

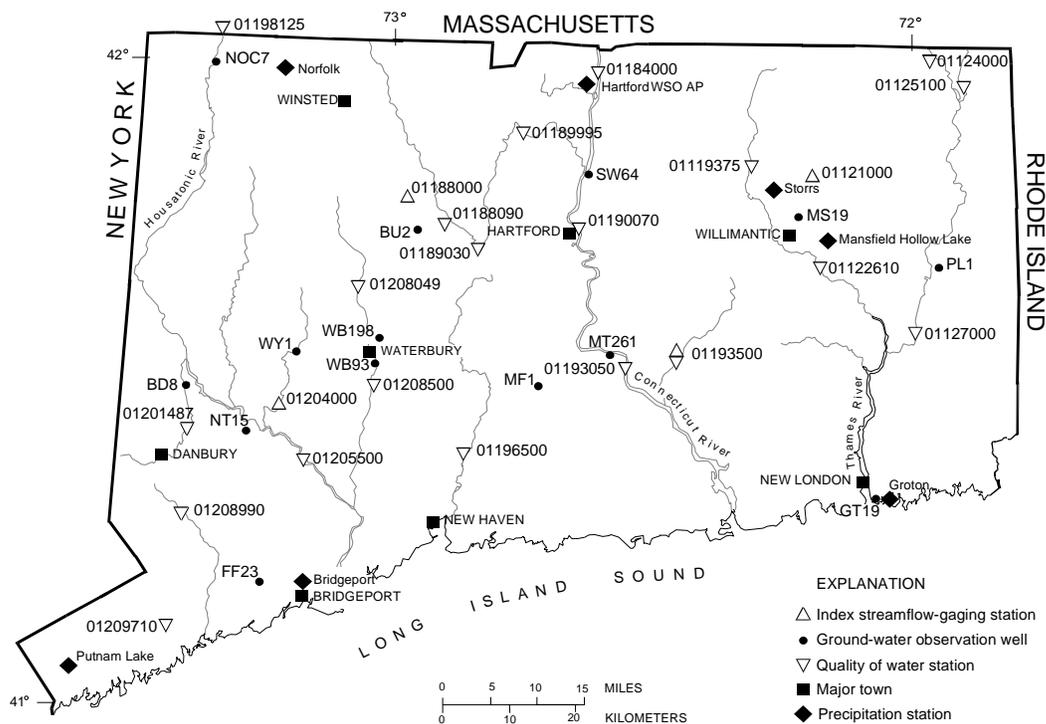
**U.S. Department of the Interior
U.S. Geological Survey**



**WATER-RESOURCES CONDITIONS
IN CONNECTICUT, JANUARY 1999**

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

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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

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 **1-888-ASK-USGS**

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PRECIPITATION

Precipitation during January ranged from a low of **5.26 inches** at Hartford to a high of **9.16 inches** at Mansfield Hollow Dam. All stations reported monthly precipitation totals in the above-normal range for the month.

