

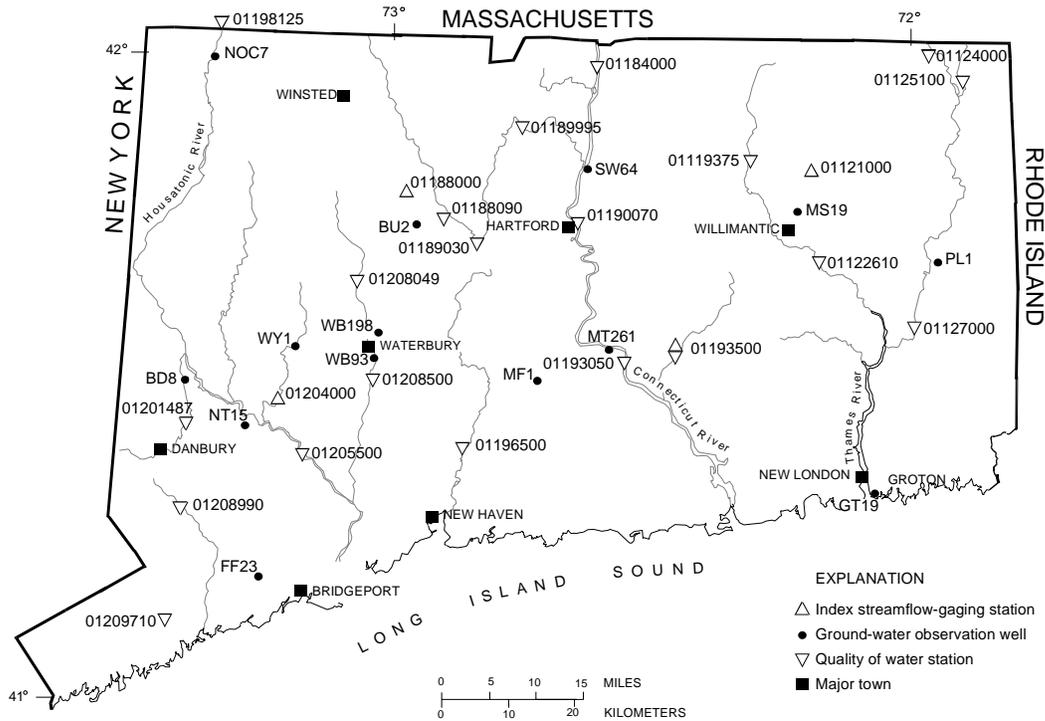
**U.S. Department of the Interior
U.S. Geological Survey**



science for a changing world

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

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 annual Water-Data Report. Data for this report were collected 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://ct.water.usgs.gov> For more information on all USGS reports and products (including maps, images, and computerized data), call **1-888-ASK-USGS**

INDEX TO INFORMATION

Data Sites	1	Reservoirs	4
Streamflow	2	Water Quality	5
Ground Water	3	Ground Water	6

