15	22	23	48	135	87	125	120	440	e134	e14	7.5	12
16	24	24	49	127	82	122	115	466	e146	e13	6.7	47
17	43	24	49	115	79	122	111	384	e144	e12	6.9	60
18	42	25	82	103	82	120	105	386	e128	e12	7.1	35
19	38	25	108	92	83	126	99	427	e112	e12	5.9	26
20	33	26	105	84	81	140	94	e389	e99	e12	11	20
21	29	24	89	83	99	186	89	e328	e89	e12	13	17
22	26	23	73	88	116	206	86	e289	e79	e12	11	16
23	26	22	62	91	115	204	91	e257	e71	e12	9.4	38
24	27	22	82	102	104	182	87	e225	e66	e13	9.7	30
25	26	23	107	106	94	153	88	e195	e60	e13	10	26
26	24	29	103	102	88	146	132	e174	e57	e12	11	27
27	24	31	89	95	91	234	137	e160	e56	e12	9.9	33
28	24	30	75	88	107	274	133	e148	e54	e12	9.8	36
29	22	30	65	85	---	280	149	e141	e50	e18	11	32
30	22	29	58	86	---	250	150	e137	e43	e20	13	28
31	22	---	52	88	---	223	---	e130	---	e18	13	---
TOTAL	896	782	1732	2534	2606	5255	4702	6945	3667	533	311.9	682.2
MEAN	28.9	26.1	55.9	81.7	93.1	170	157	224	122	17.2	10.1	22.7
MAX	47	32	108	135	116	280	336	466	274	37	15	60
MIN	22	22	25	36	65	99	86	110	43	12	5.9	7.7

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2002, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002		
MEAN	75.4	133	209	223	242	324	299	187	138	54.9	52.2	47.3																											
MAX	298	407	534	683	466	580	701	408	614	280	170	128																											
(WY)	1990	1990	1973	1979	1970	1983	1987	1967	1998	1998	1986	1989																											
MIN	10.9	26.1	40.1	29.8	55.7	136	84.5	83.4	25.6	12.1	8.62	10.9																											
(WY)	1998	2002	1981	1981	1980	1985	1985	1981	1991	1991	1999	1993																											

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR				FOR 2002 WATER YEAR				WATER YEARS 1966 - 2002			
ANNUAL TOTAL	53297				30646.1							
ANNUAL MEAN	146				84.0				165			
HIGHEST ANNUAL MEAN									255			
LOWEST ANNUAL MEAN									64.4			
HIGHEST DAILY MEAN	1330				Apr 1				2680			
LOWEST DAILY MEAN	13				Sep 13				1.3			
ANNUAL SEVEN-DAY MINIMUM	14				Sep 13				2.9			
MAXIMUM PEAK FLOW					504				2870			
MAXIMUM PEAK STAGE					4.49				8.89			
INSTANTANEOUS LOW FLOW					4.7							
10 PERCENT EXCEEDS	343				186				378			
50 PERCENT EXCEEDS	89				58				111			
90 PERCENT EXCEEDS	23				12				22			

e Estimated

TAUNTON RIVER BASIN

01109070 SEGREGANSET RIVER NEAR DIGHTON, MA

LOCATION.--Lat 41°50'25", long 71°08'36", Bristol County, Hydrologic Unit 01090004, on left bank 50 ft upstream from twin culverts on Center Street and 1.8 mi northwest of Dighton.

DRAINAGE AREA.--10.6 mi².

PERIOD OF RECORD.--Discharge: July 1966 to February 1992, July 1992 to current year.

Water-quality records: Water years 1967-68.

GAGE.--Water-stage recorder. Elevation of gage is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Occasional regulation by ponds upstream. Diversion upstream for Dighton Water District.

AVERAGE DISCHARGE.--35 years, 22.0 ft³/s, 28.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 867 ft³/s, Mar. 18, 1968, gage height, 7.51 ft; no flow at times in several water years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 176 ft³/s, May 14, gage height, 4.03 ft; minimum, no flow, July 23-29, Aug. 1 to Sept. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	0.93	2.5	4.8	15	15	71	26	12	1.2	0.01	0.00
2	1.9	.97	2.4	4.1	19	13	88	21	11	.93	.00	.00
3	1.7	1.2	2.0	3.9	16	32	56	44	7.6	.70	.00	.00
4	1.5	1.6	1.8	3.6	13	51	39	45	5.3	.51	.00	.00
5	1.1	1.8	1.7	3.5	11	37	29	28	4.5	.43	.00	.00
6	1.1	2.8	1.7	3.8	9.5	23	24	19	12	.40	.00	.00
7	1.1	2.7	1.7	9.7	8.7	18	20	14	78	.31	.00	.00
8	.91	2.3	1.4	11	8.6	15	18	12	97	.25	.00	.00
9	.91	2.0	2.0	9.6	8.1	14	16	11	52	.21	.00	.00
10	.84	1.8	3.1	9.6	7.4	19	17	11	27	.17	.00	.00
11	.79	2.0	4.0	11	16	26	15	11	15	.10	.00	.00
12	.88	1.8	4.8	14	19	21	14	9.7	11	.08	.00	.00
13	.86	1.5	5.2	21	16	17	13	25	9.4	.07	.00	.00
14	.92	1.4	5.8	33	12	16	13	149	8.5	.07	.00	.00
15	.98	1.4	8.0	30	10	15	12	129	10	.05	.00	.00
16	1.0	1.4	7.5	25	10	14	12	63	15	.04	.00	.00
17	2.5	1.2	6.4	20	9.9	14	11	36	15	.02	.00	.23
18	2.9	1.1	18	16	10	13	9.6	60	10	.02	.00	1.5
19	2.1	1.2	23	13	9.8	17	8.8	109	7.3	.01	.00	.77
20	1.6	1.2	16	11	9.0	23	8.3	71	5.8	.01	.00	.29
21	1.4	1.1	11	11	13	49	8.0	42	4.5	.01	.00	.14
22	1.4	1.0	8.4	14	17	49	7.6	28	3.6	.01	.00	.08
23	1.4	1.0	6.7	16	15	32	9.1	20	3.0	.01	.00	1.5
24	2.0	1.0	15	22	12	23	8.8	16	2.5	.01	.00	3.4
25	2.2	1.1	23	22	10	18	8.6	13	1.9	.00	.00	1.9
26	1.8	2.3	18	18	9.5	16	32	10	3.8	.00	.00	1.1
27	1.6	3.2	13	14	11	70	33	9.2	3.4	.00	.00	1.5
28	1.4	3.0	9.4	12	16	91	26	8.2	2.8	.00	.00	3.9
29	1.3	2.6	8.0	11	---	57	39	7.7	2.1	.01	.00	3.0
30	1.2	2.3	6.9	11	---	38	37	6.9	1.5	.02	.00	1.3
31	1.00	---	5.8	12	---	31	---	6.5	---	.01	.00	---
TOTAL	44.39	50.90	244.2	420.6	341.5	887	703.8	1061.2	442.5	5.66	0.01	20.61
MEAN	1.43	1.70	7.88	13.6	12.2	28.6	23.5	34.2	14.8	0.18	0.000	0.69
MAX	2.9	3.2	23	33	19	91	88	149	97	1.2	0.01	3.9
MIN	0.79	0.93	1.4	3.5	7.4	13	7.6	6.5	1.5	0.00	0.00	0.00
CFSM	0.14	0.16	0.74	1.28	1.15	2.70	2.21	3.23	1.39	0.02	0.00	0.06
IN.	0.16	0.18	0.86	1.48	1.20	3.11	2.47	3.72	1.55	0.02	0.00	0.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2002, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
MEAN	8.69	19.9	30.4	33.2	35.0	46.6	37.6	23.9	15.7	4.66	4.49	4.83					
MAX	42.7	58.4	74.7	110	68.6	91.4	106	61.7	85.1	24.9	35.3	21.5					
(WY)	1978	1973	1987	1979	1998	1994	1987	1967	1998	1973	1976	1972					
MIN	0.000	1.70	3.70	3.34	7.23	20.2	9.55	7.87	1.00	0.007	0.000	0.018					
(WY)	1998	2002	1981	1981	1980	1981	1985	1981	1999	1999	1999	1980					

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1966 - 2002
ANNUAL TOTAL	6477.98	4222.37	
ANNUAL MEAN	17.7	11.6	22.0
HIGHEST ANNUAL MEAN			34.5
LOWEST ANNUAL MEAN			7.68
HIGHEST DAILY MEAN	381	Mar 31	670
LOWEST DAILY MEAN	0.03	Sep 20	0.00
ANNUAL SEVEN-DAY MINIMUM	0.06	Sep 14	0.00
MAXIMUM PEAK FLOW			867
MAXIMUM PEAK STAGE			7.51
INSTANTANEOUS LOW FLOW			0.00
ANNUAL RUNOFF (CFSM)	1.67		2.07
ANNUAL RUNOFF (INCHES)	22.73		28.18
10 PERCENT EXCEEDS	43		51
50 PERCENT EXCEEDS	6.2		12
90 PERCENT EXCEEDS	0.73		0.47

TEN MILE RIVER BASIN

01109403 TEN MILE RIVER AT PAWTUCKET AVENUE AT EAST PROVIDENCE, RI

LOCATION.--Lat 41°49'51", long 71°21'06", Providence County, Hydrologic Unit 01090004, on right bank on upstream side of bridge on State Highways 1A and 114, 0.3 mi south of junction with State Highway 114A, and 0.7 mi upstream from mouth.

DRAINAGE AREA.--53.1 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharge, which are fair. Flow affected by regulation and diversions from reservoirs upstream.

AVERAGE DISCHARGE.--16 years, 103 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft³/s, June 15, 1998, gage height, 8.50 ft; minimum, 5.0 ft³/s, Apr. 19, 1991; minimum daily, 6.6 ft³/s, Apr. 19, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 365 ft³/s, May 14, gage height, 4.92 ft; minimum, 10 ft³/s, Aug. 9, 18, 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	22	38	33	58	55	175	81	97	35	20	16
2	29	22	34	31	63	51	169	79	79	34	21	29
3	28	26	30	32	59	122	126	109	66	33	31	40
4	28	26	29	30	56	150	112	113	59	29	23	37
5	28	e27	28	29	51	104	97	94	57	26	19	29
6	29	e28	26	30	47	85	88	82	94	21	20	20
7	28	29	25	51	46	80	79	75	206	22	13	17
8	26	25	23	51	44	73	78	72	189	24	14	16
9	25	26	34	45	43	67	79	63	134	23	13	16
10	27	23	34	42	41	89	85	76	105	35	13	15
11	27	24	36	45	67	87	80	69	90	31	13	17
12	28	21	40	48	61	75	73	65	84	23	13	13
13	28	21	40	68	58	73	70	113	75	21	13	12
14	27	21	40	85	50	70	68	322	72	20	13	13
15	28	22	47	78	46	66	68	310	83	19	12	22
16	27	23	40	68	46	68	66	200	83	22	13	91
17	37	22	39	60	47	64	65	152	79	16	13	78
18	34	21	71	55	50	67	61	214	71	19	11	44
19	30	23	75	51	46	73	58	309	63	19	12	30
20	27	25	60	51	45	86	58	230	58	21	27	25
21	24	23	52	50	66	122	55	164	53	17	30	22
22	25	24	43	55	67	114	55	142	53	17	20	21
23	25	39	39	56	59	91	59	124	49	19	25	76
24	25	43	65	59	52	86	56	111	48	30	18	74
25	26	43	73	59	48	79	55	100	42	20	17	48
26	23	50	59	55	47	80	90	90	50	18	15	38
27	22	47	49	51	55	156	82	86	52	17	17	58
28	23	43	44	49	60	157	90	82	50	18	15	59
29	20	39	40	48	---	118	97	78	46	38	18	41
30	22	37	37	54	---	105	90	74	36	45	23	33
31	20	---	35	53	---	91	---	77	---	28	22	---
TOTAL	824	865	1325	1572	1478	2804	2484	3956	2323	760	547	1050
MEAN	26.6	28.8	42.7	50.7	52.8	90.5	82.8	128	77.4	24.5	17.6	35.0
MAX	37	50	75	85	67	157	175	322	206	45	31	91
MIN	20	21	23	29	41	51	55	63	36	16	11	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	60.1	89.1	126	131	139	182	181	113	80.3	46.5	47.1	47.1				
MAX	171	223	304	206	261	348	407	206	317	181	119	94.4				
(WY)	1990	1990	1993	1999	1988	1994	1987	1998	1998	1998	1989	1987				
MIN	23.1	28.8	42.7	41.4	52.8	90.2	78.0	60.4	32.1	19.7	16.6	22.3				
(WY)	1994	2002	2002	1989	2002	1989	1995	1992	1991	1999	1993	1993				

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	FOR 1998 WATER YEAR	FOR 1999 WATER YEAR	FOR 2000 WATER YEAR
ANNUAL TOTAL	33735	19988			
ANNUAL MEAN	92.4	54.8	103		
HIGHEST ANNUAL MEAN			154		1998
LOWEST ANNUAL MEAN			54.8		2002
HIGHEST DAILY MEAN	925	Mar 31	1380	May 14	Jun 15 1998
LOWEST DAILY MEAN	20	Sep 12	11	Aug 18	6.6 Apr 19 1991
ANNUAL SEVEN-DAY MINIMUM	22	Oct 27	12	Aug 13	12 Aug 31 1993
MAXIMUM PEAK FLOW			365	May 14	1450 Jun 15 1998
MAXIMUM PEAK STAGE			4.92	May 14	8.50 Jun 15 1998
INSTANTANEOUS LOW FLOW			10	Aug 9	5.0 Apr 19 1991
10 PERCENT EXCEEDS	198		94		216
50 PERCENT EXCEEDS	59		46		73
90 PERCENT EXCEEDS	25		19		24

e Estimated

BLACKSTONE RIVER BASIN

01109730 BLACKSTONE RIVER, W. MAIN ST., AT MILLBURY, MA

LOCATION.--Lat 42°11'20", long 71°45'56", Worcester County, Hydrologic Unit 01090003, on right bank, 20 ft downstream from West Main Street bridge on Elm Court, Millbury, MA.

DRAINAGE AREA.--71.4 mi².

PERIOD OF RECORD.--July to September 2002.

GAGE.--Water-stage recorder. Elevation of gage is 380 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Satellite gage-height telemeter at station.

EXTREMES FOR THE PERIOD JULY 24 TO SEPTEMBER 30, 2002.--Maximum discharge, 609 ft³/s, Sept. 16, gage height, 3.58 ft, minimum, 28 ft³/s, Aug. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	48	49
2	---	---	---	---	---	---	---	---	---	---	68	99
3	---	---	---	---	---	---	---	---	---	---	67	70
4	---	---	---	---	---	---	---	---	---	---	47	57
5	---	---	---	---	---	---	---	---	---	---	82	53
6	---	---	---	---	---	---	---	---	---	---	95	46
7	---	---	---	---	---	---	---	---	---	---	52	43
8	---	---	---	---	---	---	---	---	---	---	46	42
9	---	---	---	---	---	---	---	---	---	---	43	43
10	---	---	---	---	---	---	---	---	---	---	41	44
11	---	---	---	---	---	---	---	---	---	---	40	47
12	---	---	---	---	---	---	---	---	---	---	42	42
13	---	---	---	---	---	---	---	---	---	---	41	45
14	---	---	---	---	---	---	---	---	---	---	42	42
15	---	---	---	---	---	---	---	---	---	---	42	44
16	---	---	---	---	---	---	---	---	---	---	43	148
17	---	---	---	---	---	---	---	---	---	---	41	106
18	---	---	---	---	---	---	---	---	---	---	39	61
19	---	---	---	---	---	---	---	---	---	---	42	48
20	---	---	---	---	---	---	---	---	---	---	77	46
21	---	---	---	---	---	---	---	---	---	---	43	48
22	---	---	---	---	---	---	---	---	---	---	41	46
23	---	---	---	---	---	---	---	---	---	---	45	155
24	---	---	---	---	---	---	---	---	---	e74	41	75
25	---	---	---	---	---	---	---	---	---	61	47	61
26	---	---	---	---	---	---	---	---	---	54	42	66
27	---	---	---	---	---	---	---	---	---	49	41	171
28	---	---	---	---	---	---	---	---	---	46	40	202
29	---	---	---	---	---	---	---	---	---	98	158	96
30	---	---	---	---	---	---	---	---	---	52	123	72
31	---	---	---	---	---	---	---	---	---	45	64	---
TOTAL	---	---	---	---	---	---	---	---	---	---	1723	2167
MEAN	---	---	---	---	---	---	---	---	---	---	55.6	72.2
MAX	---	---	---	---	---	---	---	---	---	---	158	202
MIN	---	---	---	---	---	---	---	---	---	---	39	42

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

MEAN	---	---	---	---	---	---	---	---	---	---	55.6	72.2
MAX	---	---	---	---	---	---	---	---	---	---	55.6	72.2
(WY)	---	---	---	---	---	---	---	---	---	---	2002	2002
MIN	---	---	---	---	---	---	---	---	---	---	55.6	72.2
(WY)	---	---	---	---	---	---	---	---	---	---	2002	2002

e Estimated

BLACKSTONE RIVER BASIN

01111230 BLACKSTONE RIVER AT MILLVILLE, MA

LOCATION.--Lat 42°01'22", long 71°34'22", Worcester County, Hydrologic Unit 01090003, on railroad bridge, 0.6 mi southeast of Millville, and 1.6 mi upstream from Branch River. Prior to December 1980, at site 0.2 mi downstream.

DRAINAGE AREA.--277 mi².

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1969 to December 1980.

pH: July 1969 to December 1980.

WATER TEMPERATURE: July 1969 to December 1980.

DISSOLVED OXYGEN: July 1969 to December 1980.

REMARKS.--Discharge computed by discharge measurements on the day of sampling. Instantaneous records are representative of the cross section while continuous records are based on point samples.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,000 µS/cm, May 30, June 3, 5, 1975; minimum, 49 µS/cm, June 30, 1973.

pH: Maximum recorded, 9.3 units, Sept. 10, 1976; minimum, 4.3 units, Sept. 6, 1973.

WATER TEMPERATURE: Maximum recorded, 29.0°C, July 29, 1970, July 21, 1977, July 23, 1978; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN: Maximum recorded, 14.9 mg/L, Feb. 25, 1971; minimum, 0.0 mg/L, July 12, 15-20, 26-30, Aug. 2, 3, 1971.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-AIRE (DEG C) (00020)	TEMPER-AIRE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	
DEC														
11...	1015	110	--	11.2	85	6.0	502	7.0	4.2	62	19.4	3.35	9.06	
JAN														
03...	0815	--	--	11.9	82	6.3	491	.9	.2	--	--	--	--	
APR														
23...	1015	300	--	8.9	84	5.9	443	9.5	12.6	--	--	--	--	
JUN														
12...	0845	483	25	7.1	80	6.8	343	16.0	20.0	46	14.2	2.56	3.37	
AUG														
06...	1050	108	--	6.3	77	6.6	472	26.5	24.7	--	--	--	--	
DATE		SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT (MG/L AS HCO3) (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE TOTAL AT 105 DEG C, SUS-PENDED (MG/L) (00530)	SOLIDS, RESIDUE AT 105 DEG C, TOTAL (MG/L) (00500)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
DEC														
11...	58.4	28	35	97.4	0.4	27.6	<10	262	0.87	1.7	4.36	0.072	6.0	
JAN														
03...	--	--	--	--	--	--	--	--	--	--	--	--	--	
APR														
23...	--	19	24	--	--	--	--	--	.17	.62	1.74	.024	2.4	
JUN														
12...	47.5	18	22	78.6	.13	12.7	<10	202	.05	.59	1.13	.036	1.7	
AUG														
06...	--	26	32	--	--	--	--	--	<.04	.57	2.10	.011	2.7	

BLACKSTONE RIVER BASIN
0111230 BLACKSTONE RIVER AT MILLVILLE, MA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ORTHO-PHOSPHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	E COLI, MTEC MF WATER (COL/100 ML) (31633)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
DEC 11...	0.95	1.11	6.8	20	1,100	640	4	30	0.48	5	12	<0.06	0.84
JAN 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	.10	.16	5.7	--	170	35	15	66	.31	3	21	<.06	.23
JUN 12...	.10	.24	7.4	20	140	52	20	21	.26	E2	19	<.06	.25
AUG 06...	.14	.23	--	--	430	62	8	53	.70	4	17	<.06	.39
DATE	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	PHENOLS TOTAL (UG/L) (32730)
DEC 11...	1.5	0.33	9.4	350	0.75	75.1	76	E0.01	5.4	13.6	<0.1	37	<16
JAN 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	<.8	.30	3.5	640	.74	105	126	E.01	1.5	4.91	<.1	18	--
JUN 12...	E.5	.23	4.1	310	1.03	68.3	67	.02	1.2	4.15	<.1	13	<16
AUG 06...	E.4	.31	5.2	460	.63	83.8	106	E.01	5.0	7.14	<.1	13	--
DATE	ALDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49319)	ALPHA-BHC, D6 SURROGT SED, BM WS, <2MM DW, REC PERCENT (UG/KG) (49275)	ALPHA-BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49338)	BENZENE HEXACHLORO-BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49343)	BETA-BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49339)	CHLORONEB, SED, BM WS, <2MM DW, REC (UG/KG) (49322)	CIS-CHLORDANE, SED, BM WS, <2MM DW, REC (UG/KG) (49320)	CIS-NONACHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49316)	CIS-PERMETHRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49349)	DCPA, SED, BM WS, <2MM DW, REC (UG/KG) (49324)	DIELDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49331)	ENDOSULFAN I, SED, BM WS, <2MM DW, REC (UG/KG) (49332)	ENDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49335)
DEC 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 06...	<1	68	<1	<1	<1	<5	M	<1	<5	<5	M	<1	<2

BLACKSTONE RIVER BASIN

0111230 BLACKSTONE RIVER AT MILLVILLE, MA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	HEPTA-CHLOR EPOXIDE SED, BM WS, <2MM DW, REC (UG/KG) (49342)	HEPTA-CHLOR SED, BM WS, <2MM DW, REC (UG/KG) (49341)	ISODRIN SED, BM WS, <2MM DW, REC (UG/KG) (49344)	LINDANE SED, BM WS, <2MM DW, REC (UG/KG) (49345)	METHOXY CHLOR O, P' -, SED, BM WS, <2MM DW, REC (UG/KG) (49347)	METHOXY CHLOR P, P' -, SED, BM WS, <2MM DW, REC (UG/KG) (49346)	MIREX, SED, BM WS, <2MM DW, REC (UG/KG) (49348)	O, P' - DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49325)	O, P' - DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49327)	O, P' - DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49329)	OXY-CHLOR-DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49318)	P, P' - DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49326)	P, P' - DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49328)
DEC													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
06...	<1	<1	<1	<1	<5	<5	<1	<1	<1	<2	<1	M	M
		P, P' - DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS, <2MM DW, REC (UG/KG) (49459)	PENTA- CHLORO- ANISOLE SED, BM WS, <2MM DW, REC (UG/KG) (49460)	TOXA- PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SED. SUSP. SIEVE DIAM. % FINER THAN (MG/L) (70331)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY) (80155)	
DEC													
11...	--	--	--	--	--	--	--	--	0.03	100	196	58.2	
JAN													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
23...	--	--	--	--	--	--	--	--	.02	100	141	114	
JUN													
12...	--	--	--	--	--	--	--	--	.03	99	169	220	
AUG													
06...	M	E40	<1	<200	M	M	<5	.02	100	173	50.4		

BLACKSTONE RIVER BASIN
01111500 BRANCH RIVER AT FORESTDALE, RI--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1968, 1979 to current year.

REMARKS.--Discharge computed by discharge measurements on the day of sampling. Instantaneous records are representative of the cross section.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	OXYGEN, DIS- SOLVED OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	
DEC														
12...	1030	30	35	13.1	102	7.2	134	4.4	5.5	16	4.48	1.06	2.22	
JAN														
03...	0940	42	--	13.6	97	6.2	152	3.3	1.6	--	--	--	--	
APR														
23...	1345	66	--	9.2	90	6.5	132	11.0	14.2	--	--	--	--	
JUN														
12...	0900	133	40	9.2	101	6.8	95	20.1	19.3	12	3.44	.775	1.21	
AUG														
06...	1045	12	--	8.3	105	7.2	154	23.3	27.1	--	--	--	--	
DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00600)
DEC														
12...	16.0	7	9	27.6	0.2	6.6	<10	74	0.07	0.34	0.32	E0.006	0.66	
JAN														
03...	--	--	--	--	--	--	--	--	--	--	--	--	--	
APR														
23...	--	6	7	--	--	--	--	--	.06	.40	.21	.011	.61	
JUN														
12...	12.3	4	5	18.8	.11	5.4	<10	63	E.04	.33	.12	E.004	.45	
AUG														
06...	--	10	12	--	--	--	--	--	E.03	.35	.18	<.008	.54	

BLACKSTONE RIVER BASIN

01111500 BRANCH RIVER AT FORESTDALE, RI--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ORTHO-PHOSPHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	E COLI, MTEC MF WATER (COL/100 ML) (31633)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)
DEC 12...	<0.02	<0.06	3.6	10	0	0	11	20	0.07	<2	14	<0.06
JAN 03...	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	<0.02	<0.06	4.6	--	E13	6	38	71	.12	<2	18	.07
JUN 12...	<0.02	<0.06	6.8	20	38	30	83	126	.09	<4	15	.07
AUG 06...	<0.02	<0.06	--	--	64	36	20	29	.12	<2	12	E.03

DATE	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)
DEC 12...	<0.04	<0.8	0.05	1.1	230	0.24	20.7	22	<0.01	<0.2
JAN 03...	--	--	--	--	--	--	--	--	--	--
APR 23...	.05	<.8	.07	1.3	320	.43	65.7	80	<.01	<.2
JUN 12...	E.03	<.8	.09	1.3	460	.38	41.3	51	<.01	E.1
AUG 06...	E.02	<.8	.06	1.3	720	.59	49.2	64	<.01	.3

DATE	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	PHENOLS TOTAL (UG/L) (32730)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDIMENT, DISCHARGE, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
DEC 12...	0.38	<0.1	7	<16	<0.02	98	35	2.8
JAN 03...	--	--	--	--	--	--	--	--
APR 23...	.53	<.1	5	--	E.01	98	55	9.8
JUN 12...	.57	<.1	6	<16	.02	95	47	16.9
AUG 06...	.43	<.1	4	--	<0.02	96	68	2.2

BLACKSTONE RIVER BASIN

01112900 BLACKSTONE RIVER AT MANVILLE, RI

LOCATION.--Lat 41°58'18", long 71°28'14", Providence County, Hydrologic Unit 01090003, at Manville Road Bridge, 400 ft downstream from milldam at Manville, and 2.5 mi downstream from Woonsocket Sewage Treatment Plant.

PERIOD OF RECORD.--Water years 1970, 1979 to current year.

REMARKS.--Discharge obtained from gage at Woonsocket and inflow from Woonsocket Treatment Plant on the day of sampling. Instantaneous records are representative of the cross section.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (MG/L) (00301)	PH WATER FIELD (STANDARD) UNITS) (00400)	SPE-CIFIC CON-DUCTANCE (US/CM) (00095)	TEMPER-AIR (DEG C) (00020)	TEMPER-WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	
DEC	12...	0815	134	35	13.1	104	7.2	435	0.3	6.3	50	15.1	3.07	6.86
JAN	03...	1015	167	--	14.1	101	6.5	421	3.8	1.7	--	--	--	--
APR	24...	0900	460	--	10.6	97	7.0	397	7.8	11.5	--	--	--	--
JUN	11...	1345	820	30	9.0	100	6.8	280	27.0	20.0	36	11.0	1.92	2.70
AUG	07...	0940	140	--	7.7	92	7.4	488	18.8	24.3	--	--	--	--
DATE	TIME	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CAC03) (39086)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
DEC	12...	56.3	22	27	91.0	0.5	24.2	<10	234	0.36	1.0	2.92	0.035	4.0
JAN	03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR	24...	--	17	20	--	--	--	--	--	.30	.82	1.32	.048	2.1
JUN	11...	37.2	19	23	58.0	.14	10.8	<10	160	.05	.51	.76	.018	1.3
AUG	07...	--	28	34	--	--	--	--	--	.66	1.4	2.30	.050	3.7
DATE	TIME	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	E COLI, MTEC MF WATER (COL/100 ML) (31633)	COLI-FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
DEC	12...	1.57	1.78	6.0	20	150	115	7	60	0.52	3	14	<0.06	0.48
JAN	03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR	24...	.05	.13	5.7	--	<90	<35	18	72	.30	E2	22	<.06	.17
JUN	11...	.05	.12	--	<10	210	88	36	147	.21	<4	19	E.03	.19
AUG	07...	.07	.15	--	--	440	90	9	85	.56	2	21	<.06	.20

BLACKSTONE RIVER BASIN

01112900 BLACKSTONE RIVER AT MANVILLE, RI--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	PHENOLS TOTAL (UG/L) (32730)
DEC													
12...	E0.7	0.24	6.6	400	0.64	63.4	71	E0.01	3.2	8.14	E0.1	21	<16
JAN													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
24...	<.8	.31	2.8	600	.71	109	116	<.01	1.2	3.87	<.1	15	--
JUN													
11...	<.8	.23	3.5	790	.99	67.2	82	.01	1.0	2.87	<.1	11	<16
AUG													
07...	<.8	.31	4.1	440	.18	130	253	<.01	4.4	6.46	<.1	11	--
DATE	ALDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49319)	ALPHA-BHC, D6 SURROGT SED, BM WS, <2MM DW, REC PERCENT (49275)	ALPHA-BHC, SED, BM WS, <2MM DW, REC (49338)	BENZENE HEXACHLORO- SED, BM WS, <2MM DW, REC (49343)	BETA-BHC, SED, BM WS, <2MM DW, REC (49339)	CHLOROCHEB, SED, BM WS, <2MM DW, REC (49322)	CIS-CHLOR-DANE, SED, BM WS, <2MM DW, REC (49320)	CIS-NONACHLOR, SED, BM WS, <2MM DW, REC (49316)	CIS-PERMETHRIN, SED, BM WS, <2MM DW, REC (49349)	DCPA, SED, BM WS, <2MM DW, REC (49324)	DIELDRIN, SED, BM WS, <2MM DW, REC (49331)	ENDOSULFAN I, SED, BM WS, <2MM DW, REC (49332)	ENDRIN, SED, BM WS, <2MM DW, REC (49335)
DEC													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
07...	<1	68	<1	<1	<1	<5	M	<1	<5	<5	4	<1	<2

BLACKSTONE RIVER BASIN

01112900 BLACKSTONE RIVER AT MANVILLE, RI--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	HEPTA-CHLOR EPOXIDE SED, BM WS, <2MM DW, REC (UG/KG) (49342)	HEPTA-CHLOR SED, BM WS, <2MM DW, REC (UG/KG) (49341)	ISODRIN SED, BM WS, <2MM DW, REC (UG/KG) (49344)	LINDANE SED, BM WS, <2MM DW, REC (UG/KG) (49345)	METHOXY CHLOR, O, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49347)	METHOXY CHLOR P, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49346)	MIREX, SED, BM WS, <2MM DW, REC (UG/KG) (49348)	O, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49325)	O, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49327)	O, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49329)	OXY-CHLOR-DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49318)	P, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49326)	P, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49328)
DEC 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 07...	<1	<1	<1	<1	<5	<5	<1	E2	<1	<2	<1	E3	2

DATE	P, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS, <2MM DW, REC (UG/KG) (49459)	PENTA-CHLORO-ANISOLE SED, BM WS, <2MM DW, REC (UG/KG) (49460)	TOXA-PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)	TRANS-CHLOR-DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS-NONA-CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)	TRANS-PER-METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)	URANIUM NATURAL SOLVED (UG/L AS U) (22703)	SED. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDIMENT, DISCHARGE, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
DEC 12...	--	--	--	--	--	--	--	E0.01	99	150	54.3
JAN 03...	--	--	--	--	--	--	--	--	--	--	--
APR 24...	--	--	--	--	--	--	--	.02	99	156	194
JUN 11...	--	--	--	--	--	--	--	.03	98	127	281
AUG 07...	<2	E50	<1	<200	M	M	<5	E.01	98	136	51.4

BLACKSTONE RIVER BASIN
01113695 CATAMINT BROOK AT CUMBERLAND, RI

LOCATION.--Lat 41°59'06", long 71°24'51", Providence County, Hydrologic Unit 01090003, on left bank at downstream culvert of bridge at Thomas Leighton Blvd. in Cumberland, RI.

DRAINAGE AREA.--3.55 mi² (revised).

PERIOD OF RECORD.--July 1999 to current year. Discharge measurements made in water years 1993-94.

REVISED RECORDS.--WDR MA-RI-02-01: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 180 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

AVERAGE DISCHARGE.--3 years (water years 2000-02), 5.28 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 119 ft³/s, Mar. 22, 2001, gage height, 3.15 ft; minimum, no flow, many days during water years 2000, 2001, and 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 48 ft³/s, May 14, gage height, 2.59 ft; minimum, no flow, many days during water year.

REVISIONS.--Based on the revised drainage area from 13.8 mi² to 3.55 mi², the following monthly and annual runoff statistics for water years 1999, 2000, and 2001 are hereby revised. These figures supercede those published in the annual water data reports for those water years.

REVISED MONTHLY AND ANNUAL STATISTICS, AUGUST TO SEPTEMBER 1999

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
CFSM	---	---	---	---	---	---	---	---	---	---	0.00	0.70
IN.	---	---	---	---	---	---	---	---	---	---	.00	.78

REVISED MONTHLY AND ANNUAL STATISTICS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
CFSM	0.92	1.38	1.67	1.75	2.62	3.50	4.06	2.52	1.92	0.39	0.55	0.15
IN.	1.06	1.54	1.93	2.02	2.82	4.04	4.54	2.91	2.14	.45	.63	.17

REVISED MONTHLY AND ANNUAL STATISTICS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
CFSM	0.09	1.08	2.25	1.32	1.63	6.65	4.46	1.15	2.16	1.27	0.43	0.01
IN.	.10	1.21	2.60	1.53	1.70	7.67	4.97	1.33	2.41	1.47	.50	.01

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1999 - 2001
ANNUAL RUNOFF (CFSM)	0.45	0.48	0.47
ANNUAL RUNOFF (INCHES)	6.08	6.56	6.39

BLACKSTONE RIVER BASIN

01113695 CATAMINT BROOK AT CUMBERLAND, RI--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	2.7	4.4	14	6.5	6.9	1.3	0.12	0.00
2	.00	.00	.00	.00	2.5	4.2	13	6.5	5.7	1.2	.27	.08
3	.00	.00	.00	.00	e2.1	8.1	11	16	4.7	1.1	.36	.18
4	.00	.00	.00	.00	1.7	7.7	10	12	4.0	.99	.18	.05
5	.00	.00	.00	.00	e1.2	6.0	8.8	9.2	3.8	.86	.14	.00
6	.00	.00	.00	.00	e.93	5.2	8.1	7.6	9.8	.74	.09	.00
7	.00	.00	.00	.01	.73	5.0	7.0	6.7	20	.67	.06	.00
8	.00	.00	.00	.00	.60	4.6	6.7	6.2	16	.62	.03	.00
9	.00	.00	.00	.00	.46	4.3	6.4	5.5	11	.72	.00	.00
10	.00	.00	.00	.00	.39	5.5	6.4	6.1	8.3	.81	.00	.00
11	.00	.00	.00	.00	5.5	5.2	5.7	5.3	6.5	.53	.00	.00
12	.00	.00	.00	.00	e4.7	4.8	5.4	5.0	5.8	.44	.00	.00
13	.00	.00	.00	.66	4.2	4.6	5.4	13	5.5	.38	.00	.00
14	.00	.00	.00	.77	e3.6	4.6	5.8	40	5.2	.33	.00	.00
15	.00	.00	.00	.87	3.2	4.4	5.9	25	7.1	.29	.00	.01
16	.01	.00	.00	.63	3.3	4.4	5.6	17	6.9	.27	.00	.07
17	.00	.00	.00	.36	3.4	4.2	5.2	13	6.3	.25	.00	.00
18	.00	.00	.00	.24	3.8	4.3	4.7	24	5.2	.25	.00	.00
19	.00	.00	.00	.39	3.4	4.7	4.4	27	4.3	.28	.00	.00
20	.00	.00	.00	.56	3.3	5.0	4.4	19	3.8	.28	.17	.00
21	.00	.00	.00	.82	4.8	5.9	4.1	15	3.4	.23	.04	.00
22	.00	.00	.00	1.0	4.8	7.5	3.7	13	3.1	.21	.00	.00
23	.00	.00	.00	1.2	4.6	6.1	4.2	12	2.9	.26	.00	.16
24	.00	.00	.00	1.9	4.1	5.5	4.0	11	2.7	.31	.00	.01
25	.00	.00	.00	1.6	3.7	5.2	3.9	9.4	2.1	.23	.00	.00
26	.00	.00	.00	1.6	3.6	5.1	6.8	8.5	2.6	.22	.00	.00
27	.00	.00	.00	1.3	4.2	9.7	5.8	8.1	2.1	.22	.00	.03
28	.00	.00	.00	.94	4.8	9.3	5.8	8.2	1.9	.22	.00	.05
29	.00	.00	.00	1.1	---	7.9	7.7	8.2	1.7	.39	.01	.00
30	.00	.00	.00	1.5	---	7.4	7.7	7.1	1.4	.21	.11	.00
31	.00	---	.00	1.8	---	7.2	---	6.4	---	.16	.01	---
TOTAL	0.01	0.00	0.00	19.25	86.31	178.0	197.6	377.5	170.7	14.97	1.59	0.64
MEAN	0.000	0.000	0.000	0.62	3.08	5.74	6.59	12.2	5.69	0.48	0.051	0.021
MAX	0.01	0.00	0.00	1.9	5.5	9.7	14	40	20	1.3	0.36	0.18
MIN	0.00	0.00	0.00	0.00	0.39	4.2	3.7	5.0	1.4	0.16	0.00	0.00
CFSM	0.00	0.00	0.00	0.17	0.87	1.62	1.86	3.43	1.60	0.14	0.01	0.01
IN.	0.00	0.00	0.00	0.20	0.90	1.87	2.07	3.96	1.79	0.16	0.02	0.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

	1999	2000	2001	2002
MEAN	1.19	2.91	4.64	3.84
MAX	3.27	4.89	8.00	6.21
(WY)	2000	2000	2001	2000
MIN	0.000	0.000	0.000	0.62
(WY)	2002	2002	2002	2002

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1999 - 2002
ANNUAL TOTAL	2059.78	1046.57	
ANNUAL MEAN	5.64	2.87	5.28
HIGHEST ANNUAL MEAN			6.66
LOWEST ANNUAL MEAN			2.87
HIGHEST DAILY MEAN	78	40	78
LOWEST DAILY MEAN	0.00	0.00	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	0.00	0.00
MAXIMUM PEAK FLOW		48	119
MAXIMUM PEAK STAGE		2.59	3.15
ANNUAL RUNOFF (CFSM)	1.59	0.81	1.49
ANNUAL RUNOFF (INCHES)	21.58	10.97	20.23
10 PERCENT EXCEEDS	14	7.7	12
50 PERCENT EXCEEDS	3.2	0.36	3.9
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

MOSHASSUCK RIVER BASIN

01114000 MOSHASSUCK RIVER AT PROVIDENCE, RI

LOCATION.--Lat 41°50'02", long 71°24'42", Providence County, Hydrologic Unit 01090004, on left bank 800 ft upstream from bridge on U.S. Highway 44 at Providence and 0.5 mi above mouth.

DRAINAGE AREA.--23.1 mi².

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

Water-quality records: Water year 1971.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 8.19 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 7, 1973, at datum 0.88 ft lower. Mar. 10, 1972, to Nov. 7, 1973, stage record obtained at site 200 ft upstream. Gage heights of published extremes are for site and datum then in use.

REMARKS.--Records good except those for estimated daily discharge, which are fair. Occasional regulation at low flow. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--39 years, 40.0 ft³/s, 23.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,390 ft³/s, Mar. 18, 1968, gage height, 3.46 ft, present datum, from rating curve extended above 460 ft³/s; maximum gage height, 5.81 ft, July 30, 1976; minimum discharge, 1.3 ft³/s, Aug. 23, 1970; minimum daily, 1.7 ft³/s, Aug. 10, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 806 ft³/s, Sept. 23, gage height, 4.74 ft; minimum, 3.8 ft³/s, Sept. 12--15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	5.5	7.3	7.7	22	15	125	29	36	9.4	5.8	5.2
2	12	5.6	6.4	7.4	19	14	59	34	22	9.2	28	28
3	11	9.9	5.8	7.2	15	129	45	59	18	8.8	11	17
4	12	6.5	5.6	7.0	14	54	41	30	20	8.4	6.9	11
5	11	6.7	5.8	6.7	14	29	44	24	20	7.9	6.1	7.0
6	12	6.7	6.3	14	12	23	41	22	63	7.2	5.8	6.1
7	11	5.7	6.0	30	12	22	35	21	163	7.2	5.1	5.4
8	11	7.6	5.9	14	12	20	32	20	62	7.3	4.6	5.4
9	11	6.2	13	11	12	19	30	18	37	9.5	4.5	5.2
10	10	5.0	8.0	10	12	54	28	35	28	15	4.3	5.0
11	11	5.6	8.4	17	42	26	25	19	24	7.8	4.4	4.9
12	11	5.8	6.8	16	20	20	24	25	23	7.1	4.6	4.2
13	11	4.7	6.5	56	16	20	23	125	22	6.9	4.5	4.1
14	11	4.9	8.7	25	13	19	23	183	21	7.0	5.3	4.2
15	12	5.3	15	27	12	18	22	77	33	7.0	5.5	45
16	18	5.6	7.8	18	13	23	22	e46	25	6.8	5.1	106
17	16	5.1	12	16	13	19	22	e23	23	6.7	5.1	17
18	6.2	5.0	50	14	16	26	20	e117	19	6.5	5.1	9.3
19	5.5	5.2	15	12	13	27	19	e174	17	7.2	5.1	7.4
20	5.7	5.7	12	14	12	45	18	e127	16	8.5	45	6.3
21	5.8	5.1	10	19	44	55	18	e79	15	6.9	7.4	6.0
22	5.7	4.9	8.8	16	21	43	23	e61	15	6.3	6.2	6.4
23	5.5	5.3	7.9	15	17	29	25	42	15	15	11	132
24	5.9	5.5	49	17	15	26	22	34	14	11	5.4	14
25	6.1	7.0	17	17	14	24	39	30	12	6.2	5.3	9.6
26	5.7	16	14	15	14	41	52	27	13	6.1	4.8	11
27	6.0	7.2	12	14	25	87	28	25	11	6.0	5.0	43
28	5.7	7.2	10	14	20	49	47	24	12	6.0	6.0	16
29	5.3	6.5	9.6	13	---	34	49	23	10	19	16	9.7
30	6.0	6.4	9.0	19	---	35	38	22	9.8	6.5	11	8.1
31	5.2	---	8.2	15	---	33	---	54	---	6.2	5.6	---
TOTAL	285.3	189.4	367.8	504.0	484	1078	1039	1629	818.8	256.6	255.5	559.5
MEAN	9.20	6.31	11.9	16.3	17.3	34.8	34.6	52.5	27.3	8.28	8.24	18.6
MAX	18	16	50	56	44	129	125	183	163	19	45	132
MIN	5.2	4.7	5.6	6.7	12	14	18	18	9.8	6.0	4.3	4.1
CFSM	0.40	0.27	0.51	0.70	0.75	1.51	1.50	2.27	1.18	0.36	0.36	0.81
IN.	0.46	0.31	0.59	0.81	0.78	1.74	1.67	2.62	1.32	0.41	0.41	0.90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2002, BY WATER YEAR (WY)

MEAN	22.3	35.7	48.1	52.4	51.8	69.5	64.2	45.3	33.7	18.6	19.6	19.5
MAX	69.0	118	143	174	93.8	141	160	104	125	42.2	53.8	50.1
(WY)	1978	1973	1973	1979	1984	1968	1983	1967	1982	1998	1986	1972
MIN	6.36	6.31	10.6	12.9	17.3	29.0	22.9	24.2	10.6	8.07	7.27	5.09
(WY)	1995	2002	1966	1981	2002	1985	1966	1965	1999	1999	1970	1970

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1963 - 2002	
ANNUAL TOTAL	12660.8		7466.9			
ANNUAL MEAN	34.7		20.5		40.0	
HIGHEST ANNUAL MEAN					62.5	
LOWEST ANNUAL MEAN					20.2	
HIGHEST DAILY MEAN	570	Mar 22	183	May 14	1750	Mar 18 1968
LOWEST DAILY MEAN	4.7	Nov 13	4.1	Sep 13	1.7	Aug 10 1970
ANNUAL SEVEN-DAY MINIMUM	5.1	Nov 13	4.6	Aug 7	2.6	Aug 4 1970
MAXIMUM PEAK FLOW			806		Sep 23	2390
MAXIMUM PEAK STAGE			4.74		Sep 23	5.81
INSTANTANEOUS LOW FLOW			3.8		Sep 12	1.3
ANNUAL RUNOFF (CFSM)	1.50		0.89		1.73	
ANNUAL RUNOFF (INCHES)	20.39		12.02		23.53	
10 PERCENT EXCEEDS	74		43		80	
50 PERCENT EXCEEDS	19		13		27	
90 PERCENT EXCEEDS	6.2		5.4		8.1	

e Estimated

PAWTUXET RIVER BASIN

01115098 PEEPTOAD BROOK AT ELMDALE ROAD NEAR NORTH SCITUATE, RI

LOCATION.--Lat 41°51'08", long 71°23'35", Providence County, Hydrologic Unit 01090004, on left bank 5 ft downstream from bridge on Elmdale Road, 0.5 mi upstream from regulating reservoir and 1.7 mi northwest of North Scituate.

DRAINAGE AREA.--4.96 mi².

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: June 1994 to current year.

Water-quality records: Water years, 2000-02.

GAGE.--Water-stage recorder. Elevation of gage is 315 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--8 years, 9.78 ft³/s, 26.80 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 180 ft³/s, Oct. 20, 1996, gage height, 2.40 ft; no flow Sept. 13, 16, 17, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 57 ft³/s, May 14, gage height, 2.00 ft; minimum, 0.08 ft³/s, Aug. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.69	0.46	0.91	1.2	7.8	7.9	29	13	7.1	1.9	0.79	0.26
2	.66	.48	.92	1.1	11	7.6	26	11	5.9	1.6	.76	.42
3	.57	.53	.87	1.0	8.8	26	17	16	4.8	1.5	.89	.56
4	.52	.56	.84	.98	7.8	26	15	14	4.2	1.3	.82	.46
5	.45	.59	.82	1.0	6.8	15	13	12	4.0	1.2	.71	.37
6	.45	.66	.81	1.0	5.8	12	12	10	10	1.1	.61	.32
7	.46	.67	.79	2.4	5.4	11	11	9.6	25	1.00	.51	.29
8	.47	.64	.77	2.3	5.4	9.9	10	9.0	20	.94	.48	.24
9	.43	.65	.97	2.1	5.3	9.6	10	8.1	12	.89	.41	.22
10	.46	.62	1.0	2.2	5.1	12	10	8.3	8.6	1.2	.36	.21
11	.43	.61	1.0	2.3	12	12	9.6	7.4	6.7	1.1	.32	.19
12	.43	.58	1.2	2.7	11	11	9.0	7.0	5.6	.92	.29	.16
13	.44	.57	1.2	5.1	9.5	11	8.7	15	5.4	.81	.24	.15
14	.46	.58	1.2	6.7	7.7	11	8.9	50	5.3	.77	.22	.14
15	.53	.58	1.5	6.1	6.7	10	9.2	26	6.6	.73	.20	.14
16	.47	.58	1.4	5.7	6.7	10	9.6	15	7.3	.71	.17	.47
17	.54	.57	1.4	4.7	6.9	9.9	9.1	13	6.5	.66	.16	.46
18	.49	.54	3.7	4.3	8.1	10	8.3	25	5.2	.62	.14	.34
19	.44	.57	2.5	3.9	7.2	11	7.5	33	4.4	.62	.11	.29
20	.43	.61	1.9	4.0	6.7	13	7.6	20	3.8	.70	.16	.26
21	.45	.61	1.6	3.8	12	18	6.9	14	3.3	.67	.23	.23
22	.43	.58	1.3	4.3	13	20	6.9	13	3.8	.60	.21	.23
23	.43	.61	1.2	4.3	10	16	7.8	11	6.7	.63	.21	.36
24	.43	.62	2.4	5.9	8.4	14	7.5	10	4.8	1.0	.20	.35
25	.43	.65	2.5	7.1	7.3	12	7.4	8.6	3.6	.93	.20	.29
26	.42	.86	2.3	6.5	6.9	11	12	7.6	3.0	.86	.17	.28
27	.40	.87	2.0	5.9	8.6	24	11	7.1	2.6	.82	.16	.56
28	.40	.86	1.6	5.5	9.5	24	11	6.6	2.4	.86	.14	.60
29	.40	.82	1.4	5.4	---	17	16	6.2	2.2	1.2	.17	.48
30	.40	.86	1.3	6.3	---	15	15	5.6	2.0	1.1	.35	.42
31	.40	---	1.2	6.4	---	14	---	5.3	---	.89	.30	---
TOTAL	14.41	18.99	44.50	122.18	227.4	430.9	342.0	417.4	192.8	29.83	10.69	9.75
MEAN	0.46	0.63	1.44	3.94	8.12	13.9	11.4	13.5	6.43	0.96	0.34	0.33
MAX	0.69	0.87	3.7	7.1	13	26	29	50	25	1.9	0.89	0.60
MIN	0.40	0.46	0.77	0.98	5.1	7.6	6.9	5.3	2.0	0.60	0.11	0.14
CFSM	0.09	0.13	0.29	0.79	1.64	2.80	2.30	2.71	1.30	0.19	0.07	0.07
IN.	0.11	0.14	0.33	0.92	1.71	3.23	2.56	3.13	1.45	0.22	0.08	0.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	3.97	6.89	10.6	15.1	15.6	21.0	18.3	12.3	8.40
MAX	15.7	14.4	33.6	23.9	22.4	29.6	30.2	23.5	21.1
(WY)	1997	1996	1997	1996	1998	2001	1997	1998	1998
MIN	0.46	0.63	1.44	3.94	8.12	13.9	9.40	6.99	1.87
(WY)	2002	2002	2002	2002	2002	2002	1999	1999	1999

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1994 - 2002
ANNUAL TOTAL	2944.71	1860.85	
ANNUAL MEAN	8.07	5.10	9.78
HIGHEST ANNUAL MEAN			14.1
LOWEST ANNUAL MEAN			5.10
HIGHEST DAILY MEAN	112	Mar 22	117
LOWEST DAILY MEAN	0.40	Oct 27	0.00
ANNUAL SEVEN-DAY MINIMUM	0.41	Oct 25	0.01
MAXIMUM PEAK FLOW		57	180
MAXIMUM PEAK STAGE		2.00	2.48
INSTANTANEOUS LOW FLOW		0.08	0.00
ANNUAL RUNOFF (CFSM)	1.63	1.03	1.97
ANNUAL RUNOFF (INCHES)	22.09	13.96	26.80
10 PERCENT EXCEEDS	21	12	23
50 PERCENT EXCEEDS	4.1	1.9	6.1
90 PERCENT EXCEEDS	0.57	0.32	0.49

PAWTUXET RIVER BASIN

01115098 PEEPTOAD BROOK AT ELMDALE ROAD NEAR NORTH SCITUATE, RI--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 2000 to May 2001, October 2001 to current year.

WATER TEMPERATURE: January 2000 to May 2001, October 2001 to current year.

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor since January 2000.

REMARKS.--Records poor.

EXTREMES FOR THE PERIOD OCTOBER 2001 TO SEPTEMBER 2002.--

SPECIFIC CONDUCTANCE: Maximum recorded, 269 $\mu\text{S}/\text{cm}$, May 29; minimum, 43 $\mu\text{S}/\text{cm}$, Aug. 4.

WATER TEMPERATURE: Maximum recorded, 31.4°C, July 4; minimum, 1.1°C, Jan. 21, 22.

WATER-QUALITY DATA, OCTOBER 2001 TO SEPTEMBER 2002

SPECIFIC CONDUCTANCE (μCM AT 25°C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	138	136	137	138	134	136	142	138	140	183	182	182	
2	136	135	135	139	137	138	146	141	143	185	183	184	
3	137	135	136	142	139	140	145	137	140	187	185	186	
4	137	135	136	140	136	138	138	137	138	189	187	188	
5	137	135	136	136	134	135	140	137	138	191	188	190	
6	138	136	137	134	133	134	142	140	141	192	185	190	
7	138	133	135	134	133	134	143	141	142	196	188	192	
8	135	133	134	136	133	134	143	138	140	196	194	195	
9	135	133	134	134	133	134	138	136	137	195	192	193	
10	136	133	135	135	133	134	139	137	138	195	193	194	
11	138	136	137	134	133	133	138	136	137	195	193	194	
12	139	138	138	135	132	133	138	136	137	193	191	192	
13	139	138	138	135	133	134	138	137	137	203	190	193	
14	138	135	137	134	133	133	138	135	137	190	187	189	
15	138	136	137	134	133	133	138	134	136	190	187	188	
16	139	137	138	136	133	135	139	138	138	190	187	188	
17	137	134	135	135	134	135	140	138	139	194	190	192	
18	137	135	136	135	134	135	140	135	138	197	194	196	
19	138	135	137	135	134	134	143	139	141	201	197	199	
20	142	138	140	135	134	134	144	142	142	204	201	202	
21	140	138	139	136	134	135	151	144	148	207	204	205	
22	141	138	140	136	134	135	157	151	154	208	207	208	
23	141	139	140	137	134	136	157	154	155	208	207	207	
24	142	140	141	137	135	136	160	149	154	207	203	206	
25	142	142	142	136	134	135	160	157	158	203	202	203	
26	142	138	141	136	134	135	164	157	160	205	201	203	
27	138	137	137	136	135	136	166	164	166	205	199	202	
28	137	134	136	137	136	136	169	165	167	200	199	200	
29	136	133	134	139	137	137	174	168	170	200	197	199	
30	137	132	134	139	137	138	178	174	176	197	195	196	
31	134	131	133	---	---	---	182	178	181	195	193	194	
MONTH	142	131	137	142	132	135	182	134	147	208	182	195	

PAWTUXET RIVER BASIN

01115098 PEEPTOAD BROOK AT ELMDALE ROAD NEAR NORTH SCITUATE, RI--Continued

WATER TEMPERATURE (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER		MAX	NOVEMBER		MAX	DECEMBER		MAX	JANUARY	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	15.7	14.6	15.3	10.9	9.9	10.5	11.9	8.8	10.5	4.0	3.8	3.9
2	17.6	14.3	15.8	11.6	10.5	11.3	11.5	9.0	10.4	4.1	3.8	4.0
3	16.7	15.2	16.0	13.5	11.6	12.7	9.0	7.6	8.2	4.4	4.0	4.1
4	17.7	16.2	17.0	12.3	11.3	11.8	8.0	7.1	7.6	4.3	4.0	4.1
5	18.3	16.9	17.7	11.3	9.8	10.7	9.0	8.0	8.6	4.4	4.0	4.2
6	17.9	15.4	17.0	9.8	8.6	9.4	9.8	8.9	9.4	4.5	4.1	4.3
7	15.4	13.5	14.6	9.5	8.5	9.0	9.8	8.5	9.4	4.2	3.4	4.0
8	13.5	12.1	12.8	8.7	8.0	8.4	8.5	6.1	7.7	3.4	2.7	3.1
9	13.4	11.6	12.6	8.8	7.5	8.3	6.6	5.5	6.1	2.7	2.3	2.5
10	13.7	12.5	13.1	8.7	7.4	8.0	5.8	5.2	5.5	2.5	2.1	2.3
11	14.5	13.0	13.9	7.8	6.2	7.2	6.0	5.2	5.6	2.4	2.2	2.3
12	15.8	14.0	15.0	6.6	5.3	6.1	5.7	5.0	5.4	2.7	2.3	2.5
13	15.4	14.9	15.1	6.0	5.0	5.6	5.8	5.3	5.6	2.7	2.3	2.5
14	15.1	14.8	15.0	7.0	5.8	6.5	6.3	5.5	5.9	2.3	1.9	2.1
15	15.9	14.8	15.4	7.5	6.5	7.1	6.6	4.8	5.9	2.0	1.8	1.9
16	15.2	14.0	14.7	9.1	7.5	8.4	4.8	4.4	4.6	2.4	1.9	2.2
17	15.1	13.4	14.4	8.3	6.1	7.2	4.5	4.1	4.3	2.5	2.2	2.4
18	13.4	11.7	12.8	6.7	5.8	6.4	4.2	3.2	3.9	2.4	2.1	2.2
19	12.7	11.1	12.1	7.4	6.4	6.9	4.0	3.6	3.7	2.3	2.0	2.1
20	14.2	11.7	12.8	7.6	6.2	7.1	4.1	3.3	3.7	2.0	1.6	1.8
21	13.0	12.0	12.6	6.2	5.3	5.8	3.4	2.8	3.1	1.6	1.3	1.4
22	14.8	12.2	13.5	6.1	5.2	5.7	2.8	2.4	2.5	1.4	1.1	1.2
23	14.2	13.6	14.0	6.1	5.4	5.8	3.2	2.5	2.9	1.4	1.1	1.3
24	16.0	14.1	15.2	6.5	5.8	6.2	3.3	2.6	3.1	1.7	1.4	1.6
25	16.3	14.8	15.7	7.4	6.4	6.9	3.4	2.6	3.1	2.8	1.7	2.3
26	14.8	12.5	13.7	10.2	6.7	8.8	3.6	3.3	3.4	3.2	2.8	3.0
27	12.5	11.7	12.1	9.7	9.1	9.3	3.5	3.3	3.4	3.5	2.9	3.3
28	11.7	9.7	10.9	9.7	8.8	9.3	3.8	3.5	3.7	3.8	3.3	3.6
29	11.1	9.2	10.3	9.3	9.0	9.0	4.1	3.7	3.8	4.1	3.6	3.8
30	10.7	8.9	10.1	9.7	9.0	9.3	3.8	3.6	3.7	4.0	3.8	3.9
31	9.9	8.4	9.3	---	---	---	3.9	3.7	3.8	3.8	3.7	3.8
MONTH	18.3	8.4	13.9	13.5	5.0	8.2	11.9	2.4	5.4	4.5	1.1	2.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.8	3.2	3.5	5.1	4.2	4.6	10.7	8.6	9.9	12.1	9.2	10.9
2	3.4	2.6	3.1	4.8	4.1	4.4	10.9	8.2	9.7	11.2	10.3	10.8
3	3.1	2.5	2.8	7.1	4.6	5.8	11.4	9.1	10.2	11.7	10.0	10.8
4	3.3	2.6	3.0	6.6	5.0	6.0	11.1	9.3	10.2	14.4	10.6	12.7
5	3.7	3.0	3.4	5.1	3.9	4.5	10.2	8.4	9.4	17.1	12.4	14.8
6	3.7	3.2	3.5	4.3	3.4	4.0	8.8	7.4	8.2	17.5	14.0	15.9
7	3.7	3.1	3.5	6.3	3.4	5.1	9.6	7.3	8.3	18.4	15.7	17.2
8	3.9	3.0	3.6	7.1	5.6	6.4	8.4	7.7	8.1	19.4	16.9	17.9
9	4.2	3.8	3.9	9.5	6.6	7.8	13.4	8.4	10.9	17.0	14.7	15.8
10	4.2	3.5	4.0	10.8	6.2	9.6	16.2	13.1	14.5	18.5	14.5	16.6
11	3.5	3.0	3.3	8.0	6.2	7.1	15.5	13.0	14.1	17.8	15.5	16.6
12	3.2	2.7	3.0	6.2	5.5	6.0	14.4	12.3	13.5	16.2	14.4	15.5
13	3.4	2.6	3.1	5.9	5.3	5.6	16.8	13.8	15.3	14.4	11.4	13.2
14	3.9	2.9	3.5	8.6	5.2	7.1	19.0	16.1	17.5	12.4	10.2	11.3
15	3.9	3.3	3.7	7.8	6.8	7.2	19.7	17.1	18.2	12.2	10.7	11.4
16	4.2	3.6	3.9	9.0	6.8	8.2	21.6	16.9	19.3	16.2	11.3	14.0
17	4.3	3.9	4.1	8.1	6.2	7.2	23.3	19.3	21.3	17.0	14.6	15.9
18	4.2	3.7	4.0	6.9	5.5	5.9	24.1	20.0	21.6	15.5	10.4	12.8
19	4.7	3.9	4.2	6.0	4.8	5.5	21.8	19.6	20.7	12.7	10.0	11.3
20	4.7	4.0	4.4	4.8	3.4	4.3	20.6	17.8	19.6	13.2	10.6	11.9
21	4.7	4.2	4.5	5.4	3.0	4.2	18.4	15.9	17.3	13.0	10.8	12.0
22	5.1	4.4	4.7	4.8	3.8	4.2	15.9	12.9	14.4	16.2	11.3	13.6
23	5.2	4.1	4.6	4.4	3.8	4.1	12.9	10.7	11.9	17.1	12.7	15.2
24	5.4	4.0	4.5	6.4	3.8	5.3	12.5	10.3	11.2	20.8	14.4	17.6
25	5.1	4.1	4.6	7.0	5.5	6.2	11.2	9.8	10.5	18.7	16.0	17.4
26	5.3	4.4	5.0	6.2	5.8	6.0	10.7	9.3	10	16.7	15.7	16.3
27	7.4	5.3	6.3	6.6	5.8	6.2	12.6	9.1	10.9	18.8	15.4	17.3
28	5.4	4.4	5.0	8.4	5.8	7.1	10.9	9.3	10.2	19.4	17.3	18.5
29	---	---	---	8.8	6.8	7.9	9.5	8.7	9.2	20.3	18.1	19.2
30	---	---	---	10.8	7.5	9.4	10.5	8.6	9.7	22.1	18.8	20.6
31	---	---	---	11.4	9.4	10.5	---	---	---	22.2	20.4	21.4
MONTH	7.4	2.5	4.0	11.4	3.0	6.2	24.1	7.3	13.2	22.2	9.2	15.0

PAWTUXET RIVER BASIN

01115098 PEEPTOAD BROOK AT ELMDALE ROAD NEAR NORTH SCITUATE, RI--Continued

WATER TEMPERATURE (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	24.2	20.4	22.0	27.9	23.7	25.8	28.4	25.5	26.9	24.4	23.5	24.1
2	21.8	19.3	20.7	29.7	25.1	27.4	27.6	25.3	26.3	24.6	24.1	24.4
3	21.1	18.8	19.9	31.0	26.8	28.9	27.8	24.7	26.5	25.5	24.4	24.9
4	20.2	18.2	19.5	31.4	27.5	29.4	28.6	25.4	27.0	26.4	24.8	25.5
5	19.2	18.5	18.8	28.5	25.0	27.1	28.0	26.3	27.0	26.4	25.0	25.6
6	19.0	16.2	17.9	26.4	24.5	25.4	---	---	---	26.2	24.5	25.2
7	16.2	13.8	15.1	24.5	22.8	23.9	---	---	---	26.3	24.5	25.4
8	17.1	13.5	15.4	26.2	22.3	24.4	---	---	---	27.0	25.0	26.0
9	20.0	14.9	17.4	26.0	23.8	24.8	---	---	---	28.1	25.5	26.8
10	21.8	16.9	19.3	25.2	22.9	24.4	---	---	---	28.3	26.5	27.5
11	22.5	18.0	20.5	23.6	21.4	22.8	---	---	---	27.6	24.9	26.5
12	20.7	16.6	18.6	24.5	20.9	22.8	---	---	---	24.9	24.1	24.6
13	17.1	16.0	16.5	24.7	21.7	23.3	---	---	---	25.7	23.9	24.8
14	16.7	15.2	16.1	24.7	22.1	23.4	---	---	---	26.3	24.9	25.7
15	15.2	14.0	14.6	26.3	22.6	24.3	---	---	---	26.8	26.0	26.4
16	15.4	13.8	14.5	24.7	22.2	23.7	---	---	---	27.2	26.2	26.7
17	19.8	14.0	17.1	25.2	21.7	23.7	---	---	---	27.4	26.2	26.7
18	21.0	16.6	19.0	27.3	23.1	25.5	---	---	---	26.8	25.5	26.1
19	20.8	18.3	19.6	26.1	24.5	25.2	---	---	e28.7	26.3	25.2	25.8
20	21.6	18.3	20.3	24.5	22.4	23.5	27.8	25.7	26.5	26.0	25.0	25.6
21	22.7	19.6	21.4	24.4	21.8	23.3	27.6	25.2	26.4	26.8	25.4	26.2
22	25.0	20.9	22.7	25.2	22.6	24.1	27.2	25.1	26.3	27.9	26.1	27.0
23	23.1	20.8	22.1	26.5	23.8	25.2	26.2	24.2	25.2	28.6	27.3	27.9
24	25.9	22.1	23.9	24.8	22.4	23.9	25.1	24.0	24.5	27.3	25.6	26.5
25	24.3	21.6	23.0	24.0	21.8	23.0	26.7	24.1	25.4	26.1	25.2	25.6
26	25.7	22.1	24.0	23.6	21.3	22.6	27.0	24.7	25.9	25.3	24.7	24.9
27	27.4	23.6	25.5	22.3	21.6	22.0	26.5	25.1	25.8	25.1	24.6	24.8
28	28.0	24.6	26.0	22.6	21.5	22.1	25.3	24.5	24.8	26.3	25.0	25.6
29	27.7	24.3	25.8	27.2	22.2	24.9	24.5	24.0	24.2	25.5	24.6	25.0
30	26.1	23.8	25.0	27.8	24.2	26.2	25.1	24.1	24.6	25.1	24.4	24.8
31	---	---	---	28.4	25.1	26.8	24.4	23.7	24.1	---	---	---
MONTH	28.0	13.5	20.1	31.4	20.9	24.6	---	---	---	28.6	23.5	25.8

e Estimated

PAWTUXET RIVER BASIN

01115110 HUNTINGHOUSE BROOK AT ELMDALE RD AT NORTH SCITUATE, RI

LOCATION.--Lat 41°50'48", long 71°36'44", Providence County, Hydrologic Unit 01090004, on right bank 1,000 ft downstream from bridge on Elmdale Road, and 1.6 mi northwest of North Scituate

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 2000 to May 2001, October 2001 to current year.

WATER TEMPERATURE: January 2000 to May 2001, October 2001 to current year.

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor since January 2000.

REMARKS.--Records poor.

EXTREMES FOR THE PERIOD OCTOBER 2001 TO SEPTEMBER 2002.--

SPECIFIC CONDUCTANCE: Maximum recorded, 124 µS/cm, Sept. 28; minimum, 15 µS/cm, Nov. 5, 6.

WATER TEMPERATURE: Maximum recorded, 23.9°C, July 4; minimum, -0.2°C, on many days during winter period.

WATER-QUALITY DATA, OCTOBER 2001 TO SEPTEMBER 2002

SPECIFIC CONDUCTANCE (µS/CM at 25°C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	31	28	30	43	28	36	28	27	27	25	24	24
2	30	28	29	31	25	28	27	26	26	25	24	25
3	31	29	30	26	21	23	27	26	26	25	24	24
4	32	31	31	22	17	18	27	26	27	25	24	24
5	32	31	31	17	15	16	27	27	27	24	23	23
6	32	31	32	18	15	16	28	27	28	23	20	22
7	32	31	31	17	16	17	28	25	27	24	19	21
8	32	31	32	19	17	18	26	24	25	24	22	23
9	33	32	33	19	19	19	25	21	24	24	22	23
10	35	33	34	19	19	19	22	20	21	28	22	25
11	37	35	36	19	18	19	22	22	22	28	20	26
12	38	37	38	19	17	18	23	21	22	27	22	25
13	39	38	39	18	16	18	24	23	23	27	18	22
14	41	39	40	19	18	19	29	24	25	25	21	23
15	41	39	40	20	19	19	32	29	31	28	22	24
16	42	39	40	20	20	20	32	27	32	31	24	27
17	42	41	41	20	20	20	27	22	23	24	22	23
18	41	39	40	21	20	20	29	21	24	27	21	24
19	39	38	39	22	21	21	30	28	28	27	22	23
20	40	38	39	23	22	22	31	28	30	28	22	26
21	42	40	41	25	23	24	31	25	29	29	26	27
22	44	42	43	25	24	24	39	22	25	37	27	31
23	46	44	45	25	24	24	39	23	27	32	28	29
24	48	46	47	25	25	25	46	24	28	30	25	28
25	51	48	49	27	25	26	25	24	25	26	22	24
26	51	48	50	26	20	23	29	23	27	24	22	23
27	48	47	47	22	20	21	26	21	22	24	22	23
28	47	46	47	27	22	25	26	24	25	32	23	26
29	47	45	46	27	25	26	27	25	26	33	30	32
30	46	44	45	27	25	26	27	25	26	33	23	28
31	45	43	43	---	---	---	27	23	26	24	24	24
MONTH	51	28	39	43	15	22	46	20	26	37	18	25

PAWTUXET RIVER BASIN

01115110 HUNTINGHOUSE BROOK AT ELMDALE RD AT NORTH SCITUATE, RI--Continued

SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$ at 25°C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	FEBRUARY		MAX	MARCH		MAX	APRIL		MAX	MAY	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	36	24	27	32	27	30	31	16	19	32	30	31
2	30	20	24	31	29	31	23	17	18	31	30	30
3	24	20	22	30	17	21	21	18	19	---	---	e30
4	24	20	22	30	19	22	21	19	20	---	---	---
5	26	20	23	32	29	30	23	20	21	---	---	---
6	26	19	22	31	30	30	23	20	21	---	---	---
7	29	21	27	31	30	30	22	20	21	---	---	---
8	30	25	28	32	31	31	22	20	21	---	---	---
9	27	20	24	31	31	31	26	21	23	---	---	---
10	29	21	26	31	29	30	28	26	28	---	---	---
11	28	17	22	32	30	32	28	26	27	---	---	---
12	28	19	25	33	32	32	28	21	25	---	---	---
13	29	19	25	33	32	32	27	21	24	---	---	---
14	27	24	26	32	32	32	31	25	27	---	---	---
15	31	25	29	32	32	32	31	27	29	---	---	---
16	32	31	32	32	32	32	32	27	29	---	---	---
17	32	29	31	32	32	32	32	30	31	---	---	---
18	31	29	30	33	32	33	33	28	31	---	---	---
19	32	27	30	33	33	33	31	26	29	---	---	---
20	32	30	31	33	33	33	28	26	27	---	---	---
21	31	21	24	33	31	32	27	24	25	---	---	---
22	22	22	22	33	31	32	25	24	24	---	---	---
23	23	22	22	32	31	32	27	24	24	---	---	---
24	23	21	22	32	31	31	29	27	28	---	---	---
25	23	22	23	32	31	31	31	27	30	---	---	---
26	25	23	24	32	31	32	28	24	26	---	---	---
27	26	24	25	31	17	22	32	28	30	---	---	---
28	36	26	31	25	19	21	31	28	30	---	---	---
29	---	---	---	30	25	29	29	27	28	---	---	---
30	---	---	---	31	30	31	31	28	30	---	---	---
31	---	---	---	32	31	32	---	---	---	---	---	---
MONTH	36	17	26	33	17	30	33	16	26	---	---	---
DAY	MAX	JUNE		MAX	JULY		MAX	AUGUST		MAX	SEPTEMBER	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	---	---	---	---	---	---	85	82	83	80	78	79
2	---	---	---	---	---	---	86	76	83	80	62	70
3	---	---	---	---	---	---	86	81	84	90	66	78
4	---	---	---	76	75	76	86	85	86	100	86	94
5	---	---	---	88	76	80	87	86	87	104	100	102
6	---	---	---	85	77	79	87	85	86	103	100	102
7	---	---	---	85	79	80	86	84	85	102	96	97
8	---	---	---	85	78	80	86	84	85	96	90	93
9	---	---	---	84	78	82	85	84	85	90	87	89
10	---	---	---	84	74	80	86	85	85	87	84	85
11	---	---	---	87	75	79	86	84	85	85	81	83
12	---	---	---	89	77	85	85	83	84	82	80	81
13	---	---	---	93	78	88	84	82	83	82	79	81
14	---	---	---	92	80	90	83	81	82	82	80	81
15	---	---	---	95	83	91	82	81	82	83	49	75
16	---	---	---	96	83	92	82	81	82	90	58	72
17	---	---	---	99	85	96	82	81	82	95	83	88
18	---	---	---	102	86	89	82	81	82	104	95	100
19	---	---	---	100	87	94	82	81	82	103	101	102
20	---	---	---	105	88	91	83	75	78	102	99	100
21	---	---	---	109	88	95	80	75	78	99	96	97
22	---	---	---	90	88	89	81	79	80	96	81	93
23	---	---	---	88	78	85	80	79	80	95	74	88
24	---	---	---	83	76	80	80	79	79	96	90	93
25	---	---	---	76	75	76	81	79	80	90	87	88
26	---	---	---	78	76	76	81	80	80	87	78	85
27	---	---	---	81	78	79	81	80	80	98	74	82
28	---	---	---	81	80	81	82	80	81	124	98	117
29	---	---	---	82	79	81	81	58	71	123	121	122
30	---	---	---	79	77	78	76	65	71	122	120	121
31	---	---	---	83	78	80	80	76	78	---	---	---
MONTH	---	---	---	---	---	---	87	58	82	124	49	91

e Estimated

PAWTUXET RIVER BASIN

01115110 HUNTINGHOUSE BROOK AT ELMDALE RD AT NORTH SCITUATE, RI--Continued

WATER TEMPERATURE (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.5	9.9	11.0	10.3	6.3	8.9	12.3	9.2	11.3	0.0	-0.1	-0.1
2	12.0	9.6	11.0	13.0	10.3	12.2	9.2	5.6	8.2	.0	-.1	-.1
3	13.4	10.4	12.3	13.5	10.7	12.7	5.7	4.5	5.2	.0	-.1	-.1
4	15.3	13.0	14.2	10.8	8.8	10.1	5.7	4.0	5.0	.0	-.1	-.1
5	16.4	14.0	15.0	8.8	7.1	8.2	7.5	5.7	7.0	.1	-.1	-.1
6	15.6	11.1	14.1	7.7	5.6	6.9	9.3	7.2	8.7	.1	-.1	-.1
7	11.4	8.4	10.2	7.8	5.6	6.8	8.9	5.1	7.8	-.1	-.2	-.2
8	9.0	6.4	7.9	6.7	4.9	6.0	5.1	1.9	4.3	-.1	-.2	-.1
9	8.7	5.9	7.3	7.3	4.6	6.2	2.7	1.0	2.0	.0	-.1	-.1
10	10.3	7.4	9.0	6.4	4.5	5.5	2.0	.5	1.4	.0	-.2	-.1
11	12.3	9.2	10.8	5.6	2.1	4.3	3.2	1.8	2.5	-.1	-.2	-.1
12	13.4	10.8	12.0	3.3	.6	2.2	3.5	1.6	2.9	.1	-.1	.0
13	12.5	11.1	11.8	2.2	.3	1.6	5.7	3.5	4.7	.2	-.2	-.1
14	12.7	11.7	12.2	4.8	1.8	4.0	7.0	5.5	6.5	.3	-.2	.0
15	14.1	10.8	12.7	6.6	4.1	5.8	7.0	3.1	5.6	1.2	.3	.8
16	12.2	9.8	11.4	8.6	6.4	7.7	3.1	1.8	2.4	1.1	.4	.7
17	12.1	9.9	11.4	6.4	3.0	5.0	2.5	1.1	1.9	1.3	.1	.7
18	10.3	7.0	9.0	4.7	2.5	4.1	3.9	2.5	3.2	.7	-.2	.1
19	9.0	6.1	7.8	7.9	4.5	6.3	3.5	2.4	2.9	.1	-.2	-.1
20	10.5	7.7	9.2	8.1	3.9	6.6	3.4	2.2	2.8	.0	-.2	-.1
21	10.9	7.8	9.7	4.0	1.8	3.1	2.9	.9	2.1	-.1	-.2	-.1
22	12.5	10.5	11.5	3.5	1.6	2.7	.9	-.2	.5	.0	-.2	-.1
23	12.6	10.9	11.9	3.3	1.7	2.8	1.1	-.1	.3	.5	-.2	.1
24	14.8	12.5	13.7	5.4	3.2	4.5	3.6	1.1	2.6	2.2	.5	1.5
25	16.2	12.4	14.6	8.7	5.3	7.5	2.0	1.2	1.5	2.4	.9	1.8
26	12.4	8.8	10.9	9.6	7.6	8.8	1.9	.1	1.2	2.6	.9	1.8
27	9.5	7.8	8.6	9.0	7.5	8.5	.1	-.2	-.1	2.8	1.0	2.0
28	8.3	4.7	6.9	9.1	7.8	8.6	.1	-.2	-.1	3.3	1.1	2.5
29	6.8	4.3	5.7	8.3	7.6	7.8	.3	-.2	.0	5.4	2.5	4.4
30	7.4	3.8	5.7	11.6	8.3	10.0	.1	-.2	-.1	5.3	4.0	5.0
31	6.3	3.3	5.1	---	---	---	.0	-.1	-.1	4.0	2.5	3.0
MONTH	16.4	3.3	10.5	13.5	0.3	6.5	12.3	-0.2	3.4	5.4	-0.2	0.7
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.8	1.7	2.5	3.0	0.1	1.7	9.3	6.4	8.3	12.6	7.8	10.3
2	1.7	-.2	.8	3.8	.6	2.5	9.8	5.8	8.2	9.9	8.8	9.0
3	.5	-.2	.1	7.1	3.8	6.0	10.4	7.6	9.2	---	---	e10.4
4	1.2	-.2	.4	6.0	2.2	4.6	9.7	5.9	8.0	---	---	---
5	.0	-.2	-.1	3.0	1.4	2.1	7.4	5.3	6.5	---	---	---
6	.3	-.2	.0	3.5	1.4	2.7	7.4	4.6	6.1	---	---	---
7	.7	-.2	.2	5.8	2.6	4.6	7.4	3.5	5.7	---	---	---
8	1.4	-.2	.7	6.4	4.5	5.6	7.9	5.5	6.9	---	---	---
9	1.4	-.2	.6	9.8	5.8	8.2	12.8	7.5	10.6	---	---	---
10	3.0	-.1	.7	9.9	4.6	8.3	14.6	11.2	12.7	---	---	---
11	2.9	-.2	1.6	5.4	3.0	4.3	12.3	9.2	10.8	---	---	---
12	.7	-.2	.3	4.5	2.8	3.8	12.1	7.8	10.4	---	---	---
13	1.3	-.2	.4	4.6	2.9	4.0	15.4	11.1	13.4	---	---	---
14	.0	-.2	-.1	8.2	4.4	6.6	16.9	13.2	15.1	---	---	---
15	1.8	-.1	1.0	7.1	5.2	6.3	16.9	14.3	15.5	---	---	---
16	4.1	1.7	2.8	8.0	4.9	7.1	18.7	13.2	16.2	---	---	---
17	2.7	1.7	2.2	6.6	4.2	5.6	20.3	15.8	18.2	---	---	---
18	2.8	.6	1.8	5.2	2.7	3.3	21.0	16.5	18.5	---	---	---
19	2.6	.0	1.5	4.0	2.8	3.5	19.4	15.5	17.5	---	---	---
20	4.5	1.1	3.0	3.7	2.0	2.8	17.5	13.8	16.1	---	---	---
21	6.7	4.5	5.6	6.0	1.9	4.3	15.3	12.0	13.5	---	---	---
22	5.5	3.0	4.6	4.2	1.5	3.0	12.0	8.4	9.9	---	---	---
23	4.4	1.6	3.2	4.1	1.1	2.9	8.6	6.9	8.1	---	---	---
24	3.7	1.0	2.5	5.9	2.4	4.7	10.4	6.0	8.4	---	---	---
25	4.3	1.3	3.2	6.3	4.5	5.4	10.8	7.2	8.8	---	---	---
26	7.4	3.6	6.0	4.7	4.3	4.5	9.6	6.6	8.2	---	---	---
27	7.4	2.3	5.2	6.5	4.7	5.5	11.4	6.3	9.1	---	---	---
28	3.2	.6	2.1	8.0	4.3	6.2	9.4	7.8	8.4	---	---	---
29	---	---	---	8.0	4.7	6.7	8.2	7.2	7.6	---	---	---
30	---	---	---	9.3	6.9	8.3	10.2	6.8	8.7	---	---	---
31	---	---	---	9.8	7.6	8.9	---	---	---	---	---	---
MONTH	7.4	-0.2	1.9	9.9	0.1	5.0	21.0	3.5	10.8	---	---	---

e Estimated

PAWTUXET RIVER BASIN

0115110 HUNTINGHOUSE BROOK AT ELMDALE RD AT NORTH SCITUATE, RI--Continued

WATER TEMPERATURE (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	21.7	18.0	19.8	14.8	11.6	13.5
2	---	---	---	---	---	---	21.4	18.0	19.2	15.8	13.9	15.2
3	---	---	---	---	---	---	21.0	17.5	19.3	17.6	15.6	16.8
4	---	---	---	23.9	20.3	21.9	21.5	17.6	19.6	19.2	16.7	17.7
5	---	---	---	21.7	17.8	20.1	21.4	18.9	20.1	18.5	13.9	16.6
6	---	---	---	20.0	17.1	18.3	19.5	15.4	17.8	16.8	12.7	14.6
7	---	---	---	18.3	16.4	17.3	18.1	14.6	16.3	16.7	12.2	14.8
8	---	---	---	20.1	15.7	17.9	18.1	13.9	15.9	18.1	14.2	16.2
9	---	---	---	20.4	17.6	18.9	18.2	13.7	16.0	18.9	14.8	16.9
10	---	---	---	20.5	15.9	18.4	18.9	14.9	17.1	18.7	15.7	17.0
11	---	---	---	18.0	13.9	15.9	20.4	16.5	18.3	17.9	12.5	15.4
12	---	---	---	18.3	12.8	15.4	21.1	16.9	18.7	14.5	10.8	12.6
13	---	---	---	19.5	14.8	16.9	21.1	17.6	19.0	15.9	10.4	13.6
14	---	---	---	19.6	15.7	17.4	21.1	17.2	19.0	17.3	13.3	15.3
15	---	---	---	19.9	16.1	17.9	20.8	17.1	18.6	18.4	15.5	16.7
16	---	---	---	18.7	14.9	17.1	20.3	17.3	18.6	19.4	17.6	18.6
17	---	---	---	18.6	13.9	16.4	20.3	17.0	18.4	19.0	16.0	17.9
18	---	---	---	20.9	16.3	18.6	20.0	16.7	18.2	18.0	14.7	16.2
19	---	---	---	19.5	17.4	18.3	20.3	16.5	18.2	17.4	13.8	15.6
20	---	---	---	17.5	15.2	16.8	19.9	15.8	18.1	17.3	14.2	16.0
21	---	---	---	19.3	14.4	16.7	19.4	15.0	17.1	18.5	15.4	17.1
22	---	---	---	20.6	16.3	18.4	18.6	14.7	16.7	19.1	16.4	17.9
23	---	---	---	21.9	17.8	19.6	17.1	13.4	16.0	19.4	17.4	18.6
24	---	---	---	19.7	14.8	17.8	15.6	12.9	14.5	17.6	14.8	16.7
25	---	---	---	18.5	13.6	15.8	17.6	13.7	15.5	16.6	13.8	15.2
26	---	---	---	17.4	13.2	15.4	17.2	13.4	15.3	14.9	13.9	14.5
27	---	---	---	16.1	14.8	15.5	17.5	13.8	15.4	16.4	14.4	15.1
28	---	---	---	16.8	15.2	16.2	15.9	13.7	14.6	17.6	14.6	16.6
29	---	---	---	21.5	16.5	18.8	15.8	13.9	14.9	14.8	12.0	13.7
30	---	---	---	22.1	17.9	19.8	16.6	14.2	15.4	14.4	11.3	13.0
31	---	---	---	21.5	17.9	19.7	15.9	11.9	14.2	---	---	---
MONTH	---	---	---	---	---	---	21.7	11.9	17.3	19.4	10.4	15.9

PAWTUXET RIVER BASIN

01115170 MOSWANSICUT STREAM NEAR NORTH SCITUATE, RI

LOCATION.--Lat 41°50'27", long 71°35'06", Providence County, Hydrologic Unit 01090004, on left bank 50 ft downstream from bridge on State Route 116, and 0.6 mi northeast of North Scituate.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 2000 to May 2001, October 2001 to current year.