PRECIPITATION

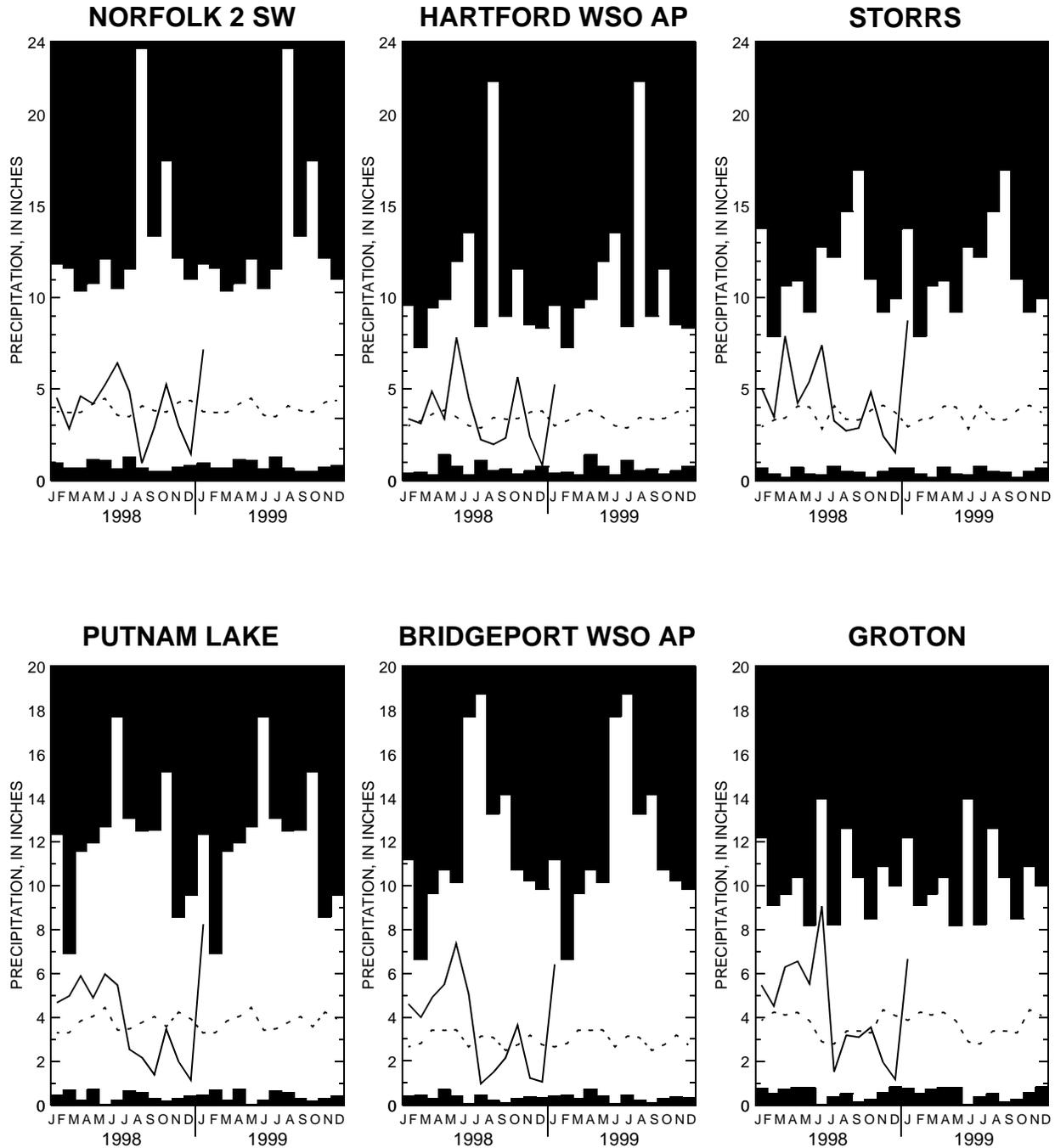
(IN INCHES)

MEDIAN VALUES HAVE BEEN COMPUTED FOR 1961-90

PRECIPITATION STATION	JANUARY 1999 PRECIPITATION	DEPARTURE FROM MONTHLY MEDIAN	1999 CUMULATIVE PRECIPITATION	1999 DEPARTURE FROM CUMULATIVE MEDIAN
BRIDGEPORT WSO	6.42	3.77	6.42	3.77
GROTON	6.68	2.81	6.68	2.81
HARTFORD WSO AP	5.26	2.28	5.26	2.28
MANSFIELD HOLLOW LAKE	9.16	6.21	9.16	6.21
NORFOLK	7.18	3.42	7.18	3.42
PUTNAM LAKE	8.26	4.98	8.26	4.98
STORRS	8.76	5.82	8.76	5.82

(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 during January increased in all wells and stabilized in the normal range, except for the Waterbury wells, which were below normal.

