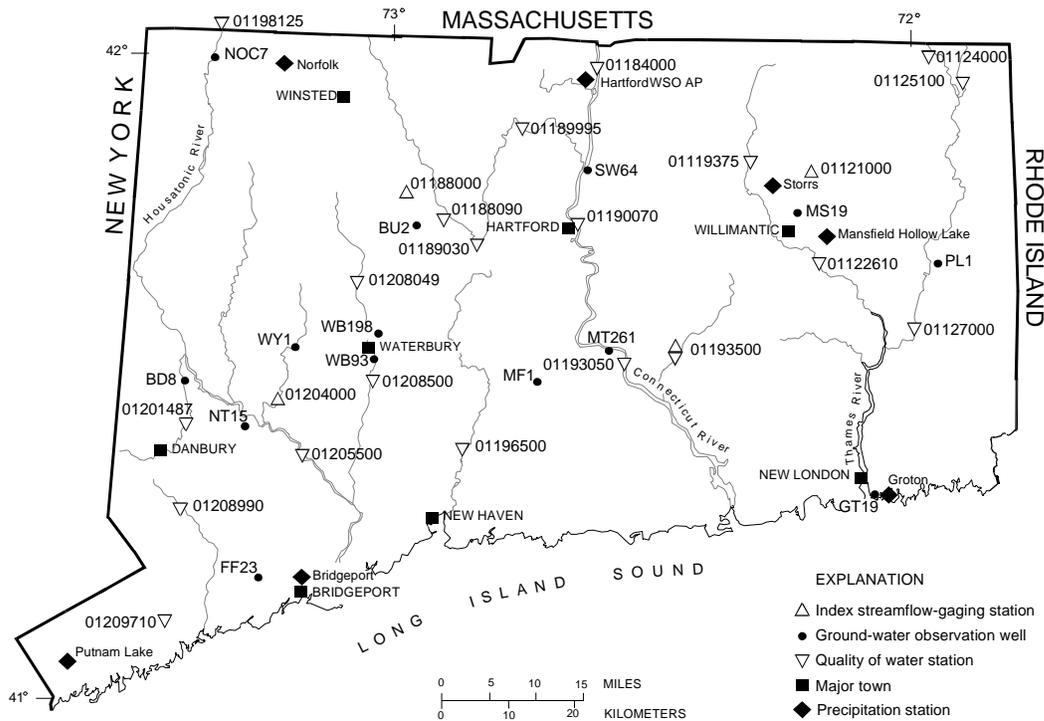


**U.S. Department of the Interior  
U.S. Geological Survey**



**WATER-RESOURCES CONDITIONS  
IN CONNECTICUT, NOVEMBER 1998**

*The USGS provides maps, reports, and information to help others manage, develop, and protect America's water, energy, mineral, land, and biological resources.*



**DATA-COLLECTION SITES USED IN THIS REPORT**

This report contains a small part of the ground-water, surface-water, and water-quality data collected by the USGS at sites in Connecticut. More complete information may be found in the Water-Data Report (compiled annually). This report was prepared by the USGS in cooperation with the Connecticut Dept. of Environmental Protection.

For more information on USGS programs in Connecticut, please contact Virginia de Lima (District Chief); 101 Pitkin St., East Hartford, CT 06108; **phone (860) 291-6740**; fax (860) 291-6799; [dc\\_ct@usgs.gov](mailto:dc_ct@usgs.gov)

Additional earth science information, including this document, is on the USGS Home Page on the World Wide Web at <http://www.usgs.gov> or the Connecticut District home page at <http://conn.er.usgs.gov> For more information on all USGS reports and products (including maps, images, and computerized data), call **1-800-USA-MAPS**.

**INDEX TO INFORMATION**

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Ground Water	4	Water Quality	8

## PRECIPITATION

Precipitation during November ranged from a low of **1.22 inches** at Bridgeport WSO to a high of **2.99 inches** at Norfolk. All stations reported totals in the below-normal range for the month.

Precipitation totals for the year-to-date ranged from a low of **40.76 inches** at Bridgeport WSO to a high of **56.44 inches** at Mansfield Hollow Lake. Year-to-date totals are normal for stations in Bridgeport, Hartford, Norfolk, and Putnam Lake. Totals are above normal at Groton, Mansfield Hollow Lake, and Storrs.