WATER TEMPERATURE: March to 2000 to May 2001, October 2001 to current year.

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor since March 2000.

REMARKS.--Records fair.

EXTREMES FOR THE PERIOD OCTOBER 2001 TO SEPTEMBER 2002.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,300 μ S/cm, Mar. 20; minimum, 51 μ S/cm, Oct. 1.

WATER TEMPERATURE: Maximum recorded, 27.7°C, July 4; minimum, 0.1°C, Jan. 19, Feb. 5, 11, 12, 14.

WATER-QUALITY DATA, OCTOBER OCTOBER 2001 TO SEPTEMBER 2002

SPECIFIC CONDUCTANCE (μ /CM AT 25°C), OCTOBER OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	53	51	52	143	139	142	142	137	140	145	132	137
2	56	52	55	145	142	144	137	136	137	147	131	140
3	59	55	57	145	142	144	138	136	136	145	133	140
4	61	59	60	148	137	144	139	135	136	144	129	139
5	63	61	62	139	134	137	140	137	138	146	142	144
6	67	62	64	141	135	137	145	139	141	146	122	140
7	93	58	64	146	141	143	140	137	139	174	137	151
8	97	90	92	143	139	140	142	135	137	187	142	149
9	150	93	144	143	138	140	154	136	144	146	141	144
10	155	149	152	142	137	139	141	135	137	145	138	142
11	156	153	155	139	135	137	146	136	139	209	141	160
12	158	155	157	142	135	138	140	135	137	154	140	145
13	158	156	157	142	135	138	137	135	136	386	132	170
14	156	149	156	139	136	137	146	136	140	165	143	147
15	149	146	148	139	136	137	141	136	138	163	146	151
16	149	139	145	141	137	139	142	138	140	148	146	147
17	146	141	145	140	135	137	158	137	147	176	146	158
18	144	139	142	140	135	137	145	132	138	151	144	148
19	144	138	142	139	136	138	145	139	142	152	129	143
20	149	142	146	140	136	137	143	138	141	164	139	152
21	150	141	145	139	135	137	145	139	142	206	145	172
22	151	147	149	139	134	136	150	143	144	174	153	160
23	151	146	148	139	134	136	144	140	141	159	149	154
24	152	149	150	138	136	137	142	124	134	188	151	167
25	149	145	148	148	134	138	143	139	142	166	155	159
26	145	140	143	140	134	137	144	138	142	159	150	156
27	143	139	141	138	136	137	145	140	142	160	151	157
28	141	137	139	139	137	138	146	138	143	160	150	156
29	140	136	138	139	136	137	145	141	143	160	150	154
30	142	138	139	142	139	140	147	136	141	183	153	164
31	139	138	138	---	---	---	145	133	139	216	162	174
MONTH	158	51	125	148	134	139	158	124	140	386	122	152

PAWTUXET RIVER BASIN

01115170 MOSWANSICUT STREAM NEAR NORTH SCITUATE, RI--Continued

WATER TEMPERATURE (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER			MAX	NOVEMBER			MAX	DECEMBER			MAX	JANUARY		
		MIN	MEAN	MIN		MEAN	MIN	MEAN		MIN	MEAN	MIN		MEAN		
1	12.2	7.1	10.1	14.4	10.9	12.6	13.3	8.6	11.4	1.7	0.2	0.7				
2	15.7	7.3	12.4	15.7	11.9	14.1	10.3	6.3	8.6	1.9	.2	1.0				
3	17.6	9.9	14.8	14.9	10.4	13.2	8.2	5.8	7.0	2.4	.4	1.3				
4	18.4	14.8	16.5	13.0	9.9	11.0	9.0	6.0	7.8	1.7	.1	1.0				
5	18.6	14.5	16.6	10.6	8.2	9.5	11.1	9.0	9.8	4.0	1.3	2.3				
6	17.9	7.5	13.3	10.5	7.2	8.6	12.0	9.2	10.5	4.3	1.6	3.0				
7	9.9	6.1	7.8	11.6	7.2	9.2	10.3	6.0	8.7	3.5	1.0	2.6				
8	9.1	4.9	7.0	10.0	6.8	8.7	7.5	2.5	6.0	2.0	.5	1.2				
9	12.1	5.7	9.7	10.1	6.6	8.6	5.8	2.6	4.3	4.1	1.1	2.8				
10	14.5	10.3	12.7	10.3	6.7	8.4	6.0	3.3	5.0	5.2	2.6	3.7				
11	16.3	12.7	14.6	8.7	4.7	6.8	7.9	4.6	6.0	3.9	2.1	3.1				
12	16.9	13.3	15.1	7.4	3.6	5.5	7.5	4.5	6.3	5.0	2.1	3.2				
13	15.2	13.2	14.1	7.2	3.4	5.6	8.7	6.4	7.9	2.9	.5	1.6				
14	15.2	13.4	14.5	10.4	5.8	8.3	9.6	7.9	8.9	3.8	1.1	2.5				
15	16.1	11.3	14.4	11.2	7.5	9.4	8.9	3.5	6.3	4.5	2.4	3.4				
16	14.5	10.2	13.2	12.3	7.6	10.2	4.9	3.3	4.0	3.6	2.0	2.6				
17	14.4	10.8	12.9	7.8	4.7	6.5	5.2	3.3	4.5	4.4	1.4	2.8				
18	12.3	8.4	10.7	8.6	4.5	7.1	6.3	4.2	5.0	3.6	.8	1.8				
19	12.9	7.8	10.8	10.6	7.3	9.3	6.3	4.0	4.8	2.4	.1	1.1				
20	14.8	10.8	12.6	10.7	5.1	8.2	6.6	3.8	5.1	2.5	.7	1.4				
21	14.8	10.1	12.8	6.7	4.5	5.4	5.4	2.5	3.9	2.4	.6	1.7				
22	15.7	13.1	14.2	8.1	4.6	6.2	3.5	1.8	2.6	3.9	1.1	2.0				
23	15.0	12.8	14.1	8.0	4.8	6.7	5.0	1.5	3.4	4.8	1.3	3.3				
24	17.7	14.7	16.0	9.3	7.1	8.6	7.0	3.1	5.2	5.1	3.0	4.2				
25	18.5	12.4	15.9	11.8	8.8	10.7	4.2	2.8	3.3	4.8	1.8	3.1				
26	13.5	9.9	11.8	12.2	8.6	10.4	4.9	1.7	3.5	6.0	2.0	3.6				
27	12.0	9.3	10.7	11.2	8.6	10.0	2.5	1.0	1.7	5.9	2.0	3.4				
28	11.0	6.8	9.3	11.1	8.2	9.7	3.1	.8	2.1	6.4	2.1	4.0				
29	11.0	6.6	9.3	10.1	8.1	8.9	3.9	1.2	2.5	8.2	3.3	5.6				
30	11.7	6.5	9.3	12.7	10.1	11.8	2.3	.6	1.4	6.2	3.5	5.2				
31	10.9	6.2	9.3	---	---	---	1.8	.3	.9	3.5	2.9	3.1				
MONTH	18.6	4.9	12.5	15.7	3.4	9.0	13.3	0.3	5.4	8.2	0.1	2.7				
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN				
		FEBRUARY			MARCH			APRIL			MAY					
1	4.1	1.4	3.3	7.2	1.2	3.6	8.5	6.3	7.5	14.1	10.9	12.2				
2	3.2	.6	1.4	6.7	1.9	4.8	8.5	6.2	7.4	12.0	11.4	11.7				
3	3.8	.5	2.0	8.2	4.5	7.0	8.9	7.2	7.9	13.4	11.3	12.0				
4	4.8	.2	2.3	7.3	1.6	4.0	9.6	7.2	8.1	14.1	11.1	12.4				
5	2.1	.1	1.0	5.8	1.5	3.1	9.9	7.2	8.5	15.5	11.4	13.2				
6	3.9	.6	1.8	6.8	2.7	4.6	9.5	6.9	8.1	15.7	12.6	13.8				
7	4.4	1.3	2.7	9.6	3.2	6.1	10.1	6.9	8.1	15.5	13.1	14.3				
8	5.6	1.2	2.9	9.2	4.9	6.6	8.9	7.2	8.0	17.3	14.2	15.5				
9	4.8	.5	2.1	12.0	6.0	8.8	11.2	8.0	9.6	14.8	14.2	14.4				
10	5.8	.4	3.4	10.1	2.5	6.6	12.6	9.2	10.6	16.9	14.2	15.2				
11	4.9	.1	2.5	7.9	2.5	4.6	12.5	9.3	10.7	17.6	14.1	15.5				
12	3.5	.1	2.0	7.4	3.4	5.2	12.5	9.6	10.9	15.1	14.3	14.8				
13	4.5	.2	1.7	6.5	3.6	5.6	12.8	10.4	11.6	14.3	13.3	13.9				
14	3.3	.1	1.5	11.9	4.7	7.5	15.0	11.4	12.7	14.4	13.5	13.9				
15	5.4	1.2	3.4	8.1	4.5	7.0	14.2	12.2	13.3	14.3	13.2	13.7				
16	7.2	2.4	4.3	8.9	3.5	6.7	18.5	13.2	15.7	14.8	13.1	14.0				
17	4.6	2.3	3.4	9.3	3.3	6.2	18.4	15.3	16.9	15.6	14.1	14.8				
18	6.1	.9	2.8	5.1	2.5	3.7	21.5	16.7	18.4	14.8	13.3	13.9				
19	6.8	.8	3.3	7.0	4.3	5.4	19.4	16.6	17.6	15.0	13.2	14.1				
20	6.9	2.4	5.3	5.7	2.3	3.9	19.1	16.3	17.5	15.4	13.5	14.3				
21	9.6	3.9	6.8	11.3	2.9	6.4	18.1	14.7	16.2	15.5	13.3	14.5				
22	7.8	2.6	4.8	7.6	2.1	3.9	14.7	13.2	13.8	18.1	13.7	15.1				
23	7.4	1.8	3.9	8.3	2.2	4.8	13.6	12.2	13.1	16.5	14.3	15.3				
24	7.4	1.8	3.9	10.3	3.2	6.4	14.7	11.9	13.2	17.8	14.8	16.6				
25	8.4	2.2	5.1	9.0	4.4	6.0	14.7	11.5	12.6	19.3	16.0	17.2				
26	10.4	4.3	7.2	6.2	4.7	5.3	13.6	11.1	12.1	17.0	15.8	16.4				
27	7.5	2.0	4.4	8.2	4.8	6.2	14.3	10.8	12.2	20.7	16.1	18.0				
28	6.1	1.4	3.0	9.2	4.7	6.6	12.0	11.3	11.8	19.5	17.0	18.1				
29	---	---	---	8.5	5.2	6.6	12.0	11.2	11.5	19.7	18.6	19.0				
30	---	---	---	7.9	6.2	7.0	13.3	11.0	11.8	20.7	18.6	19.7				
31	---	---	---	9.6	6.6	7.6	---	---	---	21.3	19.4	20.3				
MONTH	10.4	0.1	3.3	12.0	1.2	5.7	21.5	6.2	11.9	21.3	10.9	15.1				

PAWTUXET RIVER BASIN

01115183 QUONAPAUG BROOK AT RT 116, NORTH SCITUATE, RI

LOCATION.--Lat 41°47'51", long 71°24'53", Providence County, Hydrologic Unit 01090004, on left bank 200 ft downstream from bridge on Elmdale Road, and 2.4 mi south of North Scituate

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 2000 to May 2001, October 2001 to current year.

WATER TEMPERATURE: January 2000 to May 2001, October 2001 to current year.

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor since January 2000.

REMARKS.--Records poor.

EXTREMES FOR THE PERIOD OCTOBER 2001 TO SEPTEMBER 2002.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,240 $\mu\text{S}/\text{cm}$, Apr. 9; minimum, 81 $\mu\text{S}/\text{cm}$, June 7.

WATER TEMPERATURE: Maximum recorded, 29.2°C, July 23; minimum, -0.2°C, on many days during winter period.

WATER-QUALITY DATA, OCTOBER 2001 TO SEPTEMBER 2002

SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$ AT 25°C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	234	210	224	229	224	227	170	164	168	151	144	148
2	211	204	208	227	189	212	168	163	165	155	150	152
3	219	207	213	189	184	186	171	166	168	158	153	155
4	226	218	222	187	183	185	171	163	166	158	154	155
5	235	226	230	183	180	182	163	161	162	161	152	155
6	240	235	238	180	177	178	166	161	164	156	149	152
7	237	234	235	179	176	177	165	161	163	150	130	139
8	234	231	232	181	178	179	168	162	164	135	132	133
9	232	229	231	186	178	180	167	155	164	137	133	136
10	237	230	234	188	180	183	165	150	160	143	136	140
11	246	236	241	190	181	185	168	162	165	151	142	146
12	250	244	247	191	188	190	172	167	170	159	142	152
13	252	248	251	189	185	188	172	166	168	154	134	141
14	255	250	253	188	179	183	167	166	166	149	133	143
15	250	246	249	182	177	179	177	165	169	156	148	152
16	251	208	239	181	178	179	180	176	178	156	144	149
17	208	192	198	189	180	183	180	177	179	156	135	148
18	214	202	209	189	180	184	183	178	180	150	131	138
19	209	201	205	181	176	178	185	179	182	138	134	136
20	206	200	203	184	177	178	185	181	184	141	136	139
21	214	202	208	186	181	183	185	176	183	149	139	144
22	220	214	218	182	179	180	181	157	172	157	148	152
23	224	218	221	181	176	178	181	157	171	174	152	164
24	227	224	226	177	170	173	181	152	166	170	162	165
25	225	223	224	173	169	171	160	152	157	162	146	156
26	223	218	221	169	166	167	165	147	161	166	145	156
27	218	216	217	174	167	171	151	141	145	161	151	158
28	223	217	218	174	170	173	149	141	144	167	155	161
29	228	220	223	171	169	170	152	139	145	164	157	161
30	230	222	224	170	169	170	144	139	141	167	160	162
31	233	224	228	---	---	---	146	140	143	171	165	167
MONTH	255	192	225	229	166	182	185	139	165	174	130	150

PAWTUXET RIVER BASIN

0115183 QUONAPAUG BROOK AT RT 116, NORTH SCITUATE, RI--Continued

SPECIFIC CONDUCTANCE ($\mu\text{CM AT } 25^\circ\text{C}$), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	FEBRUARY		MAX	MARCH		MAX	APRIL		MAX	MAY	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	176	166	171	165	139	154	104	94	100	173	156	165
2	171	137	153	257	133	158	124	99	111	185	169	178
3	149	137	144	246	98	126	123	111	117	180	144	161
4	162	135	149	123	113	117	125	113	119	154	141	148
5	149	136	142	128	108	120	141	120	128	168	148	159
6	152	139	143	132	117	128	160	141	149	183	163	173
7	154	140	148	133	127	129	172	155	162	215	183	199
8	162	136	153	132	127	129	183	172	178	225	214	220
9	161	136	147	133	128	131	---	---	e195	222	214	219
10	167	137	151	137	116	123	---	---	e243	216	182	203
11	167	116	141	132	125	129	311	274	296	182	174	177
12	138	118	131	133	128	131	327	302	316	178	174	177
13	153	130	139	133	128	130	371	327	346	180	177	179
14	148	132	141	132	128	130	507	371	422	177	98	122
15	159	139	152	132	127	129	691	507	590	111	101	106
16	158	150	155	136	126	130	1080	691	873	130	110	120
17	161	150	156	137	127	131	1220	1080	1150	141	130	137
18	160	130	149	145	128	132	1160	1050	1110	139	82	107
19	156	130	146	154	134	139	1240	1160	1190	97	82	90
20	155	142	151	152	120	133	1180	1140	1160	97	90	93
21	154	144	149	143	122	129	1240	1140	1190	97	92	94
22	152	144	148	127	108	122	1150	1110	1140	106	95	100
23	151	138	147	128	108	123	1110	923	1040	107	98	103
24	153	133	146	134	122	125	923	695	802	112	102	108
25	153	140	149	150	124	131	709	623	676	113	106	109
26	152	145	147	159	119	129	676	343	492	110	104	109
27	152	144	148	119	104	109	343	272	306	115	109	112
28	171	138	157	118	110	113	272	202	247	116	112	115
29	---	---	---	119	114	116	202	157	172	118	114	116
30	---	---	---	122	115	119	162	154	158	120	115	118
31	---	---	---	122	102	119	---	---	---	120	95	113
MONTH	176	116	148	257	98	128	---	---	506	225	82	140
DAY	MAX	JUNE		MAX	JULY		MAX	AUGUST		MAX	SEPTEMBER	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	108	97	104	207	201	204	---	---	---	---	---	---
2	123	108	116	205	200	202	---	---	---	---	---	---
3	134	123	129	201	196	199	253	234	249	323	193	286
4	147	130	139	196	189	192	254	222	251	327	312	319
5	160	147	153	198	194	196	---	---	---	340	321	336
6	161	143	155	197	194	195	---	---	---	343	336	339
7	144	81	94	199	193	194	---	---	---	356	340	346
8	93	89	92	206	197	200	302	290	294	374	342	351
9	107	93	99	216	204	209	---	---	---	378	348	362
10	126	107	117	216	196	205	---	---	---	370	358	365
11	141	126	134	---	---	e194	---	---	---	359	338	346
12	143	127	138	---	---	---	---	---	---	340	336	325
13	130	106	111	---	---	---	---	---	---	---	---	---
14	118	106	111	---	---	---	---	---	---	---	---	---
15	123	117	120	---	---	---	---	---	---	---	---	---
16	140	119	130	---	---	---	---	---	---	---	---	---
17	161	138	150	---	---	---	---	---	---	365	311	350
18	161	148	157	---	---	---	---	---	---	347	341	344
19	154	140	149	---	---	---	---	---	---	347	338	342
20	140	125	129	---	---	---	---	---	---	344	335	341
21	132	123	127	---	---	---	---	---	---	341	336	339
22	137	131	133	---	---	---	---	---	---	340	222	332
23	142	134	136	---	---	---	---	---	---	305	190	268
24	174	142	161	247	160	227	---	---	---	301	289	296
25	204	174	187	---	---	---	---	---	---	301	296	298
26	209	199	205	---	---	---	---	---	---	299	252	288
27	202	198	199	---	---	---	---	---	---	277	233	261
28	221	197	208	---	---	---	---	---	---	276	268	272
29	221	204	216	---	---	---	---	---	---	268	264	266
30	206	202	204	---	---	---	---	---	---	269	263	265
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	221	81	143	---	---	---	---	---	---	---	---	---

e Estimated

PAWTUXET RIVER BASIN

0115183 QUONAPAUG BROOK AT RT 116, NORTH SCITUATE, RI--Continued

WATER TEMPERATURE (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.8	10.0	11.3	11.0	7.0	9.6	13.4	9.0	12.0	0.1	-0.1	0.0
2	13.0	8.9	11.2	13.6	10.1	12.5	9.2	4.9	7.9	.1	-.1	.0
3	14.7	10.9	13.1	13.8	9.8	12.7	5.8	3.7	4.9	.1	-.1	.0
4	16.5	13.9	15.2	10.5	8.2	9.3	6.4	3.5	5.3	.1	-.1	.0
5	16.8	14.4	15.6	8.3	6.8	7.8	9.1	6.4	8.0	.2	-.1	.0
6	16.1	12.2	14.9	8.0	5.6	6.9	10.4	7.8	9.3	.2	-.1	.0
7	12.2	9.1	10.7	8.2	5.2	6.9	9.6	4.8	8.2	-.1	-.1	-.1
8	9.1	7.2	8.3	7.0	5.2	6.3	5.1	2.1	4.3	.0	-.1	-.1
9	8.4	6.3	7.5	7.8	4.6	6.7	2.3	.8	1.7	.0	-.1	-.1
10	10.8	7.9	9.5	6.9	4.3	5.6	2.7	.4	1.6	.3	-.1	.1
11	13.1	9.9	11.7	5.8	2.9	4.7	4.7	2.0	3.3	1.0	.3	.6
12	14.2	11.6	12.9	3.6	1.7	2.7	4.5	1.7	3.6	1.9	.3	1.0
13	13.0	12.2	12.6	2.6	1.2	1.9	7.0	4.3	5.8	1.0	-.1	.1
14	13.2	12.3	12.8	6.0	1.9	4.5	7.7	6.2	7.2	1.0	-.1	.5
15	15.0	11.7	13.7	7.5	4.9	6.4	7.6	2.5	5.5	1.7	.8	1.2
16	12.9	10.2	11.7	9.7	7.1	8.4	3.4	2.0	2.5	1.8	.6	1.0
17	12.9	9.9	11.9	7.3	2.8	5.3	3.5	1.6	2.5	1.9	.0	1.0
18	10.9	7.0	9.3	5.2	2.2	4.1	4.3	2.8	3.6	1.2	-.2	.3
19	9.8	5.5	7.9	8.5	4.8	6.8	4.5	2.5	3.3	.1	-.2	-.1
20	11.8	7.8	9.8	8.9	3.7	7.3	4.3	2.3	3.3	.0	-.1	-.1
21	12.0	8.0	10.4	3.7	1.7	2.9	3.5	.9	2.4	.0	-.1	-.1
22	13.8	11.3	12.5	3.8	1.7	2.9	1.7	.0	.8	.2	-.1	.0
23	13.5	11.6	12.6	4.2	2.1	3.4	2.4	.0	.9	1.5	-.1	.6
24	16.7	13.5	15.2	6.8	3.9	5.6	4.6	2.0	3.6	2.8	1.3	2.3
25	17.8	13.2	15.9	10.0	6.8	8.7	2.6	1.4	1.9	3.1	.6	1.9
26	13.2	9.0	11.0	11.2	7.7	9.8	2.8	.1	1.7	3.6	.5	2.1
27	9.4	7.7	8.6	9.6	7.3	8.7	.5	-.1	.1	4.1	.8	2.3
28	8.4	5.2	7.4	10.2	7.9	9.2	.4	-.1	.1	4.7	.9	2.8
29	7.0	4.3	5.9	8.9	7.4	7.9	.6	-.1	.1	6.6	2.0	4.6
30	7.7	4.6	6.4	12.5	8.9	10.9	.2	-.1	.0	5.4	3.3	4.8
31	7.0	3.7	5.3	---	---	---	.2	-.1	.0	3.3	2.2	2.5
MONTH	17.8	3.7	11.1	13.8	1.2	6.9	13.4	-0.1	3.7	6.6	-0.2	0.9

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.1	1.2	2.5	4.1	-0.1	1.6	10.7	6.2	8.6	15.5	6.7	10.6
2	1.9	-.2	.6	4.3	-.1	2.7	11.5	5.7	8.6	9.3	7.6	8.5
3	.4	-.1	.1	7.2	4.2	6.2	11.4	6.6	9.4	13.9	8.2	10.4
4	1.9	-.2	.7	6.1	.6	4.0	11.2	4.6	7.7	16.4	7.0	11.4
5	.3	-.1	.0	3.5	.1	1.3	10.1	4.1	6.7	17.8	8.6	12.7
6	.4	-.2	.0	4.5	.4	2.7	8.8	3.4	5.9	19.2	9.3	13.9
7	.8	-.1	.4	7.4	1.7	4.7	9.4	2.4	5.7	17.8	11.6	14.6
8	2.8	-.2	1.2	7.5	3.7	5.6	9.1	4.8	6.9	18.4	12.1	14.8
9	2.5	-.2	.8	11.6	5.3	9.1	15.2	7.2	11.3	12.1	11.1	11.6
10	3.7	-.1	1.0	10.9	2.5	7.6	16.6	9.5	12.7	19.2	11.3	14.7
11	3.4	-.2	1.3	6.2	1.9	3.6	14.1	7.8	10.4	17.5	10.8	13.6
12	.6	-.1	.3	5.1	1.8	3.5	13.6	6.2	10.3	11.7	10.2	11.0
13	2.4	-.2	.6	4.7	2.0	3.9	16.5	10.5	13.3	10.2	8.8	9.8
14	.3	-.1	.0	10.6	4.1	6.9	18.6	12.4	15.1	12.0	8.7	10.2
15	1.8	-.1	.9	7.3	3.7	6.1	17.6	13.0	15.0	11.8	8.7	10.1
16	5.2	1.2	2.9	8.6	3.2	6.8	21.3	11.8	16.4	15.4	8.3	12.2
17	2.9	1.1	2.0	7.6	2.6	5.1	23.2	14.1	18.3	15.6	12.2	13.8
18	4.0	-.2	1.7	4.1	1.6	2.1	23.3	15.1	18.3	12.6	8.1	9.9
19	3.5	-.2	1.5	4.6	2.4	3.3	21.4	13.9	17.1	11.8	7.3	9.5
20	4.9	.5	3.4	3.6	1.2	2.1	18.9	12.2	15.5	11.3	7.6	9.4
21	7.0	3.4	5.5	7.3	1.2	4.3	17.2	10.6	13.0	11.2	6.5	9.1
22	5.7	2.0	3.9	4.6	.0	2.0	10.6	7.7	8.8	14.0	7.6	10.7
23	5.4	.5	2.8	5.3	-.1	2.5	9.0	6.2	7.9	15.5	8.8	12.1
24	5.1	.2	2.4	7.6	1.3	4.8	12.6	5.1	8.8	16.6	10.1	13.6
25	5.7	.5	3.4	7.2	3.5	5.0	12.3	5.8	8.5	15.7	10.8	13.1
26	8.8	3.2	6.4	5.0	3.4	4.1	10.8	5.7	8.0	13.2	10.2	11.9
27	7.4	1.2	4.4	7.2	4.2	5.7	14.5	4.8	9.4	15.9	11.5	13.8
28	4.1	-.1	1.6	9.6	3.7	6.3	8.5	7.5	8.0	15.5	13.3	14.3
29	---	---	---	9.8	3.4	6.8	8.6	6.7	7.6	16.3	13.6	14.8
30	---	---	---	10.1	6.5	8.4	12.4	6.3	9.0	18.1	13.8	15.8
31	---	---	---	11.1	7.0	9.0	---	---	---	18.6	15.0	16.5
MONTH	8.8	-0.2	1.9	11.6	-0.1	4.8	23.3	2.4	10.7	19.2	6.5	12.2

PAWTUXET RIVER BASIN

01115187 PONAGANSET RIVER NEAR SOUTH FOSTER, RI

LOCATION.--Lat 41°49'09", long 71°42'16", Providence County, Hydrologic Unit 01090004, on left bank 5 ft downstream from bridge on Rams Tail Road, 0.3 mi south of South Foster and 0.4 mi upstream from Barden Reservoir.

DRAINAGE AREA.--13.7 mi².

WATER DISCHARGE RECORD

PERIOD OF RECORD.--Discharge: March 1994 to current year.

Water-quality records: Water years, 2000-02.

GAGE.--Water-stage recorder. Elevation of gage is 355 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--8 years, 26.4 ft³/s, 26.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,110 ft³/s, June 17, 2001, gage height, 6.32 ft; maximum gage height, 6.37 ft, June 30, 1998; no flow part of each day, Sept. 8-13, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 239 ft³/s, May 14, gage height, 3.59 ft; minimum, 0.04 ft³/s, Aug. 19.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.7	3.7	e4.3	17	14	78	27	23	5.5	0.73	0.75
2	2.0	1.8	3.4	e4.0	23	14	60	24	18	5.0	.65	1.6
3	1.9	2.0	3.3	e3.8	e18	72	39	42	13	4.6	.78	3.4
4	1.7	2.2	3.0	e3.7	16	60	35	30	11	3.9	.82	2.6
5	1.4	2.5	2.9	3.7	14	31	28	22	10	3.2	.73	1.6
6	1.2	2.8	2.7	3.9	e12	23	24	19	39	2.5	.59	1.1
7	1.1	2.8	2.5	7.9	12	20	22	17	127	2.4	.46	.74
8	1.0	2.5	2.5	e8.7	11	18	20	16	75	2.3	.39	.59
9	1.0	2.5	3.2	7.3	11	17	19	14	39	2.2	.34	.46
10	1.1	2.5	3.4	7.0	10	23	19	15	26	2.5	.30	.40
11	1.0	2.5	3.5	8.1	24	25	18	13	20	2.4	.26	.38
12	1.0	2.4	3.8	10	e23	20	17	13	18	2.0	.25	.29
13	.95	2.3	4.6	15	18	18	17	42	21	1.7	.24	.26
14	1.1	2.3	5.0	17	e14	18	18	186	18	1.4	.19	.25
15	1.2	2.6	6.0	16	13	17	20	81	22	1.2	.15	.36
16	1.4	2.8	5.9	16	13	17	19	47	26	1.0	.12	2.2
17	1.7	2.6	5.2	13	13	16	17	34	21	.86	.09	3.4
18	1.6	2.5	12	12	16	16	16	89	17	.77	.08	2.0
19	1.5	2.5	13	e10	15	17	14	101	14	.75	.06	1.2
20	1.8	2.5	8.7	e9.8	13	20	14	53	12	1.5	.14	.88
21	1.9	2.5	6.6	e11	21	31	13	38	10	2.0	.21	.68
22	1.8	2.5	5.4	11	21	40	12	30	13	1.6	.22	.58
23	1.6	2.5	4.9	e12	18	27	15	25	23	1.4	.21	1.1
24	1.8	2.6	9.5	18	16	23	14	21	16	1.7	.19	1.1
25	1.9	3.1	12	22	14	21	13	19	11	1.6	.20	.83
26	1.8	4.2	8.9	18	13	21	28	18	9.2	1.3	.20	.81
27	1.8	4.4	7.1	16	14	65	22	17	8.2	1.2	.19	4.3
28	1.6	4.2	e6.0	14	15	53	24	16	7.5	1.2	.18	6.0
29	1.5	3.8	5.3	14	---	33	48	14	7.0	1.3	.42	4.2
30	1.5	3.7	e4.9	15	---	28	36	13	6.1	1.2	1.3	2.8
31	1.4	---	e4.6	16	---	26	---	13	---	.92	1.1	---
TOTAL	46.15	81.8	173.5	348.2	438	844	739	1109	681.0	63.10	11.79	46.86
MEAN	1.49	2.73	5.60	11.2	15.6	27.2	24.6	35.8	22.7	2.04	0.38	1.56
MAX	2.0	4.4	13	22	24	72	78	186	127	5.5	1.3	6.0
MIN	0.95	1.7	2.5	3.7	10	14	12	13	6.1	0.75	0.06	0.25
CFSM	0.11	0.20	0.41	0.82	1.14	1.99	1.80	2.61	1.66	0.15	0.03	0.11
IN.	0.13	0.22	0.47	0.95	1.19	2.29	2.01	3.01	1.85	0.17	0.03	0.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	1999	1999	1999	1995
MEAN	12.1	17.5	31.5	42.7	40.5	56.9	46.1	28.2	23.8	7.53	3.21	4.52
MAX	46.9	32.7	103	71.4	59.5	101	79.2	52.4	82.9	40.0	6.85	14.9
(WY)	1997	1997	1997	1999	1998	2001	1997	1998	1998	1998	2001	1999
MIN	1.03	2.73	5.60	11.2	15.6	27.2	21.8	15.4	2.91	0.85	0.070	0.52
(WY)	1998	2002	2002	2002	2002	2002	1999	2001	1999	1999	1999	1995

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1994 - 2002	
ANNUAL TOTAL	8573.72		4582.40			
ANNUAL MEAN	23.5		12.6		26.4	
HIGHEST ANNUAL MEAN					37.2	
LOWEST ANNUAL MEAN					12.6	
HIGHEST DAILY MEAN	625		186		625	
LOWEST DAILY MEAN	0.46		0.06		0.00	
ANNUAL SEVEN-DAY MINIMUM	0.73		0.12		0.00	
MAXIMUM PEAK FLOW			239		1110	
MAXIMUM PEAK STAGE			3.59		6.37	
INSTANTANEOUS LOW FLOW			0.04		0.00	
ANNUAL RUNOFF (CFSM)	1.71		0.92		1.93	
ANNUAL RUNOFF (INCHES)	23.28		12.44		26.19	
10 PERCENT EXCEEDS	54		26		60	
50 PERCENT EXCEEDS	8.7		6.1		15	
90 PERCENT EXCEEDS	1.4		0.73		0.94	

e Estimated

PAWTUXET RIVER BASIN

0115187 PONAGANSET RIVER NEAR SOUTH FOSTER, RI--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 2000 to May 2001, October 2001 to current year.

WATER TEMPERATURE: February 2000 to May 2001, October 2001 to current year.

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor since February 2000.

REMARKS.--Records fair.

EXTREMES FOR THE PERIOD OCTOBER 2001 TO SEPTEMBER 2002.--

SPECIFIC CONDUCTANCE: Maximum recorded, 196 $\mu\text{S}/\text{cm}$, Aug. 20; minimum, 50 $\mu\text{S}/\text{cm}$, May 18.

WATER TEMPERATURE: Maximum recorded, 26.8°C, July 23; minimum, -0.3°C, Dec. 27, 28, 29, 30.

WATER-QUALITY DATA, OCTOBER 2001 TO SEPTEMBER 2002

SPECIFIC CONDUCTANCE (μCM AT 25°C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	86	81	84	83	81	82	94	92	93	95	85	90	
2	84	81	82	86	82	85	92	90	91	97	85	92	
3	85	82	84	87	84	86	92	89	90	94	86	90	
4	88	85	86	86	83	84	92	90	91	97	88	93	
5	91	88	89	83	80	82	92	90	90	100	90	94	
6	92	88	90	82	81	81	91	90	91	96	87	93	
7	89	85	88	83	81	82	91	89	90	92	73	79	
8	86	84	85	84	82	83	93	89	91	82	76	80	
9	87	84	85	84	83	83	91	87	90	86	80	83	
10	88	86	87	84	82	83	90	86	89	88	79	82	
11	90	86	88	87	83	85	90	89	90	84	76	80	
12	90	88	89	88	85	86	92	90	91	83	76	81	
13	89	88	88	91	84	88	92	88	89	110	69	77	
14	90	88	89	91	88	89	88	86	87	83	71	79	
15	91	86	89	88	84	86	87	86	86	83	80	82	
16	89	85	87	86	84	85	92	87	90	84	79	82	
17	88	84	86	88	85	86	96	92	93	84	79	82	
18	84	81	83	88	86	87	93	79	85	83	73	79	
19	84	81	83	88	86	87	92	85	89	79	74	76	
20	85	80	83	88	86	87	94	92	94	78	72	75	
21	84	79	82	91	88	89	94	88	93	79	73	76	
22	86	83	85	91	88	89	92	83	88	80	72	76	
23	88	86	87	91	87	89	94	80	89	92	74	82	
24	89	86	88	89	86	87	91	75	83	85	79	83	
25	89	86	87	88	84	85	86	78	84	84	80	83	
26	86	83	85	86	85	86	89	86	88	86	79	84	
27	84	83	83	86	84	85	88	76	84	86	82	84	
28	84	82	83	88	84	86	90	76	84	85	82	84	
29	83	82	83	90	87	89	90	78	84	84	81	83	
30	84	82	83	93	90	91	87	77	83	83	77	79	
31	85	82	83	---	---	---	93	79	86	80	78	80	
MONTH	92	79	86	93	80	86	96	75	89	110	69	83	

PAWTUXET RIVER BASIN

0115187 PONAGANSET RIVER NEAR SOUTH FOSTER, RI--Continued

SPECIFIC CONDUCTANCE (µCM AT 25°C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	FEBRUARY		MAX	MARCH		MAX	APRIL		MAX	MAY	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	82	72	79	82	77	80	76	62	68	76	68	72
2	80	70	75	88	80	82	71	68	69	72	68	70
3	84	73	79	89	58	70	71	68	70	73	65	70
4	85	77	82	76	72	73	71	67	69	77	71	74
5	84	73	79	76	74	75	70	68	69	75	72	74
6	86	73	80	77	74	76	70	69	69	74	72	73
7	83	76	81	77	73	74	71	69	70	74	74	74
8	86	79	84	75	73	74	71	69	70	76	74	75
9	86	79	84	77	74	75	75	70	73	75	74	74
10	92	76	82	80	68	72	77	73	75	77	74	75
11	86	68	72	80	74	77	78	73	75	78	75	76
12	84	69	80	80	76	78	79	72	75	77	71	75
13	86	72	80	79	75	77	79	75	77	72	55	66
14	85	73	79	76	74	75	79	76	78	126	51	79
15	84	75	81	76	74	75	78	76	77	137	58	102
16	84	81	82	76	73	74	82	76	79	143	60	98
17	82	80	82	76	74	75	83	80	81	144	64	110
18	80	77	79	118	76	80	82	78	80	144	50	87
19	82	76	80	77	76	76	80	77	78	134	58	87
20	88	80	82	86	74	77	78	76	77	134	58	82
21	87	69	73	75	70	73	77	76	77	131	59	80
22	82	75	78	80	75	78	77	72	75	133	57	74
23	82	79	81	80	76	78	73	71	72	126	63	75
24	82	79	81	79	75	76	78	73	75	134	65	74
25	81	78	80	77	75	76	80	75	77	67	66	66
26	79	77	78	80	75	78	75	67	72	67	66	66
27	87	76	78	75	67	71	79	73	76	68	66	67
28	80	75	77	74	72	73	76	66	71	69	68	68
29	---	---	---	74	72	73	70	66	69	70	69	69
30	---	---	---	74	73	73	72	69	70	72	70	71
31	---	---	---	78	73	75	---	---	---	79	68	72
MONTH	92	68	80	118	58	75	83	62	74	144	50	77

DAY	MAX	JUNE		MAX	JULY		MAX	AUGUST		MAX	SEPTEMBER	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	72	63	67	---	---	---	93	86	90	89	85	86
2	---	---	---	---	---	---	96	86	93	100	82	89
3	---	---	---	---	---	---	98	88	94	84	80	82
4	---	---	---	---	---	---	92	86	90	96	84	90
5	---	---	---	---	---	---	88	81	86	101	96	98
6	---	---	---	---	---	---	94	87	91	103	101	102
7	---	---	---	---	---	---	95	92	94	106	103	105
8	---	---	---	---	---	---	99	95	97	111	106	108
9	---	---	---	82	75	78	101	99	100	116	111	114
10	---	---	---	82	76	78	102	100	101	121	115	119
11	---	---	---	82	77	77	104	101	102	122	119	120
12	---	---	---	83	77	79	107	104	106	122	119	121
13	---	---	---	84	78	80	107	105	106	124	120	122
14	---	---	---	84	80	82	113	107	109	125	122	123
15	---	---	---	84	82	83	124	112	118	126	122	125
16	---	---	---	85	84	85	147	124	131	124	86	104
17	---	---	---	87	84	86	160	140	149	86	78	81
18	---	---	---	90	86	87	178	155	160	93	81	86
19	---	---	---	95	86	89	189	165	175	100	93	96
20	---	---	---	93	78	84	196	175	186	103	100	102
21	---	---	---	80	74	76	190	131	164	107	102	106
22	---	---	---	82	75	78	133	122	130	110	107	108
23	---	---	---	89	71	81	134	122	128	110	100	104
24	---	---	---	89	84	86	131	126	127	103	100	101
25	---	---	---	85	81	83	132	120	130	104	101	102
26	---	---	---	84	81	82	123	112	121	102	97	101
27	---	---	---	86	84	86	115	108	113	100	82	88
28	---	---	---	87	86	86	111	107	109	91	82	87
29	---	---	---	87	83	85	109	90	103	96	90	93
30	---	---	---	89	80	85	93	85	90	104	96	100
31	---	---	---	91	85	88	92	86	89	---	---	---
MONTH	---	---	---	---	---	---	196	81	116	126	78	102

e Estimated

PAWTUXET RIVER BASIN

0115187 PONAGANSET RIVER NEAR SOUTH FOSTER, RI--Continued

TEMPERATURE, WATER (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	12.1	10.4	11.6	9.7	6.9	8.6	12.7	10.3	11.8	0.3	-0.2	0.1	
2	13.9	9.8	12.1	12.9	9.3	11.9	10.4	6.6	9.1	.6	-.2	.3	
3	15.5	11.8	14.0	13.8	10.2	12.6	7.1	5.1	6.3	.6	-.1	.2	
4	17.2	14.4	15.9	11.6	9.3	10.3	6.0	4.5	5.5	.6	-.1	.3	
5	17.6	15.1	16.7	9.5	7.0	8.5	7.6	5.9	7.0	1.2	.2	.6	
6	17.4	12.5	15.9	7.9	5.6	6.8	9.1	7.3	8.5	1.2	.1	.8	
7	12.8	9.8	11.7	8.4	5.6	7.0	9.0	6.0	8.1	.7	-.1	.3	
8	9.9	7.3	9.0	7.3	5.2	6.5	6.4	2.8	5.4	.2	-.2	.0	
9	9.7	6.5	8.5	7.8	5.2	6.7	3.8	1.4	2.8	.5	-.2	.2	
10	11.8	9.0	10.6	7.3	4.6	5.9	3.1	1.2	2.5	1.2	.1	.6	
11	13.6	10.3	12.4	5.8	2.6	4.5	3.5	2.1	2.7	.7	.3	.5	
12	15.6	13.3	14.5	4.4	1.2	3.0	3.7	2.2	3.0	1.1	.3	.8	
13	14.9	13.5	14.1	3.9	1.0	2.8	4.8	3.0	4.0	.8	.0	.3	
14	14.2	13.4	13.9	5.8	2.8	4.6	6.6	4.8	5.8	.8	.0	.5	
15	15.6	12.3	14.3	6.5	3.8	5.4	6.7	3.7	5.7	1.5	.6	1.1	
16	14.6	11.2	13.4	8.3	6.0	7.3	3.7	2.3	2.8	1.5	.7	1.0	
17	14.4	11.0	13.2	6.6	4.1	5.7	2.3	1.8	2.1	1.4	.5	.9	
18	11.5	7.9	10.2	6.2	3.7	5.2	3.8	2.2	3.0	.9	-.2	.4	
19	10.6	6.9	9.1	8.0	5.1	6.7	3.6	2.3	2.9	.2	-.2	-.1	
20	11.9	8.5	10.3	8.2	4.5	6.8	3.0	2.1	2.6	.3	-.2	.0	
21	12.1	8.6	10.8	5.1	2.9	4.2	2.3	.9	1.9	.0	-.2	-.1	
22	13.6	11.5	12.7	4.8	2.7	3.7	1.4	.2	.8	.6	-.2	.1	
23	13.9	12.4	13.3	4.7	2.5	3.8	1.5	-.1	.9	.8	-.2	.5	
24	16.0	13.9	15.1	5.3	3.9	4.9	3.1	1.1	2.2	2.3	.8	1.7	
25	17.9	13.4	16.0	8.6	5.3	7.1	2.2	1.3	1.8	2.5	.7	1.8	
26	13.4	9.7	12.0	10.4	8.5	9.5	2.2	1.0	1.7	2.6	.6	1.8	
27	10.6	8.8	9.7	9.6	8.6	9.1	1.1	-.3	.6	2.8	1.0	2.0	
28	9.2	5.6	7.9	9.8	8.8	9.3	1.0	-.3	.4	3.1	1.1	2.3	
29	8.2	5.1	7.0	8.9	8.5	8.6	1.0	-.3	.4	4.7	2.0	3.8	
30	8.6	4.7	6.8	11.1	8.6	9.8	.6	-.3	.2	4.9	3.7	4.5	
31	6.9	4.2	6.1	---	---	---	.5	-.2	.1	3.7	2.1	2.7	
MONTH	17.9	4.2	11.9	13.8	1.0	6.9	12.7	-0.3	3.6	4.9	-0.2	1.0	
DAY	MAX	FEBRUARY			MARCH			APRIL			MAY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	2.7	1.3	2.2	3.6	1.0	2.4	10.8	6.9	9.1	15.1	8.5	11.7	
2	1.7	-.1	.8	4.2	1.4	3.0	11.5	6.5	9.1	11.1	9.6	10.2	
3	1.2	-.2	.5	7.1	4.2	6.2	12.1	8.1	10.2	13.8	9.7	11.4	
4	1.8	-.1	1.1	6.6	2.0	4.8	11.6	6.5	8.9	16.4	9.0	12.6	
5	1.4	-.2	.5	4.2	1.3	2.6	9.4	6.0	7.6	17.8	10.9	14.4	
6	1.6	-.2	.7	4.3	1.3	3.1	9.3	5.4	7.3	18.9	12.0	15.6	
7	1.2	-.2	.8	7.0	2.6	5.1	9.5	4.2	6.9	19.0	14.3	16.8	
8	2.2	.6	1.6	7.6	4.5	6.2	9.4	6.1	7.8	19.7	15.5	17.5	
9	2.3	.6	1.6	11.0	6.2	9.3	14.8	8.2	11.7	16.2	13.4	14.2	
10	2.3	.1	.9	11.3	4.4	9.0	16.6	11.8	14.0	19.7	13.2	16.5	
11	3.5	-.2	2.0	6.9	3.4	5.1	14.7	10.2	12.4	18.2	13.2	15.8	
12	1.1	-.2	.6	5.7	3.2	4.5	14.2	9.0	12.0	15.2	12.2	13.4	
13	2.1	-.2	.9	5.2	3.1	4.3	17.4	12.4	15.0	12.2	10.0	11.3	
14	1.6	-.1	.6	10.1	4.8	7.5	19.0	14.6	16.8	12.6	9.6	11.0	
15	2.2	.1	1.4	8.0	5.4	6.8	18.5	15.7	16.9	12.5	9.6	11.0	
16	4.4	2.2	3.4	8.9	5.1	7.8	21.4	14.5	18.2	16.3	9.8	13.4	
17	3.0	2.1	2.6	7.7	4.3	6.2	23.0	17.1	20.2	18.6	14.2	16.1	
18	3.8	1.4	2.5	5.6	2.8	3.5	23.2	18.4	20.9	15.6	9.7	12.3	
19	3.4	.8	2.3	4.9	2.9	4.1	21.8	17.7	19.9	13.7	8.7	11.2	
20	5.1	2.0	3.6	3.8	1.8	2.8	19.3	16.0	18.1	13.4	9.8	11.6	
21	7.8	5.1	6.4	7.9	1.8	4.9	16.4	13.8	15.3	13.4	9.2	11.5	
22	5.6	3.3	4.8	4.9	1.2	2.9	13.9	9.7	11.2	16.6	10.2	13.3	
23	5.4	2.2	3.8	5.5	1.0	3.4	9.8	8.3	9.3	18.1	11.6	14.7	
24	5.0	1.7	3.4	7.6	2.2	5.4	12.0	7.1	9.7	19.9	13.2	16.6	
25	5.3	2.2	4.0	7.5	4.6	6.1	11.0	8.0	9.6	19.7	14.8	17.1	
26	8.4	4.4	6.9	5.3	4.8	4.9	11.1	7.1	9.2	16.5	13.9	15.2	
27	7.9	2.4	5.9	7.2	4.9	5.9	14.0	6.8	10.5	19.0	14.4	16.7	
28	3.9	1.4	2.7	9.8	4.5	7.0	10.8	8.9	9.5	19.5	16.4	17.8	
29	---	---	---	10.3	4.9	7.8	9.3	7.9	8.7	20.6	17.0	18.6	
30	---	---	---	11.3	7.5	9.5	12.4	7.4	9.9	22.7	17.2	20.0	
31	---	---	---	11.7	8.2	10.1	---	---	---	22.6	18.7	20.4	
MONTH	8.4	-0.2	2.4	11.7	1.0	5.6	23.2	4.2	12.2	22.7	8.5	14.5	

PAWTUXET RIVER BASIN

01115187 PONAGANSET RIVER NEAR SOUTH FOSTER, RI--Continued

WATER TEMPERATURE (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.9	18.0	20.3	---	---	---	25.8	23.2	24.4	17.4	15.1	16.4
2	---	---	e19.4	---	---	---	25.3	22.9	23.9	18.1	16.6	17.5
3	---	---	---	---	---	---	25.6	22.6	24.0	19.6	17.7	18.7
4	---	---	---	---	---	---	25.6	22.8	24.2	21.5	18.8	20.1
5	---	---	---	---	---	---	26.2	24.5	25.2	20.5	17.6	19.5
6	---	---	---	---	---	---	24.5	19.2	22.4	19.4	16.0	17.9
7	---	---	---	---	---	---	20.4	18.1	19.3	19.2	15.7	17.6
8	---	---	---	---	---	---	19.2	16.8	18.2	19.8	16.7	18.2
9	---	---	---	24.9	22.1	23.6	18.9	16.2	17.8	20.1	17.7	18.8
10	---	---	---	24.3	20.9	23.1	19.0	16.9	18.1	20.6	19.0	19.8
11	---	---	---	22.2	19.0	20.9	20.5	18.6	19.6	21.4	16.2	19.5
12	---	---	---	22.4	18.0	20.6	22.1	19.7	21.0	16.8	13.2	15.5
13	---	---	---	23.0	19.0	21.5	22.3	20.6	21.6	14.8	12.0	13.6
14	---	---	---	23.6	20.5	22.2	23.4	21.7	22.6	16.0	14.8	15.5
15	---	---	---	24.3	21.0	22.9	23.6	21.5	22.8	18.3	16.0	16.8
16	---	---	---	23.5	19.6	21.9	24.2	23.2	23.7	21.9	17.5	20.6
17	---	---	---	22.2	18.6	20.5	24.9	23.0	24.0	21.6	19.4	20.7
18	---	---	---	24.0	21.4	22.6	24.5	22.7	23.7	20.1	17.8	19.1
19	---	---	---	24.3	22.6	23.5	24.5	22.5	23.6	19.7	16.8	18.4
20	---	---	---	22.6	20.6	22.1	22.5	19.1	20.9	19.5	16.4	18.4
21	---	---	---	23.2	20.0	22.0	20.6	18.0	19.4	20.4	17.9	19.4
22	---	---	---	25.0	22.1	23.8	19.6	17.1	18.7	21.2	19.1	20.4
23	---	---	---	26.8	23.7	24.9	20.0	16.6	19.3	22.5	20.7	21.6
24	---	---	---	24.4	20.1	23.0	17.6	15.7	16.9	20.7	17.7	19.7
25	---	---	---	22.8	19.0	21.0	18.6	16.7	17.8	19.1	16.6	17.9
26	---	---	---	21.8	18.5	20.4	18.8	16.2	17.8	17.6	16.8	17.1
27	---	---	---	20.9	19.7	20.4	18.9	16.9	18.1	17.2	16.5	16.8
28	---	---	---	21.3	19.7	20.7	18.6	17.1	17.9	19.4	17.2	18.1
29	---	---	---	25.0	21.0	23.3	17.6	17.2	17.4	17.4	14.9	16.3
30	---	---	---	26.0	22.9	24.6	18.6	17.1	17.8	15.9	13.9	15.1
31	---	---	---	25.6	22.6	24.2	18.8	15.8	17.5	---	---	---
MONTH	---	---	---	---	---	---	26.2	15.7	20.6	22.5	12.0	18.2

e Estimated

PAWTUXET RIVER BASIN

01115190 DOLLY COLE BROOK AT OLD DANIELSON PARK AT SOUTH FOSTER, RI

LOCATION.--Lat 41°49'20", long 71°42'03", Providence County, Hydrologic Unit 01090004, on right bank 1,000 ft downstream from bridge on State Route 6, and at South Foster.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 2000 to May 2001, October 2001 to current year.

WATER TEMPERATURE: February 2000 to May 2001, October 2001 to current year.

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor since February 2000.

REMARKS.--Records fair.

EXTREMES FOR THE PERIOD OCTOBER 2001 TO SEPTEMBER 2002.--

SPECIFIC CONDUCTANCE: Maximum recorded, 212 $\mu\text{S}/\text{cm}$, Mar. 8; minimum, 78 $\mu\text{S}/\text{cm}$, Dec. 27, 28.

WATER TEMPERATURE: Maximum recorded, 27.4°C, July 4; minimum, -0.3°C, Jan. 3, 4, 21.

WATER-QUALITY DATA, OCTOBER 2001 TO SEPTEMBER 2002

SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$ AT 25°C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	104	99	101	102	100	101	109	92	102	102	89	96
2	104	100	102	104	101	103	104	95	98	106	93	101
3	103	100	101	104	97	102	110	104	107	109	95	101
4	103	101	102	100	97	99	112	106	109	108	95	103
5	105	95	101	104	99	101	109	105	107	114	104	109
6	97	87	94	103	99	100	110	105	107	142	103	113
7	90	85	88	101	99	100	113	110	110	109	96	104
8	96	89	94	101	94	98	115	92	103	104	93	97
9	111	94	103	94	91	93	101	97	98	104	93	101
10	111	103	107	108	89	96	107	98	104	109	101	106
11	107	102	104	115	105	110	116	107	111	108	100	104
12	106	102	104	112	105	110	118	116	117	106	99	102
13	106	102	104	116	103	111	118	111	114	176	93	101
14	106	102	104	114	106	108	111	106	110	120	93	98
15	108	101	104	107	96	103	117	106	111	105	98	102
16	106	101	103	98	95	96	118	115	117	102	95	98
17	108	98	105	100	98	99	120	111	117	104	94	99
18	99	94	96	100	96	98	118	108	114	103	91	97
19	97	94	96	100	97	100	121	118	119	99	90	94
20	97	93	95	102	96	99	118	99	108	101	91	95
21	96	92	94	106	102	104	108	101	106	109	90	95
22	98	94	96	106	102	104	111	96	103	103	91	96
23	102	97	99	104	100	103	111	95	106	109	90	101
24	105	101	103	103	98	100	135	103	109	111	103	105
25	106	105	105	100	96	98	103	84	94	107	98	102
26	106	97	102	101	95	99	85	79	83	110	98	104
27	99	96	97	102	99	100	85	78	82	107	99	103
28	99	96	98	102	98	101	91	78	87	105	98	102
29	98	95	97	98	96	97	94	84	88	102	98	100
30	98	95	96	107	98	103	96	83	91	102	96	98
31	103	98	100	---	---	---	101	88	94	100	94	96
MONTH	111	85	100	116	89	101	135	78	104	176	89	101

PAWTUXET RIVER BASIN

0115190 DOLLY COLE BROOK AT OLD DANIELSON PARK AT SOUTH FOSTER, RI--Continued

WATER TEMPERATURE (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	12.4	10.4	11.9	10.7	7.2	9.4	13.2	9.2	11.7	0.3	-0.2	0.0	
2	13.3	9.6	11.9	13.3	9.4	12.0	9.2	5.7	8.1	.8	-.2	.3	
3	14.8	11.1	13.4	13.2	9.4	12.0	6.8	4.4	5.6	1.0	-.3	.3	
4	16.1	13.5	15.1	11.2	8.2	9.6	6.5	3.9	5.5	.7	-.3	.3	
5	16.9	14.0	15.7	8.6	6.8	7.9	8.9	6.1	7.5	1.7	.3	.9	
6	16.6	11.5	15.0	8.6	5.5	7.1	10.0	7.2	8.8	2.0	.3	1.3	
7	11.6	9.0	10.6	8.8	5.4	7.2	9.5	4.8	7.8	1.2	.1	.9	
8	9.9	6.9	8.7	7.4	4.9	6.5	6.1	3.5	5.0	.9	-.1	.4	
9	9.5	6.1	8.1	8.2	4.7	6.6	3.9	1.6	3.1	1.2	.1	.8	
10	11.6	8.3	10.2	6.9	4.4	5.7	3.2	1.1	2.5	2.2	.8	1.5	
11	13.3	9.5	11.8	6.4	2.3	4.7	4.5	2.3	3.3	1.5	.6	1.1	
12	15.1	12.3	13.7	4.2	0.9	2.7	4.2	2.1	3.5	1.7	.6	1.1	
13	13.6	12.3	13.0	3.6	0.6	2.4	5.6	3.8	4.9	.9	.0	.5	
14	13.8	12.8	13.4	6.4	2.4	4.9	6.6	5.2	6.1	1.0	.0	.5	
15	15.8	11.5	14.0	7.1	4.2	6.0	6.6	3.0	5.1	1.2	.6	.9	
16	13.6	10.2	12.5	9.2	6.3	7.7	3.8	2.2	2.8	1.5	.4	.9	
17	13.6	10.3	12.4	6.6	3.1	5.3	3.1	1.9	2.6	1.4	.2	.9	
18	11.6	7.5	9.9	5.9	2.6	4.7	3.8	2.5	3.2	1.1	-.1	.5	
19	10.3	6.5	8.7	8.4	4.8	6.9	3.7	2.1	2.9	.5	-.2	.1	
20	12.0	8.2	10.1	8.6	4.0	6.8	3.5	2.1	2.8	.8	-.2	.2	
21	12.1	8.0	10.6	4.9	2.2	3.7	2.7	1.1	2.1	.3	-.3	.0	
22	13.8	11.3	12.4	4.8	2.0	3.4	1.9	.3	1.1	1.1	-.1	.4	
23	13.5	11.5	12.6	4.8	2.2	3.7	2.3	.2	1.4	1.3	-.1	.8	
24	16.0	13.5	14.9	6.3	4.0	5.4	3.4	1.7	2.8	1.5	.8	1.2	
25	17.8	12.7	15.6	9.3	6.3	8.2	2.6	1.3	1.8	2.1	.6	1.3	
26	12.7	8.7	11.1	10.8	8.0	9.4	2.9	.8	1.9	2.5	.6	1.5	
27	10.1	7.7	9.0	9.2	7.7	8.6	1.4	.1	.8	2.9	.7	1.8	
28	9.5	5.0	7.7	10.1	8.1	9.1	1.5	.0	.9	3.2	.9	2.2	
29	7.8	4.5	6.6	8.6	7.8	8.1	1.7	.2	.9	4.5	1.6	3.4	
30	8.5	4.3	6.7	11.9	8.6	10.4	1.1	.0	.6	4.0	2.9	3.6	
31	7.2	3.8	5.7	---	---	---	.9	-.2	.2	2.9	2.0	2.3	
MONTH	17.8	3.8	11.4	13.3	0.6	6.9	13.2	-0.2	3.8	4.5	-0.3	1.0	
DAY	MAX	FEBRUARY			MARCH			APRIL			MAY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	2.4	0.9	2.0	4.7	1.7	3.4	11.1	7.8	9.6	14.3	8.6	11.6	
2	1.8	.0	.9	4.5	2.1	3.7	12.5	7.5	9.9	11.6	10.3	10.6	
3	1.7	-.1	.9	7.4	4.5	6.2	12.2	8.6	10.5	13.7	9.9	11.8	
4	2.5	.3	1.5	7.1	2.6	5.2	11.7	7.6	9.7	16.0	9.6	13.0	
5	1.7	.2	1.1	5.2	2.3	3.5	9.9	7.1	8.6	16.6	11.5	14.4	
6	2.2	.3	1.5	4.7	2.2	3.7	10.0	6.7	8.3	17.8	12.8	15.7	
7	2.1	.9	1.7	7.3	2.8	5.4	9.5	5.6	7.8	18.5	15.0	16.9	
8	2.9	.9	2.1	7.4	4.3	6.2	9.4	7.3	8.5	19.2	16.1	17.5	
9	3.0	.9	2.0	10.6	6.1	9.0	13.8	8.9	11.9	16.5	14.2	15.2	
10	3.4	.6	2.0	10.9	4.8	8.9	15.6	12.2	14.0	18.9	14.0	16.6	
11	3.2	.1	1.9	7.4	4.3	5.8	14.4	11.5	13.0	18.3	14.6	16.5	
12	1.8	.0	1.1	6.5	4.1	5.4	14.1	10.6	12.8	15.8	13.2	14.6	
13	2.4	.2	1.4	5.6	3.8	5.0	16.6	13.3	15.2	13.2	11.2	12.1	
14	2.2	.0	1.4	10.0	5.0	7.6	19.0	15.2	17.2	13.3	10.6	11.7	
15	3.1	.9	2.4	7.9	5.4	7.0	18.4	16.3	17.3	13.2	10.1	11.6	
16	4.5	2.4	3.4	8.9	5.1	7.7	20.3	15.3	18.3	16.6	10.2	13.7	
17	3.0	1.9	2.6	7.8	4.6	6.5	21.9	17.7	20.1	18.0	14.0	16.0	
18	3.7	1.5	2.7	6.0	3.3	3.9	23.3	18.8	20.7	16.0	10.4	12.8	
19	4.1	1.1	2.8	5.0	3.3	4.3	22.2	18.2	20.0	15.0	9.6	12.2	
20	5.2	2.2	4.0	4.0	2.2	3.1	20.4	16.1	18.5	13.9	10.0	12.0	
21	6.9	4.1	5.8	7.4	2.1	4.9	18.2	14.6	16.0	14.0	9.8	12.0	
22	5.3	3.1	4.3	5.3	2.0	3.6	14.6	10.8	12.5	16.8	10.6	13.8	
23	5.2	2.5	3.8	5.7	1.8	4.0	10.8	8.5	10.1	17.7	12.0	15.1	
24	5.3	2.2	3.6	7.6	2.9	5.7	12.2	7.9	10.2	19.4	13.6	16.9	
25	5.2	2.4	4.4	7.6	4.9	6.3	12.4	8.6	10.3	19.2	15.8	17.6	
26	8.1	4.5	7.0	5.6	5.2	5.4	11.0	8.4	9.7	16.8	15.5	16.2	
27	7.7	2.7	5.5	7.0	5.1	6.0	14.0	7.9	11.3	18.9	15.3	17.3	
28	4.4	2.1	3.3	9.7	4.8	7.2	11.7	9.4	10.4	19.1	17.2	18.1	
29	---	---	---	10.3	5.6	8.2	9.7	8.3	9.1	19.9	17.7	18.8	
30	---	---	---	10.6	7.8	9.5	12.0	8.0	10.0	21.4	17.9	19.8	
31	---	---	---	11.4	8.7	10.3	---	---	---	22.1	19.7	20.7	
MONTH	8.1	-0.1	2.8	11.4	1.7	5.9	23.3	5.6	12.7	22.1	8.6	14.9	

PAWTUXET RIVER BASIN

01115265 HEMLOCK BROOK AT KING ROAD NEAR CLAYVILLE, RI

LOCATION.--Lat 41°47'26", long 71°41'57", Providence County, Hydrologic Unit 01090004, on left bank 5 ft downstream from bridge on King Rd., and 1.2 mi northeast of Foster Center.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 2000 to May 2001, October 2001 to current year.

WATER TEMPERATURE: February 2000 to May 2001, October 2001 to current year.

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor since February 2000.

REMARKS.--Records fair.

EXTREMES FOR THE PERIOD OCTOBER 2001 TO SEPTEMBER 2002.--

SPECIFIC CONDUCTANCE: Maximum recorded, 168 $\mu\text{S}/\text{cm}$, Sept. 2; minimum, 48 $\mu\text{S}/\text{cm}$, Feb. 1.

WATER TEMPERATURE: Maximum recorded, 28.2°C, July 4; minimum, -0.2°C many days in winter.

WATER-QUALITY DATA, OCTOBER 2001 TO SEPTEMBER 2002

SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$ AT 25°C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	118	111	114	119	114	116	123	117	121	100	93	97
2	113	110	111	123	117	121	117	113	115	104	98	101
3	112	109	111	128	118	123	114	112	113	107	101	103
4	115	112	114	127	117	119	114	112	112	110	103	106
5	118	115	117	119	116	117	118	113	116	112	106	108
6	119	115	118	119	116	116	119	115	117	115	100	109
7	116	110	114	122	117	118	115	113	114	104	97	101
8	111	108	109	120	119	119	114	111	113	100	89	94
9	114	108	111	122	119	120	115	109	112	94	88	91
10	118	112	115	126	121	122	116	114	115	96	86	90
11	119	114	117	132	125	127	116	114	115	88	82	85
12	120	116	118	135	128	130	115	112	113	90	81	85
13	117	115	116	131	127	128	112	111	111	81	72	74
14	118	115	116	128	121	123	112	110	111	77	72	74
15	120	116	118	122	116	118	116	112	113	76	72	74
16	123	115	118	122	114	115	116	115	116	78	72	74
17	124	112	116	119	114	116	116	108	113	78	71	74
18	116	110	112	119	115	116	111	100	104	77	72	74
19	120	109	112	115	113	113	112	103	107	76	72	75
20	118	108	111	114	112	112	103	100	102	79	72	77
21	117	106	111	115	112	114	102	96	100	80	71	77
22	122	111	115	116	113	115	101	92	96	84	80	82
23	126	115	117	120	116	118	104	90	99	87	80	83
24	127	118	120	120	118	118	104	94	97	84	78	81
25	122	120	121	119	117	118	104	90	96	81	71	76
26	120	115	119	119	116	117	93	82	89	78	70	74
27	116	112	115	116	114	115	88	80	84	80	72	76
28	112	110	111	117	114	116	89	81	86	87	76	83
29	112	110	112	120	117	119	94	84	89	88	84	86
30	114	112	113	123	120	122	92	86	89	91	84	85
31	115	113	114	---	---	---	95	90	93	87	85	87
MONTH	127	106	115	135	112	119	123	80	106	115	70	86

PAWTUXET RIVER BASIN

01115265 HEMLOCK BROOK AT KING ROAD NEAR CLAYVILLE, RI--Continued

WATER TEMPERATURE (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	12.8	11.1	12.2	10.9	7.2	9.7	12.8	9.4	11.5	0.1	-0.2	-0.1	
2	14.2	10.5	12.4	13.4	9.9	12.3	9.4	6.5	8.5	.2	-.2	-.1	
3	15.9	11.9	14.0	13.5	9.9	12.3	7.0	5.5	6.3	.2	-.2	-.1	
4	17.6	14.3	15.8	11.2	8.8	10	6.9	5.0	6.2	.2	-.2	-.1	
5	18.2	15.0	16.5	8.8	6.9	8.1	8.6	6.7	7.7	.4	-.1	.1	
6	16.6	12.9	15.5	8.3	5.9	7.1	9.3	7.4	8.5	.5	-.1	.2	
7	13.2	10.1	12.0	8.5	5.9	7.2	9.0	5.8	7.9	.3	-.2	.1	
8	10.8	8.0	9.6	7.5	5.5	6.8	5.8	3.1	5.0	.1	-.2	-.1	
9	10.8	7.3	9.0	8.0	5.3	6.9	3.6	2.2	3.1	.4	-.2	.1	
10	12.9	9.0	10.8	6.8	5.1	5.9	3.3	1.8	2.8	1.1	.0	.5	
11	15.2	10.4	12.8	6.1	3.1	5.0	4.4	2.5	3.6	.6	.0	.3	
12	16.2	12.4	14.2	4.7	2.1	3.4	4.0	2.2	3.4	.9	.0	.3	
13	14.1	12.7	13.5	4.0	1.8	3.0	5.3	3.6	4.6	.2	-.2	.0	
14	14.0	13.1	13.6	6.0	3.3	5.0	5.8	4.8	5.5	.3	-.2	.0	
15	15.9	12.3	14.4	7.2	5.0	6.4	5.9	3.3	5.0	.5	.1	.2	
16	14.3	11.1	13.0	9.4	6.7	7.9	3.7	2.6	3.1	.6	.0	.2	
17	13.5	10.8	12.6	6.8	3.8	5.7	2.8	2.2	2.5	.6	-.2	.1	
18	11.8	8.1	10.4	5.9	3.4	5.0	3.5	2.4	2.9	.4	-.2	.0	
19	11.0	7.2	9.4	8.4	5.2	7.1	3.1	2.1	2.5	.0	-.2	-.2	
20	12.6	8.7	10.6	8.6	4.7	7.1	3.1	1.7	2.4	.0	-.2	-.1	
21	13.0	8.7	11.2	5.2	2.8	4.2	2.3	.8	1.7	-.1	-.2	-.1	
22	14.0	11.4	12.8	4.8	2.7	3.7	1.3	.1	.7	.2	-.2	.0	
23	13.7	11.9	12.9	4.7	2.9	4.1	1.6	-.1	.8	.4	-.1	.2	
24	16.8	13.7	15.3	6.2	4.4	5.4	2.6	.9	1.9	.6	.2	.4	
25	18.0	13.2	16.0	8.9	6.2	7.9	1.6	.8	1.0	1.0	.1	.4	
26	13.2	9.8	12.0	10.1	7.7	9.0	1.6	.1	.9	1.3	.0	.6	
27	10.6	8.7	9.7	8.7	7.5	8.4	.7	-.2	.2	1.8	.3	.9	
28	9.5	6.0	8.2	9.8	8.2	9.0	.4	-.2	.1	2.1	.6	1.3	
29	8.6	5.6	7.3	8.8	7.8	8.2	.7	-.2	.2	3.6	1.0	2.5	
30	8.7	5.1	7.1	11.5	8.8	10.4	.3	-.2	.0	3.7	2.6	3.3	
31	7.2	4.6	6.2	---	---	---	.2	-.2	-.1	2.7	1.8	2.3	
MONTH	18.2	4.6	12.0	13.5	1.8	7.1	12.8	-0.2	3.6	3.7	-0.2	0.4	
DAY	MAX	FEBRUARY			MARCH			APRIL			MAY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	2.1	0.9	1.8	4.2	1.0	2.6	10.5	7.2	9.3	13.4	8.7	11.2	
2	1.5	-.2	.6	3.8	1.0	2.9	10.6	6.8	9.1	11.5	9.8	10.4	
3	.8	-.2	.2	6.4	3.5	5.5	11.3	8.8	10.1	13.3	9.6	11.4	
4	1.4	-.1	.5	5.7	2.1	4.4	10.9	7.4	9.2	14.6	9.5	12.4	
5	.9	-.2	.2	3.1	1.3	2.1	9.4	6.8	7.9	16.4	12.0	14.3	
6	1.2	-.2	.4	3.0	1.2	2.3	9.1	5.8	7.4	18.2	13.4	15.8	
7	1.2	.0	.6	5.5	2.2	4.3	8.8	5.1	6.9	18.7	15.2	17.0	
8	2.1	.0	1.1	6.7	4.5	5.7	8.8	6.4	7.6	19.6	16.3	17.7	
9	2.3	.0	1.1	10.1	5.9	8.6	13.5	7.7	11.1	16.5	14.1	15.2	
10	2.6	-.2	1.2	11.0	5.8	9.1	16.3	12.1	13.9	18.8	13.7	16.3	
11	2.3	-.2	1.2	6.3	4.1	5.2	15.1	11.2	13.0	18.5	14.4	16.3	
12	.8	-.2	.3	4.9	3.3	4.2	14.6	10.2	12.6	15.4	12.9	14.4	
13	1.4	-.2	.4	4.4	3.2	4.0	16.7	12.4	14.7	12.9	9.9	11.6	
14	1.1	-.2	.4	8.4	4.1	6.6	19.0	14.7	16.8	12.2	9.6	10.8	
15	1.8	.0	1.1	7.3	5.7	6.8	18.5	16.1	17.2	11.7	9.6	10.7	
16	3.6	1.2	2.3	8.3	5.3	7.3	20.9	15.3	18.3	14.7	9.8	12.7	
17	2.8	1.3	2.1	7.7	5.0	6.3	23.0	17.7	20.5	16.8	14.1	15.5	
18	3.2	.7	1.9	5.4	3.1	4.0	24.1	19.2	21.3	15.7	9.8	12.4	
19	3.5	.6	2.0	3.9	3.0	3.4	22.9	18.4	20.5	12.5	8.7	10.7	
20	4.0	1.2	3.1	3.8	1.7	2.7	20.7	16.6	18.8	11.9	9.4	10.8	
21	6.1	3.9	5.1	5.8	1.5	4.1	18.4	14.6	16.3	11.9	9.0	10.7	
22	4.7	3.0	4.0	4.2	1.3	3.0	14.6	10.7	12.3	14.3	10.0	12.5	
23	4.6	2.1	3.3	4.2	.9	2.8	10.7	8.3	9.9	16.4	12.2	14.4	
24	4.6	1.9	3.1	6.0	2.3	4.7	11.8	7.3	9.6	18.2	13.8	16.3	
25	5.0	1.9	3.7	6.6	4.8	5.7	11.6	8.1	9.7	18.8	15.7	17.1	
26	7.3	3.4	6.0	5.3	4.5	4.9	10.5	7.5	9.0	16.8	15.1	15.9	
27	7.1	3.5	5.6	6.8	4.9	5.8	12.1	7.2	9.9	18.1	14.9	16.6	
28	4.5	1.3	3.1	8.5	4.5	6.8	10.4	8.5	9.6	18.4	16.6	17.5	
29	---	---	---	8.6	5.3	7.4	8.7	7.7	8.3	20.0	17.2	18.5	
30	---	---	---	10.0	7.8	9.0	10.8	7.2	9.3	21.8	17.9	19.8	
31	---	---	---	10.9	8.8	9.9	---	---	---	22.2	19.3	20.5	
MONTH	7.3	-0.2	2.0	11.0	0.9	5.2	24.1	5.1	12.3	22.2	8.7	14.4	

PAWTUXET RIVER BASIN

01115275 BEAR TREE BROOK NEAR CLAYVILLE, RI

LOCATION.--Lat 41°46'57", long 71°40'31", Providence County, Hydrologic Unit 01090004, on left bank 5 ft downstream from bridge on King Road, and 1.2 mi northeast of Foster Center.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 2000 to May 2001, October 2001 to current year.

WATER TEMPERATURE: January 2000 to May 2001, October 2001 to current year.

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor since January 2000.

REMARKS.--Records fair.

EXTREMES FOR THE PERIOD OCTOBER 2001 TO SEPTEMBER 2002.--

SPECIFIC CONDUCTANCE: Maximum recorded, 449 $\mu\text{S}/\text{cm}$, Aug. 20; minimum, 85 $\mu\text{S}/\text{cm}$, Mar. 3.

WATER TEMPERATURE: Maximum recorded, 20.4°C, July 4; minimum, -0.1°C, Jan. 1, 4, Feb. 14.

