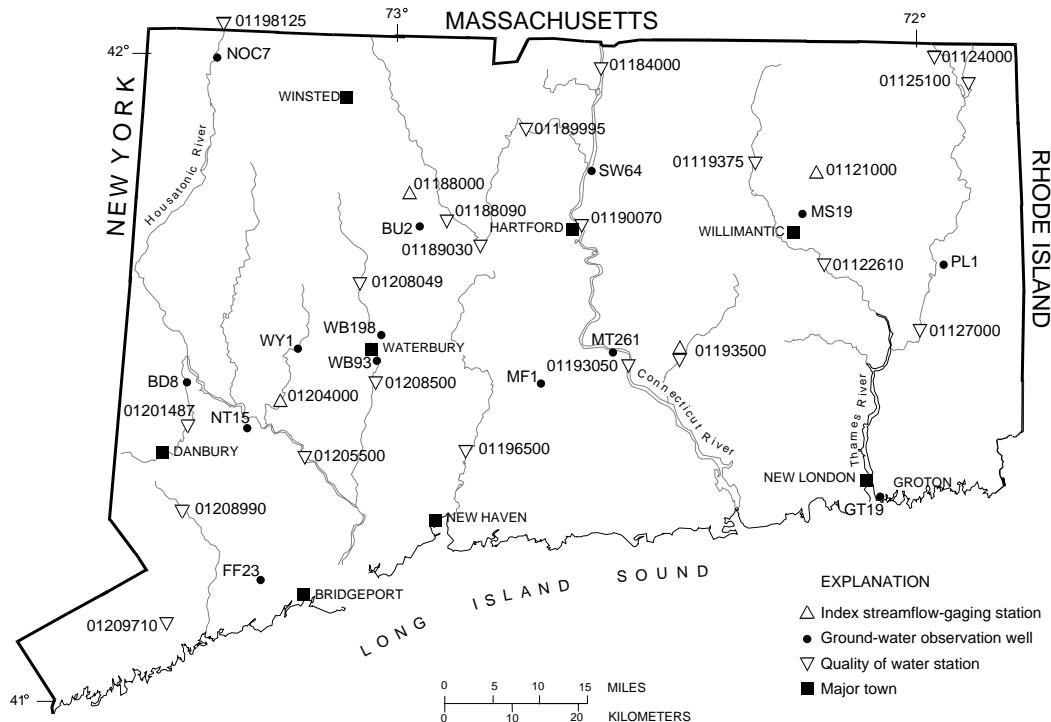


# U.S. Department of the Interior U.S. Geological Survey



## WATER-RESOURCES CONDITIONS IN CONNECTICUT, DECEMBER 2002

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	Water Quality	3
Streamflow	2	Ground Water	4