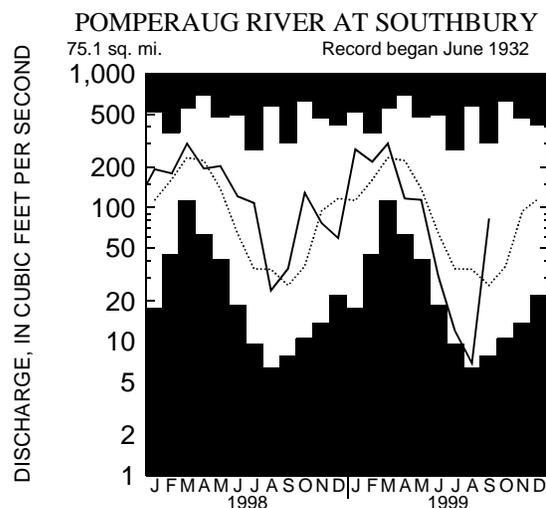
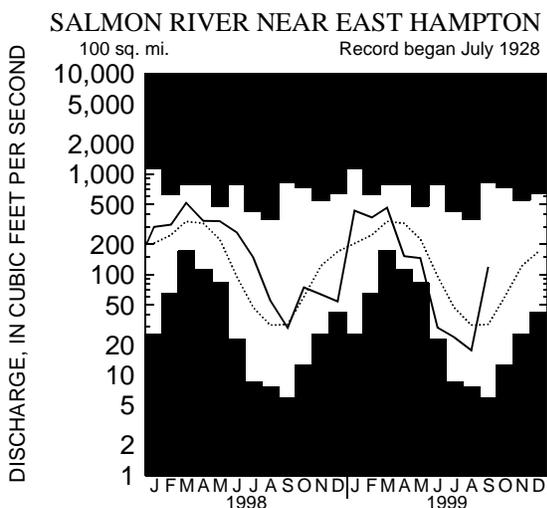
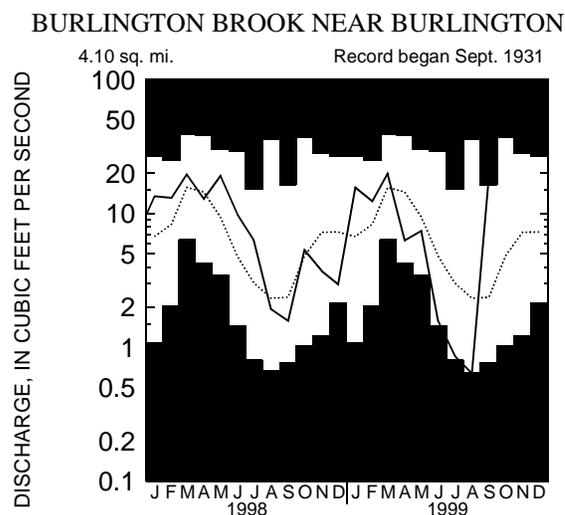
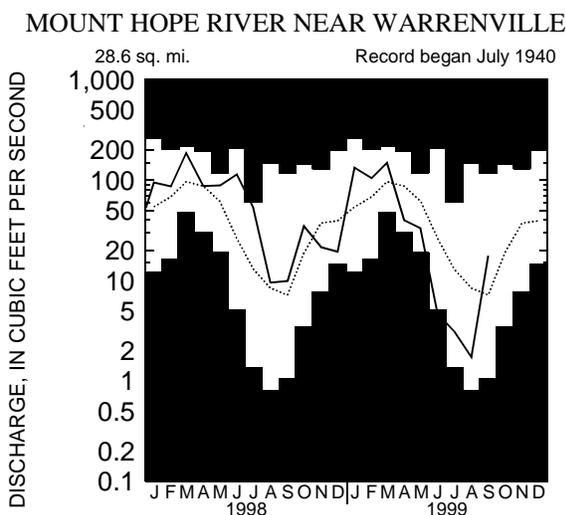
STREAMFLOW (measured in cubic feet per second) → PROVISIONAL DATA ←

Streamflows in September were in the normal to above-normal range for the entire State. Mount Hope River (NE Connecticut) returned to the normal range after being in the below-normal range for five consecutive months. Burlington Brook (NW Connecticut) increased to the above-normal range following three consecutive months of below-normal flow. Burlington Brook recorded the highest September daily mean and monthly mean on record. Salmon River (SE Connecticut) increased to the above-normal range following five consecutive months of below-normal flow. Pomperaug River (SW Connecticut) increased to the above-normal range following three consecutive months of below-normal flow. Across the State, mean streamflow for September averaged 444 percent of the September long-term median value.