Ground-water levels are in feet below land surface. Statistics are based on period of record (through calendar year 1998).

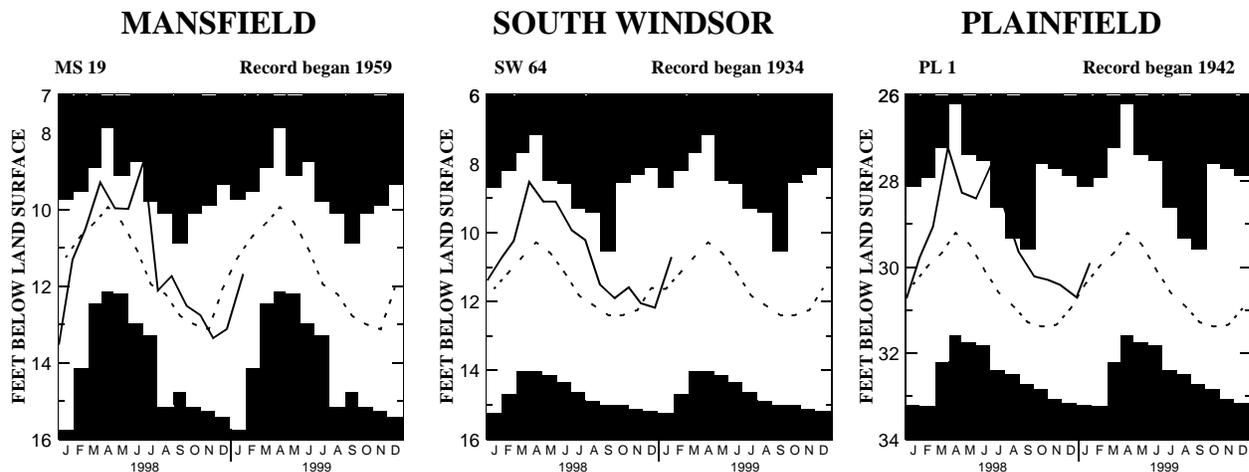
WELL NUMBER AND TOWN	JAN. 1999 GROUND-WATER LEVEL (date measured)		DEC. 1998 GROUND- WATER LEVEL	JAN. 1998 GROUND- WATER LEVEL	JAN. MAXIMUM GROUND-WATER LEVEL (year recorded)		JAN. MINIMUM GROUND-WATER LEVEL (year recorded)		JAN. MEDIAN GROUND- WATER LEVEL
BD-8 (Brookfield)	30.35	1/31	32.19	30.06	27.80	1973	33.41	1981	30.45
BU-2 (Burlington)	17.88	1/27	30.77	20.54	15.64	1952	36.85	1965	20.16
FF-23 (Fairfield)	7.62	1/22	8.43	7.24	5.49	1976	8.55	1981	7.91
GT-19 (Groton)	15.08	1/17	16.94	13.42	10.20	1979	17.42	1966	14.79
MF-1 (Middlefield)	5.30	1/22	11.85	3.66	2.95	1996	13.35	1966	6.20
MS-19 (Mansfield)	11.68	1/27	13.11	11.30	9.70	1978	15.72	1966	11.25
MT-261 (Middletown)	19.83	1/22	22.72	19.24	17.85	1979	26.08	1981	19.72
NOC-7 (North Canaan)	9.19	1/20	9.61	9.18	8.50	1996	9.87	1968	9.41
NT-15 (Newtown)	5.06	1/31	6.02	3.13	1.62	1996	10.67	1981	4.48
PL-1 (Plainfield)	29.91	1/25	30.70	29.78	28.12	1973	33.17	1966	30.40
SW-64 (S. Windsor)	10.71	1/27	12.18	10.75	8.68	1997	15.22	1966	11.64
WB-93 (Waterbury)	28.10	1/31	29.02	26.91	24.90	1996	28.03	1966/1985	27.00
WB-198 (Waterbury)	16.35	1/31	20.15	14.45	5.49	1946	20.09	1981	13.99
WY-1 (Woodbury)	22.22	1/31	25.33	22.68	20.28	1979	29.68	1981	25.90