WATER-QUALITY DATA, OCTOBER 2001 TO SEPTEMBER 2002

SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$ AT 25°C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	275	236	250	285	278	283	275	269	272	269	233	252			
2	270	236	249	291	284	288	273	268	270	275	242	263			
3	296	270	287	288	262	278	276	271	274	274	249	264			
4	302	296	299	275	262	271	278	271	274	274	234	261			
5	308	302	305	274	264	268	278	272	274	272	266	269			
6	309	294	305	270	258	264	283	274	279	268	212	259			
7	294	288	290	275	270	272	281	278	279	226	193	210			
8	291	287	289	278	274	276	291	275	280	248	226	239			
9	296	291	294	278	274	275	292	267	277	252	248	250			
10	302	295	299	280	276	278	274	268	271	248	240	244			
11	309	300	305	291	278	282	272	261	266	244	204	225			
12	311	305	309	295	283	289	267	250	255	240	212	229			
13	308	303	307	294	285	290	250	242	245	240	154	183			
14	303	292	294	286	274	279	244	230	241	220	181	208			
15	293	277	284	279	273	276	244	215	227	220	200	206			
16	293	256	281	285	279	282	258	244	252	228	203	216			
17	269	244	257	291	279	282	263	236	254	232	228	230			
18	277	268	274	291	279	283	236	146	172	240	232	236			
19	284	277	281	281	276	278	238	204	224	246	216	235			
20	288	279	283	280	273	276	249	238	242	241	225	235			
21	290	279	285	288	278	282	261	249	253	246	220	232			
22	292	286	289	288	278	284	266	261	264	236	221	231			
23	290	286	288	286	276	280	270	260	266	238	178	215			
24	293	289	291	279	271	275	260	151	170	221	174	189			
25	296	287	292	278	244	271	240	188	224	215	174	197			
26	289	283	286	252	236	242	251	240	246	223	215	218			
27	287	282	284	266	252	262	260	251	255	230	222	226			
28	287	281	283	269	265	267	267	246	261	232	224	227			
29	290	280	284	270	267	269	267	263	266	230	217	223			
30	288	280	282	276	267	272	266	249	261	219	191	204			
31	292	278	285	---	---	---	267	237	254	226	213	222			
MONTH	311	236	287	295	236	276	292	146	253	275	154	229			

PAWTUXET RIVER BASIN

01115275 BEAR TREE BROOK NEAR CLAYVILLE, RI--Continued

SPECIFIC CONDUCTANCE ($\mu\text{CM AT } 25^{\circ}\text{C}$), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN		MEAN	MAX	MIN		MEAN	MAX	MIN		MEAN
		FEBRUARY				MARCH				APRIL		
1	221	175	198	215	198	207	148	116	126	---	---	e179
2	219	190	210	212	132	200	167	148	156	184	148	166
3	236	206	227	136	85	106	174	164	170	175	142	161
4	235	227	232	180	136	162	176	165	170	191	175	184
5	241	215	229	192	178	187	179	173	175	194	183	189
6	244	225	237	195	187	191	183	175	e178	192	184	189
7	240	234	237	194	185	190	187	177	181	194	185	190
8	237	232	235	194	187	189	181	178	180	195	190	193
9	240	220	236	191	178	189	192	179	184	---	---	e189
10	244	159	223	178	145	155	188	178	184	186	167	177
11	176	150	161	191	175	183	188	181	185	---	---	e189
12	219	176	209	193	187	190	190	183	187	194	153	182
13	224	197	217	194	181	188	193	187	190	158	85	130
14	237	197	222	191	182	186	192	188	190	121	86	102
15	231	222	226	193	187	189	189	184	186	158	120	145
16	225	216	219	190	177	183	197	182	187	172	158	165
17	225	207	218	192	186	188	197	187	190	---	---	---
18	216	207	211	194	186	189	195	190	193	174	86	117
19	223	211	219	197	181	188	195	191	193	148	111	135
20	225	153	212	184	171	179	195	193	194	158	146	152
21	185	131	156	174	152	158	197	191	194	164	154	158
22	208	185	196	---	---	---	194	166	179	---	---	e164
23	217	206	211	---	---	---	180	167	174	---	---	e170
24	220	213	216	190	182	185	---	---	e186	181	170	e176
25	221	211	214	188	184	186	---	---	e186	---	---	e176
26	213	192	207	191	155	181	170	137	152	---	---	---
27	194	187	190	155	121	131	---	---	e180	---	---	e179
28	208	194	204	174	143	160	182	142	164	186	179	182
29	---	---	---	176	172	173	159	138	148	189	180	184
30	---	---	---	179	164	171	176	159	170	194	183	188
31	---	---	---	183	125	170	---	---	---	193	120	176
MONTH	244	131	213	---	---	---	---	---	178	---	---	---
DAY	MAX	MIN		MEAN	MAX	MIN		MEAN	MAX	MIN		MEAN
		JUNE				JULY				AUGUST		
1	178	121	155	---	---	---	390	358	368	366	355	360
2	194	178	185	---	---	---	388	329	362	360	204	244
3	---	---	---	282	256	266	371	323	342	320	252	284
4	---	---	---	290	264	275	395	358	368	340	307	321
5	---	---	---	299	274	283	394	366	375	374	340	354
6	---	---	---	298	276	286	401	369	379	385	358	370
7	---	---	---	298	275	281	403	374	383	393	362	377
8	---	---	---	298	271	280	396	373	380	399	376	385
9	---	---	---	298	274	287	407	370	383	406	382	391
10	---	---	---	304	259	277	414	382	392	404	384	392
11	---	---	---	307	291	298	416	384	396	401	383	389
12	---	---	---	317	294	302	417	386	398	401	390	394
13	---	---	---	326	296	308	419	387	401	410	385	394
14	---	---	---	333	309	320	425	393	406	411	390	398
15	---	---	---	333	307	319	431	395	410	407	196	347
16	---	---	---	343	312	323	427	394	407	213	124	168
17	---	---	---	346	320	330	428	398	408	302	185	255
18	---	---	---	351	320	333	435	400	416	341	302	322
19	---	---	---	348	256	317	433	404	419	355	336	344
20	---	---	---	302	255	282	449	277	339	363	345	353
21	---	---	---	334	301	313	392	340	364	366	351	358
22	---	---	---	350	321	332	403	378	386	372	308	360
23	---	---	---	350	250	319	401	374	381	320	267	293
24	---	---	---	327	250	290	384	371	377	401	320	338
25	---	---	---	343	317	326	393	359	371	357	343	349
26	---	---	---	351	330	338	406	382	389	355	232	329
27	---	---	---	350	327	335	408	388	397	237	181	204
28	---	---	---	328	306	322	416	393	403	289	221	249
29	---	---	---	347	298	317	412	204	313	322	289	307
30	---	---	---	365	338	347	336	230	303	336	317	327
31	---	---	---	383	350	361	361	334	347	---	---	---
MONTH	---	---	---	---	---	---	449	204	379	411	124	332

e Estimated

PAWTUXET RIVER BASIN

01115275 BEAR TREE BROOK NEAR CLAYVILLE, RI--Continued

WATER TEMPERATURE (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER		MAX	NOVEMBER		MAX	DECEMBER		MAX	JANUARY	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	11.5	9.7	11.0	11.1	8.5	10.2	12.5	8.9	11.4	1.3	-0.1	0.6
2	12.5	9.3	11.1	13.0	10.4	12.1	9.4	5.8	8.2	1.8	.2	1.1
3	13.6	10.5	12.4	12.6	9.2	11.7	7.0	5.1	6.2	2.2	.5	1.3
4	14.8	13.0	13.9	10.3	8.4	9.2	8.0	5.5	6.9	1.8	-.1	1.0
5	15.1	13.3	14.2	8.6	7.3	8.0	9.6	8.0	8.8	3.4	1.6	2.3
6	14.7	10.3	13.3	8.3	6.4	7.4	10.6	8.8	9.8	3.7	1.6	3.0
7	10.7	8.5	9.8	9.1	6.3	7.8	9.6	6.0	8.4	3.4	1.9	3.0
8	9.2	7.0	8.3	8.4	5.8	7.2	6.4	3.0	5.5	2.2	1.1	1.7
9	9.4	6.3	8.1	8.5	5.9	7.4	4.9	3.0	4.0	3.6	1.6	3.0
10	11.3	8.6	10.2	8.0	5.6	6.8	4.8	2.5	3.9	5.3	3.3	4.2
11	13.0	10.3	11.8	6.6	3.7	5.6	6.0	4.1	5.0	4.4	3.2	3.8
12	13.3	11.2	12.3	5.5	2.6	4.2	5.9	4.0	5.3	4.6	3.2	3.7
13	12.3	11.1	11.8	5.1	2.1	4.0	7.8	5.7	6.9	3.4	1.4	2.5
14	12.4	11.6	12.1	7.8	4.6	6.7	8.4	7.2	8.0	3.5	2.0	2.9
15	13.7	10.3	12.5	8.8	6.5	8.0	8.4	4.3	6.5	4.5	3.4	3.9
16	12.3	9.2	11.1	10.6	7.5	9.3	4.8	3.8	4.2	3.8	2.8	3.2
17	12.1	9.7	11.2	7.5	4.3	6.1	5.1	3.4	4.3	4.1	2.5	3.3
18	10.4	7.2	9.2	7.0	3.9	6.0	5.6	4.7	5.2	3.2	1.3	2.4
19	10.0	6.3	8.4	9.7	6.8	8.3	5.8	4.1	4.8	2.3	.3	1.3
20	11.8	8.7	10.1	9.8	5.1	7.8	5.8	4.1	4.8	2.4	.8	1.5
21	11.8	8.1	10.3	5.6	3.7	4.8	4.8	3.0	4.0	2.6	.5	1.8
22	12.9	11.2	11.9	6.0	3.5	4.8	3.4	1.8	2.8	3.5	1.8	2.6
23	12.7	10.8	11.8	6.3	3.8	5.3	4.2	1.3	2.9	4.7	1.9	3.8
24	14.6	12.6	13.6	8.2	5.9	7.4	5.7	3.7	5.0	5.2	4.1	4.7
25	15.6	11.5	13.9	10.3	8.2	9.6	4.0	3.1	3.5	4.6	3.1	4.0
26	11.5	8.5	10.2	10.8	8.2	9.8	4.3	2.1	3.4	5.2	3.0	4.1
27	9.5	7.8	8.7	9.7	8.1	9.1	2.3	1.0	1.8	5.4	2.9	4.0
28	8.7	5.3	7.6	10.1	8.2	9.3	2.8	.7	2.0	6.0	3.0	4.6
29	8.1	4.9	6.9	9.6	8.0	8.5	3.3	1.5	2.4	7.6	4.0	6.1
30	8.6	5.1	7.2	12.2	9.6	11.1	2.0	.6	1.4	6.8	5.0	6.3
31	8.5	4.5	6.8	---	---	---	1.4	.0	.7	5.0	4.0	4.2
MONTH	15.6	4.5	10.7	13.0	2.1	7.8	12.5	0.0	5.1	7.6	-0.1	3.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.9	3.0	4.2	4.6	0.6	2.8	9.5	5.6	7.9	13.3	7.1	10.0
2	3.0	.5	2.0	5.0	1.5	3.9	10.5	5.2	8.2	9.2	8.0	8.6
3	3.0	.2	1.8	7.2	5.0	6.3	11.7	6.7	9.5	13.0	8.5	10.2
4	3.8	1.2	2.4	5.4	1.7	4.2	10.2	5.0	7.7	14.4	7.3	10.8
5	1.8	.3	1.0	3.7	1.2	2.4	8.7	4.4	6.7	15.4	8.7	12.0
6	2.9	.6	1.7	5.3	2.1	4.1	8.4	4.2	6.2	16.5	9.6	13.0
7	3.8	1.4	2.8	7.3	3.3	5.7	8.2	3.1	5.9	16.1	11.5	14.0
8	4.3	2.0	3.1	7.6	5.0	6.4	8.6	5.6	7.3	16.0	12.3	13.9
9	3.6	.5	2.2	10.6	6.4	9.3	13.7	7.9	11.0	12.3	11.1	11.3
10	5.4	.1	3.0	10.4	3.2	7.4	14.4	9.4	11.8	16.9	10.9	13.7
11	5.1	.2	2.9	5.6	2.7	4.1	12.0	7.3	9.6	14.9	10.6	12.6
12	3.2	.1	2.1	5.8	3.3	4.7	12.2	6.5	9.9	11.7	10.1	10.9
13	3.1	.0	1.8	5.9	3.3	5.1	15.1	10.6	12.9	10.1	8.9	9.6
14	2.3	-.1	1.2	9.7	5.3	7.4	16.3	12.1	14.0	12.5	8.8	10.5
15	4.3	1.3	3.4	8.1	4.7	7.0	15.5	12.4	13.8	11.4	8.2	9.9
16	6.4	3.1	4.7	9.0	4.3	7.5	18.2	11.0	14.8	14.7	8.7	12.2
17	4.5	3.1	3.8	7.0	3.6	5.6	19.6	13.5	16.5	14.8	12.0	13.4
18	4.4	1.6	3.1	5.3	3.3	3.7	19.7	14.1	16.5	12.6	7.9	9.8
19	4.6	1.1	3.0	5.4	3.8	4.7	18.6	13.2	15.8	12.8	7.2	10.0
20	6.2	2.6	5.0	4.7	2.7	3.7	16.2	11.7	14.2	11.9	7.3	9.6
21	8.1	5.1	6.8	7.7	3.0	5.3	14.1	10.2	11.7	12.1	6.8	9.7
22	6.3	3.7	5.2	---	---	---	10.4	7.9	8.7	13.8	8.0	11.1
23	5.5	2.2	3.9	---	---	---	8.6	6.4	7.8	15.0	9.2	12.3
24	5.3	2.0	3.6	7.2	2.7	5.5	11.0	5.5	8.3	16.4	10.2	13.6
25	6.0	2.3	4.6	6.8	4.6	5.7	10.5	6.5	8.4	14.7	11.5	13.2
26	8.4	5.2	7.3	5.8	4.6	5.1	10.2	6.3	8.2	13.3	10.6	12.1
27	8.2	2.7	5.5	7.4	4.6	6.2	12.4	5.4	9.0	15.6	11.6	13.7
28	4.1	1.2	2.7	9.3	4.2	6.6	8.9	7.8	8.3	15.0	13.2	14.1
29	---	---	---	9.2	4.0	7.1	8.5	7.2	7.8	15.8	13.2	14.6
30	---	---	---	10.6	7.2	9.0	10.6	6.8	8.8	17.1	13.6	15.5
31	---	---	---	10.4	7.2	9.0	---	---	---	17.2	14.8	15.8
MONTH	8.4	-0.1	3.4	---	---	---	19.7	3.1	10.2	17.2	6.8	12.0

PAWTUXET RIVER BASIN

01115275 BEAR TREE BROOK NEAR CLAYVILLE, RI--Continued

WATER TEMPERATURE (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.3	14.0	16.0	---	---	---	19.0	16.6	17.7	13.8	11.8	13.1
2	15.9	13.8	15.0	---	---	---	18.7	16.7	17.5	15.2	13.6	14.7
3	---	---	---	20.0	18.0	19.1	18.8	16.6	17.6	15.8	15.0	15.4
4	---	---	---	20.4	18.2	19.3	19.1	16.5	17.8	16.6	15.0	15.6
5	---	---	---	19.1	16.6	18.2	19.3	17.5	18.3	16.1	13.1	15.1
6	---	---	---	17.7	15.9	16.8	18.1	14.9	16.8	14.8	11.9	13.4
7	---	---	---	16.8	15.7	16.2	16.4	14.2	15.3	15.0	11.9	13.6
8	---	---	---	17.6	15.0	16.5	15.7	13.4	14.7	16.1	13.5	14.9
9	---	---	---	18.5	16.7	17.5	16.1	13.1	14.8	16.7	14.4	15.7
10	---	---	---	17.8	14.8	16.9	17.1	14.2	15.8	16.8	15.2	16.2
11	---	---	---	15.7	13.3	14.5	18.2	15.7	17.0	16.8	13.5	15.6
12	---	---	---	15.9	12.2	14.3	18.7	16.2	17.5	13.8	11.4	12.9
13	---	---	---	17.2	14.5	15.9	19.1	16.6	18.0	14.4	10.8	13.0
14	---	---	---	17.5	15.2	16.4	20.0	17.6	18.8	15.9	13.6	15.0
15	---	---	---	18.0	16.0	17.0	20.3	17.9	19.1	18.3	15.9	16.5
16	---	---	---	17.3	14.8	16.3	20.3	18.6	19.4	18.7	16.7	17.3
17	---	---	---	16.9	13.8	15.6	20.3	18.4	19.3	17.1	14.9	16.3
18	---	---	---	18.6	15.7	17.2	20.4	18.2	19.3	15.6	13.8	14.7
19	---	---	---	17.8	16.7	17.1	20.1	18.2	19.2	15.4	12.9	14.3
20	---	---	---	16.7	15.2	16.3	18.2	16.2	17.4	15.7	13.4	14.7
21	---	---	---	17.2	14.4	15.9	17.5	15.4	16.4	16.6	14.7	15.7
22	---	---	---	18.6	15.8	17.2	17.3	14.6	16.2	17.2	15.5	16.4
23	---	---	---	20.1	17.1	18.2	16.6	14.1	16.1	17.2	15.7	16.6
24	---	---	---	17.7	13.7	16.5	15.0	13.4	14.4	15.7	13.6	15.1
25	---	---	---	15.8	12.5	14.3	16.6	14.4	15.4	14.8	13.0	13.9
26	---	---	---	15.3	12.4	14.1	16.6	14.1	15.5	14.1	13.2	13.6
27	---	---	---	15.0	14.2	14.6	16.9	14.8	15.9	16.2	14.1	14.6
28	---	---	---	15.9	14.6	15.3	15.7	14.6	15.2	16.2	13.2	15.3
29	---	---	---	18.8	15.8	17.2	15.4	14.7	15.0	13.5	11.5	12.6
30	---	---	---	19.1	16.5	17.8	15.3	14.1	14.8	13.4	10.8	12.3
31	---	---	---	18.8	16.7	17.7	15.1	12.5	14.1	---	---	---
MONTH	---	---	---	---	---	---	20.4	12.5	16.8	18.7	10.8	14.8

PAWTUXET RIVER BASIN

01115280 CORK BROOK AT ROCKLAND SCITUATE RD NEAR CLAYVILLE, RI

LOCATION.--Lat 41°48'14", long 71°39'01", Providence County, Hydrologic Unit 01090004, on left bank 500 ft downstream from bridge on Rockland Scituate Rd., and 0.8 mi northeast of Crazy Corners.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 2000 to May 2001, October 2001 to current year.

WATER TEMPERATURE: February 2000 to May 2001, October 2001 to current year.

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor since February 2000.

REMARKS.--Records poor.

EXTREMES FOR THE PERIOD OCTOBER 2001 TO SEPTEMBER 2002.--

SPECIFIC CONDUCTANCE: Maximum recorded, 201 $\mu\text{S}/\text{cm}$, Apr. 14; minimum, 59 $\mu\text{S}/\text{cm}$, July 31.

WATER TEMPERATURE: Maximum recorded, 24.9°C, Sept. 14; minimum, -0.3°C, Dec. 30, Jan. 7, 8.

WATER-QUALITY DATA, OCTOBER 2001 TO SEPTEMBER 2002

SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$ AT 25°C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	149	132	141	139	132	136	155	146	152	136	127	131
2	147	140	143	143	136	140	148	146	147	136	126	129
3	145	141	142	146	140	143	149	146	147	131	124	127
4	144	139	141	144	138	141	149	145	147	135	126	129
5	144	138	140	140	134	138	148	146	147	128	120	123
6	141	134	138	142	137	139	150	147	149	129	109	120
7	135	126	130	143	139	141	149	147	148	147	111	116
8	129	125	127	142	138	139	152	143	149	126	117	121
9	127	122	124	142	137	139	154	139	144	132	121	123
10	128	122	125	143	138	140	155	143	149	141	124	135
11	130	124	128	147	138	142	154	148	151	149	130	137
12	134	128	131	148	140	144	158	154	157	172	130	134
13	133	128	130	147	140	143	155	150	152	172	114	122
14	135	129	132	146	137	140	150	146	149	132	116	128
15	141	135	139	141	138	139	161	148	156	136	130	134
16	140	132	137	143	138	140	162	160	161	135	127	132
17	149	138	143	146	139	142	170	152	160	138	122	130
18	146	138	142	148	138	141	153	143	149	132	112	123
19	140	136	138	142	138	139	156	151	154	120	113	116
20	142	136	139	145	139	141	156	152	154	123	113	117
21	143	136	139	149	141	145	156	147	154	200	115	130
22	145	139	142	150	142	145	163	132	146	131	121	125
23	142	138	139	147	141	144	158	131	146	142	119	133
24	144	140	142	145	140	141	147	129	135	141	128	135
25	145	141	143	144	140	141	149	136	140	133	124	130
26	144	138	141	148	141	145	148	134	142	129	116	122
27	140	134	137	151	147	149	140	125	132	129	122	125
28	136	132	133	148	145	146	135	125	129	134	128	130
29	135	131	131	147	145	146	138	125	131	135	128	131
30	134	131	132	152	146	149	136	126	129	134	121	127
31	134	130	132	---	---	---	135	128	131	136	131	132
MONTH	149	122	136	152	132	142	170	125	146	200	109	127

PAWTUXET RIVER BASIN

01115280 CORK BROOK AT ROCKLAND SCITUATE RD NEAR CLAYVILLE, RI--Continued

SPECIFIC CONDUCTANCE (µCM AT 25°C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	FEBRUARY			MARCH			APRIL			MAY		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	136	121	131	142	114	128	111	91	103	124	116	120	
2	130	110	122	144	114	130	120	105	115	120	105	116	
3	126	112	121	115	87	101	120	115	118	115	106	110	
4	136	113	128	128	114	122	117	106	111	121	109	116	
5	128	115	120	130	115	123	112	103	107	122	116	119	
6	131	117	124	124	104	115	110	101	105	125	116	122	
7	136	119	131	128	113	124	111	100	105	129	119	121	
8	154	122	137	126	122	124	111	106	110	122	118	120	
9	143	118	133	124	106	119	115	105	110	125	111	116	
10	138	116	127	126	106	118	109	100	105	128	114	119	
11	130	110	123	126	117	123	108	100	105	125	111	114	
12	126	108	119	125	120	123	110	105	108	115	108	112	
13	134	112	124	125	121	122	171	110	114	111	70	94	
14	124	113	119	124	120	122	201	113	123	106	73	89	
15	134	115	129	124	117	121	147	105	112	106	94	96	
16	135	127	132	122	113	118	106	103	104	101	96	99	
17	133	123	129	122	110	113	105	100	102	111	100	103	
18	127	115	124	123	108	112	103	97	100	103	70	82	
19	129	109	124	115	105	110	106	99	102	97	83	89	
20	141	113	126	160	108	117	109	105	107	101	91	92	
21	125	113	121	128	114	120	113	108	111	103	92	94	
22	126	118	122	126	108	122	113	105	110	102	93	95	
23	125	119	122	130	118	127	113	107	109	101	94	96	
24	126	118	122	132	126	129	112	108	110	102	95	98	
25	129	122	125	146	128	131	113	97	109	107	95	98	
26	134	116	125	147	121	130	109	104	106	109	96	100	
27	153	116	125	128	104	117	115	104	110	108	98	100	
28	140	118	130	132	123	128	113	106	110	103	100	102	
29	---	---	---	132	116	126	111	106	108	104	102	103	
30	---	---	---	125	109	117	154	110	127	106	102	104	
31	---	---	---	127	105	120	---	---	---	106	82	101	
MONTH	154	108	126	160	87	121	201	91	109	129	70	105	
DAY	MAX	JUNE			JULY			AUGUST			SEPTEMBER		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	102	85	92	105	96	98	---	---	---	---	---	---	
2	91	86	89	98	95	97	---	---	---	---	---	---	
3	115	90	94	100	---	96	---	---	---	152	125	145	
4	101	94	98	100	96	98	---	---	---	151	138	146	
5	108	90	103	99	95	97	---	---	---	146	140	144	
6	93	78	90	98	94	96	---	---	---	148	140	145	
7	92	76	84	97	94	95	---	---	---	147	144	144	
8	96	92	94	98	94	95	---	---	---	154	144	151	
9	98	93	96	99	93	96	---	---	---	---	---	---	
10	98	87	94	98	92	95	---	---	---	---	---	---	
11	88	86	87	98	93	95	---	---	---	---	---	---	
12	100	81	89	99	92	95	---	---	---	---	---	---	
13	96	90	93	100	93	96	---	---	---	---	---	---	
14	91	84	88	100	94	96	---	---	---	---	---	---	
15	98	83	92	100	94	97	---	---	---	---	---	---	
16	96	86	89	103	95	98	---	---	---	195	106	162	
17	88	86	87	104	97	100	---	---	---	196	190	192	
18	93	88	91	107	99	102	---	---	---	190	176	184	
19	100	92	97	114	91	104	---	---	---	176	167	173	
20	104	98	101	98	91	95	---	---	---	168	155	161	
21	105	100	102	97	96	96	---	---	---	156	150	154	
22	104	62	89	102	96	99	---	---	---	151	137	149	
23	91	86	89	113	86	102	---	---	---	174	125	153	
24	93	87	90	100	92	97	---	---	---	176	168	174	
25	93	89	92	101	99	100	---	---	---	168	159	164	
26	100	92	98	110	100	106	---	---	---	162	128	150	
27	102	97	100	114	104	108	---	---	---	186	152	175	
28	103	98	101	106	104	105	---	---	---	185	178	183	
29	101	95	99	107	103	104	---	---	---	184	176	179	
30	100	95	98	117	103	113	151	113	126	176	171	174	
31	---	---	---	124	59	117	145	134	138	---	---	---	
MONTH	115	62	94	124	---	100	---	---	---	---	---	---	

e Estimated

PAWTUXET RIVER BASIN

01115280 CORK BROOK AT ROCKLAND SCITUATE RD NEAR CLAYVILLE, RI--Continued

WATER TEMPERATURE (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER			NOVEMBER			DECEMBER			JANUARY	
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.7	9.9	11.1	11.4	8.0	10.1	13.7	9.2	11.9	0.0	-0.2	-0.2
2	13.2	9.8	11.9	13.7	10.2	12.5	9.4	5.8	8.2	.0	-.2	-.1
3	15.0	12.1	13.9	13.4	10.0	12.2	7.4	5.2	6.2	.0	-.2	-.2
4	16.4	14.3	15.4	11.8	8.7	10.1	7.6	4.9	6.6	.0	-.2	-.2
5	17.0	14.9	15.9	8.9	6.7	8.1	9.8	7.2	8.6	.1	-.2	-.1
6	16.4	11.6	14.8	8.9	5.8	7.2	10.7	8.3	9.6	.3	-.2	.0
7	11.6	8.7	10.6	9.4	5.8	7.6	10.2	5.6	8.4	.0	-.3	-.1
8	9.3	7.2	8.4	8.4	5.6	7.2	6.0	2.1	5.0	.1	-.3	-.1
9	9.3	6.4	8.2	8.9	5.3	7.1	3.5	1.5	2.6	.2	-.2	.1
10	11.3	8.6	10.3	7.4	5.2	6.2	3.4	1.2	2.7	1.7	.1	1.2
11	13.8	10.8	12.6	7.3	2.8	5.2	5.0	2.8	3.8	2.1	.9	1.6
12	14.9	12.4	13.7	4.8	1.4	3.2	4.6	2.7	4.1	2.6	.9	1.6
13	13.4	12.5	13.0	4.4	1.1	3.1	6.8	4.5	5.8	1.4	.3	.8
14	13.1	12.4	12.9	6.9	3.2	5.6	7.7	6.3	7.2	1.8	.2	1.1
15	14.9	11.3	13.4	8.3	5.4	7.1	7.6	2.9	5.6	2.7	1.4	2.0
16	13.0	10.4	12.2	10.0	6.7	8.5	3.8	2.4	2.9	2.4	1.1	1.5
17	12.9	10.0	11.7	7.3	3.6	5.7	3.8	1.8	2.7	2.3	.4	1.4
18	11.2	7.3	9.7	6.8	3.4	5.6	5.1	3.4	4.2	1.5	-.2	.5
19	10.1	6.5	8.8	9.2	5.7	7.8	4.7	3.0	3.7	.1	-.2	-.1
20	12.1	9.2	10.7	9.4	4.0	7.1	4.7	2.6	3.7	.2	-.2	-.1
21	12.9	9.2	11.4	5.4	2.6	4.0	3.4	1.0	2.5	.1	-.2	.0
22	14.1	11.8	12.8	5.5	2.5	4.1	2.0	.0	1.0	1.0	-.1	.5
23	13.4	11.5	12.4	5.7	3.0	4.6	2.8	-.1	1.2	2.5	.0	1.7
24	15.8	13.3	14.6	7.2	5.0	6.4	5.2	2.4	4.0	3.5	2.2	3.0
25	17.3	12.7	15.2	9.9	7.2	9.0	3.0	1.7	2.2	3.8	1.0	2.4
26	13.2	9.5	11.6	11.3	8.1	9.7	3.2	.5	2.0	3.7	.9	2.4
27	11.0	8.8	9.6	9.5	7.9	8.9	.9	-.2	.2	4.3	1.4	2.8
28	10.0	5.9	8.2	10.5	7.9	9.2	.4	-.2	.0	5.0	1.8	3.5
29	8.9	5.5	7.6	9.0	7.6	8.1	.6	-.2	.1	6.9	2.9	5.3
30	10.0	5.5	7.8	12.3	9.0	10.9	.3	-.3	-.1	5.7	3.5	5.1
31	8.0	5.1	6.8	---	---	---	.1	-.2	-.1	3.5	2.4	2.7
MONTH	17.3	5.1	11.5	13.7	1.1	7.4	13.7	-0.3	4.1	6.9	-0.3	1.3
DAY	MAX	FEBRUARY			MARCH			APRIL			MAY	
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.4	1.5	2.7	4.4	-0.1	2.2	10.2	6.2	8.2	13.7	7.3	10.2
2	2.2	-.2	.9	4.4	.6	3.2	10.9	5.9	8.4	9.5	8.7	9.1
3	1.3	-.2	.6	7.1	4.3	6.2	11.0	6.5	9.1	12.8	8.6	10.1
4	2.6	-.3	1.1	6.2	1.5	4.3	10.8	5.0	7.6	14.6	8.0	11.2
5	.7	-.2	.0	4.0	1.0	2.1	9.2	4.7	6.6	15.9	9.6	12.5
6	1.1	-.2	.3	4.7	1.2	3.1	8.8	3.7	6.1	17.1	10.5	13.7
7	1.8	-.1	1.0	7.3	2.2	5.0	8.9	2.9	5.8	16.6	12.0	14.4
8	3.3	.1	1.7	7.4	3.9	5.8	8.7	5.1	7.0	16.4	12.5	14.4
9	2.9	-.2	1.2	10.4	5.5	8.8	14.3	7.2	10.9	12.5	11.6	11.8
10	4.5	-.2	1.6	10.0	2.7	7.1	15.2	9.1	12.0	16.7	11.6	14.0
11	4.1	-.2	2.0	6.3	2.4	4.0	13.2	7.8	10.1	14.8	11.2	12.9
12	1.5	-.2	.7	5.5	2.5	4.1	12.9	6.5	10.2	11.8	10.4	11.2
13	2.7	-.2	.9	5.2	2.7	4.5	16.0	10.6	13.3	10.4	9.1	9.9
14	.6	-.2	.1	10.1	4.6	7.1	17.4	12.4	14.6	11.2	8.8	10
15	2.6	-.2	1.6	7.5	4.5	6.6	16.1	12.5	14.2	11.0	9.2	10.1
16	5.6	2.0	3.5	8.6	3.5	6.9	19.9	11.5	15.7	13.8	9.4	12.0
17	3.3	1.6	2.5	7.2	3.0	5.3	21.1	14.2	17.6	14.4	12.5	13.4
18	4.0	.2	2.1	4.4	2.3	2.8	21.5	15.0	17.7	12.6	8.6	10.1
19	4.0	-.2	2.1	4.9	2.9	3.9	20.0	14.0	16.8	10.9	8.0	9.6
20	5.4	1.5	4.0	3.9	1.5	2.6	17.9	12.6	15.3	10.8	8.7	9.8
21	7.3	3.9	5.8	7.4	2.0	4.5	15.7	10.8	12.7	10.6	8.2	9.6
22	5.6	2.4	4.2	5.0	.8	2.4	10.8	8.1	9.0	12.3	8.9	10.7
23	5.4	1.2	3.2	5.5	.7	3.1	8.9	6.6	8.1	13.6	9.9	11.9
24	5.2	.9	3.0	7.2	1.9	4.9	11.7	6.0	8.7	15.0	10.9	13.2
25	5.6	1.2	3.9	6.9	3.8	5.1	11.1	6.5	8.6	13.8	11.2	12.7
26	8.5	3.9	6.7	5.1	3.9	4.4	10.4	6.4	8.3	12.5	10.7	11.8
27	7.3	1.6	4.4	6.8	4.4	5.6	13.0	5.8	9.3	14.6	11.7	13.3
28	4.2	.1	2.1	9.0	4.1	6.2	8.8	7.8	8.4	14.6	13.4	14.0
29	---	---	---	9.6	4.2	7.0	8.8	7.2	7.9	15.4	13.6	14.4
30	---	---	---	10.5	6.8	8.6	11.0	6.9	8.8	16.5	13.9	15.2
31	---	---	---	11.0	7.4	9.1	---	---	---	16.9	14.9	15.7
MONTH	8.5	-0.3	2.3	11.0	-0.1	5.0	21.5	2.9	10.6	17.1	7.3	12.0

PAWTUXET RIVER BASIN

01115297 WILBUR HOLLOW BROOK AT OLD PLAINFIELD PIKE NEAR CLAYVILLE, RI

LOCATION.--Lat 41°45'53", long 71°38'10", Providence County, Hydrologic Unit 01090004, on left bank 500 ft downstream from bridge on Old Plainfield Pike, and 2.2 mi southeast of Rockland.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 2000 to May 2001, October 2001 to current year.

WATER TEMPERATURE: January 2000 to May 2001, October 2001 to current year.

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor since January 2000.

REMARKS.--Records poor.

EXTREMES FOR THE PERIOD OCTOBER 2001 TO SEPTEMBER 2002.--

SPECIFIC CONDUCTANCE: Maximum recorded, 184 μ S/cm, Sept. 17; minimum, 41 μ S/cm, July 24

WATER TEMPERATURE: Maximum recorded, 30.1°C, July 4; minimum, 0.1°C, Jan. 20, 21.

WATER-QUALITY DATA, JANUARY TO SEPTEMBER 2000

SPECIFIC CONDUCTANCE (μ /CM AT 25°C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	75	73	74	75	71	73	78	73	75	83	73	77			
2	78	73	76	80	74	76	77	72	73	82	76	79			
3	79	76	78	78	75	76	73	72	72	82	77	80			
4	80	78	79	77	74	75	72	71	72	84	77	82			
5	80	78	79	75	74	74	78	72	72	87	81	83			
6	79	78	78	75	73	74	79	72	74	86	80	84			
7	80	76	79	78	74	75	79	72	73	85	76	78			
8	82	76	78	79	73	76	79	72	73	80	77	79			
9	88	81	86	76	73	74	76	72	73	81	75	78			
10	95	88	92	76	72	73	77	71	72	83	75	79			
11	101	93	98	74	72	73	77	72	72	77	70	73			
12	104	79	89	78	73	74	79	73	74	76	68	74			
13	88	84	86	78	73	74	79	73	75	75	61	66			
14	88	77	82	78	73	74	76	72	73	64	59	61			
15	81	77	79	75	73	74	79	72	73	64	58	60			
16	81	76	78	78	73	74	80	73	74	60	57	59			
17	78	74	76	78	74	74	76	72	72	62	56	58			
18	79	75	76	78	73	74	77	69	72	59	55	57			
19	81	76	78	76	71	72	70	63	66	60	56	57			
20	81	77	78	75	71	71	69	62	63	61	56	60			
21	81	76	78	74	71	72	65	62	64	62	57	60			
22	80	78	79	77	70	71	66	64	65	62	57	60			
23	79	78	79	77	70	71	72	65	68	70	59	62			
24	80	78	79	75	68	70	72	65	68	67	60	63			
25	81	78	80	72	67	69	75	65	68	66	57	61			
26	81	77	79	74	68	70	67	63	65	62	56	58			
27	80	75	77	74	69	70	68	62	65	64	56	57			
28	77	73	75	76	69	70	73	63	67	63	56	57			
29	76	73	75	73	69	70	71	66	69	61	57	58			
30	74	72	73	77	69	72	76	68	71	60	56	57			
31	73	72	72	---	---	---	78	71	74	57	55	56			
MONTH	104	72	80	80	67	73	80	62	71	87	55	67			

PAWTUXET RIVER BASIN

01115297 WILBUR HOLLOW BROOK AT OLD PLAINFIELD PIKE NEAR CLAYVILLE, RI--Continued

SPECIFIC CONDUCTANCE (µCM AT 25°C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	FEBRUARY		MAX	MARCH		MAX	APRIL		MAX	MAY	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	56	55	56	59	58	59	65	54	58	70	60	63
2	58	55	57	60	58	59	61	52	54	66	60	61
3	59	54	57	58	50	52	61	52	55	70	61	64
4	61	56	59	62	49	50	61	53	54	66	60	63
5	62	58	60	50	50	50	59	53	55	66	62	64
6	63	58	62	52	50	51	61	55	56	67	63	65
7	64	61	63	53	52	53	58	55	56	68	65	67
8	66	62	65	55	53	54	64	56	57	69	67	68
9	69	64	65	58	54	57	64	58	61	68	67	67
10	70	63	65	59	55	57	65	62	63	74	67	71
11	65	56	61	56	54	55	65	62	64	73	71	72
12	61	55	58	55	54	54	65	62	64	71	67	69
13	62	57	60	55	55	55	68	65	67	70	59	67
14	63	57	61	58	55	56	70	68	69	59	50	53
15	65	61	63	58	57	57	71	70	70	52	49	50
16	70	63	64	59	58	58	74	70	72	55	51	53
17	69	62	65	59	59	59	76	73	75	57	54	56
18	70	62	64	59	58	58	77	75	76	58	51	54
19	65	61	63	60	58	58	79	76	78	52	49	50
20	68	61	63	62	58	60	80	78	79	51	48	50
21	66	59	61	59	56	58	79	78	79	52	49	51
22	64	57	59	58	55	56	79	75	77	55	51	54
23	62	56	59	56	54	55	81	75	78	58	54	56
24	62	57	58	56	55	55	81	74	77	60	56	59
25	58	57	57	57	56	56	79	68	74	63	59	60
26	57	56	57	57	56	57	78	67	73	63	60	61
27	58	56	57	58	56	57	75	67	70	66	61	63
28	58	56	57	56	54	55	71	63	66	67	63	65
29	---	---	---	56	54	55	71	62	65	68	65	66
30	---	---	---	58	55	57	68	61	63	70	66	68
31	---	---	---	63	57	58	---	---	---	72	66	69
MONTH	70	54	61	63	49	56	81	52	67	74	48	61

DAY	MAX	JUNE		MAX	JULY		MAX	AUGUST		MAX	SEPTEMBER	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	76	66	73	97	82	93	---	---	---	95	89	92
2	72	69	70	99	79	91	---	---	---	111	82	94
3	71	69	70	98	55	77	---	---	---	116	88	98
4	71	69	70	111	49	69	---	---	---	126	115	121
5	71	69	70	84	73	78	---	---	---	135	126	132
6	95	70	73	84	56	77	---	---	---	136	132	135
7	73	62	69	77	43	51	87	81	82	134	131	133
8	63	60	61	53	41	43	84	81	82	133	131	132
9	62	59	61	78	41	47	84	82	83	132	129	131
10	64	61	63	80	42	57	85	82	84	130	125	127
11	65	62	64	42	41	42	90	85	87	125	110	120
12	65	61	63	---	---	---	94	86	90	111	109	110
13	68	65	68	---	---	---	95	88	90	110	107	109
14	68	67	67	---	---	---	94	88	91	110	107	108
15	71	67	69	---	---	---	95	89	91	110	98	108
16	71	68	70	---	---	---	95	89	91	158	77	113
17	71	68	70	---	---	---	100	89	93	184	157	175
18	71	69	70	---	---	---	99	93	96	183	156	176
19	71	70	71	---	---	---	100	94	98	161	137	152
20	75	71	73	---	---	---	110	99	104	137	121	130
21	76	72	75	---	---	---	104	95	99	122	111	117
22	86	68	76	---	---	---	99	94	96	113	104	110
23	103	86	98	---	---	---	105	94	99	107	100	102
24	99	94	97	---	---	---	102	96	99	111	106	108
25	98	91	94	---	---	---	110	97	102	114	111	112
26	91	82	88	---	---	---	107	99	102	112	107	110
27	89	74	84	---	---	---	112	101	105	115	103	107
28	91	81	88	---	---	---	131	104	107	123	113	118
29	96	87	92	---	---	---	114	95	107	120	109	117
30	96	86	94	---	---	---	111	88	103	110	106	108
31	---	---	---	---	---	---	95	88	92	---	---	---
MONTH	103	59	75	---	---	---	---	---	---	184	77	120

e Estimated

PAWTUXET RIVER BASIN

01115297 WILBUR HOLLOW BROOK AT OLD PLAINFIELD PIKE NEAR CLAYVILLE, RI--Continued

WATER TEMPERATURE (DEG. C), OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	OCTOBER		MAX	NOVEMBER		MAX	DECEMBER		MAX	JANUARY	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	12.6	11.4	12.2	10.8	7.1	9.4	13.9	10.2	12.0	2.1	0.7	1.3
2	15.6	11.2	13.2	13.0	9.7	12.0	10.2	7.5	9.3	2.3	.8	1.5
3	17.6	11.7	14.7	13.1	10.6	12.3	8.7	6.0	7.3	2.0	.9	1.4
4	19.1	14.0	16.4	12.6	9.4	10.8	7.5	5.6	6.5	2.3	.8	1.5
5	19.8	15.0	17.2	9.9	7.9	9.0	9.3	6.3	7.7	2.2	1.0	1.6
6	16.6	13.6	15.7	9.7	6.7	8.0	9.8	7.5	8.8	2.1	1.2	1.8
7	15.1	10.9	13.1	9.0	6.4	7.6	10.4	7.0	8.7	1.7	.6	1.1
8	13.1	8.3	10.7	9.0	6.2	7.5	7.1	4.6	6.3	.8	.5	.6
9	12.6	7.7	9.9	8.6	6.4	7.4	4.9	3.3	4.1	1.2	.4	.9
10	13.4	8.9	11.0	7.7	5.9	6.7	4.3	3.1	3.6	2.1	1.0	1.7
11	15.8	10.1	13.1	7.5	4.6	6.0	4.2	3.2	3.7	1.7	1.0	1.4
12	16.3	11.9	14.0	5.8	3.5	4.6	4.1	3.7	3.9	1.7	.9	1.3
13	13.8	12.3	13.0	5.6	3.4	4.4	5.2	3.9	4.7	1.2	.3	.7
14	13.7	12.6	13.2	6.3	3.5	5.3	6.4	5.1	5.8	.9	.2	.6
15	16.4	12.7	14.5	7.7	5.0	6.3	6.5	4.4	5.7	1.1	.6	.8
16	14.8	11.7	13.5	9.4	6.4	7.7	4.4	3.4	3.9	1.2	.6	.9
17	14.4	11.5	13.0	7.4	5.2	6.3	3.4	2.9	3.1	1.0	.5	.7
18	13.7	9.4	11.4	7.2	5.0	6.0	3.8	2.8	3.4	.9	.4	.6
19	12.5	8.9	10.5	7.8	5.2	6.7	3.5	2.7	3.1	.4	.2	.3
20	12.9	9.0	10.8	8.0	5.9	7.2	3.1	2.4	2.8	.4	.1	.3
21	13.4	8.9	11.4	7.1	4.1	5.6	2.8	2.0	2.5	.3	.1	.2
22	13.9	11.2	12.6	6.1	3.8	4.7	2.6	1.6	2.1	.7	.2	.5
23	14.0	12.0	13.1	5.6	3.8	4.6	2.7	1.4	2.1	1.1	.2	.8
24	16.8	13.7	15.3	6.0	4.4	5.2	3.0	2.1	2.7	1.4	.8	1.1
25	18.0	13.7	16.0	9.2	5.7	7.7	2.4	1.6	2.1	1.8	.8	1.3
26	14.5	10.8	12.9	10.3	8.3	9.2	2.1	1.4	1.8	2.0	.7	1.4
27	12.1	9.4	10.7	9.4	8.1	8.7	1.9	.9	1.4	2.2	1.2	1.7
28	10.5	7.1	8.9	9.7	8.3	8.8	1.8	.7	1.3	2.5	1.2	2.0
29	10.4	6.8	8.4	8.6	8.0	8.2	1.9	1.0	1.5	3.4	1.8	2.8
30	9.5	5.9	7.6	11.3	8.5	10.1	1.9	.9	1.4	3.1	2.7	3.0
31	7.3	5.7	6.8	---	---	---	2.0	.8	1.3	2.7	1.9	2.2
MONTH	19.8	5.7	12.4	13.1	3.4	7.5	13.9	0.7	4.3	3.4	0.1	1.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.2	1.8	2.0	4.1	2.7	3.6	11.5	7.9	9.9	14.3	8.6	11.4
2	2.0	.9	1.6	4.3	3.0	3.7	12.2	7.5	9.8	11.2	9.8	10.2
3	1.6	.7	1.3	7.3	4.3	6.4	12.3	9.2	10.7	14.2	9.8	11.7
4	2.2	1.0	1.7	6.7	3.3	5.6	12.2	7.9	9.9	16.2	9.9	13.0
5	2.1	.9	1.5	4.4	2.4	3.3	10.4	7.2	8.6	17.8	11.7	14.6
6	2.2	.8	1.7	4.2	2.3	3.3	9.6	6.7	8.0	18.8	12.9	15.9
7	1.9	1.2	1.6	6.0	2.9	4.9	9.9	5.5	7.5	19.2	14.8	16.9
8	2.7	1.4	2.2	7.1	4.9	6.2	8.9	6.7	7.8	20.2	15.9	17.6
9	3.0	1.7	2.3	10.7	6.4	9.3	14.2	8.3	11.6	16.4	14.0	14.8
10	2.6	1.4	1.8	11.4	6.1	9.6	16.6	12.4	14.2	20.0	13.8	16.7
11	2.6	.3	1.6	7.3	4.4	6.0	15.1	11.6	13.1	19.0	14.4	16.5
12	1.7	.2	1.1	5.4	4.0	4.7	14.3	10.5	12.7	15.5	13.0	14.3
13	2.2	.8	1.5	4.9	3.8	4.4	16.9	12.6	14.9	13.0	10.2	11.8
14	2.0	.6	1.5	9.2	4.7	7.1	19.8	14.6	16.9	12.7	9.9	11.3
15	2.7	1.1	2.1	7.8	5.7	6.9	19.0	15.9	17.2	12.7	10.5	11.6
16	3.4	2.2	2.9	8.6	6.0	7.7	22.6	15.4	18.6	16.3	10.8	13.8
17	2.6	2.0	2.3	7.6	5.3	6.5	23.9	17.6	20.5	17.2	14.3	15.8
18	3.1	1.8	2.6	6.1	3.4	4.3	24.9	18.7	21.1	15.6	10.1	12.3
19	3.4	1.8	2.9	4.5	3.3	4.0	22.1	18.1	20.2	13.0	9.1	11.2
20	4.0	2.5	3.3	3.8	2.4	3.3	20.1	16.9	18.7	12.9	10.1	11.6
21	4.6	3.7	4.2	6.8	2.2	4.7	18.0	14.8	16.3	13.1	9.6	11.3
22	4.2	3.3	3.8	5.4	2.3	3.8	14.8	10.8	12.6	15.9	10.5	13.0
23	4.2	3.0	3.8	5.2	2.0	3.8	10.8	9.2	10.1	18.0	12.1	14.8
24	4.2	2.9	3.8	6.7	3.1	5.5	12.6	8.4	9.9	19.5	13.6	16.6
25	4.6	3.2	4.0	7.3	5.2	6.2	10.9	8.4	9.7	19.7	15.5	17.0
26	7.0	3.9	5.9	5.7	5.2	5.4	10.7	7.6	9.2	16.8	14.7	15.7
27	7.2	2.9	5.7	7.4	5.4	6.3	13.8	7.6	10.5	20.1	15.1	17.2
28	4.5	2.6	3.6	9.7	5.0	7.3	10.5	8.8	9.5	19.7	17.0	18.1
29	---	---	---	9.9	5.6	8.1	9.1	8.1	8.7	21.2	17.6	19.0
30	---	---	---	11.0	7.8	9.5	11.8	7.6	9.6	23.1	18.0	20.2
31	---	---	---	11.6	8.8	10.2	---	---	---	23.0	19.2	20.8
MONTH	7.2	0.2	2.7	11.6	2.0	5.9	24.9	5.5	12.6	23.1	8.6	14.7

PAWTUXET RIVER BASIN

01116000 SOUTH BRANCH PAWTUXET RIVER AT WASHINGTON, RI

LOCATION.--Lat 41°41'24", long 71°33'59", Kent County, Hydrologic Unit 01090004, on right bank 150 ft downstream from highway bridge at Washington and 0.9 mi upstream from outlet of Tiogue Lake.

DRAINAGE AREA.--63.8 mi².

PERIOD OF RECORD.--Discharge: October 1940 to current year.

Water-quality records: Water years 1955-1956, 1963.

GAGE.--Water-stage recorder. Datum of gage is 217.76 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Flat River Reservoir 2 mi upstream, usable capacity, 250,000,000 ft³, and smaller reservoirs. Prior to May 1972, diversion from Carr Pond for municipal supply of Coventry, Warwick, and West Warwick. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--62 years, 130 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,980 ft³/s, June 6, 1982, gage height, 5.30 ft; minimum daily, 2.8 ft³/s, Aug. 27, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a discharge of 1,810 ft³/s, by computation of flow over dam just upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 381 ft³/s, May 15, gage height, 2.56 ft; minimum, 12 ft³/s, July 23, 25-27, Aug. 1, 2, 6, 12-16, 19, 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	36	38	85	52	51	187	133	108	56	13	16
2	33	36	37	85	52	51	222	124	108	53	13	23
3	33	37	37	83	51	82	202	148	93	53	15	24
4	33	37	37	83	50	68	180	138	81	52	14	20
5	33	37	37	83	50	59	157	122	78	51	13	18
6	33	37	37	84	49	58	138	111	89	51	13	17
7	38	36	37	89	49	56	127	104	173	51	13	17
8	85	36	39	84	49	56	119	96	247	51	13	17
9	90	36	40	83	49	56	115	89	213	49	13	16
10	86	36	40	83	49	64	118	90	164	49	13	16
11	48	36	40	85	59	58	116	86	133	48	13	15
12	44	36	40	83	53	58	113	84	116	47	13	15
13	44	36	40	94	51	57	112	106	114	47	12	15
14	44	36	40	89	49	57	110	277	106	47	12	15
15	44	36	42	88	49	56	106	361	110	47	12	19
16	45	36	40	86	49	58	102	272	114	47	13	37
17	48	36	41	85	50	56	99	204	121	47	13	27
18	45	35	54	83	50	57	92	226	109	22	13	21
19	45	36	57	76	49	59	89	330	110	14	13	19
20	45	37	56	51	49	66	86	291	129	16	15	18
21	48	37	55	51	59	74	83	222	109	14	15	18
22	46	37	58	51	54	64	81	185	91	13	14	17
23	45	37	88	51	52	60	83	159	81	13	14	31
24	50	37	102	55	51	60	82	145	75	14	14	37
25	51	37	94	54	51	60	82	134	67	13	14	87
26	49	39	91	52	51	62	98	121	65	12	14	91
27	49	39	89	51	52	82	99	114	65	12	14	105
28	47	39	88	51	52	98	105	108	63	13	14	101
29	36	37	88	51	---	126	132	105	59	15	17	96
30	35	37	88	51	---	135	141	100	57	14	18	95
31	34	---	86	51	---	140	---	96	---	13	16	---
TOTAL	1441	1100	1756	2231	1430	2144	3576	4881	3248	1044	426	1063
MEAN	46.5	36.7	56.6	72.0	51.1	69.2	119	157	108	33.7	13.7	35.4
MAX	90	39	102	94	59	140	222	361	247	56	18	105
MIN	33	35	37	51	49	51	81	84	57	12	12	15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2002, BY WATER YEAR (WY)

MEAN	71.9	103	156	168	180	224	212	150	112	63.4	60.2	63.4
MAX	216	354	422	489	327	434	595	294	444	136	168	240
(WY)	1956	1956	1987	1979	1970	1983	1983	1948	1982	1998	1979	1954
MIN	28.5	28.7	34.5	35.9	45.7	69.2	68.2	55.6	39.2	26.8	13.7	25.5
(WY)	1942	1966	1966	1966	1966	2002	1966	1992	1957	1995	2002	1995

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1941 - 2002	
ANNUAL TOTAL	44299		24340			
ANNUAL MEAN	121		66.7		130	
HIGHEST ANNUAL MEAN					202	
LOWEST ANNUAL MEAN					56.9	
HIGHEST DAILY MEAN	1000		361		1680	
LOWEST DAILY MEAN	30		12		2.8	
ANNUAL SEVEN-DAY MINIMUM	31		13		9.3	
MAXIMUM PEAK FLOW			381		1980	
MAXIMUM PEAK STAGE			2.56		5.30	
INSTANTANEOUS LOW FLOW			12			
10 PERCENT EXCEEDS	270		121		261	
50 PERCENT EXCEEDS	76		51		99	
90 PERCENT EXCEEDS	36		15		29	

PAWTUXET RIVER BASIN
01116500 PAWTUXET RIVER AT CRANSTON, RI--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	110443		59454			
ANNUAL MEAN	303		163		348	
HIGHEST ANNUAL MEAN					595 1973	
LOWEST ANNUAL MEAN					126 1966	
HIGHEST DAILY MEAN	2970	Mar 31	876	May 14	5170	Jun 7 1982
LOWEST DAILY MEAN	66	Sep 14	40	Aug 25	22	Sep 4 1944
ANNUAL SEVEN-DAY MINIMUM	72	Sep 5	44	Aug 21	44	Aug 21 2002
MAXIMUM PEAK FLOW			957	May 14	5440	Jun 7 1982
MAXIMUM PEAK STAGE			6.69	May 14	14.50	Jun 7 1982
INSTANTANEOUS LOW FLOW			33	Aug 18		
10 PERCENT EXCEEDS	639		263		741	
50 PERCENT EXCEEDS	182		141		238	
90 PERCENT EXCEEDS	88		68		100	
e Estimated						

† Monthend contents, in millions of cubic feet (mcf), in Scituate Reservoir and five smaller reservoirs. Monthend contents on Sept. 30, 2001, 4,605 mcf.

†† Diversions, in cubic feet per second, for municipal supplies. Figures of diversions and monthend contents provided by Providence Water Supply Board.

PAWTUXET RIVER BASIN

01116500 PAWTUXET RIVER AT CRANSTON, RI--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1961 to current year.

REMARKS.--Discharge computed by discharge measurements on the day of sampling. Instantaneous records are representative of the cross section while continuous records are based on point samples.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1969 to September 1981.

WATER TEMPERATURE: November 1961 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 693 µS/cm, Mar. 11, 1980; minimum, 60 µS/cm, Jan. 25, 1979.

WATER TEMPERATURE: Maximum recorded, 30.0°C, July 1, 1964, Aug. 14, 1973; minimum, 0.0°C on many days during winter periods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (000061)	COLOR (PLAT-INUM-COBALT UNITS) (000080)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATURATION) (00301)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM DIS-SOLVED (MG/L AS MG) (00925)	POTASSIUM DIS-SOLVED (MG/L AS K) (00935)	
DEC														
11...	1030	109	20	9.2	75	6.8	406	6.6	7.3	36	11.6	1.79	6.05	
JAN														
02...	1300	149	--	12.3	88	6.4	250	9.7	1.9	--	--	--	--	
APR														
23...	1050	163	--	8.2	77	7.2	281	5.1	12.8	--	--	--	--	
JUN														
11...	0846	295	40	7.4	80	7.1	190	17.3	19.2	25	7.80	1.44	2.60	
AUG														
06...	1520	68	--	5.7	69	7.0	431	24.2	25.0	--	--	--	--	
DATE		SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SULFATE, DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, TOTAL (MG/L AS N) (00600)
DEC														
11...	53.1	22	26	79.5	0.4	24.4	<10	218	0.87	1.4	1.22	0.044	2.6	
JAN														
02...	--	--	--	--	--	--	--	--	--	--	--	--	--	
APR														
23...	--	19	23	--	--	--	--	--	1.64	2.2	.85	.070	3.1	
JUN														
11...	26.6	13	16	38.1	.19	13.2	<10	117	.45	.86	.72	.046	1.6	
AUG														
06...	--	24	30	--	--	--	--	--	.16	.76	2.44	.121	3.2	

PAWTUXET RIVER BASIN

01116500 PAWTUXET RIVER AT CRANSTON, RI--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ORTHOPHOSPHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	E COLI, MTEC MF WATER (COL/100 ML) (31633)	COLIFORM, FECAL, UM-MF (COLS./100 ML) (31625)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ANTIMONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)
DEC 11...	0.09	0.16	4.7	20	E29	E14	11	36	0.11	<2	15
JAN 02...	--	--	--	--	--	--	--	--	--	--	--
APR 23...	.10	.16	4.8	--	190	93	18	45	.16	<2	15
JUN 11...	.14	.19	6.5	20	96	62	36	99	.10	<2	13
AUG 06...	.71	.71	--	--	48	24	5	13	.23	<2	10

DATE	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)
DEC 11...	E0.03	0.07	<0.8	0.44	1.7	490	0.31	155	170	E0.01	0.7
JAN 02...	--	--	--	--	--	--	--	--	--	--	--
APR 23...	.09	.09	<.8	.33	1.9	480	.52	142	158	<.01	2.1
JUN 11...	.13	.05	<.8	.28	1.7	630	.57	112	127	E.01	1.8
AUG 06...	<.06	.10	<.8	.27	3.1	260	.28	50.0	65	<.01	5.6

DATE	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	PHENOLS TOTAL (UG/L) (32730)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
DEC 11...	1.74	E0.1	12	<16	0.03	99	120
JAN 02...	--	--	--	--	--	--	--
APR 23...	1.28	<.1	13	--	.03	99	116
JUN 11...	1.62	<.1	10	<16	.04	98	73
AUG 06...	3.94	<.1	15	--	E.01	98	136

PAWTUXET RIVER BASIN
 01116617 PAWTUXET RIVER AT PAWTUXET, RI
 WATER-QUALITY RECORDS

LOCATION.--Lat 41°46'03", long 71°24'21", Providence County, Hydrologic Unit 01090004, at Warwick Ave. Road Bridge at Pawtuxet, and 3.2 mi downstream from Cranston Sewage Treatment Plant.

PERIOD OF RECORD.--Water years 1979 to current year.

REMARKS.--Discharge computed by discharge measurements on the day of sampling. Instantaneous records are representative of the cross section.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (00301)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-AIRE (DEG C) (00020)	TEMPER-WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	
DEC														
11...	1400	125	20	7.9	66	6.8	451	13.7	8.3	44	13.9	2.30	6.50	
JAN														
02...	1340	E200	--	11.7	84	6.6	289	11.3	1.9	--	--	--	--	
APR														
23...	1500	225	--	7.4	70	7.2	349	7.8	13.0	--	--	--	--	
JUN														
11...	1305	314	35	7.3	80	7.0	247	30.1	20.1	36	11.4	1.90	3.21	
AUG														
06...	1530	E89	--	6.8	82	7.0	452	27.0	25.0	--	--	--	--	
DATE		SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO-GEN, AMMONIA (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + DIS-SOLVED ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
DEC														
11...	57.1	31	37	88.9	0.4	26.8	<10	240	1.55	2.4	1.62	0.057	4.1	
JAN														
02...	--	--	--	--	--	--	--	--	--	--	--	--	--	
APR														
23...	--	34	41	--	--	--	--	--	2.97	3.9	.95	.111	4.9	
JUN														
11...	33.9	19	23	46.0	.23	16.8	<10	142	.28	.86	1.37	.064	2.2	
AUG														
06...	--	33	40	--	--	--	--	--	E.04	.69	3.09	.030	3.8	

PAWTUXET RIVER BASIN

01116617 PAWTUXET RIVER AT PAWTUXET, RI--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ORTHO-PHOSPHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	E COLI, MTEC MF (COL/100 ML) (31633)	COLIFORM, FECAL, UM-MF (COLS./100 ML) (31625)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
DEC 11...	0.26	0.36	5.2	20	58	65	6	30	0.15	<2	16	<0.06	0.09
JAN 02...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	.64	.81	7.1	--	120	67	15	46	.19	<2	17	.07	.17
JUN 11...	.30	.39	6.4	20	E40	127	28	74	.13	<4	16	.09	.08
AUG 06...	1.17	1.20	--	--	E380	230	4	16	.34	E1	11	<.06	
DATE	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	PHENOLS TOTAL (UG/L) (32730)
DEC 11...	<0.8	0.60	1.8	490	0.30	197	217	<0.01	0.7	2.47	<0.1	14	<16
JAN 02...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	<.8	.50	3.4	560	.50	184	190	<.01	2.0	3.71	E.1	15	--
JUN 11...	<.8	.32	2.2	610	.57	113	127	E.01	1.6	2.54	<.1	9	<16
AUG 06...	<.8	.24	3.0	230	.34	39.6	46	<.01	4.6	4.55	<.1	12	--
DATE	ALDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49319)	ALPHA-BHC, D6 SURROGT SED, BM WS, <2MM DW, REC PERCENT (49275)	ALPHA-BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49338)	BENZENE HEXACHLORO, SED, BM WS, <2MM DW, REC (UG/KG) (49343)	BETA-BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49339)	CHLORONEB, SED, BM WS, <2MM DW, REC (UG/KG) (49322)	CIS-CHLORDANE, SED, BM WS, <2MM DW, REC (UG/KG) (49320)	CIS-NONACHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49316)	CIS-PER-METHRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49349)	DCPA, SED, BM WS, <2MM DW, REC (UG/KG) (49324)	DIELDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49331)	ENDO-SULFAN I, SED, BM WS, <2MM DW, REC (UG/KG) (49332)	ENDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49335)
DEC 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 02...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 06...	<1	57	<1	<1	<1	<5	M	<1	<5	<5	<1	<1	<2

PAWTUXET RIVER BASIN

01116617 PAWTUXET RIVER AT PAWTUXET, RI--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	HEPTA-CHLOR EPOXIDE SED, BM WS, <2MM DW, REC (UG/KG) (49342)	HEPTA-CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49341)	ISODRIN SED, BM WS, <2MM DW, REC (UG/KG) (49344)	LINDANE SED, BM WS, <2MM DW, REC (UG/KG) (49345)	METHOXY CHLOR, O, P' - , SED, BM WS, <2MM DW, REC (UG/KG) (49347)	METHOXY CHLOR P, P' - , SED, BM WS, <2MM DW, REC (UG/KG) (49346)	MIREX, SED, BM WS, <2MM DW, REC (UG/KG) (49348)	O, P' - DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49325)	O, P' - DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49327)	O, P' - DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49329)	OXY-CHLOR-DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49318)	P, P' - DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49326)	P, P' - DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49328)
DEC 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 02...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 06...	<1	<1	<1	<1	<5	<5	<1	<1	<1	<2	<1	<1	M

DATE	P, P' - DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS, <2MM DW, REC (UG/KG) (49459)	PENTA-CHLORO - ANISOLE SED, BM WS, <2MM DW, REC (UG/KG) (49460)	TOXA-PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)	TRANS-CHLOR-DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS-NONA-CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)	TRANS-PER-METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDIMENT, SUS-PENDED (MG/L) (80154)	SEDIMENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
DEC 11...	--	--	--	--	--	--	--	0.02	99	121	40.8
JAN 02...	--	--	--	--	--	--	--	--	--	--	--
APR 23...	--	--	--	--	--	--	--	.04	98	155	94.2
JUN 11...	--	--	--	--	--	--	--	.04	99	118	100
AUG 06...	<2	E30	<1	<200	M	M	<5	E.01	99	182	--

0 Remark codes used in this report:
 < Less than
 E Estimated value
 M Presence verified, not quantified

POTOWOMUT RIVER BASIN

01117000 HUNT RIVER NEAR EAST GREENWICH, RI

LOCATION.--Lat 41°38'28", long 71°26'45", Washington County, Hydrologic Unit 01090004, on right bank 45 ft upstream from Old Forge Dam in North Kingstown, 1.5 mi south of East Greenwich, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--22.9 mi².

PERIOD OF RECORD.--Discharge: August 1940 to current year. Prior to October 1977, published as "Potowomut River."

Water-quality records: Water years 1977-81.

REVISED RECORDS.--WSP 1621: 1957-58; 1995.

GAGE.--Water-stage recorder. Datum of gage is 5.42 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharge, which are poor. Flow affected by diversions for supply of East Greenwich, North Kingstown, Warwick, and Quonset Point (formerly U.S. Naval establishments).

AVERAGE DISCHARGE.--63 years, 46.6 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft³/s, June 6, 1982, gage height, 3.73 ft, from rating curve extended above 440 ft³/s; maximum gage height of 6.78 ft, Aug. 31, 1954 (backwater from hurricane tidal wave); no flow at times in water years 1948, 1960, 1971, 1975-77, 1983, 1986-87, caused by closing of gate at Old Forge Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1915, about 8.5 ft, Sept. 21, 1938 (backwater from hurricane tidal wave).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 276 ft³/s, May 14, gage height, 2.22 ft; minimum, not determined, minimum daily, 3.1 ft³/s (estimated), Sept. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	12	13	12	23	21	125	55	53	20	e8.1	e5.1
2	20	12	12	11	25	20	108	56	42	19	e7.8	e6.5
3	16	12	11	10	21	83	78	71	35	17	e8.0	e8.9
4	13	12	11	10	21	85	64	56	31	15	e8.2	e8.6
5	13	12	10	10	20	52	56	46	30	13	e7.9	e7.0
6	11	12	10	11	18	38	51	41	41	13	e7.7	e5.1
7	9.6	12	10	28	18	32	49	38	157	12	e7.3	e4.1
8	9.4	11	9.7	23	18	30	45	37	128	12	e7.1	e3.8
9	9.4	11	13	19	17	27	44	35	77	12	e6.8	e3.7
10	9.4	11	15	18	16	47	69	36	55	11	e6.9	e3.6
11	8.9	11	20	20	35	43	61	32	44	10	e6.6	e3.6
12	8.6	11	18	24	31	35	51	32	39	9.6	e6.2	e3.6
13	8.8	10	12	37	26	32	48	73	43	8.8	e5.8	e3.4
14	8.9	11	13	43	20	35	44	236	39	8.8	e5.4	e3.2
15	12	12	15	38	19	31	45	156	49	8.6	e5.2	e3.1
16	13	12	14	32	20	30	44	97	51	8.2	e5.0	e4.3
17	21	11	13	26	20	28	40	70	54	8.0	e4.9	e5.6
18	18	10	29	24	20	29	40	132	44	7.9	e4.6	e5.8
19	14	10	31	21	20	34	37	160	44	7.6	e4.3	e5.0
20	11	11	14	21	19	46	37	109	92	8.2	e4.1	e4.3
21	11	9.9	6.8	22	32	91	34	81	54	8.2	e3.9	e4.0
22	10	9.4	13	25	29	62	36	67	41	7.8	e3.8	e3.8
23	10	8.9	12	25	24	45	40	59	41	7.6	e3.7	e4.3
24	10	9.1	31	32	21	39	37	53	37	e10	e3.7	e5.4
25	12	9.3	32	33	20	35	36	48	30	e10	e3.6	e5.4
26	11	18	24	27	20	37	73	45	29	e9.7	e3.5	e4.7
27	10	19	20	24	22	113	55	44	28	e9.1	e3.4	e6.8
28	10	15	16	22	24	94	59	50	25	e9.1	e3.2	e11
29	11	13	14	21	---	64	86	49	24	e9.4	e3.4	e9.5
30	11	13	13	21	---	57	66	43	22	e9.3	e5.4	e7.2
31	10	---	13	20	---	56	---	40	---	e8.8	e5.6	---
TOTAL	369.0	350.6	488.5	710	619	1471	1658	2147	1479	328.7	171.1	160.4
MEAN	11.9	11.7	15.8	22.9	22.1	47.5	55.3	69.3	49.3	10.6	5.52	5.35
MAX	21	19	32	43	35	113	125	236	157	20	8.2	11
MIN	8.6	8.9	6.8	10	16	20	34	32	22	7.6	3.2	3.1

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

MEAN	18.7	36.2	52.7	62.6	70.5	89.2	83.8	61.5	38.7	18.0	15.3	14.0
MAX	70.1	108	151	186	122	169	230	114	182	56.3	65.1	73.6
(WY)	1956	1956	1987	1979	1970	1983	1983	1989	1982	1984	1946	1954
MIN	1.76	8.05	5.53	7.19	17.5	30.0	25.2	23.8	10.8	5.23	3.06	1.59
(WY)	1969	1950	1966	1966	1944	1981	1966	1992	1957	1994	1965	1968

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1940 - 2002

ANNUAL TOTAL	18590.9	9952.3										
ANNUAL MEAN	50.9	27.3								46.6		
HIGHEST ANNUAL MEAN										81.5		1984
LOWEST ANNUAL MEAN										17.7		1966
HIGHEST DAILY MEAN				590	Mar 22		236	May 14		861	Jun 6	1982
LOWEST DAILY MEAN				6.0	Sep 20		3.1	Sep 15		0.00	Oct 25	1947
ANNUAL SEVEN-DAY MINIMUM				6.9	Sep 14		3.5	Sep 9		0.10	Sep 13	1943
MAXIMUM PEAK FLOW							276	May 14		1020	Jun 6	1982
MAXIMUM PEAK STAGE							2.22	May 14		6.78	Aug 31	1954
INSTANTANEOUS LOW FLOW										0.00	Oct 24	1947
10 PERCENT EXCEEDS				121			56			101		
50 PERCENT EXCEEDS				30			18			34		
90 PERCENT EXCEEDS				10			5.4			6.2		

e Estimated

PAWCATUCK RIVER BASIN

01173545 QUEEN RIVER, 1,400 FT UPSTREAM OF WILLIAMS REYNOLD ROAD, AT EXETER, RI

LOCATION.--Lat 41°33'57", long 71°32'51", Washington County, Hydrologic Unit 01090005, on left bank 1,400 ft upstream of William Reynolds Road, 0.7 mi upstream from Fisherville Brook, and 0.9 mi south of Exeter.

DRAINAGE AREA.--3.69 mi².

PERIOD OF RECORD.--October 1999 to December 2001, July to September 2002.

REVISED RECORDS.--WDR MA-RI-00-1: (M).

GAGE.--Water-stage recorder. Datum of gage is 155 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those greater than 100 ft³/s and those for estimated daily discharge, which are poor. Flow occasionally affected by upstream withdrawals, October to November 2001 and April to November 2002.

AVERAGE DISCHARGE.--October 1999 to December 2001, July to September 2002, 8.36 ft³/s, 30.78 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 277 ft³/s, Mar. 22, 2001, gage height, 3.55 ft, minimum, no flow (upstream withdrawals), Nov. 13, 2001, Aug. 26, 27, 28, 2002.

EXTREMES FOR THE PERIOD OCTOBER TO DECEMBER 2001 AND JULY TO SEPTEMBER 2002.--Maximum discharge, 4.4 ft³/s, Sept. 23, 27, gage height, 1.44 ft, minimum, no flow, Nov. 13, Aug. 26, 27, 28.

REVISIONS.--The estimated daily mean discharge of 0.39 ft³/s on Nov. 13, 2001, which was published last year in the 2001 Annual Data Report, is revised to the computed (non-estimated) daily mean discharge of 0.32 ft³/s. The minimum instantaneous discharge for this date indicates no flow, which resulted from upstream withdrawals.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	0.86	1.1	---	---	---	---	---	---	---	0.68	0.06
2	2.4	.84	1.0	---	---	---	---	---	---	---	.68	.71
3	1.7	.84	.94	---	---	---	---	---	---	---	.81	.77
4	1.4	.77	.91	---	---	---	---	---	---	---	.76	.51
5	1.3	.83	e.92	---	---	---	---	---	---	---	.82	.42
6	1.5	.79	---	---	---	---	---	---	---	---	.89	.39
7	1.3	.79	---	---	---	---	---	---	---	---	.79	.38
8	1.1	.66	---	---	---	---	---	---	---	---	.76	.39
9	.97	.31	---	---	---	---	---	---	---	---	.81	.39
10	1.0	.40	---	---	---	---	---	---	---	---	.72	.36
11	1.1	.67	---	---	---	---	---	---	---	---	.66	.33
12	.87	.61	---	---	---	---	---	---	---	---	.54	.31
13	.82	.32	---	---	---	---	---	---	---	---	.45	.35
14	.95	.39	---	---	---	---	---	---	---	---	.39	.31
15	.97	.64	---	---	---	---	---	---	---	---	.34	.39
16	.95	.61	---	---	---	---	---	---	---	e.31	.22	.83
17	1.5	.56	---	---	---	---	---	---	---	.31	.14	.57
18	1.3	.59	---	---	---	---	---	---	---	.31	.15	.77
19	1.1	.63	---	---	---	---	---	---	---	.31	.10	.47
20	1.2	.71	---	---	---	---	---	---	---	.50	.24	.45
21	1.2	.65	---	---	---	---	---	---	---	.99	.16	.21
22	.96	.65	---	---	---	---	---	---	---	.62	.12	.20
23	1.0	.64	---	---	---	---	---	---	---	.31	.11	2.8
24	1.1	.67	---	---	---	---	---	---	---	.57	.11	1.9
25	1.2	.82	---	---	---	---	---	---	---	.53	.12	1.5
26	.93	1.7	---	---	---	---	---	---	---	.49	.06	1.3
27	.84	1.4	---	---	---	---	---	---	---	.66	.06	3.8
28	.88	1.2	---	---	---	---	---	---	---	.68	.04	3.1
29	.89	1.1	---	---	---	---	---	---	---	1.4	.25	2.2
30	.74	1.1	---	---	---	---	---	---	---	1.9	.23	e1.7
31	.73	---	---	---	---	---	---	---	---	1.1	.15	---
TOTAL	36.70	22.75	---	---	---	---	---	---	---	---	12.36	27.87
MEAN	1.18	0.76	---	---	---	---	---	---	---	---	0.40	0.93
MAX	2.8	1.7	---	---	---	---	---	---	---	---	0.89	3.8
MIN	0.73	0.31	---	---	---	---	---	---	---	---	0.04	0.06
MED	1.1	0.67	---	---	---	---	---	---	---	---	0.25	0.46
AC-FT	.73	.45	---	---	---	---	---	---	---	---	.25	.55
CFSM	0.32	0.21	---	---	---	---	---	---	---	---	0.11	0.25
IN.	0.37	0.23	---	---	---	---	---	---	---	---	0.12	0.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

	2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002
MEAN	2.28	3.40	6.87	7.04	10.2	22.3	18.2	9.62	11.4	2.92	1.78	1.63
MAX	4.47	6.20	7.78	7.41	10.2	28.3	18.8	11.5	13.5	3.69	2.80	2.52
(WY)	2000	2000	2001	2000	2000	2001	2000	2001	2001	2000	2000	2000
MIN	1.18	0.76	5.97	6.66	10.2	16.4	17.7	7.72	9.16	2.14	0.40	0.93
(WY)	2001	2002	2000	2001	2001	2000	2001	2001	2000	2000	2002	2002

SUMMARY STATISTICS

	WATER YEARS 2000 - 2002
ANNUAL MEAN	8.36
HIGHEST ANNUAL MEAN	8.61 2001
LOWEST ANNUAL MEAN	8.11 2000
HIGHEST DAILY MEAN	159 Mar 22 2001
LOWEST DAILY MEAN	0.04 Aug 28 2002
ANNUAL SEVEN-DAY MINIMUM	0.09 Aug 22 2002
ANNUAL RUNOFF (AC-FT)	6060
ANNUAL RUNOFF (CFSM)	2.27
ANNUAL RUNOFF (INCHES)	30.78
10 PERCENT EXCEEDS	18
50 PERCENT EXCEEDS	5.3
90 PERCENT EXCEEDS	1.3

e Estimated

PAWCATUCK RIVER BASIN

01117370 QUEEN RIVER AT LIBERTY ROAD AT LIBERTY, RI

LOCATION.--Lat 41°32'20", long 71°34'09", Washington County, Hydrologic Unit 01090005, on left bank 2ft downstream from bridge on Liberty Road, at Liberty, RI.

DRAINAGE AREA.--19.1 mi².

PERIOD OF RECORD.--Discharge: October 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for discharges greater than 500 ft³/s, which are poor.

AVERAGE DISCHARGE.--4 years, 31.5 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 779 ft³/s, Mar. 22, 2001, gage height, 5.55 ft³/s; minimum, 1.6 ft³/s, Aug. 4, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 125 ft³/s, May 14, gage height, 3.18 ft; minimum, 2.7 ft³/s, Sept. 10, 11, 12.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	4.5	5.7	5.2	15	14	63	34	36	17	4.7	6.7
2	16	4.4	4.3	4.9	16	13	58	34	34	15	4.4	18
3	12	5.2	3.9	4.5	15	39	44	41	30	15	5.4	28
4	9.5	5.2	3.8	4.3	14	43	40	33	27	14	6.1	16
5	8.2	5.1	3.9	4.2	13	28	37	29	27	13	7.0	9.7
6	7.5	4.8	3.9	4.6	11	24	34	27	32	12	8.5	6.0
7	7.2	4.5	3.9	13	11	22	32	26	86	12	6.0	4.3
8	6.4	4.1	3.5	12	12	21	32	25	82	12	5.6	3.8
9	6.1	4.0	6.2	9.1	11	20	31	24	49	12	6.2	3.3
10	6.2	3.5	6.7	9.0	11	27	43	25	39	12	5.3	2.9
11	6.2	6.0	6.8	10	19	27	41	22	34	10	6.5	2.9
12	6.0	4.1	6.3	12	18	23	34	22	31	9.5	8.7	2.9
13	5.6	3.8	6.2	20	16	23	32	36	31	9.3	7.4	2.9
14	5.5	3.8	6.6	24	14	25	31	112	31	8.8	7.1	3.5
15	7.4	3.8	8.4	21	13	22	31	81	37	8.7	7.2	3.6
16	6.8	4.4	6.5	19	13	22	30	54	38	8.1	7.6	14
17	11	3.3	6.1	17	13	20	28	46	45	7.2	8.0	12
18	9.4	3.4	18	16	14	21	27	76	35	6.8	5.9	8.4
19	8.2	3.7	20	14	13	23	25	102	28	6.2	9.1	5.6
20	9.6	4.0	14	15	13	28	25	68	26	7.3	13	4.3
21	6.9	3.9	11	14	18	46	24	56	25	7.3	10	4.0
22	7.5	3.7	8.7	16	18	34	24	50	25	7.0	8.7	4.0
23	6.2	3.7	7.7	16	16	28	27	46	28	6.3	9.9	26
24	6.1	3.8	17	20	14	25	25	43	24	6.5	10	17
25	5.3	4.5	20	21	14	24	26	40	21	5.7	11	9.6
26	6.7	9.6	14	17	13	25	43	37	24	5.3	9.7	7.2
27	5.5	8.6	11	15	14	57	33	38	23	5.6	9.7	24
28	5.3	6.8	9.0	14	15	50	34	38	22	5.8	8.6	25
29	4.9	5.6	8.1	14	---	36	47	42	20	8.2	13	17
30	4.4	5.6	7.2	14	---	35	38	37	18	7.6	11	12
31	4.0	---	6.1	13	---	34	---	33	---	6.1	8.3	---
TOTAL	233.6	141.4	264.5	412.8	397	879	1039	1377	1008	287.3	249.6	304.6
MEAN	7.54	4.71	8.53	13.3	14.2	28.4	34.6	44.4	33.6	9.27	8.05	10.2
MAX	16	9.6	20	24	19	57	63	112	86	17	13	28
MIN	4.0	3.3	3.5	4.2	11	13	24	22	18	5.3	4.4	2.9
CFSM	0.39	0.25	0.45	0.70	0.74	1.48	1.81	2.33	1.76	0.49	0.42	0.53
IN.	0.45	0.28	0.52	0.80	0.77	1.71	2.02	2.68	1.96	0.56	0.49	0.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

	1999	2000	2001	2002	1999	2000	2001	2002	1999	2000	2001	2002
MEAN	13.1	17.3	20.4	32.5	45.4	75.6	59.0	41.6	37.2	13.4	10.7	12.8
MAX	25.5	32.8	31.8	54.3	73.2	121	87.2	51.0	57.1	23.5	16.5	18.0
(WY)	2000	2000	2001	1999	1999	2001	2001	2000	2001	2001	2000	1999
MIN	7.37	4.71	8.53	13.3	14.2	28.4	34.6	33.9	16.0	5.70	3.78	9.56
(WY)	2001	2002	2002	2002	2002	2002	2002	1999	1999	1999	1999	2001

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1999 - 2002
ANNUAL TOTAL	13467.5	6593.8	
ANNUAL MEAN	36.9	18.1	31.5
HIGHEST ANNUAL MEAN			39.8
LOWEST ANNUAL MEAN			18.1
HIGHEST DAILY MEAN	477	112	477
LOWEST DAILY MEAN	3.2	2.9	1.7
ANNUAL SEVEN-DAY MINIMUM	3.7	3.1	1.9
MAXIMUM PEAK FLOW		125	779
MAXIMUM PEAK STAGE		3.18	5.55
INSTANTANEOUS LOW FLOW		2.7	1.6
ANNUAL RUNOFF (CFSM)	1.93	0.95	1.65
ANNUAL RUNOFF (INCHES)	26.23	12.84	22.38
10 PERCENT EXCEEDS	91	37	69
50 PERCENT EXCEEDS	24	13	24
90 PERCENT EXCEEDS	4.5	4.3	5.8

PAWCATUCK RIVER BASIN

0117410 USQUEPAUG RIVER AT RT. 138, AT USQUEPAUG, RI

LOCATION.--Lat 41°30'09", long 71°36'30", Washington County, Hydrologic Unit 01090005, on right bank on upstream side of bridge on State Route 138, 700 ft downstream from Glen Rock Reservoir, and 0.1 mi south of Usquepaug.

DRAINAGE AREA.--32.8 mi².

PERIOD OF RECORD.--July 1999 to December 2001, July to September 2002.

GAGE.--Water-stage recorder. Datum of gage is 110 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharge, which are poor. Flow occasionally affected by upstream withdrawals.

EXTREMES FOR THE PERIOD OF RECORD.--Maximum discharge, 370 ft³/s, Apr. 23, 2000, gage height, 5.79 ft; minimum, 4.2 ft³/s, Aug. 5, 1999.

EXTREMES FOR THE CURRENT YEAR.--Maximum discharge, 41 ft³/s, Sept. 3, gage height, 1.80 ft; minimum, 5.0 ft³/s, Aug. 27, 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	12	13	---	---	---	---	---	---	---	9.5	8.0
2	31	13	12	---	---	---	---	---	---	---	8.8	19
3	23	13	11	---	---	---	---	---	---	---	9.7	37
4	20	13	11	---	---	---	---	---	---	---	9.2	27
5	17	13	e11	---	---	---	---	---	---	---	9.0	19
6	16	13	---	---	---	---	---	---	---	---	9.4	14
7	15	12	---	---	---	---	---	---	---	---	8.3	12
8	14	12	---	---	---	---	---	---	---	---	7.6	11
9	14	12	---	---	---	---	---	---	---	---	7.3	10
10	14	11	---	---	---	---	---	---	---	---	7.6	9.3
11	14	12	---	---	---	---	---	---	---	---	7.7	8.3
12	14	12	---	---	---	---	---	---	---	---	7.5	8.2
13	14	11	---	---	---	---	---	---	---	---	6.9	7.9
14	13	11	---	---	---	---	---	---	---	---	6.7	7.8
15	15	11	---	---	---	---	---	---	---	---	6.7	8.0
16	15	11	---	---	---	---	---	---	---	e13	6.4	20
17	19	11	---	---	---	---	---	---	---	12	6.6	20
18	18	10	---	---	---	---	---	---	---	12	6.3	14
19	16	11	---	---	---	---	---	---	---	12	5.7	12
20	17	11	---	---	---	---	---	---	---	13	5.9	10
21	15	11	---	---	---	---	---	---	---	13	6.9	9.4
22	15	11	---	---	---	---	---	---	---	12	6.4	9.1
23	15	10	---	---	---	---	---	---	---	12	6.2	23
24	15	10	---	---	---	---	---	---	---	12	6.2	22
25	14	11	---	---	---	---	---	---	---	11	6.5	16
26	14	18	---	---	---	---	---	---	---	11	6.3	13
27	14	16	---	---	---	---	---	---	---	11	5.8	29
28	13	14	---	---	---	---	---	---	---	11	5.3	32
29	13	13	---	---	---	---	---	---	---	12	7.5	22
30	13	13	---	---	---	---	---	---	---	12	11	17
31	12	---	---	---	---	---	---	---	---	10	9.2	---
TOTAL	502	362	---	---	---	---	---	---	---	---	230.1	475.0
MEAN	16.2	12.1	---	---	---	---	---	---	---	---	7.42	15.8
MAX	31	18	---	---	---	---	---	---	---	---	11	37
MIN	12	10	---	---	---	---	---	---	---	---	5.3	7.8
CFSM	0.49	0.37	---	---	---	---	---	---	---	---	0.23	0.48
IN.	0.57	0.41	---	---	---	---	---	---	---	---	0.26	0.54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

	1999	2000	2001	2000	2000	2001	2000	2001	2000	2000	2000	2002
MEAN	25.6	34.2	59.3	55.1	81.3	156	147	80.7	92.8	34.1	18.2	23.4
MAX	46.6	56.8	64.6	58.6	82.2	186	160	85.1	113	41.3	30.7	32.4
(WY)	2000	2000	2001	2000	2000	2001	2001	2000	2001	2001	2000	1999
MIN	13.9	12.1	54.0	51.5	80.4	127	133	76.4	73.0	27.0	7.42	15.8
(WY)	2001	2002	2000	2001	2001	2000	2000	2001	2000	2000	2002	2002

SUMMARY STATISTICS

WATER YEARS 1999 - 2002

ANNUAL MEAN	69.3
HIGHEST ANNUAL MEAN	72.1
LOWEST ANNUAL MEAN	66.5
HIGHEST DAILY MEAN	540
LOWEST DAILY MEAN	4.4
ANNUAL SEVEN-DAY MINIMUM	4.8
MAXIMUM PEAK FLOW	370
MAXIMUM PEAK STAGE	5.79
INSTANTANEOUS LOW FLOW	4.2
ANNUAL RUNOFF (CFSM)	2.12
ANNUAL RUNOFF (INCHES)	28.76
10 PERCENT EXCEEDS	139
50 PERCENT EXCEEDS	50
90 PERCENT EXCEEDS	17

e Estimated

PAWCATUCK RIVER BASIN

01117468 BEAVER RIVER NEAR USQUEPAUG, RI

LOCATION.--Lat 41°29'33", long 71°37'43", Washington County, Hydrologic Unit 01090005, on right bank 10 ft downstream from Beaver River Bridge on State Highway 138 in Richmond, 1.2 mi southwest of Usquepaug, 3.3 mi north of Kenyon, and 3.6 mi upstream from mouth.