## PRECIPITATION

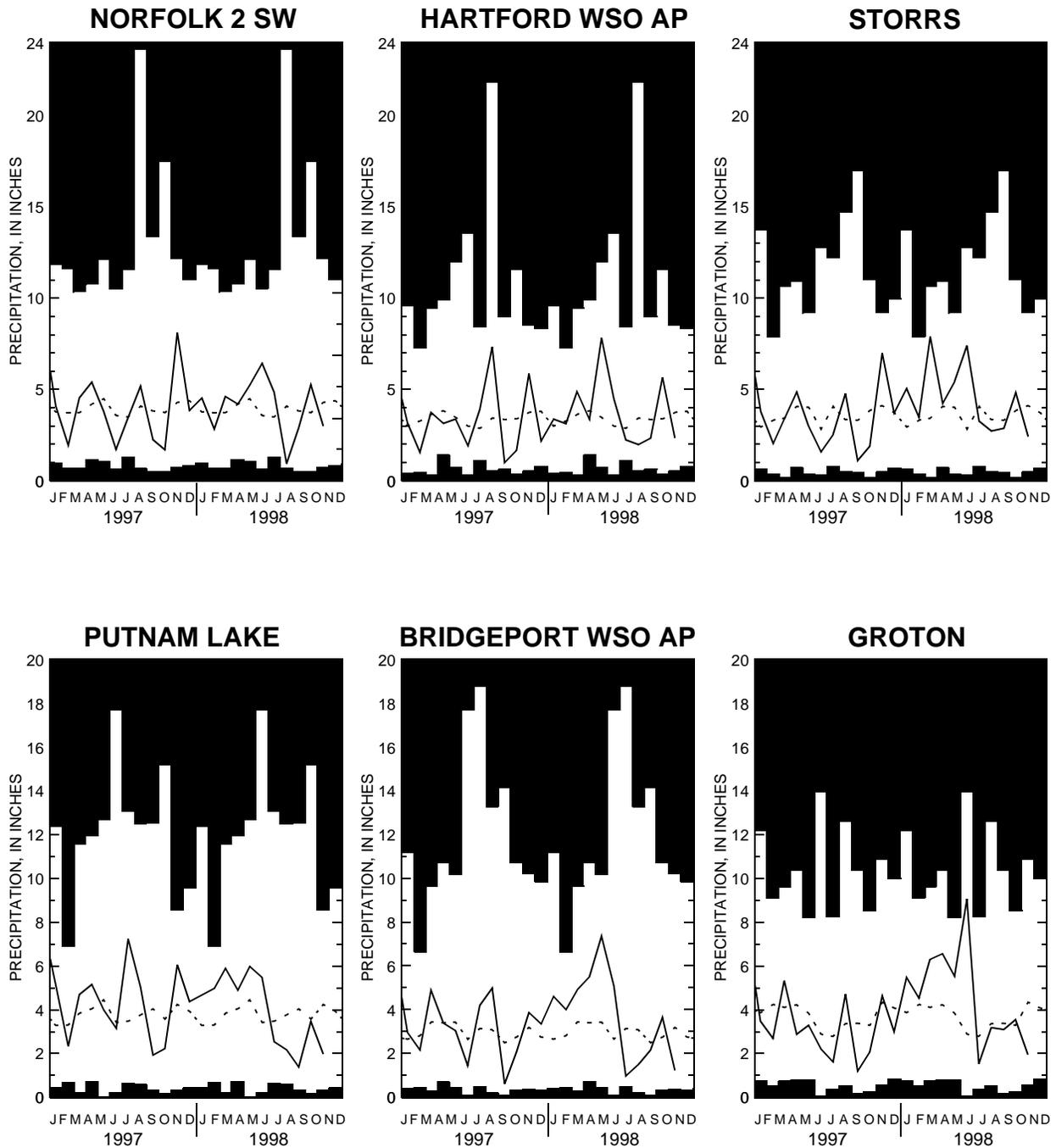
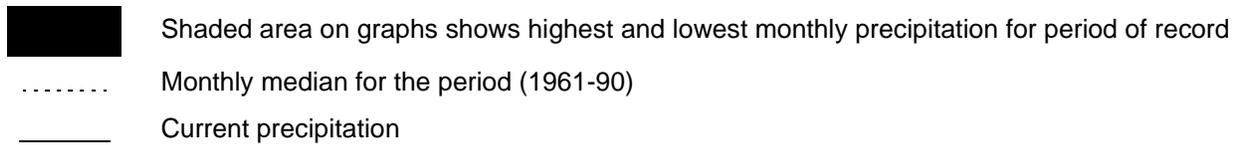
(IN INCHES)