USGS STREAMFLOW-GAGING STATION NAME AND NUMBER	SEPT. 1999 MEAN	AUG. 1999 MEAN	SEPT. 1998 MEAN	SEPT. MAXIMUM VALUE (year recorded)		SEPT. MINIMUM VALUE (year recorded)		SEPT. MEDIAN (1961-90)
				Value	Year	Value	Year	
MT HOPE RIVER (01121000)	17.7	1.72	9.91	118	1954	1.05	1953	7.17
BURLINGTON (01188000)	19.8	0.64	1.58	16.4	1934	0.77	1964	2.37
SALMON RIVER (01193500)	120	17.6	29.4	834	1938	5.80	1943	31.8
POMPERAUG (01204000)	82.9	6.87	35.2	304	1938	7.66	1953	26.2

MONTHLY MEAN RUNOFF AT FOUR INDEX STATIONS

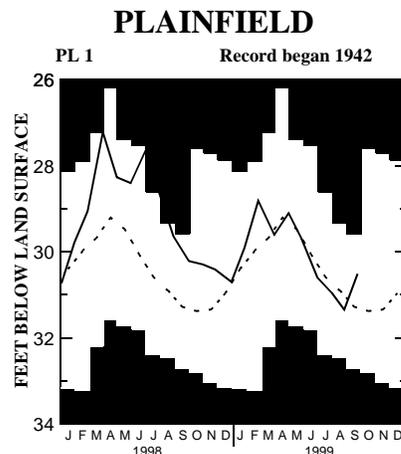
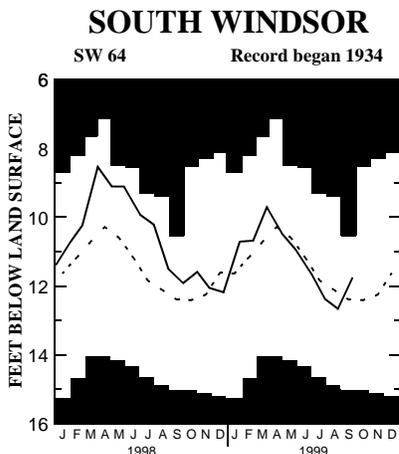
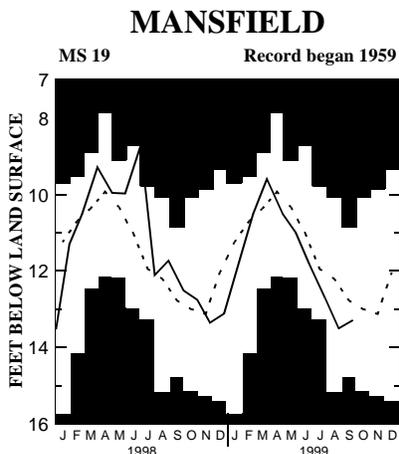
■ Shaded areas on graphs show highest and lowest monthly mean discharge of record.
 — Current record Median (1961-1990)



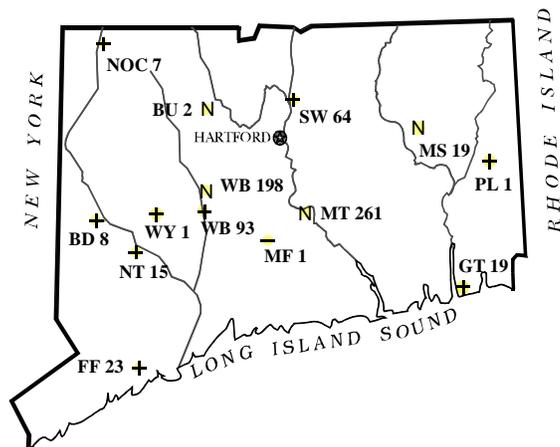
GROUND-WATER LEVELS (see table at end of report)

(Status of ground-water storage as indicated by 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.



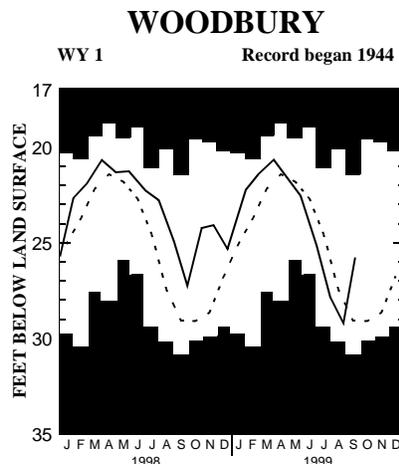
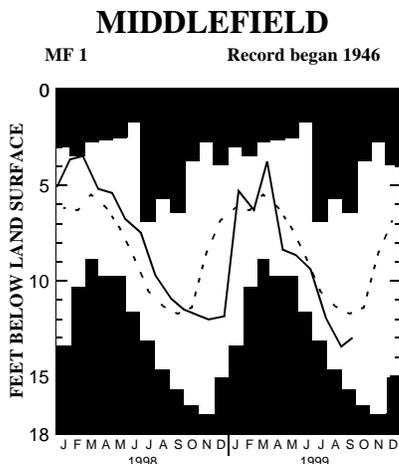
NORMAL RANGE