DRAINAGE AREA.--8.87 mi².

PERIOD OF RECORD.--Discharge: December 1974 to current year.

Water-quality records: Water years 1979-83.

REVISED RECORDS.--WDR MA-RI-79-1: 1978. WDR MA-RI-81-1: 1978-80 (P).

GAGE.--Water-stage recorder. Datum of gage is 107.68 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--27 years (water years 1976 to current year), 21.0 ft³/s, 32.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 370 ft³/s, June 6, 1982, gage height, 3.83 ft; minimum, 1.1 ft³/s, Sept. 7, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 68 ft³/s, May 18, gage height, 2.29 ft; minimum, 1.9 ft³/s, Aug. 27, 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	4.2	4.7	6.0	8.4	7.3	37	24	23	11	4.1	2.8
2	8.6	4.4	4.6	4.6	8.6	7.2	31	25	20	10	4.1	7.4
3	7.1	4.2	4.2	4.8	8.1	23	26	28	18	9.6	4.1	8.7
4	6.4	4.4	3.9	4.8	8.2	21	24	23	17	8.9	4.0	7.6
5	6.2	5.5	3.6	4.3	7.8	17	22	21	17	8.2	3.8	6.2
6	5.7	4.3	3.5	4.2	7.1	14	21	20	20	7.7	3.6	5.1
7	5.1	4.2	3.6	5.9	7.4	12	19	19	56	7.5	3.5	4.1
8	5.0	4.0	3.5	5.8	7.8	11	19	19	50	7.5	3.4	3.6
9	5.2	4.2	4.3	5.4	7.1	11	18	18	36	7.3	3.2	3.1
10	5.0	3.8	4.2	5.4	6.8	15	25	18	28	7.0	3.1	2.8
11	5.1	3.6	4.6	6.1	10	14	23	17	23	6.6	3.0	2.7
12	5.3	3.6	4.5	6.7	9.6	13	21	17	20	6.3	2.9	2.5
13	5.0	4.1	4.3	10	9.1	12	19	26	21	6.1	2.8	2.5
14	4.8	4.1	4.4	11	8.4	13	19	56	21	6.0	2.7	2.5
15	4.8	3.9	5.2	10	7.5	12	19	41	25	5.9	2.7	2.8
16	4.5	3.9	5.0	9.3	7.6	12	18	31	25	5.8	2.7	5.6
17	5.4	3.8	4.7	8.3	7.5	11	17	27	29	5.6	2.5	5.2
18	4.9	3.7	8.0	7.6	7.8	12	16	49	26	5.5	2.4	4.5
19	4.6	3.8	7.7	6.9	7.5	13	16	51	22	5.4	2.3	4.0
20	4.6	3.9	6.7	6.7	7.3	16	15	38	18	5.7	2.6	3.7
21	4.3	3.8	6.2	7.0	9.9	24	14	33	16	5.6	2.5	3.4
22	4.2	4.2	5.7	7.7	9.3	18	15	31	16	5.4	2.3	3.2
23	4.2	4.5	5.4	7.7	8.3	16	17	28	22	5.3	2.4	5.9
24	4.3	4.3	8.5	10	7.6	14	16	27	17	5.4	2.3	5.2
25	4.2	4.4	8.7	10	7.2	13	16	26	13	5.0	2.4	4.7
26	4.0	5.8	7.3	9.0	6.6	14	23	25	17	4.7	2.2	4.3
27	4.3	5.2	6.6	8.2	6.9	31	20	24	22	4.7	2.1	7.6
28	5.0	4.9	6.7	8.3	7.7	26	23	24	23	4.9	2.0	7.0
29	4.0	4.7	6.1	9.3	---	21	28	23	16	5.4	3.0	6.1
30	4.0	4.4	5.3	8.2	---	20	24	22	12	4.8	3.8	5.4
31	4.0	---	5.4	7.9	---	20	---	21	---	4.4	3.1	---
TOTAL	159.4	127.8	167.1	227.1	223.1	483.5	621	852	689	199.2	91.6	140.2
MEAN	5.14	4.26	5.39	7.33	7.97	15.6	20.7	27.5	23.0	6.43	2.95	4.67
MAX	9.6	5.8	8.7	11	10	31	37	56	56	11	4.1	8.7
MIN	4.0	3.6	3.5	4.2	6.6	7.2	14	17	12	4.4	2.0	2.5
CFSM	0.58	0.48	0.61	0.83	0.90	1.76	2.33	3.10	2.59	0.72	0.33	0.53
IN.	0.67	0.54	0.70	0.95	0.94	2.03	2.60	3.57	2.89	0.84	0.38	0.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2002, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	8.73	15.9	23.5	27.7	28.3	36.4	37.1	27.7	21.8	10.2	7.86	6.84																
MAX	25.5	43.5	60.8	74.0	46.2	62.9	102	48.3	82.1	23.9	16.4	25.2																
(WY)	1990	1990	1987	1979	1982	1983	1983	1979	1982	1998	1989	1985																
MIN	3.01	4.26	4.43	3.17	7.97	15.6	13.9	13.7	9.02	3.70	2.21	1.90																
(WY)	1995	2002	1981	2002	1985	1985	1985	1981	1994	1994	1993	1980																

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1975 - 2002	
ANNUAL TOTAL	7815.0		3981.0			
ANNUAL MEAN	21.4		10.9		21.0	
HIGHEST ANNUAL MEAN					30.4	
LOWEST ANNUAL MEAN					8.67	
HIGHEST DAILY MEAN	177	Mar 22	56	May 14	324	Jun 6 1982
LOWEST DAILY MEAN	3.5	Dec 6	2.0	Aug 28	1.2	Sep 7 1993
ANNUAL SEVEN-DAY MINIMUM	3.8	Sep 14	2.2	Aug 22	1.3	Sep 1 1993
MAXIMUM PEAK FLOW			68		370	
MAXIMUM PEAK STAGE			2.29		3.83	
INSTANTANEOUS LOW FLOW			1.9		1.1	
ANNUAL RUNOFF (CFSM)	2.41		1.23		2.37	
ANNUAL RUNOFF (INCHES)	32.78		16.70		32.14	
10 PERCENT EXCEEDS	48		24		43	
50 PERCENT EXCEEDS	15		7.1		16	
90 PERCENT EXCEEDS	4.2		3.6		4.2	

PAWCATUCK RIVER BASIN

01118000 WOOD RIVER AT HOPE VALLEY, RI--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1977 to current year.

WATER TEMPERATURE: October 1977 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1977.

REMARKS.--Specific conductance records fair, except those for estimated values, which are poor; temperature records good. Interruptions in the record are due to malfunctions of the instrument. Extremes for period of daily record and current year are for those values reported.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 298 $\mu\text{S}/\text{cm}$, Feb. 12, 1988; minimum, 21 $\mu\text{S}/\text{cm}$, Jan. 23, 1979.

WATER TEMPERATURE: Maximum recorded, 29.5°C, July 24, 1987, July 26, 27, 28, 1989; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 192 $\mu\text{S}/\text{cm}$, Jan. 21; minimum, 72 $\mu\text{S}/\text{cm}$, May 19, 21.

WATER TEMPERATURE: Maximum recorded, 27.8°C, July 4; minimum, 0.4°C, Jan. 1.

SPECIFIC CONDUCTANCE ($\mu\text{S}/\text{CM}$ AT 25°C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	117	115	116	118	115	117	110	103	107
2	109	102	104	116	114	115	118	112	116	113	107	110
3	---	---	---	116	115	116	113	112	112	116	111	114
4	---	---	---	116	114	114	113	112	112	116	110	114
5	---	---	---	114	112	114	113	111	113	118	116	117
6	---	---	---	115	113	114	113	111	112	118	115	116
7	---	---	---	115	113	114	111	110	110	126	114	118
8	---	---	---	114	113	114	111	110	110	124	107	112
9	170	167	169	114	110	113	117	110	112	127	105	109
10	169	162	166	113	110	112	118	112	115	112	110	111
11	---	---	e157	114	113	113	112	109	110	135	109	116
12	151	140	144	114	112	113	110	108	109	127	106	112
13	144	137	139	116	113	114	109	108	108	184	106	135
14	141	137	139	115	113	114	110	108	109	119	102	106
15	---	---	e134	114	113	113	115	109	112	115	102	105
16	133	130	131	114	112	113	112	110	111	102	102	102
17	130	125	128	113	112	112	118	108	109	123	100	105
18	126	122	125	114	111	112	119	105	111	103	101	102
19	122	118	119	112	110	111	111	102	104	105	100	101
20	121	118	119	112	111	111	106	101	104	142	101	118
21	120	118	119	111	110	110	110	103	105	192	107	129
22	125	120	122	112	111	112	110	104	107	147	113	122
23	124	122	123	112	110	111	105	104	105	118	111	113
24	---	---	e123	110	109	110	122	99	109	131	110	116
25	125	122	123	110	109	109	106	100	102	121	108	110
26	124	121	122	112	108	110	103	100	101	109	107	108
27	128	122	125	111	109	110	104	101	103	108	106	107
28	126	121	123	110	108	110	103	101	102	106	105	106
29	121	119	120	109	108	108	109	102	104	106	104	105
30	120	116	119	115	108	111	110	105	108	107	105	106
31	116	114	115	---	---	---	109	103	107	109	106	108
MONTH	---	---	---	117	108	112	122	99	109	192	100	112

e Estimated

PAWCATUCK RIVER BASIN

01118000 WOOD RIVER AT HOPE VALLEY, RI--Continued

SPECIFIC CONDUCTANCE (µS/CM AT 25°C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	FEBRUARY		MAX	MARCH		MAX	APRIL		MAX	MAY	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	115	106	109	102	98	100	91	86	89	95	90	92
2	120	110	113	101	98	100	87	84	85	94	92	92
3	110	106	108	---	---	e108	86	85	86	94	91	93
4	107	103	104	93	81	84	88	85	86	93	90	91
5	106	101	104	81	79	80	88	86	87	91	89	90
6	107	104	106	82	80	80	88	86	87	94	90	92
7	107	106	107	83	81	82	90	87	88	97	94	95
8	108	107	107	84	82	83	90	88	90	99	96	97
9	108	108	108	88	84	86	96	90	93	100	98	99
10	109	108	108	94	88	91	97	92	95	101	99	100
11	127	105	111	90	86	87	100	97	98	104	100	103
12	105	102	104	86	85	86	102	98	100	---	---	e104
13	105	102	104	86	85	85	101	98	100	---	---	---
14	105	99	103	88	86	87	102	99	101	94	80	87
15	105	100	103	90	88	89	103	100	102	80	76	77
16	106	103	105	92	90	91	104	102	103	76	74	75
17	104	100	103	94	92	93	107	103	104	80	76	78
18	104	101	102	103	92	94	109	105	106	80	73	77
19	104	100	103	97	92	93	108	106	107	79	72	75
20	104	102	103	140	92	102	---	---	e107	75	73	73
21	106	99	102	131	93	100	108	107	107	74	72	73
22	99	96	97	96	92	94	---	---	---	77	74	75
23	97	96	97	95	91	93	108	104	105	81	77	79
24	98	96	97	93	91	92	104	101	103	84	81	82
25	96	95	96	92	91	91	---	---	e102	87	84	85
26	97	96	97	105	92	94	102	97	99	88	86	87
27	152	97	106	97	91	93	98	93	95	89	88	88
28	122	101	108	92	91	92	---	---	e97	91	89	90
29	---	---	---	92	91	92	95	91	93	---	---	e91
30	---	---	---	92	89	90	93	90	91	96	91	94
31	---	---	---	91	89	90	---	---	---	99	95	97
MONTH	152	95	104	---	---	91	---	---	---	---	---	---

DAY	MAX	JUNE		MAX	JULY		MAX	AUGUST		MAX	SEPTEMBER	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	97	94	96	---	---	e111	116	111	114	133	129	131
2	95	93	94	---	---	---	---	---	---	---	---	---
3	98	95	96	---	---	---	---	---	---	---	---	e117
4	104	97	99	---	---	---	---	---	---	---	---	e109
5	---	---	e98	---	---	---	---	---	---	116	111	113
6	---	---	---	---	---	---	---	---	e117	121	116	118
7	94	88	91	---	---	---	121	118	119	123	121	122
8	91	84	86	---	---	---	---	---	e121	126	123	124
9	90	83	84	123	114	116	124	120	122	126	125	126
10	96	84	88	---	---	e115	124	123	123	126	125	126
11	99	86	90	117	115	116	---	---	e123	125	122	124
12	---	---	e90	116	116	116	---	---	---	125	123	124
13	100	90	91	118	116	117	---	---	---	132	124	128
14	---	---	e92	119	118	119	---	---	---	134	132	133
15	93	91	92	---	---	e119	---	---	---	---	---	e134
16	93	91	92	119	117	118	---	---	---	---	---	---
17	94	89	90	119	116	118	---	---	---	127	103	117
18	95	90	91	---	---	---	---	---	---	103	99	101
19	98	92	94	---	---	---	---	---	---	105	102	103
20	100	93	95	---	---	e118	---	---	---	109	105	107
21	100	94	95	119	118	119	---	---	---	111	109	110
22	101	95	97	---	---	---	---	---	---	112	110	111
23	102	96	98	---	---	---	---	---	---	---	---	e108
24	105	101	102	---	---	---	---	---	---	105	102	103
25	106	104	105	120	118	119	---	---	---	107	102	104
26	---	---	e106	125	118	119	---	---	---	---	---	e109
27	109	104	106	119	118	118	---	---	---	---	---	e113
28	---	---	e108	---	---	e118	---	---	---	---	---	e112
29	110	107	109	---	---	e120	---	---	---	112	108	109
30	113	109	111	120	113	117	---	---	---	119	112	116
31	---	---	---	117	112	115	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

e Estimated

PAWCATUCK RIVER BASIN

01118000 WOOD RIVER AT HOPE VALLEY, RI--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.1	12.1	12.6	10.4	8.5	9.5	11.3	10.6	10.9	1.4	0.4	1.0
2	13.6	11.1	12.2	11.4	9.7	10.5	10.6	9.3	9.8	1.7	.7	1.2
3	15.2	12.3	13.5	11.4	11.0	11.2	9.4	7.8	8.4	1.7	.9	1.3
4	16.6	13.9	15.0	11.0	9.9	10.6	8.2	7.0	7.8	1.6	.6	1.2
5	17.5	15.0	16.0	10.6	9.5	10	9.2	7.9	8.6	2.3	1.3	1.8
6	16.6	15.5	16.2	9.7	8.6	9.3	9.2	7.9	8.7	2.4	1.1	1.7
7	15.5	13.5	14.8	9.6	8.0	8.9	9.2	8.3	8.9	2.5	1.8	2.2
8	13.5	11.8	12.7	9.2	7.4	8.2	8.3	6.7	7.1	2.0	1.1	1.6
9	12.3	10.1	11.3	8.9	7.8	8.3	6.8	5.7	6.2	2.3	1.2	1.8
10	12.4	9.8	11.1	8.0	6.6	7.4	5.7	4.5	5.2	3.0	1.8	2.3
11	13.6	10.8	12.1	7.7	6.6	7.1	6.3	5.4	5.8	2.5	2.0	2.2
12	14.2	11.6	12.9	6.6	5.0	5.7	5.5	4.3	4.9	3.0	1.9	2.4
13	14.0	12.2	13.2	5.5	4.1	5.0	6.2	5.3	5.7	2.7	2.0	2.3
14	14.2	13.6	13.9	6.3	4.3	5.3	6.7	5.9	6.2	2.6	1.7	2.0
15	15.5	14.0	14.7	6.6	5.4	6.1	6.8	5.5	6.5	2.8	1.9	2.3
16	14.6	12.5	13.7	7.6	5.9	6.8	5.5	4.5	5.0	3.2	2.1	2.5
17	14.6	13.0	14.0	7.5	6.0	6.6	5.2	4.5	4.8	3.1	2.2	2.5
18	13.0	11.5	12.3	6.7	4.9	5.9	5.5	4.4	5.2	2.8	1.7	2.2
19	12.0	9.8	11.0	7.4	5.5	6.5	5.0	3.9	4.4	1.9	1.1	1.6
20	12.2	10.2	11.3	7.7	6.6	7.4	4.7	3.6	4.1	2.2	1.1	1.6
21	12.5	10.2	11.5	6.6	5.2	5.8	4.3	3.1	3.7	1.6	.8	1.2
22	13.4	11.6	12.6	5.7	4.5	5.3	3.3	2.3	2.8	2.4	1.1	1.6
23	13.4	12.3	12.9	6.0	4.5	5.3	3.2	1.8	2.6	2.7	1.1	1.9
24	14.8	13.4	14.1	6.7	5.8	6.2	4.0	2.8	3.5	3.1	2.3	2.7
25	15.3	14.2	14.7	8.0	6.6	7.2	3.1	2.1	2.6	4.0	2.9	3.3
26	14.5	12.1	12.9	8.6	7.8	8.2	3.2	2.4	2.7	4.5	2.9	3.5
27	12.6	11.1	11.8	8.5	7.3	7.9	2.5	1.6	2.1	4.4	2.8	3.5
28	11.8	10.2	10.8	9.6	8.4	9.0	2.6	1.6	2.2	4.6	2.8	3.6
29	10.2	8.6	9.5	9.3	8.7	8.9	2.6	1.7	2.2	5.2	3.1	4.0
30	9.9	8.7	9.4	10.6	9.3	9.8	1.8	.8	1.3	5.2	4.2	4.7
31	8.9	7.3	7.9	---	---	---	1.5	.5	1.1	4.8	4.1	4.4
MONTH	17.5	7.3	12.7	11.4	4.1	7.7	11.3	0.5	5.2	5.2	0.4	2.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.7	4.0	4.3	6.3	4.0	5.0	11.3	9.7	10.2	13.5	9.8	11.5
2	4.3	2.3	3.4	5.5	3.6	4.6	10.7	9.2	9.9	12.0	11.5	11.7
3	3.0	1.6	2.3	6.4	5.0	5.8	10.8	9.8	10.3	13.2	10.9	11.9
4	3.2	1.7	2.4	7.2	5.6	6.5	11.7	9.4	10.3	14.6	11.4	12.7
5	2.4	1.1	1.8	5.7	3.9	4.9	10.6	8.8	9.6	15.4	12.2	13.7
6	3.1	1.4	2.2	4.9	3.4	4.1	9.7	8.1	8.8	16.6	13.2	14.7
7	2.8	1.8	2.3	6.1	3.6	4.8	9.7	7.1	8.2	16.9	14.8	15.6
8	3.7	1.8	2.8	7.5	5.2	6.3	8.9	7.6	8.2	18.6	15.6	16.8
9	3.9	2.2	3.0	9.4	6.9	8.1	11.6	8.5	9.9	16.4	15.2	15.8
10	4.0	1.9	2.7	10.8	8.9	9.8	14.5	11.0	12.6	17.9	14.9	16.1
11	4.6	2.1	3.7	9.0	7.2	8.2	14.8	12.3	13.3	18.3	14.9	16.3
12	3.2	1.5	2.4	7.2	6.0	6.6	14.0	11.5	12.7	16.3	14.9	15.7
13	3.4	1.4	2.5	6.1	5.4	5.8	15.4	12.7	13.8	14.9	12.7	14.0
14	2.6	.8	1.7	8.7	5.7	7.0	17.6	14.4	15.7	13.0	11.7	12.5
15	3.4	1.3	2.4	8.3	6.8	7.6	17.7	15.9	16.6	13.2	11.9	12.6
16	4.4	2.6	3.4	9.1	7.8	8.6	19.2	15.9	17.3	14.1	12.0	13.1
17	3.7	2.6	3.2	9.2	6.8	7.9	20.9	17.3	18.7	16.6	13.9	15.3
18	4.7	2.7	3.7	7.6	6.2	6.9	22.1	18.8	20.0	16.2	12.7	14.7
19	5.0	2.6	3.7	6.6	5.9	6.2	21.0	18.6	19.7	13.2	11.4	12.4
20	5.2	3.3	4.3	5.9	5.2	5.5	20.3	18.2	19.2	13.5	12.1	12.7
21	6.3	5.1	5.6	7.1	4.7	5.8	19.0	16.5	17.6	13.0	11.3	12.1
22	6.7	5.0	5.8	6.5	4.7	5.6	16.5	13.5	15.0	14.5	11.5	12.8
23	7.1	5.2	6.1	5.7	3.7	4.7	13.5	11.2	12.5	15.6	12.7	14.1
24	6.9	4.4	5.6	6.3	3.9	5.1	12.4	10.0	11.1	17.2	14.0	15.5
25	6.5	4.3	5.4	6.8	5.4	6.0	12.1	9.8	10.8	18.5	15.9	17.0
26	7.8	5.2	6.4	6.1	5.9	6.0	11.0	9.7	10.3	17.2	16.1	16.5
27	7.5	5.8	6.9	7.2	6.1	6.6	12.6	8.9	10.5	18.1	15.7	16.6
28	6.7	4.9	5.7	8.6	6.3	7.3	10.9	10.4	10.6	19.0	16.6	17.7
29	---	---	---	9.0	6.8	7.8	10.6	9.6	10.1	19.0	17.7	18.2
30	---	---	---	9.7	7.9	8.6	11.5	9.2	10.1	20.6	18.2	19.2
31	---	---	---	10.5	8.9	9.6	---	---	---	21.4	19.2	20.0
MONTH	7.8	0.8	3.8	10.8	3.4	6.6	22.1	7.1	12.8	21.4	9.8	14.8

PAWCATUCK RIVER BASIN

01118500 PAWCATUCK RIVER AT WESTERLY, RI--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)
NOV								
26...	--	--	--	--	--	--	--	--
MAR								
06...	--	--	--	--	--	--	--	--
JUN								
05...	--	--	--	--	--	--	--	--
AUG								
01...	--	--	--	--	--	--	--	--
01...	<0.2	<3	<0.2	<0.2	<0.2	<0.2	<0.2	<5

DATE	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	ENDO- SULFAN I TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	P, P' - DDD, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39363)	P, P' - DDE, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39368)	P, P' - DDT, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39373)	METHOXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)
NOV						
26...	--	--	--	--	--	--
MAR						
06...	--	--	--	--	--	--
JUN						
05...	--	--	--	--	--	--
AUG						
01...	--	--	--	--	--	--
01...	<50	<0.2	<0.5	E0.3	<0.5	<2.5

Value qualifier codes used in this report:
 k Counts outside acceptable range
 n Below the NDV

Null value qualifier codes used in this report:
 e Required equipment not functional/avail

CONNECTICUT RIVER BASIN

01162500 PRIEST BROOK NEAR WINCHENDON, MA

LOCATION.--Lat 42°40'57", long 72°06'56", Worcester County, Hydrologic Unit 01080202, on right bank 100 ft downstream from highway bridge, 3 mi upstream from mouth, and 3.5 mi west of Winchendon.

DRAINAGE AREA.--19.4 mi².

PERIOD OF RECORD.--Discharge: May 1916 to current year. Monthly discharge only October 1917 to July 1918 (published in WSP 1301) and September 1935 to September 1936.

Water-quality records: August 1994.

REVISED RECORDS.--WSP 451: 1916. WSP 871: Drainage area. WSP 1051: 1919, 1922--24. WSP 1301: 1917(M), 1919--24(M), 1926--27(M), 1929(M), 1931--35(M).

GAGE.--Water-stage recorder. Concrete control since September 1936. Datum of gage is 849.67 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 11, 1936, nonrecording gage on left bank at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to 1962, occasional diurnal fluctuation at low flow by mill upstream; prior to 1953, regulation at low flow by mill and ponds. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--87 years, 32.9 ft³/s, 23.02 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,000 ft³/s, Sept. 21, 1938, gage height, 9.90 ft, from rating curve extended above 620 ft³/s on basis of contracted-opening measurements at gage heights 8.4 ft and 9.90 ft; minimum, 0.08 ft³/s, several times in September 1929.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 151 ft³/s, May 14, gage height, 3.88 ft; minimum, 0.46 ft³/s, Aug. 22.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	3.1	6.4	6.4	19	e35	106	60	53	26	3.9	1.8
2	4.9	3.1	7.7	6.0	22	e27	125	52	71	21	4.4	1.7
3	5.1	3.2	7.1	5.5	18	42	113	58	59	16	4.8	1.8
4	4.1	3.2	6.4	5.2	15	64	102	54	42	13	3.8	1.6
5	3.5	3.2	7.0	4.9	13	e52	84	43	33	11	3.1	1.3
6	3.4	3.2	6.3	4.9	11	e40	67	35	41	8.7	2.7	1.1
7	3.6	3.0	6.1	5.1	9.9	e32	53	30	91	7.4	2.4	1.0
8	3.2	2.9	4.7	5.1	9.5	30	45	25	110	6.7	2.1	.96
9	2.6	3.0	5.1	5.1	9.0	29	40	22	82	5.7	1.9	.92
10	2.6	3.2	5.2	5.1	8.4	45	39	21	64	5.5	1.8	.87
11	2.5	3.0	5.1	5.5	22	57	36	19	45	4.7	1.5	.84
12	2.5	2.9	5.1	5.9	24	45	32	18	35	4.4	1.3	.78
13	2.6	2.7	5.7	6.2	21	37	30	31	38	3.8	.99	.74
14	2.5	3.0	7.7	6.2	16	34	30	121	40	3.4	.72	.72
15	3.4	3.2	19	6.2	14	31	41	129	37	3.0	.63	.80
16	3.4	3.2	25	5.9	14	29	56	95	34	2.7	.68	1.8
17	3.4	2.9	22	5.9	14	31	50	69	42	2.4	.67	1.7
18	4.3	2.7	20	5.9	15	29	40	63	44	2.4	.62	1.4
19	3.2	2.6	19	5.6	13	28	32	86	37	2.4	.61	1.2
20	2.8	2.8	18	5.9	13	27	27	81	30	2.5	.64	1.1
21	2.7	3.0	16	5.5	32	28	24	64	23	2.6	.61	1.0
22	2.8	2.9	14	5.4	44	30	22	48	21	2.2	.57	.98
23	2.7	2.8	12	5.6	43	27	22	34	26	3.2	.81	1.2
24	2.7	2.8	15	6.9	e35	25	22	31	27	9.0	.90	1.0
25	2.7	2.9	16	9.5	e28	24	22	26	24	9.8	1.3	.95
26	2.7	3.4	14	10	29	24	25	23	19	6.8	1.0	.99
27	2.6	3.4	11	10	38	47	28	21	16	5.0	.95	1.5
28	2.4	4.0	8.9	10	e40	75	28	19	27	4.3	.74	3.9
29	2.4	4.7	8.3	10	---	72	42	19	34	4.2	1.5	3.4
30	2.4	5.0	7.6	13	---	75	60	19	31	3.7	2.2	3.0
31	2.4	---	6.8	16	---	87	---	22	---	3.4	2.2	---
TOTAL	97.5	95.0	338.2	214.4	589.8	1258	1443	1438	1276	206.9	52.04	42.05
MEAN	3.15	3.17	10.9	6.92	21.1	40.6	48.1	46.4	42.5	6.67	1.68	1.40
MAX	5.4	5.0	25	16	44	87	125	129	110	26	4.8	3.9
MIN	2.4	2.6	4.7	4.9	8.4	24	22	18	16	2.2	0.57	0.72
CFSM	0.16	0.16	0.56	0.36	1.09	2.09	2.48	2.39	2.19	0.34	0.09	0.07
IN.	0.19	0.18	0.65	0.41	1.13	2.41	2.77	2.76	2.45	0.40	0.10	0.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2002, BY WATER YEAR (WY)

	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	16.0	28.7	34.1	30.5	28.1	63.7	92.3	42.4	25.2	12.3	9.90	12.2																																																																											
MAX	69.2	124	120	90.3	102	162	225	93.9	125	62.5	68.8	178																																																																											
(WY)	1976	1928	1997	1996	1984	1979	1940	1989	1922	1922	1928	1938																																																																											
MIN	0.55	1.38	4.67	1.23	5.28	13.6	21.8	12.6	2.53	1.04	0.47	0.29																																																																											
(WY)	1965	1965	1930	1925	1980	1940	1985	1999	1964	1965	1964	1964																																																																											

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1916 - 2002
ANNUAL TOTAL	9183.1	7050.89	
ANNUAL MEAN	25.2	19.3	32.9
HIGHEST ANNUAL MEAN			55.0
LOWEST ANNUAL MEAN			8.19
HIGHEST DAILY MEAN	339	Apr 14	2280
LOWEST DAILY MEAN	1.3	Aug 25	0.10
ANNUAL SEVEN-DAY MINIMUM	1.6	Aug 19	0.19
MAXIMUM PEAK FLOW			151
MAXIMUM PEAK STAGE			3.88
INSTANTANEOUS LOW FLOW			0.46
ANNUAL RUNOFF (CFSM)	1.30	1.00	1.69
ANNUAL RUNOFF (INCHES)	17.61	13.52	23.02
10 PERCENT EXCEEDS	52	49	81
50 PERCENT EXCEEDS	12	7.6	17
90 PERCENT EXCEEDS	2.6	1.4	2.4

e Estimated

CONNECTICUT RIVER BASIN

01168500 DEERFIELD RIVER AT CHARLEMONT, MA

LOCATION.--Lat 42°37'33", long 72°51'20", Franklin County, Hydrologic Unit 01080203, on left bank 0.8 mi east of Charlemont, 2.5 mi downstream from Chickley River, and at mile 24.5.

DRAINAGE AREA.--361 mi².

PERIOD OF RECORD.--Discharge: June 1913 to current year.

Water-quality records: Water years 1954-55, 1958, 1967-69, 1995.

REVISED RECORDS.--WSP 781: 1915(M). WSP 1301: 1918(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 517.36 ft above National Geodetic Vertical Datum of 1929.

REMARKS--Records good except those for estimated daily discharge and those above 1,000 ft³/s, which are fair. Flow regulated by Somerset Reservoir, since 1924 by Harriman Reservoir, and by several powerplants upstream. Telephone and satellite gage-height telemeter at station. Measurements of water temperature and air temperature were made during the year.

AVERAGE DISCHARGE.--89 years, 900 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,300 ft³/s, Sept. 21, 1938, gage height, 20.17 ft, from floodmarks, from rating curve extended above 31,000 ft³/s on basis of slope-area and contracted-opening measurements at gage heights 17.75 ft and 20.17 ft; minimum daily, 5 ft³/s, June 17, 1921.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,820 ft³/s, June 27, gage height, 5.98 ft; minimum daily, 159 ft³/s, Oct. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	320	594	404	1170	1030	2240	1450	1640	1120	478	247
2	248	271	309	e822	1290	803	1810	1460	1440	1180	427	195
3	262	220	317	911	1080	588	1760	1380	1310	1090	342	198
4	247	245	254	760	1100	915	1790	1020	1180	1010	298	305
5	240	181	370	781	799	867	1530	1020	780	656	586	253
6	232	268	305	654	859	1140	1350	829	3040	447	302	231
7	252	279	271	653	1050	880	1080	673	3710	357	291	286
8	212	282	271	756	863	791	918	503	2370	367	373	275
9	265	315	277	701	770	652	871	498	1240	340	315	210
10	247	213	355	764	665	1320	1630	331	977	434	311	211
11	224	208	290	676	906	1310	1980	439	784	360	277	250
12	259	223	230	678	1000	1030	1610	674	857	291	388	229
13	253	246	268	489	1080	782	1740	2010	1590	345	530	238
14	221	226	394	712	1050	850	2180	3400	1690	452	584	248
15	227	268	780	732	733	755	2990	2500	1630	396	495	265
16	210	207	551	656	500	837	2510	2080	1430	338	e338	528
17	243	266	714	688	434	753	1920	1830	1780	432	e386	284
18	269	264	582	466	427	694	1350	1880	1610	417	e436	244
19	243	290	569	564	507	522	1170	2290	1390	404	e478	231
20	251	255	640	456	754	515	794	2000	1180	406	328	263
21	249	251	525	624	936	508	955	1560	959	305	350	303
22	194	233	431	471	1150	383	811	1360	978	452	304	314
23	204	215	438	467	1040	351	699	996	1120	e418	e295	289
24	205	213	417	600	1120	321	661	766	1110	e395	280	253
25	174	264	315	785	1000	600	613	732	1110	e369	277	239
26	159	271	338	666	670	710	840	699	1150	349	318	239
27	213	201	330	696	967	1120	649	577	1570	352	318	185
28	227	177	458	668	764	1020	946	992	2690	360	285	393
29	205	249	422	929	---	966	1400	1260	1980	543	293	297
30	242	219	406	1020	---	1510	1610	1050	1400	545	344	244
31	222	---	482	1250	---	1790	---	1150	---	566	261	---
TOTAL	7059	7340	12903	21499	24684	26313	42407	39409	45695	15496	11288	7947
MEAN	228	245	416	694	882	849	1414	1271	1523	500	364	265
MAX	269	320	780	1250	1290	1790	2990	3400	3710	1180	586	528
MIN	159	177	230	404	427	321	613	331	780	291	261	185

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2002, BY WATER YEAR (WY)

	602	831	985	992	987	1369	1852	1129	669	454	458	478
MEAN	602	831	985	992	987	1369	1852	1129	669	454	458	478
MAX	2766	2123	2026	2092	2450	3642	4106	2889	1820	1611	1886	2404
(WY)	1956	1956	1928	1978	1981	1921	1914	1943	1998	1915	1976	1938
MIN	90.8	177	133	363	268	429	529	280	188	78.1	131	74.0
(WY)	1915	1915	1915	1914	1919	1931	1995	1995	1941	1962	1964	1953

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1913 - 2002
ANNUAL TOTAL	261879	262068	
ANNUAL MEAN	717	718	900
HIGHEST ANNUAL MEAN			1364
LOWEST ANNUAL MEAN			455
HIGHEST DAILY MEAN	5090	Apr 24	31100
LOWEST DAILY MEAN	103	Sep 3	5.0
ANNUAL SEVEN-DAY MINIMUM	197	Oct 22	34
MAXIMUM PEAK FLOW			56300
MAXIMUM PEAK STAGE		5.98	20.17
INSTANTANEOUS LOW FLOW		129	
10 PERCENT EXCEEDS	1390	1520	1690
50 PERCENT EXCEEDS	473	515	687
90 PERCENT EXCEEDS	220	232	192

e Estimated

CONNECTICUT RIVER BASIN

01169000 NORTH RIVER AT SHATTUCKVILLE, MA

LOCATION.--Lat 42°38'18", long 72°43'32", Franklin County, Hydrologic Unit 01080203, on right bank in Shattuckville, 1.2 mi south of Griswoldville, and 1.3 mi upstream from mouth.

DRAINAGE AREA.--89.0 mi².

PERIOD OF RECORD.--Discharge: October 1939 to current year. October and November 1939 monthly discharge only, published in WSP 1301.

Water-quality records: Water years 1957, 1967-69, 1994-95.

REVISED RECORDS.--WSP 1111: 1945(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 458.36 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diurnal fluctuation at times caused by mill upstream; because storage capacity is small, daily flows are not affected appreciably. Prior to 1950, greater regulation by mill. Telephone and satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--63 years, 187 ft³/s, 28.48 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft³/s, Apr. 5, 1987, gage height, 11.19 ft, from rating curve extended above 2,900 ft³/s on basis of slope-area measurements at gage heights 9.55 ft and 11.19 ft; minimum daily, 5.1 ft³/s, Oct. 3, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,580 ft³/s, May 13, gage height, 6.24 ft; minimum, 6.9 ft³/s, Oct. 9.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	30	132	e54	138	111	962	310	357	126	27	29
2	37	36	81	e53	195	100	558	359	198	110	32	26
3	35	33	61	e47	108	360	462	377	155	88	61	26
4	33	31	52	e45	96	307	414	259	126	80	39	24
5	29	29	48	37	e75	159	312	213	130	70	30	22
6	29	30	45	39	74	151	262	182	526	64	26	19
7	33	30	42	47	e69	125	225	164	534	59	23	18
8	40	27	39	e55	e66	122	207	148	315	57	22	16
9	24	27	45	e51	e64	146	213	140	224	55	21	15
10	29	28	43	49	e60	481	325	177	180	67	19	14
11	29	27	45	58	158	251	248	137	149	53	20	12
12	28	27	44	55	112	177	208	157	221	47	15	11
13	28	25	53	51	86	157	215	960	278	44	16	10
14	26	26	124	55	67	176	307	1230	198	41	16	9.7
15	45	27	308	48	e73	180	740	555	251	39	16	9.8
16	51	27	143	47	69	188	432	376	358	37	27	170
17	38	26	101	46	72	176	297	312	369	36	31	66
18	37	25	130	48	e64	154	233	474	247	34	20	38
19	34	24	119	e44	e65	143	197	500	182	45	17	28
20	31	24	97	e47	67	131	178	366	152	65	15	23
21	30	24	84	e46	195	149	159	294	128	49	16	21
22	28	24	68	47	217	131	155	250	186	40	14	20
23	33	23	64	e48	143	131	178	214	264	40	16	19
24	30	24	86	58	117	120	179	190	182	52	17	18
25	31	31	82	116	107	115	166	169	131	41	22	18
26	30	57	e66	103	128	124	217	153	106	34	20	16
27	29	49	53	80	196	512	191	148	270	32	19	30
28	27	40	52	76	138	362	275	164	603	33	15	131
29	26	51	e56	79	---	358	516	174	243	51	34	58
30	25	84	e54	140	---	684	408	170	161	37	82	38
31	26	---	e55	138	---	640	---	214	---	30	40	---
TOTAL	993	966	2472	1907	3019	7121	9439	9536	7424	1656	788	955.5
MEAN	32.0	32.2	79.7	61.5	108	230	315	308	247	53.4	25.4	31.9
MAX	51	84	308	140	217	684	962	1230	603	126	82	170
MIN	24	23	39	37	60	100	155	137	106	30	14	9.7
CFSM	0.36	0.36	0.90	0.69	1.21	2.58	3.54	3.46	2.78	0.60	0.29	0.36
IN.	0.42	0.40	1.03	0.80	1.26	2.98	3.95	3.99	3.10	0.69	0.33	0.40

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

	MEAN	MAX	(WY)	MIN	(WY)
1940	100	832	1956	11.8	1965
1941	172	468	1956	25.4	1965
1942	179	522	1974	47.3	1999
1943	147	398	1978	24.2	1981
1944	157	801	1981	23.7	1940
1945	335	866	1953	46.2	1940
1946	561	1076	1969	169	1981
1947	273	772	1984	85.3	1986
1948	142	417	1973	28.4	1965
1949	69.2	316	2000	17.5	1962
1950	51.5	285	2000	12.5	1956
1951	55.7	306	1960	9.00	1953

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1940 - 2002
ANNUAL TOTAL	59762	46276.5	
ANNUAL MEAN	164	127	187
HIGHEST ANNUAL MEAN			299
LOWEST ANNUAL MEAN			79.9
HIGHEST DAILY MEAN	2220	Jun 3	8740
LOWEST DAILY MEAN	11	Aug 30	5.1
ANNUAL SEVEN-DAY MINIMUM	13	Aug 25	6.3
MAXIMUM PEAK FLOW		2580	14200
MAXIMUM PEAK STAGE		6.24	11.19
INSTANTANEOUS LOW FLOW		6.9	
ANNUAL RUNOFF (CFSM)	1.84	1.42	2.10
ANNUAL RUNOFF (INCHES)	24.98	19.34	28.48
10 PERCENT EXCEEDS	357	307	425
50 PERCENT EXCEEDS	79	64	94
90 PERCENT EXCEEDS	24	23	21

e Estimated

CONNECTICUT RIVER BASIN

01170000 DEERFIELD RIVER NEAR WEST DEERFIELD, MA

LOCATION.--Lat 42°32'09", long 72°39'14", Franklin County, Hydrologic Unit 01080203, on right bank 0.4 mi downstream from South River, 1.2 mi west of West Deerfield, 2.5 mi west of Deerfield, and 9.2 mi upstream from mouth.

DRAINAGE AREA.--557 mi².

PERIOD OF RECORD.--Discharge: March to November 1904, January 1905, March to December 1905, October 1940 to current year, published as "at Deerfield" 1904-05.

Water-quality records: June 1994.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area. WDR MA-RI-92-1: 1991.

GAGE.--Water-stage recorder. Elevation of gage is 155 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 16, 1905, nonrecording gage at site 1.5 mi downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since 1913 by Somerset Reservoir, since 1924 by Harriman Reservoir, and by several powerplants upstream. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--62 years (water years 1941--current year), 1,313 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,700 ft³/s, Apr. 5, 1987, gage height, 17.71 ft; minimum daily, 28 ft³/s, July 29, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,000 ft³/s, May 13, gage height, 7.43; minimum daily, 241 ft³/s, Oct. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	303	327	732	659	e1750	1380	3910	2160	2290	1520	527	323
2	282	328	517	866	e1860	972	2910	2110	2040	1400	546	314
3	311	298	409	1080	e1620	1360	2570	2200	1640	1380	396	292
4	332	288	398	1100	e1530	1450	2620	1740	1450	1210	377	276
5	272	284	366	784	e1190	1000	2260	1490	1120	1010	607	297
6	273	272	432	819	e1200	1520	1980	1300	3790	598	403	293
7	355	323	345	885	e1320	1150	1800	1040	5290	502	414	280
8	251	334	349	743	e1200	1080	1140	734	3340	496	401	292
9	276	323	353	846	e1040	943	1500	868	2020	496	321	303
10	278	288	391	853	866	1960	1870	741	1430	596	293	286
11	290	278	339	832	1310	1890	2560	582	1190	478	305	268
12	315	267	333	827	e1430	1460	2210	988	1240	452	337	269
13	296	265	312	692	e1530	1230	2100	3330	1910	394	581	281
14	266	267	533	733	1070	1080	2850	6130	2270	499	561	281
15	323	265	1290	844	956	1200	4200	3740	2130	584	520	330
16	310	311	853	774	688	1200	3440	2910	2160	421	378	627
17	304	300	860	767	692	1120	2740	2400	2440	449	423	564
18	319	296	925	675	583	1040	1850	2940	2220	556	360	346
19	301	296	924	566	583	945	1790	3390	1960	493	488	334
20	296	295	617	585	992	722	1160	2780	1680	639	282	325
21	271	293	864	803	1260	826	1380	2320	1260	446	406	324
22	270	289	562	624	1690	633	1210	1930	1220	609	348	332
23	241	288	524	553	1370	621	1050	1520	1810	531	339	366
24	243	288	578	581	1350	658	1040	1340	1460	517	318	340
25	253	293	539	1030	1400	867	1010	1020	1560	461	325	321
26	248	333	350	963	982	1080	1320	1050	1400	408	328	304
27	257	326	540	e942	1200	1820	1020	983	1470	382	366	345
28	255	302	584	e948	1140	1970	1330	1130	4100	395	324	475
29	259	329	576	e1210	---	1650	2250	1860	2620	634	420	413
30	257	359	531	e1430	---	2430	2450	1480	2170	647	566	369
31	261	---	666	e1700	---	2970	---	1510	---	727	325	---
TOTAL	8768	9005	17592	26714	33802	40227	61520	59716	62680	19930	12585	10170
MEAN	283	300	567	862	1207	1298	2051	1926	2089	643	406	339
MAX	355	359	1290	1700	1860	2970	4200	6130	5290	1520	607	627
MIN	241	265	312	553	583	621	1010	582	1120	382	282	268

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2002, BY WATER YEAR (WY)

	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	834	1202	1430	1406	1439	2105	2921	1708	992	588	568	604																																																																																							
MAX	4632	3302	3156	2801	3890	4771	5320	4094	2693	1955	2142	2112																																																																																							
(WY)	1956	1956	1997	1978	1981	1953	1993	1984	1998	2000	1976	1905																																																																																							
MIN	228	244	385	622	693	1083	928	484	307	119	167	94.5																																																																																							
(WY)	1983	1965	1965	1965	1944	1962	1995	1995	1964	1962	1964	1953																																																																																							

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1904 - 2002

ANNUAL TOTAL	405216	362709	1313
ANNUAL MEAN	1110	994	1840
HIGHEST ANNUAL MEAN			629
LOWEST ANNUAL MEAN			1996
HIGHEST DAILY MEAN	9270	Jun 3	6130
LOWEST DAILY MEAN	241	Oct 23	241
ANNUAL SEVEN-DAY MINIMUM	251	Oct 23	251
MAXIMUM PEAK FLOW			12000
MAXIMUM PEAK STAGE			7.43
INSTANTANEOUS LOW FLOW			194
10 PERCENT EXCEEDS	2250		2160
50 PERCENT EXCEEDS	682		666
90 PERCENT EXCEEDS	285		288

e Estimated

CONNECTICUT RIVER BASIN

01170100 GREEN RIVER NEAR COLRAIN, MA
(National Water-Quality Assessment Site)

LOCATION.--Lat 42°42'12", long 72°40'16", Franklin County, Hydrologic Unit 01080203, on right bank 0.5 mi upstream from bridge on West Leyden Road and 2.5 mi northeast of Colrain.

DRAINAGE AREA.--41.4 mi².

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: October 1967 to current year.

Water-quality records: Water years 1968-69, 1993-95, 2002.

REVISED RECORDS.--WDR MA-NH-RI-VT-71-1: 1968(M), 1969.

GAGE.--Water-stage recorder. Elevation of gage is 435 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

AVERAGE DISCHARGE.--35 years, 89.5 ft³/s, 29.36 in/yr.EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,560 ft³/s, Dec. 21, 1973, gage height, 8.2 ft, from floodmarks, from rating curve extended above 1,500 ft³/s on basis of slope area measurement of peak flow and conveyance-slope study; maximum gage height, 12.71 ft, Feb. 23, 1997 (ice jam); minimum discharge, 1.9 ft³/s, Aug. 1, 1968, caused by unusual regulation.EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,530 ft³/s, June 27, gage height, 5.20 ft, from rating curve extended above 1,100 ft³/s; minimum, 4.0 ft³/s, Sept. 14.DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	12	60	e25	e63	59	450	144	150	e57	11	12
2	15	12	36	e24	e88	53	268	173	92	e50	21	10
3	13	12	26	e22	e49	163	221	174	73	e40	29	10
4	13	11	22	19	e44	149	193	128	63	e36	17	11
5	11	11	20	19	e34	83	153	109	63	e32	13	8.9
6	12	11	19	21	e34	75	133	93	155	e29	12	7.4
7	12	e9.0	17	21	e32	75	117	84	175	e27	9.9	6.7
8	11	e8.7	16	21	e30	61	109	75	117	e26	9.1	6.2
9	10	10	20	22	e29	71	112	74	87	e25	8.3	5.9
10	9.7	9.6	24	26	e27	236	153	93	72	e30	7.9	5.6
11	9.6	9.8	22	35	e72	126	119	71	62	e24	7.5	5.1
12	9.4	9.3	24	28	e51	91	103	82	87	e22	7.1	4.7
13	9.2	9.2	25	25	e39	79	106	376	107	e20	6.7	4.5
14	9.2	9.4	51	24	e31	84	145	524	77	e19	7.1	4.4
15	19	9.3	129	23	e33	86	345	258	102	e18	6.5	4.7
16	20	9.5	64	22	e31	88	200	175	144	e17	7.6	87
17	15	9.0	47	22	e33	82	145	147	141	e16	7.2	28
18	14	8.7	54	23	e29	74	119	219	98	e16	6.2	15
19	12	9.2	47	22	e30	70	106	218	74	21	6.0	11
20	11	9.4	40	36	e31	66	99	174	63	49	5.5	8.9
21	11	9.0	35	27	82	74	86	144	55	24	5.3	8.2
22	10	8.7	e31	27	100	66	84	125	99	18	5.3	7.9
23	9.9	8.8	e29	23	76	64	95	109	e135	22	6.0	7.7
24	11	9.4	e39	28	73	61	96	95	e95	37	6.8	6.9
25	12	13	e38	62	64	58	91	e86	73	21	10	6.4
26	12	26	e30	50	64	66	113	e77	e62	17	8.1	6.5
27	11	20	e24	37	95	235	96	73	145	16	6.5	14
28	10	16	e24	38	70	169	131	85	e285	16	5.5	67
29	9.8	22	e26	e36	---	163	228	e85	e110	17	17	26
30	9.6	36	e25	e63	---	311	193	78	e73	15	38	16
31	9.5	---	e25	e63	---	296	---	104	---	13	e16	---
TOTAL	366.9	368.0	1089	934	1434	3434	4609	4452	3134	790	330.1	423.6
MEAN	11.8	12.3	35.1	30.1	51.2	111	154	144	104	25.5	10.6	14.1
MAX	20	36	129	63	100	311	450	524	285	57	38	87
MIN	9.2	8.7	16	19	27	53	84	71	55	13	5.3	4.4
CFSM	0.29	0.30	0.85	0.73	1.24	2.68	3.71	3.47	2.52	0.62	0.26	0.34
IN.	0.33	0.33	0.98	0.84	1.29	3.09	4.14	4.00	2.82	0.71	0.30	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002			
MEAN	48.7	83.8	86.9	72.4	78.9	161	251	130	74.7	35.9	26.8	25.0																										
MAX	190	214	236	178	277	355	442	287	188	105	126	92.2																										
(WY)	1976	1996	1997	1996	1981	1979	1969	1984	1973	1973	2000	1975																										
MIN	11.4	12.3	21.9	11.6	18.1	53.2	77.6	42.1	21.7	10.6	6.32	6.55																										
(WY)	1983	2002	1999	1981	1980	1971	1995	1986	1999	1995	1999	1983																										

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR				FOR 2002 WATER YEAR				WATER YEARS 1968 - 2002			
ANNUAL TOTAL	27207.4				21364.6							
ANNUAL MEAN	74.5				58.5				89.5			
HIGHEST ANNUAL MEAN									136			
LOWEST ANNUAL MEAN									44.4			
HIGHEST DAILY MEAN	1030				524				2420			
LOWEST DAILY MEAN	4.3				4.4				3.3			
ANNUAL SEVEN-DAY MINIMUM	4.7				5.0				3.6			
MAXIMUM PEAK FLOW					1530				4560			
MAXIMUM PEAK STAGE					5.20				8.87			
INSTANTANEOUS LOW FLOW					4.0				1.9			
ANNUAL RUNOFF (CFSM)	1.80				1.41				2.16			
ANNUAL RUNOFF (INCHES)	24.45				19.20				29.36			
10 PERCENT EXCEEDS	163				144				202			
50 PERCENT EXCEEDS	33				29				49			
90 PERCENT EXCEEDS	8.7				8.7				11			

e Estimated

CONNECTICUT RIVER BASIN

01170100 GREEN RIVER NEAR COLRAIN, MA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Intermittent water-quality samples, water years 1968-69, 1993-95, 2002; continuous water-quality records, water years 2002 and 2003.

PERIOD OF DAILY RECORD.--December 2001 to October 2002 (discontinued).

INSTRUMENTATION.--Specific conductance and water temperature water-quality monitor.

REMARKS.--Specific conductance and water temperature records good. Extremes for period of daily record are for those values reported. Selected samples were analyzed for pesticide compounds on schedule 2001 (listed with non-detection values or minimum reporting levels in the section "Explanation of the Records."); only pesticide compounds identified by the analyses (either as estimated values or as values at or above the non-detection level or minimum reporting level) for one or more samples are listed in the water-quality data tables.

EXTREMES FOR PERIOD DECEMBER 2001 TO OCTOBER 2002.--

SPECIFIC CONDUCTANCE: Maximum recorded, 129 µS/cm, Oct. 10, 2002; minimum, 46 µS/cm, Sept. 17, 2002.

WATER TEMPERATURE: Maximum recorded, 27.9°C, Aug. 16, 2002; minimum, 0.0°C, many days during winter period.

SPECIFIC CONDUCTANCE (µS/CM AT 25°C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	105	103	104
2	---	---	---	---	---	---	---	---	---	109	104	107
3	---	---	---	---	---	---	---	---	---	109	105	107
4	---	---	---	---	---	---	---	---	---	108	105	107
5	---	---	---	---	---	---	---	---	---	106	101	104
6	---	---	---	---	---	---	---	---	---	102	99	101
7	---	---	---	---	---	---	---	---	---	101	98	99
8	---	---	---	---	---	---	---	---	---	101	97	99
9	---	---	---	---	---	---	---	---	---	99	97	98
10	---	---	---	---	---	---	---	---	---	98	96	97
11	---	---	---	---	---	---	---	---	---	96	92	93
12	---	---	---	---	---	---	---	---	---	94	92	92
13	---	---	---	---	---	---	---	---	---	94	93	94
14	---	---	---	---	---	---	---	---	---	98	93	95
15	---	---	---	---	---	---	---	---	---	96	95	95
16	---	---	---	---	---	---	---	---	---	97	95	96
17	---	---	---	---	---	---	---	---	---	96	95	96
18	---	---	---	---	---	---	---	---	---	97	95	96
19	---	---	---	---	---	---	---	---	---	106	96	101
20	---	---	---	---	---	---	---	---	---	100	96	98
21	---	---	---	---	---	---	---	---	---	99	96	98
22	---	---	---	---	---	---	92	85	89	99	95	97
23	---	---	---	---	---	---	101	92	97	100	96	98
24	---	---	---	---	---	---	92	85	88	99	94	96
25	---	---	---	---	---	---	89	85	87	95	83	88
26	---	---	---	---	---	---	95	89	92	89	85	87
27	---	---	---	---	---	---	103	92	99	90	88	89
28	---	---	---	---	---	---	106	103	105	91	88	89
29	---	---	---	---	---	---	105	99	101	89	86	88
30	---	---	---	---	---	---	101	99	100	86	74	80
31	---	---	---	---	---	---	105	101	103	76	74	75
MONTH	---	---	---	---	---	---	---	---	---	109	74	96

CONNECTICUT RIVER BASIN

01170100 GREEN RIVER NEAR COLRAIN, MA--Continued

SPECIFIC CONDUCTANCE (µS/CM AT 25°C), WATER YEAR OCTOBER 1-15, 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	106	101	104	---	---	---	---	---	---	---	---	---
2	116	105	110	---	---	---	---	---	---	---	---	---
3	120	116	117	---	---	---	---	---	---	---	---	---
4	121	120	121	---	---	---	---	---	---	---	---	---
5	120	109	116	---	---	---	---	---	---	---	---	---
6	117	111	114	---	---	---	---	---	---	---	---	---
7	117	116	117	---	---	---	---	---	---	---	---	---
8	119	117	118	---	---	---	---	---	---	---	---	---
9	124	118	120	---	---	---	---	---	---	---	---	---
10	129	124	126	---	---	---	---	---	---	---	---	---
11	129	118	128	---	---	---	---	---	---	---	---	---
12	118	61	82	---	---	---	---	---	---	---	---	---
13	73	70	71	---	---	---	---	---	---	---	---	---
14	84	73	79	---	---	---	---	---	---	---	---	---
15	90	84	87	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

WATER TEMPERATURE (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
2	---	---	---	---	---	---	---	---	---	.1	.0	.0
3	---	---	---	---	---	---	---	---	---	.1	.0	.0
4	---	---	---	---	---	---	---	---	---	.1	.0	.0
5	---	---	---	---	---	---	---	---	---	.1	.0	.1
6	---	---	---	---	---	---	---	---	---	.1	.0	.1
7	---	---	---	---	---	---	---	---	---	.1	.0	.0
8	---	---	---	---	---	---	---	---	---	.1	.0	.0
9	---	---	---	---	---	---	---	---	---	.1	.0	.1
10	---	---	---	---	---	---	---	---	---	.1	.1	.1
11	---	---	---	---	---	---	---	---	---	.1	.0	.1
12	---	---	---	---	---	---	---	---	---	.1	.0	.1
13	---	---	---	---	---	---	---	---	---	.2	.0	.1
14	---	---	---	---	---	---	---	---	---	.2	.0	.0
15	---	---	---	---	---	---	---	---	---	.2	.1	.1
16	---	---	---	---	---	---	---	---	---	.4	.0	.1
17	---	---	---	---	---	---	---	---	---	.3	.0	.1
18	---	---	---	---	---	---	---	---	---	.3	.0	.1
19	---	---	---	---	---	---	---	---	---	.0	.0	.0
20	---	---	---	---	---	---	---	---	---	.0	.0	.0
21	---	---	---	---	---	---	---	---	---	.0	.0	.0
22	---	---	---	---	---	---	0.4	0.0	0.0	.1	.0	.0
23	---	---	---	---	---	---	.1	.0	.0	.2	.0	.1
24	---	---	---	---	---	---	.2	.0	.1	.1	.0	.1
25	---	---	---	---	---	---	.0	.0	.0	.1	.0	.0
26	---	---	---	---	---	---	.0	.0	.0	.2	.0	.1
27	---	---	---	---	---	---	.0	.0	.0	.6	.0	.1
28	---	---	---	---	---	---	.0	.0	.0	.5	.0	.1
29	---	---	---	---	---	---	.0	.0	.0	.4	.0	.2
30	---	---	---	---	---	---	.1	.0	.0	.2	.1	.1
31	---	---	---	---	---	---	.0	.0	.0	.1	.0	.0
MONTH	---	---	---	---	---	---	---	---	---	0.6	0.0	0.1

CONNECTICUT RIVER BASIN

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WATER TEMPERATURE (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	FEBRUARY		MAX	MARCH		MAX	APRIL		MAX	MAY	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	0.1	0.0	0.0	1.1	0.0	0.3	5.0	3.0	4.1	9.0	4.7	6.6
2	.1	.0	.0	1.4	.0	.5	5.9	2.0	3.9	6.3	5.4	5.8
3	.0	.0	.0	1.8	.8	1.3	6.4	4.0	5.0	8.8	5.6	6.8
4	.1	.0	.0	2.1	.0	.7	5.3	2.7	3.7	11.8	5.0	8.2
5	.0	.0	.0	.5	.0	.1	3.9	1.1	2.6	13.0	6.2	9.5
6	.1	.0	.0	.4	.0	.1	5.2	1.4	3.0	14.6	7.3	11.1
7	.1	.0	.0	2.2	.0	1.0	4.9	.2	2.7	15.0	10.8	12.8
8	.2	.0	.0	4.3	.7	2.3	6.4	2.8	4.5	15.3	10.7	12.9
9	.3	.0	.1	5.2	2.2	3.4	8.9	5.0	7.0	12.2	9.7	10.7
10	.0	.0	.0	5.8	.0	2.9	11.0	7.0	8.6	15.2	9.2	11.8
11	.1	.0	.0	2.0	.0	.6	9.9	4.9	7.3	14.3	8.7	11.4
12	.1	.0	.0	1.4	.0	.5	11.1	4.6	8.0	10.9	8.6	9.6
13	.1	.0	.0	2.1	.0	1.3	11.1	9.0	10.1	8.6	7.0	7.9
14	.1	.0	.0	6.0	1.5	3.6	13.8	9.7	11.5	8.9	6.7	7.6
15	.1	.0	.0	3.5	2.4	2.9	11.7	9.2	10.4	9.2	6.4	7.7
16	.3	.0	.1	4.2	2.0	3.3	15.0	8.8	11.8	13.0	6.7	9.9
17	.1	.0	.1	3.9	.0	2.1	17.3	11.1	14.0	13.6	10.6	11.8
18	.5	.0	.1	2.4	.1	.9	18.4	12.7	15.4	11.3	6.4	8.2
19	.2	.0	.1	2.6	.3	1.5	15.7	13.1	14.5	9.6	5.2	7.4
20	.5	.1	.2	2.1	.0	1.1	13.8	9.9	12.0	8.6	5.5	7.1
21	.2	.1	.1	3.4	.0	1.3	10.8	7.6	9.2	10.6	5.3	7.7
22	.4	.0	.1	1.1	.0	.3	8.3	4.7	6.0	12.8	6.1	9.4
23	.9	.0	.2	1.2	.0	.4	7.4	4.4	5.9	14.5	7.2	10.8
24	.7	.0	.1	3.8	.0	1.7	10.5	4.1	7.1	14.8	9.3	12.3
25	1.2	.0	.6	4.6	.9	2.7	7.4	5.2	6.3	15.3	10.0	12.6
26	3.9	1.0	2.4	2.8	1.2	1.8	7.9	3.9	5.9	12.6	10.8	11.8
27	2.6	.6	2.0	3.1	1.0	1.9	10.1	3.4	6.7	16.0	10.6	13.2
28	1.4	.0	.4	5.4	.9	2.9	7.2	5.1	5.8	15.9	13.3	14.1
29	---	---	---	6.1	1.0	3.4	5.4	4.6	5.0	14.6	12.8	13.6
30	---	---	---	5.8	3.1	4.1	7.2	4.2	5.8	17.7	13.0	15.1
31	---	---	---	6.8	2.4	4.4	---	---	---	18.1	14.3	16.0
MONTH	3.9	0.0	0.2	6.8	0.0	1.8	18.4	0.2	7.5	18.1	4.7	10.4

DAY	MAX	JUNE		MAX	JULY		MAX	AUGUST		MAX	SEPTEMBER	
		MIN	MEAN		MIN	MEAN		MIN	MEAN		MIN	MEAN
1	18.2	13.0	15.4	22.1	16.8	19.2	26.5	20.0	23.2	16.7	13.5	15.3
2	17.6	13.2	15.2	22.6	18.1	20.2	24.6	19.5	21.4	17.3	14.9	16.0
3	---	---	---	25.3	19.2	21.9	25.1	18.3	21.3	20.9	16.1	18.3
4	---	---	---	25.8	19.9	22.7	26.6	19.0	22.6	22.7	17.9	19.9
5	17.8	13.0	15.0	23.4	19.1	21.2	26.4	21.3	23.6	21.3	16.2	18.4
6	15.8	13.5	14.6	21.8	16.6	19.1	23.0	19.0	21.1	19.6	13.0	16.5
7	14.5	12.4	13.2	20.5	16.6	18.4	21.9	16.0	19.0	20.1	13.6	17.0
8	16.0	10.6	13.2	23.1	15.8	19.3	21.0	15.0	18.0	21.3	14.6	18.1
9	17.0	12.0	14.4	21.4	18.7	19.9	22.3	14.4	18.3	22.4	16.1	19.4
10	18.3	13.1	15.5	22.8	17.3	19.6	23.4	16.3	19.7	23.4	17.8	20.4
11	19.2	13.3	16.2	20.6	14.1	17.2	24.7	17.0	20.9	20.1	15.4	18.2
12	17.4	12.8	14.9	21.3	13.3	17.2	24.8	18.4	21.7	18.0	12.4	14.9
13	15.3	12.2	13.5	23.0	14.4	18.6	25.6	19.6	22.6	18.6	11.5	15.0
14	14.1	12.9	13.5	23.0	16.4	19.7	27.0	21.0	23.8	20.1	14.1	17.1
15	13.2	11.3	12.2	22.7	17.1	19.8	26.6	21.0	23.8	19.9	17.8	18.8
16	11.5	10.6	11.1	21.7	17.1	19.3	27.9	22.2	24.3	19.3	17.6	18.5
17	15.0	11.1	12.9	22.4	15.7	19.0	27.2	21.5	24.0	20.0	15.5	17.4
18	17.2	11.5	14.2	23.5	18.4	20.9	26.6	20.6	23.6	19.7	14.2	16.8
19	17.8	12.3	14.8	21.6	19.5	20.5	25.7	20.0	22.9	19.8	14.4	16.8
20	19.4	13.1	16.1	23.3	17.9	20.2	23.5	19.4	21.0	20.9	15.3	17.9
21	20.4	14.2	17.1	24.2	18.1	20.8	23.3	16.0	19.6	21.6	17.9	19.6
22	17.2	15.1	16.1	24.7	19.3	22.0	21.4	16.3	19.1	22.0	19.1	20.3
23	17.7	14.9	16.0	25.0	20.3	22.0	20.9	18.1	19.6	21.0	16.7	19.1
24	20.4	16.0	17.7	22.7	18.0	20.0	18.1	15.7	16.8	18.5	13.6	16.1
25	19.7	13.8	16.8	21.4	15.5	18.5	21.8	14.8	17.9	17.1	12.5	15.0
26	21.0	15.6	18.3	20.5	15.6	18.1	22.3	15.4	18.9	15.2	13.3	14.3
27	23.2	18.0	19.9	20.0	17.0	18.4	22.4	16.5	19.4	14.3	13.5	13.9
28	18.5	16.3	17.4	19.5	18.0	18.7	21.5	16.2	18.7	16.0	13.6	14.5
29	20.3	15.4	17.6	25.4	18.3	21.3	18.3	15.2	16.5	15.1	11.0	12.9
30	20.9	15.5	18.1	26.7	19.5	22.7	20.4	15.0	17.1	15.7	11.0	13.1
31	---	---	---	25.2	19.4	22.3	18.1	15.7	16.7	---	---	---
MONTH	---	---	---	26.7	13.3	20.0	27.9	14.4	20.6	23.4	11.0	17.0

CONNECTICUT RIVER BASIN

01172003 CONNECTICUT RIVER BELOW HOLYOKE DAM AT HOLYOKE, MA

LOCATION.--Lat 42°12'36", long 72°35'44", Hampden County, Hydrologic Unit 01080201, on right bank, 2,200 ft downstream from dam of Holyoke Water Power Co. in Holyoke, MA. and at mile 86.

DRAINAGE AREA.--8,309 mi².

PERIOD OF RECORD.--December 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 43.276 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by powerplants, by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, and other reservoirs, combined usable capacity, about 47 billion ft³. Records do not include water diverted around gage by Holyoke Water Power Company for industrial use. Telephone gage-height telemeter at this station.

AVERAGE DISCHARGE.--17 years (water years 1985--current year), 12,180 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 153,000 ft³/s, June 1, 1984, gage height, 25.62 ft; minimum daily, 519 ft³/s, Sept. 30, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1854, 244,000 ft³/s, Mar. 20, 1936, gage height, 35.0 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 68,200 ft³/s, Apr. 17, gage height, 15.36 ft; minimum daily, 546 ft³/s, Oct. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2250	2620	6080	2720	9450	12500	32700	22100	13000	13800	4430	1610
2	701	2130	6310	4030	7310	11400	42000	21200	15100	10600	5300	3240
3	569	2990	6390	6280	7460	11800	41400	22500	17600	10700	3110	2110
4	678	1600	6580	5600	7530	12500	34500	23600	15600	10600	2640	1470
5	2050	3410	6750	5190	7540	16700	35600	20000	15200	5630	5480	1120
6	2060	3190	6480	4650	8130	16700	31100	19500	13900	6040	5240	915
7	1750	1080	4550	4130	7300	11000	26200	16500	23200	4840	3110	1490
8	2100	6760	4600	4610	6270	9960	21300	14500	22900	6050	2160	870
9	829	5240	3990	3760	4480	8700	16500	13700	17800	6770	1500	1250
10	2270	3620	4280	4660	3980	11000	16500	13900	14200	8240	1920	2840
11	1510	1740	3130	4490	5000	26400	25800	12200	10300	7640	1820	2410
12	2190	3750	2230	4210	9460	30300	26600	12100	12200	4970	2330	1380
13	2180	4070	3490	3690	6470	25200	22600	12900	20100	4520	2830	1940
14	1570	2690	4470	3620	9630	17800	32000	36900	39000	2980	3940	1530
15	2070	1160	5730	5870	7870	17500	55200	48500	43300	3730	3060	1930
16	546	1330	9040	5320	6610	17800	63200	42500	37800	3260	1860	1840
17	695	989	6330	4570	5570	14900	63100	34000	31200	4340	2440	2980
18	578	1720	6230	4540	6860	14500	57200	29400	22600	5540	2540	3230
19	675	1820	5940	4150	8100	13600	53400	33600	15400	4480	1460	2430
20	1470	3110	3900	3240	8680	11500	48400	33900	13100	4190	2030	2520
21	726	4380	4520	3790	9120	11500	41300	29400	12600	6170	1550	1710
22	3090	3070	3720	3920	8940	9910	35900	24400	11400	7210	1020	1820
23	2870	1640	3830	3880	10100	10000	28700	21700	11700	7330	1710	2930
24	3020	2430	5740	2960	11600	9040	20100	15300	13500	4190	1320	2630
25	4220	2900	4360	3720	11200	9500	18900	13300	14700	1710	1610	2160
26	3660	2890	3230	3900	9750	11500	18600	13200	12400	1260	2370	4830
27	3490	4150	4560	6240	9450	13600	17000	12500	12700	1860	3380	4810
28	1570	4230	5290	5440	12000	18200	15600	11600	15600	1150	1640	5790
29	3780	5220	4250	5630	---	16000	18200	11900	18600	3820	842	4220
30	6090	7390	3250	7720	---	15300	20500	12300	15700	5450	956	4570
31	2370	---	3610	7790	---	23400	---	11400	---	3720	1420	---
TOTAL	63627	93319	152860	144320	225860	459710	980100	660500	552400	172790	77018	74575
MEAN	2052	3111	4931	4655	8066	14830	32670	21310	18410	5574	2484	2486
MAX	6090	7390	9040	7790	12000	30300	63200	48500	43300	13800	5480	5790
MIN	546	989	2230	2720	3980	8700	15600	11400	10300	1150	842	870

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	8636	11250	11120	10130	9689	17970	34580	17700	11000	6300	5320	4760							
MAX	16340	25800	27410	23660	21890	34660	58300	40670	31100	16930	14780	13840							
(WY)	1991	1996	1997	1996	1984	1990	1993	1996	1984	1996	1990	1999							
MIN	1512	3111	4931	4655	4250	8080	10270	7366	4056	2578	1577	1378							
(WY)	1985	2002	2002	2002	1987	2001	1995	1987	1999	1991	2001	1984							

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR
ANNUAL TOTAL	3534175	3657079						
ANNUAL MEAN	9683	10020						
HIGHEST ANNUAL MEAN							12180	1996
LOWEST ANNUAL MEAN							19030	1985
HIGHEST DAILY MEAN	86900	Apr 24	63200	Apr 16	145000	Jun 1 1984		
LOWEST DAILY MEAN	465	Aug 12	546	Oct 16	465	Aug 12 2001		
ANNUAL SEVEN-DAY MINIMUM	966	Oct 15	966	Oct 15	707	Sep 18 1984		
MAXIMUM PEAK FLOW			68200	Apr 17	153000	Jun 1 1984		
MAXIMUM PEAK STAGE			15.36	Apr 17	25.62	Jun 1 1984		
INSTANTANEOUS LOW FLOW			80	Oct 20	80	Oct 20 2001		
10 PERCENT EXCEEDS	17900		23500		26300			
50 PERCENT EXCEEDS	5430		5570		8120			
90 PERCENT EXCEEDS	1310		1610		2880			

CONNECTICUT RIVER BASIN

01172500 WARE RIVER NEAR BARRE, MA

LOCATION.--Lat 42°25'34", long 72°01'30" Worcester County, Hydrologic Unit 01080204, on left bank 700 ft downstream from Barre Falls Reservoir, 1.6 mi upstream from Burnshirt River, 4 mi east of Barre, and at mile 33.3.

DRAINAGE AREA.--55.1 mi².

PERIOD OF RECORD.--Discharge: July 1946 to current year.

Water-quality records: Water years 1957, 1994.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area. WDR MA-RI-89-1: 1984-88.

GAGE.--Water-stage recorder. Elevation of gage is 745 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to August 1955, slight regulation at low flow at times by Long Pond. Flow regulated by Barre Falls Reservoir (see table below for monthend contents) since 1958. Diversion at times since 1955 from 6.5 mi² upstream of station for municipal supply of Fitchburg. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--56 years, 94.7 ft³/s, 23.34 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft³/s, Oct. 16, 1955, gage height, 6.31 ft; no flow part of each day Sept. 3-8, 13, 1996; minimum daily discharge, 0.1 ft³/s, Sept. 8, 11, 1995. Maximum discharge since construction of Barre Falls Reservoir in 1958, 1,630 ft³/s, Apr. 13, 1987, gage height, 5.56 ft; maximum gage height, 5.62 ft, Mar. 14, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 343 ft³/s, May 15, gage height, 4.13 ft; minimum daily, 0.51 ft³/s, Aug. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	9.7	20	8.1	4.8	40	221	143	73	29	4.2	2.3
2	17	10	18	16	8.9	20	228	150	66	23	5.5	2.2
3	13	12	16	20	8.9	21	228	151	59	20	7.3	2.8
4	10	13	14	8.9	112	91	223	144	50	18	6.5	4.3
5	8.4	17	14	3.4	143	147	177	122	48	18	5.2	1.4
6	7.5	15	14	3.2	47	159	157	98	86	14	4.3	1.3
7	6.8	14	13	21	16	71	119	84	222	13	3.4	1.6
8	5.8	12	12	41	17	28	106	73	261	11	3.1	1.5
9	5.3	12	14	48	17	20	106	65	239	11	3.1	1.1
10	7.4	12	14	57	17	20	105	62	137	10	2.7	.95
11	7.1	12	14	36	33	85	75	53	102	8.8	1.3	.83
12	6.3	11	14	20	54	224	51	53	89	8.3	1.2	.75
13	6.0	10	15	20	60	102	38	58	75	8.1	1.1	.64
14	6.5	10	16	36	60	34	38	195	67	7.4	1.1	.68
15	9.0	11	17	44	51	34	38	326	65	6.7	1.1	1.00
16	10	11	18	32	42	34	110	336	72	7.8	1.2	2.5
17	11	11	24	25	42	34	131	229	99	25	1.0	1.9
18	10	11	52	15	42	66	125	211	154	29	.90	1.7
19	9.4	10	77	13	59	183	58	278	122	10	.84	1.6
20	8.7	11	97	13	51	93	25	230	82	7.7	.93	3.6
21	8.1	11	63	13	69	32	26	173	66	6.8	.89	1.7
22	7.6	10	37	13	81	23	96	145	52	6.1	.77	.96
23	7.9	10	37	13	74	18	170	118	43	6.9	.82	6.8
24	7.9	11	38	11	74	57	152	100	35	8.1	.74	5.4
25	7.6	12	38	11	73	189	69	85	29	6.6	.83	1.8
26	7.2	15	58	11	50	114	78	75	24	5.4	.71	3.3
27	7.6	15	67	11	41	109	82	76	55	4.9	.62	12
28	7.9	18	31	38	53	162	85	73	62	4.7	.51	29
29	8.1	22	8.1	76	---	226	111	94	49	6.2	2.1	16
30	8.1	20	8.1	52	---	218	145	80	37	6.2	3.2	15
31	7.7	---	8.1	4.4	---	205	---	71	---	5.2	3.6	---
TOTAL	275.9	378.7	886.3	734.0	1400.6	2859	3373	4151	2620	352.9	70.76	126.61
MEAN	8.90	12.6	28.6	23.7	50.0	92.2	112	134	87.3	11.4	2.28	4.22
MAX	25	22	97	76	143	226	228	336	261	29	7.3	29
MIN	5.3	9.7	8.1	3.2	4.8	18	25	53	24	4.7	0.51	0.64
(†)	1.8	2.1	31.2	36.5	28.7	37.6	3.4	2.6	2.3	1.7	1.5	2.0
MEAN††	8.70	12.8	39.5	25.7	46.8	95.5	99.2	134	87.2	11.2	2.20	4.00
CFSM††	0.16	0.23	0.72	0.47	0.85	1.73	1.80	2.42	1.58	0.20	0.04	0.07
IN††	0.18	0.26	0.83	0.54	0.89	2.00	2.01	2.80	1.77	0.23	0.05	0.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2002, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
MEAN	52.1	80.7	101	102	109	179	231	121	76.0	32.6	28.5	25.8
MAX	275	233	327	285	274	365	559	257	368	102	169	205
(WY)	1956	1956	1997	1979	1996	1983	1987	1989	1984	1998	1955	1954
MIN	4.17	6.78	13.1	8.14	18.0	69.3	77.4	39.1	9.37	4.45	1.97	2.00
(WY)	1965	1965	1966	1981	1977	1967	1985	1999	1999	1999	1965	1953

CONNECTICUT RIVER BASIN
01172500 WARE RIVER NEAR BARRE, MA--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1946 - 2002	
ANNUAL TOTAL	31404.4		17228.77			
ANNUAL MEAN	86.0		47.2		94.7	
ADJUSTED ANNUAL MEAN††	84.2		47.2			
HIGHEST ANNUAL MEAN					157	1984
LOWEST ANNUAL MEAN					29.5	1965
HIGHEST DAILY MEAN	1060	Apr 20	336	May 16	1520	Oct 16 1955
LOWEST DAILY MEAN	1.8	Sep 13	0.51	Aug 28	0.10	Sep 8 1995
ANNUAL SEVEN-DAY MINIMUM	2.3	Sep 7	0.71	Aug 22	0.11	Sep 6 1995
MAXIMUM PEAK FLOW			343	May 15	1890	Oct 16 1955
MAXIMUM PEAK STAGE			4.13	May 15	6.31	Oct 16 1955
INSTANTANEOUS LOW FLOW			0.47	Aug 28		
ADJUSTED RUNOFF (CFSM)††	1.52		0.86		1.72	
ADJUSTED RUNOFF (INCHES)††	11.87		11.62		23.34	
10 PERCENT EXCEEDS	234		139		219	
50 PERCENT EXCEEDS	41		18		59	
90 PERCENT EXCEEDS	7.6		2.2		7.2	

† Monthend contents, in millions of cubic feet (mcf), in Barre Falls Reservoir. Records furnished by U.S. Army Corps of Engineers. Monthend contents on Sept. 30, 2001 2.3 mcf.

†† Adjusted for change in contents in Barre Falls Reservoir.

Note.--Except as footnoted, all statistics are based on unadjusted daily and monthly mean discharges.

CONNECTICUT RIVER BASIN

01173000 WARE RIVER AT INTAKE WORKS NEAR BARRE, MA--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1928 - 2002	
ANNUAL TOTAL	49960		27968.1			
ANNUAL MEAN	137		76.6		167	
ADJUSTED ANNUAL MEAN††	136		76.7			
HIGHEST ANNUAL MEAN					277	1938
LOWEST ANNUAL MEAN					56.4	1965
HIGHEST DAILY MEAN	1230	Apr 13	472	May 14	8740	Sep 21 1938
LOWEST DAILY MEAN	11	Sep 12	5.4	Aug 27	0.46	Sep 15 1987
ANNUAL SEVEN-DAY MINIMUM	12	Sep 11	6.1	Sep 10	2.3	Aug 7 1999
MAXIMUM PEAK FLOW					14000	Sep 21 1938
MAXIMUM PEAK STAGE					664.28	Sep 21 1938
ANNUAL RUNOFF (CFSM) ††	1.41		0.80		1.73	
ANNUAL RUNOFF (INCHES) ††	19.03		10.80		23.55	
10 PERCENT EXCEEDS	383		181		383	
50 PERCENT EXCEEDS	75		36		108	
90 PERCENT EXCEEDS	16		8.4		19	

†† Adjusted for change in contents in Barre Falls Reservoir (see station 01172500 for monthend contents).

Note.--Except as footnoted, all statistics are based on unadjusted daily and monthly mean data.

CONNECTICUT RIVER BASIN

01174500 EAST BRANCH SWIFT RIVER NEAR HARDWICK, MA

LOCATION.--Lat 42°23'36", long 72°14'21", Worcester County, Hydrologic Unit 01080204, on left bank 100 ft above spillway of regulating dam and 4.6 mi northwest of Hardwick.

DRAINAGE AREA.--43.7 mi².

PERIOD OF RECORD.--Discharge: January 1937 to current year. Published as "near Dana" January 1937 to September 1939.

Water-quality records: Water year 1957.