**MEDIAN VALUES HAVE BEEN COMPUTED FOR 1961-90**

PRECIPITATION STATION	NOVEMBER 1998 PRECIPITATION	DEPARTURE FROM MONTHLY MEDIAN	1998 CUMULATIVE PRECIPITATION	1998 DEPARTURE FROM CUMULATIVE MEDIAN
BRIDGEPORT WSO	1.22	-1.97	40.76	4.26
GROTON	1.95	-2.40	50.77	6.57
HARTFORD WSO AP	2.34	-1.40	41.55	2.93
MANSFIELD HOLLOW LAKE	2.16	-2.11	56.44	15.78
NORFOLK	2.99	-1.30	44.81	-3.21
PUTNAM LAKE	1.97	-2.27	43.40	-2.88
STORRS	2.41	-1.71	49.61	6.17

(Monthly precipitation data collected by individual observers.)

**PRECIPITATION**



Medians obtained from "Monthly Station Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1961-90, Connecticut" (National Oceanic and Atmospheric Administration, 1992).  
 Highest and lowest monthly precipitation levels of record obtained from Connecticut Geological and Natural History Bulletin 99 and National Oceanic and Atmospheric Administration (Climatological Data, New England).

## GROUND-WATER LEVELS

Ground-water levels decreased in most wells, except for BD-8 (Brookfield), WB-93 (Waterbury) and WY-1 (Woodbury), which increased.

Ground-water levels are in feet below land surface. Statistics are based on period of record (through the end of the 1997 calendar year).

WELL NUMBER AND TOWN	NOVEMBER 1998 GROUND-WATER LEVEL (date measured)		OCT. 1998 GROUND- WATER LEVEL	NOV. 1997 GROUND- WATER LEVEL	NOV. MAXIMUM GROUND-WATER LEVEL (year recorded)		NOV. MINIMUM GROUND-WATER LEVEL (year recorded)		NOV. MEDIAN GROUND- WATER LEVEL
BD-8 (Brookfield)	32.17	11/23	32.60	31.52	27.90	1975	33.16	1980	31.53
BU-2 (Burlington)	32.73	11/23	32.69	30.00	14.50	1955	36.23	1964	27.49
FF-23 (Fairfield)	8.35	11/23	8.34	7.91	7.05	1996	8.86	1992	7.93
GT-19 (Groton)	16.68	11/28	16.52	15.89	12.25	1983	17.67	1965	15.90
MF-1 (Middlefield)	12.02	11/20	11.83	6.15	2.68	1988	16.92	1964	8.37
MS-19 (Mansfield)	13.35	11/24	12.75	13.90	9.86	1989	15.24	1963	13.13
MT-261 (Middletown)	22.98	11/20	21.93	23.82	19.24	1989	27.46	1980	23.35
NOC-7 (North Canaan)	9.70	11/16	9.58	9.48	5.40	1984	10.30	1964	9.44
NT-15 (Newtown)	7.30	11/23	6.22	7.99	2.08	1975	10.95	1980	7.00
PL-1 (Plainfield)	30.42	11/24	30.30	30.95	27.70	1955	33.03	1965	31.38
SW-64 (S. Windsor)	12.05	11/23	11.59	12.22	8.29	1989	15.08	1965	12.25
WB-93 (Waterbury)	27.60	11/23	27.90	26.35	25.87	1955	28.57	1964	27.51
WB-198 (Waterbury)	19.21	11/23	18.85	18.40	9.53	1955	21.35	1980	16.63
WY-1 (Woodbury)	24.08	11/23	24.24	28.60	19.68	1955	29.86	1992	28.66

(Ground-water level data collected by USGS personnel and individual observers.)



**STREAMFLOW** (measured in cubic feet per second) PROVISIONAL DATA

Streamflows in November were in the normal to below-normal range across the State. Streamflows recorded at Mount Hope River (northeastern Connecticut) and Pomperaug River (southwestern Connecticut) decreased from above normal in October to the normal range in November. Streamflows recorded at Burlington River (northwestern Connecticut) and Salmon River (southeastern Connecticut) decreased from normal in October to the below-normal range in November. Across the state, mean streamflow for November averaged 96 percent of the median streamflow<sup>1</sup>.