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

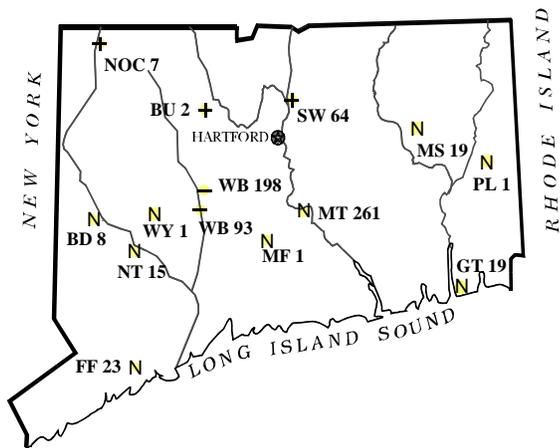
GROUND-WATER LEVELS (CONTINUED)

(Status of ground-water storage as indicated by the water level changes in observation wells, as shown on hydrographs)

-  Shaded area on graphs show highest and lowest water levels of record through calendar year 1998.
-  Solid line shows current water levels.
-  Dashed line is monthly median for period of record through calendar year 1998.



MASSACHUSETTS



ABOVE NORMAL

Within the highest 25% of record for this month.



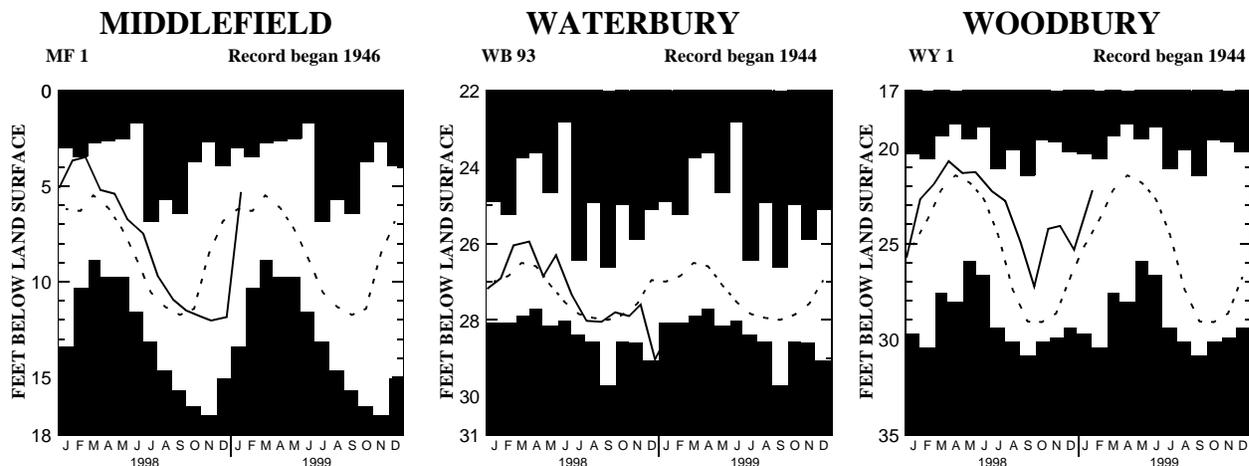
NORMAL RANGE

Between the highest and lowest 25% of record for this month.



BELOW NORMAL

Within the lowest 25% of record for this month.