GAGE.--Water-stage recorder. Concrete spillway since Mar. 12, 1940. Datum of gage is 504.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. No flow at times during several years. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--65 years, 71.2 ft³/s, 22.15 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,780 ft³/s, Sept. 21, 1938, average of slope-area and contracted-opening measurements; maximum gage height since construction of concrete spillway in 1940; 22.49 ft, June 25, 1944; no flow at times during several years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 398 ft³/s, May 14, gage height, 20.29 ft; minimum, no flow, Aug. 14 through Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.2	11	9.4	31	27	111	113	42	17	4.0	0.0
2	2.0	2.0	6.9	8.6	29	24	116	101	38	16	4.0	.0
3	1.6	4.1	6.1	8.2	24	40	102	113	32	14	6.0	.0
4	1.2	4.4	5.8	7.4	22	54	87	90	25	13	4.9	.0
5	.96	4.6	6.3	7.1	17	48	73	69	24	11	4.2	.0
6	1.0	4.9	5.1	7.6	15	41	62	53	76	8.6	3.9	.0
7	.81	4.3	3.4	10	14	36	52	46	216	7.0	1.9	.0
8	.47	4.5	3.0	10	14	32	46	41	203	6.4	1.0	.0
9	.39	4.6	5.8	9.8	12	29	45	34	128	6.6	.52	.0
10	.41	4.2	5.9	10	11	40	46	34	89	7.9	.29	.0
11	.41	4.0	6.3	11	23	41	39	31	65	5.6	.16	.0
12	.44	3.2	6.5	11	26	38	37	30	53	4.1	.09	.0
13	.42	3.0	7.7	13	27	36	36	65	47	3.2	.03	.0
14	.36	3.3	11	13	21	34	38	322	47	2.7	.0	.0
15	1.1	4.4	17	12	18	29	56	296	50	2.2	.0	.0
16	1.2	4.9	18	12	17	32	73	179	50	1.9	.0	.0
17	.90	3.6	19	11	18	30	65	124	65	0.95	.0	.0
18	.61	3.3	35	9.9	20	33	54	144	62	0.84	.0	.0
19	.48	3.3	39	8.7	18	35	42	217	51	3.4	.0	.0
20	.44	3.5	37	9.5	17	38	38	170	40	5.5	.0	.0
21	.36	3.1	32	9.4	37	45	33	126	35	4.2	.0	.0
22	.38	2.9	26	10	56	39	30	100	32	3.2	.0	.0
23	.39	2.7	20	9.8	55	33	33	83	29	3.7	.0	.0
24	.67	3.1	26	11	44	32	32	70	26	7.0	.0	.0
25	.55	5.0	26	14	36	32	34	58	21	6.3	.0	.0
26	.46	7.2	24	14	30	33	50	48	19	5.3	.0	.0
27	.43	5.6	20	15	31	77	52	47	18	4.4	.0	.0
28	.40	6.4	16	14	31	117	54	46	22	5.0	.0	.0
29	.35	5.8	15	15	---	111	84	45	22	8.9	.0	.0
30	.54	7.9	13	19	---	105	121	43	20	6.4	.0	.0
31	.52	---	10	23	---	98	---	40	---	5.1	.0	---
TOTAL	22.45	125.0	483.8	353.4	714	1439	1741	2978	1647	197.39	30.99	0.0
MEAN	0.72	4.17	15.6	11.4	25.5	46.4	58.0	96.1	54.9	6.37	1.000	0.000
MAX	2.2	7.9	39	23	56	117	121	322	216	17	6.0	0.00
MIN	0.35	1.2	3.0	7.1	11	24	30	30	18	0.84	0.00	0.00
CFSM	0.02	0.10	0.36	0.26	0.58	1.06	1.33	2.20	1.26	0.15	0.02	0.00
IN.	0.02	0.11	0.41	0.30	0.61	1.22	1.48	2.54	1.40	0.17	0.03	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2002, BY WATER YEAR (WY)

MEAN	38.4	62.2	75.7	80.1	80.4	134	160	91.2	59.5	28.6	22.7	25.6
MAX	155	177	264	240	207	266	420	189	175	179	127	390
(WY)	1980	1956	1997	1999	1984	1979	1940	1984	1984	1938	1955	1938
MIN	0.72	4.17	15.6	5.30	18.5	46.4	34.8	30.5	6.87	3.23	0.000	0.000
(WY)	2002	2002	2002	1981	1940	2002	1985	1985	1999	1949	1999	1995

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1937 - 2002
ANNUAL TOTAL	18319.59	9732.03	
ANNUAL MEAN	50.2	26.7	71.2
HIGHEST ANNUAL MEAN			123
LOWEST ANNUAL MEAN			22.8
HIGHEST DAILY MEAN	632	Apr 10	4690
LOWEST DAILY MEAN	0.00	Sep 2	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 2	0.00
MAXIMUM PEAK FLOW			398
MAXIMUM PEAK STAGE			20.29
INSTANTANEOUS LOW FLOW			0.00
ANNUAL RUNOFF (CFSM)	1.15		0.61
ANNUAL RUNOFF (INCHES)	15.59		8.28
10 PERCENT EXCEEDS	132		65
50 PERCENT EXCEEDS	22		11
90 PERCENT EXCEEDS	0.43		0.00

CONNECTICUT RIVER BASIN

01174565 WEST BRANCH SWIFT RIVER NEAR SHUTESBURY, MA

LOCATION.--Lat 42°27'18", long 72°22'56", Franklin County, Hydrologic Unit 01080204, on left bank 800 ft downstream from State Highway 202 and 1.4 mi east of Shutesbury.

DRAINAGE AREA.--12.6 mi².

PERIOD OF RECORD.--November 1983 to September 1985, April 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges and those for discharges greater than 500 ft³/s, which are poor.

AVERAGE DISCHARGE.--8 years (water years, 1985, 1996--current year) 21.5 ft³/s, 23.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,490 ft³/s, Sept. 17, 1999, gage height, 5.96 ft, from rating curve extended above 310 ft³/s on basis of slope-area measurement at gage height 4.28 ft; minimum, about 0.35 ft³/s, mid-September 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 172 ft³/s, May 14, gage height, 2.62 ft; minimum, 0.51 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.5	3.5	e2.0	6.3	e11	48	33	16	5.9	2.3	1.8
2	1.6	1.7	3.0	1.9	e6.0	e9.6	39	35	13	5.4	3.3	1.6
3	1.7	2.5	2.3	1.6	e5.6	26	34	38	11	5.0	5.2	1.5
4	1.8	2.3	2.1	1.6	4.0	26	31	29	10	4.4	3.1	1.4
5	1.8	2.1	2.0	1.8	e3.0	20	27	25	11	3.9	2.7	1.1
6	2.3	1.9	1.8	1.9	2.9	16	24	23	26	3.6	2.3	.92
7	2.3	1.6	1.6	2.1	2.6	14	22	21	71	3.5	1.9	.86
8	1.9	1.6	1.5	2.2	2.7	13	21	19	39	3.4	1.7	.77
9	1.8	1.5	1.9	2.0	2.6	12	21	18	25	3.5	1.5	.70
10	1.9	1.4	1.7	2.1	e2.2	23	22	18	19	4.1	1.5	.67
11	1.8	1.3	1.8	2.6	e9.6	21	19	15	16	3.4	1.3	.71
12	2.2	1.3	1.9	2.8	e8.0	17	18	16	14	3.1	1.3	.71
13	2.0	1.1	2.5	2.7	e6.4	15	18	47	15	2.9	1.2	.64
14	2.0	1.2	4.1	2.5	e4.6	14	19	125	14	2.7	1.2	.70
15	4.1	1.2	11	2.5	3.7	13	37	63	16	2.5	1.1	.80
16	3.3	1.4	6.8	2.4	3.9	15	35	40	20	2.3	1.1	3.0
17	2.8	1.2	5.1	2.4	4.3	15	27	31	24	2.2	1.0	2.1
18	2.2	1.1	11	2.3	4.2	14	22	58	19	2.2	.95	1.4
19	1.7	1.3	9.5	2.1	e3.8	14	20	62	15	4.6	.86	1.2
20	1.7	1.6	6.9	e2.0	3.7	14	19	40	12	3.7	.97	1.2
21	1.6	1.4	5.5	1.8	18	16	17	31	11	3.0	.81	.98
22	1.5	1.3	4.2	1.8	19	17	16	27	10	2.6	.80	.93
23	1.4	1.2	3.5	1.9	15	14	18	24	11	5.7	.96	1.1
24	1.6	1.4	6.6	2.8	12	13	17	22	9.2	6.5	.88	.88
25	1.5	1.8	6.5	3.8	10	14	17	19	7.9	3.6	1.0	.74
26	1.3	3.0	4.8	3.4	11	14	21	18	7.1	3.0	.89	.81
27	1.2	2.8	e3.4	3.3	13	37	20	17	6.9	2.7	.78	2.0
28	1.2	2.4	e3.0	3.3	12	39	24	17	9.0	2.8	.70	5.1
29	1.1	2.5	3.1	3.6	---	36	41	16	7.5	5.1	2.7	3.2
30	1.1	2.9	2.6	5.6	---	46	45	15	6.5	3.3	4.3	2.2
31	.98	---	e2.2	6.2	---	42	---	15	---	2.7	2.4	---
TOTAL	57.18	51.5	127.4	81.0	200.1	610.6	759	977	492.1	113.3	52.70	41.72
MEAN	1.84	1.72	4.11	2.61	7.15	19.7	25.3	31.5	16.4	3.65	1.70	1.39
MAX	4.1	3.0	11	6.2	19	46	48	125	71	6.5	5.2	5.1
MIN	0.98	1.1	1.5	1.6	2.2	9.6	16	15	6.5	2.2	0.70	0.64
CFSM	0.15	0.14	0.33	0.21	0.57	1.56	2.01	2.50	1.30	0.29	0.13	0.11
IN.	0.17	0.15	0.38	0.24	0.59	1.80	2.24	2.88	1.45	0.33	0.16	0.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	12.0	17.8	25.0	25.2	30.5	40.0	41.4	29.5	24.1	9.46	5.95	8.85							
MAX	29.5	39.2	75.3	51.0	70.6	60.1	83.0	78.1	52.8	24.3	29.3	52.9							
(WY)	2000	1996	1997	1996	1984	1999	1984	1984	1998	1996	2000	1999							
MIN	1.84	1.72	4.11	2.61	7.15	19.7	15.3	10.5	3.73	1.98	1.70	1.02							
(WY)	2002	2002	2002	2002	2002	2002	1985	1985	1999	1999	2002	1998							

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1984 - 2002
ANNUAL TOTAL	5480.42	3563.60	
ANNUAL MEAN	15.0	9.76	21.5
HIGHEST ANNUAL MEAN			33.0
LOWEST ANNUAL MEAN			9.76
HIGHEST DAILY MEAN	193	Apr 10	636
LOWEST DAILY MEAN	0.73	Sep 2	0.35
ANNUAL SEVEN-DAY MINIMUM	0.86	Aug 28	0.38
MAXIMUM PEAK FLOW		172	1490
MAXIMUM PEAK STAGE		2.62	5.87
INSTANTANEOUS LOW FLOW		0.51	0.35
ANNUAL RUNOFF (CFSM)	1.19	0.77	1.70
ANNUAL RUNOFF (INCHES)	16.18	10.52	23.16
10 PERCENT EXCEEDS	33	24	48
50 PERCENT EXCEEDS	7.4	3.4	13
90 PERCENT EXCEEDS	1.3	1.2	1.8

e Estimated

CONNECTICUT RIVER BASIN

01176000 QUABOAG RIVER AT WEST BRIMFIELD, MA

LOCATION.--Lat 42°10'56", long 72°15'51", Hampden County, Hydrologic Unit 01080204, on right bank 10 ft upstream from abandoned highway bridge site at West Brimfield, 0.9 mi upstream from Blodgett Mill Brook, 3.5 mi northeast of Palmer, and 9.9 mi upstream from mouth.

DRAINAGE AREA.--150 mi².

PERIOD OF RECORD.--Discharge: August 1909 to July 1912 (twice-daily gage heights and corresponding discharges), August 1912 to current year.

Water-quality records: Water years 1953, 1967, 1969-70, 1972-74.

REVISED RECORDS.--WSP 451: 1916. WSP 1301: 1918(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 390 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 19, 1912, nonrecording gage, and Aug. 19, 1912, to Oct. 31, 1955, water-stage recorder, at several sites 0.5 mi downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation at low flow caused by mill upstream prior to 1956; regulation much greater prior to 1938. High flow slightly affected by retarding reservoirs since 1965. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--90 years water years 1913-current year, 247 ft³/s, 22.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,800 ft³/s, Aug. 19, 1955, gage height, 15.36 ft, from floodmarks, present site and datum, from rating curve extended above 2,700 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 6.6 ft³/s, Sept. 28, 29, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 577 ft³/s, May 18, gage height, 4.59 ft; minimum, 16 ft³/s, Sept. 12, 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	30	67	e39	e112	82	350	296	196	129	37	25
2	42	33	60	e41	e103	82	357	314	179	120	46	29
3	39	37	58	e43	e105	119	370	344	166	112	48	28
4	38	41	56	e35	e109	132	376	340	159	104	43	27
5	36	47	56	e31	e107	144	369	334	152	95	42	25
6	35	47	54	e36	e97	149	344	310	215	86	41	23
7	31	53	49	e47	e79	142	322	283	401	82	34	22
8	29	63	47	e61	e56	141	302	253	403	75	32	22
9	30	63	49	e72	e52	137	277	233	393	70	31	21
10	31	63	49	e72	e61	146	256	204	372	68	30	21
11	30	63	49	e62	e79	141	248	179	340	62	29	21
12	30	60	49	e55	e104	156	230	183	308	57	28	18
13	43	61	50	e59	e110	148	214	259	276	56	27	16
14	47	61	50	e57	e99	135	202	408	252	53	27	18
15	51	62	58	e59	e91	128	252	414	240	50	25	18
16	46	61	56	e60	e84	141	258	427	240	46	24	24
17	44	59	61	e53	e85	142	254	412	268	41	23	25
18	39	59	99	e40	e89	148	248	496	263	40	22	24
19	39	60	116	e36	e89	146	239	519	250	50	22	27
20	38	68	126	e38	e103	151	222	501	230	47	24	27
21	37	70	e113	e37	e129	165	205	468	204	46	22	27
22	42	73	e99	e38	e153	159	190	431	182	43	22	27
23	60	73	e92	e38	e157	177	187	387	161	46	21	57
24	46	76	e90	e43	e143	168	182	349	148	52	21	40
25	42	79	e91	e46	e130	171	181	309	133	48	22	34
26	38	84	e91	e52	e116	179	199	276	119	46	20	34
27	34	75	e84	e56	e107	311	196	249	107	43	20	50
28	32	73	e73	e61	e101	362	216	231	119	42	20	75
29	31	71	e58	e78	---	367	263	219	134	40	24	65
30	31	68	e46	e99	---	358	289	207	134	37	27	64
31	29	---	e39	e116	---	336	---	195	---	35	25	---
TOTAL	1185	1833	2135	1660	2850	5463	7798	10030	6744	1921	879	934
MEAN	38.2	61.1	68.9	53.5	102	176	260	324	225	62.0	28.4	31.1
MAX	60	84	126	116	157	367	376	519	403	129	48	75
MIN	29	30	39	31	52	82	181	179	107	35	20	16
CFSM	0.25	0.41	0.46	0.36	0.68	1.17	1.73	2.16	1.50	0.41	0.19	0.21
IN.	0.29	0.45	0.53	0.41	0.71	1.35	1.93	2.49	1.67	0.48	0.22	0.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2002, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
1912	127	187	250	272	280	486	547	316	191	103	103	103
1913	607	693	911	821	748	1399	1352	573	789	524	1440	1369
1914	1956	1956	1997	1979	1970	1936	1940	1943	1984	1938	1955	1938
1915	11.9	26.9	48.5	46.6	65.2	169	173	108	35.2	17.6	12.8	12.0
1916	1958	1950	1931	1981	1977	1989	1915	1930	1999	1965	1957	1957

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1912 - 2002
ANNUAL TOTAL	75110	43432	
ANNUAL MEAN	206	119	247
HIGHEST ANNUAL MEAN			430
LOWEST ANNUAL MEAN			104
HIGHEST DAILY MEAN	1520	Apr 11	7800
LOWEST DAILY MEAN	15	Sep 13	4.6
ANNUAL SEVEN-DAY MINIMUM	18	Sep 7	6.3
MAXIMUM PEAK FLOW		577	12800
MAXIMUM PEAK STAGE		4.59	15.36
INSTANTANEOUS LOW FLOW		16	
ANNUAL RUNOFF (CFSM)	1.37	0.79	1.65
ANNUAL RUNOFF (INCHES)	18.63	10.77	22.35
10 PERCENT EXCEEDS	490	298	550
50 PERCENT EXCEEDS	101	68	166
90 PERCENT EXCEEDS	31	27	40

e Estimated

CONNECTICUT RIVER BASIN

01177000 CHICOPEE RIVER AT INDIAN ORCHARD, MA

LOCATION.--Lat 42°09'38", long 72°30'52", Hampden County, Hydrologic Unit 01080204, on left bank 1,000 ft downstream from West Street Bridge at Indian Orchard, 1.1 mi upstream from Fuller Brook, and 7.2 mi upstream from mouth.

DRAINAGE AREA.--689 mi².

PERIOD OF RECORD.--Discharge: August 1928 to current year. Published as "at Bircham Bend" prior to November 1938.

Water-quality records: Water years 1953, 1957, 1994.

REVISED RECORDS.--WSP 1231: 1934. WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 125 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 1, 1938, water-stage recorder at site 1.8 mi downstream at different datum.

REMARKS.--Records good. Diversion since 1941 from 186 mi² in Swift River basin and at times since 1931 from 97 mi² in Ware River basin for Boston metropolitan district; since 1950, for Chicopee; since 1952, for South Hadley; at times since 1966 for Worcester; at times since 1955 from 6.5 mi² in Ware River basin for Fitchburg. Diversion from Ludlow Reservoir for Springfield and, prior to 1952, for Chicopee. Flow regulated by powerplants upstream, by Quabbin Reservoir 21 mi upstream on Swift River since 1939, by Barre Falls Reservoir on Ware River since 1958, by Conant Brook Reservoir since 1966, and by smaller reservoirs. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--74 years, 906 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,200 ft³/s, Sept. 21, 1938, by computation of flow over dam; minimum daily, 16 ft³/s, several times in 1929-31.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,880 ft³/s, May 14, gage height, 7.39 ft; minimum daily, 81 ft³/s, Aug. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	222	257	149	463	364	1020	1040	743	528	209	232
2	166	218	269	223	425	365	1090	964	736	510	263	254
3	284	222	262	219	379	490	1000	1250	680	413	377	261
4	283	236	269	203	391	627	988	1100	579	368	355	247
5	259	242	271	123	346	657	892	964	493	446	325	406
6	229	254	199	173	324	560	854	770	685	391	339	203
7	221	253	177	239	403	528	829	869	1710	385	242	83
8	216	259	171	224	331	417	817	768	1850	470	258	179
9	216	267	184	214	224	446	723	611	1290	311	151	329
10	235	264	145	255	263	486	695	590	1050	345	264	87
11	234	271	140	289	409	667	715	578	915	328	263	156
12	227	270	245	208	436	487	703	559	839	316	263	172
13	234	266	165	280	439	554	636	751	881	262	256	172
14	228	267	190	318	389	520	605	1980	803	264	289	168
15	235	208	230	198	335	477	660	1820	753	299	280	173
16	273	316	311	273	348	474	867	1330	784	296	248	298
17	233	288	418	314	340	500	840	1110	1130	353	240	208
18	264	259	444	208	361	480	724	1270	969	323	224	233
19	207	275	563	149	361	506	672	1750	894	288	223	235
20	233	277	547	231	322	639	698	1610	872	309	208	183
21	240	272	380	238	461	653	617	1140	721	322	224	196
22	374	271	417	149	749	591	536	1070	669	264	372	185
23	207	286	371	207	437	589	562	988	594	249	81	272
24	245	274	444	236	521	540	563	896	516	384	167	262
25	232	286	337	241	500	535	583	838	467	293	221	343
26	220	344	358	286	385	600	683	793	383	322	220	239
27	223	292	353	305	397	1070	733	772	506	327	238	277
28	177	287	323	296	401	1330	716	717	379	343	172	397
29	230	269	308	234	---	1100	950	702	664	350	196	367
30	219	337	276	343	---	994	1150	666	574	376	283	354
31	221	---	226	476	---	951	---	722	---	257	260	---
TOTAL	7273	8052	9250	7501	11140	19197	23121	30988	24129	10692	7711	7171
MEAN	235	268	298	242	398	619	771	1000	804	345	249	239
MAX	374	344	563	476	749	1330	1150	1980	1850	528	377	406
MIN	166	208	140	123	224	364	536	559	379	249	81	83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2002, BY WATER YEAR (WY)

MEAN	524	723	887	968	999	1581	1811	1181	815	479	444	476
MAX	1953	3022	3207	2447	2374	5993	4117	2680	3519	2458	3719	5474
(WY)	1956	1956	1997	1937	1976	1936	1933	1953	1984	1938	1955	1938
MIN	131	154	241	191	332	619	636	471	229	159	176	160
(WY)	1942	1966	1966	1981	1931	2002	1966	1965	1964	1966	1949	1953

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1928 - 2002

ANNUAL TOTAL	267766	166225	
ANNUAL MEAN	734	455	906
HIGHEST ANNUAL MEAN			1952
LOWEST ANNUAL MEAN			376
HIGHEST DAILY MEAN	4590	Mar 31	1980
LOWEST DAILY MEAN	140	Dec 11	81
ANNUAL SEVEN-DAY MINIMUM	175	Dec 7	168
MAXIMUM PEAK FLOW			2880
MAXIMUM PEAK STAGE		7.39	May 14
INSTANTANEOUS LOW FLOW		56	Oct 2
10 PERCENT EXCEEDS	1680		885
50 PERCENT EXCEEDS	449		337
90 PERCENT EXCEEDS	223		207

CONNECTICUT RIVER BASIN

01179500 WESTFIELD RIVER AT KNIGHTVILLE, MA

LOCATION.--Lat 42°17'16", long 72°51'53", Hampshire County, Hydrologic Unit 01080206, on left bank at Knightville, 0.2 mi downstream from Knightville Dam, 0.2 mi upstream from Sykes Brook, 2.4 mi upstream from Middle branch, 3.5 mi north of Huntington, and at mile 29.7.

DRAINAGE AREA.--161 mi².

PERIOD OF RECORD.--Discharge: August 1909 to September 1990, October 1995 to current year.

Water-quality records: Water year 1953.

REVISED RECORDS.--WSP 415: 1909–12. WSP 1001: 1941–43. WSP 1231: 1910, 1912, 1913(M), 1914–15, 1916–19(M), 1921–23(M), 1925–27(M), 1929–33(M), 1935(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Dec. 20, 1940. Datum of gage is 461.25 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Jan. 11, 1936, nonrecording gage at site 0.5 mi upstream at different datum. Jan. 11, 1935, to May 20, 1940, water-stage recorder at site 700 ft upstream at datum 10.57 ft higher. May 21 to Dec. 19, 1940, nonrecording gage at site 700 ft upstream at datum 18.75 ft higher.

REMARKS.--Records good except those for estimated daily discharge, which are poor. Flow regulated by Knightville Reservoir since 1941. Telephone and satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--88 years (water years 1910–90, 1996-current year), 332 ft³/s, 27.95 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,900 ft³/s, Sept. 21, 1938, gage height, 29.58 ft, from floodmarks, site and datum then in use, from rating curve extended above 3,800 ft³/s on basis of slope-area measurements at gage heights 24.07 ft and 29.58 ft; minimum, 0.1 ft³/s, Apr. 3, 1965; minimum daily, 1.1 ft³/s, Apr. 2, 1965. Maximum discharge since construction of Knightville Reservoir in 1941, 6,660 ft³/s, Mar. 21, 1945, gage height, 7.45 ft.

EXTREMES FOR CURRENT YEAR.-- Maximum discharge, 2,040 ft³/s, Apr. 1, gage height, 6.19 ft; minimum 15 ft³/s, Sept. 14, 15; minimum daily, 16 ft³/s, Sept. 13–15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	45	157	62	72	314	1620	589	705	126	38	60
2	e74	68	166	62	74	271	1330	501	399	109	38	46
3	64	69	124	62	75	e234	604	622	304	99	55	40
4	58	67	102	62	204	e241	616	432	257	87	50	36
5	53	68	90	62	271	244	466	357	243	79	40	34
6	49	66	83	62	264	243	396	309	677	71	35	30
7	52	62	77	63	220	241	340	272	1250	67	32	27
8	55	59	71	63	194	240	311	248	944	63	29	23
9	50	55	75	63	189	236	293	224	497	60	27	21
10	47	53	74	63	185	243	371	231	391	62	25	21
11	46	50	60	63	183	259	330	210	309	57	24	19
12	44	49	43	65	189	261	282	197	281	51	23	17
13	43	47	48	65	167	261	268	591	370	48	22	16
14	43	47	52	65	151	259	431	1710	305	45	21	16
15	53	48	62	67	148	257	654	1860	339	42	22	16
16	93	49	68	67	148	256	555	1020	474	40	21	33
17	81	51	71	67	147	257	339	539	599	38	19	67
18	72	47	254	67	145	255	198	704	409	37	18	45
19	66	47	403	67	144	254	134	1070	306	88	17	33
20	61	54	394	67	143	251	367	732	252	255	17	26
21	56	53	297	67	145	250	549	534	214	127	17	22
22	53	51	225	158	153	250	243	446	190	81	17	20
23	50	47	219	213	159	246	274	382	251	69	17	20
24	48	46	215	204	160	243	260	335	263	125	18	20
25	52	55	216	196	311	213	236	301	195	98	20	19
26	56	88	214	194	380	179	357	273	162	70	20	18
27	52	107	207	191	363	185	338	261	148	57	19	26
28	49	85	112	130	344	198	328	328	230	52	17	101
29	46	82	60	65	---	203	692	791	197	52	26	126
30	45	130	62	67	---	900	681	437	150	48	131	71
31	43	---	62	70	---	1180	---	380	---	43	98	---
TOTAL	1740	1845	4363	2839	5328	9124	13863	16886	11311	2346	973	1069
MEAN	56.1	61.5	141	91.6	190	294	462	545	377	75.7	31.4	35.6
MAX	93	130	403	213	380	1180	1620	1860	1250	255	131	126
MIN	43	45	43	62	72	179	134	197	148	37	17	16
(†)	0.1	0.3	30.5	42.0	42.8	115	7.00	1.10	0.4	0.1	0.1	0.4
MEAN††	56.1	61.6	152	95.9	191	321	420	542	377	75.6	31.4	35.7
CFSM††	.35	.38	.94	.60	1.18	2.00	2.61	3.37	2.34	.47	.19	.22
IN††	.40	.43	1.09	.69	1.23	2.30	2.91	3.89	2.61	.54	.22	.25
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2002, BY WATER YEAR (WY)												
MEAN	180	303	304	295	289	615	933	444	261	130	107	125
MAX	1394	1155	989	1305	1001	2050	1853	912	1158	494	745	986
(WY)	1956	1956	1974	1949	1984	1936	1987	1972	1984	1972	1955	1938
MIN	18.3	36.4	68.5	44.7	65.0	158	283	143	41.1	20.7	15.7	14.8
(WY)	1965	1965	1915	1981	1920	1940	1985	1986	1964	1913	1913	1953

CONNECTICUT RIVER BASIN

01179500 WESTFIELD RIVER AT KNIGHTVILLE, MA--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1909 - 2002	
ANNUAL TOTAL	105268		71687			
ANNUAL MEAN	288		196		332	
ANNUAL MEAN††	287		197		332	
HIGHEST ANNUAL MEAN					538	
LOWEST ANNUAL MEAN					137	
HIGHEST DAILY MEAN	3040	Apr 14	1860	May 15	13400	Mar 18 1936
LOWEST DAILY MEAN	17	Sep 10	16	Sep 13	1.1	Apr 2 1965
ANNUAL SEVEN-DAY MINIMUM	19	Aug 26	17	Aug 18	8.9	Aug 29 1953
MAXIMUM PEAK FLOW			2040	Apr 1	37900	Sep 21 1938
MAXIMUM PEAK STAGE			6.19	Apr 1	29.58	Sep 21 1938
INSTANTANEOUS LOW FLOW			15	Sep 14		
ANNUAL RUNOFF (CFSM)††	1.78		1.22		2.06	
ANNUAL RUNOFF (INCHES)††	24.29		16.56		27.95	
10 PERCENT EXCEEDS	619		418		800	
50 PERCENT EXCEEDS	142		93		167	
90 PERCENT EXCEEDS	43		27		35	

e Estimated

† Monthend contents, in millions of cubic feet (mcf), in Knightville Reservoir; records furnished by U.S. Army Corps of Engineers. Monthend contents on Sept. 30, 2000, 0.2 mcf.

†† Adjusted for change in contents in Knightville Reservoir.

Note.--Except as footnoted, all statistics are based on unadjusted daily and monthly mean discharges.

CONNECTICUT RIVER BASIN

01181000 WEST BRANCH WESTFIELD RIVER AT HUNTINGTON, MA

LOCATION.--Lat 42°14'14", long 72°53'46", Hampshire County, Hydrologic Unit 01080206, on left bank at Huntington, 0.4 mi downstream from Roaring Brook, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--94.0 mi².

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

Water-quality records: Water years 1957, 1967-74.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 383.60 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1989, at datum 5.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Prior to 1950, some diurnal fluctuation at low flow caused by small mill upstream. Telephone and satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--67 years, 191 ft³/s, 27.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,100 ft³/s, Aug. 19, 1955, gage height, 15.27 ft, datum then in use, from rating curve extended above 9,500 ft³/s on basis of slope-area measurement of peak flow; minimum, 3.3 ft³/s, Aug. 9, 1955, Nov. 27, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,800 ft³/s, May 13, gage height, 7.21 ft; minimum, 6.8 ft³/s, Aug. 19, 20, Sept. 13-15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	20	59	e41	126	87	592	369	187	47	19	21
2	32	23	55	e42	180	84	416	335	121	42	18	20
3	29	25	44	e46	113	285	336	354	99	39	26	17
4	26	31	41	47	e85	280	369	250	82	35	23	16
5	24	27	37	45	e66	156	276	204	82	32	20	15
6	23	27	35	47	e66	134	232	173	418	30	18	13
7	25	29	32	49	e57	121	196	154	990	27	16	12
8	26	46	30	47	e53	113	178	138	420	27	14	10
9	24	44	34	47	e48	110	167	124	243	26	13	9.9
10	21	43	34	49	57	230	266	122	179	27	12	9.1
11	21	41	34	52	e166	181	213	107	142	24	11	8.3
12	20	40	34	55	e118	140	182	111	131	21	10	7.5
13	19	38	37	51	e83	125	170	928	166	20	9.9	7.1
14	19	36	57	49	e67	e123	249	1560	140	19	9.5	7.0
15	25	35	128	46	e67	e121	398	710	174	18	9.0	7.3
16	37	25	89	47	e57	138	347	414	264	17	8.6	28
17	30	23	70	47	e60	147	243	333	389	16	8.0	32
18	28	21	368	e39	e56	129	200	679	219	16	7.4	20
19	26	21	251	e36	e58	121	179	721	161	35	7.1	16
20	23	22	165	e39	68	122	196	442	130	95	7.7	15
21	22	29	147	43	181	132	161	333	107	44	8.0	13
22	23	27	115	47	200	132	144	275	92	31	7.8	11
23	20	25	92	44	142	117	170	227	97	43	8.2	11
24	20	25	157	51	117	112	149	194	106	73	9.7	10
25	21	30	162	88	113	113	138	171	79	41	11	11
26	21	42	108	e72	106	114	234	153	65	31	11	14
27	20	41	77	e62	121	321	190	146	61	26	9.5	24
28	20	38	70	e58	104	321	234	132	79	25	8.1	70
29	19	37	e57	75	---	313	438	124	65	26	20	45
30	19	47	e49	140	---	546	373	116	54	25	55	29
31	22	---	e44	163	---	515	---	120	---	21	29	---
TOTAL	737	958	2712	1764	2735	5683	7636	10219	5542	999	444.5	529.2
MEAN	23.8	31.9	87.5	56.9	97.7	183	255	330	185	32.2	14.3	17.6
MAX	37	47	368	163	200	546	592	1560	990	95	55	70
MIN	19	20	30	36	48	84	138	107	54	16	7.1	7.0
CFSM	0.25	0.34	0.93	0.61	1.04	1.95	2.71	3.51	1.97	0.34	0.15	0.19
IN.	0.29	0.38	1.07	0.70	1.08	2.25	3.02	4.04	2.19	0.40	0.18	0.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2002, BY WATER YEAR (WY)

	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	106	177	198	180	185	370	495	259	143	67.2	57.7	63.6																																																								
MAX	1041	544	664	537	712	1098	1176	761	684	307	632	579																																																								
(WY)	1956	1956	1974	1996	1981	1936	1993	1984	1972	1972	1955	1938																																																								
MIN	13.4	24.7	39.8	24.3	35.3	112	116	75.6	27.1	8.85	8.46	8.93																																																								
(WY)	1958	1965	1947	1981	1980	1941	1985	1986	1964	1991	1957	1953																																																								

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1935 - 2002	
ANNUAL TOTAL	62019.3		39958.7			
ANNUAL MEAN	170		109		191	
HIGHEST ANNUAL MEAN					302	
LOWEST ANNUAL MEAN					73.6	
HIGHEST DAILY MEAN	2520	Apr 10	1560	May 14	10500	Aug 19 1955
LOWEST DAILY MEAN	7.0	Sep 9	7.0	Sep 14	3.3	Aug 9 1955
ANNUAL SEVEN-DAY MINIMUM	8.1	Aug 26	7.7	Aug 17	3.8	Aug 4 1955
MAXIMUM PEAK FLOW			2800		26100	
MAXIMUM PEAK STAGE			7.21		15.27	
INSTANTANEOUS LOW FLOW			6.8		3.3	
ANNUAL RUNOFF (CFSM)	1.81		1.16		2.04	
ANNUAL RUNOFF (INCHES)	24.54		15.81		27.68	
10 PERCENT EXCEEDS	369		256		438	
50 PERCENT EXCEEDS	70		49		97	
90 PERCENT EXCEEDS	15		14		18	

e Estimated

CONNECTICUT RIVER BASIN

01183500 WESTFIELD RIVER NEAR WESTFIELD, MA

LOCATION.--Lat 42°06'24", long 72°41'58", Hampden County, Hydrologic Unit 01080206, on left bank 0.7 mi downstream from Great Brook, 3 mi east of Westfield, and 8.1 mi upstream from mouth.

DRAINAGE AREA.--497 mi².

PERIOD OF RECORD.--Discharge: June 1914 to current year.

Water Quality: Water years 1952-53, 1957, 1967-74, 1994.

REVISED RECORDS.--WSP 601: 1924(M). WSP 756: Drainage area. WSP 1051: 1919-21(M), 1925(M). WSP 1231: 1915-16(M), 1920.

GAGE.--Water-stage recorder. Datum of gage is 98.25 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 3, 1933, on right bank at same datum.

REMARKS.--Records fair. Flow regulated by Borden Brook Reservoir, Cobble Mountain Reservoir since 1931, Knightville Reservoir since 1941, and Littleville Lake since 1965. High flow slightly affected by retarding reservoirs since 1963. Diversion from Little River for municipal supply of Springfield. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--88 years, 931 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,300 ft³/s, Aug. 19, 1955, gage height, 34.2 ft, from floodmarks, from rating curve extended above 18,000 ft³/s on basis of computations of flow over dam at gage heights 27.20 ft, 29.40 ft, and 34.2 ft; minimum, 9 ft³/s, Oct. 2, 1921; minimum daily, 40 ft³/s, Dec. 28, 29, 1914.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,610 ft³/s, May 14, gage height, 8.71 ft; minimum, 81 ft³/s, Sept. 15, 16; minimum daily, 81 ft³/s, Sept. 15.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	292	174	299	210	423	594	2380	1500	1280	322	133	187
2	250	160	347	224	452	551	2670	1290	987	292	144	168
3	239	180	291	240	382	833	1650	1670	723	267	169	147
4	228	184	260	240	406	1070	1550	1260	594	244	169	151
5	205	247	240	242	547	778	1340	1000	549	229	146	144
6	190	169	222	238	465	673	1180	853	1180	206	131	112
7	186	164	208	235	435	622	1060	741	2870	183	114	102
8	194	182	202	215	380	590	926	673	2620	177	108	94
9	146	190	216	214	368	564	725	595	1590	176	102	91
10	138	189	214	218	347	711	793	574	1210	182	103	87
11	124	186	206	224	598	798	824	548	950	172	100	85
12	143	173	171	231	553	699	695	510	790	159	98	84
13	145	165	174	240	512	649	646	1220	932	149	94	83
14	144	160	201	232	364	616	814	4210	874	148	133	83
15	191	177	317	227	367	592	1160	3880	916	143	167	81
16	255	176	343	222	361	619	1450	2800	1170	134	91	110
17	187	175	316	221	359	664	967	1630	1690	129	91	153
18	227	177	656	212	356	637	816	1900	1250	152	90	149
19	218	171	1100	199	331	625	585	2810	971	184	88	117
20	207	142	902	209	340	640	801	2030	784	490	93	92
21	189	158	772	200	495	676	1000	1530	642	370	88	88
22	185	118	562	230	632	684	1040	1270	563	258	85	87
23	137	119	486	342	576	612	927	1090	566	230	86	85
24	126	154	550	356	496	604	735	950	624	313	88	86
25	130	174	615	379	533	594	628	828	538	283	96	85
26	144	217	546	397	677	543	838	746	449	208	93	85
27	140	270	481	383	681	859	848	709	394	176	88	125
28	133	254	398	368	665	960	837	691	442	164	85	248
29	133	206	277	274	---	898	1520	1360	480	161	144	302
30	128	242	248	325	---	1390	1630	1040	374	156	257	215
31	131	---	220	439	---	2090	---	850	---	144	272	---
TOTAL	5485	5453	12040	8186	13101	23435	33035	42758	29002	6601	3746	3726
MEAN	177	182	388	264	468	756	1101	1379	967	213	121	124
MAX	292	270	1100	439	681	2090	2670	4210	2870	490	272	302
MIN	124	118	171	199	331	543	585	510	374	129	85	81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2002, BY WATER YEAR (WY)

MEAN	524	823	902	881	896	1682	2305	1229	754	405	384	397
MAX	4587	3344	2623	2635	2663	5064	5225	2630	2792	1738	3237	2938
(WY)	1956	1928	1997	1949	1984	1936	1993	1989	1982	1972	1955	1938
MIN	96.7	140	206	155	215	597	586	408	186	118	91.2	85.0
(WY)	1965	1965	1915	1981	1920	1941	1985	1985	1964	1962	1957	1995

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1914 - 2002	
ANNUAL TOTAL	297234		186568			
ANNUAL MEAN	814		511			
HIGHEST ANNUAL MEAN					931	
LOWEST ANNUAL MEAN					1594	1928
HIGHEST DAILY MEAN	8010	Apr 14	4210	May 14	37400	Aug 19 1955
LOWEST DAILY MEAN	80	Sep 10	81	Sep 15	40	Dec 28 1914
ANNUAL SEVEN-DAY MINIMUM	84	Aug 25	85	Sep 9	50	Sep 3 1995
MAXIMUM PEAK FLOW			4610	May 14	70300	Aug 19 1955
MAXIMUM PEAK STAGE			8.71	May 14	34.20	Aug 19 1955
INSTANTANEOUS LOW FLOW			81	Sep 15	9.0	Oct 2 1921
10 PERCENT EXCEEDS	2130		1120		2140	
50 PERCENT EXCEEDS	427		283		549	
90 PERCENT EXCEEDS	125		111		160	

CONNECTICUT RIVER BASIN

01185500 WEST BRANCH FARMINGTON RIVER NEAR NEW BOSTON, MA

LOCATION.--Lat 42°04'45", long 73°04'24", Berkshire County, Hydrologic Unit 01080207, on left bank 5 ft downstream from highway bridge, 0.3 mi downstream from Clam River, 1 mi south of New Boston, and at mile 65.0.

DRAINAGE AREA.--91.7 mi².

PERIOD OF RECORD.--May 1913 to current year. Prior to October 1948, published as Farmington River near New Boston.

REVISED RECORDS.--WSP 641: 1924(M). WSP 781: 1928(M). WSP 1231: 1914. WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 758.21 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Otis Reservoir 7.0 mi upstream on Fall River. High flow slightly affected by retarding reservoirs since 1966. Satellite and telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--89 years, 183 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,300 ft³/s, Aug. 19, 1955, gage height, 14.06 ft, from rating curve extended above 9,600 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 2.4 ft³/s, Aug. 20, 21, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,190 ft³/s, May. 14, gage height, 5.51 ft, minimum daily, 6.6 ft³/s, Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	96	69	e44	e112	e80	296	277	205	37	21	23
2	39	96	65	e43	e125	e75	255	259	149	35	26	21
3	33	98	56	e44	e106	e210	227	367	108	32	56	19
4	28	98	42	e43	e75	e220	243	257	77	29	36	19
5	24	97	39	e41	e61	e159	200	196	74	27	29	16
6	24	97	38	e42	e57	e120	167	160	237	25	25	14
7	23	95	37	e46	e52	106	145	133	858	23	19	14
8	20	92	32	e46	e50	98	135	115	588	22	16	12
9	20	92	37	e47	e47	95	116	100	401	21	15	10
10	21	96	35	e49	e62	162	146	94	259	20	14	9.6
11	20	107	37	e51	e129	134	146	84	149	17	13	8.4
12	52	105	39	e52	e116	113	128	90	128	15	12	7.8
13	215	104	43	e50	e90	102	117	428	152	14	11	7.1
14	173	102	59	e48	e72	98	140	937	160	14	9.9	6.6
15	25	98	82	e45	e65	91	233	590	170	14	9.4	7.2
16	26	97	71	e44	e59	119	227	371	242	13	8.8	44
17	24	95	68	e42	e59	122	177	272	311	12	8.3	35
18	26	93	197	e40	e56	109	151	420	234	11	7.8	23
19	69	93	190	e38	e57	104	121	480	183	51	7.3	18
20	240	97	143	e39	e60	107	113	462	131	90	9.7	15
21	256	99	120	e41	e141	118	99	364	91	56	9.6	13
22	207	97	97	e40	e160	118	94	238	82	42	8.5	12
23	152	95	88	e39	e130	105	107	194	92	e63	8.5	12
24	137	97	122	e47	e106	98	98	145	86	114	8.9	12
25	129	103	e125	e68	e92	100	102	128	71	e76	13	10
26	126	116	103	e66	e91	101	148	117	68	57	11	10
27	122	88	e78	e59	e95	212	128	128	60	43	9.4	30
28	120	55	e73	e59	e85	217	179	132	88	38	8.3	109
29	120	58	e61	e65	---	204	308	131	82	37	24	62
30	119	60	e54	e100	---	264	285	122	63	31	45	48
31	107	---	e49	e108	---	268	---	151	---	26	31	---
TOTAL	2744	2816	2349	1586	2410	4229	5031	7942	5599	1105	531.4	647.7
MEAN	88.5	93.9	75.8	51.2	86.1	136	168	256	187	35.6	17.1	21.6
MAX	256	116	197	108	160	268	308	937	858	114	56	109
MIN	20	55	32	38	47	75	94	84	60	11	7.3	6.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2002, BY WATER YEAR (WY)

	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	142	209	196	180	164	301	404	217	131	80.6	84.8	89.0																																																																														
MAX	774	817	563	529	608	947	934	627	479	290	1002	644																																																																														
(WY)	1956	1928	1997	1996	1981	1936	1993	1984	1982	1945	1955	1938																																																																														
MIN	19.9	27.0	31.1	20.1	34.7	88.5	96.1	61.6	23.9	9.26	5.68	8.81																																																																														
(WY)	1915	1915	1918	1981	1980	1965	1985	1941	1964	1962	1957	1995																																																																														

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1913 - 2002
ANNUAL TOTAL	52558.5	37066.1	
ANNUAL MEAN	144	102	183
HIGHEST ANNUAL MEAN			341
LOWEST ANNUAL MEAN			66.1
HIGHEST DAILY MEAN	1410	Apr 10	16100
LOWEST DAILY MEAN	5.3	Sep 3	2.4
ANNUAL SEVEN-DAY MINIMUM	5.8	Sep 3	8.1
MAXIMUM PEAK FLOW		1190	34300
MAXIMUM PEAK STAGE		5.51	14.06
INSTANTANEOUS LOW FLOW		6.4	
10 PERCENT EXCEEDS	322	216	400
50 PERCENT EXCEEDS	88	82	115
90 PERCENT EXCEEDS	12	14	26

e Estimated

HOUSATONIC RIVER BASIN

01197000 EAST BRANCH HOUSATONIC RIVER AT COLTSVILLE, MA

LOCATION.--Lat 42°28'10", long 73°11'49", Berkshire County, Hydrologic Unit 01100005, on right bank 250 ft downstream from Hubbard Avenue Bridge at Coltsville, 1.2 mi upstream from Unkamet Brook, and 2 mi northeast of Pittsfield. Prior to Nov. 8, 1994, at site 200 ft upstream.

DRAINAGE AREA.--57.6 mi².

PERIOD OF RECORD.--Discharge: March 1936 to current year. Prior to October 1945, published as Housatonic River at Coltsville. Water-quality records: Water years 1963-65.

REVISED RECORDS.--WSP 851: 1936(M). WDR MA-RI-82-1: 1976-77, 1979-80. WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 993.49 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 8, 1994, at site 200 ft upstream at same datum.

REMARKS.--Records good. Flow regulated by powerplants upstream and, since 1949, by Cleveland Brook Reservoir, usable capacity, 214,000,000 ft³, 5.4 mi upstream; regulation greater prior to 1955. Diversion upstream from Cleveland Brook Reservoir for municipal supply of Pittsfield since May 1950. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--66 years, 106 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,400 ft³/s, Sept. 21, 1938, gage height, 10.80 ft, from rating curve extended above 2,300 ft³/s on basis of computation of peak flow over dam; minimum daily, 4.4 ft³/s, Aug. 15, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1755, that of Sept. 21, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 749 ft³/s, May 14, gage height, 2.84 ft; minimum daily, 13 ft³/s, Aug. 24, 25, Sept. 14.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	35	56	30	74	61	321	176	194	35	18	18
2	43	34	52	29	81	57	231	148	108	32	20	17
3	59	37	45	30	61	162	188	157	77	30	31	16
4	56	44	41	29	52	187	211	112	57	27	30	17
5	42	84	41	29	43	92	155	90	62	25	26	16
6	29	31	38	30	38	73	143	78	272	24	22	20
7	27	31	31	32	37	66	127	73	390	23	18	21
8	25	37	28	31	42	66	118	71	216	23	17	17
9	23	37	30	32	55	74	102	66	121	22	16	14
10	22	37	25	34	59	179	147	72	85	23	16	14
11	21	37	25	35	143	132	137	65	74	21	15	14
12	21	36	25	36	94	93	106	77	81	21	15	14
13	21	34	29	35	62	71	99	306	85	19	18	14
14	21	36	46	33	44	73	162	618	72	18	15	13
15	36	37	78	33	41	79	249	338	74	18	19	14
16	37	35	56	34	41	84	226	210	110	17	16	30
17	38	26	54	33	44	87	143	168	149	18	15	23
18	36	21	175	32	40	77	111	259	113	17	14	20
19	39	20	150	31	38	69	101	295	82	35	14	17
20	45	22	111	31	42	61	93	183	62	93	14	15
21	44	24	100	30	100	60	84	138	51	40	14	17
22	44	22	85	32	107	58	77	115	48	26	14	16
23	43	21	75	32	76	59	81	97	72	39	14	15
24	47	21	102	44	64	70	75	86	98	42	13	14
25	49	25	86	66	63	71	74	78	65	30	13	14
26	46	33	65	57	66	74	100	70	47	22	14	14
27	44	36	53	48	80	152	106	66	47	22	14	22
28	38	33	41	45	73	135	105	72	60	24	14	52
29	29	36	38	47	---	141	208	123	51	24	26	39
30	32	39	35	68	---	235	191	104	41	22	30	28
31	33	---	32	78	---	274	---	144	---	21	22	---
TOTAL	1120	1001	1848	1186	1760	3172	4271	4655	3064	853	557	575
MEAN	36.1	33.4	59.6	38.3	62.9	102	142	150	102	27.5	18.0	19.2
MAX	59	84	175	78	143	274	321	618	390	93	31	52
MIN	21	20	25	29	37	57	74	65	41	17	13	13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2002, BY WATER YEAR (WY)

	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	69.5	94.9	100	95.0	95.7	174	262	140	86.6	53.0	46.6	53.5																																																							
MAX	318	279	321	252	274	417	582	366	326	220	188	326																																																							
(WY)	1956	1956	1974	1949	1984	1979	1993	1984	1972	1945	1990	1938																																																							
MIN	19.9	19.1	31.2	15.5	16.0	50.4	66.3	37.8	25.4	12.9	14.9	14.3																																																							
(WY)	1965	1965	1981	1981	1980	1965	1985	1985	1964	1962	1980	1983																																																							

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1936 - 2002
ANNUAL TOTAL	35108	24062	
ANNUAL MEAN	96.2	65.9	106
HIGHEST ANNUAL MEAN			163
LOWEST ANNUAL MEAN			42.6
HIGHEST DAILY MEAN	1150	Apr 14	618
LOWEST DAILY MEAN	13	Aug 25	13
ANNUAL SEVEN-DAY MINIMUM	14	Aug 22	14
MAXIMUM PEAK FLOW		749	May 14
MAXIMUM PEAK STAGE		2.84	May 14
INSTANTANEOUS LOW FLOW		12	Aug 24
10 PERCENT EXCEEDS	176		143
50 PERCENT EXCEEDS	45		42
90 PERCENT EXCEEDS	21		17

HOUSATONIC RIVER BASIN

01197500 HOUSATONIC RIVER NEAR GREAT BARRINGTON, MA

LOCATION.--Lat 42°13'55", long 73°21'19", Berkshire County, Hydrologic Unit 01100005, on left bank at upstream side of highway bridge at Van Deusenville, 0.5 mi upstream from Williams River, and 2 mi north of Great Barrington.

DRAINAGE AREA.--282 mi².

PERIOD OF RECORD.--Discharge: May 1913 to current year.

Water-quality records: Water years 1957-59, 1964, 1971, and 1980.

Suspended sediment records: Water years 1980, 1994-96 (discontinued).

REVISED RECORDS.--WSP 415: 1913-14. WSP 781: 1928(M). WSP 1051: 1928, 1933. WSP 1301: 1914-15(M), 1917-27(M), 1929-31(M). WDR MA-RI-83-1: 1980(P), 1982(P). WDR MA-RI-84-1: Drainage Area.

GAGE.--Water-stage recorder. Datum of gage is 683.04 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1931, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Regulation at low flow by powerplants upstream. High flow slightly affected by retarding reservoir since 1973. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--89 years, 525 ft³/s, 25.30 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft³/s, Jan. 1, 1949, gage height, 12.08 ft, from rating curve extended above 6,400 ft³/s on basis of computations of flow over dams at gage heights 11.72 ft and 12.08 ft; minimum daily, 1.0 ft³/s, Oct. 18, 1914.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,880 ft³/s, May 15, gage height, 4.87; minimum daily, 63 ft³/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	147	206	e151	314	287	960	820	595	194	100	120
2	131	148	213	e143	366	305	1050	774	548	185	108	105
3	131	153	203	e140	323	454	929	774	416	173	145	92
4	144	157	194	e145	289	612	895	700	345	165	132	91
5	149	157	182	160	236	523	818	589	311	159	127	94
6	145	207	173	158	222	414	696	491	710	150	122	83
7	136	158	145	166	208	359	623	475	1390	142	104	77
8	126	156	139	e160	206	332	571	426	1420	137	94	79
9	120	173	132	e160	227	304	527	385	972	134	90	76
10	120	172	127	163	231	395	651	376	673	135	81	72
11	116	171	122	169	428	490	650	356	537	132	78	69
12	113	167	119	177	467	388	582	335	466	121	77	66
13	111	166	120	175	377	339	523	625	453	111	74	63
14	110	159	144	168	282	301	600	1590	414	107	74	63
15	132	157	222	162	255	288	719	1790	398	102	77	67
16	207	156	239	163	226	306	880	1330	456	100	72	131
17	263	151	213	162	229	335	750	933	705	98	73	169
18	239	141	534	161	225	321	620	987	625	96	75	133
19	236	135	681	155	209	313	527	1370	517	139	71	111
20	232	138	536	155	210	319	513	1230	421	330	72	96
21	208	147	476	152	292	347	470	924	348	245	70	89
22	205	149	414	152	399	363	417	746	306	166	67	86
23	194	138	350	151	373	335	422	636	321	156	76	80
24	182	135	411	164	303	326	413	563	315	241	78	75
25	182	138	464	249	274	334	376	503	316	182	80	73
26	161	156	385	255	260	340	491	439	267	144	77	72
27	164	159	319	231	296	615	503	424	246	125	70	89
28	158	155	274	225	302	727	495	384	260	117	65	194
29	142	180	e214	223	---	650	663	378	256	118	86	202
30	134	187	e183	262	---	700	803	410	225	111	181	151
31	142	---	e170	316	---	875	---	408	---	104	155	---
TOTAL	4967	4713	8304	5573	8029	12997	19137	22171	15232	4619	2851	2968
MEAN	160	157	268	180	287	419	638	715	508	149	92.0	98.9
MAX	263	207	681	316	467	875	1050	1790	1420	330	181	202
MIN	110	135	119	140	206	287	376	335	225	96	65	63
CFSM	0.57	0.56	0.95	0.64	1.02	1.49	2.26	2.54	1.80	0.53	0.33	0.35
IN.	0.66	0.62	1.10	0.74	1.06	1.71	2.52	2.92	2.01	0.61	0.38	0.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2002, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)								
MEAN	307	461	522	510	493	898	1225	687	426	277	237	255
MAX	1170	2040	1588	1744	1319	2528	2646	1502	1325	1140	937	1601
(WY)	1978	1928	1974	1949	1984	1936	1920	1984	2000	1945	1928	1938
MIN	80.9	85.5	112	83.5	128	291	338	241	134	93.4	86.8	75.1
(WY)	1915	1965	1915	1931	1931	1941	1985	1985	1921	1962	1913	1913

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR			FOR 2002 WATER YEAR			WATER YEARS 1913 - 2002		
ANNUAL TOTAL	160451			111561					
ANNUAL MEAN	440			306			525		
HIGHEST ANNUAL MEAN							962		1928
LOWEST ANNUAL MEAN							211		1965
HIGHEST DAILY MEAN		4240		1790		May 15	11100		Jan 1 1949
LOWEST DAILY MEAN		74		63		Sep 13	1.0		Oct 18 1914
ANNUAL SEVEN-DAY MINIMUM		76		68		Sep 9	40		Aug 10 1913
MAXIMUM PEAK FLOW				1880		May 15	12200		Jan 1 1949
MAXIMUM PEAK STAGE				4.87		May 15	12.08		Jan 1 1949
INSTANTANEOUS LOW FLOW				61		Aug 29			
ANNUAL RUNOFF (CFSM)		1.56		1.08			1.86		
ANNUAL RUNOFF (INCHES)		21.17		14.72			25.30		
10 PERCENT EXCEEDS		823		650			1150		
50 PERCENT EXCEEDS		251		206			335		
90 PERCENT EXCEEDS		108		89			125		

e Estimated

HUDSON RIVER BASIN

01331500 HOOSIC RIVER AT ADAMS, MA

LOCATION.--Lat 42°36'40", long 73°07'28", Berkshire County, Hydrologic Unit 02020003, on left bank at Adams, 500 ft downstream from Dry Brook, and 0.4 mi upstream from Pecks Brook.

DRAINAGE AREA.--46.7 mi².

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

Water-quality records: Water years 1967-69.

REVISED RECORDS.--WDR MA-NH-RI-VT-73-1: 1971-72. WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 828.01 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1964, datum was 9.00 ft higher and Oct. 1, 1964, to May 29, 1974, 8.00 ft higher, at site 500 ft upstream.

REMARKS.--Records good. Diversion upstream for municipal supply of Adams. Some diurnal fluctuation by mill upstream prior to 1961. Flow regulated by Cheshire Reservoir 5.1 mi upstream.

AVERAGE DISCHARGE.--71 years, 89.6 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,080 ft³/s, Sept. 21, 1938, gage height, 9.25 ft, site and datum then in use, from rating curve extended above 1,100 ft³/s on basis of computation of peak flow over dam; minimum daily, 8.0 ft³/s, Aug. 31, Sept. 1, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 589 ft³/s, May 28, gage height, 7.38 ft; minimum, 12 ft³/s, Aug. 19-22, 27-29, Sept. 12-15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	42	99	39	103	65	262	138	184	53	20	22
2	26	36	61	36	114	62	192	148	124	49	20	21
3	24	35	49	37	80	131	177	146	102	44	21	20
4	24	32	44	35	76	118	173	117	89	42	19	20
5	23	31	41	35	61	77	157	103	101	39	18	18
6	25	33	39	35	60	76	138	95	279	36	16	16
7	25	31	37	39	56	74	123	88	273	32	15	15
8	21	31	35	38	55	72	110	80	183	32	14	15
9	20	32	38	38	52	84	93	76	144	31	14	14
10	20	31	36	39	53	175	128	86	122	34	13	14
11	19	30	37	41	128	109	103	70	107	28	14	14
12	19	28	36	40	74	89	93	86	119	27	14	13
13	20	27	54	38	66	84	94	237	114	26	14	13
14	20	28	90	36	53	90	124	320	100	25	14	12
15	40	28	115	36	55	86	214	205	112	24	13	14
16	32	29	72	37	56	103	153	155	130	22	16	70
17	33	27	77	36	56	91	119	145	129	21	16	31
18	33	27	159	35	52	83	105	208	100	20	14	24
19	28	27	112	33	49	82	95	199	85	21	13	22
20	27	31	93	35	53	78	91	166	76	28	13	20
21	26	30	87	33	111	85	82	147	69	22	12	19
22	26	28	73	33	99	76	77	134	80	21	13	21
23	24	28	64	34	78	71	82	121	106	40	16	20
24	37	29	94	52	69	69	78	111	88	48	15	17
25	36	34	81	84	67	66	78	105	70	32	16	16
26	31	52	66	60	72	71	97	94	62	29	14	16
27	29	40	56	52	90	201	87	87	78	30	13	32
28	26	37	51	51	74	151	112	169	111	29	12	88
29	25	45	50	58	---	147	177	177	72	28	34	40
30	24	56	45	99	---	210	147	122	60	24	36	31
31	24	---	41	89	---	213	---	153	---	22	25	---
TOTAL	814	995	2032	1383	2012	3189	3758	4288	3469	959	517	708
MEAN	26.3	33.2	65.5	44.6	71.9	103	125	138	116	30.9	16.7	23.6
MAX	40	56	159	99	128	213	262	320	279	53	36	88
MIN	19	27	35	33	49	62	77	70	60	20	12	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2002, BY WATER YEAR (WY)

MEAN	52.8	77.7	86.2	86.0	83.9	149	215	118	72.3	48.9	41.5	44.9
MAX	217	213	190	211	263	474	523	268	203	212	170	286
(WY)	1956	1956	1974	1979	1981	1936	1940	1940	1972	1938	2000	1938
MIN	14.1	13.3	35.4	18.7	23.5	50.6	85.8	47.3	22.6	19.8	15.3	10.6
(WY)	1965	1965	1965	1981	1940	1965	1946	1985	1965	1991	1999	1980

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1932 - 2002
ANNUAL TOTAL	28556	24124	
ANNUAL MEAN	78.2	66.1	89.6
HIGHEST ANNUAL MEAN			130
LOWEST ANNUAL MEAN			41.2
HIGHEST DAILY MEAN	635	Apr 13	320
LOWEST DAILY MEAN	15	Aug 30	12
ANNUAL SEVEN-DAY MINIMUM	16	Aug 25	13
MAXIMUM PEAK FLOW			589
MAXIMUM PEAK STAGE		7.38	May 28
INSTANTANEOUS LOW FLOW			12
10 PERCENT EXCEEDS	154		138
50 PERCENT EXCEEDS	48		49
90 PERCENT EXCEEDS	22		18

HUDSON RIVER BASIN

01333000 GREEN RIVER AT WILLIAMSTOWN, MA

LOCATION.--Lat 42°42'32", long 73°11'50", Berkshire County, Hydrologic Unit 02020003, on left bank 0.1 mi upstream from bridge on State Highway 2 at Williamstown and 0.8 mi upstream from mouth.

DRAINAGE AREA.--42.6 mi².

PERIOD OF RECORD.--Discharge: September 1949 to current year.

Water-quality records: Water years 1967-69.

REVISED RECORDS.--WDR MA-RI-84-1: 1977-78(P), 1979, 1980-83(P).

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. Slight diurnal fluctuation at times caused by mill upstream.

AVERAGE DISCHARGE.--53 years, 82.5 ft³/s, 26.30 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,060 ft³/s, Dec. 21, 1973, gage height, 5.68 ft in gage well, from rating curve extended above 750 ft³/s on basis of slope-area measurement at gage height 4.94 ft; maximum gage height, 6.35 ft, Mar. 13, 1977, from floodmarks, gage height in well unknown; minimum discharge, 3.1 ft³/s, Sept. 20, 22, 24, 25, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 31, 1948, reached a stage of about 7.5 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 550 ft³/s (estimated), June 6, gage height, unknown; minimum; 5.1 ft³/s, Sept. 14, 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	22	56	e35	173	63	310	136	e207	e47	12	10
2	15	17	44	e32	170	59	252	153	e133	e42	16	9.3
3	e15	17	38	e30	e76	147	243	159	e97	e37	15	8.7
4	e14	16	36	e29	e62	130	228	135	e84	e34	12	8.2
5	e14	17	35	e28	e50	92	178	120	e101	e33	11	7.3
6	e18	20	33	e27	e46	86	152	102	e383	e31	11	6.6
7	e18	17	32	e31	e43	81	130	e92	e323	e29	9.8	6.3
8	e15	16	31	e34	e42	74	119	e78	e202	e29	9.1	6.0
9	e15	17	32	e37	e39	75	108	e64	e143	e29	8.6	5.8
10	e14	16	31	33	e45	151	125	e69	e113	e32	8.3	5.7
11	e14	16	31	35	199	102	98	e62	e96	e26	7.9	5.6
12	e13	16	30	33	97	89	87	e82	e107	e24	7.4	5.5
13	e13	15	44	32	e53	83	88	e255	e108	e22	7.1	5.3
14	e13	15	57	29	e42	82	150	e381	e92	e21	6.7	5.2
15	e28	15	88	29	e43	76	252	e246	e102	e20	6.5	9.9
16	e27	15	63	28	e42	92	202	e164	e121	e18	9.3	70
17	e23	14	68	e25	e42	82	164	e157	e124	e18	12	16
18	e22	14	137	e24	e38	80	144	e233	e98	e18	8.0	11
19	e19	14	101	e23	50	77	130	e219	e75	e18	6.9	9.6
20	e17	21	89	e23	53	78	118	e173	e63	e23	6.5	8.5
21	e16	17	81	e23	107	78	98	e145	e55	e19	6.3	8.0
22	14	16	68	e23	104	70	88	e126	e75	e19	6.4	41
23	14	15	63	e25	82	62	87	e109	e87	e18	11	19
24	16	15	95	e39	71	60	74	e97	e72	21	9.5	14
25	15	19	75	75	67	59	76	e88	e55	16	11	12
26	15	39	65	51	68	67	97	e77	e47	15	8.1	11
27	14	30	e54	50	92	277	75	e79	e72	15	7.1	20
28	13	28	e50	52	74	173	87	e166	e125	15	6.4	90
29	13	32	e46	63	---	169	138	e178	e75	19	24	27
30	13	37	e43	135	---	266	141	e135	e53	14	20	21
31	13	---	e38	127	---	271	---	e176	---	13	12	---
TOTAL	498	578	1754	1260	2070	3351	4239	4456	3488	735	312.9	483.5
MEAN	16.1	19.3	56.6	40.6	73.9	108	141	144	116	23.7	10.1	16.1
MAX	28	39	137	135	199	277	310	381	383	47	24	90
MIN	13	14	30	23	38	59	74	62	47	13	6.3	5.2
CFSM	0.38	0.45	1.33	0.95	1.74	2.54	3.32	3.37	2.73	0.56	0.24	0.38
IN.	0.43	0.50	1.53	1.10	1.81	2.93	3.70	3.89	3.05	0.64	0.27	0.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)												
MEAN	45.8	75.9	91.8	80.5	82.7	143	204	111	66.2	32.5	28.3	28.8
MAX	222	171	259	219	239	376	390	251	256	124	174	158
(WY)	1978	1956	1974	1979	1984	1979	1969	1984	1972	1996	2000	1960
MIN	5.33	6.71	24.8	11.0	14.6	33.6	70.5	32.4	18.2	8.30	5.61	4.09
(WY)	1965	1965	1965	1981	1980	1965	1995	1987	1965	1993	1964	1964

SUMMARY STATISTICS			FOR 2001 CALENDAR YEAR				FOR 2002 WATER YEAR				WATER YEARS 1949 - 2002	
ANNUAL TOTAL			26338.6				23225.4					
ANNUAL MEAN			72.2				63.6					
HIGHEST ANNUAL MEAN										82.5		1975
LOWEST ANNUAL MEAN										31.7		1965
HIGHEST DAILY MEAN			834	Apr	10	e383	Jun	6	2200	Dec	21	1973
LOWEST DAILY MEAN			8.8	Aug	30	5.2	Sep	14	3.2	Sep	20	1964
ANNUAL SEVEN-DAY MINIMUM			9.6	Aug	25	5.6	Sep	8	3.4	Sep	19	1964
MAXIMUM PEAK FLOW						e550	Jun	6	4060	Dec	21	1973
MAXIMUM PEAK STAGE									6.35	Mar	13	1977
INSTANTANEOUS LOW FLOW						5.1	Sep	14	3.1	Sep	20	1964
ANNUAL RUNOFF (CFSM)			1.69				1.49					
ANNUAL RUNOFF (INCHES)			23.00				20.28					
10 PERCENT EXCEEDS			135				148					
50 PERCENT EXCEEDS			40				39					
90 PERCENT EXCEEDS			14				10					

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.

Measurements at partial-record stations

No measurements were made at partial-record stations during the 2002 water year.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*).

Discharge measurements made at miscellaneous sites May 2001 through December 2002

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
MERRIMACK RIVER BASIN						
01096600	Concord River	Lat 42°16'16", long 71°37'59", Worcester County, downstream side of bridge on Fisher Street, 0.9 mi west of Westborough, MA.	6.72	1962–66, 1975–78	11-14-01	0.04
Assabet River					12-27-01	3.28
					1-22-02	2.15
					2-19-02	2.96
					4-02-02	13.0
					4-22-02	2.37
					5-30-02	5.01
					6-24-02	8.15
					7-18-02	.07
					8-22-02	.02
					9-17-02	.04
					10-21-02	.06
					12-17-02	33.1
010966015	do.	Lat 42°16'25", long 71°38'00", Worcester County, 150 ft upstream of bridge on Maynard Street, 0.9 mi west of Westborough, MA.	6.79	--	10-23-01	.11
Assabet River					7-17-02	.10
					8-07-02	.03
01096613	Assabet River	Lat 42°17'29", long 71°39'30", Worcester County, downstream side of bridge on Otis Street, 1.7 mi south of Northborough, MA.	7.45	--	7-17-02	2.33
Hop Brook					8-07-02	1.68
					9-04-02	2.36
01096615	do.	Lat 42°17'15", long 71°38'50", Worcester County, at Indian Meadows Golf Course, upstream side of footbridge at 6th hole 1.8 mi south of Northborough, MA.	7.74	--	7-25-01	1.93
Hop Brook					8-24-01	2.04
					10-01-01	1.96
					10-19-01	1.47
					11-16-01	1.06
					12-29-01	3.58
					1-24-02	5.66
					2-19-02	5.43
					4-02-02	29.6
					4-22-02	6.83
					5-28-02	28.6
					6-24-02	6.89
					7-18-02	3.32
					8-21-02	.55
					9-18-02	1.29
					10-21-02	2.90
					12-17-02	35.0

See footnotes at end of table

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites October 2001 through September 2002--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
MERRIMACK RIVER BASIN—Continued						
01096630 Assabet River	Concord River	Lat 42°18'16", long 71°37'44", Worcester County, downstream side of bridge on School Street, 1.0 mi southeast of Northborough, MA.	18.3	1986	6-15-01	5.27
					7-23-01	8.17
					8-23-01	7.14
					10-01-01	5.75
					10-19-01	6.64
					11-14-01	5.29
					12-27-01	14.1
					1-22-02	11.6
					2-20-02	15.2
					4-02-02	66.9
					4-22-02	16.0
					5-31-02	22.1
					6-24-02	22.9
					7-18-02	8.55
8-22-02	5.33					
9-17-02	8.78					
10-21-02	12.4					
01096700 Howard Brook	Cold Harbor Brook	Lat 42°19'28", long 71°38'37", Worcester County, 10 ft upstream of bridge on Whitney Street, 0.4 mi north of Northborough, MA.	2.68	1962–65	7-23-01	.78
					8-23-01	.46
					10-01-01	.35
					10-19-01	.09
					11-14-01	.43
					12-27-01	.81
					1-22-01	.86
					2-19-01	1.66
					4-02-01	10.3
					4-22-01	2.54
					5-24-01	6.03
					6-21-02	2.33
					7-18-02	.84
					8-21-02	.41
9-17-02	.30					
10-21-02	.88					
12-17-02	10.4					
01096701 Cold Harbor Brook	Assabet River	Lat 42°19'13", long 71°14'27", Worcester County, at bridge on Cherry Street, 1.2 mi west of Northborough, MA.	5.06	--	7-17-02	.66
					8-06-02	.93
					9-04-02	1.01
					11-01-02	7.49
01096705 Cold Harbor Brook	do.	Lat 42°19'26", long 71°38'31", Worcester County, in spillway downstream of dam at Mill Street, 0.3 mi north of Northborough, MA.	6.80	1976–78	6-27-01	6.78
					7-23-01	1.72
					8-23-01	0
					9-24-01	0
					11-14-01	0
					12-27-01	2.16
					2-19-02	2.79
					4-02-02	26.1
					4-22-02	8.28
					5-26-02	10.7
					6-21-02	11.6
					7-18-02	8.34
					8-19-02	0
9-17-02	0					
10-21-02	.54					
12-17-02	35.6					

See footnotes at end of table

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites October 2001 through September 2002--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
MERRIMACK RIVER BASIN—Continued						
01096707 Assabet River	Concord River	Lat 42°19'23", long 71°38'19", Worcester County, at bridge on River Street, 0.3 mi east of Northborough, MA.	29.3	--	11-14-01	7.59
01096710 Assabet River	do.	Lat 42°19'46", long 71°37'48", Worcester County, 100 ft downstream of Woodside Mill dam, 200 ft downstream of Allen Street, 0.7 mi northeast of Northborough, MA.	29.5	--	6-06-01 6-15-01 7-03-01 7-23-01 8-13-01 8-23-01 10-01-01 10-19-01 11-14-01 12-27-01 1-22-02 2-19-02 4-02-02 4-22-02 5-24-02 6-24-02 7-18-02 8-22-02 9-17-02 10-21-02 12-18-02	53.4 10.6 39.6 14.9 18.1 12.1 12.7 8.35 9.10 21.4 14.7 21.1 102 29.7 55.1 33.0 18.3 9.96 10.8 13.7 142
01096730 Assabet River	do.	Lat 41°21'11", long 71°36'57", Middlesex County, 45 ft downstream of bridge on Donald Lynch Boulevard, 3 mi west of Marlborough, MA.	39.5	--	6-27-01 7-23-01 8-23-01 10-01-01 10-19-01 11-14-01 12-28-01 1-22-02 2-19-02 4-02-02 4-23-02 5-24-02 6-24-02 7-19-02 8-22-02 9-17-02 10-21-02	57.5 49.4 19.7 19.0 15.6 15.3 25.8 23.2 34.8 129 54.3 74.0 50.5 33.6 20.5 29.7 30.3
01096805 North Brook	Assabet River	Lat 42°21'15", long 71°37'40", Worcester County, 10 ft downstream of bridge at Whitney Street, 2 mi south of Berlin, MA.	15.5	1976-78, 1990-92	5-27-01 6-11-01 7-23-01 8-23-01 9-25-01 10-19-01 11-15-01 12-27-01 1-22-02 2-19-02 4-02-02 4-23-02 5-26-02 6-24-02 12-17-02	6.65 2.50 3.28 2.23 .88 2.30 1.18 4.87 4.38 7.51 56.1 25.1 22.8 11.5 57.8

See footnotes at end of table

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites October 2001 through September 2002--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
MERRIMACK RIVER BASIN—Continued						
01096830	Concord River	Lat 42°24'49", long 71°35'12", Middlesex County, downstream side of bridge on Chapin Road, 1.1 mi southwest of Hudson, MA.	59.9	--	6-27-01	78.9
Assabet River	7-23-01				25.0	
	8-27-01				18.0	
	9-24-01				29.9	
	10-22-01				15.8	
	11-16-01				20.6	
	12-27-01				50.7	
	1-22-02				29.9	
	2-19-02				62.5	
	4-04-02				179	
	4-24-02				84.9	
	5-24-02				116	
	6-21-02				81.9	
	7-15-02				24	
	8-19-02	10.9				
	9-17-02	22.9				
	10-21-02	35.4				
	12-18-02	491				
01096838	Assabet River	Lat 42°23'31", long 71°34'40", Middlesex County, above Tripp Pond at the end of footpath off Green Street, 0.4 mi west of Hudson, MA.	3.03	--	6-27-01	2.99
Hog Brook	7-23-01				.92	
	8-24-01				.31	
	11-15-01				.37	
	4-23-02				3.80	
	5-24-02				5.61	
	6-21-02				2.07	
	10-22-02				.7	
	12-16-02				10.8	
01096840	Concord River	Lat 42°23'24", long 71°34'11", Middlesex County, 0.1 mi downstream side State Route 85, 0.15 mi southeast of Hudson, MA.	63.9	--	6-29-01	60.7
Assabet River	7-24-01				28.7	
	8-29-01				25.9	
	10-01-01				27.5	
	10-22-01				17.9	
	11-14-01				18.8	
	12-28-01				35.8	
	1-23-02				28.0	
	2-20-02				45.0	
	4-03-02				171	
	4-23-02				82.8	
	5-26-02				91.7	
	6-24-02				58.9	
	7-19-02				32.8	
	8-22-02	17.1				
	9-17-02	18.2				
	10-22-02	28.5				

See footnotes at end of table

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites October 2001 through September 2002--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
MERRIMACK RIVER BASIN—Continued						
01096853	Assabet River	Lat 42°24'13", long 71°34'29", Middlesex County, 10 ft upstream of bridge on State Route 85, 0.8 mi north of Hudson, MA.	5.12	--	6-15-01	0.92
	Danforth Brook				7-24-01	.66
					8-27-01	.19
					9-24-01	.005
					10-22-01	0
					11-15-01	0
					12-28-01	.96
					1-23-02	1.18
					2-20-02	3.08
					4-01-02	19.0
					4-04-02	20.2
					4-23-02	6.08
					5-25-02	8.83
					6-18-02	3.94
					10-23-02	.18
					12-16-02	63.9
01096877	do.	Lat 42°23'12", long 71°31'45", Middlesex County, 50 ft upstream of bridge on Shay St., 2.1 mi east of Hudson, MA.	4.99	--	7-26-02	1.56
	Fort Meadow Brook				8-06-02	.85
01096880	do.	Lat 42°23'20", long 71°31'19", Middlesex County, downstream side of bridge on Chestnut Street, 2.5 mi east of Hudson, MA.	5.23	1975-78	6-15-01	1.07
	Fort Meadow Brook				7-24-01	.85
					8-27-01	.77
					9-25-01	.67
					10-22-01	16.3
					11-15-01	2.28
					12-28-01	2.83
					4-03-02	2.70
					4-23-02	1.73
					5-26-02	4.71
					6-24-02	3.74
					7-18-02	3.00
					12-16-02	30.5
01096898	Elizabeth Brook	Lat 42°26'09", long 71°34'12", Worcester County, downstream side of bridge on State Route 117 near Meadow Road, 2.1 mi east of Bolton, MA.	4.46	--	5-21-01	2.43
	Great Brook				6-11-01	.64
					7-24-01	.93
					8-27-01	.39
					9-26-01	.30
					10-22-01	.14
					11-15-01	.33
					12-28-01	.78
					1-23-02	.44
					2-21-02	3.55
					4-03-02	11.9
					4-23-02	6.35
					5-25-02	7.67
					6-25-02	2.58
					7-15-02	.69
					8-21-02	.03
					9-18-02	.20
					10-23-02	.39
					12-16-02	29.5

See footnotes at end of table

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites October 2001 through September 2002--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
MERRIMACK RIVER BASIN—Continued						
01096945 Elizabeth Brook	Assabet River	Lat 42°25'36", long 71°29'07", Middlesex County, at end of unnamed paved road off White Pond Road, 1.3 mi southeast of Stow, MA.	18.7	--	5-21-01	12.2
					6-11-01	5.4
					7-24-01	4.65
					8-29-01	1.99
					9-26-01	2.94
					10-22-01	1.41
					11-15-01	2.08
					12-04-01	3.20
					12-28-01	6.69
					1-23-02	6.43
					2-20-02	10.1
					4-01-02	60.8
					4-04-02	60.8
					4-24-02	25.2
					5-25-02	34.3
01097048 Assabet River	Concord River	Lat 42°27'05", long 71°23'33", Middlesex County, at bridge on Pine Street, 0.8 mi southeast of West Concord, MA.	119	--	6-18-02	25.0
					8-21-02	.67
					9-18-02	.91
					10-22-02	5.49
					12-16-02	161
					5-21-01	81.0
					6-28-01	141
					7-25-01	43.8
					8-31-01	33.5
					9-24-01	36.0
					10-23-01	44.8
					11-15-01	35.9
					12-29-01	58.8
					1-23-02	55.0
					2-20-02	76.5
4-04-02	358					
4-24-02	145					
5-25-02	253					
5-31-02	208					
6-25-02	93.4					
7-15-02	37.4					
8-19-02	19.1					
9-19-02	23.1					
10-22-02	45.6					
12-11-02	101					
01097050 Assabet River	do.	Lat 42°27'23", long 71°23'26", Middlesex County, at bridge on Main Street, 0.8 mi east of West Concord, MA.	120	1968, 1990–92	5-21-01	81.2
					6-28-01	126
					7-25-01	44.0
					8-31-01	32.8
					5-31-02	179

See footnotes at end of table

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites October 2001 through September 2002--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
MERRIMACK RIVER BASIN—Continued						
01097095	Fort Pond Brook	Lat 42°29'37", long 71°29'13", Middlesex County, 5 ft upstream of bridge on Sargent Road, 1.5 mi northwest of West Acton, MA.	2.16	--	7-24-01	0.07
Unnamed					8-24-01	.05
Tributary					12-28-01	.57
					1-23-02	.87
					2-20-02	1.45
					4-03-02	8.54
					4-24-02	1.93
					5-25-02	3.40
					6-25-02	.92
					7-15-02	.09
					8-19-02	0
					9-21-02	0
					10-22-02	.03
		12-11-02	1.10			
01097260	Assabet River	Lat 42°27'30", long 71°27'33", Middlesex County, at bridge on Stow Street, 2.2 mi south of Acton, MA.	20.3	--	5-21-01	4.33
Fort Pond Brook						
01097270	do.	Lat 42°27'34", long 71°26'34", Middlesex County, downstream side of bridge on River Street near Crawford Street, 1.9 mi south of Acton, MA.	20.8	--	5-21-01	5.93
Fort Pond Brook					6-27-01	15.1
					7-24-01	2.26
					8-29-01	.82
					10-01-01	.53
					10-23-01	.31
					11-16-01	.64
					12-28-01	8.26
					1-23-02	7.26
					2-20-02	13.8
					4-03-02	75.1
					4-24-02	30.1
					5-25-02	28.7
		6-25-02	6.16			
		9-18-02	.30			
		10-22-02	.74			
		12-11-02	9.96			
01097380	do.	Lat 42°27'32", long 71°23'50", Middlesex County, 10 ft downstream of bridge on Commonwealth Avenue, 0.4 mi east of West Concord, MA.	48.0	--	5-21-01	18.6
Nashoba Brook					6-28-01	35.4
					7-25-01	9.66
					8-29-01	5.34
					9-24-01	2.91
					10-23-01	3.28
					11-15-01	3.79
					12-29-01	19.1
					1-23-02	20.5
					2-20-02	33.9
					4-01-02	163
					4-04-02	172
					4-24-02	56.4
					5-25-02	79.1
					6-25-02	26.8
		7-15-02	5.6			
		8-06-02	2.28			
		8-19-02	.54			
		9-19-02	1.04			
		10-23-02	7.86			
		12-11-02	30.2			