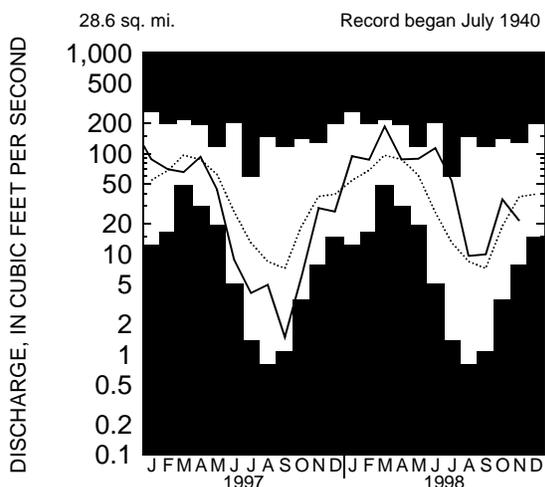
<sup>1</sup> Median was determined using the reference period 1961-90.

USGS STREAMFLOW-GAGING STATION NAME AND NUMBER	NOV. 1998 MEAN	OCT. 1998 MEAN	NOV. 1997 MEAN	NOVEMBER MAXIMUM VALUE (year recorded)		NOVEMBER MINIMUM VALUE (year recorded)		NOV. MEDIAN (1961-90)
	MT HOPE RIVER (01121000)	21.4	34.8	48.9	131	1956	7.64	1950
BURLINGTON (01188000)	3.73	5.34	13.9	28.4	1956	1.22	1932	7.24
SALMON RIVER (01193500)	63.2	74.4	165	551	1956	25.2	1932	122
POMPERAUG (01204000)	76.8	129	118	486	1956	13.6	1965	94.4

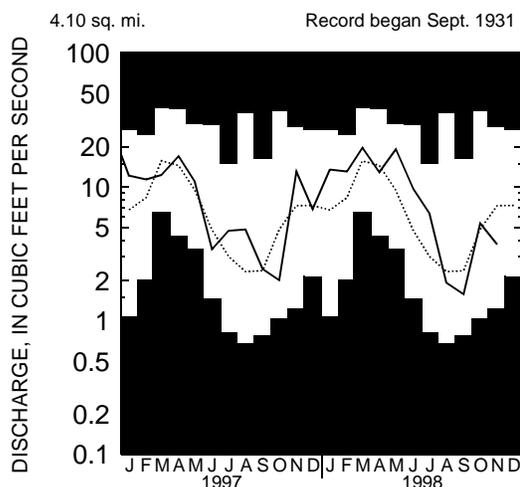
**MONTHLY MEAN RUNOFF AT FOUR INDEX STATIONS**

Shaded areas on graphs show highest and lowest monthly mean discharge of record.  
 Current record       Median (1961-1990)