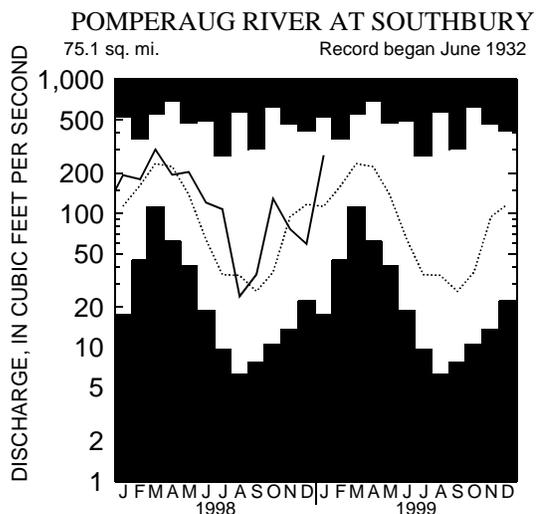
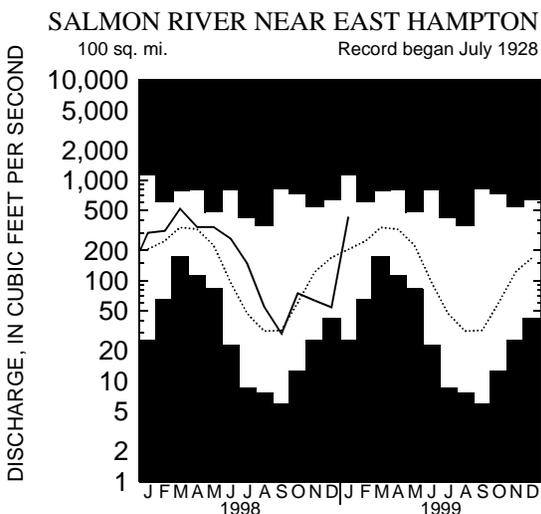
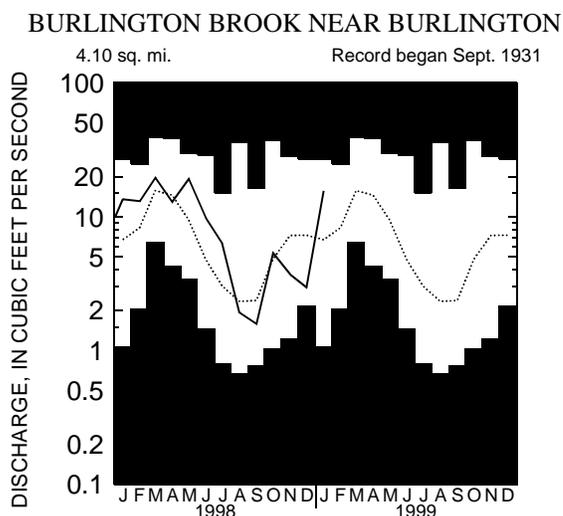
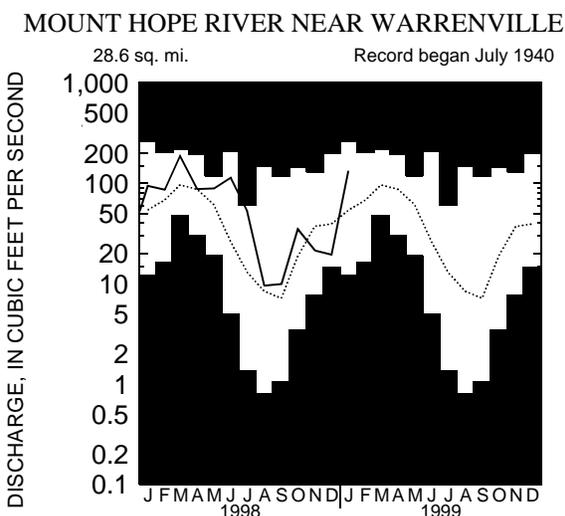
STREAMFLOW (measured in cubic feet per second) → PROVISIONAL DATA ←

In general, streamflows in January were in the above-normal range. Mount Hope River (northeastern Connecticut) increased to above-normal range following one month in the below-normal range. Burlington Brook (northwestern Connecticut) increased to the above-normal range following two months in the below-normal range. Salmon River (southeastern Connecticut) increased to the above-normal range following two months in the below-normal range. Pomperaug River (southwestern Connecticut) increased to the above-normal range following one month in the below-normal range. Across the State, mean streamflow for January averaged 234 percent of the January long-term median value.