See footnotes at end of table

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites October 2001 through September 2002--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
MERRIMACK RIVER BASIN—Continued						
01097412	Assabet River	Lat 42°28'25", long 71°22'32", Middlesex County, 50 ft downstream of bridge on Barretts Mill Road, 1.7 mi northwest of Concord, MA.	7.12	--	5-21-01	1.40
Spencer Brook					6-28-01	1.03
					7-25-01	.82
					8-31-01	.53
					9-24-01	.16
					10-23-01	.10
					11-15-01	.34
					12-29-01	2.75
					1-24-02	3.40
					2-20-02	4.99
					4-01-02	41.1
					4-04-02	22.2
					4-24-02	9.70
					5-25-02	2.91
					6-25-02	1.46
					8-19-02	.02
					10-23-02	.20
					12-11-02	3.21
PAWTUXET RIVER BASIN						
01115110	Regulating Reservoir	Lat 41°50'48", long 71°36'44", Providence County, at Elmdale Road, 1.6 mi northwest of North Scituate, RI.	6.31	1993–2001	11-01-01	0.37
Huntinghouse Brook					3-29-02	16.7
					4-17-02	7.17
					6-17-02	6.45
					7-19-02	.04
					8-07-02	0
01115114	do.	Lat 41°50'15", long 71°36'45", Providence County, near Elmdale Road, 1.5 mi northwest of North Scituate, RI.	6.31	1993–2001	11-01-01	.19
Rush Brook					3-29-02	11.9
					4-17-02	3.47
					6-17-02	4.78
					7-19-02	.02
					8-07-02	0
01115120	Scituate Reservoir	Lat 41°49'53", long 71°36'34", Providence County, at State Highway 6, 1.2 mi west of North Scituate, RI.	.42	1994–2001	11-01-01	0
Unnamed Tributary					3-29-02	.49
					4-17-02	.22
					6-17-02	.21
					7-12-02	0
					8-07-02	0
01115170	Regulating Reservoir	Lat 41°50'27", long 71°35'06", Providence County, at State Highway 116, 0.6 mi northeast of North Scituate, RI.	--	1994–95, 2000–01	11-01-01	.15
Moswansicut Stream					3-29-02	2.21
					4-17-02	3.38
					6-17-02	3.70
					7-12-02	.31
					8-07-02	.30
01115180	Scituate Reservoir	Lat 41°49'10", long 71°35'11", Providence County, at State Highway 116, 0.9 mi south of North Scituate, RI.	1.59	1993–2001	11-01-01	.34
Brandy Brook					3-29-02	3.84
					6-17-02	2.51
					7-12-02	.48
					8-07-02	.17
					9-27-02	1.45
01115183	do.	Lat 41°47'51", long 71°24'53", Providence County, at State Highway 116, 2.4 mi south of North Scituate, RI.	1.96	1993–2001	11-01-01	.08
Quonapaug Brook					3-29-02	5.06
					6-17-02	3.06
					7-12-02	.01 ^e
					8-07-02	0
					9-27-02	2.23

See footnotes at end of table

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites October 2001 through September 2002--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
PAWTUXET RIVER BASIN—Continued						
01115184 Spruce Brook	Scituate Reservoir	Lat 41°47'19", long 71°37'14", Providence County, 0.2 mi south of State Highway 14, 3.5 mi southwest of North Scituate, RI.	0.30	1994–2001	11-02-01 3-29-02 6-17-02 7-12-02 8-07-02 9-27-02	0.32 3.18 2.69 .40 .05 1.64
01115185 Windsor Brook	Ponaganset River	Lat 41°50'10", long 71°43'23", Providence County, at Windsor Road, 1.3 mi northwest of South Foster, RI.	--	1993–94, 1999–2001	11-02-01 3-29-02 4-17-02 6-17-02 7-19-02 8-07-02	.32 11.1 5.04 5.70 .01 ^e 0
01115190 Dolly Cole Brook	Barden Reservoir	Lat 41°49'20", long 71°42'03", Providence County, at Old Danielson Pike at South Foster, RI.	5.07	1993–2001	11-02-01 3-29-02 4-17-02 6-17-02 7-19-02 9-27-02	.32 16.2 4.86 5.54 .36 2.56
01115265 Hemlock Brook	do.	Lat 41°47'26", long 71°41'57", Providence County, at King Road, 1.2 mi northeast of Foster Center, RI.	--	1996–2001	11-02-01 3-29-02 4-17-02 6-17-02 7-19-02 8-07-02	.93 33.3 9.02 18.7 .20 .08
01115275 Bear Tree Brook	Westconnaug Stream	Lat 41°46'57", long 71°40'31", Providence County, at King Road, 1.2 mi northeast of Foster Center, RI.	.64	1994–95, 2000–01	11-02-01 3-29-02 6-17-02 7-12-02 8-07-02 9-27-02	.26 1.20 1.28 .35 .20 1.43
01115280 Cork Brook	Scituate Reservoir	Lat 41°48'14", long 71°39'01", Providence County, at Rockland Scituate Road, 0.8 mi northeast of Crazy Corners, RI.	1.91	1993–2001	11-02-01 3-29-02 4-17-02 6-17-02 7-12-02 8-07-02	.12 3.26 1.74 1.79 .18 0
01115297 Wilbur Hollow Brook	Barden Reservoir	Lat 41°45'53", long 71°38'10", Providence County, at Old Plainfield Pike, 2.2 mi southeast of Rockland, RI.	4.45	1992–2001	11-01-01 3-29-02 6-17-02 7-12-02 8-07-02 9-27-02	.59 9.77 6.58 .22 .06 2.72
01115500 Pawtuxet River	Narragansett Bay	Lat 41°43'58", long 71°33'01", Providence County, near Fairground Way, at Fiskeville, RI.	102	1915–25 ^a , 1986–87 ^c , 1996–2001	11-01-01 3-29-02 6-17-02 7-12-02 8-07-02	26.8 40.4 35.2 25.4 23.9
PAWCATUCK RIVER BASIN						
01117336 Chipuxet River	Worden Pond	Lat 41°31'03", long 71°31'33", Washington County, at culvert on Yawgoo Valley Road, 2.7 mi northeast of West Kingston, RI.	6.34	1959–60, 1972	8-26-02	0.49

See footnotes at end of table

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites October 2001 through September 2002--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
PAWCATUCK RIVER BASIN—Continued						
01117354 Queen River	Usquepaug River	Lat 41°34'43", long 71°32'37", Washington County, at bridge on State Route 102, 0.3 mi west of Exeter, RI.	2.80	1993, 2000–01	10-26-01 12-03-01 7-29-02 8-26-02	0.66 1.03 1.21 .69
01117355 Queen River	do.	Lat 41°33'45", long 71°32'54", Washington County, at bridge on William Reynolds Road, 1.2 mi southwest of Exeter, RI. (Note: Drainage Area revised from 3.69 mi ²)	3.75	1959–60, 1988–93, 1999–2001	10-26-01 12-03-01 7-26-02 7-29-02	.93 .94 .46 .55
01117360 Fisherville Brook	Queen River	Lat 41°33'51", long 71°33'54", Washington County, at bridge on Liberty Church Road, 1.7 mi southwest of Exeter, RI.	8.14	1959–60, 1988–93, 2000–01	10-26-01 12-03-01 7-29-01 8-26-02	3.35 3.82 1.97 .42
01117367 Queens Fort Brook	do.	Lat 41°32'47", long 71°33'11", Washington County, 300 ft east of intersection Dawley Road and School Land Road, 1.2 mi northeast of Liberty, RI.	4.09	2000–01	10-26-01 12-03-01 12-04-01 7-29-02 8-26-02	.00 .01 .00 .09 .00
01117368 Queen River	Usequepaug River	Lat 41°32'55", long 71°34'40", Washington County, at bridge on Dawley Road, 0.9 mi northeast of Liberty, RI.	18.4	1993, 2000–01	10-26-01 12-04-01 7-29-02	6.62 5.03 8.40
01117375 Unnamed Tributary	Queen River	Lat 41°32'20", long 71°34'48", Washington County, at culvert on Mail Road, 0.3 mi west of Liberty, RI.	.82	1989–91, 1999–2001	10-17-01 10-30-01 11-15-01 7-26-02 8-26-02	.00 .00 .00 .01 .00
01117380 Locke Brook	do.	Lat 41°32'14", long 71°35'17", Washington County, at bridge on Mail Road, 0.8 mi west of Liberty, RI.	4.37	1959–60, 1989–91, 1993, 2000–01	10-26-01 12-04-01 7-26-02 8-26-02	1.72 1.73 1.74 1.07
01117385 Rake Factory Brook	Glen Rock Reservoir	Lat 41°31'08", long 71°35'58", Washington County, at culvert on Glen Rock Road, 1.2 mi northeast of Glen Rock, RI.	.25	1989–91, 1999–2001	10-30-01 11-15-01 7-26-02 8-26-02	.00 .00 .00 .00
01117390 Glen Rock Brook	do.	Lat 41°30'59", long 71°36'23", Washington County, at culverts on Glen Rock Road, at Glen Rock, RI.	2.83	1989–91, 1993, 2000–01	10-26-01 12-04-01 12-05-01 7-26-02 8-26-02	.80 1.10 1.05 .57 .25
01117400 Sherman Brook	Glen Rock Brook	Lat 41°31'04", long 71°36'18", Washington County, at culvert on Glen Rock Road, 0.1 mi north of Glen Rock, RI.	1.04	1966–74 ^b , 1989–91, 1993, 2000–01	10-26-01 12-04-01 7-26-02 8-25-02	.46 .40 .02 .00
01117421 Chickasheen Brook	Usquepaug River	Lat 41°29'54", long 71°33'55", Washington County, at bridge on State Highway 2, 1.2 mi northwest of West Kingston, RI.	3.26	--	8-26-02	.00
01117424 Chickasheen Brook	do.	Lat 41°28'49", long 71°34'26", Washington County, at bridge on Liberty Lane, 1 mi west of West Kingston, RI.	4.82	1959–60, 1991–92	8-15-02 8-28-02 9-23-02	.46 .45 1.65
01117430 Pawcatuck River	Block Island Sound (Atlantic Ocean)	Lat 41°26'58", long 71°36'58", Washington County, at bridge on State Highway 2, 0.2 mi east of Kenyon, RI.	72.7	1958–60 ^a	8-15-02 8-28-02 9-24-02	15.4 12.0 30.0

See footnotes at end of table

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites October 2001 through September 2002--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
PAWCATUCK RIVER BASIN—Continued						
01117450 Pasquiset Brook	Pawcatuck River	Lat 41°26'38", long 71°37'39", Washington County, at bridge on State Highway 2, 0.2 mi south of Kenyon, RI.	6.32	1966–67, 1974, 1976	8-26-02	0.13
01117465 Beaver River	do.	Lat 41°31'32", long 71°38'23", Washington County, at bridge on Hillsdale Road, 3.2 mi east of Wyoming, RI.	5.53	1966–67, 1974, 1976, 1991	8-27-02	.78
01117471 Beaver River	do.	Lat 41°27'51", long 71°37'42", Washington County, at bridge on Shannock Hill Road 1.2 mi northeast of Shannock, RI.	11.2	1966–67, 1974–76, 1991, 1997	8-15-02 8-30-02 9-20-02	2.93 5.71 5.31
01117480 Taney Brook	do.	Lat 41°27'38", long 71°38'54", Washington County, at culvert on Shannock Hill Road, 0.8 mi northeast of Carolina, RI.	1.67	1966–67	8-26-02	.07
01117600 Meadow Brook	do.	Lat 41°27'59", long 71°41'26", Washington County, at bridge on Pine Hill Road, 1.5 mi northwest of Carolina, RI.	5.53	1965–74 ^a , 1977	8-07-02 8-14-02 8-28-02	.22 .15 .09
01117700 Cedar Swamp Brook	do.	Lat 41°25'37", long 71°41'44", Washington County, at culvert on Kings Factory Road, 0.7 mi south of Wood River Junction, RI.	5.10	1966–67	8-26-02	.12
01117720 Wood River	do.	Lat 41°36'45", long 71°45'39", Washington County, at bridge on Stepstone Falls Road, 0.6 mi northeast of Escoheag, RI.	11.4	1966–67, 1991	8-26-02	.02
01117740 Kelley Brook	Wood River	Lat 41°36'44", long 71°45'13", Washington County, at bridge on Stepstone Falls Road, 0.8 mi northeast of Escoheag, RI.	4.20	1966–67, 1991	8-26-02	3.31
01117750 Acid Factory Brook	Eisenhower Lake	Lat 41°37'59", long 71°43'22", Kent County, at culvert on Plain Meeting House Road, 4.1 mi south of Summit, RI.	1.31	1966	8-26-02	.03
01117760 Flat River	Wood River	Lat 41°35'44", long 71°43'14", Washington County, at bridge on Plain Road, 3.1 mi northwest of Arcadia, RI.	8.38	1979, 1982	8-27-02	1.87
01117780 Breakheart Brook	Flat River	Lat 41°35'16", long 71°42'36", Washington County, at bridge on Frosty Hollow Road, 2.4 mi north of Arcadia, RI.	6.68	1966–67, 1979, 1982, 1991–92	8-27-02	.82
01117840 Parris Brook	Wood River	Lat 41°33'54", long 71°43'35", Washington County, at bridge on White Pine Drive, 800 ft below Woody Hill Brook, and 1.7 mi northwest of Arcadia, RI.	7.18	1966–67, 1979, 1991	8-27-02	.09
01117860 Roaring Brook	do.	Lat 41°33'30", long 71°41'08", Washington County, at bridge on Old Nooseneck Road, 0.7 mi northeast of Arcadia, RI.	5.01	1966–67, 1991	8-27-02	.74
01117900 Brushy Brook	Locustville Pond	Lat 41°31'43", long 71°44'13", Washington County, at culvert on Saw Mill Road, 1.8 mi northwest of Hope Valley, RI.	3.71	1966–67, 1977, 1979, 1991	8-27-02	.11
01117950 Moscow Brook	Brushy Brook	Lat 41°31'38", long 71°44'12", Washington County, at bridge on Saw Mill Road, 1.7 mi northwest of Hope Valley, RI.	6.37	1966–67, 1977–79, 1991	8-27-02	.15
01118006 Canonchet Brook	Wood River	Lat 41°28'39", long 71°43'47", Washington County, at bridge on Rockville–Alton Road, 2.2 mi southwest of Hope Valley, RI.	5.89	1977, 1991	8-27-02	.90
01118008 Wood River Tributary	do.	Lat 41°26'15", long 71°43'25", Washington County, at culvert on Rockville–Alton Road, 0.1 mi west of Alton, RI.	2.05	1977	8-27-02	.30
01118009 Wood River	Pawcatuck River	Lat 41°26'10", long 71°43'17", Washington County, 0.1 mi south of State Route 91, 0.1 mi south of Alton, RI.	85.7	1977, 1991	8-27-02	20.2

See footnotes at end of table

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites October 2001 through September 2002--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
PAWCATUCK RIVER BASIN—Continued						
01118010	Block Island Sound	Lat 41°24'58", long 71°43'46", Washington County, at	205	1966–67,	8-07-02	64.8
Pawcatuck River	(Atlantic Ocean)	bridge on Burdickville Road, at Burdickville, RI.		1977, 1991	8-14-02	51.0
					8-28-02	44.6
01118022	Watchaug Pond	Lat 41°22'28", long 71°42'59", Washington County, at	2.36	--	8-27-02	.09
Perry Healy Brook		bridge on Klondike Road, 2.3 mi southeast of Bradford, RI.				
01118055	Pawcatuck River	Lat 41°24'40", long 71°45'51", Washington County, at	6.67	1991	8-26-02	.38
Tomaquag Brook		bridge on State Route 216, at intersection with Chase Hill Road, 0.8 mi northwest of Bradford, RI.				
01118255	Ashaway River	Lat 41°28'20", long 71°49'00", New London County, at	7.42	1963–67	8-27-02	.08
Green Fall River		at bridge on Putker Road, 0.1 mi west of Laurel Glen, CT.				
01118340	Green Fall River	Lat 41°27'17", long 71°49'36", New London County, at	11.5	--	8-27-02	.38
Wyassup Brook		at bridge on State Route 216, 0.5 mi west of Clarks Falls, CT.				
01118352	do.	Lat 41°28'05", long 71°48'31", New London County, at	1.92	1965–67	8-27-02	.00
Glade Brook		culvert on Pine Woods Road, 0.4 mi southeast of Laurel Glen, CT.				
01118355	Ashaway River	Lat 41°26'51", long 71°47'27", Washington County, at	2.54	1966–67	8-27-02	.01
Parmenter Brook		bridge at northeast end of State Route 184, 1.1 mi southwest of Hopkinton, RI.				
01118360	Pawcatuck River	Lat 41°25'24", long 71°47'32", Washington County, at	28.6	1991	8-15-02	3.81
Ashaway River		bridge on Laurel Street, 0.4 mi west of Ashaway, RI.			8-28-02	.94
					9-20-02	5.20
01118365	do.	Lat 41°25'13", long 71°49'20", New London County, at	1.59	1966–67	8-27-02	.20
Lewis Pond Outlet		bridge on Boom Bridge Road, 1.3 mi northwest of Potter Hill, RI.				
01118373	do.	Lat 41°26'27", long 71°52'58", New London County, at	7.79	1965	8-27-02	.56
Shunock River		bridge on Main Street, 0.1 mi west of North Stonington, CT.				
01118375	Shunock River	Lat 41°26'19", long 71°54'39", New London County, at	1.63	1963–65	8-27-02	.00
Assekonk Brook		bridge on Jeremy Hill Road, 1.5 mi west of North Stonington, CT.				
01118380	do.	Lat 41°26'19", long 71°53'05", New London County, at	4.54	1963–65	8-27-02	.00
Assekonk Brook		bridge on State Route 2, 0.2 mi southwest of North Stonington, CT.				
01118400	Pawcatuck River	Lat 41°24'36", long 71°50'43", New London County, at	17.2	1961–73	8-15-02	2.37
Shunock River		bridge on State Route 49, 2.9 mi southeast of North Stonington, CT.			8-28-02	1.40
					9-23-02	5.66

^a Operated as a continuous-record gaging station.

^b Operated as a crest-stage partial-record station and published as "Glen Rock Brook tributary."

^c Data not published in 1986–87 annual data report.

^e Estimated.

GROUND-WATER LEVELS IN MASSACHUSETTS

BARNSTABLE COUNTY

413956070164301. Barnstable well A1W 230.

LOCATION.--Lat 41°39'56", long 70°16'43", Barnstable County, Hydrologic Unit 01090002, 50 ft west of Mary Dunn Road at Hyannis Airport and 0.3 mi north of intersection of Willow Street and State Highway 28 in Barnstable.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in., depth 35.8 ft, screened 32.8 to 35.8 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 43.23 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, at land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.51 ft below land-surface datum, May 20, 1987; lowest measured, 26.59 ft below land-surface datum, Oct. 21, 1991.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	25.64	DEC 20	26.27	FEB 26	26.03	APR 26	25.06	JUN 21	24.39	AUG 28	26.27
NOV 20	26.05	JAN 25	25.98	MAR 25	25.89	MAY 23	24.12	JUL 25	25.32	SEP 29	23.43
WATER YEAR 2002		HIGHEST	23.43	SEP 29, 2002		LOWEST	26.27	DEC 20, 2001		AUG 28, 2002	

414154070165001. Barnstable well A1W 247.

LOCATION.--Lat 41°41'54", long 70°16'50", Barnstable County, Hydrologic Unit 01090002, 30 ft east of Mary Dunn Road and 0.2 mi south of State Highway 6A in Barnstable.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in., depth 52 ft, screened 49 to 52 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 44.52 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.0 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.52 ft below land-surface datum, Apr. 22, 1997; lowest measured, 28.64 ft below land-surface datum, Oct. 25, 1966.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	26.38	DEC 20	26.97	FEB 26	27.29	APR 26	26.62	JUN 21	26.17	AUG 28	27.00
NOV 20	26.66	JAN 25	27.19	MAR 25	27.28	MAY 23	26.48	JUL 25	26.58	SEP 29	27.27
WATER YEAR 2002		HIGHEST	26.17	JUN 21, 2002		LOWEST	27.29	FEB 26, 2002			

414129070361401. Bourne well BHW 198.

LOCATION.--Lat 41°41'29", long 70°36'14", Barnstable County, Hydrologic Unit 01090002, 50 ft west of County Road and 0.3 mi south of Pocasset Road in Bourne.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in., depth 50 ft, screened 47 to 50 ft; new well drilled at same location August 1990, diameter 2.0 in., depth 50 ft, screened 40–50 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 55.56 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.65 ft above land-surface datum; prior to August 1990, 2.47 ft above land-surface datum.

PERIOD OF RECORD.--November 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.73 ft below land-surface datum, Mar. 24, 1998; lowest measured, 36.17 ft below land-surface datum, Oct. 25, 1966.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	34.32	DEC 21	34.94	FEB 26	34.86	APR 24	34.42	JUL 24	34.34	SEP 20	35.14
NOV 27	34.70	JAN 28	34.90	MAR 22	34.91	MAY 24	34.12	AUG 23	34.87		
WATER YEAR 2002		HIGHEST	34.12	MAY 24, 2002		LOWEST	35.14	SEP 20, 2002			

GROUND-WATER LEVELS IN MASSACHUSETTS

BARNSTABLE COUNTY--Continued

414518070020301. Brewster well BMW 21.

LOCATION.--Lat 41°45'18", long 70°02'03", Barnstable County, Hydrologic Unit 01090002, about 50 ft north of Nook Road, 0.1 mi south of Cliff Pond, 0.3 mi east of Silas Road, and at Nickerson State Park in Brewster.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.5 in., depth 24.8 ft, screened 21.8 to 24.8 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 36.97 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.40 ft above land-surface datum.

PERIOD OF RECORD.--October 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.90 ft below land-surface datum, Apr. 25, 1974; lowest measured, 13.37 ft below land-surface datum, Sept. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02	12.20	DEC 20	12.83	FEB 19	13.04	APR 23	12.80	JUN 20	12.56	AUG 22	13.27
22	12.37	JAN 24	12.87	MAR 21	13.03	MAY 21	12.56	JUL 25	12.92	SEP 26	13.37
NOV 21	12.66										
WATER YEAR 2002	HIGHEST	12.20	OCT 02, 2001	LOWEST	13.37	SEP 26, 2002					

414630070014901. Brewster well BMW 22.

LOCATION.--Lat 41°46'30", long 70°01'49", Barnstable County, Hydrologic Unit 01090002, 50 ft east of entrance to Nickerson State Park and 50 ft south of State Highway 6A in Brewster.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in., depth 52 ft, screened 49 to 52 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape, digital recorder (60-minute interval) with satellite telemeter since December 2001.

DATUM.--Elevation of land-surface datum is 50.45 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.06 ft above land-surface datum, prior to December 2001, at land-surface datum.

REMARKS.--Missing periods of more than one day are not estimated. Water levels affected by daily tidal fluctuations of about 0.03 ft.

PERIOD OF RECORD.--November 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.13 ft below land-surface datum, May 26, 1983; lowest measured, 33.60 ft below land-surface datum, Jan. 31, 1966.

**DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	33.37	33.47	33.55	33.33	32.81	32.53	32.50	32.94	33.38
2	---	---	---	33.38	33.47	33.55	33.29	32.80	32.53	32.51	32.95	33.39
3	---	---	---	33.38	33.48	33.54	33.26	32.80	32.52	32.52	32.97	33.39
4	---	---	---	33.40	33.47	33.54	33.24	32.79	32.52	32.54	32.98	33.39
5	---	---	e33.28	33.40	33.46	33.55	33.22	32.79	32.52	32.57	32.99	33.40
6	---	---	33.29	33.41	33.47	33.55	33.19	32.79	32.51	32.58	33.01	33.40
7	---	---	33.29	33.41	33.48	33.56	33.17	32.78	32.50	32.59	33.03	33.41
8	---	---	33.30	33.42	33.49	33.56	33.15	32.78	32.49	32.61	33.05	33.42
9	---	---	33.30	33.43	33.50	33.56	33.12	32.78	32.48	32.62	33.06	33.42
10	---	---	33.31	33.44	33.50	33.56	33.10	32.78	32.48	32.63	33.08	33.44
11	---	---	33.32	33.45	33.50	33.57	33.08	32.78	32.47	32.65	33.09	33.44
12	---	---	33.31	33.46	33.50	33.57	33.06	32.77	32.46	32.66	33.10	33.45
13	---	---	33.28	33.44	33.51	33.57	33.04	32.76	32.45	32.67	33.12	33.46
14	---	---	33.28	33.45	33.52	33.57	33.02	32.75	32.44	32.69	33.14	33.48
15	---	---	33.29	33.44	33.52	33.57	33.01	32.75	32.43	32.70	33.15	33.48
16	---	---	33.29	33.43	33.53	33.57	32.99	32.74	32.42	32.71	33.17	33.49
17	---	---	33.29	33.42	33.52	33.57	32.97	32.73	32.42	32.72	33.18	33.50
18	---	---	33.29	33.43	33.52	33.57	32.96	32.71	32.42	32.73	33.20	33.51
19	---	---	33.29	33.43	33.52	33.57	32.94	32.70	32.43	32.74	33.21	33.53
20	---	---	33.30	33.43	33.53	33.57	32.93	32.69	32.44	32.76	33.23	33.54
21	---	---	33.30	33.43	33.53	33.54	32.92	32.67	32.44	32.77	33.25	33.55
22	e32.84	---	33.30	33.45	33.53	33.52	32.92	32.67	32.44	32.79	33.26	33.56
23	---	---	33.31	33.46	33.53	33.52	32.90	32.65	32.43	32.80	33.27	33.57
24	---	---	33.31	33.47	33.54	33.52	32.89	32.63	32.43	32.82	33.28	33.57
25	---	---	33.32	33.48	33.54	33.52	32.88	32.62	32.44	32.84	33.29	33.57
26	---	---	33.33	33.47	33.54	33.51	32.87	32.61	32.44	32.85	33.30	33.57
27	---	---	33.33	33.47	33.54	33.49	32.86	32.60	32.44	32.87	33.33	33.56
28	---	e33.16	33.34	33.46	33.53	33.45	32.85	32.59	32.45	32.88	33.34	33.57
29	---	---	33.35	33.47	---	33.42	32.83	32.57	32.47	32.88	33.36	33.58
30	---	---	33.35	33.47	---	33.39	32.82	32.56	32.49	32.90	33.37	33.58
31	---	---	33.36	33.48	---	33.36	---	32.55	---	32.92	33.37	---
MEAN	---	---	---	33.44	33.51	33.53	33.03	32.71	32.46	32.71	33.16	33.49
LOW	---	---	---	33.48	33.54	33.57	33.33	32.81	32.53	32.92	33.37	33.58
HIGH	---	---	---	33.37	33.46	33.36	32.82	32.55	32.42	32.50	32.94	33.38
WTR YR 2002	INSTANTANEOUS	HIGH	32.41	JUNE 17-19	LOW	33.59	MAR 12, 16, SEP 30					

e Estimated

GROUND-WATER LEVELS IN MASSACHUSETTS

BARNSTABLE COUNTY--Continued

414100070011101. Chatham well CGW 138.

LOCATION.--Lat 41°41'00", long 70°01'11", Barnstable County, Hydrologic Unit 01090002, 50 ft east of State Highway 137 and 300 ft north of State Highway 28 in Chatham.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in., depth 44 ft, screened 41 to 44 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 35.28 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.77 ft above land-surface datum; prior to June 1980, 3.80 ft above land-surface datum.

PERIOD OF RECORD.--November 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.94 ft below land-surface datum, Apr. 25, 1983; lowest measured, 26.38 ft below land-surface datum, Sept. 25, 1980.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02	25.09	DEC 20	25.65	FEB 19	25.61	APR 23	24.78	JUN 20	24.63	AUG 22	25.56
	22 25.24	JAN 24	25.61	MAR 21	25.55	MAY 21	24.67	JUL 25	25.26	SEP 26	25.61
NOV 21	25.47										
WATER YEAR	2002	HIGHEST	24.63	JUN 20, 2002		LOWEST	25.65	DEC 20, 2001			

413525070291904. Mashpee well MIW 29.

LOCATION.--Lat 41°35'25", long 70°29'19", Barnstable County, Hydrologic Unit 01090002, 20 ft west of dirt road, 0.8 mi north of intersection of Great Hay Road and dirt road which is 0.12 mi northeast of intersection of Red Brook Road and Great Hay Road in Mashpee.

Owner: Town of Mashpee.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Hydraulic-rotary drilled observation water-table well, diameter 2.0 in., depth 40.0 ft, screened 37.0 to 40.0 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 15.78 above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel coupling, 1.36 ft above land-surface datum.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.62 ft below land-surface datum, Apr. 22 1987; lowest measured, 10.03 ft below land-surface datum, Oct. 24, 1980.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	9.54	DEC 21	9.92	FEB 26	9.66	APR 24	8.90	JUN 21	8.67	AUG 23	9.80
NOV 27	9.84	JAN 28	9.60	MAR 22	9.55	MAY 24	8.61	JUL 24	9.29	SEP 20	9.91
WATER YEAR	2002	HIGHEST	8.61	MAY 24, 2002		LOWEST	9.92	DEC 21, 2001			

414418070241601. Sandwich well SDW 252.

LOCATION.--Lat 41°44'18", long 70°24'16", Barnstable County, Hydrologic Unit 01090002, 0.5 mi north of State Highway 6A and 15 ft east of Private Road in Sandwich.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in., depth 57 ft, screened 55 to 57 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 53.47 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.88 ft below land-surface datum, Apr. 25, 1983; lowest measured, 48.23 ft below land-surface datum, Oct. 25, 1966.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	47.92	DEC 21	47.81	FEB 26	47.85	APR 24	47.81	JUN 21	47.54	AUG 23	48.08
NOV 27	47.94	JAN 28	48.03	MAR 22	48.00	MAY 24	47.69	JUL 24	47.86	SEP 20	47.94
WATER YEAR	2002	HIGHEST	47.54	JUN 21, 2002		LOWEST	48.08	AUG 23, 2002			

GROUND-WATER LEVELS IN MASSACHUSETTS

BARNSTABLE COUNTY--Continued

414124070265901. Sandwich well SDW 253.

LOCATION.--Lat 41°41'24", long 70°26'59", Barnstable County, Hydrologic Unit 01090002, 800 ft west of Stowe Road and 50 ft south of Farmersville Road in Sandwich.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in., depth 70 ft, screened 67 to 70 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 111.20 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.78 ft below land-surface datum, July 30, 1973; lowest measured, 55.05 ft below land-surface datum, Feb. 28, 1967.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	52.53	DEC 21	53.13	FEB 26	53.59	APR 24	53.62	JUN 21	53.57	AUG 23	54.55
NOV 27	52.97	JAN 30	53.30	MAR 22	53.58	MAY 24	53.32	JUL 24	54.06	SEP 20	54.59
WATER YEAR 2002		HIGHEST	52.53	OCT 25, 2001		LOWEST	54.59	SEP 20, 2002			

420239070062001. Truro well TSW 1.

LOCATION.--Lat 42°02'39", long 70°06'20", Barnstable County, Hydrologic Unit 01090002, near old pumping station about 200 ft north of State Highway 6A and 1.2 mi northwest of North Truro.

Owner: Town of Provincetown.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in., depth 68 ft, cased to 68 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 16.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.50 ft above land-surface datum.

REMARKS.--Water levels affected by pumping, barometric pressure, and tide.

PERIOD OF RECORD.--August 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.28 ft below land-surface datum, Mar. 23, 1983; lowest measured, 12.10 ft below land-surface datum, Sept. 11, 1954.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02	10.70	DEC 20	10.60	FEB 19	10.61	APR 23	10.82	JUN 20	10.55	AUG 22	10.85
NOV 21	10.73	JAN 24	10.86	MAR 21	10.94	MAY 21	10.64	JUL 25	10.69	SEP 26	10.79
WATER YEAR 2002		HIGHEST	10.55	JUN 20, 2002		LOWEST	10.94	MAR 21, 2002			

420206070045901. Truro well TSW 89.

LOCATION.--Lat 42°02'06", long 70°04'59", Barnstable County, Hydrologic Unit 01090002, 300 ft west of U.S. Highway 6 and 50 ft north of Highland Road in Truro.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 21.7 ft, screened 16.7 to 21.7 ft; prior to November 1989, diameter 1.25 in., depth 27.7 ft, screened 24.7 to 27.7 ft at same location.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 16.60 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, at land-surface datum; prior to November 1989, 0.22 ft above land-surface datum.

PERIOD OF RECORD.--September 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.20 ft below land-surface datum, Apr. 25, 1983; lowest measured, 12.96 ft below land-surface datum, Sept. 28, 1965.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02	12.38	DEC 20	12.75	FEB 19	12.45	APR 23	12.51	JUN 20	12.23	AUG 22	12.61
NOV 21	12.90	JAN 24	12.50	MAR 21	12.59	MAY 21	12.30	JUL 25	12.38	SEP 26	12.53
WATER YEAR 2002		HIGHEST	12.23	JUN 20, 2002		LOWEST	12.90	NOV 21, 2001			

GROUND-WATER LEVELS IN MASSACHUSETTS

BARNSTABLE COUNTY--Continued

415353069585401. Wellfleet well WNW 17.

LOCATION.--Lat 41°53'53", long 69°58'54", Barnstable County, Hydrologic Unit 01090002, about 150 ft east of old pumping station and 45 ft west of road to the public beach at Cape Cod National Seashore in Wellfleet.

Owner: Cape Cod National Seashore.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2.5 in., depth 42 ft, screen information not available.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 19.10 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.24 ft above land-surface datum, 1.13 ft prior to June 1992.

PERIOD OF RECORD.--November 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.27 ft below land-surface datum, June 27, 1967; lowest measured, 12.75 ft below land-surface datum, Jan. 31, 1967.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02	11.58	DEC 20	12.27	FEB 19	12.46	APR 23	11.87	JUN 20	11.64	AUG 22	12.13
	22 11.80	JAN 24	12.35	MAR 21	12.47	MAY 21	11.72	JUL 24	11.86	SEP 26	12.25
NOV 21	12.04										
WATER YEAR	2002	HIGHEST	11.58	OCT 02, 2001	LOWEST	12.47	MAR 21, 2002				

BERKSHIRE COUNTY

421550073025101. Becket well A3W 12.

LOCATION.--Lat 42°15'50", long 73°02'51", Berkshire County, Hydrologic Unit 01080206, at edge of Bonny Rigg Restaurant parking lot, 30 ft north of Route 20 and 0.2 mi east of Route 8.

Owner: Private owner.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 35 ft, screened 25 to 35 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 1285 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.36 ft below land-surface datum, Apr. 24, 1996; lowest measured, 4.62 ft below land-surface datum, Aug. 23, 1988, July 24, 1991.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	3.30	DEC 20	2.77	FEB 26	3.06	APR 26	2.93	JUN 27	3.04	AUG 28	3.53
NOV 28	3.21	JAN 29	3.12	MAR 22	2.94	MAY 29	2.88	JUL 30	3.17	SEP 24	3.35
WATER YEAR	2002	HIGHEST	2.77	DEC 20, 2001	LOWEST	3.53	AUG 28, 2002				

423503073075401. Cheshire well CJW 2.

LOCATION.--Lat 42°35'03", long 73°07'54", Berkshire County, Hydrologic Unit 02020003, at intersection of Wells and Jenks Roads 2.3 mi northeast of Cheshire.

Owner: Private owner.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in., depth 22 ft, cased with stone to 22 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 1,210 ft, above National Geodetic Vertical Datum of 1929. Measuring point: Inside rim of concrete well top, 1.0 ft above land-surface datum.

REMARKS.--Water level may be affected by nearby pumping during summer period.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.09 ft below land-surface datum, Jan. 19, 1952; lowest measured, 19.83 ft below land-surface datum, Aug. 24, 1995.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	8.17	DEC 19	5.58	FEB 25	5.65	APR 25	3.40	JUN 26	3.31	AUG 27	10.04
NOV 27	8.72	JAN 28	6.18	MAR 21	3.38	MAY 28	3.55	JUL 29	7.42	SEP 23	9.80
WATER YEAR	2002	HIGHEST	3.31	JUN 26, 2002	LOWEST	10.04	AUG 27, 2002				

GROUND-WATER LEVELS IN MASSACHUSETTS

BERKSHIRE COUNTY--Continued

421316073212801. Great Barrington well GMW 2.

LOCATION.--Lat 42°13'16", long 73°21'28", Berkshire County, Hydrologic Unit 01100005, 30 ft west of State Highway 41 and 1.5 mi north of intersection of State Highway 41 and U.S. Highway 7 in Great Barrington.

Owner: Private owner.

AQUIFER.--Glacial outwash of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in., depth 16 ft, cased with stone to 16 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 732 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of stone curbing, east side of well, 1.12 ft above land-surface datum. Prior to July 25, 1978, measured at land-surface datum.

REMARKS.--Water level affected by stream.

PERIOD OF RECORD.--June 1951 to current year. Continuous graphic recorder January 1968 to August 1982.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.99 ft below land-surface datum, Apr. 21, 1983; lowest measured, 14.97 ft below land-surface datum, Nov. 20, 1964.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	12.31	DEC 19	12.34	FEB 25	12.04	APR 25	10.82	JUN 26	10.48	AUG 27	12.26
NOV 28	12.49	JAN 28	12.24	MAR 21	11.80	MAY 29	10.12	JUL 29	11.99	SEP 23	12.14
WATER YEAR 2002	HIGHEST	10.12	MAY 29, 2002	LOWEST	12.49	NOV 28, 2001					

420912073043001. Otis well OTW 7.

LOCATION.--Lat 42°09'12", long 73°04'30", Berkshire County, Hydrologic Unit 01080207, about 400 ft south of Hawley Road and 15 ft west of State Highway 8 in Otis.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 17.5 ft, screened 15.5 to 17.5 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 1,145 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.12 ft above land-surface datum.

REMARKS.--Water levels affected by Minor Brook and Farmington River.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.55 ft below land-surface datum, Apr. 21, 1983; lowest measured, 10.16 ft below land-surface datum, Sept. 21, 1983.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	9.41	DEC 20	8.76	FEB 26	8.74	APR 26	8.44	JUN 27	8.43	AUG 28	9.92
NOV 28	9.50	JAN 29	9.26	MAR 22	8.44	MAY 29	7.99	JUL 30	9.27	SEP 24	9.91
WATER YEAR 2002	HIGHEST	7.99	MAY 29, 2002	LOWEST	9.92	AUG 28, 2002					

GROUND-WATER LEVELS IN MASSACHUSETTS

BERKSHIRE COUNTY--Continued

422745073112001. Pittsfield well PTW 51.

LOCATION.--Lat 42°27'45", long 73°11'20", Berkshire County, Hydrologic Unit 01100005, 30 ft east of Hubbard Ave. and about 100 ft north of Barton Brook in Pittsfield.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 31.5 ft, screened 26.5 to 31.5 ft. Prior to July 1986, augered observation water-table well, diameter 1.25 in., depth 31.5 ft, screened 29.5 to 31.5 ft.

INSTRUMENTATION.--Monthly measurement with groundwater electric tape by USGS personnel. Digital recorder (60-min punch) July 1986 to current year, satellite telemeter since July 2001.

DATUM.--Elevation of land-surface datum is 1,050 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing in base of aluminum shelter, 1.83 ft above land-surface datum; prior to July 1986, top of casing, 2.50 ft above land-surface datum.

REMARKS.--Missing periods of more than one day are not estimated.

PERIOD OF RECORD.--August 1963 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.30 ft below land-surface datum, Apr. 25, 1969; lowest measured, 27.57 ft below land-surface datum, Dec. 11, 1964.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.79	23.45	24.81	21.26	20.04	16.63	15.82	15.33	14.73	15.15	18.56	21.52
2	21.84	23.51	24.67	21.27	19.52	16.60	15.80	15.29	14.75	15.23	18.66	21.60
3	21.90	23.56	24.71	21.28	19.04	16.47	15.78	15.30	14.81	15.33	18.67	21.68
4	21.95	23.61	24.78	21.32	18.63	16.41	15.79	15.32	14.83	15.44	18.76	21.77
5	22.01	23.66	24.84	21.37	18.36	16.40	15.78	15.29	14.81	15.55	18.86	21.86
6	22.07	23.72	24.87	21.40	18.18	16.35	15.79	15.28	14.76	15.66	18.97	21.95
7	22.13	23.77	24.90	21.44	18.01	16.34	15.82	15.25	14.69	15.78	19.09	22.04
8	22.19	23.82	24.92	21.51	17.89	16.33	15.82	15.28	14.65	15.89	e19.17	22.13
9	22.25	23.88	24.95	21.55	17.83	16.30	15.81	15.25	14.62	15.99	---	22.22
10	22.31	23.93	24.97	21.61	17.72	16.24	15.84	15.25	14.64	16.12	---	22.31
11	22.37	23.98	25.01	21.66	17.59	16.24	15.84	15.30	14.63	16.25	---	22.39
12	22.43	24.03	25.03	21.71	17.45	16.21	15.80	15.26	14.65	16.39	---	22.49
13	22.50	24.08	25.06	21.72	17.36	16.19	15.78	15.17	14.68	16.52	---	22.58
14	22.56	24.14	24.94	21.77	17.34	16.22	15.76	14.99	14.68	16.66	---	22.66
15	22.58	24.19	24.58	21.79	17.28	16.21	15.70	14.94	14.68	16.80	---	22.76
16	22.53	24.24	24.24	21.82	17.22	16.22	15.66	14.91	14.69	16.94	---	22.81
17	22.61	24.29	23.96	21.83	17.18	16.25	15.61	14.90	14.69	17.08	---	22.83
18	22.67	24.33	23.73	21.86	17.18	16.22	15.58	14.85	14.73	17.21	---	22.90
19	22.73	24.38	23.52	21.89	17.15	16.24	15.54	14.79	14.76	17.33	---	22.99
20	22.78	24.43	23.34	21.91	17.11	16.22	15.52	14.77	14.79	17.31	---	23.07
21	22.84	24.48	23.16	21.93	17.03	16.20	15.50	14.76	14.80	17.43	---	23.15
22	22.90	24.53	22.97	21.99	16.95	16.22	15.46	14.78	14.83	17.55	---	23.23
23	22.95	24.58	22.78	22.02	16.90	16.22	15.48	14.77	14.82	17.66	---	23.31
24	23.01	24.63	22.62	22.02	16.86	16.25	15.48	14.76	14.81	17.69	---	23.39
25	23.06	24.68	22.36	21.97	16.79	16.26	15.46	14.82	14.85	17.80	---	23.46
26	23.11	24.70	22.03	21.85	16.71	16.22	15.46	14.82	14.89	17.90	---	23.54
27	23.17	24.73	21.75	21.71	16.64	16.12	15.46	14.83	14.94	18.00	e21.22	23.60
28	23.23	24.77	21.60	21.56	16.64	16.06	15.41	14.84	14.99	18.11	21.30	23.59
29	23.28	24.81	21.46	21.39	---	16.02	15.37	14.84	15.04	18.22	21.37	23.60
30	23.34	24.85	21.34	21.10	---	15.96	15.35	14.83	15.09	18.33	21.34	23.67
31	23.39	---	21.27	20.63	---	15.90	---	14.77	---	18.44	21.42	---
MEAN	22.60	24.19	23.72	21.62	17.59	16.25	15.64	15.02	14.78	16.83	---	22.70
LOW	23.39	24.85	25.06	22.02	20.04	16.63	15.84	15.33	15.09	18.44	---	23.67
HIGH	21.79	23.45	21.27	20.63	16.64	15.90	15.35	14.76	14.62	15.15	---	21.52
WTR YR 2002	INSTANTANEOUS HIGH	14.61	JUNE 9, 11	LOW	25.07	DEC 13, 14						

e Estimated

GROUND-WATER LEVELS IN MASSACHUSETTS

BERKSHIRE COUNTY--Continued

420351073193602. Sheffield well SJW 58.

LOCATION.--Lat 42°03'51", long 73°19'36", Berkshire County, Hydrologic Unit 01100005, about 100 ft east of U.S. Highway 7 and 30 ft north of Hewins Road in Sheffield.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well with sand point, diameter 2.0 in., depth 32 ft, screened 27 to 32 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 680 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.6 ft above land-surface datum.

PERIOD OF RECORD.--October 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.02 ft below land-surface datum, June 23, 1990; lowest measured, 16.95 ft below land-surface datum, Sept. 23, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	15.53	DEC 19	16.23	FEB 25	16.80	APR 25	16.80	JUN 26	15.70	AUG 27	16.58
NOV 28	15.96	JAN 28	16.61	MAR 21	16.91	MAY 29	16.09	JUL 29	16.08	SEP 23	16.95
WATER YEAR 2002	HIGHEST 15.53	OCT 24, 2001	LOWEST 16.95	SEP 23, 2002							

BRISTOL COUNTY

415447071155301. Attleboro well ATW 83.

LOCATION.--Lat 41°54'47", long 71°15'53", Bristol County, Hydrologic Unit 01090004, about 150 ft north of parking lot and 200 ft west of dirt road at Bristol County Nursing Home in Attleboro.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 20.6 ft, screened 18.6 to 20.6 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 145 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.5 ft above land-surface datum.

PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.98 ft below land-surface datum, Jan. 27, 1978; lowest measured, 5.34 ft below land-surface datum, Aug. 30, 1999.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	4.40	DEC 27	3.91	FEB 26	3.91	APR 29	3.73	JUN 25	4.11	AUG 27	5.17
NOV 27	4.36	JAN 29	3.85	MAR 26	3.65	MAY 29	3.66	JUL 29	4.79	SEP 24	4.68
WATER YEAR 2002	HIGHEST 3.65	MAR 26, 2002	LOWEST 5.17	AUG 27, 2002							

414705071045301. Freetown well F3W 23.

LOCATION.--Lat 41°47'05", long 71°04'53", Bristol County, Hydrologic Unit 01090004, about 300 ft west of State Highway 24 and 200 ft north of State Highway 79 in Freetown.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 42 ft, screened 40 to 42 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 38 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.0 ft above land-surface datum.

REMARKS.--Water level affected by tide.

PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.72 ft below land-surface datum, Apr. 22, 1983; lowest measured, 15.70 ft below land-surface datum, Jan. 29, 1966.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	14.57	DEC 26	15.22	FEB 26	15.34	APR 29	14.58	JUN 24	14.22	AUG 27	15.33
NOV 28	15.06	JAN 29	15.29	MAR 26	15.30	MAY 28	14.16	JUL 29	14.86	SEP 24	15.33
WATER YEAR 2002	HIGHEST 14.16	MAY 28, 2002	LOWEST 15.34	FEB 26, 2002							

GROUND-WATER LEVELS IN MASSACHUSETTS

BRISTOL COUNTY--Continued

414025070572801. New Bedford well NGW 116.

LOCATION.--Lat 41°40'25", long 70°57'28", Bristol County, Hydrologic Unit 01090002, New Bedford Municipal Airport, 30 ft east of control tower building in New Bedford.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in., depth 27.3 ft, screened 25.3 to 27.3 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 65 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.31 ft below land-surface datum, Mar. 26, 1969; lowest measured, 5.20 ft below land-surface datum, July 24, 1964.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	4.26	DEC 26	3.91	FEB 26	4.10	APR 30	3.76	JUN 24	4.09	AUG 27	5.13
NOV 28	4.60	JAN 29	3.92	MAR 26	3.88	MAY 29	3.81	JUL 30	4.82	SEP 25	4.53
WATER YEAR 2002	HIGHEST	3.76	APR 30, 2002	LOWEST	5.13	AUG 27, 2002					

415812071111101. Norton well N4W 37.

LOCATION.--Lat 41°58'12", long 71°11'11", Bristol County, Hydrologic Unit 01090004, at Wheaton College, 250 ft northeast of observatory in Norton.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 19.5 ft, screened 17.5 to 19.5 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 105 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.35 ft below land-surface datum, Dec. 29, 1969; lowest measured, 11.39 ft below land-surface datum, Sept. 24, 1993.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	8.88	DEC 27	7.64	FEB 25	7.07	APR 30	7.06	JUN 25	7.29	AUG 26	9.37
NOV 27	9.54	JAN 29	6.93	MAR 26	6.25	MAY 29	6.43	JUL 30	8.77	SEP 25	8.96
WATER YEAR 2002	HIGHEST	6.25	MAR 26, 2002	LOWEST	9.54	NOV 27, 2001					

414714071175901. Seekonk well SHW 275.

LOCATION.--Lat 41°47'14", long 71°17'59", Bristol County, Hydrologic Unit 01090004, middle of median strip of Interstate Highway 195 and 1.1 mi west of Palmer River in Seekonk.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 14.4 ft, screened 12.4 to 14.4 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 21 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.02 ft below land-surface datum, Dec. 20, 1986; lowest measured, 8.02 ft below land-surface datum, Sept. 26, 1980.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	6.61	DEC 26	5.91	FEB 26	5.83	APR 29	5.44	JUN 24	5.89	AUG 27	7.75
NOV 28	6.70	JAN 29	5.79	MAR 26	5.58	MAY 28	5.67	JUL 29	6.93	SEP 24	6.90
WATER YEAR 2002	HIGHEST	5.44	APR 29, 2002	LOWEST	7.75	AUG 27, 2002					

GROUND-WATER LEVELS IN MASSACHUSETTS

BRISTOL COUNTY--Continued

415457071060101. Taunton well TAW 337.

LOCATION.--Lat 41°54'57", long 71°06'01", Bristol County, Hydrologic Unit 01090004, Taunton State Hospital, about 200 ft west of Mill River and about 300 ft east of Danforth Street in Taunton.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 20 ft, screened 18 to 20 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 50 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.5 ft above land-surface datum.

REMARKS.--Water levels affected by Mill River.

PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.96 ft below land-surface datum, Dec. 29, 1969; lowest measured, 12.43 ft below land-surface datum, Oct. 22, 1988.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	9.99	DEC 26	9.75	FEB 25	9.39	APR 30	8.90	JUN 25	9.00	AUG 26	10.14
NOV 28	10.08	JAN 29	9.37	MAR 26	8.97	MAY 29	8.43	JUL 30	9.72	SEP 25	10.03
WATER YEAR	2002	HIGHEST	8.43	MAY 29, 2002	LOWEST	10.14	AUG 26, 2002				

DUKES COUNTY

412346070353403. Edgartown well ENW 52.

LOCATION.--Lat 41°23'46", long 70°35'34", Dukes County, Hydrologic Unit 01090002, 0.5 mi west of Airport Road and 0.6 mi north of West Tisbury Road in Edgartown.

Owner: Martha's Vineyard State Forest.

AQUIFER.--Glacial sand, gravel and cobbles of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2 in., depth 64 ft, screened 61 to 64 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 34 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.02 ft below land-surface datum.

PERIOD OF RECORD.--December 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.93 ft below land-surface datum, May 24 and June 27, 1987; lowest measured, 20.95 ft below land-surface datum, Mar. 28, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	18.66	DEC 28	19.79	FEB 26	20.56	APR 25	20.24	JUN 27	19.32	AUG 27	19.64
NOV 27	19.25	JAN 29	20.26	MAR 28	20.95	MAY 28	19.71	JUL 26	19.33	SEP 30	20.06
WATER YEAR	2002	HIGHEST	18.66	OCT 26, 2001	LOWEST	20.95	MAR 28, 2002				

GROUND-WATER LEVELS IN MASSACHUSETTS

ESSEX COUNTY

423641071102501. Andover well AJW 462.

LOCATION.--Lat 42°36'41", long 71°10'25", Essex County, Hydrologic Unit 01070002, about 1,200 ft south of Shawsheen River, and 30 ft west of Interstate Highway 93 in Andover.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in., depth 32.5 ft, screened 30.5 to 32.5 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 110 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.0 ft above land-surface datum.

REMARKS.--Water level affected by nearby construction starting about January 1993 to about January 1995.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.72 ft below land-surface datum, June 20, 1984; lowest measured, 22.56 ft below land-surface datum, July 28, 1994.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	16.35	DEC 28	16.52	FEB 25	16.40	APR 26	15.85	JUN 24	15.55	AUG 28	16.49
NOV 28	16.68	JAN 30	16.40	MAR 27	16.13	MAY 31	15.41	JUL 29	16.13		
WATER YEAR	2002	HIGHEST	15.41	MAY 31, 2002		LOWEST	16.68	NOV 28, 2001			

424322070592401. Georgetown well GCW 168.

LOCATION.--Lat 42°43'22", long 70°59'24", Essex County, Hydrologic Unit 01090001, 18 ft south of State Highway 133 and 25 ft east of Winter Street at Murca Park in Georgetown.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial outwash of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 21 ft, screened 19 to 21 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.27 ft below land-surface datum, Mar. 27, 2001; lowest measured, 6.65 ft below land-surface datum, Sept. 22, 1965.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	6.18	DEC 28	5.36	FEB 25	4.72	APR 26	4.40	JUN 24	4.67	AUG 28	6.43
NOV 27	6.19	JAN 30	4.95	MAR 27	4.21	MAY 29	4.11	JUL 29	5.72	SEP 30	5.90
WATER YEAR	2002	HIGHEST	4.11	MAY 29, 2002		LOWEST	6.43	AUG 28, 2002			

GROUND-WATER LEVELS IN MASSACHUSETTS

ESSEX COUNTY--Continued

424841071004101. Haverhill well HLW 23.

LOCATION.--Lat 42°48'41", long 71°00'41", Essex County, Hydrologic Unit 01070002, about 50 ft north of Amesbury Line Road and 0.9 mi south of State Highway 110 in Haverhill.

Owner: Private owner.

AQUIFER.--Glacial sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 12 in., depth 15.1 ft, cased with tile to 15.1 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric tape by observer. Continuous graphic recorder October 1960 to September 1982, digital recorder (60-minute punch) October 1984 to current year.

DATUM.--Elevation of land-surface datum is 105 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of hole in base of steel recorder shelter, 1.71 ft above land-surface datum, 1.65 ft prior to June 8, 1995.

REMARKS.--Missing periods of more than one day are not estimated.

PERIOD OF RECORD.--October 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.96 ft below land-surface datum, Apr. 7, 8, 1987; lowest, 15.02 ft below land-surface datum, Feb. 2, 1966.

**DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.09	14.43	14.65	14.42	14.08	13.54	12.85	12.52	11.38	11.57	12.53	13.38
2	14.10	14.44	14.66	14.42	14.06	13.52	12.81	12.52	11.38	11.59	12.55	13.40
3	14.12	14.45	14.66	14.43	14.04	13.50	12.76	12.50	11.40	11.61	12.59	13.42
4	14.12	14.46	14.67	14.44	14.02	13.47	12.73	12.48	11.42	11.64	12.63	13.44
5	14.14	14.46	14.67	14.45	13.99	13.45	12.69	12.46	11.42	11.67	12.66	13.45
6	14.15	14.48	14.68	14.47	13.97	13.43	12.66	12.44	11.43	11.70	12.69	13.47
7	14.17	14.48	14.69	14.48	13.96	13.41	12.64	12.42	11.43	11.73	12.73	13.49
8	14.18	14.49	14.69	14.49	13.94	13.38	12.61	12.41	11.40	11.77	12.76	13.51
9	14.20	14.50	14.70	14.50	13.94	13.36	12.59	12.40	11.39	11.79	12.80	13.53
10	14.21	14.50	14.70	14.51	13.92	13.34	12.58	12.39	11.41	11.83	12.83	13.55
11	14.22	14.51	14.71	14.52	13.90	13.33	12.58	12.39	11.42	11.86	12.86	13.57
12	14.23	14.52	14.71	14.52	13.85	13.31	12.56	12.38	11.44	11.89	12.89	13.59
13	14.25	14.53	14.70	14.52	13.82	13.30	12.55	12.36	11.42	11.92	12.92	13.61
14	14.26	14.54	14.70	14.48	13.79	13.28	12.55	12.25	11.41	11.95	12.95	13.63
15	14.27	14.54	14.68	14.45	13.77	13.28	12.56	12.12	11.41	11.98	12.99	13.65
16	14.28	14.55	14.65	14.42	13.75	13.27	12.56	12.00	11.38	12.02	13.01	13.66
17	14.28	14.56	14.63	14.41	13.73	13.27	12.56	11.91	11.38	12.05	13.04	13.68
18	14.28	14.57	14.62	14.40	13.71	13.26	12.57	11.85	11.38	12.09	13.07	13.69
19	14.29	14.58	14.58	14.40	13.68	13.26	12.58	11.77	11.40	12.12	13.09	13.71
20	14.30	14.59	14.55	14.40	13.67	13.25	12.59	11.71	11.41	12.15	13.12	13.72
21	14.30	14.60	14.53	14.40	13.66	13.24	12.61	11.65	11.41	12.19	13.16	13.74
22	14.31	14.60	14.51	14.40	13.64	13.22	12.62	11.60	11.42	12.22	13.18	13.75
23	14.33	14.61	14.50	14.40	13.63	13.21	12.64	11.56	11.42	12.25	13.20	13.77
24	14.34	14.62	14.49	14.38	13.61	13.20	12.65	11.51	11.42	12.29	13.23	13.76
25	14.35	14.62	14.46	14.31	13.60	13.19	12.66	11.48	11.45	12.32	13.25	13.77
26	14.36	14.63	14.45	14.23	13.58	13.18	12.64	11.46	11.46	12.35	13.27	13.78
27	14.38	14.64	14.43	14.19	13.56	13.15	12.62	11.45	11.48	12.38	13.29	13.80
28	14.39	14.64	14.42	14.17	13.55	13.10	12.59	11.43	11.50	12.41	13.32	13.80
29	14.40	14.64	14.42	14.15	---	13.04	12.56	11.42	11.52	12.44	13.34	13.81
30	14.41	14.65	14.42	14.13	---	12.97	12.54	11.41	11.55	12.47	13.35	13.82
31	14.42	---	14.42	14.11	---	12.91	---	11.40	---	12.51	13.36	---
MEAN	14.26	14.55	14.59	14.39	13.80	13.28	12.62	11.99	11.42	12.02	12.99	13.63
LOW	14.42	14.65	14.71	14.52	14.08	13.54	12.85	12.52	11.55	12.51	13.36	13.82
HIGH	14.09	14.43	14.42	14.11	13.55	12.91	12.54	11.40	11.38	11.57	12.53	13.3
WTR YR 2002	INSTANTANEOUS	HIGH	11.38	JUNE 1, 2, 9, 16-18	LOW	14.71	DEC	11-13				

GROUND-WATER LEVELS IN MASSACHUSETTS

ESSEX COUNTY--Continued

424520070562401. Newbury well NIW 27.

LOCATION.--Lat 42°45'20", long 70°56'24", Essex County, Hydrologic Unit 01090001, about 300 ft east of Interstate Highway 95 and 100 ft north of Central Street in Newbury.

Owner: Private owner.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 31 in., depth 19.8 ft, cased with tile to 19.8 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric tape by observer. Continuous graphic recorder January 1967 to September 1982, digital recorder (60-minute punch) October 1984 to current year.

DATUM.--Elevation of land-surface datum is 55 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of hole in base of steel recorder shelter, 2.15 ft above land-surface datum. Prior to October 1978, 2.0 ft above land-surface datum; October 1978 to Sept. 18, 1990, 1.95 ft above land-surface datum.

REMARKS.--Missing periods of more than one day are not estimated.

PERIOD OF RECORD.--February 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.94 ft below land-surface datum, Oct. 21, 1996; lowest, 12.68 ft below land-surface datum, Nov. 24, 1965.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.35	11.86	12.13	11.27	9.95	8.70	6.36	5.93	4.76	5.92	8.55	10.39
2	11.36	11.87	12.13	11.27	9.89	8.67	6.22	5.81	4.83	5.98	8.63	10.41
3	11.38	11.88	12.13	11.26	9.83	8.59	6.06	5.70	4.93	6.05	8.70	10.42
4	11.40	11.89	12.14	11.26	9.76	8.47	5.96	5.66	5.03	6.13	8.76	10.42
5	11.42	11.90	12.14	11.26	9.72	8.38	5.86	5.64	5.08	6.22	8.82	10.44
6	11.44	11.91	12.15	11.26	9.70	8.28	5.78	5.63	5.13	6.32	8.89	10.46
7	11.46	11.92	12.15	11.26	9.68	8.20	5.77	5.61	5.18	6.42	8.96	10.49
8	11.48	11.93	12.15	11.26	9.65	8.15	5.77	5.63	5.20	6.52	9.03	10.53
9	11.51	11.94	12.15	11.25	9.66	8.11	5.77	5.67	5.23	6.62	9.10	10.56
10	11.54	11.94	12.12	11.23	9.66	8.05	5.80	5.68	5.28	6.71	9.17	10.60
11	11.56	11.95	12.13	11.22	9.61	8.04	5.87	5.75	5.33	6.82	9.24	10.63
12	11.58	11.96	12.13	11.21	9.52	8.04	5.91	5.82	5.37	6.92	9.31	10.67
13	11.61	11.97	12.13	11.19	9.41	8.02	5.92	5.83	5.41	7.02	9.39	10.72
14	11.63	11.98	12.12	11.15	9.38	8.00	5.95	5.49	5.44	7.12	9.46	10.76
15	11.65	11.99	12.10	11.10	9.34	8.01	5.99	4.99	5.47	7.22	9.54	10.81
16	11.67	12.00	12.06	11.05	9.30	8.01	6.03	4.82	5.40	7.32	9.60	10.85
17	11.68	12.01	12.02	10.99	9.28	8.04	6.07	4.75	5.30	7.43	9.67	10.87
18	11.68	12.02	11.91	10.95	9.27	8.05	6.11	4.72	5.26	7.52	9.73	10.88
19	11.68	12.03	11.82	10.91	9.25	8.04	6.15	4.56	5.27	7.61	9.80	10.91
20	11.68	12.04	11.74	10.88	9.22	8.02	6.17	4.44	5.31	7.69	9.87	10.93
21	11.69	12.05	11.67	10.86	9.18	7.95	6.22	4.39	5.36	7.77	9.94	10.96
22	11.70	12.06	11.62	10.83	9.11	7.79	6.28	4.38	5.40	7.85	10.00	10.99
23	11.72	12.07	11.59	10.81	9.04	7.63	6.33	4.39	5.44	7.93	10.05	11.02
24	11.73	12.08	11.55	10.76	8.98	7.50	6.40	4.38	5.47	8.02	10.10	11.00
25	11.75	12.09	11.50	10.65	8.91	7.41	6.46	4.46	5.54	8.10	10.14	10.99
26	11.76	12.10	11.45	10.48	8.83	7.36	6.46	4.53	5.61	8.17	10.19	10.99
27	11.77	12.11	11.40	10.32	8.77	7.23	6.45	4.60	5.67	8.23	10.23	10.99
28	11.79	12.12	11.36	10.19	8.72	7.00	6.39	4.66	5.73	8.29	10.28	10.97
29	11.81	12.12	11.32	10.10	---	6.77	6.25	4.68	5.80	8.34	10.33	10.96
30	11.82	12.13	11.30	10.04	---	6.57	6.09	4.70	5.87	8.40	10.35	10.94
31	11.84	---	11.28	10.00	---	6.45	---	4.73	---	8.48	10.37	---
MEAN	11.62	12.00	11.86	10.91	9.38	7.86	6.09	5.10	5.34	7.26	9.55	10.75
LOW	11.84	12.13	12.15	11.27	9.95	8.70	6.46	5.93	5.87	8.48	10.37	11.02
HIGH	11.35	11.86	11.28	10.00	8.72	6.45	5.77	4.38	4.76	5.92	8.55	10.39
WTR YR 2002	INSTANTANEOUS	HIGH	4.38	MAY 21-24	LOW	12.16	DEC 8, 9					

GROUND-WATER LEVELS IN MASSACHUSETTS

ESSEX COUNTY--Continued

423845070542501. Topsfield well TQW 1.

LOCATION.--Lat 42°38'45", long 70°54'25", Essex County, Hydrologic Unit 01090001, 0.7 mi south of Ipswich Road and 120 ft west of Hamilton Road in Topsfield.

Owner: Private owner.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in., depth 22.5 ft, cased with stone to 22.5 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 130 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of steel rim in concrete cover, 0.6 ft above land-surface datum.

PERIOD OF RECORD.--February 1936 to October 1947, April 1957 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.22 ft below land-surface datum, Mar. 23, 1983; lowest measured, 17.52 ft below land-surface datum, Jan. 27, 1966.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	15.67	DEC 28	16.60	FEB 25	14.85	APR 26	10.15	JUN 24	11.11	AUG 28	14.19
NOV 27	16.40	JAN 30	16.00	MAR 27	11.91	MAY 29	9.31	JUL 29	12.74	SEP 30	15.09
WATER YEAR 2002	HIGHEST	9.31	MAY 29, 2002	LOWEST	16.60	DEC 28, 2001					

423505070491702. Wenham well WPW 76.

LOCATION.--Lat 42°35'05", long 70°49'17", Essex County, Hydrologic Unit 01090001, 45 ft west of State Highway 128 and 120 ft of Grapevine Road in Wenham.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 22.0 ft, screened 20.0 to 22.0 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 60 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.39 ft below land-surface datum, Jan. 26, 1978; lowest measured, 4.65 ft below land-surface datum, Aug. 30, 1995.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	3.69	DEC 28	3.10	FEB 25	2.50	APR 26	2.21	JUN 20	2.80	AUG 28	3.98
NOV 27	3.86	JAN 30	2.51	MAR 27	1.93	MAY 29	2.38	JUL 29	3.30	SEP 30	3.63
WATER YEAR 2002	HIGHEST	1.93	MAR 27, 2002	LOWEST	3.98	AUG 28, 2002					

GROUND-WATER LEVELS IN MASSACHUSETTS

FRANKLIN COUNTY

423809072435601. Colrain well CSW 8.

LOCATION.--Lat 42°38'09", long 72°43'56", Franklin County, Hydrologic Unit 01080203, 15 ft east of State Highway 112 and 100 ft north of North River Bridge in Colrain.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in., depth 32.3 ft, screened 30.3 to 32.3 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 460 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.97 ft above land-surface datum, 1.66 ft prior to October 1995.

REMARKS.--Water levels affected by North River.

PERIOD OF RECORD.--December 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.68 ft below land-surface datum, Apr. 21, 1983 (revised); lowest measured, 23.48 ft below land-surface datum, Jan. 31, 1965.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	21.82	DEC 19	22.39	FEB 25	22.90	APR 25	20.95	JUN 26	17.81	AUG 27	20.10
NOV 27	22.32	JAN 28	22.90	MAR 21	22.62	MAY 28	18.39	JUL 29	18.80	SEP 23	20.94
WATER YEAR 2002		HIGHEST	17.81	JUN 26, 2002		LOWEST	22.90	JAN 28, 2002		FEB 25, 2002	

423310072355801. Deerfield well DFW 44.

LOCATION.--Lat 42°33'10", long 72°35'58", Franklin County, Hydrologic Unit 01080203, 1.2 mi south of Deerfield River Bridge and 15 ft east of U.S. Highway 5 in Deerfield.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 27.6 ft, screened 25.6 to 27.6 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 140 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--December 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.42 ft below land-surface datum, May 29, 1979; lowest measured, 6.16 ft below land-surface datum, Sept. 25, 1980.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	3.87	DEC 19	2.55	FEB 25	2.74	APR 25	2.65	JUN 26	2.70	AUG 27	4.76
NOV 27	3.91	JAN 28	3.00	MAR 21	2.39	MAY 28	2.67	JUL 29	3.11	SEP 23	4.07
WATER YEAR 2002		HIGHEST	2.39	MAR 21, 2002		LOWEST	4.76	AUG 27, 2002			

423339072524101. Hawley well HMW 8.

LOCATION.--Lat 42°33'39", long 72°52'41", Franklin County, Hydrologic Unit 01080206, in state forest parking area on west side of Plainfield Road opposite East Cemetery.

Owner: State Forest.

AQUIFER.--Glacial till and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 17 ft, screened 7 to 17 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 1700 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.18 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.48 ft below land-surface datum, Apr. 25, 1996; lowest measured, 6.92 ft below land-surface datum, Sept. 27, 1995.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	4.83	DEC 19	4.36	FEB 25	4.07	APR 25	3.59	JUN 26	3.48	AUG 27	5.38
NOV 27	5.46	JAN 28	4.79	MAR 21	4.02	MAY 28	3.17	JUL 29	4.16	SEP 23	5.71
WATER YEAR 2002		HIGHEST	3.17	MAY 28, 2002		LOWEST	5.71	SEP 23, 2002			

GROUND-WATER LEVELS IN MASSACHUSETTS

FRANKLIN COUNTY--Continued

423441072170701. Orange well ORW 63.

LOCATION.--Lat 42°34'41", long 72°17'07", Franklin County, Hydrologic Unit 01080202, at Orange Airport, 100 ft along and 50 ft northwest of main entrance road to airport, off East River Street in Orange.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 20.6 ft, screened 18.6 to 20.6 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 530 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.75 ft above land-surface datum, 3.45 ft prior to May 1992.

PERIOD OF RECORD.--January 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.81 ft below land-surface datum, Apr. 25, 1996; lowest measured, 8.74 ft below land-surface datum, Nov. 27, 2001.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	8.51	DEC 19	8.68	FEB 25	8.31	APR 25	7.45	JUN 26	6.79	AUG 27	8.11
NOV 27	8.74	JAN 28	8.58	MAR 21	7.92	MAY 28	6.69	JUL 29	7.56	SEP 23	8.42
WATER YEAR 2002	HIGHEST	6.69	MAY 28, 2002	LOWEST	8.74	NOV 27, 2001					

422607072324401. Sunderland well S6W 7.

LOCATION.--Lat 42°26'07", long 72°32'44", Franklin County, Hydrologic Unit 01080201, about 100 ft east of State Highway 116 and 30 ft north of Russellville Brook in Sunderland.

Owner: Sunderland Water Department.

AQUIFER.--Glacial outwash of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2.5 in., depth 54 ft, cased to 54 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 210 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, at land-surface datum.

REMARKS.--Water level affected by pumping and nearby Russellville Brook.

PERIOD OF RECORD.--November 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.25 ft below land-surface datum, Apr. 24, 1984; lowest measured, 23.27 ft below land-surface datum, Apr. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	18.06	DEC 19	19.95	FEB 25	21.58	APR 25	23.27	JUN 26	20.31	AUG 27	19.62
NOV 27	18.45	JAN 28	20.24	MAR 21	22.43	MAY 28	20.10	JUL 29	19.68	SEP 23	20.21
WATER YEAR 2002	HIGHEST	18.06	OCT 24, 2001	LOWEST	23.27	APR 25, 2002					

422559072332402. Sunderland well S6W 68.

LOCATION.--Lat 42°25'59", long 72°33'24", Franklin County, Hydrologic Unit 01080201, about 175 ft east of North Plain Road and 500 ft north of Plum Tree Road in Sunderland.

Owner: Private owner.

AQUIFER.--Glacial lacustrine deposits of late Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in., depth 28 ft, screened 25 to 28 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 160 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--October 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.09 ft below land-surface datum, Oct. 22, 1989, May 21, 1990; lowest measured, 5.41 ft below land-surface datum, Sept. 23, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	4.53	DEC 19	4.22	FEB 25	4.29	APR 25	4.00	JUN 26	3.96	AUG 27	5.19
NOV 27	4.78	JAN 28	4.74	MAR 21	3.97	MAY 28	3.49	JUL 29	4.68	SEP 23	5.41
WATER YEAR 2002	HIGHEST	3.49	MAY 28, 2002	LOWEST	5.41	SEP 23, 2002					

GROUND-WATER LEVELS IN MASSACHUSETTS

HAMPDEN COUNTY

421228072585301. Blandford well BEW 9.

LOCATION.--Lat 42°12'28", long 72°58'53", Hampden County, Hydrologic Unit 01080206, 10 ft west of Blair Road and 0.25 mi south of intersection with North Blandford Road.

Owner: Springfield Water Department.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 15 ft, screened 5 to 15 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 1140 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.39 ft below land-surface datum, June 27, 2002; lowest measured, 4.60 ft below land-surface datum, Aug. 24, 1995.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	2.18	DEC 20	2.08	FEB 26	2.29	APR 26	1.99	JUN 27	1.39	AUG 28	3.14
NOV 28	2.21	JAN 29	2.35	MAR 22	2.09	MAY 29	2.12	JUL 30	2.67	SEP 24	2.91
WATER YEAR	2002	HIGHEST	1.39	JUN 27, 2002	LOWEST	3.14	AUG 28, 2002				

421012072324501. Chicopee well CMW 95.

LOCATION.--Lat 42°10'12", long 72°32'45", Hampden County, Hydrologic Unit 01080204, in Chicopee Memorial State Park, 100 ft east of check-in house on north side of road in Chicopee.

Owner: Commonwealth of Massachusetts.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0-in. PVC, depth 34.0 ft, screened 30.0 to 34.0 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 200 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.48 ft above land-surface datum, 3.0 ft prior to October 1995.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.40 ft below land-surface datum, Aug. 21, 1984; lowest measured, 24.03 ft below land-surface datum, Sept. 23, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	22.56	DEC 19	23.16	FEB 25	23.60	APR 25	23.69	JUN 26	23.01	AUG 27	23.78
NOV 27	22.94	JAN 28	23.44	MAR 21	23.72	MAY 28	23.30	JUL 29	23.43	SEP 23	24.03
WATER YEAR	2002	HIGHEST	22.56	OCT 24, 2001	LOWEST	24.03	SEP 23, 2002				

420357072511601. Granville well GLW 5.

LOCATION.--Lat 42°03'57", long 72°51'16", Hampden County, Hydrologic Unit 01080206, near Granville Public School, 275 ft south of State Highway 57 and 0.2 mi west of Sodom Street in Granville.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 67.7 ft, screened 65.7 to 67.7 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 675 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.06 ft below land-surface datum, June 21, 1983; lowest, 37.20 ft below land-surface datum, Jan. 24, 1966.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	34.29	DEC 20	35.27	JAN 29	35.71	FEB 26	35.88	MAR 22	35.98	AUG 28	35.09
NOV 28	34.92										
WATER YEAR	2002	HIGHEST	34.29	OCT 25, 2001	LOWEST	35.98	MAR 22, 2002				

GROUND-WATER LEVELS IN MASSACHUSETTS

HAMPDEN COUNTY--Continued

420259072581701. Granville well GLW 6.

LOCATION.--Lat 42°02'59", long 72°58'17", Hampden County, Hydrologic Unit 01080207, at Granville State Forest, 20 ft west of West Hartland Road and 0.9 mi north of state boundary in Granville.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 20.8 ft, screened 18.8 to 20.8 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 1,160 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.78 ft above land-surface datum, 2.5 ft prior to October 1995.

REMARKS.--Water levels affected by Halfway Brook.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.49 ft below land-surface datum, Apr. 26, 1972; lowest measured, 8.50 ft below land-surface datum, Aug. 23, 1993.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	6.94	DEC 20	5.84	FEB 26	5.77	APR 26	5.30	JUN 27	5.30	AUG 28	8.38
NOV 28	7.34	JAN 29	6.78	MAR 22	5.24	MAY 29	4.49	JUL 30	7.55	SEP 24	8.31
WATER YEAR 2002		HIGHEST	4.49	MAY 29, 2002		LOWEST	8.38	AUG 28, 2002			

421240072490201. Montgomery well M7W 19.

LOCATION.--Lat 42°12'40", long 72°49'02", Hampden County, Hydrologic Unit 01080206, at corner of Russell Road and road to cemetery, about 500 ft south of intersection of Main Road and Russell Road.

Owner: Westfield Water Department.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 18 ft, screened 8 to 18 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 1060 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.0 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, +0.33 ft above land-surface datum, Feb. 25, 1998; lowest measured, 4.31 ft below land-surface datum, Sept. 21, 1993

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	3.03	DEC 20	2.69	FEB 26	2.53	APR 26	1.70	JUN 27	1.18	AUG 28	3.63
NOV 28	3.33	JAN 29	3.01	MAR 22	2.15	MAY 29	.89	JUL 30	2.23	SEP 24	3.83
WATER YEAR 2002		HIGHEST	0.89	MAY 29, 2002		LOWEST	3.83	SEP 24, 2002			

420430072491201. Southwick well SVW 95.

LOCATION.--Lat 42°04'30", long 72°49'12", Hampden County, Hydrologic Unit 01080206, in garden 100 ft north of Route 57 and about 600 ft west of intersection with Loomis Street.

Owner: Private owner.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 37 ft, screened 27 to 37 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 270 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.5 ft above land-surface datum, 3.0 ft prior to October 1995.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.66 ft below land-surface datum, July 24, 1989; lowest measured, 6.52 ft below land-surface datum, Sept. 24, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	5.84	DEC 20	5.82	FEB 26	6.17	APR 26	6.04	JUN 27	5.27	AUG 28	6.33
NOV 28	6.16	JAN 29	6.38	MAR 22	5.94	MAY 29	5.17	JUL 30	5.88	SEP 24	6.52
WATER YEAR 2002		HIGHEST	5.17	MAY 29, 2002		LOWEST	6.52	SEP 24, 2002			

GROUND-WATER LEVELS IN MASSACHUSETTS

HAMPDEN COUNTY--Continued

420646072420101. Westfield well WVW 62.

LOCATION.--Lat 42°06'46", long 72°42'01", Hampden County, Hydrologic Unit 01080206, at Western Massachusetts Hospital about 200 ft east of East Mountain Road and 0.4 mi north of U.S. Highway 20 in Westfield.

Owner: Commonwealth of Massachusetts.

AQUIFER.--Glacial outwash of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2.5 in., depth 22 ft, casing information not available.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 210 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.5 ft above land-surface datum.

REMARKS.--Water level affected by pumping.

PERIOD OF RECORD.--August 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.70 ft below land-surface datum, Oct. 29, 1975; lowest measured, well dry, Sept. 22, 1983, Nov. 21, 1983.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	9.78	DEC 20	10.35	FEB 26	10.28	APR 26	9.13	JUN 27	8.10	AUG 28	10.27
NOV 28	10.18	JAN 29	10.63	MAR 22	9.86	MAY 29	7.93	JUL 30	9.23	SEP 24	10.82
WATER YEAR	2002	HIGHEST	7.93	MAY 29, 2002	LOWEST	10.82	SEP 24, 2002				

420924072422602. Westfield well WVW 152.

LOCATION.--Lat 42°09'24", long 72°42'26", Hampden County, Hydrologic Unit 01080206, about 100 ft south of Owen District Road, 0.4 mi west of intersection of Owen District Road and Mountain Road at East Mountain Country Club, 0.4 mi east of Barnes Municipal Airport.

Owner: City of Westfield.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2.0 in., depth 16 ft, screened 6 to 16 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 215.69 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.0 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.43 ft below land-surface datum, Feb. 20, 1997; lowest measured, 4.72 ft below land-surface datum, Dec. 21, 1986, Jan. 24, 1987.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	3.15	DEC 20	2.72	FEB 26	3.16	APR 26	3.20	JUN 27	3.32	AUG 28	3.65
NOV 28	3.08	JAN 29	3.17	MAR 22	2.85	MAY 29	3.19	JUL 30	3.54	SEP 24	3.58
WATER YEAR	2002	HIGHEST	2.72	DEC 20, 2001	LOWEST	3.65	AUG 28, 2002				

420905072254001. Wilbraham well XJW 55.

LOCATION.--Lat 42°09'05", long 72°25'40", Hampden County, Hydrologic Unit 01080204, 45 ft south of U.S. Highway 20 and 0.1 mi west of North Main Street in Wilbraham.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 62.5 ft, screened 60.5 to 62.5 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 255 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.07 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.15 ft below land-surface datum, Jan. 2, 1997; lowest measured, 45.44 ft below land-surface datum, Jan. 24, 1966.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	43.02	DEC 19	44.37	FEB 25	44.63	APR 25	43.60	JUN 26	39.11	AUG 27	42.34
NOV 27	43.90	JAN 28	44.77	MAR 21	44.50	MAY 28	41.00	JUL 29	40.80	SEP 23	43.18
WATER YEAR	2002	HIGHEST	39.11	JUN 26, 2002	LOWEST	44.77	JAN 28, 2002				

GROUND-WATER LEVELS IN MASSACHUSETTS

HAMPSHIRE COUNTY

422733072532601. Cummington well CYW 13.

LOCATION.--Lat 42°27'33", long 72°53'26", Hampshire County, Hydrologic Unit 01080206, at end of dirt road between lumber yard and elementary school in Cummington center.

Owner: Town of Cummington.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 39 ft, screened 29 to 39 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 988 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.59 ft above land-surface datum, 3.0 ft prior to October 1995.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.10 ft below land-surface datum, Apr. 21, 1993; lowest measured, 6.52 ft below land-surface datum, Sept. 23, 1993.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	6.00	DEC 19	5.29	FEB 25	5.40	APR 25	4.80	JUN 26	4.90	AUG 27	6.36
NOV 27	6.00	JAN 28	5.56	MAR 21	5.27	MAY 28	4.44	JUL 29	5.86	SEP 23	6.29
WATER YEAR 2002	HIGHEST	4.44	MAY 28, 2002	LOWEST	6.36	AUG 27, 2002					

421355072322001. Granby well GKW 68.

LOCATION.--Lat 42°13'55", long 72°32'20", Hampshire County, Hydrologic Unit 01080201, about 15 ft east of Morgan Street, 0.3 mi south of East Street, and 2.0 mi southwest of Granby.

Owner: Holyoke Water Power Co.

AQUIFER.--Glacial outwash of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in., depth 18 ft, screened 16 to 18 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 239.17 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--April 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.25 ft below land-surface datum, Apr. 21, 1983; lowest measured, 11.17 ft below land-surface datum, Nov. 25, 1964.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	10.58	DEC 19	10.80	FEB 25	9.93	APR 25	8.55	JUN 26	7.78	AUG 27	9.82
NOV 27	10.76	JAN 28	10.33	MAR 21	9.43	MAY 28	7.67	JUL 29	8.95	SEP 23	10.46
WATER YEAR 2002	HIGHEST	7.67	MAY 28, 2002	LOWEST	10.80	DEC 19, 2001					

GROUND-WATER LEVELS IN MASSACHUSETTS

HAMPSHIRE COUNTY--Continued

422103072241102. Pelham well PDW 23.

LOCATION.--Lat 42°21'03", long 72°24'11", Hampshire County, Hydrologic Unit 01080204, at Knight's Corner, 50 ft east of U.S. Highway 202 and 75 ft south of small pond in Pelham.

Owner: Massachusetts Department of Public Works.

AQUIFER.--Bedrock.