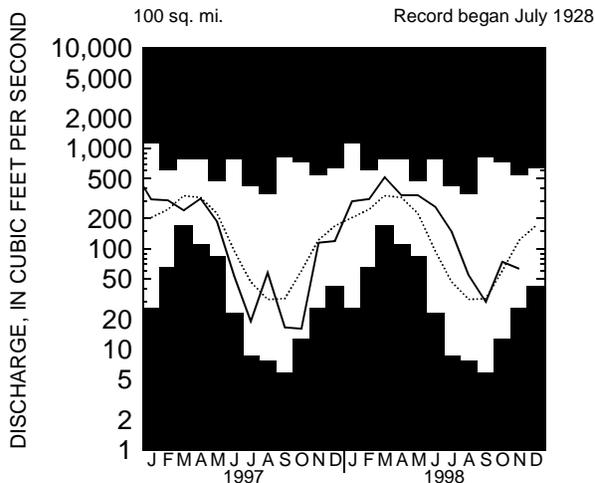
**MOUNT HOPE RIVER NEAR WARRENVILLE**



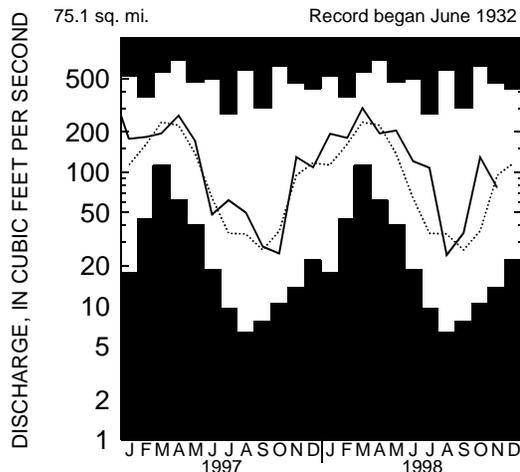
**BURLINGTON BROOK NEAR BURLINGTON**



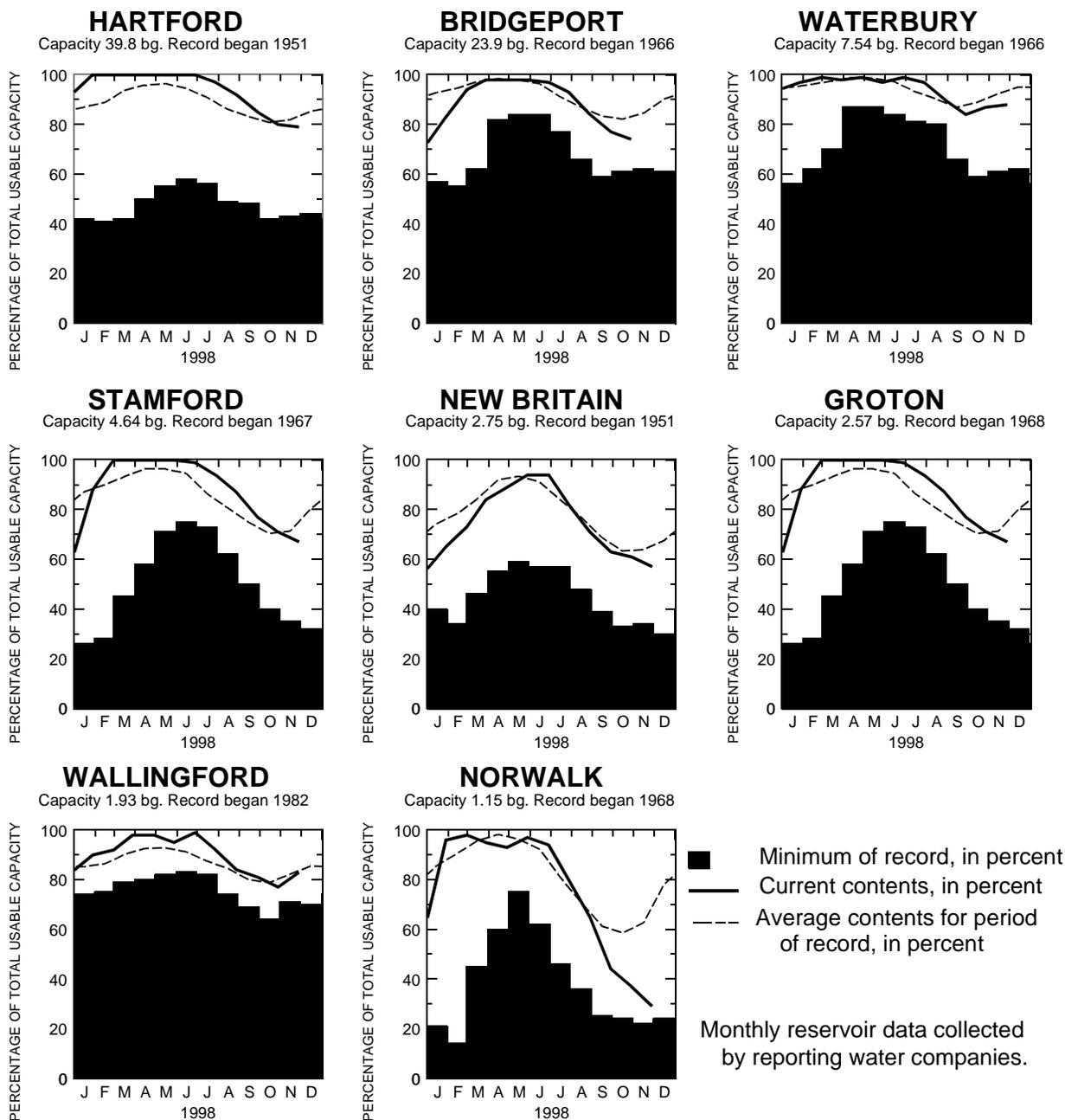
**SALMON RIVER NEAR EAST HAMPTON**



**POMPERAUG RIVER AT SOUTHBURY**



**RESERVOIRS (Contents in billion gallons)**



RESERVOIR SYSTEM (usable capacity, in billion gallons)	OCTOBER CAPACITY (PERCENT)	NOVEMBER CAPACITY (PERCENT)	LONG-TERM AVERAGE CAPACITY FOR NOVEMBER (PERCENT)
Hartford (39.8 bg)	80	79	82
Bridgeport (23.9 bg)	74	NO DATA	85
Waterbury (7.54bg)	87	88	92
Stamford (4.64 bg)	54	51	71
New Britain (2.75 bg)	61	57	64
Groton (2.57 bg)	71	67	71
Wallingford (1.93 bg)	77	83	82
Norwalk (1.15 bg)	37	29	63

**U.S. Department of the Interior  
 U.S. Geological Survey  
 Water Resources Division  
 101 Pitkin Street  
 East Hartford, Connecticut 06108**

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**CHEMICAL, PHYSICAL, AND BACTERIOLOGICAL QUALITY OF SELECTED STREAMS IN CONNECTICUT**

[Station locations shown on front page; --, not applicable; **streamflow** measured in instantaneous cubic feet per second; **% flow duration** is that flow that was equaled or exceeded more than "X" percent of the time from 1961-90; **bacteriological analysis** reconnaissance data enumerated using membrane filter method with immediate incubation; **col/100 mL**, colonies per 100 milliliters; **K**, results based on colony count outside the acceptable range (non-ideal colony count; <, less than)]

PROVISIONAL DATA

USGS WATER-QUALITY STATION NAME AND NUMBER	SAMPLE DATE IN 1998	STREAMFLOW/ % FLOW DURATION	SPECIFIC CONDUCTANCE (in $\mu$ S/cm at 25°C)	WATER TEMPERATURE (°C)	DISSOLVED OXYGEN CONCENTRATION (mg/L) %SATURATION	FIELD PH	FECAL COLIFORM (COL/100 mL)	ENTEROCOCCI (COL/100 mL)