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

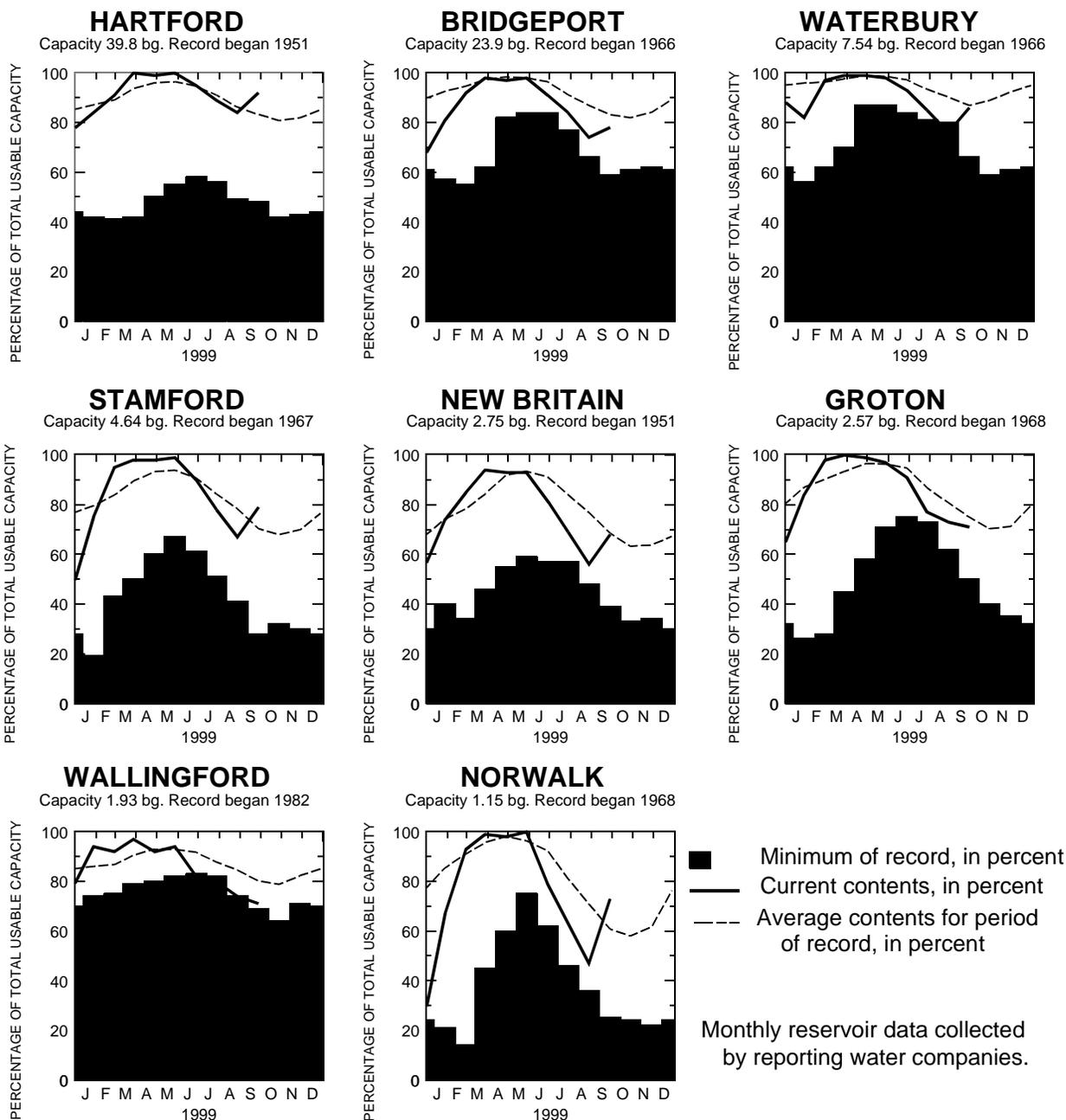


BELOW NORMAL

Within the lowest 25% of record for this month.