WELL CHARACTERISTICS.--Air-percussion observation water-table well, diameter 6.0 in., depth 740 ft, cased to 740 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric tape by USGS personnel. Continuous graphic recorder October 1981 to December 1983, April 1986 to October 1991; digital recorder (60-minute punch) October 1991 to current year, satellite telemeter since September 2001.

DATUM.--Elevation of land-surface datum is 939 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of hole in base of aluminum recorder shelter, 1.53 ft above land-surface datum, 1.60 ft prior to November 1995.

REMARKS.--Water levels affected by unknown pumping, regulation, or construction; missing periods of more than one day are not estimated.

PERIOD OF RECORD.--October 1981 to October 1991; digital recorder (60-minute interval) October 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.44 ft below land-surface datum, Apr. 7, 1982; lowest, 24.04 ft below land-surface datum, May 5, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.28	17.62	17.68	17.23	16.79	16.35	15.57	15.77	15.57	16.18	17.12	18.26
2	17.19	17.58	17.68	17.23	16.72	16.38	15.53	15.72	15.74	16.20	17.21	18.21
3	17.18	17.52	17.68	17.29	16.70	16.24	15.46	15.70	15.81	16.16	17.24	18.17
4	17.16	17.51	17.74	17.26	16.63	16.14	15.43	15.72	15.85	16.12	17.36	18.16
5	17.14	17.52	17.73	17.26	16.69	16.16	15.44	15.71	15.83	16.09	17.36	18.19
6	17.09	17.51	17.71	17.21	16.70	16.14	15.40	15.71	15.78	16.11	17.31	18.23
7	17.07	17.50	17.69	17.09	16.67	16.11	15.40	15.70	15.74	16.14	17.31	18.27
8	17.09	17.52	17.69	17.11	16.63	16.11	15.43	15.74	15.73	16.27	17.34	18.34
9	17.12	17.51	17.64	17.09	16.66	16.09	15.40	15.81	15.70	16.31	17.39	18.34
10	17.19	17.50	17.74	17.04	16.75	16.04	15.39	15.79	15.73	16.32	17.41	18.36
11	17.18	17.50	17.74	17.03	16.63	16.04	15.43	15.81	15.80	16.39	17.54	18.34
12	17.14	17.61	17.74	17.01	16.61	16.02	15.47	15.81	15.76	16.42	17.72	18.41
13	17.12	17.67	17.69	16.95	16.58	15.97	15.46	15.74	15.76	16.47	17.75	18.47
14	17.12	17.65	17.63	16.99	16.59	15.90	15.47	15.64	15.75	16.56	17.76	18.53
15	17.07	17.61	17.61	16.99	16.57	15.89	15.47	15.63	15.74	16.66	17.78	18.59
16	17.07	17.67	17.62	17.01	16.51	15.90	15.57	15.65	15.73	16.69	17.80	18.57
17	17.01	17.71	17.64	17.00	16.47	15.96	15.61	15.66	15.71	16.74	17.82	18.61
18	17.06	17.71	17.52	16.99	16.58	15.95	15.71	15.62	15.74	16.79	17.84	18.65
19	17.08	17.67	17.46	16.99	16.62	15.89	15.75	15.58	15.77	16.86	17.86	18.71
20	17.10	17.61	17.43	16.96	16.60	15.84	15.74	15.61	15.80	16.86	17.96	18.74
21	17.59	17.72	17.42	16.95	16.50	15.71	15.79	15.62	15.85	16.89	18.07	18.74
22	17.65	17.73	17.44	17.02	16.49	15.70	15.80	15.59	15.90	16.95	18.16	18.76
23	17.65	17.74	17.43	17.06	16.48	15.71	15.79	15.56	15.93	16.93	18.14	18.74
24	17.62	17.75	17.41	16.99	16.53	15.76	15.83	15.54	15.91	16.92	18.12	18.77
25	17.58	17.75	17.39	16.95	16.49	15.79	15.87	15.55	15.92	16.99	18.11	18.80
26	17.54	17.75	17.30	16.99	16.41	15.79	15.93	15.55	15.94	17.01	18.13	18.83
27	17.57	17.73	17.29	16.99	16.31	15.71	15.98	15.54	15.98	16.99	18.14	18.79
28	17.63	17.70	17.26	16.95	16.26	15.71	15.95	15.54	15.96	16.98	18.19	18.76
29	17.68	17.71	17.21	16.95	---	15.68	15.84	15.60	16.01	16.97	18.21	18.80
30	17.65	17.70	17.17	16.92	---	15.62	15.82	15.60	16.10	16.97	18.21	18.79
31	17.65	---	17.16	16.91	---	15.65	---	15.56	---	17.06	18.26	---
MEAN	17.30	17.63	17.53	17.05	16.58	15.93	15.62	15.66	15.82	16.61	17.76	18.53
LOW	17.68	17.75	17.74	17.29	16.79	16.38	15.98	15.81	16.10	17.06	18.26	18.83
HIGH	17.01	17.50	17.16	16.91	16.26	15.62	15.39	15.54	15.57	16.09	17.12	18.16
WTR YR 2002	INSTANTANEOUS	HIGH	15.37	APR 9, 10	LOW	18.85	SEP 26					

GROUND-WATER LEVELS IN MASSACHUSETTS

HAMPSHIRE COUNTY--Continued

422103072241103. Pelham well PDW 24.

LOCATION.--Lat 42°21'03", long 72°24'11", Hampshire County, Hydrologic Unit 01080204, at Knight's Corner, 50 ft east of U.S. Highway 202 and 75 ft south of small pond in Pelham.

Owner: Massachusetts Department of Public Works.

AQUIFER.--Glacial sand and till of the Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., PVC, depth 25.0 ft, screened 21.0 to 25.0 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 940 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.86 ft above land-surface datum, 3.0 ft prior to October 1995.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.80 ft below land-surface datum, Mar. 29, 1994; lowest water level measured, 8.35 ft below land-surface datum, Sept. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	7.51	JAN 03	6.75	FEB 26	5.65	APR 30	4.11	JUN 26	4.70	AUG 23	7.58
NOV 29	7.80	29	6.57	MAR 26	4.87	MAY 30	4.21	JUL 30	6.25	SEP 25	8.35
WATER YEAR 2002		HIGHEST	4.11	APR 30, 2002		LOWEST	8.35	SEP 25, 2002			

421627072201701. Ware well WEW 43.

LOCATION.--Lat 42°16'27", long 72°20'17", Hampshire County, Hydrologic Unit 01080204, 30 ft north of State Highway 9 and 200 ft east of Swift River in Ware.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 27.2 ft, screened 25.2 to 27.2 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 380 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

REMARKS.--Water levels affected by Swift River.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1975, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.08 ft below land-surface datum, Apr. 28, 1997; lowest measured, 11.51 ft below land-surface datum, Jan. 20, 1999.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	8.62	JAN 03	9.30	FEB 26	9.30	APR 30	8.99	JUN 26	9.01	AUG 23	9.00
NOV 27	8.75	29	9.40	MAR 26	9.27	MAY 30	8.73	JUL 30	8.82	SEP 25	9.00
WATER YEAR 2002		HIGHEST	8.62	OCT 24, 2001		LOWEST	9.40	JAN 29, 2002			

421923072451001. Westhampton well WXW 20.

LOCATION.--Lat 42°20'28", long 72°48'24", Hampshire County, Hydrologic Unit 01080206, 20 ft north of Northwest Road and 0.75 mi west of intersection of Kings Road and Northwest Road, 4 mi northwest of Westhampton.

Owner: Private owner.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 42 ft, screened 32 to 42 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 1175 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--July 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.17 ft below land-surface datum, May 29, 1996; lowest measured, 18.60 ft below land-surface datum, Feb. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	16.29	DEC 20	17.80	FEB 26	18.60	APR 26	15.38	JUN 27	10.19	AUG 28	13.88
NOV 28	17.24	JAN 29	18.45	MAR 22	18.30	MAY 29	11.38	JUL 30	12.03	SEP 24	15.31
WATER YEAR 2002		HIGHEST	10.19	JUN 27, 2002		LOWEST	18.60	FEB 26, 2002			

GROUND-WATER LEVELS IN MASSACHUSETTS

MIDDLESEX COUNTY

422812071244401. Acton well ACW 158.

LOCATION.--Lat 42°28'12", long 71°24'44", Middlesex County, Hydrologic Unit 01070005, 30 ft north of State Highway 2 and 150 ft east of Wetherbee Street in Acton.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 33.8 ft, screened 31.8 to 33.8 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape; digital recorder (60-minute interval) with satellite telemeter, since July 2001.

DATUM.--Elevation of land-surface datum is 153 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelf in base of steel shelter, 3.68 ft above land-surface datum. Prior to July 2001, top of casing, 3.60 ft above land-surface datum.

REMARKS.--Missing periods of more than one day are not estimated.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.98 ft below land-surface datum, Apr. 23, 1987; lowest measured, 21.86 ft below land-surface datum, Jan. 26, 1966.

DEPTH BELOW LAND S. DCP, in FT, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	18.24	18.32	18.94
2	---	---	---	---	---	---	---	---	---	e17.89	18.34	18.96
3	---	---	---	---	---	---	---	---	---	17.89	18.36	18.98
4	---	---	---	---	---	---	---	---	---	17.88	18.39	19.00
5	---	---	---	---	---	---	---	---	---	17.88	18.42	19.02
6	---	---	---	---	---	---	---	---	---	17.89	18.44	19.04
7	---	---	---	---	---	---	---	---	---	17.90	18.46	19.06
8	---	---	---	---	---	---	---	---	---	17.90	18.48	19.09
9	---	---	---	---	---	---	---	---	---	17.90	18.50	19.11
10	---	---	---	---	---	---	---	---	---	17.91	18.53	19.13
11	---	---	---	---	---	---	---	---	---	17.92	18.56	19.15
12	---	---	---	---	---	---	---	---	---	17.93	18.58	19.17
13	---	---	---	---	---	---	---	---	---	17.95	18.59	19.19
14	---	---	---	---	---	---	---	---	---	17.96	18.61	19.21
15	---	---	---	---	---	---	---	---	---	17.97	18.63	19.23
16	---	---	---	---	---	---	---	---	---	17.99	18.65	19.25
17	---	---	---	---	---	---	---	---	---	18.01	18.66	19.27
18	---	---	---	---	---	---	---	---	---	18.02	18.68	19.29
19	---	---	---	---	---	---	---	---	e17.84	18.04	18.69	19.31
20	---	---	---	---	---	---	---	---	---	18.06	18.71	19.33
21	---	---	---	---	e19.20	---	---	---	---	18.08	18.73	19.35
22	---	---	---	e19.18	---	---	---	---	---	18.09	18.75	19.37
23	e19.48	---	---	---	---	---	e17.18	e17.46	---	18.11	18.77	19.38
24	---	---	---	---	---	---	---	---	---	18.13	18.79	19.40
25	---	---	---	---	---	---	---	---	---	18.15	18.81	19.42
26	---	---	---	---	---	---	---	---	---	18.18	18.82	19.44
27	---	e19.43	---	---	---	---	---	---	---	18.20	18.84	19.45
28	---	---	---	---	---	e17.81	---	---	---	18.22	18.86	19.47
29	---	---	e19.08	---	---	---	---	---	---	18.25	18.88	19.49
30	---	---	---	---	---	---	---	---	---	18.27	18.90	19.50
31	---	---	---	---	---	---	---	---	---	18.29	18.92	---
MEAN	---	---	---	---	---	---	---	---	---	18.04	18.63	19.23
LOW	---	---	---	---	---	---	---	---	---	18.29	18.92	19.50
HIGH	---	---	---	---	---	---	---	---	---	17.88	18.32	18.94

WTR YR 2001 INSTANTANEOUS HIGH e17.18 APR 23 LOW 19.51 SEP 30
(includes monthly and recorded values)

e Estimated

GROUND-WATER LEVELS IN MASSACHUSETTS

MIDDLESEX COUNTY--Continued

422812071244401. Acton well ACW 158--Continued.

**DEPTH BELOW LAND S. DCP, in FT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.54	20.03	20.41	20.71	20.68	20.55	20.31	19.88	19.57	19.65	20.07	20.55
2	19.55	20.05	20.42	20.71	20.68	20.54	20.30	19.87	19.56	19.66	20.08	20.56
3	19.57	20.06	20.43	20.72	20.67	20.54	20.27	19.87	19.57	19.67	20.10	20.58
4	19.59	20.07	20.44	20.72	20.66	20.53	20.25	19.86	19.57	19.68	20.11	20.59
5	19.60	20.08	20.45	20.73	20.66	20.53	20.22	19.86	19.57	19.70	20.13	20.61
6	19.62	20.10	20.46	20.74	20.66	20.52	20.20	19.85	19.57	19.71	20.14	20.62
7	19.63	20.11	20.47	20.74	20.66	20.52	20.17	19.84	19.57	19.73	20.16	20.63
8	19.66	20.12	20.48	20.75	20.66	20.51	20.15	19.84	19.57	19.74	20.18	20.65
9	19.67	20.13	20.49	20.74	20.66	20.50	20.12	19.83	19.56	19.75	20.19	20.66
10	19.69	20.15	20.50	20.76	20.64	20.50	20.10	19.83	19.56	19.76	20.21	20.67
11	19.70	20.16	20.51	20.76	20.65	20.49	20.08	19.83	19.55	19.78	20.22	20.69
12	19.72	20.17	20.52	20.77	20.63	20.48	20.06	19.83	19.54	19.79	20.24	20.70
13	19.74	20.19	20.53	20.77	20.63	20.48	20.04	19.82	19.54	19.80	20.25	20.71
14	19.75	20.21	20.54	20.78	20.62	20.47	20.02	19.82	19.54	19.81	20.27	20.73
15	19.77	20.22	20.55	20.77	20.61	20.47	20.00	19.81	19.54	19.83	20.29	20.74
16	19.79	20.24	---	20.77	20.60	20.46	19.99	19.80	19.54	19.84	20.30	20.75
17	19.80	20.25	---	20.76	20.60	20.46	19.97	19.79	19.55	19.86	20.31	20.76
18	19.82	20.26	---	20.76	20.60	20.45	19.96	19.77	19.56	19.87	20.33	20.77
19	19.83	20.27	---	20.76	20.58	20.45	19.95	19.75	19.57	19.89	20.35	20.78
20	19.85	20.29	---	20.77	20.58	20.44	19.94	19.74	19.57	19.90	20.37	20.79
21	19.86	20.30	---	20.76	20.58	20.44	19.93	19.72	19.57	19.91	20.38	20.80
22	19.88	20.31	---	20.78	20.58	20.43	19.92	19.70	19.57	19.92	20.39	20.81
23	19.89	20.32	---	20.77	20.57	20.42	19.91	19.67	19.57	19.94	20.41	20.82
24	19.91	20.34	---	20.77	20.57	20.42	19.91	19.65	19.58	19.95	20.43	20.83
25	19.92	20.34	---	20.77	20.56	20.41	19.91	19.64	19.59	19.97	20.45	20.84
26	19.93	20.35	---	20.75	20.56	20.40	19.91	19.62	19.59	19.98	20.46	20.85
27	19.95	20.36	e20.69	20.73	20.55	20.39	19.91	19.61	19.60	20.00	20.47	20.86
28	19.97	20.38	20.69	20.71	20.55	20.38	19.90	19.60	19.62	20.01	20.49	20.88
29	19.98	20.39	20.69	20.71	---	20.36	19.89	19.59	19.64	20.02	20.50	20.88
30	19.99	20.40	20.70	20.70	---	20.35	19.89	19.58	19.65	20.04	20.52	20.89
31	20.01	---	20.70	20.69	---	20.33	---	19.57	---	20.05	20.54	---
MEAN	19.78	20.22	---	20.75	20.62	20.46	20.04	19.76	19.57	19.85	20.30	20.73
LOW	20.01	20.40	---	20.78	20.68	20.55	20.31	19.88	19.65	20.05	20.54	20.89
HIGH	19.54	20.03	---	20.69	20.55	20.33	19.89	19.57	19.54	19.65	20.07	20.55

WTR YR 2002 INSTANTANEOUS HIGH 19.52 OCT 1 LOW 20.90 SEP 30

e Estimated

423349071134101. Billerica well BCW 363.

LOCATION.--Lat 42°33'49", long 71°13'41", Middlesex County, Hydrologic Unit 01070002, 20 ft south of Baldwin Road and 50 ft west of Westminster Road in Billerica.

Owner: Private owner.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in., depth 15.5 ft, cased with stone to 15.5 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 166 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pipe on wooden cover, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--June 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.73 ft below land-surface datum, Apr. 1, 1993; lowest measured, dry Aug. 24, Sept. 22, Oct. 25, 1983.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	DRY	DEC 27	DRY	FEB 26	12.13	APR 30	8.71	JUN 20	9.10	AUG 27	12.14
NOV 26	DRY	JAN 28	DRY	MAR 26	9.86	MAY 28	8.20	JUL 30	11.80	SEP 26	DRY
WATER YEAR 2002		HIGHEST 8.20		MAY 28, 2002		LOWEST 12.14		AUG 27, 2002			

GROUND-WATER LEVELS IN MASSACHUSETTS

MIDDLESEX COUNTY--Continued

423546071190701.--Chelmsford well CHW 384.

LOCATION.--Lat 42°35'46", long 71°19'07", Middlesex County, Hydrologic Unit 0107000, 25 ft east of U.S. Highway 3 and 0.4 mi north of State Highway 129 in Chelmsford.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 42.0 ft, screened 40.0 to 42.0 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 125 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.2 ft above land-surface datum.

PERIOD OF RECORD.--May 1987 to September 2002 (destroyed).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.02 ft below land-surface datum, Mar. 28, 2001; lowest measured, 17.38 ft below land-surface datum, Nov. 26, 2001.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	16.46	DEC 20	17.37	FEB 26	16.33	APR 30	15.96	JUN 20	15.85	AUG 27	16.93
NOV 26	17.38	JAN 25	16.85	MAR 27	15.94	MAY 28	15.74	JUL 30	16.40	SEP 26	16.58
WATER YEAR 2002	HIGHEST	15.74	MAY 28, 2002	LOWEST	17.38	NOV 26, 2001					

422637071202701. Concord well CTW 165.

LOCATION.--Lat 42°26'37", long 71°20'27", Middlesex County, Hydrologic Unit 01070005, 30 ft south of State Highway 2 and 0.1 mi west of State Highway 126 in Concord.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 66.7 ft, screened 64.7 to 66.7 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 199.26 ft (revised) above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.5 ft above land-surface datum, 2.0 ft prior to October 1991.

PERIOD OF RECORD.--February 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.50 ft below land-surface datum, July 20, 1984; lowest measured, 47.10 ft below land-surface datum, Feb. 28, 1967.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	42.12	DEC 20	43.00	FEB 26	43.86	APR 30	44.35	JUN 20	44.22	AUG 27	44.68
NOV 26	42.70	JAN 28	43.55	MAR 26	44.19	MAY 28	44.29	JUL 30	44.47	SEP 26	44.95
WATER YEAR 2002	HIGHEST	42.12	OCT 24, 2001	LOWEST	44.95	SEP 26, 2002					

422650071214402. Concord well CTW 167.

LOCATION.--Lat 42°26'50", long 71°21'44", Middlesex County, Hydrologic Unit 01070005, 10 ft south of State Highway 2 and 10 ft west of Sudbury Road in Concord.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 24.8 ft, screened 21.8 to 24.8 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 135 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.3 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.47 ft below land-surface datum, Apr. 21, 1984; lowest measured, 11.46 ft below land-surface datum, Sept. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	10.63	DEC 20	11.36	FEB 26	10.03	APR 30	8.73	JUN 20	8.95	AUG 27	10.92
NOV 26	11.25	JAN 28	10.63	MAR 26	9.68	MAY 28	8.40	JUL 30	10.09	SEP 26	11.46
WATER YEAR 2002	HIGHEST	8.40	MAY 28, 2002	LOWEST	11.46	SEP 26, 2002					

GROUND-WATER LEVELS IN MASSACHUSETTS

MIDDLESEX COUNTY--Continued

422627071154002. Lexington well LTW 104.

LOCATION.--Lat 42°26'27", long 71°15'40", Middlesex County, Hydrologic Unit 01090001, at The Commonwealth of Massachusetts Department of Public Works maintenance depot, 0.2 mi west of State Highway 128 and 500 ft south of State Highway 2A in Lexington.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 20.7 ft, screened 18.7 to 20.7 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 180 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.5 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.72 ft below land-surface datum, Apr. 1, 1993; lowest measured, 4.35 ft below land-surface datum, Aug. 26, 1975.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	2.84	DEC 20	1.57	FEB 26	1.90	APR 30	1.05	JUN 20	1.95	AUG 27	3.78
NOV 26	3.07	JAN 28	1.65	MAR 26	1.85	MAY 31	1.45	JUL 30	3.00	SEP 26	2.19
WATER YEAR	2002	HIGHEST	1.05	APR 30, 2002		LOWEST	3.78	AUG 27, 2002			

424055071435301. Townsend well TRW 13.

LOCATION.--Lat 42°40'55", long 71°43'43", Middlesex County, Hydrologic Unit 01070004, 15 ft south of Dudley Road and 15 ft north of Turnpike Road in Townsend.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 32.9 ft, screened 30.9 to 32.9 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 313 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.55 ft below land-surface datum, Apr. 24, 1987; lowest measured, 17.41 ft below land-surface datum, Jan. 26, 1966.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	14.33	DEC 20	15.09	FEB 26	15.58	APR 30	14.33	JUN 20	13.17	AUG 27	13.89
NOV 26	14.80	JAN 25	15.41	MAR 26	15.20	MAY 29	13.52	JUL 30	13.42	SEP 30	14.40
WATER YEAR	2002	HIGHEST	13.17	JUN 20, 2002		LOWEST	15.58	FEB 26, 2002			

GROUND-WATER LEVELS IN MASSACHUSETTS

MIDDLESEX COUNTY--Continued

423115071032001. Wakefield well WAW 38.

LOCATION.--Lat 42°31'15", long 71°03'20", Middlesex County, Hydrologic Unit 01090001, 75 ft north of State Highway 128 and 0.4 mi southeast of Saugus River in Wakefield.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 25.5 ft, screened 23.5 to 25.5 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape; digital recorder (60-minute interval) with satellite telemeter since July 2001.

DATUM.--Elevation of land-surface datum is 80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of plywood floor in base of steel shelter, 3.54 ft above land-surface datum; prior to July 2001, top of casing, 3.45 ft above land-surface datum.

REMARKS.--Missing periods of more than one day are not estimated.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.92 ft below land-surface datum, Oct. 29, 1996; lowest measured, 9.99 ft below land-surface datum, Sept. 22, 1965.

DEPTH BELOW LAND S. DCP & LOGGER, in FT, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	7.35
2	---	---	---	---	---	---	---	---	---	---	---	7.41
3	---	---	---	---	---	---	---	---	---	---	---	7.44
4	---	---	---	---	---	---	---	---	---	---	---	7.48
5	---	---	---	---	---	---	---	---	---	---	---	7.51
6	---	---	---	---	---	---	---	---	---	---	---	7.55
7	---	---	---	---	---	---	---	---	---	---	---	7.58
8	---	---	---	---	---	---	---	---	---	---	---	7.61
9	---	---	---	---	---	---	---	---	---	---	e6.92	7.65
10	---	---	---	---	---	---	---	---	---	---	6.91	7.69
11	---	---	---	---	---	---	---	---	---	---	6.83	7.72
12	---	---	---	---	---	---	---	---	---	---	6.61	7.75
13	---	---	---	---	---	---	---	---	---	---	6.36	7.79
14	---	---	---	---	---	---	---	---	---	---	6.43	7.80
15	---	---	---	---	---	---	---	---	---	---	6.52	7.78
16	---	---	---	---	---	---	---	---	---	---	6.59	7.82
17	---	---	---	---	---	---	---	---	---	---	6.65	7.86
18	---	---	---	---	---	---	---	---	e6.39	---	6.71	7.89
19	---	---	---	---	---	---	---	---	---	---	6.77	7.92
20	---	---	---	---	---	---	---	---	---	---	6.81	7.94
21	---	---	---	---	e6.13	---	---	---	---	---	6.83	7.90
22	---	---	---	e6.45	---	---	---	---	---	---	6.86	7.78
23	---	---	---	---	---	---	---	---	---	---	6.91	7.73
24	---	---	---	---	---	---	---	e6.97	---	---	6.97	7.75
25	e7.20	---	---	---	---	---	e6.03	---	---	---	7.02	7.77
26	---	---	---	---	---	---	---	---	---	e7.01	7.06	7.74
27	---	---	---	---	---	e4.75	---	---	---	---	7.10	7.78
28	---	e5.87	---	---	---	---	---	---	---	---	7.15	7.82
29	---	---	e5.93	---	---	---	---	---	---	---	7.22	7.86
30	---	---	---	---	---	---	---	---	---	---	7.27	7.90
31	---	---	---	---	---	---	---	---	---	---	7.31	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	7.72
LOW	---	---	---	---	---	---	---	---	---	---	---	7.94
HIGH	---	---	---	---	---	---	---	---	---	---	---	7.35

WTR YR 2001 INSTANTANEOUS HIGH e4.75 MAR 27 LOW 7.94 SEP 20, 2

(includes monthly and recorded values)

e Estimated

GROUND-WATER LEVELS IN MASSACHUSETTS

MIDDLESEX COUNTY--Continued

423115071032001. Wakefield well WAW 38--Continued.

**DEPTH BELOW LAND S. DCP & LOGGER, in FT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.92	8.43	8.77	7.93	7.17	6.89	5.57	6.39	5.72	6.77	7.76	8.36
2	7.95	8.43	8.79	7.97	7.00	6.91	5.59	6.39	5.85	6.82	7.80	8.36
3	7.98	8.44	8.80	7.99	6.97	6.72	5.72	6.28	5.97	6.87	7.83	8.29
4	8.01	8.45	8.81	8.02	6.97	6.65	5.78	6.36	6.06	6.92	7.87	8.23
5	8.03	8.46	8.82	8.05	7.00	6.70	5.85	6.42	6.11	6.98	7.90	8.23
6	8.06	8.45	8.82	8.07	7.03	6.73	5.91	6.48	e6.09	7.03	7.94	8.26
7	8.09	8.46	8.84	7.97	7.05	6.78	5.99	6.52	e5.79	7.08	7.98	8.30
8	8.12	8.48	8.85	7.91	7.07	6.83	6.03	6.59	5.80	7.13	8.02	8.34
9	8.15	8.48	8.86	7.88	7.11	6.84	6.06	6.63	5.90	7.17	8.06	8.37
10	8.17	8.50	8.84	7.89	7.10	6.79	6.12	6.64	6.02	7.12	8.10	8.41
11	8.20	8.51	8.81	7.88	6.87	6.84	6.19	6.70	6.10	7.17	8.13	8.44
12	8.22	8.53	8.78	7.86	6.81	6.86	6.22	6.71	6.15	7.22	8.17	8.50
13	8.25	8.55	8.74	7.75	6.85	6.87	6.25	6.38	6.20	7.26	8.20	8.54
14	8.26	8.56	8.69	7.56	6.90	6.89	6.30	5.36	6.26	7.30	8.24	8.58
15	8.28	8.58	8.59	7.50	6.92	6.92	6.34	5.62	6.14	7.34	8.28	8.62
16	8.29	8.59	8.50	7.48	6.94	6.82	6.38	5.81	6.10	7.39	8.31	8.59
17	8.16	8.61	8.45	7.46	6.96	6.75	6.43	5.92	6.12	7.44	8.34	8.48
18	8.12	8.62	8.29	7.47	6.96	6.76	6.48	5.65	6.23	7.48	8.38	8.47
19	8.13	8.63	8.09	7.49	6.96	6.70	6.51	5.51	6.32	7.49	8.42	8.50
20	8.16	8.66	8.02	7.51	6.97	6.63	6.55	5.71	6.38	7.51	8.45	8.53
21	8.19	8.67	8.01	7.51	6.91	6.27	6.60	5.83	6.43	7.54	8.48	8.57
22	8.22	8.69	8.03	7.51	6.89	6.16	6.63	5.94	6.49	7.58	8.51	8.61
23	8.25	8.70	8.03	7.47	6.92	6.26	6.67	6.01	6.52	7.61	8.51	8.44
24	8.26	8.72	7.95	7.35	6.96	6.34	6.71	6.07	6.57	7.52	8.52	8.26
25	8.28	8.74	7.81	7.27	6.97	6.41	6.72	6.17	6.64	7.51	8.52	8.23
26	8.31	8.75	7.78	7.24	6.97	6.40	6.45	6.23	6.69	7.55	8.54	8.22
27	8.33	8.75	7.78	7.26	6.94	5.89	6.52	6.28	6.73	7.59	8.56	8.20
28	8.36	8.76	7.80	7.26	6.86	5.93	6.49	6.27	6.62	7.62	8.59	8.14
29	8.37	8.77	7.83	7.28	---	6.04	6.33	6.08	6.64	7.64	8.59	8.10
30	8.39	8.77	7.87	7.28	---	6.08	6.33	5.32	6.72	7.67	8.42	8.10
31	8.42	---	7.90	7.26	---	6.14	---	5.56	---	7.72	8.37	---
MEAN	8.19	8.59	8.39	7.62	6.97	6.57	6.26	6.12	6.25	7.32	8.25	8.38
LOW	8.42	8.77	8.86	8.07	7.17	6.92	6.72	6.71	6.73	7.72	8.59	8.62
HIGH	7.92	8.43	7.78	7.24	6.81	5.89	5.57	5.32	5.72	6.77	7.76	8.10

WTR YR 2002 INSTANTANEOUS HIGH 5.22 MAY 30 LOW 8.86 DEC 8-10

e Estimated

421852071220501. Wayland well WKW 2.

LOCATION.--Lat 42°18'52", long 71°22'05", Middlesex County, Hydrologic Unit 01070005, 0.25 mi west of State Highway 27 and 100 ft south of State Highway 30, at Cochituate State Park in Wayland.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 33.0 ft, screened 31.0 to 33.0 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 157.75 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.76 ft above land-surface datum, 4.0 ft prior to April 1993.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.96 ft below land-surface datum, Mar. 27, 1972; lowest measured, 18.10 below land-surface datum, Sept. 26, 1995.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	17.33	DEC 20	17.48	FEB 26	17.06	APR 30	16.29	JUN 20	15.94	AUG 27	17.08
NOV 26	17.55	JAN 28	17.15	MAR 26	16.74	MAY 28	15.98	JUL 30	16.63	SEP 26	17.32
WATER YEAR 2002		HIGHEST 15.94		JUN 20, 2002		LOWEST 17.55		NOV 26, 2001			

GROUND-WATER LEVELS IN MASSACHUSETTS

MIDDLESEX COUNTY--Continued

423401071093801. Wilmington well XMW 78.

LOCATION.--Lat 42°34'01", long 71°09'38", Middlesex County, Hydrologic Unit 01090001, at building formerly known as Whitefield Public School in Wilmington, about 30 ft west of State Highway 62, and 0.3 mi north of Concord Street.

Owner: Town of Wilmington.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 42 in., depth 12 ft, cased with stone to 12 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric tape by observer. Continuous graphic recorder March 1958 to September 1982, digital recorder (60-minute interval) October 1984 to current year; satellite telemeter since February 2001.

DATUM.--Elevation of land-surface datum is 95 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of hole in base of steel recorder shelter, 0.27 ft above land-surface datum, 0.42 ft prior to May 1991.

REMARKS.--Missing periods of more than one day are not estimated.

PERIOD OF RECORD.--July 1951 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.12 ft below land-surface datum, Mar. 30, 2001; lowest, 11.27 ft below land-surface datum, Oct. 30, 1957.

**DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.21	9.63	9.81	9.21	8.80	8.33	7.58	7.80	7.49	8.16	9.08	9.83
2	9.22	9.65	9.82	9.21	8.78	8.32	7.56	7.78	7.52	8.19	9.11	9.84
3	9.24	9.65	9.82	9.19	8.74	8.29	7.52	7.75	7.58	8.23	9.14	9.84
4	9.25	9.66	9.83	9.19	8.71	8.26	7.48	7.75	7.62	8.26	9.16	9.83
5	9.27	9.67	9.83	9.19	8.69	8.23	7.43	7.73	7.65	8.30	9.18	9.83
6	9.29	9.68	9.83	9.19	8.67	8.20	7.39	7.71	7.68	8.34	9.21	9.85
7	9.31	9.69	9.83	9.18	8.65	8.18	7.38	7.71	7.64	8.38	9.24	9.85
8	9.34	9.69	9.83	9.18	8.63	8.16	7.37	7.73	7.59	8.42	9.27	9.86
9	9.35	9.70	9.84	9.18	8.63	8.14	7.36	7.75	7.59	8.46	9.30	9.87
10	9.37	9.70	9.84	9.17	8.62	8.12	7.39	7.77	7.63	8.50	9.33	9.88
11	9.39	9.71	9.84	9.17	8.56	8.12	7.45	7.83	7.67	8.53	9.36	9.90
12	9.41	9.71	9.84	9.17	8.55	8.11	7.47	7.86	7.70	8.57	9.39	9.91
13	9.43	9.72	9.83	9.15	8.55	8.10	7.49	7.75	7.72	8.61	9.42	9.93
14	9.44	9.73	9.81	9.11	8.54	8.10	7.52	7.43	7.75	8.65	9.45	9.94
15	9.46	9.73	9.77	9.10	8.54	e8.11	7.57	7.42	e7.76	8.69	9.48	9.96
16	9.48	9.74	9.73	9.10	8.53	8.11	7.60	7.37	7.78	8.73	9.51	9.97
17	9.45	9.74	9.69	9.08	8.52	8.14	7.63	7.32	7.79	8.76	9.54	9.99
18	9.48	9.75	9.63	9.07	8.53	8.14	7.66	7.25	7.81	8.80	9.57	10.0
19	9.50	9.75	9.56	9.06	8.52	8.15	7.69	7.19	7.84	8.75	9.60	10.01
20	9.51	9.76	9.52	9.03	8.51	8.13	7.72	7.18	7.87	8.80	9.62	10.02
21	9.52	9.77	9.49	9.02	8.50	8.10	7.75	7.16	7.89	8.84	9.66	10.04
22	9.53	9.77	9.46	9.01	8.46	8.08	7.78	7.15	7.92	8.87	9.68	10.05
23	9.54	9.78	9.43	9.00	8.44	8.04	7.81	e7.15	7.94	8.90	9.70	9.94
24	9.55	9.79	9.39	8.98	8.42	8.02	7.85	7.16	7.97	8.91	9.73	9.94
25	9.55	9.79	9.35	8.97	8.40	8.00	7.87	7.24	8.01	8.93	9.75	9.95
26	9.57	9.80	9.32	8.95	8.37	7.97	7.87	7.29	8.04	8.94	9.77	9.96
27	9.58	9.80	9.30	8.93	8.35	7.93	7.88	7.34	8.07	8.96	9.79	9.96
28	9.59	9.81	9.27	8.90	8.34	7.87	7.87	7.39	8.09	8.98	9.81	9.94
29	9.61	9.81	9.25	8.88	---	7.82	7.84	7.42	8.10	9.00	9.83	9.90
30	9.62	9.81	9.24	8.86	---	7.77	7.83	7.44	8.13	9.03	9.82	9.88
31	9.63	---	9.22	8.83	---	7.74	---	7.46	---	9.06	9.81	---
MEAN	9.44	9.73	9.62	9.07	8.56	8.09	7.62	7.49	7.79	8.66	9.49	9.92
LOW	9.63	9.81	9.84	9.21	8.80	8.33	7.88	7.86	8.13	9.06	9.83	10.05
HIGH	9.21	9.63	9.22	8.83	8.34	7.74	7.36	7.15	7.49	8.16	9.08	9.83

WTR YR 2002 INSTANTANEOUS HIGH 7.15 MAY 22-24 LOW 10.07 SEP 23
e Estimated

422819071065701. Winchester well XOW 14.

LOCATION.--Lat 42°28'19", long 71°06'57", Middlesex County, Hydrologic Unit 01090001, at 220 Forest Street and 100 ft north of Forest Street in Winchester.

Owner: Private owner.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in., depth 17.0 ft, cased with stone to 17.0 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 116.29 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of angle iron, at land-surface datum.

PERIOD OF RECORD.--July 1940 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.03 ft below land-surface datum, Mar. 26, 1969; lowest measured, 15.60 ft below land-surface datum, Oct. 31, 1957.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	13.47	DEC 31	10.20	MAR 27	7.62	MAY 29	9.10	JUL 29	12.03	AUG 27	13.23
NOV 28	13.81	FEB 25	8.86	APR 26	10.16						
WATER YEAR 2002		HIGHEST	7.62	MAR 27, 2002		LOWEST	13.81	NOV 28, 2001			

GROUND-WATER LEVELS IN MASSACHUSETTS

NANTUCKET COUNTY

411555070021901. Nantucket well NBW 228.

LOCATION.--Lat 41°15'55", long 70°02'19", Nantucket County, Hydrologic Unit 01090002, 165 ft south of Milestone Road and 300 ft east of Madequecham Valley Brook in Nantucket.

Owner: Nantucket Conservation Foundation.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 35.6 ft, screened 32.6 to 35.6 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 39 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.34 ft above land-surface datum, 0.7 ft prior to November 1994.

PERIOD OF RECORD.--March 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.51 ft below land-surface datum, July 28, 1997; lowest measured, 27.90 ft below land-surface datum, Feb. 23, 1981.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	25.32	DEC 31	26.31	FEB 26	26.72	APR 23	26.13	JUN 25	24.90	AUG 27	25.25
NOV 30	25.86	JAN 29	26.63	MAR 22	26.71	MAY 23	25.26	JUL 23	24.90	SEP 25	25.64
WATER YEAR 2002	HIGHEST	24.90	JUN 25, 2002	LOWEST	26.72	FEB 26, 2002					

NORFOLK COUNTY

421250071090901. Dedham well DDW 231.

LOCATION.--Lat 42°12'50", long 71°09'09", Norfolk County, Hydrologic Unit 01090001, 50 ft south of State Highway 128 and 0.3 mi west of University Avenue in Dedham.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 21.9 ft, screened 19.9 to 21.9 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 65 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.3 ft above land-surface datum. Prior to July 17, 1978, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.45 ft below land-surface datum, Mar. 28, 1978; lowest measured, 15.95 ft below land-surface datum, Oct. 28, 1997.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	13.64	DEC 31	13.07	FEB 27	8.88	APR 24	6.54	JUN 28	7.20	AUG 26	12.64
NOV 29	14.21	JAN 28	11.36	MAR 28	5.81	MAY 31	5.11	JUL 30	10.76	SEP 26	13.24
WATER YEAR 2002	HIGHEST	5.11	MAY 31, 2002	LOWEST	14.21	NOV 29, 2001					

421435071165701. Dover well DVW 10.

LOCATION.--Lat 42°14'35", long 71°16'57", Norfolk County, Hydrologic Unit 01090001, at Dover Public School about 400 ft southwest of and about 400 ft west of Center Street in Dover.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in., depth 54 ft, screened 52 to 54 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 160 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.95 ft below land-surface datum, Apr. 20, 1987; lowest measured, 36.87 ft below land-surface datum, Jan. 21, 1966.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	34.56	DEC 20	35.52	FEB 27	35.57	APR 30	34.26	JUN 20	32.63	AUG 28	33.74
NOV 29	35.22	JAN 28	35.79	MAR 26	35.28	MAY 28	33.56	JUL 30	33.12	SEP 27	34.31
WATER YEAR 2002	HIGHEST	32.63	JUN 20, 2002	LOWEST	35.79	JAN 28, 2002					

GROUND-WATER LEVELS IN MASSACHUSETTS

NORFOLK COUNTY--Continued

420432071151201. Foxborough well FXW 3.

LOCATION.--Lat 42°04'32", long 71°15'12", Norfolk County, Hydrologic Unit 01090004, at Foxborough State Hospital, near railroad tracks, 100 ft east of driveway, and 250 ft north of Chestnut Street in Foxborough.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in., depth 32 ft, screened 30 to 32 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 290 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.24 ft below land-surface datum, Mar. 25, 1968; lowest measured, 21.42 ft below land-surface datum, Dec. 28, 1965.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	20.68	DEC 27	20.76	FEB 25	20.09	APR 30	19.22	JUN 24	18.96	AUG 26	20.37
NOV 28	20.91	JAN 30	20.41	MAR 26	19.49	MAY 29	18.77	JUL 30	19.78	SEP 24	20.22
WATER YEAR 2002	HIGHEST 18.77	MAY 29, 2002	LOWEST 20.91	NOV 28, 2001							

420717071221301 KINGSBURY POND NEAR NORFOLK, MA

LOCATION.--Lat 42°07'17", long 71°22'13", Norfolk County, Hydrologic Unit 01090001, on southeast corner of pond, 150 ft northwest of Miller Street, 2.3 mi west of Norfolk.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Standpipe, 3-in. diameter, with sealed bottom; connected through siphon effect with pond by 0.75-in. diameter polyethylene tubing.

INSTRUMENTATION.--Water-stage recorder.

DATUM.--Elevation of gage is measuring point at base of instrument shelter floor, 137.68 ft above National Geodetic Vertical Datum (NGVD) of 1929.

PERIOD OF RECORD.--November 2000 to current year.

REMARKS.--Missing periods of more than one day are not estimated.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 132.67 ft, June 17, 2001; minimum, 126.54 ft., Apr. 25, 2002.

ELEVATION, IN FEET ABOVE NGVD OF 1929, OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129.08	127.92	127.27	126.96	126.84	126.64	126.73	126.64	127.33	127.88	127.51	126.98
2	129.03	127.90	127.25	126.96	126.84	126.64	126.72	126.65	127.34	127.88	127.52	126.99
3	128.99	127.89	127.23	126.96	126.83	126.70	126.72	126.70	127.34	127.88	127.57	127.01
4	128.95	127.87	127.20	126.98	126.80	126.70	126.72	126.69	127.34	127.87	127.55	127.00
5	128.91	127.85	127.18	126.99	126.80	126.68	126.71	126.69	127.36	127.86	127.52	126.97
6	128.87	127.83	127.16	126.99	126.80	126.67	126.69	126.69	127.45	127.83	127.48	126.94
7	128.83	127.79	127.14	126.97	126.80	126.66	126.68	126.68	127.55	127.81	127.44	126.92
8	128.77	127.76	127.12	126.97	126.80	126.66	126.67	126.69	127.58	127.80	127.40	126.90
9	128.72	127.74	127.14	126.97	126.81	126.62	126.67	126.68	127.60	127.80	127.38	126.88
10	128.68	127.70	127.12	126.97	126.81	126.65	126.67	126.70	127.61	127.83	127.36	126.85
11	128.65	127.67	127.11	126.97	126.79	126.63	126.68	126.69	127.62	127.81	127.34	126.83
12	128.61	127.65	127.09	126.96	126.79	126.61	126.66	126.70	127.63	127.79	127.31	126.78
13	128.58	127.62	127.08	126.94	126.79	126.60	126.65	126.79	127.64	127.77	127.29	126.74
14	128.55	127.58	127.06	126.93	126.80	126.60	126.64	126.95	127.66	127.75	127.27	126.72
15	128.52	127.56	127.09	126.93	126.80	126.58	126.63	126.95	127.71	127.74	127.24	126.70
16	128.49	127.54	127.07	126.93	126.79	126.60	126.63	126.95	127.74	127.72	127.21	126.78
17	128.47	127.52	127.06	126.92	126.78	126.59	126.62	126.96	127.77	127.70	127.18	126.85
18	128.42	127.50	127.12	126.92	126.72	126.59	126.61	127.05	127.79	127.68	127.15	126.82
19	128.37	127.47	127.12	126.93	126.68	126.60	126.60	127.10	127.81	127.68	127.12	126.80
20	128.34	127.46	127.10	126.92	126.67	126.61	126.59	127.10	127.83	127.68	127.16	126.78
21	128.30	127.45	127.08	126.92	126.69	126.65	126.57	127.11	127.85	127.66	127.16	126.74
22	128.27	127.42	127.05	126.92	126.68	126.63	126.56	127.12	127.87	127.65	127.13	126.73
23	128.24	127.40	127.03	126.92	126.67	126.61	126.57	127.13	127.89	127.63	127.11	126.75
24	128.21	127.38	127.07	126.91	126.66	126.60	126.56	127.14	127.89	127.65	127.08	126.73
25	128.18	127.36	127.07	126.90	126.65	126.59	126.56	127.16	127.89	127.63	127.07	126.70
26	128.14	127.36	127.05	126.91	126.63	126.59	126.60	127.16	127.89	127.60	127.04	126.68
27	128.10	127.34	127.03	126.91	126.64	126.65	126.59	127.18	127.89	127.58	127.01	126.71
28	128.06	127.32	127.01	126.89	126.65	126.65	126.60	127.20	127.89	127.56	126.99	126.71
29	128.02	127.31	127.00	126.85	---	126.64	126.63	127.25	127.89	127.57	126.99	126.67
30	127.99	127.29	126.98	126.82	---	126.65	126.64	127.26	127.89	127.55	127.03	126.65
31	127.95	---	126.96	126.83	---	126.64	---	127.29	---	127.53	127.01	---
MEAN	128.49	127.58	127.10	126.93	126.75	126.63	126.64	126.94	127.68	127.72	127.25	126.81
MAX	129.08	127.92	127.27	126.99	126.84	126.70	126.73	127.29	127.89	127.88	127.57	127.01
MIN	127.95	127.29	126.96	126.82	126.63	126.58	126.56	126.64	127.33	127.53	126.99	126.65
WTR YR 2002	INSTANTANEOUS	MAX	129.10	OCT 1	MIN	126.54	APR 25					

GROUND-WATER LEVELS IN MASSACHUSETTS

NORFOLK COUNTY--Continued

420545071174001. Norfolk well NNW 27.

LOCATION.--Lat 42°05'45", long 71°17'40", Norfolk County, Hydrologic Unit 01090001, 15 ft northwest of State Highway 1A and 0.1 mi northeast of Valley Street in Norfolk.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in. (previously reported as 1.25 in.), depth 18.4 ft, screened 16.4 to 18.4 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape; digital recorder (60-minute interval) with satellite telemeter since August 2001.

DATUM.--Elevation of land-surface datum is 160 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of plywood floor in base of steel shelter, 3.57 ft above land-surface datum; prior to August 2001, top of casing, 1.7 ft above land-surface datum.

REMARKS.--Missing periods of more than one day are not estimated.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.94 ft below land-surface datum, Mar. 28, 2001, and Apr. 20, 1987; lowest measured, 7.99 ft below land-surface datum, July 30, 1997.

DEPTH BELOW LAND S. DCP & LOGGER, in FT, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	7.10
2	---	---	---	---	---	---	---	---	---	---	---	7.14
3	---	---	---	---	---	---	---	---	---	---	---	7.16
4	---	---	---	---	---	---	---	---	---	---	---	7.16
5	---	---	---	---	---	---	---	---	---	---	---	7.18
6	---	---	---	---	---	---	---	---	---	---	---	7.22
7	---	---	---	---	---	---	---	---	---	---	---	7.24
8	---	---	---	---	---	---	---	---	---	---	---	7.27
9	---	---	---	---	---	---	---	---	---	---	---	7.29
10	---	---	---	---	---	---	---	---	---	---	7.04	7.32
11	---	---	---	---	---	---	---	---	---	---	7.01	7.35
12	---	---	---	---	---	---	---	---	---	---	6.84	7.38
13	---	---	---	---	---	---	---	---	---	---	6.44	7.39
14	---	---	---	---	---	---	---	---	---	---	6.58	7.24
15	---	---	---	---	---	---	---	---	---	---	6.67	7.26
16	---	---	---	---	---	---	---	---	---	---	6.72	7.32
17	---	---	---	---	---	---	---	---	---	---	6.77	7.38
18	---	---	---	---	---	---	---	---	---	---	6.82	7.41
19	---	---	---	---	---	---	---	---	---	---	6.86	7.43
20	---	---	---	---	---	---	---	---	---	---	6.71	7.45
21	---	---	---	---	---	---	---	---	---	---	6.75	7.25
22	---	---	---	---	---	---	---	e5.53	---	---	6.83	7.16
23	---	---	---	---	e5.17	---	---	---	---	---	6.88	7.26
24	---	---	---	---	---	---	---	---	---	---	6.93	7.31
25	---	---	---	---	---	---	---	---	e5.15	---	6.97	7.26
26	---	---	---	e5.54	---	---	---	---	---	e6.46	7.00	7.23
27	---	---	---	---	---	---	e5.61	---	---	---	6.97	7.28
28	---	e5.34	e4.90	---	---	e3.94	---	---	---	---	6.91	7.32
29	---	---	---	---	---	---	---	---	---	---	7.00	7.34
30	e6.01	---	---	---	---	---	---	---	---	---	7.06	7.37
31	---	---	---	---	---	---	---	---	---	---	7.09	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	7.28
LOW	---	---	---	---	---	---	---	---	---	---	---	7.45
HIGH	---	---	---	---	---	---	---	---	---	---	---	7.10

WTR YR 2001 INSTANTANEOUS HIGH e3.94 MAR 28 LOW 7.45 SEP 20
(includes monthly and recorded values)

e Estimated

GROUND-WATER LEVELS IN MASSACHUSETTS

NORFOLK COUNTY--Continued

420545071174001. Norfolk well NNW 27--Continued.

DEPTH BELOW LAND S. DCP & LOGGER, in FT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.37	7.35	7.28	6.88	6.43	6.58	5.76	6.25	5.95	6.50	7.40	7.44
2	7.38	7.37	7.29	6.91	6.47	6.61	5.79	6.19	6.03	6.54	7.36	7.20
3	7.41	7.31	7.29	6.92	6.50	6.25	5.82	5.98	6.08	6.59	7.29	7.05
4	7.42	7.31	7.30	6.94	6.51	6.23	5.84	6.04	6.13	6.64	7.38	7.17
5	7.45	7.27	7.30	6.96	6.54	6.25	5.88	6.07	6.13	6.69	7.44	7.23
6	7.46	7.25	7.30	6.96	6.57	6.27	5.92	6.09	5.90	6.74	7.48	7.27
7	7.46	7.29	7.31	6.69	6.59	6.30	5.96	6.12	5.62	6.79	7.51	7.31
8	7.47	7.31	7.32	6.75	6.62	6.33	5.99	6.16	5.74	6.82	7.55	7.35
9	7.48	7.30	7.16	6.80	6.65	6.35	6.02	6.20	5.81	6.83	7.58	7.38
10	7.48	7.31	7.20	6.83	6.67	6.22	6.02	6.13	5.88	6.76	7.61	7.42
11	7.49	7.32	7.23	6.78	6.40	6.29	6.07	6.22	5.94	6.88	7.64	7.45
12	7.50	7.32	7.23	6.76	6.47	6.33	6.10	6.18	5.99	6.94	7.67	7.49
13	7.50	7.33	7.22	6.63	6.52	6.35	6.13	5.86	6.01	6.98	7.70	7.52
14	7.49	7.33	7.16	6.63	6.54	6.37	6.13	5.39	6.02	7.03	7.73	7.55
15	7.45	7.33	6.99	6.56	6.56	6.39	6.13	5.52	5.85	7.07	7.77	7.53
16	7.44	7.33	7.08	6.59	6.57	6.33	6.18	5.62	5.91	7.11	7.80	7.06
17	7.25	7.34	7.01	6.59	6.58	6.38	6.21	5.69	5.84	7.15	7.82	6.98
18	7.33	7.34	6.65	6.61	6.56	6.37	6.25	5.46	5.92	7.19	7.85	7.08
19	7.35	7.34	6.79	6.64	6.60	6.35	6.26	5.44	5.99	7.17	7.88	7.13
20	7.36	7.33	6.84	6.64	6.62	6.32	6.28	5.54	6.04	7.19	7.53	7.16
21	7.37	7.33	6.88	6.61	6.49	6.16	6.32	5.62	6.08	7.22	7.56	7.19
22	7.38	7.34	6.91	6.60	6.55	6.19	6.32	5.69	6.12	7.26	7.62	7.21
23	7.39	7.34	6.93	6.62	6.58	6.21	6.32	5.74	6.15	7.21	7.55	6.66
24	7.39	7.34	6.67	6.59	6.61	6.23	6.37	5.78	6.19	7.10	7.60	6.76
25	7.39	7.32	6.71	6.59	6.63	6.26	6.35	5.84	6.24	7.22	7.50	6.84
26	7.39	7.18	6.75	6.60	6.63	6.21	6.19	5.88	6.28	7.28	7.57	6.86
27	7.40	7.25	6.77	6.61	6.53	5.94	6.30	5.93	6.33	7.31	7.62	6.58
28	7.41	7.27	6.80	6.62	6.53	6.01	6.24	5.89	6.36	7.32	7.66	6.68
29	7.41	7.27	6.82	6.64	---	6.03	6.18	5.90	6.42	7.21	7.50	6.76
30	7.41	7.28	6.84	6.58	---	6.02	6.20	5.98	6.46	7.31	7.30	6.81
31	7.40	---	6.86	6.59	---	6.05	---	5.98	---	7.36	7.41	---
MEAN	7.42	7.31	7.03	6.70	6.55	6.26	6.12	5.88	6.05	7.01	7.58	7.14
LOW	7.50	7.37	7.32	6.96	6.67	6.61	6.37	6.25	6.46	7.36	7.88	7.55
HIGH	7.25	7.18	6.65	6.56	6.40	5.94	5.76	5.39	5.62	6.50	7.29	6.58

WTR YR 2002 INSTANTANEOUS HIGH 5.26 MAY 18 LOW 7.90 AUG 19, 20

420954070564501. Weymouth well XGW 2.

LOCATION.--Lat 42°09'54", long 70°56'45", Norfolk County, Hydrologic Unit 01090001, 40 ft south of main gate guard house at U.S. Naval Air Station at Weymouth.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in., depth 30 ft, screened 28 to 30 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 180 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.45 ft above land-surface datum, 3.0 ft prior to November 1989.

PERIOD OF RECORD.--January 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.57 ft below land-surface datum, Apr. 2, 1993; lowest measured, 22.63 ft below land-surface datum, Nov. 21, 1980.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	18.10	DEC 26	20.04	FEB 25	15.29	APR 29	10.58	JUN 24	9.72	AUG 26	17.74
NOV 27	19.75	JAN 28	17.91	MAR 25	11.98	MAY 28	9.11	JUL 29	14.48	SEP 24	19.27
WATER YEAR 2002	HIGHEST	9.11	MAY 28, 2002	LOWEST	20.04	DEC 26, 2001					

GROUND-WATER LEVELS IN MASSACHUSETTS

NORFOLK COUNTY--Continued

421147070571901. Weymouth well XGW 3.

LOCATION.--Lat 42°11'47", long 70°57'19", Norfolk County, Hydrologic Unit 01090001, about 100 ft east of State Highway 18 and about 600 ft off State Highway 3 in Weymouth.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in., depth 22.3 ft, screened 20.3 to 22.3 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 90 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.5 ft above land-surface datum.

REMARKS.--Water level affected by pumping.

PERIOD OF RECORD.--January 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.91 ft below land-surface datum, Jan. 27, 1978; lowest measured, 18.10 ft below land-surface datum, Sept. 27, 1965.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	7.02	DEC 26	6.08	FEB 25	4.81	APR 29	4.63	JUN 24	5.06	AUG 26	9.81
NOV 27	8.71	JAN 28	4.97	MAR 25	4.77	MAY 28	4.95	JUL 29	7.24	SEP 24	8.21
WATER YEAR 2002		HIGHEST	4.63	APR 29, 2002		LOWEST	9.81	AUG 26, 2002			

421120070562801. Weymouth well XGW 4.

LOCATION.--Lat 42°11'20", long 70°56'28", Norfolk County, Hydrologic Unit 01090001, at median strip of State Highway 3 and 0.8 mi south of State Highway 18 in Weymouth.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in., depth 22.6 ft, screened 20.6 to 22.6 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 90 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.5 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 4.39 ft below land-surface datum, Apr. 2, 1993; lowest measured, 10.45 ft below land-surface datum, Sept. 27, 1965.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	7.61	DEC 26	6.84	FEB 25	6.62	APR 29	6.51	JUN 24	6.76	AUG 26	8.38
NOV 27	7.86	JAN 28	6.81	MAR 25	6.41	MAY 28	6.48	JUL 29	7.86	SEP 24	7.41
WATER YEAR 2002		HIGHEST	6.41	MAR 25, 2002		LOWEST	8.38	AUG 26, 2002			

GROUND-WATER LEVELS IN MASSACHUSETTS

PLYMOUTH COUNTY

420321070433502. Duxbury well D4W 79.

LOCATION.--Lat 42°03'21", long 70°43'35", Plymouth County, Hydrologic Unit 01090002, 30 ft west of State Highway 3 and about 300 ft north of State Highway 14 in Duxbury.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and silty clay of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 23.5 ft, screened 21.5 to 23.5 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape, digital recorder (60-minute interval) with satellite telemeter since August 2001.

DATUM.--Elevation of land-surface datum is 55 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of plywood floor in base of steel shelter, 3.18 ft above land-surface datum; prior to August 2001, top of casing, 1.5 ft above land-surface datum.

REMARKS.--Missing periods of more than one day are not estimated.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.10 ft below land-surface datum, Jan. 26, 1978; lowest measured, 10.68 ft below land-surface datum, Sept. 28, 1965.

DEPTH BELOW LAND S. DCP & LOGGER, in FT, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	9.16	8.94
2	---	---	---	---	---	---	---	---	---	---	9.26	8.98
3	---	---	---	---	---	---	---	---	---	---	9.26	9.01
4	---	---	---	---	---	---	---	---	---	---	9.20	9.05
5	---	---	---	---	---	---	---	---	---	---	9.05	9.09
6	---	---	---	---	---	---	---	---	---	---	8.98	9.13
7	---	---	---	---	---	---	---	---	---	---	8.97	9.15
8	---	---	---	---	---	---	---	---	---	---	9.02	9.19
9	---	---	---	---	---	---	---	---	---	---	9.08	9.22
10	---	---	---	---	---	---	---	---	---	---	9.14	9.26
11	---	---	---	---	---	---	---	---	---	---	9.19	9.29
12	---	---	---	---	---	---	---	---	---	---	9.21	9.32
13	---	---	---	---	---	---	---	---	---	---	9.10	9.36
14	---	---	---	---	---	---	---	---	---	---	8.81	9.39
15	---	---	---	---	---	---	---	---	---	---	8.71	9.41
16	---	---	---	---	---	---	---	---	---	---	8.71	9.42
17	---	---	---	---	---	---	---	---	---	---	8.73	9.45
18	---	---	---	---	---	---	---	---	---	---	8.77	9.47
19	---	---	---	---	---	---	---	---	---	---	8.82	9.50
20	---	---	---	---	---	---	---	---	---	---	8.86	9.53
21	---	---	---	---	---	---	---	---	---	---	8.83	9.56
22	---	---	---	---	e7.73	---	---	---	---	---	8.80	9.45
23	---	---	---	---	---	---	---	---	---	---	8.82	9.29
24	---	---	---	---	---	---	e7.48	e8.19	---	---	8.85	9.26
25	---	---	---	---	---	---	---	---	e8.18	---	8.89	9.27
26	---	---	e7.65	---	---	---	---	---	---	---	8.91	9.27
27	---	---	---	---	---	---	---	---	---	---	8.94	9.29
28	---	---	---	---	---	---	---	---	---	---	8.92	9.31
29	---	e8.20	---	---	---	e6.84	---	---	---	---	8.86	9.32
30	e8.90	---	---	---	---	---	---	---	---	---	8.88	9.33
31	---	---	---	---	---	---	---	---	---	e8.99	8.92	---
MEAN	---	---	---	---	---	---	---	---	---	---	8.96	9.28
LOW	---	---	---	---	---	---	---	---	---	---	9.26	9.56
HIGH	---	---	---	---	---	---	---	---	---	---	8.71	8.94

WTR YR 2001 INSTANTANEOUS HIGH e6.84 MAR 29 LOW 9.57 SEP 21
(includes monthly and recorded values)

e Estimated

GROUND-WATER LEVELS IN MASSACHUSETTS

PLYMOUTH COUNTY

420321070433502. Duxbury well D4W 79--Continued.

DEPTH BELOW LAND S. DCP & LOGGER, in FT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.35	9.21	9.20	8.51	8.28	8.02	7.59	7.96	7.80	8.43	9.10	9.78
2	9.37	9.20	9.21	8.51	8.24	8.01	7.48	8.00	7.83	8.46	9.15	9.77
3	9.40	9.20	9.22	8.52	8.23	7.97	7.48	7.93	7.90	8.50	9.19	9.62
4	9.42	9.20	9.22	8.52	8.24	7.88	7.53	7.89	7.98	8.55	9.24	9.44
5	9.45	9.18	9.22	8.53	8.27	7.86	7.58	7.90	8.02	8.60	9.28	9.38
6	9.47	9.15	9.23	8.53	8.28	7.85	7.62	7.92	8.03	8.66	9.30	9.38
7	9.49	9.14	9.23	8.48	8.29	7.86	7.68	7.95	7.93	8.70	9.35	9.40
8	9.50	9.15	9.25	8.40	8.29	7.91	7.73	7.98	7.73	8.73	9.39	9.43
9	9.50	9.14	9.23	8.38	8.30	7.93	7.75	8.02	7.69	8.76	9.44	9.46
10	9.49	9.15	9.14	8.36	8.32	7.92	7.78	8.03	7.73	8.76	9.48	9.50
11	9.49	9.15	9.07	8.36	8.26	7.89	7.82	8.04	7.80	8.74	9.52	9.53
12	9.50	9.17	9.04	8.34	8.20	7.90	7.85	8.07	7.86	8.77	9.56	9.57
13	9.50	9.18	9.03	8.29	8.19	7.91	7.87	8.02	7.91	8.82	9.60	9.62
14	9.49	9.18	9.01	8.18	8.22	7.93	7.89	7.68	7.95	8.86	9.64	9.67
15	9.44	9.18	8.98	8.11	8.21	7.98	7.93	7.46	7.93	8.89	9.69	9.74
16	9.37	9.18	8.94	8.06	8.20	8.01	7.95	7.45	7.79	8.87	9.73	9.72
17	9.22	9.20	8.90	8.03	8.18	8.03	7.97	7.48	7.77	8.83	9.77	9.55
18	9.15	9.20	8.81	8.02	8.14	8.04	7.99	7.49	7.82	8.83	9.82	9.46
19	9.13	9.20	8.70	8.03	8.07	8.05	8.00	7.34	7.89	8.85	9.87	9.44
20	9.13	9.19	8.65	8.02	8.06	8.06	7.99	7.32	7.95	8.82	9.92	9.45
21	9.14	9.21	8.64	8.04	8.05	7.96	8.00	7.37	8.00	8.81	9.88	9.47
22	9.18	9.21	8.65	8.01	8.03	7.90	8.02	7.44	8.05	8.83	9.85	9.50
23	9.25	9.23	8.65	8.00	8.05	7.92	8.03	7.52	8.09	8.88	9.84	9.42
24	9.23	9.24	8.61	7.95	8.07	7.95	8.05	7.57	8.11	8.92	9.83	9.18
25	9.18	9.24	8.53	7.95	8.07	8.00	8.06	7.65	8.15	8.93	9.81	9.09
26	9.17	9.22	8.49	8.00	8.08	8.04	7.99	7.72	8.20	8.95	9.79	9.05
27	9.17	9.20	8.47	8.07	8.08	7.89	7.90	7.76	8.25	8.97	9.79	9.01
28	9.18	9.20	8.50	8.15	8.03	7.67	7.92	7.80	8.29	8.98	9.81	8.95
29	9.17	9.21	8.51	8.20	---	7.64	7.89	7.78	8.34	8.99	9.82	8.95
30	9.17	9.20	8.50	8.24	---	7.64	7.92	7.75	8.39	9.00	9.80	8.95
31	9.21	---	8.51	8.27	---	7.67	---	7.78	---	9.05	9.78	---
MEAN	9.32	9.19	8.88	8.23	8.18	7.91	7.84	7.74	7.97	8.80	9.61	9.42
LOW	9.50	9.24	9.25	8.53	8.32	8.06	8.06	8.07	8.39	9.05	9.92	9.78
HIGH	9.13	9.14	8.47	7.95	8.03	7.64	7.48	7.32	7.69	8.43	9.10	8.95

WTR YR 2002 INSTANTANEOUS HIGH 7.31 MAY 19, 20 LOW 9.93 AUG 20

420317070432901. Duxbury well D4W 80.

LOCATION.--Lat 42°03'17", long 70°43'29", Plymouth County, Hydrologic Unit 01090002, 78 ft south of State Highway 14 and 250 ft east of State Highway 3 in Duxbury.

Owner: The Commonwealth of Massachusetts Department of Public Works.

AQUIFER.--Bedrock.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6.0 in., depth 181 ft, cased to 59 ft, open hole.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 65 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of hole in concrete cover, at land-surface datum.

PERIOD OF RECORD.--April 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.98 ft below land-surface datum, Feb. 26, 1998; lowest measured, 24.02 ft below land-surface datum, Sept. 28, 1965.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	22.55	JAN 28	21.66	MAR 25	21.63	MAY 28	21.29	JUL 29	22.22	SEP 24	22.65
NOV 28	22.65	FEB 25	21.28	APR 29	21.55	JUN 24	21.59	AUG 27	23.00		
WATER YEAR	2002	HIGHEST	21.28	FEB 25, 2002		LOWEST	23.00	AUG 27, 2002			

GROUND-WATER LEVELS IN MASSACHUSETTS

PLYMOUTH COUNTY--Continued

420056070575701. East Bridgewater well EBW 30.

LOCATION.--Lat 42°00'56", long 70°57'57", Plymouth County, Hydrologic Unit 01090004, about 100 ft north of State Highway 106 and 800 ft west of State Highway 18 in East Bridgewater.

Owner: East Bridgewater Medical Center.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in., depth 24 ft, cased with stone to 24 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 85 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of stone casing curb, 2.6 ft above land-surface datum.

PERIOD OF RECORD.--July 1958 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.18 ft below land-surface datum, Feb. 26, 1998; lowest measured, 17.83 ft below land-surface datum, Dec. 28, 1965.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	14.65	JAN 28	14.59	MAR 25	10.76	MAY 28	6.57	JUL 29	11.18	SEP 24	15.36
DEC 26	16.10	FEB 25	12.79	APR 29	8.25	JUN 24	7.38	AUG 26	13.51		
WATER YEAR 2002	HIGHEST	6.57	MAY 28, 2002	LOWEST	16.10	DEC 26, 2001					

420353070520301. Hanson well HGW 76.

LOCATION.--Lat 42°03'53", long 70°52'03", Plymouth County, Hydrologic Unit 01090002, 100 ft south of State Highway 14 and 150 ft west of town hall in Hanson.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 26.6 ft, screened 24.6 to 26.6 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 71 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.5 ft above land-surface datum.

REMARKS.--Water level affected by Wampatuck Pond.

PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.50 ft below land-surface datum, Mar. 26, 1969; lowest measured, 6.53 ft below land-surface datum, Sept. 25, 1980.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	5.06	DEC 26	4.75	FEB 25	4.68	APR 29	4.59	JUN 24	5.08	AUG 27	5.85
NOV 28	5.12	JAN 28	4.65	MAR 25	4.61	MAY 28	4.53	JUL 29	5.43	SEP 24	5.81
WATER YEAR 2002	HIGHEST	4.53	MAY 28, 2002	LOWEST	5.85	AUG 27, 2002					

GROUND-WATER LEVELS IN MASSACHUSETTS

PLYMOUTH COUNTY--Continued

415228070554601. Lakeville well LKW 14.

LOCATION.--Lat 41°52'28", long 70°55'46", Plymouth County, Hydrologic Unit 01090004, 30 ft west of parking lot at Lakeville State Hospital in Lakeville.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in., depth 41 ft, screened 39 to 41 ft.

INSTRUMENTATION.--Monthly measurement with electric tape by observer. Digital recorder (60-min punch) July 1986 to current year. Satellite telemeter at well since September 2001.

DATUM.--Elevation of land-surface datum is 105 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of hole in base of aluminum recorder shelter, 1.5 ft above land-surface datum.

REMARKS.--Missing periods of more than one day are not estimated.

PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.56 ft below land-surface datum, May 13, 1998; lowest measured, 23.59 ft below land-surface datum, Oct. 26, 1966.

**DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.58	18.52	19.16	19.49	18.97	18.85	18.08	16.86	16.11	16.85	18.79	---
2	17.61	18.54	19.19	19.49	18.96	18.85	18.00	16.84	16.12	16.90	18.85	---
3	17.65	18.56	19.21	19.49	18.94	18.82	17.91	16.84	16.16	16.96	18.91	---
4	17.69	18.58	19.23	19.49	18.92	18.82	17.83	16.86	16.20	17.02	18.98	e20.54
5	17.72	18.60	19.25	19.51	18.90	18.81	17.73	16.85	16.21	17.09	19.03	20.58
6	17.75	18.62	19.27	19.51	18.89	18.79	17.63	16.84	16.23	17.16	19.10	20.62
7	17.79	18.65	19.30	19.52	18.87	18.77	17.54	16.82	16.27	17.22	19.16	20.66
8	17.83	18.67	19.32	19.54	18.86	18.75	17.45	16.83	16.28	17.28	19.23	20.70
9	17.86	18.69	19.34	19.54	18.86	18.72	17.36	16.82	16.26	17.34	19.29	20.74
10	17.90	18.70	19.36	19.55	18.84	18.69	17.28	16.82	16.25	17.40	19.35	20.78
11	17.93	18.73	19.39	19.56	18.84	18.67	17.22	16.85	16.23	17.47	19.42	20.82
12	17.96	18.75	19.41	19.57	18.83	18.65	17.15	16.85	16.21	17.53	19.48	20.87
13	18.00	18.77	19.42	19.56	18.83	18.62	17.09	16.83	16.21	17.60	19.54	20.91
14	18.02	18.79	19.45	19.57	18.83	18.60	17.04	16.81	16.20	17.66	19.61	20.96
15	18.05	18.81	19.47	19.55	18.83	18.58	17.00	16.81	16.18	17.72	19.67	20.99
16	18.08	18.83	19.49	19.53	18.82	18.56	16.96	16.78	16.19	17.79	19.73	21.03
17	18.11	18.86	19.50	19.49	18.82	18.54	16.93	16.75	16.21	17.86	19.79	21.05
18	18.15	18.88	19.51	19.44	18.83	18.52	16.91	16.71	16.26	17.93	19.85	21.08
19	18.18	18.90	19.53	19.39	18.84	18.51	16.88	16.67	16.30	17.99	19.91	21.11
20	18.21	18.92	19.53	19.34	18.84	18.48	16.86	16.61	16.34	18.05	19.96	21.13
21	18.25	18.94	19.55	19.29	18.83	18.47	16.86	16.55	16.37	18.11	20.01	21.16
22	18.28	18.96	19.55	19.26	18.84	18.45	16.84	16.49	16.41	18.17	20.06	21.19
23	18.31	18.99	19.55	19.22	18.84	18.43	16.85	16.42	16.44	18.24	20.10	21.22
24	18.33	19.01	19.55	19.18	18.85	18.41	16.85	16.35	16.48	18.31	20.14	21.23
25	18.35	19.03	19.56	19.15	18.85	18.40	16.85	16.31	16.54	18.37	20.18	21.25
26	18.38	19.05	19.54	19.12	18.84	18.37	16.85	16.26	16.59	18.43	20.22	21.26
27	18.40	19.08	19.53	19.10	18.83	18.34	16.87	16.22	16.63	18.49	20.27	21.26
28	18.44	19.10	19.52	19.07	18.84	18.31	16.85	16.19	16.68	18.54	20.32	21.27
29	18.46	19.12	19.51	19.04	---	18.26	16.85	16.16	16.75	18.59	20.36	21.27
30	18.48	19.14	19.50	19.02	---	18.21	16.86	16.14	16.81	18.65	20.39	21.27
31	18.50	---	19.50	19.00	---	18.15	---	16.12	---	18.72	e20.42	---
MEAN	18.07	18.83	19.43	19.37	18.86	18.56	17.18	16.62	16.34	17.79	19.68	---
LOW	18.50	19.14	19.56	19.57	18.97	18.85	18.08	16.86	16.81	18.72	20.42	---
HIGH	17.58	18.52	19.16	19.00	18.82	18.15	16.84	16.12	16.11	16.85	18.79	---

WTR YR 2002 INSTANTANEOUS HIGH 16.11 MAY 31, JUNE 1, 2 LOW 21.28 SEP 29, 30

e Estimated

415433070583302. Middleborough well MTW 82.

LOCATION.--Lat 41°54'33", long 70°58'33", Plymouth County, Hydrologic Unit 01090004, 15 ft southeast of southbound side of Interstate 495 and 435 ft southeast of Puddingshear Brook in Middleborough.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 26.5 ft, screened 24.5 to 26.5 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.5 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.50 ft below land-surface datum, Mar. 24, 1983; lowest measured, 17.58 ft below land-surface datum, Oct. 24, 1980.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	16.49	DEC 27	16.49	FEB 26	12.47	APR 30	7.42	JUN 24	8.31	AUG 27	16.07
NOV 28	16.71	JAN 28	14.06	MAR 26	10.04	MAY 29	5.50	JUL 30	13.89	SEP 25	16.80
WATER YEAR 2002	HIGHEST	5.50	MAY 29, 2002	LOWEST	16.80	SEP 25, 2002					

GROUND-WATER LEVELS IN MASSACHUSETTS

PLYMOUTH COUNTY--Continued

415453070434901. Plymouth well PWW 22.

LOCATION.--Lat 41°54'53", long 70°43'49", Plymouth County, Hydrologic Unit 01090004, 10 ft from northeast corner of main building at Plymouth Airport.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial outwash of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 40 ft, screened 30 to 40 ft; prior to August 1990, driven observation water-table well, diameter 1.25 in., depth 42 ft, screened 40 to 42 ft at same location.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 145 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--November 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.82 ft below land-surface datum, May 26, 1958; lowest measured, 28.99 ft below land-surface datum, Jan. 28, 1966.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	25.62	DEC 26	26.29	FEB 25	26.96	APR 29	25.98	JUN 24	25.32	AUG 27	26.26
NOV 28	25.79	JAN 28	26.74	MAR 25	26.89	MAY 28	26.07	JUL 29	25.76	SEP 24	26.67
WATER YEAR 2002		HIGHEST	25.32	JUN 24, 2002		LOWEST	26.96	FEB 25, 2002			

415217070393102. Plymouth well PWW 494.

LOCATION.--Lat 41°52'17", long 70°39'31", Plymouth County, Hydrologic Unit 01090002, in Myles Standish State Forest, in gravel pit 50 ft southeast of intersection of Lower College Pond Road and Crawford Road, approximately 5 mi northeast of South Carver.

Owner: Massachusetts Department of Environmental Management.

AQUIFER.--Glacial outwash of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.5 in., depth 47 ft, screened 42 to 47 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 129 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.17 ft above land-surface datum.

PERIOD OF RECORD.--August 1985 to current year. Prior to April 1989, three random measurements.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.28 ft below land-surface datum, July 28, 1998; lowest measured, 33.23 ft below land-surface datum, Nov. 24, 1993.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	29.65	DEC 26	30.66	FEB 25	31.39	APR 29	31.27	JUN 24	31.18	AUG 27	32.03
NOV 28	30.21	JAN 28	31.09	MAR 25	31.59	MAY 28	31.20	JUL 29	31.60	SEP 24	32.38
WATER YEAR 2002		HIGHEST	29.65	OCT 26, 2001		LOWEST	32.38	SEP 24, 2002			

414518070435701. Wareham well WFW 51.

LOCATION.--Lat 41°45'18", long 70°43'57", Plymouth County, Hydrologic Unit 01090002, 50 ft east of U.S. Highway 6 in Wareham.

Owner: Private owner.

AQUIFER.--Glacial outwash of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in., depth 12.5 ft, cased with tile to 12.5 ft, open end. Prior to September 1980, well depth was 12.5 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 21 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of tile casing, 2.3 ft above land-surface datum.

PERIOD OF RECORD.--July 1959 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.34 ft below land-surface datum, Jan. 26, 1978; lowest measured, dry, several months in water years 1980-84.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	9.37	DEC 26	10.18	FEB 26	9.41	APR 30	8.01	JUN 24	7.88	AUG 27	10.33
NOV 28	9.98	JAN 29	9.50	MAR 26	8.92	MAY 29	7.45	JUL 30	9.01	SEP 25	10.41
WATER YEAR 2002		HIGHEST	7.45	MAY 29, 2002		LOWEST	10.41	SEP 25, 2002			

GROUND-WATER LEVELS IN MASSACHUSETTS

WORCESTER COUNTY

422125071440101. Boylston well BKW 87.

LOCATION.--Lat 42°21'25", long 71°44'01", Worcester County, Hydrologic Unit 01070004, about 200 ft south of French Road and 30 ft west of State Route 70 in Boylston, MA.

Owner: Metropolitan District Commission.

AQUIFER.--Glacial till of pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 12.2 ft, screened 2.2 to 12.2 ft.

INSTRUMENTATION.--Monthly or more frequent measurements with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 475 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.2 ft above land-surface datum.

PERIOD OF RECORD.--June 1995 to December 2002 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.84 ft below land-surface datum, Jan. 29, 1996; lowest measured, dry, July 26, Aug. 26, Sept. 22, 1995.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	DRY	JAN 25	7.05	APR 23	5.96	MAY 16	3.92	JUL 15	8.54	SEP 24	DRY
NOV 26	DRY	FEB 25	5.99	MAY 06	4.99	JUN 24	6.06	AUG 27	DRY	25	12.20
DEC 26	DRY	MAR 26	3.62								
WATER YEAR	2002	HIGHEST	3.62	MAR 26, 2002	LOWEST	12.20	SEP 25, 2002				

422058072085501. Hardwick well HHW 1.

LOCATION.--Lat 42°20'58", long 72°08'55", Worcester County, Hydrologic Unit 01080204, 30 ft southeast of State Highway 32 and 0.6 mi southwest of Hardwick Road in Hardwick.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 33.2 ft, screened 31.2 to 33.2 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 580 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.5 ft above land-surface datum.

PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.17 ft below land-surface datum, Apr. 24, 2000; lowest measured, 17.77 ft below land-surface datum, Nov. 22, 1965.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	15.95	DEC 24	16.37	FEB 26	16.24	APR 28	15.02	JUN 25	14.21	AUG 24	15.98
NOV 23	16.32	JAN 23	16.64	MAR 26	16.10	MAY 26	13.03	JUL 22	15.22	SEP 22	16.28
WATER YEAR	2002	HIGHEST	13.03	MAY 26, 2002	LOWEST	16.64	JAN 23, 2002				

422020072145901. Hardwick well HHW 31.

LOCATION.--Lat 42°20'20", long 72°14'59", Worcester County, Hydrologic Unit 01080204, 5 ft north of Patrill Hollow Road and approximately 250 ft west of Muddy Brook in Hardwick.

Owner: Town of Hardwick.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 71.0 ft, screened 67.0 ft to 71.0 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 490 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.91 ft below land-surface datum, Apr. 5, 2001; lowest measured, 12.34 ft below land-surface datum, Nov. 21, 1997.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	11.26	DEC 19	11.17	FEB 25	11.28	APR 25	10.99	MAY 28	10.65	JUN 26	10.72
NOV 27	11.33	JAN 28	11.37	MAR 21	11.22						
WATER YEAR	2002	HIGHEST	10.65	MAY 28, 2002	LOWEST	11.37	JAN 28, 2002				

GROUND-WATER LEVELS IN MASSACHUSETTS

WORCESTER COUNTY--Continued

422102071501401. Holden well HRW 169.

LOCATION.--Lat 42°21'02", long 71°50'14", Worcester County, Hydrologic Unit 01070004, about 50 ft west of intersection of Union and Malden Streets in Holden, MA.

Owner: Metropolitan District Commission.

AQUIFER.--Glacial till of pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well with well pipe inserted, diameter 2.0 in., depth 10.5 ft, screened 0.5 to 10.5 ft.

INSTRUMENTATION.--Monthly or more frequent measurements with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 670 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--June 1995 to December 2002 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.17 ft below land-surface datum, June 30, 1998; lowest measured, 9.02 ft below land-surface datum, Jan. 25, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	8.08	JAN 25	9.02	MAR 26	5.62	MAY 06	2.22	JUN 24	2.38	AUG 27	5.90
NOV 26	8.98	FEB 25	7.59	APR 23	2.79	16	1.64	JUL 15	3.26	SEP 25	7.15
DEC 26	9.00										
WATER YEAR	2002	HIGHEST	1.64	MAY 16, 2002	LOWEST	9.02	JAN 25, 2002				

420610071421402. Northbridge well NXW 54.

LOCATION.--Lat 42°06'10", long 71°42'14", Worcester County, Hydrologic Unit 01090003, about 100 ft northeast of the intersection of State Highway 146 and Main Street in Northbridge.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in., depth 12 ft, screened 10 to 12 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 370 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.87 ft above land-surface datum, 2.0 ft prior to September 1992.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.02 ft below land-surface datum, June 27, 1998; lowest measured, 5.14 ft below land-surface datum, Oct. 22, 1986.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	4.70	DEC 24	4.83	FEB 26	4.71	APR 28	4.47	JUN 25	4.25	AUG 24	4.72
NOV 23	4.83	JAN 23	4.83	MAR 26	4.52	MAY 26	4.03	JUL 22	4.64	SEP 22	4.72
WATER YEAR	2002	HIGHEST	4.03	MAY 26, 2002	LOWEST	4.83	NOV 23, 2001	DEC 24, 2001		JAN 23, 2002	

422906072124301. Petersham well PHW 16.

LOCATION.--Lat 42°29'06", long 72°12'43", Worcester County, Hydrologic Unit 01080204, 0.6 mi east of West Street Cemetery, 500 ft south of West Street, and 100 ft west of access road in Petersham.