01119375 Willimantic R. at Merrow	11/20	65.0/75	123	7.0	12.1/102	7.12	323K	56
01122610 Shetucket R. at South Windham	11/9	199/75	107	5.0	13.6/106	7.81	80	K6
01124000 Quinebaug R. at Quinebaug	11/17	50.9/85	157	7.0	12.0/100	7.54	128	K16
01125100 French R. at North Grosvenordale	11/17	65.0/--	183	7.0	12.4/103	7.63	400	58
01127000 Quinebaug R. at Jewett City	11/24	725/60	130	7.0	11.9/99	7.26	58K	3K
01184000 Connecticut R. at Thompsonville	11/13	8050/65	141	7.5	11.3/94	7.46	--	--
01188090 Farmington R. at Unionville	SITE NOT SAMPLED THIS MONTH							
01189030 Pequabuck R. at Farmington	SITE NOT SAMPLED THIS MONTH							
01189995 Farmington R. at Tariffville	SITE NOT SAMPLED THIS MONTH							
01190070 Connecticut R. at Hartford	SITE NOT SAMPLED THIS MONTH							
01193050 Connecticut R. at Middle Haddam	SITE NOT SAMPLED THIS MONTH							
01193500 Salmon R. near East Hampton	SITE NOT SAMPLED THIS MONTH							
01196500 Quinnipiac R. at Wallingford	SITE NOT SAMPLED THIS MONTH							
01198125 Housatonic R. near Ashley Falls, MA	11/5	257/--	377	6.0	11.6/96	8.49	18K	3K
01201487 Still R. at Rt. 7 at Brookfield Center	11/19	34.0/--	566	6.5	11.0/89	7.84	6200	128
01205500 Housatonic R. at Stevenson	11/23	111/95	263	9.5	11.5/101	8.15	<1K	<1K
01208049 Naugatuck R. near Waterville	11/6	32.0/--	308	7.5	11.3/96	7.70	11K	<1K
01208500 Naugatuck R. at Beacon Falls	11/6	157/80	469	9.0	10.5/91	7.42	42000K	10500K
01208990 Saugatuck R. near Redding	SITE NOT SAMPLED THIS MONTH							
01209710 Norwalk R. near Winnipauk	11/25	8.0/--	386	7.5	13.5/112	8.39	--	--