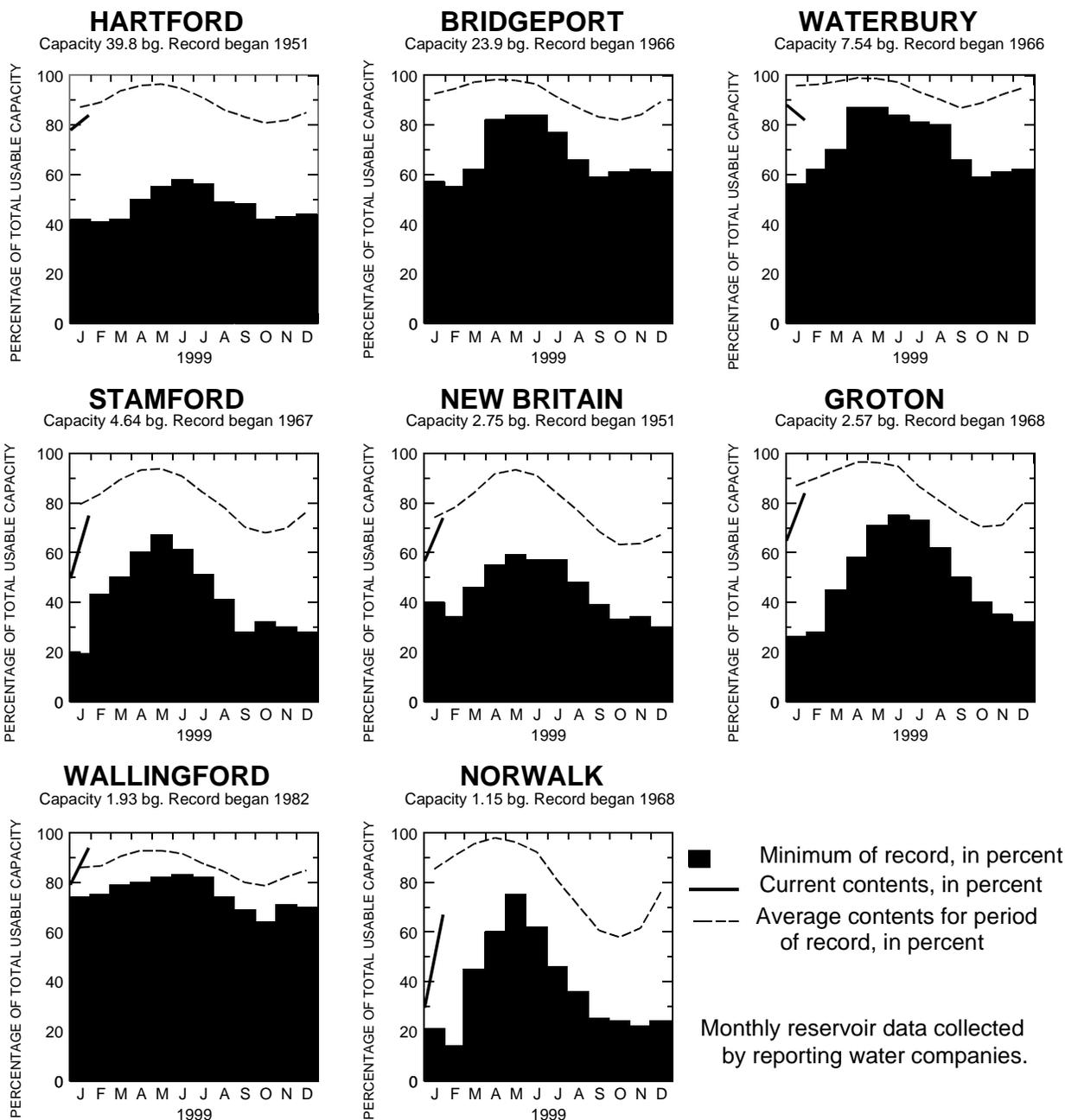
USGS STREAMFLOW-GAGING STATION NAME AND NUMBER	JAN. 1999 MEAN	DEC. 1998 MEAN	JAN. 1998 MEAN	JANUARY MAXIMUM VALUE (year recorded)		JANUARY MINIMUM VALUE (year recorded)		JAN. MEDIAN (1961-90)
MT HOPE RIVER (01121000)	134	19.4	94.2	264	1979	12.0	1981	54.1
BURLINGTON (01188000)	15.7	2.97	13.5	25.7	1996	1.07	1981	6.73
SALMON RIVER (01193500)	433	54.0	298	1144	1979	25.2	1981	204
POMPERAUG (01204000)	273	59.1	193	525	1979	17.5	1981	113