Owner: Private owner.

AQUIFER.--Glacial sand and gravel of the Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0-in. PVC, depth 39.0 ft, screened 29.0 to 39.0 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 790 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.71 ft below land-surface datum, June 5, 1984; lowest measured, 16.93 ft below land-surface datum, Dec. 19, 2001.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	16.49	DEC 19	16.93	FEB 25	15.01	APR 25	12.93	JUN 26	13.57	AUG 27	15.38
NOV 27	16.75	JAN 28	15.72	MAR 21	13.91	MAY 28	11.45	JUL 29	14.66	SEP 23	16.02
WATER YEAR	2002	HIGHEST	11.45	MAY 28, 2002	LOWEST	16.93	DEC 19, 2001				

GROUND-WATER LEVELS IN MASSACHUSETTS

WORCESTER COUNTY--Continued

422636071503601. Princeton well PYW 64.

LOCATION.--Lat 42°26'36", long 71°50'36", Worcester County, Hydrologic Unit 01070004, on north side of State Rt 62 and about 100 ft east of Thomas Prince School in Princeton, MA.

Owner: Metropolitan District Commission.

AQUIFER.--Glacial sand and gravel of pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 21.9 ft, screened 11.9 to 21.9 ft.

INSTRUMENTATION.--Monthly or more frequent measurements with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 695 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.2 ft above land-surface datum.

PERIOD OF RECORD.--June 1995 to December 2002 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.95 ft below land-surface datum, Jan. 29, 1996; lowest measured, dry, Aug. 28, Sept. 22, 1995.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	DRY	JAN 25	DRY	MAR 26	16.08	MAY 06	15.92	JUN 24	16.32	AUG 27	DRY
NOV 26	DRY	FEB 25	17.47	APR 23	16.04	30	15.89	JUL 16	17.33	SEP 24	DRY
DEC 26	DRY										
WATER YEAR	2002	HIGHEST	15.89	MAY 30, 2002	LOWEST	17.47	FEB 25, 2002				

421851071312601. Southborough well SSW 12.

LOCATION.--Lat 42°18'51", long 71°31'26", Worcester County, Hydrologic Unit 01070005, 50 ft north of Overlook Drive circle, approximately 0.75 mi northeast of Southborough center.

Owner: Town of Southborough.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Drive-washed observation water-table well, diameter 1.25 in., depth 20 ft, screened 18 to 20 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 450 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.5 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.84 ft below land-surface datum, Apr. 1, 1993; lowest measured, 16.90 ft below land-surface datum, Dec. 20, 2001.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	14.77	DEC 20	16.90	FEB 26	8.21	APR 30	2.83	JUN 20	4.47	AUG 27	11.82
NOV 26	16.08	JAN 28	14.44	MAR 26	2.78	MAY 28	2.96	JUL 30	9.13	SEP 26	13.50
WATER YEAR	2002	HIGHEST	2.78	MAR 26, 2002	LOWEST	16.90	DEC 20, 2001				

422805071480801. Sterling well SYW 1.

LOCATION.--Lat 42°28'05", long 71°48'08", Worcester County, Hydrologic Unit 01070004, 45 ft northeast of Justice Hill Road and 0.8 mi west of South Nelson Road in Sterling.

Owner: Private owner.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in., depth 15 ft, cased with stone to 15 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 710 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of angle iron, at land-surface datum.

PERIOD OF RECORD.--May 1947 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.45 ft below land-surface datum, Feb. 25, 2000; dry, Nov. 28, 1964.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	11.95	DEC 24	11.40	FEB 26	4.19	APR 28	2.69	JUN 25	4.06	AUG 24	11.23
NOV 23	13.05	JAN 23	8.91	MAR 26	2.59	MAY 26	3.12	JUL 22	8.05	SEP 22	12.28
WATER YEAR	2002	HIGHEST	2.59	MAR 26, 2002	LOWEST	13.05	NOV 23, 2001				

GROUND-WATER LEVELS IN MASSACHUSETTS

WORCESTER COUNTY--Continued

422520071483001. Sterling well SYW 177.

LOCATION.--Lat 42°25'20", long 71°48'30", Worcester County, Hydrologic Unit 01070004, 20 ft east of State Route 140 and 200 ft northwest of Fox Run Road in Sterling, MA.

Owner: Metropolitan District Commission.

AQUIFER.--Glacial sand and gravel of pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 24.4 ft, screened 14.4 to 24.4 ft.

INSTRUMENTATION.--Monthly or more frequent measurements with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 505 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.2 ft above land-surface datum.

PERIOD OF RECORD.--June 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.40 ft below land-surface datum, Jan. 29, 1996; lowest measured, 16.17 ft below land-surface datum, Sept. 29, 2000.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	15.50	JAN 25	15.15	MAR 26	14.11	MAY 06	14.06	JUN 24	14.40	AUG 27	15.48
NOV 26	15.57	FEB 25	14.58	APR 23	14.22	30	14.18	JUL 16	14.72	SEP 24	15.80
DEC 27	15.26										
WATER YEAR	2002	HIGHEST	14.06	MAY 06, 2002		LOWEST	15.80	SEP 24, 2002			

23717072043101. Templeton well TMW 3.

LOCATION.--Lat 42°37'17", long 72°04'31", Worcester County, Hydrologic Unit 01080202, 60 ft east of U.S. Highway 202 and 0.2 mi south of Winchendon town line in Templeton.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in., depth 13.8 ft, screened 11.8 to 13.8 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 900 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.2 ft above land-surface datum.

PERIOD OF RECORD.--December 1957 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.99 ft below land-surface datum, Jan. 25, 1996; lowest measured, 5.10 ft below land-surface datum, Sept. 29, 1964.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	3.97	DEC 24	3.75	FEB 26	3.47	APR 28	3.67	JUN 25	3.82	AUG 24	4.59
NOV 23	3.73	JAN 23	3.95	MAR 26	3.55	MAY 26	3.48	JUL 22	4.35	SEP 22	4.46
WATER YEAR	2002	HIGHEST	3.47	FEB 26, 2002		LOWEST	4.59	AUG 24, 2002			

420314071514001. Webster well WLW 1.

LOCATION.--Lat 42°03'14", long 71°51'40", Worcester County, Hydrologic Unit 01100001, 100 ft east of State Highway 52 and 100 ft south of Memorial Beach Drive in Webster.

Owner: Town of Webster.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2.5 in., depth 27.0 ft, cased to 27.0 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 500 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.4 ft above land-surface datum.

PERIOD OF RECORD.--September 1958 to November 1979, October 1981 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.28 ft below land-surface datum, Mar. 25, 1968; lowest measured, 17.91 ft below land-surface datum, Nov. 23, 2001.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	17.06	DEC 24	17.72	FEB 26	14.49	APR 28	13.05	JUN 25	12.90	AUG 24	14.32
NOV 23	17.91	JAN 23	15.85	MAR 26	13.35	MAY 26	12.50	JUL 22	13.72	SEP 22	14.64
WATER YEAR	2002	HIGHEST	12.50	MAY 26, 2002		LOWEST	17.91	NOV 23, 2001			

GROUND-WATER LEVELS IN MASSACHUSETTS

WORCESTER COUNTY--Continued

422341071464901. West Boylston well WSW 26.

LOCATION.--Lat 42°23'41", long 71°46'49", Worcester County, Hydrologic Unit 01070004, 50 ft west of Prescott Street and about 0.2 mi south of Pleasant Street in West Boylston, MA.

Owner: Metropolitan District Commission.

AQUIFER.--Glacial sand and gravel of pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 16.8 ft, screened 6.8 to 16.8 ft.

INSTRUMENTATION.--Monthly or more frequent measurements with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 485 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--June 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.30 ft below land-surface datum, Jan. 29, 1996; lowest measured, 11.48 ft below land-surface datum, Oct. 27, 1997.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	10.77	JAN 25	9.78	MAR 26	5.24	MAY 06	4.01	JUN 24	6.17	AUG 27	9.52
NOV 26	11.38	FEB 25	6.95	APR 23	4.34	16	3.15	JUL 15	7.24	SEP 24	10.82
DEC 26	10.24										
WATER YEAR	2002	HIGHEST	3.15	MAY 16, 2002	LOWEST	11.38	NOV 26, 2001				

422130071473601. West Boylston well WSW 27.

LOCATION.--Lat 42°21'30", long 71°47'36", Worcester County, Hydrologic Unit 01070004, 200 ft east of Prospect Street and about 500 ft south of Wachusett Country Club building in West Boylston, MA.

Owner: Metropolitan District Commission.

AQUIFER.--Glacial till of pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 25.0 ft, screened 15.0 to 25.0 ft.

INSTRUMENTATION.--Monthly or more frequent measurements with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 680 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.6 ft above land-surface datum.

PERIOD OF RECORD.--June 1995 to December 2002 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.50 ft below land-surface datum, Jan. 29, 1996; lowest measured, 22.53 ft below land-surface datum, Sept. 22, 1995.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	20.88	JAN 25	20.96	MAR 26	17.25	MAY 06	15.97	JUN 24	16.85	AUG 27	20.36
NOV 26	21.58	FEB 25	18.67	APR 23	16.63	30	16.31	JUL 15	17.88	SEP 25	20.71
DEC 27	21.41										
WATER YEAR	2002	HIGHEST	15.97	MAY 06, 2002	LOWEST	21.58	NOV 26, 2001				

422334071444201. West Boylston well WSW 28.

LOCATION.--Lat 42°23'34", long 71°44'42", Worcester County, Hydrologic Unit 01070004, 15 ft southeast of State Route 110 and 1.9 mi northeast of intersection of State Routes 110 and 12 in West Boylston, MA.

Owner: Metropolitan District Commission.

AQUIFER.--Glacial sand and clay of pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in., depth 29.4 ft, screened 19.4 to 29.4 ft.

INSTRUMENTATION.--Monthly or more frequent measurements with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 525 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.6 ft above land-surface datum.

PERIOD OF RECORD.--June 1995 to December 2002 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.50 ft below land-surface datum, June 30, 1997; lowest measured, 22.55 ft below land-surface datum, Aug. 26, 1999.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	20.58	JAN 25	14.84	MAR 26	11.04	MAY 06	10.82	JUN 24	13.19	AUG 27	20.23
NOV 26	21.30	FEB 25	12.31	APR 23	11.83	16	9.68	JUL 15	15.77	SEP 24	21.74
DEC 26	18.09										
WATER YEAR	2002	HIGHEST	9.68	MAY 16, 2002	LOWEST	21.74	SEP 24, 2002				

GROUND-WATER LEVELS IN MASSACHUSETTS

WORCESTER COUNTY--Continued

421410072081301. West Brookfield well WUW 2.

LOCATION.--Lat 42°14'10", long 72°08'13", Worcester County, Hydrologic Unit 01080204, about 50 ft north of State Highway 9 and about 500 ft south of State Highway 67 in West Brookfield.

Owner: U.S. Geological Survey.

AQUIFER.--Glacial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in., depth 43.0 ft, screened 40 to 43 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 630 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.3 ft above land-surface datum.

PERIOD OF RECORD.--October 1959 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.79 ft below land-surface datum, May 22, 1983; lowest measured, 23.63 ft below land-surface datum, Feb. 21, 1966.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	19.92	DEC 24	20.66	FEB 26	21.03	APR 28	20.26	JUN 25	19.98	AUG 24	20.54
NOV 23	20.13	JAN 23	20.87	MAR 26	20.68	MAY 26	20.18	JUL 22	20.09	SEP 22	20.80
WATER YEAR	2002	HIGHEST	19.92	OCT 25, 2001		LOWEST	21.03	FEB 26, 2002			

424204072015201. Winchendon well XNW 13.

LOCATION.--Lat 42°42'04", long 72°01'52", Worcester County, Hydrologic Unit 01080202, about 50 ft east of Forristall Road, 0.2 mi north of Elmwood Road, and 1.6 mi northeast of Winchendon.

Owner: Private owner.

AQUIFER.--Glacial till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in., depth 13.5 ft, cased with stone to 13.5 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape.

DATUM.--Elevation of land-surface datum is 1,209.36 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of extension pipe, 3.8 ft above land-surface datum.

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.86 ft below land-surface datum, Mar. 20, 1948; lowest measured, 13.50 ft below land-surface datum, Nov. 19, 1993.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	12.39	DEC 24	13.28	FEB 26	6.86	APR 28	4.10	JUN 25	4.55	AUG 24	10.48
NOV 23	12.37	JAN 23	13.43	MAR 26	5.67	MAY 26	3.77	JUL 22	8.02	SEP 22	11.45
WATER YEAR	2002	HIGHEST	3.77	MAY 26, 2002		LOWEST	13.43	JAN 23, 2002			

GROUND-WATER LEVELS IN RHODE ISLAND

KENT COUNTY

414223071453701. Coventry well COW 342.

LOCATION.--Lat 41°42'23", long 71°45'37", Kent County, Hydrologic Unit 01090004, town of Coventry, Plainfield Pike (Rt. 14) 1/4 mi from intersection with Rt. 117.

Owner: Private owner.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in., depth 13.1 ft, cased with stone to 13.1 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 380 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of well casing, 0.29 ft above land-surface datum; 1.89 ft above land-surface datum prior to Aug. 24, 2000.

PERIOD OF RECORD.--October 1953 to December 1961, December 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.20 ft below land-surface datum, Dec. 22, 1992; lowest measured, 11.91 ft below land-surface datum, Aug. 24, 1999.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	11.25	DEC 26	10.46	FEB 21	10.17	APR 24	9.16	JUN 27	9.61	AUG 20	11.63
NOV 29	11.28	JAN 29	10.19	MAR 20	9.29	MAY 28	8.59	JUL 26	10.85	SEP 20	10.79
WATER YEAR	2002	HIGHEST	8.59	MAY 28, 2002	LOWEST	11.63	AUG 20, 2002				

414022071332801. Coventry well COW 411.

LOCATION.--Lat 41°40'22", long 71°33'28", Kent County, Hydrologic Unit 01090004, town of Coventry, about 75 ft west of house on Powhattan Avenue, 1.3 mi southeast of Washington.

Owner: Private owner.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in., depth 26 ft, cased with concrete to 26 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 260 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in top of concrete cover, 1.24 ft above land-surface datum.

PERIOD OF RECORD.--October 1961 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.43 ft below land-surface datum, Apr. 23, 1983; dry on Oct. 25, 1986.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	22.80	JAN 29	23.23	MAR 20	22.83	JUN 03	21.54	JUL 25	22.11	SEP 04	22.81
NOV 29	23.17	FEB 22	23.19	APR 24	22.06	JUN 27	21.43	AUG 20	22.62	SEP 20	22.85
DEC 26	23.40										
WATER YEAR	2002	HIGHEST	21.43	JUN 27, 2002	LOWEST	23.40	DEC 26, 2001				

414315071410701. Coventry well COW 466.

LOCATION.--Lat 41°43'15", long 71°41'07", Kent County, Hydrologic Unit 01090004, town of Coventry, Audubon Society, Parker Woodland. Maple Valley Road at Flat River.

Owner: Audobon Society.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in., depth 17.8 ft, cased to 7.6 ft, screened from 7.6 ft to 17.0 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by Rhode Island Department of Environmental Management.

DATUM.--Elevation of land-surface datum is 345 ft above National Geodetic Vertical Datum of 1929. Measuring point: Notch in PVC casing, 0.8 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.91 ft below land-surface datum, Nov. 20, 1995; lowest measured, 5.61 ft below land-surface datum, Aug. 26, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	4.15	JAN 24	2.90	MAR 27	2.55	MAY 22	2.70	JUL 30	4.98	AUG 26	5.61
NOV 27	3.81	FEB 26	2.92	MAY 03	2.73	JUN 27	3.33	AUG 13	5.42	SEP 24	4.69
DEC 27	3.15										
WATER YEAR	2002	HIGHEST	2.55	MAR 27, 2002	LOWEST	5.61	AUG 26, 2002				

GROUND-WATER LEVELS IN RHODE ISLAND

KENT COUNTY--Continued

414106071223901. Warwick well WCW 59.

LOCATION.--Lat 41°41'06", long 71°22'39", Kent County, Hydrologic Unit 01090004, town of Warwick, Warwick Neck, Our Lady of Providence Seminary. Former Senator Aldrich mansion. Next to Rocky Point Amusement Park.

Owner: Our Lady of Providence Seminary.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in., depth 27.0 ft, cased with stone to 27.0 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 125 ft above National Geodetic Vertical Datum of 1929. Measuring point: Spray painted arrow on rock, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--April 1949 to December 1955, November 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.46 ft below land-surface datum, Feb. 20, 1993; lowest measured, 24.77 ft below land-surface datum, Oct. 31, 1949.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	14.69	DEC 26	15.42	FEB 21	8.21	APR 24	5.01	JUN 27	5.45	AUG 20	14.27
NOV 29	15.81	JAN 29	10.70	MAR 20	5.49	MAY 28	4.90	JUL 25	10.17	SEP 20	17.98
WATER YEAR 2002		HIGHEST	4.90	MAY 28, 2002		LOWEST	17.98	SEP 20, 2002			

413907071465001. West Greenwich well GWG 181.

LOCATION.--Lat 41°39'07", long 71°46'50", Kent County, Hydrologic Unit 01090005, town of West Greenwich, about 50 ft from southeast corner of a house 1.3 mi north of intersection of Hazard and Muddy Brook Roads, and 1.8 mi northwest of West Greenwich Center.

Owner: Private owner.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in., depth 18.5 ft, lined with stone to 18.5 ft, shored.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 380 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in top of concrete cover, 0.54 ft above land-surface datum.

PERIOD OF RECORD.--January 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.15 ft below land-surface datum, Jan. 27, 1979; lowest measured, 17.78 ft below land-surface datum, Dec. 22, 1984.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	16.70	JAN 29	16.04	MAR 20	15.39	MAY 28	14.87	JUL 26	16.41	SEP 04	16.68
NOV 29	16.87	FEB 21	16.17	APR 24	15.53	JUN 27	15.87	AUG 20	16.53	SEP 20	16.31
DEC 26	16.84										
WATER YEAR 2002		HIGHEST	1 4.87	MAY 28, 2002		LOWEST	16.87	NOV 29, 2001			

413645071332901. West Greenwich well GWG 206.

LOCATION.--Lat 41°36'45", long 71°33'29", Kent County, Hydrologic Unit 01090004, town of West Greenwich, Hopkins Hill Road.

Owner: Private owner.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in., depth 9.6 ft, cased with stone to 9.6 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 374.26 ft above National Geodetic Vertical Datum of 1929. Measuring point: Spray painted arrow on rock, 3.05 ft above land-surface datum.

PERIOD OF RECORD.--October 1955 to June 1960, January 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.85 ft below land-surface datum, Oct. 17, 1955; lowest measured, dry, Aug. 26, Sept. 22, Oct. 25, 1993, Sept. 27, 1995, Oct. 23, 1997.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	6.04	DEC 26	5.49	FEB 22	4.72	APR 24	4.13	JUN 27	4.40	AUG 20	7.04
NOV 29	6.20	JAN 29	4.94	MAR 20	4.24	MAY 28	4.03	JUL 26	5.82	SEP 20	6.62
WATER YEAR 2002		HIGHEST	4.03	MAY 28, 2002		LOWEST	7.04	AUG 20, 2002			

GROUND-WATER LEVELS IN RHODE ISLAND

NEWPORT COUNTY

41322007115501. Little Compton well LTW 142.

LOCATION.--Lat 41°32'20", long 71°11'55", Newport County, Hydrologic Unit 01090004, town of Little Compton, East of Rt. 77 at intersection with Old Main Road.

Owner: State of Rhode Island.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in., depth 23.1 ft, cased to 12.9 ft, screened from 12.9 ft to 22.3 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by Rhode Island Department of Environmental Management.

DATUM.--Elevation of land-surface datum is 100 ft above National Geodetic Vertical Datum of 1929. Measuring point: Notch in PVC casing, 1.4 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.23 ft below land-surface datum, Jan. 22, 1996; lowest measured, dry, Aug. 25, Sept. 29, Oct. 26, Dec. 2, 1993.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 28	DRY	FEB 25	13.53	MAY 02	11.75	JUN 28	13.68	AUG 15	18.43	SEP 26	DRY
JAN 29	13.42	MAR 27	11.25	20	6.81	JUL 29	17.46	29	DRY		
WATER YEAR	2002	HIGHEST	6.81	MAY 20, 2002	LOWEST	18.43	AUG 15, 2002				

413325071152401. Portsmouth well POW 551.

LOCATION.--Lat 41°33'25", long 71°15'24", Newport County, Hydrologic Unit 01090004, town of Portsmouth, State police barracks, Portsmouth Terrace on East Main St. (Rt. 138); just south of Union St.

Owner: State of Rhode Island.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in., depth 51.9 ft, cased to 41.7 ft, screened from 41.7 ft to 51.1 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by Rhode Island Department of Environmental Management.

DATUM.--Elevation of land-surface datum is 245 ft above National Geodetic Vertical Datum of 1929. Measuring point: Notch in PVC casing, 2.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.42 ft below land-surface datum, Mar. 21, 2000; lowest measured, dry, Sept. 29, Oct. 26, 1993.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 28	DRY	FEB 26	38.41	MAY 03	34.49	JUN 25	35.57	AUG 15	46.04	SEP 26	49.90
JAN 28	42.73	MAR 28	35.10	20	27.65	JUL 29	43.36	28	48.21		
WATER YEAR	2002	HIGHEST	27.65	MAY 20, 2002	LOWEST	49.90	SEP 26, 2002				

413442071093801. Tiverton well TIW 274.

LOCATION.--Lat 41°34'42", long 71°09'38", Newport County, Hydrologic Unit 01090004, town of Tiverton, 305 Lake Road.

Owner: Private owner.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in., depth 13.18 ft, cased with concrete to 13.18 ft, open end.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by Rhode Island Department of Environmental Management.

DATUM.--Elevation of land-surface datum is 160 ft above National Geodetic Vertical Datum of 1929. Measuring point: Spray painted arrow on cross beam, 1.90 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.43 ft below land-surface datum, Mar. 27, 2002; lowest measured, 13.61 ft below land-surface datum, June. 26, 2000.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	8.97	JAN 29	2.17	MAR 27	0.43	MAY 20	1.00	JUL 29	9.29	AUG 29	11.19
NOV 28	9.83	FEB 26	2.77	MAY 01	.87	JUN 28	4.01	AUG 15	10.44	SEP 26	10.56
DEC 28	11.43										
WATER YEAR	2002	HIGHEST	0.43	MAR 27, 2002	LOWEST	11.43	DEC 28, 2001				

GROUND-WATER LEVELS IN RHODE ISLAND

PROVIDENCE COUNTY

415710071402201. Burrillville well BUW 187.

LOCATION.--Lat 41°57'10", long 71°40'22", Providence County, Hydrologic Unit 01090003, town of Burrillville, 25 ft east of road and 75 ft southwest of a house 0.6 mi north of intersection of Harrisville and Lapham Farm Roads, and 0.9 mi south of Harrisville.

Owner: Brothers of the Sacred Heart.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in., depth 19.8 ft, lined with stone to 19.8 ft, shored.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 462 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in top of concrete cover, 0.58 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.74 ft below land-surface datum, Apr. 23, 1983; lowest measured, 18.83 ft below land-surface datum, Nov. 3, 1970.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	17.32	JAN 29	16.95	MAR 20	16.12	MAY 28	15.17	JUL 26	16.34	SEP 04	17.36
NOV 29	17.61	FEB 21	16.54	APR 24	15.62	JUN 27	15.37	AUG 20	17.11	SEP 20	17.56
DEC 26	17.46										
WATER YEAR	2002	HIGHEST	15.17	MAY 28, 2002		LOWEST	17.61	NOV 29, 2001			

415546071474701. Burrillville well BUW 395.

LOCATION.--Lat 41°55'46", long 71°47'47", Providence County, Hydrologic Unit 01100001, town of Burrillville, Pulaski Memorial State Park, near southeast corner of parking area #3.

Owner: State of Rhode Island.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in., depth 17.7 ft, cased to 7.8 ft, screened from 7.8 ft to 17.2 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by Rhode Island Department of Environmental Management.

DATUM.--Elevation of land-surface datum is 575 ft above National Geodetic Vertical Datum of 1929. Measuring point: Notch in PVC casing, 1.1 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.04 ft below land-surface datum, Mar. 28, 1994; lowest measured, dry, Sept. 26, 1995.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	11.93	JAN 30	9.89	MAR 28	6.77	MAY 21	5.88	JUL 30	14.75	AUG 27	11.58
NOV 26	11.90	FEB 26	9.06	MAY 01	6.68	JUN 25	11.90	AUG 14	11.01	SEP 27	12.57
WATER YEAR	2002	HIGHEST	5.88	MAY 21, 2002		LOWEST	14.75	JUL 30, 2002			

4158470711471401. Burrillville well BUW 396.

LOCATION.--Lat 41°58'47", long 71°47'14", Providence County, Hydrologic Unit 01100001, town of Burrillville, Buck Hill Road, 0.3 mi west of Wakefield Road; north side of road at turn-out, near stream. Near power-line pole #64.

Owner: State of Rhode Island.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in., depth 17.4 ft, cased to 7.2 ft, screened from 7.2 ft to 16.6 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by Rhode Island Department of Environmental Management.

DATUM.--Elevation of land-surface datum is 530 ft above National Geodetic Vertical Datum of 1929. Measuring point: Notch in PVC casing, 0.8 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.32 ft below land-surface datum, Mar. 28, 1994; lowest measured, 7.65 ft below land-surface datum, Aug. 25, 1999.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	5.90	JAN 29	6.16	MAR 28	4.73	MAY 21	5.10	JUL 30	5.86	AUG 28	7.03
NOV 28	6.15	FEB 27	5.55	MAY 01	5.28	JUN 25	5.54	AUG 13	7.08	SEP 27	7.07
DEC 27	DRY										
WATER YEAR	2002	HIGHEST	4.73	MAR 28, 2002		LOWEST	7.08	AUG 13, 2002			

GROUND-WATER LEVELS IN RHODE ISLAND

PROVIDENCE COUNTY--Continued

415606071462201. Burrillville well BUW 397.

LOCATION.--Lat 41°56'06", long 71°46'22", Providence County, Hydrologic Unit 01100001, town of Burrillville, Pulaski Memorial State Park, Center Trail, east of buw 395.

Owner: State of Rhode Island.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in., depth 25.6 ft, cased to 15.2 ft, screened from 15.2 ft to 24.8 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by Rhode Island Department of Environmental Management.

DATUM.--Elevation of land-surface datum is 705 ft above National Geodetic Vertical Datum of 1929. Measuring point: Notch in PVC casing, 2.0 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.00 ft below land-surface datum, Mar. 28, 1994; lowest measured, dry, several times in water years 1993, 1998, 1999.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	23.55	JAN 30	DRY	MAR 28	22.40	MAY 21	12.85	JUL 30	DRY	AUG 27	DRY
NOV 26	DRY	FEB 26	DRY	MAY 01	15.40	JUN 26	21.10	AUG 14	DRY	SEP 27	22.89
DEC 27	DRY										
WATER YEAR	2002	HIGHEST	12.85	MAY 21, 2002		LOWEST	23.55	OCT 25, 2001			

415559071471201. Burrillville well BUW 398.

LOCATION.--Lat 41°55'59", long 71°47'12", Providence County, Hydrologic Unit 01100001, town of Burrillville, Pulaski Park, Center Trail.

Owner: State of Rhode Island.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in., depth 13.5 ft, cased to 3.3 ft, screened from 3.3 ft to 12.7 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by Rhode Island Department of Environmental Management.

DATUM.--Elevation of land-surface datum is 615 ft above National Geodetic Vertical Datum of 1929. Measuring point: Notch in PVC casing, 1.7 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.65 ft below land-surface datum, Mar. 28, 1994; lowest measured, dry, several times in water year 1998.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 26	DRY	JAN 30	DRY	MAR 28	7.28	MAY 21	6.71	JUL 30	DRY	AUG 27	DRY
DEC 27	DRY	FEB 26	DRY	MAY 01	7.90	JUN 26	10.53	AUG 14	DRY	SEP 27	DRY
WATER YEAR	2002	HIGHEST	6.71	MAY 21, 2002		LOWEST	10.53	JUN 26, 2002			

414448071323001. Cranston well CRW 439.

LOCATION.--Lat 41°44'48", long 71°32'30", Providence County, Hydrologic Unit 01090004, town of Cranston, J.L. Curran Park, west side of Laten Knight Road, 0.3 mi north of Hope Road.

Owner: State of Rhode Island.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in., depth 23.1 ft, cased to 12.9 ft, screened from 12.9 ft to 22.3 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by Rhode Island Department of Environmental Management.

DATUM.--Elevation of land-surface datum is 395 ft above National Geodetic Vertical Datum of 1929. Measuring point: Notch in PVC casing, 1.8 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.57 ft below land-surface datum, Mar. 24, 1998; lowest measured, dry, Oct. 26, Nov. 29, 1994.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	20.22	JAN 24	20.85	MAR 27	17.46	MAY 22	10.54	JUL 30	17.52	AUG 27	19.47
NOV 27	20.89	FEB 25	19.67	MAY 03	13.42	JUN 27	13.72	AUG 15	18.74	SEP 24	20.36
DEC 27	21.38										
WATER YEAR	2002	HIGHEST	10.54	MAY 22, 2002		LOWEST	21.38	DEC 27, 2001			

GROUND-WATER LEVELS IN RHODE ISLAND

PROVIDENCE COUNTY--Continued

415626071254601. Cumberland well CUW 265.

LOCATION.--Lat 41°56'26", long 71°25'46", Providence County, Hydrologic Unit 01090003, town of Cumberland, at 27 Scott Street, 900 ft northeast of intersection of Scott Street and Mendon Road in Ashton.

Owner: Private owner.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in., depth 20 ft, lined with stone to 20 ft, shored.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 130 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in wooden cover, 0.06 ft above land-surface datum.

PERIOD OF RECORD.--August 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.20 ft below land-surface datum, Jan. 27, 1979; lowest measured, 17.20 ft below land-surface datum, Sept. 29, 1949.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	15.28	JAN 29	12.43	MAR 20	11.32	MAY 28	10.88	JUL 26	13.20	SEP 04	13.66
NOV 29	15.47	FEB 21	11.89	APR 24	11.71	JUN 27	12.09	AUG 20	13.75	SEP 20	13.40
DEC 26	14.40										
WATER YEAR	2002	HIGHEST	10.88	MAY 28, 2002		LOWEST	15.47	NOV 29, 2001			

414420071422301. Foster well FOW 40.

LOCATION.--Lat 41°44'20", long 71°42'23", Providence County, Hydrologic Unit 01090004, town of Foster, Plainfield Pike.

Owner: Private owner.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 48 in., depth 15.4 ft, cased with stone to 15.4 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 630 ft above National Geodetic Vertical Datum of 1929. Measuring point: Spray painted arrow top of casing, 0.40 ft. above land-surface datum.

PERIOD OF RECORD.--July 1953 to February 1959, April 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.29 ft below land-surface datum, May 27, 1954; lowest measured, 13.97 ft below land-surface datum, Oct. 28, 1957.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	9.49	DEC 26	7.23	FEB 21	3.96	APR 24	5.00	JUN 27	6.15	AUG 20	11.20
NOV 29	9.44	JAN 29	4.32	MAR 20	3.70	MAY 28	4.66	JUL 26	9.69	SEP 20	11.51
WATER YEAR	2002	HIGHEST	3.70	MAR 20, 2002		LOWEST	11.51	SEP 20, 2002			

414357071405101. Foster well FOW 290.

LOCATION.--Lat 41°43'57", long 71°40'51", Providence County, Hydrologic Unit 01090004, town of Foster, Parker Woodland, Audobon Society. Pig Hill Road, 1 mi north of Maple Valley Road.

Owner: State of Rhode Island.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in., depth 15.4 ft, cased to 5.2 ft, screened from 5.2 ft to 14.6 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by Rhode Island Department of Environmental Management.

DATUM.--Elevation of land-surface datum is 345 ft above National Geodetic Vertical Datum of 1929. Measuring point: Notch in PVC casing, 1.6 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.36 ft below land-surface datum, Mar. 28, 1994; lowest measured, dry, several times in water years 1993, 1994, and 1998.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 27	DRY	JAN 24	DRY	MAR 27	8.99	MAY 22	5.39	JUL 30	DRY	AUG 26	13.83
DEC 27	DRY	FEB 26	12.75	MAY 03	6.67	JUN 27	7.32	AUG 13	12.63	SEP 24	DRY
WATER YEAR	2002	HIGHEST	5.39	MAY 22, 2002		LOWEST	13.83	AUG 26, 2002			

GROUND-WATER LEVELS IN RHODE ISLAND

PROVIDENCE COUNTY--Continued

415437071242201. Lincoln well LIW 84.

LOCATION.--Lat 41°54'37", long 71°24'22", Providence County, Hydrologic Unit 0190003, town of Lincoln, at north side of Maplehurst Farms building, and 800 ft west of Blackstone River bridge in Lonsdale.

Owner: Maplehurst Farms, Inc.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in., depth 107 ft, cased to 107 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 60 ft above National Geodetic Vertical Datum of 1929. Measuring point: Inside lower lip of 8-in. pipe, 3.32 ft above land-surface datum.

REMARKS.--Water level affected by Blackstone River floods.

PERIOD OF RECORD.--June 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, +0.97 ft above land-surface datum, Jan. 28, 1976, lowest measured, 7.36 ft below land-surface datum, Aug. 24, 1999.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	5.91	JAN 29	6.08	MAR 20	5.97	MAY 28	5.28	JUL 26	6.34	SEP 04	6.29
NOV 29	6.09	FEB 21	5.98	APR 24	5.94	JUN 27	5.70	AUG 20	6.59	SEP 20	6.46
DEC 26	5.84										
WATER YEAR	2002	HIGHEST	5.28	MAY 28, 2002		LOWEST	6.59	AUG 20, 2002			

415948071325001 North Smithfield well NSW 21.

LOCATION.--Lat 41°59'48", long 71°32'50", Providence County, Hydrologic Unit 1090003, town of North Smithfield, 500 ft southwest of State Highway 146A, 900 ft west of intersection of State Highway 146A and Harkness Road at Branch Village.

Owner: Private owner.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug domestic water-table well, diameter 24 in., depth 16 ft, cased with tile to 16 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Land-surface datum is 238.68 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in concrete cover at top of tile casing, 1.84 ft below land-surface datum.

REMARKS.--Well used for domestic supply; water levels affected by pumping, 1947-80.

PERIOD OF RECORD.--May 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.67 ft below land-surface datum, Mar. 26, 1969; lowest measured, 11.71 ft below land-surface datum, Oct. 28, 1957.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	11.27	JAN 29	9.16	MAR 20	7.63	MAY 28	6.76	JUL 26	9.49	SEP 04	10.22
NOV 29	10.58	FEB 21	8.39	APR 24	7.46	JUN 27	8.19	AUG 20	10.24	SEP 20	10.40
DEC 26	10.22										
WATER YEAR	2002	HIGHEST	6.76	MAY 28, 2002		LOWEST	11.27	OCT 30, 2001			

GROUND-WATER LEVELS IN RHODE ISLAND

PROVIDENCE COUNTY--Continued

414746071255601. Providence well PRW 48.

LOCATION.--Lat 41°47'46", long 71°25'56", Providence County, Hydrologic Unit 01090004, city of Providence, at 333 Adelaide Avenue, and 800 ft northwest of Adelaide and 800 ft west of Narragansett Avenues.

Owner: Gorham Division of Textron.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in., depth 124 ft, cased to 116 ft, screened 116 to 124 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Land-surface datum is 45.79 ft, above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of hole in center of steel cover, 0.48 ft below land-surface datum.

REMARKS.--Water level affected by pumping from one or more nearby wells.

PERIOD OF RECORD.--December 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.78 ft below land-surface datum, Apr. 23, 1983; lowest measured, 10.22 ft below land-surface datum, Oct. 20, 1947.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	4.97	JAN 29	5.21	MAR 20	5.23	MAY 28	4.71	JUL 25	5.11	SEP 04	5.21
NOV 29	4.99	FEB 21	5.27	APR 24	5.06	JUN 27	4.81	AUG 20	5.28	SEP 20	4.99
DEC 26	5.04										
WATER YEAR	2002	HIGHEST	4.71	MAY 28, 2002		LOWEST	5.28	AUG 20, 2002			

WASHINGTON COUNTY

412214071394001. Charlestown well CHW 18.

LOCATION.--Lat 41°22'14", long 71°39'40", Washington County, Hydrologic Unit 01090005, town of Charlestown, 1,900 ft southeast of U.S. Highway 1, at former U.S. Navy Auxiliary Air Station.

Owner: U.S. General Services Administration.

AQUIFER.--Sand and clay of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in., depth 32 ft, cased to 32 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 26 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--October 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.09 ft below land-surface datum, Apr. 23, 1983; lowest measured, 21.63 ft below land-surface datum, Dec. 29, 1965.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	20.11	JAN 29	20.83	MAR 20	20.19	MAY 28	15.89	JUL 26	18.55	SEP 04	20.35
NOV 29	20.70	FEB 22	20.40	APR 24	17.90	JUN 27	16.84	AUG 20	19.76	SEP 20	20.73
DEC 27	21.13										
WATER YEAR	2002	HIGHEST	15.89	MAY 28, 2002		LOWEST	21.13	DEC 27, 2001			

GROUND-WATER LEVELS IN RHODE ISLAND

WASHINGTON COUNTY--Continued

412434071422401. Charlestown well CHW 586.

LOCATION.--Lat 41°24'34", long 71°42'24", Washington County, Hydrologic Unit 01090005, town of Charlestown, Burlingame State Park, 0.7 mi from Buckeye Road on Clawson Trail.
Owner: State of Rhode Island.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in., depth 14.3 ft, cased to 4.1 ft, screened from 4.1 ft to 13.5 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by Rhode Island Department of Environmental Management.

DATUM.--Elevation of land-surface datum is 125 ft above National Geodetic Vertical Datum of 1929. Measuring point: Notch in PVC casing, 1.3 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.84 ft below land-surface datum, Mar. 28, 2002; lowest measured, dry, Aug. 26, 1999.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	3.12	DEC 26	3.56	MAR 28	1.84	MAY 20	3.33	JUL 30	4.63	AUG 26	6.51
	25	JAN 28	3.64	APR 30	3.41	JUN 27	3.93	AUG 14	5.83	SEP 26	4.23
NOV 26	3.76	FEB 27	3.76								
WATER YEAR	2002	HIGHEST	1.84	MAR 28, 2002		LOWEST	6.51	AUG 26, 2002			

412424071423601. Charlestown well CHW 587.

LOCATION.--Lat 41°24'24", long 71°42'36", Washington County, Hydrologic Unit 01090005, town of Charlestown, Burlingame State Park, 0.8 mi from Buckeye Brook Road on Mills Trail.
Owner: State of Rhode Island.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in., depth 12.5 ft, cased to 2.3 ft, screened from 2.3 ft to 11.7 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by Rhode Island Department of Environmental Management.

DATUM.--Elevation of land-surface datum is 90 ft above National Geodetic Vertical Datum of 1929. Measuring point: Notch in PVC casing, 1.6 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.35 ft below land-surface datum, Mar. 24, 1999; lowest measured, 12.56 ft below land-surface datum, July 30, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	11.92	JAN 28	8.56	MAR 28	6.68	MAY 20	4.96	JUL 30	12.56	AUG 26	DRY
NOV 26	DRY	FEB 27	9.08	APR 30	7.14	JUN 27	9.26	AUG 14	11.87	SEP 26	DRY
DEC 26	11.10										
WATER YEAR	2002	HIGHEST	4.96	MAY 20, 2002		LOWEST	12.56	JUL 30, 2002			

GROUND-WATER LEVELS IN RHODE ISLAND

WASHINGTON COUNTY--Continued

413423071431901. Exeter well EXW 6.

LOCATION.--Lat 41°34'23", long 71°43'19", Washington County, Hydrologic Unit 01090005, town of Exeter, in Arcadia State Forest, 150 ft west of Wood River, 250 ft south of Ten Rod Road, and 2.0 mi west of Millville.

Owner: State Dept. of Natural Resources.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in., depth 10 ft, cased with concrete to 10 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Land-surface datum is 132.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in top of wooden cover, at land-surface datum.

REMARKS.--Water level affected by stage of nearby Wood River.

PERIOD OF RECORD.--December 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.34 ft below land-surface datum, Jan. 27, 1979; lowest measured, 7.97 ft below land-surface datum, Sept. 26, 1981.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	6.87	JAN 29	6.64	MAR 20	6.32	MAY 28	5.58	JUL 26	6.65	SEP 04	6.80
NOV 29	6.95	FEB 21	6.65	APR 24	6.00	JUN 27	5.87	AUG 20	7.04	SEP 20	6.94
DEC 26	6.70										
WATER YEAR	2002	HIGHEST	5.58	MAY 28, 2002		LOWEST	7.04	AUG 20, 2002			

413505071452801. Exeter well EXW 158.

LOCATION.--Lat 41°35'05", long 71°45'28", Washington County, Hydrologic Unit 01090005, town of Exeter, Escoheag Hill Road.

Owner: State of Rhode Island.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in., depth 18.3 ft, cased with stone to 18.3 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 315 ft above National Geodetic Vertical Datum of 1929. Measuring point: Spray painted arrow on rock, at land-surface datum.

PERIOD OF RECORD.--September 1953 to February 1959, November 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.85 ft below land-surface datum, Mar. 25, 1994; lowest measured, dry, several times during water years 1994 and 1998.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 29	17.21	JAN 29	15.11	MAR 20	9.12	MAY 28	6.19	JUL 26	13.44	SEP 20	17.42
DEC 26	17.27	FEB 21	13.32	APR 24	6.94	JUN 27	8.16	AUG 20	16.32		
WATER YEAR	2002	HIGHEST	6.19	MAY 28, 2002		LOWEST	17.42	SEP 20, 2002			

413400071363101. Exeter well EXW 238.

LOCATION.--Lat 41°34'00", long 71°36'31", Washington County, Hydrologic Unit 01090005, town of Exeter, Tripps Corner Road.

Owner: Private owner.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in., depth 14.4 ft, cased with stone to 14.4 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 333.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Spray painted arrow on rock, at land-surface datum.

PERIOD OF RECORD.--October 1955 to June 1960, May 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.37 ft below land-surface datum Oct.17, 1955; lowest measured, 13.61 ft below land-surface datum, July 22, 1999.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	11.65	DEC 26	11.21	FEB 22	11.30	APR 24	11.23	JUN 27	12.11	AUG 20	13.38
NOV 29	11.55	JAN 29	11.42	MAR 20	11.20	MAY 28	11.53	JUL 26	12.93	SEP 20	12.76
WATER YEAR	2002	HIGHEST	11.20	MAR 20, 2002		LOWEST	13.38	AUG 20, 2002			

GROUND-WATER LEVELS IN RHODE ISLAND

WASHINGTON COUNTY--Continued

413135071314201. Exeter well EXW 278.

LOCATION.--Lat 41°31'35", long 71°31'42", Washington County, Hydrologic Unit 01090005, town of Exeter, Liberty Road 1.04 mi from Rt. 2.

Owner: Private owner.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in, depth 23.9 ft, cased with stone to 23.9 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 230.90 ft above National Geodetic Vertical Datum of 1929. Measuring point: Spray painted arrow top of casing, 1.20 ft above land-surface datum.

PERIOD OF RECORD.--August 1954 to June 1960, March 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.06 ft below land-surface datum, May 29, 1991; lowest measured, dry, several times in water years 1993, 1994, and 1998.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	20.96	DEC 26	22.69	FEB 22	20.23	APR 24	12.66	JUN 27	11.42	AUG 20	17.94
NOV 29	DRY	JAN 29	22.00	MAR 20	17.83	MAY 28	9.47	JUL 26	15.13	SEP 20	20.72
WATER YEAR	2002	HIGHEST	9.47	MAY 28, 2002	LOWEST	22.69	DEC 26, 2001				

413358071433801. Exeter well EXW 475.

LOCATION.--Lat 41°33'58", long 71°43'38", Washington County, Hydrologic Unit 01090005, town of Exeter, 70 ft east of Mt. Tom Road, 50 ft north of Blitzkrieg Trail, and 2.4 mi northwest of Barberville.

Owner: State Department of Environmental Management.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in, depth 40 ft, cased to 38 ft, screened 38 to 40 ft.

INSTRUMENTATION.--Continuous graphic recorder March 1981 to May 1988, digital recorder (60-min punch) June 1988 to current year.

DATUM.--Land-surface datum is 142.92 ft above National Geodetic Vertical Datum of 1929. Measuring point: Floor of recorder shelter, 3.38 ft above land-surface datum.

PERIOD OF RECORD.--March 1981 to current year.

REMARKS.--Missing periods of more than one day are not estimated.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.58 ft below land-surface datum, Apr. 28, 29, 1983; lowest, 16.74 ft below land-surface datum, Oct. 19, 1981, Sept. 17, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.55	16.09	16.49	16.67	16.55	16.57	15.80	15.23	14.59	14.71	15.64	16.48
2	15.56	16.11	16.50	16.68	16.55	16.56	15.75	15.22	14.59	14.74	15.67	16.49
3	15.58	16.12	16.51	16.69	16.55	16.53	15.70	15.20	14.60	14.76	15.70	16.49
4	15.60	16.13	16.52	16.69	16.55	16.46	15.66	15.20	14.61	14.80	15.72	16.49
5	15.62	16.15	16.53	16.70	16.55	16.42	15.62	15.20	14.61	14.83	15.75	16.49
6	15.64	16.17	16.54	16.71	16.55	16.38	15.58	15.20	14.61	14.86	15.78	16.51
7	15.65	16.18	16.55	16.72	16.56	16.34	15.55	15.18	14.57	14.89	15.81	16.52
8	15.68	16.19	16.57	16.72	16.57	16.31	15.51	15.18	14.54	14.92	15.84	16.53
9	15.70	16.21	16.57	16.72	16.59	16.28	15.48	15.18	14.52	14.94	15.87	16.55
10	15.71	16.22	16.58	16.72	16.59	16.25	15.45	15.18	14.51	14.97	15.89	16.56
11	15.73	16.24	16.59	16.72	16.59	16.22	15.43	15.19	14.50	15.00	15.92	16.58
12	15.75	16.25	16.60	16.73	16.58	16.20	15.40	15.20	14.49	15.04	15.95	16.60
13	15.77	16.27	16.61	16.72	16.58	16.18	15.38	15.19	14.49	15.07	15.99	16.62
14	15.79	16.28	16.62	16.69	16.58	16.17	15.36	15.13	14.49	15.10	16.02	16.63
15	15.81	16.30	16.63	16.65	16.58	16.15	15.35	15.09	14.49	15.13	16.05	16.65
16	15.82	16.31	16.63	16.63	16.58	16.14	15.33	15.05	14.49	15.16	16.08	16.66
17	15.84	16.33	16.64	16.61	16.59	16.13	15.32	15.01	14.48	15.19	16.11	16.65
18	15.86	16.33	16.65	16.60	16.59	16.12	15.31	14.97	14.48	15.22	16.14	16.66
19	15.87	16.34	16.64	16.59	16.59	16.11	15.30	14.92	14.49	15.25	16.17	16.66
20	15.89	16.36	16.65	16.58	16.60	16.10	15.29	14.87	14.50	15.28	16.20	16.68
21	15.91	16.37	16.65	16.57	16.59	16.07	15.29	14.83	14.51	15.32	16.23	16.69
22	15.93	16.39	16.65	16.57	16.58	16.05	15.29	14.79	14.53	15.35	16.25	16.69
23	15.94	16.40	16.66	16.57	16.57	16.04	15.29	14.76	14.53	15.38	16.28	16.70
24	15.96	16.41	16.66	16.57	16.57	16.02	15.29	14.72	14.55	15.41	16.30	16.69
25	15.97	16.43	16.65	16.55	16.57	16.01	15.29	14.70	14.58	15.44	16.33	16.69
26	15.99	16.44	16.64	16.55	16.57	15.99	15.28	14.67	14.60	15.47	16.35	16.69
27	16.01	16.45	16.64	16.55	16.57	15.97	15.27	14.65	14.61	15.50	16.38	16.69
28	16.03	16.46	16.64	16.55	16.57	15.93	15.26	14.64	14.64	15.53	16.41	16.67
29	16.04	16.47	16.65	16.55	---	15.90	15.24	14.63	14.66	15.55	16.43	16.65
30	16.06	16.49	16.66	16.55	---	15.87	15.24	14.63	14.69	15.58	16.45	16.65
31	16.08	---	16.67	16.55	---	15.84	---	14.61	---	15.61	16.47	---
MEAN	15.82	16.30	16.61	16.63	16.57	16.17	15.41	14.97	14.55	15.16	16.07	16.61
LOW	16.08	16.49	16.67	16.73	16.60	16.57	15.80	15.23	14.69	15.61	16.47	16.70
HIGH	15.55	16.09	16.49	16.55	16.55	15.84	15.24	14.61	14.48	14.71	15.64	16.48
WTR YR 2002	INSTANTANEOUS	HIGH	14.48	JUNE 16-19	LOW	16.73	JAN 11-13					

GROUND-WATER LEVELS IN RHODE ISLAND

WASHINGTON COUNTY--Continued

413252071323601. Exeter well EXW 554.

LOCATION.--Lat 41°32'52", long 71°32'36", Washington County, hydrologic Unit 01090005, town of Exeter, about 1,500 ft south of fire station at Exeter State (Dr. Joseph H. Ladd) School. One half mile west of Rt. 2 on Dawley Rd. and approximately 100 ft north of center line of Dawley Rd.

Owner: State Dept. of Public Welfare.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in, depth 25.1 ft, cased to 22.8 ft, screened from 22.8 ft to 24.8 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Land-surface datum is 156.92 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.40 ft above land-surface datum.

REMARKS.--Replacement well for EXW16, which was influenced by parking lot runoff.

PERIOD OF RECORD.--December 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.03 ft below land-surface datum, Mar. 28, 2001; lowest measured, 12.20 ft below land-surface datum, Nov. 29, 1994.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	10.99	DEC 26	11.32	FEB 22	11.00	APR 24	9.79	JUN 27	9.94	AUG 20	11.29
NOV 29	11.36	JAN 29	11.05	MAR 20	10.55	MAY 28	9.22	JUL 26	10.60	SEP 20	11.50
WATER YEAR	2002	HIGHEST	9.22	MAY 28, 2002	LOWEST	11.50	SEP 20, 2002				

413126071455501. Hopkinton well HOW 67.

LOCATION.--Lat 41°31'26", long 71°45'55", Washington County, Hydrologic Unit 01090005, town of Hopkinton, Beach Pond Road, Rt. 138.

Owner: Rhode Island Boy Scouts.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in, depth 22.9 ft, cased with stone to 22.9 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 335 ft above National Geodetic Vertical Datum of 1929. Measuring point: Spray painted arrow on rock, 1.89 ft above land-surface datum.

PERIOD OF RECORD.--August 1953 to February 1959, November 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.55 ft below land-surface datum, Mar. 28, 2001; lowest measured, dry, Oct. 29, 1957.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	20.80	DEC 27	21.48	FEB 22	20.80	APR 24	17.68	JUN 27	16.47	AUG 20	20.69
NOV 29	21.52	JAN 29	20.90	MAR 20	19.69	MAY 28	15.48	JUL 26	19.02	SEP 20	21.38
WATER YEAR	2002	HIGHEST	15.48	MAY 28, 2002	LOWEST	21.52	NOV 29, 2001				

410947071344803. New Shoreham well NHW 258.

LOCATION.--Lat 41°09'47", long 71°34'48", Washington County, Hydrologic Unit 01090005, town of New Shoreham, Lakeside Drive near Indian Cemetary.

Owner: State of Rhode Island, D.O.T.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in, depth 19.0 ft, cased to 14.0 ft, screened from 14.0 ft to 19.0 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by observer.

DATUM.--Elevation of land-surface datum is 120 ft above National Geodetic Vertical Datum of 1929. Measuring point: Notch in PVC casing, 0.85 ft above land-surface datum.

PERIOD OF RECORD.--August 1990 and September 1990, June 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.05 ft below land-surface datum, Mar. 29, 1993; lowest measured, 13.83 ft below land-surface datum, Nov. 21, 1993.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 28	13.43	JAN 31	13.56	MAR 28	12.85	MAY 27	11.35	JUL 21	11.95	SEP 28	13.13
DEC 30	13.72	FEB 28	13.10	APR 29	11.80	JUN 24	11.45	AUG 26	12.70		
WATER YEAR	2002	HIGHEST	11.35	MAY 27, 2002	LOWEST	13.72	DEC 30, 2001				

GROUND-WATER LEVELS IN RHODE ISLAND

WASHINGTON COUNTY--Continued

413148071281601. North Kingstown well NKW 255.

LOCATION.--Lat 41°31'48", long 71°28'16", Washington County, Hydrologic Unit 01090004, town of North Kingstown, 100 ft east of Pendar Road, 0.6 mi south of intersection of Pendar and Tower Hill Roads, and 1.0 mi south of Allenton.

Owner: Private owner.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in, depth 14 ft, cased with concrete to 14 ft, open end.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 50 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in top of concrete cover, 0.24 ft above land-surface datum.

PERIOD OF RECORD.--August 1954 to December 1963, January 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.81 ft below land-surface datum, Mar. 26, 1968; lowest measured, 13.03 ft below land-surface datum, Oct. 26, 1981.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	9.77	JAN 29	9.67	MAR 20	9.80	MAY 28	8.30	JUL 26	10.17	SEP 04	10.41
NOV 29	10.13	FEB 22	10.10	APR 24	9.30	JUN 27	9.10	AUG 20	10.74	SEP 20	10.75
DEC 27	9.96										
WATER YEAR	2002	HIGHEST	8.30	MAY 28, 2002	LOWEST	10.75	SEP 20, 2002				

412932071374302. Richmond well RIW 417.

LOCATION.--Lat 41°29'32", long 71°37'43", Washington County, Hydrologic Unit 01090005, town of Richmond, about 50 ft south of State Highway 138, about 75 ft west of Beaver River, and 3.3 mi north of Kenyon.

Owner: State Department of Transportation.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 40 ft, cased to 37 ft, screened 37 to 40 ft.

INSTRUMENTATION.--Continuous graphic recorder December 1975 to May 1988, digital recorder (60 minute) June 1988 to current year.

DATUM.--Land-surface datum is 115.56 ft above National Geodetic Vertical Datum of 1929. Measuring point: Floor of recorder shelter, 0.60 ft above land-surface datum.

REMARKS.--Water level affected by stage of nearby Beaver River. Missing periods of more than one day are not estimated.

PERIOD OF RECORD.--December 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.08 ft below land-surface datum, Apr. 25, 1983; lowest, 8.02 ft below land-surface datum, Oct. 3, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.46	7.67	7.78	7.68	7.49	7.50	6.74	6.53	6.18	6.59	7.34	7.88
2	7.43	7.67	7.78	7.70	7.49	7.50	6.69	6.51	6.21	6.62	7.37	7.75
3	7.43	7.67	7.78	7.71	7.49	7.35	6.69	6.47	6.24	6.65	7.39	7.62
4	7.46	7.68	7.79	7.72	7.49	7.27	6.69	6.47	6.27	6.69	7.41	7.63
5	7.48	7.68	7.80	7.73	7.49	7.27	6.69	6.48	6.29	6.72	7.44	7.64
6	7.49	7.68	7.80	7.74	7.50	7.27	6.69	6.49	6.29	6.75	7.46	7.70
7	7.51	7.69	7.81	7.71	7.51	7.28	6.69	6.49	6.03	6.78	7.49	7.75
8	7.52	7.70	7.81	7.70	7.51	7.28	6.69	6.50	5.98	6.80	7.51	7.79
9	7.53	7.70	7.80	7.70	7.52	7.29	6.69	6.51	6.04	6.82	7.54	7.82
10	7.54	7.71	7.79	7.70	7.53	7.27	6.63	6.51	6.12	6.84	7.57	7.84
11	7.55	7.72	7.79	7.70	7.50	7.26	6.61	6.53	6.18	6.87	7.60	7.87
12	7.56	7.73	7.79	7.68	7.49	7.26	6.61	6.54	6.21	6.90	7.62	7.89
13	7.56	7.73	7.80	7.61	7.49	7.26	6.62	6.47	6.23	6.93	7.64	7.91
14	7.58	7.74	7.80	7.54	7.49	7.26	6.62	6.20	6.26	6.95	7.67	7.92
15	7.58	7.74	7.79	7.52	7.49	7.26	6.63	6.18	6.25	6.98	7.69	7.93
16	7.58	7.74	7.79	7.51	7.49	7.26	6.63	6.20	6.26	7.00	7.70	7.80
17	7.56	7.75	7.79	7.51	7.50	7.26	6.63	6.22	6.25	7.03	7.72	7.77
18	7.56	7.76	7.70	7.51	7.50	7.26	6.65	6.09	6.27	7.05	7.75	7.79
19	7.58	7.77	7.66	7.52	7.50	7.25	6.66	5.95	6.31	7.08	7.78	7.81
20	7.58	7.78	7.66	7.52	7.51	7.21	6.67	5.95	6.35	7.09	7.79	7.84
21	7.59	7.78	7.66	7.53	7.48	7.09	6.69	5.97	6.39	7.10	7.79	7.86
22	7.59	7.78	7.67	7.52	7.47	7.09	6.70	5.99	6.41	7.13	7.81	7.87
23	7.60	7.78	7.69	7.52	7.47	7.09	6.70	6.01	6.42	7.16	7.82	7.78
24	7.61	7.79	7.64	7.49	7.47	7.10	6.70	6.02	6.45	7.18	7.84	7.77
25	7.61	7.79	7.60	7.47	7.48	7.10	6.70	6.06	6.49	7.20	7.85	7.78
26	7.62	7.73	7.60	7.47	7.49	7.10	6.62	6.09	6.49	7.22	7.87	7.80
27	7.62	7.73	7.62	7.47	7.50	6.95	6.64	6.10	6.49	7.24	7.90	7.69
28	7.62	7.74	7.63	7.47	7.50	6.89	6.61	6.13	6.49	7.25	7.91	7.65
29	7.63	7.76	7.63	7.48	---	6.89	6.53	6.15	6.50	7.25	7.90	7.65
30	7.64	7.77	7.65	7.48	---	6.89	6.53	6.17	6.55	7.28	7.82	7.67
31	7.66	---	7.66	7.48	---	6.89	---	6.18	---	7.31	7.84	---
MEAN	7.56	7.73	7.73	7.58	7.49	7.19	6.65	6.26	6.30	6.98	7.67	7.78
LOW	7.66	7.79	7.81	7.74	7.53	7.50	6.74	6.54	6.55	7.31	7.91	7.93
HIGH	7.43	7.67	7.60	7.47	7.47	6.89	6.53	5.95	5.98	6.59	7.34	7.62
WTR YR 2002	INSTANTANEOUS	HIGH	5.95	MAY 19, 20	LOW	7.93	SEP 14, 15					

GROUND-WATER LEVELS IN RHODE ISLAND

WASHINGTON COUNTY--Continued

412844071422802. Richmond well RIW 600.

LOCATION.--Lat 41°28'44", long 71°42'28", Washington County, Hydrologic Unit 01090005, town of Richmond, about 50 ft west of Hope Valley Road, and 1.5 mi northeast of Woodville.

Owner: State Department of Transportation.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in, depth 54 ft, cased to 49 ft, screened 49 to 54 ft.

INSTRUMENTATION.--Continuous graphic recorder September 1977 to May 1988, digital recorder (60 minute) June 1988 to current year.

DATUM.--Land-surface datum is 100.17 ft, above National Geodetic Vertical Datum of 1929. Measuring point: Floor of recorder shelter, 2.63 ft above land-surface datum.

PERIOD OF RECORD.--September 1977 to current year.

REMARKS.--Missing periods of more than one day are not estimated.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.42 ft below land-surface datum, June 11, 1982; lowest, 36.04 ft below land-surface datum, Sept. 26, 27, 2002.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.69	35.02	35.42	35.55	35.27	35.18	34.67	34.29	33.94	34.19	34.92	35.80
2	34.68	35.03	35.43	35.56	35.26	35.18	34.64	34.27	33.94	34.21	34.95	35.81
3	34.69	35.05	35.44	35.56	35.25	35.16	34.60	34.26	33.96	34.23	34.98	35.79
4	34.70	35.07	35.45	35.57	35.24	35.15	34.57	34.25	33.98	34.25	35.00	35.78
5	34.70	35.08	35.46	35.58	35.24	35.13	34.53	34.25	33.98	34.27	35.03	35.78
6	34.71	35.10	35.47	35.59	35.24	35.11	34.50	34.24	33.98	34.30	35.06	35.78
7	34.72	35.11	35.48	35.60	35.24	35.09	34.48	34.23	33.97	34.32	35.09	35.80
8	34.72	35.12	35.49	35.60	35.23	35.08	34.46	34.23	33.94	34.34	35.12	35.81
9	34.73	35.14	35.50	35.60	35.24	35.06	34.44	34.23	33.92	34.36	35.15	35.82
10	34.73	35.14	35.50	35.60	35.24	35.03	34.42	34.23	33.91	34.38	35.18	35.83
11	34.75	35.16	35.52	35.61	35.23	35.02	34.41	34.24	33.91	34.41	35.22	35.85
12	34.75	35.18	35.52	35.60	35.23	35.01	34.40	34.24	33.91	34.43	35.25	35.87
13	34.77	35.19	35.53	35.59	35.22	35.00	34.38	34.24	33.92	34.45	35.28	35.88
14	34.79	35.21	35.54	35.54	35.22	34.99	34.36	34.22	33.94	34.48	35.31	35.90
15	34.80	35.23	35.55	35.51	35.22	34.98	34.35	34.20	33.94	34.50	35.33	35.92
16	34.81	35.24	35.55	35.48	35.21	34.96	34.34	34.19	33.94	34.52	35.36	35.93
17	34.82	35.26	35.56	35.46	35.21	34.96	34.33	34.17	33.95	34.54	35.40	35.94
18	34.83	35.27	35.56	35.44	35.21	34.95	34.33	34.14	33.96	34.57	35.43	35.94
19	34.84	35.28	35.55	35.42	35.20	34.94	34.32	34.12	33.98	34.60	35.47	35.96
20	34.86	35.29	35.55	35.41	35.20	34.92	34.32	34.08	34.00	34.63	35.50	35.97
21	34.86	35.31	35.55	35.40	35.20	34.91	34.33	34.04	34.01	34.65	35.52	35.98
22	34.87	35.32	35.56	35.40	35.20	34.89	34.33	34.02	34.03	34.68	35.55	36.00
23	34.88	35.33	35.56	35.39	35.19	34.87	34.34	34.00	34.05	34.70	35.58	36.01
24	34.89	35.34	35.55	35.38	35.19	34.86	34.34	33.97	34.06	34.73	35.61	36.02
25	34.91	35.35	35.53	35.36	35.19	34.85	34.34	33.97	34.08	34.75	35.64	36.02
26	34.92	35.36	35.51	35.35	35.18	34.83	34.33	33.96	34.10	34.78	35.67	36.03
27	34.93	35.37	35.50	35.34	35.18	34.81	34.33	33.96	34.13	34.80	35.70	36.03
28	34.95	35.39	35.50	35.33	35.18	34.79	34.32	33.95	34.14	34.82	35.72	36.01
29	34.96	35.40	35.51	35.31	---	34.76	34.31	33.94	34.16	34.85	35.75	36.00
30	34.98	35.41	35.52	35.29	---	34.73	34.30	33.94	34.18	34.87	35.76	36.00
31	35.01	---	35.54	35.28	---	34.71	---	33.94	---	34.90	35.78	---
MEAN	34.81	35.23	35.51	35.47	35.22	34.96	34.40	34.13	34.00	34.53	35.36	35.91
LOW	35.01	35.41	35.56	35.61	35.27	35.18	34.67	34.29	34.18	34.90	35.78	36.03
HIGH	34.68	35.02	35.42	35.28	35.18	34.71	34.30	33.94	33.91	34.19	34.92	35.78
WTR YR 2002	INSTANTANEOUS	HIGH	33.91	JUNE 10, 11, 12	LOW	36.04	SEPT 26, 27					

412718071415201. Richmond well RIW 785.

LOCATION.--Lat 41°27'18", long 71°41'52", Washington County, Hydrologic Unit 01090005, town of Richmond, about 50 ft. west of Narragansett Trail, and 1.2 mi north of Wood River Junction.

Owner: Tuckahoe Turf Farms.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in, depth 40.06 ft, cased to 34.21 ft, screened from 34.21 ft to 40.06 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 85 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.65 ft above land-surface datum.

REMARKS.--Replacement well for RIW 231 which was destroyed.

PERIOD OF RECORD.--October 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.50 ft below land-surface datum, June 30, 1998 lowest measured, 26.92 ft below land-surface datum, Mar. 20, 2002.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	24.63	JAN 29	26.37	MAR 20	26.92	MAY 28	26.17	JUL 26	25.86	SEP 04	26.28
NOV 29	25.34	FEB 22	26.64	APR 24	26.48	JUN 27	25.73	AUG 20	26.09	SEP 20	26.48
DEC 27	25.97										
WATER YEAR 2002	HIGHEST	24.63	OCT 31, 2001	LOWEST	26.92	MAR 20, 2002					

GROUND-WATER LEVELS IN RHODE ISLAND

WASHINGTON COUNTY--Continued

412918071321001. South Kingstown well SNW 6.

LOCATION.--Lat 41°29'18", long 71°32'10", Washington County, Hydrologic Unit 01090005, town of South Kingstown, in parking lot for Thomas Ryan Center at University of Rhode Island, and 0.9 mi northwest of Kingston.

Owner: University of Rhode Island.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water table well, diameter 10 in, depth 34 ft, cased to 34 ft, open end.

INSTRUMENTATION.--Continuous graphic recorder July 1973 to May 1988, digital recorder (60 minute) June 1988 to current year.

DATUM.--Land-surface datum is 111.89 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of hole in base of recorder shelter, 3.07 ft above land-surface datum; prior to Mar. 6, 2002, 0.04 ft above land-surface datum.

RECORD OF PERIOD.--November to December 1947, February 1955 to current year.

REMARKS.--Missing periods of more than one day are not estimated. Original well landscape significantly altered during construction of parking lot during 2002 water year. Land-surface datum changes unknown.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.91 ft below land-surface datum, Apr. 25, 26, 1983; lowest, 15.06 ft below land-surface datum, Dec. 29, 1965.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.34	13.89	14.22	---	---	---	12.85	12.31	11.70	12.11	12.88	13.63
2	13.34	13.90	14.23	---	---	---	12.79	12.29	11.70	12.13	12.90	13.64
3	13.35	13.91	14.23	---	---	---	12.71	12.26	11.74	12.14	12.93	13.51
4	13.37	13.93	14.24	---	---	---	12.67	12.25	11.78	12.17	12.95	13.43
5	13.39	13.94	14.24	---	---	---	12.62	12.24	11.79	12.19	12.97	13.43
6	13.40	13.95	14.25	---	---	---	12.59	12.22	11.81	12.21	12.98	13.46
7	13.43	13.97	14.25	---	---	13.50	12.57	12.21	11.77	12.21	13.00	13.51
8	13.46	13.98	14.26	---	---	13.49	12.54	12.21	11.71	12.21	13.03	13.55
9	13.48	13.99	14.27	---	---	13.48	12.50	12.22	11.68	12.23	13.04	13.58
10	13.51	14.00	14.27	---	---	13.48	12.48	12.22	11.69	12.26	13.07	13.56
11	13.53	14.01	14.27	---	---	13.47	12.46	12.23	11.69	12.30	13.09	13.53
12	13.56	14.03	14.27	---	---	13.46	12.43	12.24	11.70	12.34	13.11	13.57
13	13.58	14.04	14.27	---	---	13.45	12.41	12.24	11.73	12.37	13.13	13.60
14	13.60	14.05	---	---	---	13.45	12.39	12.18	11.75	12.40	13.15	13.63
15	13.63	14.07	---	---	---	13.44	12.37	12.13	11.77	12.43	13.18	13.66
16	13.65	14.08	---	---	---	13.43	12.36	12.08	11.79	12.46	13.19	13.68
17	13.67	14.09	---	---	---	13.43	12.35	12.06	11.81	12.49	13.21	13.68
18	13.68	14.11	---	---	---	13.42	12.35	12.03	11.83	12.52	13.24	13.68
19	13.70	14.12	---	---	---	13.42	12.34	11.95	11.86	12.55	13.27	13.69
20	13.71	14.13	---	---	---	13.40	12.34	11.88	11.89	12.58	13.29	13.71
21	13.73	14.15	---	---	---	13.37	12.35	11.84	11.91	12.62	13.32	13.74
22	13.75	14.15	---	---	e13.69	13.32	12.35	11.82	11.93	12.64	13.34	13.76
23	13.77	14.17	---	---	---	13.28	12.36	11.79	11.95	12.67	13.37	13.78
24	13.78	14.18	---	---	---	13.25	12.38	11.76	11.97	12.70	13.41	13.80
25	13.80	14.19	---	---	---	13.23	12.39	11.75	12.00	12.72	13.44	13.81
26	13.81	14.18	---	---	---	13.21	12.38	11.73	12.02	12.74	13.47	13.82
27	13.82	14.19	e14.01	---	---	13.13	12.38	11.73	12.02	12.75	13.50	13.81
28	13.84	14.20	---	e13.71	---	13.04	12.36	11.72	12.04	12.77	13.53	13.78
29	13.85	14.21	---	---	---	12.98	12.33	11.71	12.07	12.80	13.56	13.75
30	13.87	14.21	---	---	---	12.94	12.32	11.70	12.09	12.82	13.58	13.74
31	13.88	---	---	---	---	12.90	---	11.70	---	12.85	13.60	---
MEAN	13.62	14.07	---	---	---	---	12.46	12.02	11.84	12.46	13.22	13.65
LOW	13.88	14.21	---	---	---	---	12.85	12.31	12.09	12.85	13.60	13.82
HIGH	13.34	13.89	---	---	---	---	12.32	11.70	11.68	12.11	12.88	13.43

WTR YR 2002 INSTANTANEOUS HIGH 11.65 JUNE 9, 10 LOW 14.28 DEC 13
(includes monthly and recorded values)

e Estimated

GROUND-WATER LEVELS IN RHODE ISLAND

WASHINGTON COUNTY--Continued

412918071321001. South Kingstown well SNW 1198.

LOCATION.--Lat 41°29'35", long 71°35'35", Washington County, Hydrologic Unit 01090005, town of South Kingstown, at Laurel Lane Golf Course, 2.7 mi west of West Kingstown.

Owner: Private owner.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water table well, diameter 2 in, depth 20.6 ft, cased 18.6 to 20.6 ft.

INSTRUMENTATION.--Monthly measurement with electric or chalked tape by U.S. Geological Survey personnel.

DATUM.--Land-surface datum is 115 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of well casing, 1.95 ft above land-surface datum.

REMARKS.--Well is located about 1,000 ft from SNW 515 (discontinued after June 2000) and may be used as a surrogate for SNW 515. Previously unpublished data for SNW 1198 is provided in table below.

RECORD OF PERIOD.--December 1988 to July 1991, May 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.36 ft below land-surface datum, Mar. 28, 2001; lowest, 11.24 ft below land-surface datum, Oct. 22, 1997.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 01 1988	8.83	AUG 15	9.46	APR 29	6.57	DEC 23	10.60	NOV 21	10.06
JAN 10 1989	8.90	SEP 18	10.26	MAY 21	7.40	JAN 28 1999	8.36	DEC 27	8.28
FEB 27	8.61	NOV 15	9.90	JUN 24	8.85	FEB 26	7.09	JAN 29 2001	8.49
MAR 14	8.72	DEC 13	9.71	JUL 23	10.15	MAR 29	6.70	FEB 23	7.94
APR 17	6.77	FEB 19 1991	8.05	AUG 26	10.24	APR 28	7.87	MAR 28	5.36
MAY 16	6.45	MAR 19	7.43	SEP 24	10.79	MAY 24	8.07	APR 27	6.50
JUN 12	7.20	APR 17	7.34	OCT 22	11.24	JUN 30	9.29	MAY 24	7.75
JUL 11	8.39	MAY 15	7.40	NOV 26	10.09	SEP 28	10.29	JUN 21	7.07
AUG 15	8.49	JUN 17	8.73	DEC 30	9.94	OCT 26	9.35	JUL 31	9.02
SEP 14	9.52	JUL 16	9.94	JAN 28 1998	7.33	NOV 23	9.26	AUG 20	9.56
OCT 18	8.82	MAY 30 1996	7.41	FEB 23	6.36	DEC 21	9.02	DEC 26 2001	10.79
NOV 14	6.71	JUN 26	8.54	MAR 27	5.69	JAN 24 2000	8.75	JAN 29 2002	10.24
DEC 14	7.40	JUL 28	9.06	APR 28	5.93	FEB 28 2000	8.01	FEB 22	10.38
JAN 16 1990	8.10	AUG 22	9.72	MAY 28	6.51	MAR 20	6.82	MAR 20	9.96
FEB 15	6.88	SEP 26	9.59	JUN 30 1998	6.05	APR 21	7.07	APR 24	8.54
MAR 15	7.35	OCT 23	8.75	JUL 29	8.05	MAY 24	7.11	MAY 28	7.37
APR 16	7.01	DEC 26 1996	6.41	AUG 25	9.37	JUN 21	7.69	JUL 26	9.84
MAY 14	6.95	JAN 29 1997	6.80	SEP 30	10.03	JUL 28	9.31	AUG 20	10.91
JUN 12 1990	7.62	FEB 26	7.04	OCT 28	10.13	SEP 25	9.54	SEP 20	11.20
JUL 16	8.99	MAR 24	7.45	NOV 24	10.36	OCT 27	10.31		
PERIOD OF RECORD	HIGHEST	5.36	MAR 28, 2001	LOWEST	11.24	OCT 22, 1997			

412154071462901. Westerly well WEW 522.

LOCATION.--Lat 41°21'54", long 71°46'29", Washington County, Hydrologic Unit 01090005, town of Westerly, 350 ft northwest of intersection of Pound and Old Shore Roads and 1.0 mi north of Dunn Corner.

Owner: Private owner.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in, depth 16 ft, lined with stone to 16 ft, shored.

INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929. Measuring point: Southwest corner of stone casing, 0.91 ft above land-surface datum.

PERIOD OF RECORD.--January 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.23 ft below land-surface datum, Apr. 23, 1983; lowest measured, 14.99 ft below land-surface datum, Aug. 25, 1999.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	14.10	JAN 29	13.38	MAR 20	13.15	MAY 28	12.42	JUL 26	13.78	SEP 04	14.59
NOV 29	14.22	FEB 22	13.35	APR 24	12.85	JUN 27	12.79	AUG 20	14.54	SEP 20	14.53
DEC 27	13.87										
WATER YEAR	2002	HIGHEST	12.42	MAY 28, 2002	LOWEST	14.59	SEP 04, 2002				

GROUND-WATER QUALITY AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO OCTOBER 2002
(NATIONAL WATER QUALITY ASSESSMENT PROGRAM)

Organic pesticide compounds, analyzed by NWQL Schedule 2001, and volatile organic compounds (VOCs), analyzed by NWQL Schedule 2020, are listed with laboratory reporting levels in the section "EXPLANATION OF RECORDS." Only pesticides and VOCs identified by the analyses (either as estimated values or values measured at or above the laboratory reporting level) for one or more samples are listed in the water-quality tables. Water-quality data presented in this table were collected by the Connecticut, Housatonic, and Thames River Basins National Water-Quality Assessment Program (NAWQA).

LOCAL IDENTIFIER	STATION NUMBER	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	TUR-BID-ITY FIELD WATER UNFLTRD (NTU) (61028)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	
HAMPSHIRE COUNTY											
MA-A5W 153	421939072270301	8-01-02	1200	125	240	4.7	750	7.1	69	5.6	
HAMPDEN COUNTY											
MA-HUV 116	421236072405601	8-28-02	1200	105	245	.6	763	2.4	73	8.0	
MA-WVW 173	421026072420801	8-27-02	1200	141	262	.5	755	.1	2	7.2	
LOCAL IDENTIFIER	DATE	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CAC03) (39086)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)
HAMPSHIRE COUNTY											
MA-A5W 153	8-01-02	201	30.0	13.0	63	18.6	4.06	1.36	11.7	9	11
HAMPDEN COUNTY											
MA-HUV 116	8-28-02	210	25.0	13.5	98	31.1	4.95	.92	6.81	67	82
MA-WVW 173	8-27-02	318	23.0	15.0	92	33.0	2.24	.57	7.95	82	100
LOCAL IDENTIFIER	DATE	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SULFIDE WATER, FLTRD, (MG/L) (99118)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
HAMPSHIRE COUNTY											
MA-A5W 153	8-01-02	0	<0.03	48.2	<0.10	12.6	7.8	--	<0.04	<0.10	1.00
HAMPDEN COUNTY											
MA-HUV 116	8-28-02	0	E.02	16.5	<.10	14.2	13.8	.001	E.03	<.10	1.93
MA-WVW 173	8-27-02	0	E.03	19.7	E.07	16.3	5.1	--	.24	.25	<.05
LOCAL IDENTIFIER	DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	E COLI, MI MF, WATER (COL/ 100 ML) (90901)	TOTAL COLI-FORM MI MF, WATER (COL/ 100 ML) (90900)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSEN-ATE, WATER, FLTRD (UG/L) (62453)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	ARSEN-ITE, WATER, FLTRD (UG/L) (62452)
HAMPSHIRE COUNTY											
MA-A5W 153	8-01-02	<0.008	0.02	<0.3	<1	<1	1	0.05	--	<0.2	--
HAMPDEN COUNTY											
MA-HUV 116	8-28-02	<.008	.03	E.2	<1	<1	2	E.03	E.3	.4	<.3
MA-WVW 173	8-27-02	<.008	.25	1.0	<1	<1	<1	<.05	E1.0	5.7	5.0

GROUND-WATER QUALITY AT MISCELLANEOUS SITES--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO OCTOBER 2001
(NATIONAL WATER QUALITY ASSESSMENT PROGRAM)

LOCAL IDENTIFIER	DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S) (71875)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
HAMPSHIRE COUNTY											
MA-A5W 153	8-01-02	274	<0.06	E7	0.06	<0.8	0.04	62.7	U	30	1.16
HAMPDEN COUNTY											
MA-HUV 116	8-28-02	256	<.06	15	<.04	E.4	.05	4.1	--	<10	.39
MA-WVW 173	8-27-02	306	<.06	11	<.04	<.8	.38	.2	U	4,560	<.08
LOCAL IDENTIFIER	DATE	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	THALLIUM, DIS-SOLVED (UG/L AS TL) (01057)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
HAMPSHIRE COUNTY											
MA-A5W 153	8-01-02	0.9	7.8	<0.2	1.10	<0.3	<1	87.1	<0.04	<0.2	10
HAMPDEN COUNTY											
MA-HUV 116	8-28-02	2.0	.3	<.2	.18	<.3	<1	94.4	<.04	1.1	2
MA-WVW 173	8-27-02	1.3	826	.4	.43	<.3	<1	89.2	<.04	.6	12
LOCAL IDENTIFIER	DATE	DEETHYL ATRAZINE, WATER DISS. REC (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)	CHLOROFORM TOTAL (UG/L) (32106)	CIS-1,2-DICHLOROETHENE WATER TOTAL (UG/L) (77093)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TOLUENE TOTAL (UG/L) (34010)	TRICHLOROETHYLENE TOTAL (UG/L) (39180)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)
HAMPSHIRE COUNTY											
MA-A5W 153	8-01-02	E0.034	<0.005	<0.03	<0.03	<0.02	<0.04	<0.03	E0.01	<0.04	2.0
HAMPDEN COUNTY											
MA-HUV 116	8-28-02	<.006	<.005	E.04	<.03	E.09	E.08	E.02	<.05	3.76	2.4
MA-WVW 173	8-27-02	<.006	.006	<.03	.35	<.02	.66	<.03	<.05	.26	1.7
LOCAL IDENTIFIER	DATE	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	RA-224 WATER FLTRD (PCI/L) (50833)	RADIUM 226, DIS-SOLVED (PCI/L) (09503)	RADIUM 228, DIS-SOLVED (PCI/L AS RA-228) (81366)	RADON 222 TOTAL (PCI/L) (82303)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)				
HAMPSHIRE COUNTY											
MA-A5W 153	8-01-02	3.3	-0.07	0.16	0.64	510	<0.02				
HAMPDEN COUNTY											
MA-HUV 116	8-28-02	2.4	.06	.04	.33	210	.29				
MA-WVW 173	8-27-02	2.7	.18	.11	.53	480	E.01				

< Less than

E Estimated value

U Analyzed for, not detected

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CONVERSION FACTORS

Multiply	By	To obtain
Length		
inch (in.)	2.54×10^1	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^0	kilometer
Area		
acre	4.047×10^3	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi ²)	2.590×10^0	square kilometer
Volume		
gallon (gal)	3.785×10^0	liter
	3.785×10^0	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^3	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft ³)	2.832×10^1	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^3	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
Flow		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second
	2.832×10^1	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^1	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
Mass		
ton (short)	9.072×10^{-1}	megagram or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$$