RESERVOIRS (Contents in billion gallons)



RESERVOIR SYSTEM (usable capacity, in billion gallons)	AUG. CAPACITY (PERCENT)	SEPT. CAPACITY (PERCENT)	LONG-TERM AVERAGE CAPACITY FOR SEPT. (PERCENT)
Hartford (39.8 bg)	84	92	83
Bridgeport (23.9 bg)	74	78	83
Waterbury (7.54bg)	76	86	87
Stamford (4.64 bg)	67	79	70
New Britain (2.75 bg)	56	68	69
Groton (2.57 bg)	73	71	75
Wallingford (1.93 bg)	74	71	80
Norwalk (1.15 bg)	47	73	61

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)	FIELD PH	FECAL COLIFORM (COL/100 mL)	ENTEROCOCCI (COL/100 mL)
01119375 Willimantic R. at Merrow	9/29	42.8/--	136	17.0	9.9/103	6.92	172	60
01122610 Shetucket R. at South Windham	9/28	122/89	141	16.5	9.2/94	6.84	540	44
01124000 Quinebaug R. at Quinebaug	9/9	37.4/89	278	24.0	7.7/93	7.25	120	68K
01125100 French R. at North Grosvenordale	9/9	7.85/--	408	24.5	9.9/121	9.27	300	240
01127000 Quinebaug R. at Jewett City	9/28	130/96	141	17.5	7.1/73	6.92	140	66
01184000 Connecticut R. at Thompsonville	9/13	6500/75	128	23.0	6.4/74	7.10	164	46
01188090 Farmington R. at Unionville	SITE NOT SAMPLED THIS MONTH							
01189030 Pequabuck R. at Farmington	9/20	156/--	218	15.5	6.3/63	6.81	248	350
01189995 Farmington R. at Tariffville	9/20	1710/20	110	17.0	7.9/82	6.67	780	292
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	9/15	44.5/96	345	20.5	7.7/86	7.42	343K	140
01198125 Housatonic R. near Ashley Falls, MA	9/27	500/--	288	15.5	8.5/87	7.71	140	112
01201487 Still R. at Rt. 7 at Brookfield Center	9/8	24.0/--	572	22.5	6.6/79	7.46	5200	2400
01205500 Housatonic R. at Stevenson	SITE NOT SAMPLED THIS MONTH							
01208049 Naugatuck R. near Waterville	9/14	61/--	250	22.0	6.4/74	7.02	88	29
01208500 Naugatuck R. at Beacon Falls	9/14	139/84	537	22.0	6.8/78	6.98	172	40
01208990 Saugatuck R. near Redding	SITE NOT SAMPLED THIS MONTH							
01209710 Norwalk R. near Winnipauk	9/7	4.60/--	112	23.0	6.6/79	7.76	350K	60

GROUND-WATER LEVELS

We are now including data from all 69 wells in our ground-water network. Three wells recorded new lows for September (2 of 3 with more than 10 years of record); 2 wells recorded new all-time lows (both wells with more than 10 years of record.)

Ground-water levels are in feet below land surface. Statistics are based on period of record (through calendar year 1998). Ground-water level data collected by USGS personnel and individual observers.