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)



RESERVOIRS (Contents in billion gallons)



RESERVOIR SYSTEM (usable capacity, in billion gallons)	DEC. CAPACITY (PERCENT)	JAN. CAPACITY (PERCENT)	LONG-TERM AVERAGE CAPACITY FOR JANUARY (PERCENT)
Hartford (39.8 bg)	77	84	87
Bridgeport (23.9 bg)	66	95	93
Waterbury (7.54bg)	89	82	96
Stamford (4.64 bg)	46	75	80
New Britain (2.75 bg)	54	74	74
Groton (2.57 bg)	62	84	87
Wallingford (1.93 bg)	77	94	86
Norwalk (1.15 bg)	24	67	85

**U.S. Department of the Interior
 U.S. Geological Survey
 Water Resources Division
 101 Pitkin St.,
 E. 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)]

PROVISIONAL DATA

USGS WATER-QUALITY STATION NAME AND NUMBER	SAMPLE DATE IN 1999	STREAMFLOW/ % FLOW DURATION	SPECIFIC CONDUCTANCE (in $\mu\text{S}/\text{cm}$ 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	1/11	165/--	129	0.0	14.5/100	6.61	208	80
01122610 Shetucket R. at South Windham	1/14	723/--	125	0.0	13.8/93	6.89	100	160
01124000 Quinebaug R. at Quinebaug	SITE NOT SAMPLED THIS MONTH							
01125100 French R. at North Grosvenordale	SITE NOT SAMPLED THIS MONTH							
01127000 Quinebaug R. at Jewett City	1/21	3140/9	137	1.0	14.3/100	6.93	400	6200
01184000 Connecticut R. at Thompsonville	1/6	9340/58	184	0.0	14.2/97	7.06	no samples	
01188090 Farmington R. at Unionville	1/12	429/54	161	0.0	15.0/103	7.01	160	140
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	1/25	980/<1	81	2.5	14.7/108	6.92	212	168
01196500 Quinnipiac R. at Wallingford	SITE NOT SAMPLED THIS MONTH							
01198125 Housatonic R. near Ashley Falls, MA	1/5	400/--	404	0.5	14.0/99	7.92	332K	44
01201487 Still R. at Rt. 7 at Brookfield Center	1/20	275/--	330	1.5	13.9/100	7.55	860	200
01205500 Housatonic R. at Stevenson	1/20	6510/7	312	1.5	14.0/100	7.85	184	128
01208049 Naugatuck R. near Waterville	1/13	120/--	230	0.5	14.3/100	7.20	700	172
01208500 Naugatuck R. at Beacon Falls	1/13	339/50	304	2.5	14.1/104	7.14	>10,000K	9500K
01208990 Saugatuck R. near Redding	1/20	182/<1	183	0.5	15.2/106	7.55	77K	560
01209710 Norwalk R. near Winnipauk	1/7	165/--	290	0.5	14.5/100	7.66	no samples	