WELL NUMBER AND TOWN	GROUND-WATER LEVELS, IN FEET BELOW LAND SURFACE							NEW RECORD	YR RECORD BEGAN	
	SEPT. 1999 (DATE)		AUG. 1999	SEPT. 1998	SEPT. MAX	SEPT. MIN (YR RECORDED)				SEPT. MEDIAN
BD 8 (Brookfield)	31.08	20	32.21	31.89	29.80	33.25	1995	31.73		1966
BU 2 (Burlington)	26.88	23	28.62	29.77	20.19	33.72	1964	26.51		1946
CL 223 (Clinton)	6.47	21	9.57	9.64	5.24	12.43	1997	9.39		1991
CL 224 (Clinton)	21.73	21	22.34	21.75	20.58	22.47	1995	21.86		1991
CL 225 (Clinton)	7.26	21	8.10	4.23	4.23	10.39	1995	6.51		1991
CO 335 (Colchester)	7.15	21	8.70	6.87	6.87	8.52	1986	7.74		1986
CV 51 (Coventry)	5.78	23	7.29	6.88	4.90	7.78	1995	6.13		1992
D 116 (Durham)	8.39	25	10.12	7.60	1.80	10.69	1999	6.52	<, <<	1986
D 117 (Durham)	12.36	25	14.21	12.14	10.97	14.12	1995	12.14		1986
D 119 (Durham)	1.22	25	2.87	1.58	0.61	3.07	1986	2.01		1986
D 120 (Durham)	3.04	25	3.85	2.87	2.54	4.37	1995	3.38		1986
EL 82 (Ellington)	5.72	23	6.55	6.50	6.12	6.56	1995	6.35		1987
EL 139 (Ellington)	dry	23	dry	29.26	0.00	29.58	1994	9.86*		1993
EL 140 (Ellington)	14.57	23	20.68	19.90	17.81	19.90	1998	19.61		1993
EW 133 (East Windsor)	5.00	23	5.89	5.61	4.71	6.66	1986	5.53		1986
EW 134 (East Windsor)	51.64	23	51.70	50.78	49.60	51.65	1995	51.04		1986
FF 23 (Fairfield)	7.75	20	9.80	8.52	6.73	8.79	1967	8.26		1966
FF 30 (Fairfield)	11.55	20	10.78	11.32	5.75	12.70	1995	8.92		1993
FF 31 (Fairfield)	7.90	20	12.85	13.91	6.80	14.50	1995	9.77*		1993
FF 32 (Fairfield)	11.70	20	12.80	13.03	5.57	14.01	1995	11.03		1993
FF 33 (Fairfield)	5.60	20	7.28	7.08	5.60	8.13	1995	7.08		1993
GR 328 (Granby)	12.21	23	16.51	15.01	12.21	16.58	1995	14.98		1981
GR 329 (Granby)	2.49	23	12.06	10.63	2.49	12.71	1995	10.60		1982
GR 330 (Granby)	2.15	23	3.76	3.54	2.15	4.76	1995	3.58		1982
GR 331 (Granby)	8.40	23	13.09	12.29	8.24	13.30	1983	11.22		1983
GT 19 (Groton)	15.63	26	dry	16.67	0.00	17.74	1963	16.53		1958
HM 445 (Hamden)	30.12	20	27.83	27.89	27.35	32.89	1993	28.41	<	1988
HM 446 (Hamden)	3.54	20	4.28	4.04	3.54	4.51	1995	3.88		1993
HM 447 (Hamden)	3.04	20	3.88	3.64	3.04	4.16	1995	3.64		1993
HM 448 (Hamden)	13.41	20	14.60	14.20	13.41	14.99	1995	14.16		1993
HM 449 (Hamden)	14.70	20	20.01	20.23	14.70	21.02	1994	18.55		1993
HM 450 (Hamden)	11.90	20	13.85	13.63	11.90	13.63	1997	13.28		1993
MB 32 (Marlborough)	6.29	21	8.95	7.37	3.97	10.46	1995	8.02		1986
MB 35 (Marlborough)	16.76	21	16.30	14.88	13.53	17.21	1995	15.72		1993

WELL NUMBER AND TOWN	GROUND-WATER LEVELS, IN FEET BELOW LAND SURFACE							NEW RECORD	YR RECORD BEGAN
	SEPT. 1999 (DATE)		AUG. 1999	SEPT. 1998	SEPT. MAX	SEPT. MIN (YR RECORDED)			
MB 36 (Marlborough)	5.51	21	8.61	6.98	4.86	9.69	1995	7.10	1993
MF 1 (Middlefield)	12.97	21	13.45	11.51	6.80	15.64	1964	12.36	1946
MS 19 (Mansfield)	13.28	23	13.50	12.51	11.37	14.75	1966	12.88	1958
MS 44 (Mansfield)	3.91	23	8.42	7.22	1.56	10.58	1995	7.65	1982
MS 45 (Mansfield)	13.09	23	14.04	13.36	12.38	14.47	1995	13.31	1987
MS 46 (Mansfield)	10.93	23	14.65	14.06	10.93	16.91	1995	13.97	1987
MS 74 (Mansfield)	9.22	23	9.80	9.35	4.99	9.96	1997	9.38	1992
MS 75 (Mansfield)	13.87	23	15.27	16.60	13.82	20.25	1995	17.19	1992
MS 76 (Mansfield)	33.90	23	34.10	obstructed	14.65	35.29	1993	29.12*	1992
MS 77 (Mansfield)	9.30	23	9.80	9.35	4.67	10.10	1993	9.60	1993
MT 261 (Middletown)	23.62	21	24.74	23.02	20.65	26.10	1995	23.78	1956
NHV 201 (North Haven)	17.19	20	17.85	16.44	15.65	17.95	1986	16.61	1982
NHV 202 (North Haven)	50.37	20	53.11	47.30	0.00	59.51	1995	47.98	1983
NOC 7 (North Canaan)	9.20	29	10.64	10.68	0.00	11.51	1995	9.90	1958
NSN 77 (N. Stonington)	15.68	22	15.70	15.09	14.12	17.15	1993	15.80	1991
NSN 78 (N. Stonington)	4.68	22	6.35	4.28	4.27	5.54	1997	4.42	1991
NT 15 (Newtown)	5.25	20	9.95	8.40	4.52	10.75	1995	8.30	1966
PL 1 (Plainfield)	30.51	22	31.35	30.22	29.58	32.70	1966	31.00	1942
SB 30 (Southbury)	21.86	20	22.18	21.07	19.06	22.55	1995	21.00	1979
SB 39 (Southbury)	4.33	20	8.27	7.09	6.71	8.47	1995	7.22	1991
SB 41 (Southbury)	56.06	20	55.40	53.33	47.13	56.06	1999	50.51	<, << 1991
SB 42 (Southbury)	22.08	20	22.87	19.49	13.67	24.09	1995	16.90	1993
SC 19 (Scotland)	3.66	22	10.85	9.03	3.66	11.60	1995	9.28	1983
SC 20 (Scotland)	8.27	22	10.22	obstructed	8.09	11.15	1993	9.83	1983
SC 21 (Scotland)	1.07	22	1.50	0.99	0.69	2.11	1995	1.12	1983
SC 22 (Scotland)	12.97	22	13.79	13.30	12.54	16.00	1984	13.77	1984
SC 23 (Scotland)	2.34	22	2.95	2.32	2.10	2.99	1995	2.47	1984
SM 7 (Salem)	12.50	22	13.41	12.63	10.55	13.55	1993	13.15	1979
SW 64 (S. Windsor)	11.75	23	12.65	11.91	9.80	14.98	1966	12.43	1934
SY 15 (Salisbury)	15.13	26	14.32	15.00	14.09	16.34	1995	15.19	1966
SY 23 (Salisbury)	7.25	26	14.54	13.32	5.82	17.37	1993	10.24	1987
SY 24 (Salisbury)	15.80	26	17.16	16.83	12.14	19.39	1995	14.66	1986
WB 93 (Waterbury)	25.70	20	obstructed	27.80	25.70	29.68	1962	28.00	1943
WB 198 (Waterbury)	16.50	20	20.68	18.78	12.30	21.28	1995	17.23	1943
WY 1 (Woodbury)	25.77	20	29.22	27.25	21.41	33.20	1914	29.16	1913

Well WB 93 (Waterbury) is back in the network.

New records: <, new record low for September; <<, new record low for period of record.

*, median not calculated; number shown is mean.