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

PROVISIONAL DATA

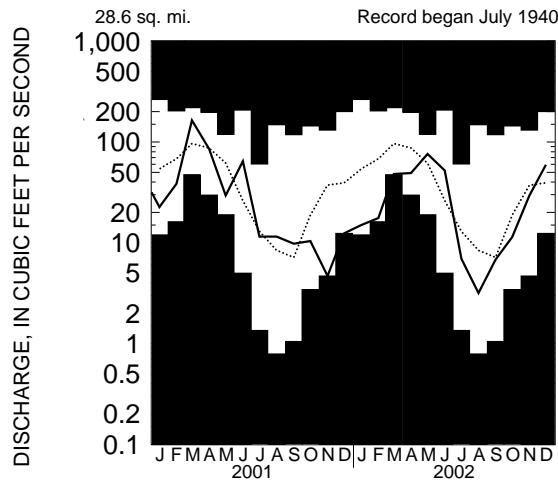
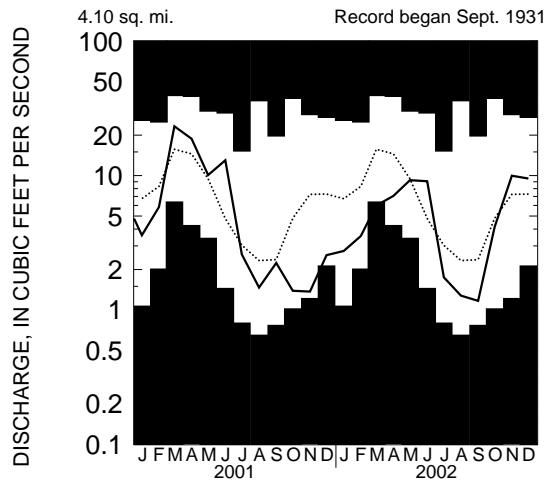
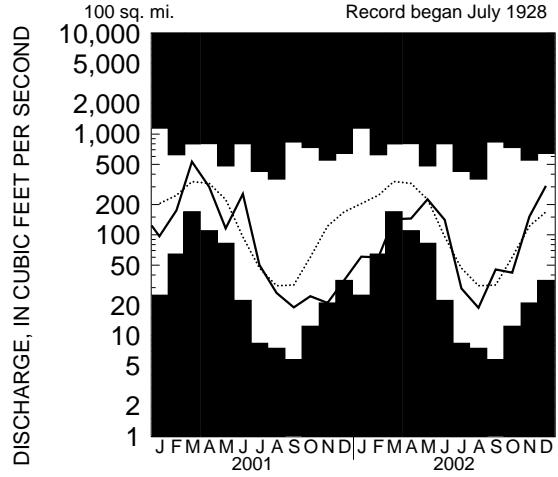
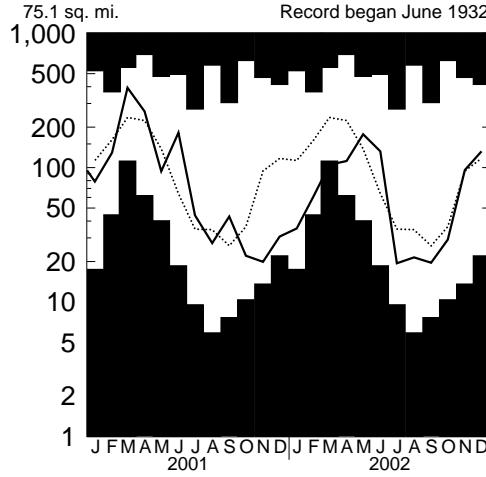
Streamflow across the State was in the normal range. Flow at Burlington Brook (NW Connecticut) remained in the normal range for the third consecutive month. Flows at Mount Hope River (NE Connecticut), Salmon River (SE Connecticut), and Pomperaug River (SW Connecticut) remained in the normal range for the second consecutive month. Across the State, mean streamflow for December averaged 112 percent of the December long-term median values.

USGS STREAMFLOW-GAGING STATION NAME AND NUMBER	DEC. 2002 MEAN	NOV. 2002 MEAN	DEC. 2001 MEAN	DEC. MAXIMUM VALUE (year recorded)	DEC. MINIMUM VALUE (year recorded)	DEC. MEDIAN (1971-2000)
MT HOPE RIVER (01121000)	59.5	29.5	12.4	200	1997	60.3
BURLINGTON (01188000)	9.50	9.98	2.56	27.1	1974	8.01
SALMON RIVER (01193500)	306	152	35.4	641	1973	209
POMPERAUG (01204000)	132	95.9	30.7	415	1997	145

**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**

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

→ PROVISIONAL DATA ←

[Station locations shown on front page; --, not applicable; —, not available; 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)]

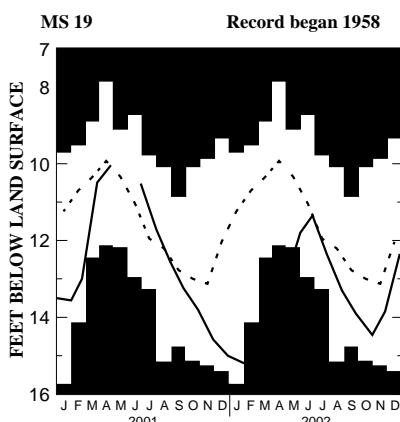
USGS WATER-QUALITY STATION NAME AND NUMBER	SAMPLE DATE IN 2002	STREAMFLOW/ % FLOW DURATION	SPECIFIC CONDUCTANCE (in $\mu\text{S}/\text{cm}$ at 25°C)	WATER TEMPERATURE (°C)	DISSOLVED OXYGEN CONCENTRATION (mg/L)/PERCENT SATURATION	FIELD PH	FECAL COLIFORM (COL/100 mL)	E. COLI (COL/100 mL)
01119375 Willimantic R. at Merrow					SITE NOT SAMPLED THIS MONTH			
01122610 Shetucket R. at South Windham	12/16	1590 / --	107	2.0	14.2 / 105	7.0	1020	292
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					SITE NOT SAMPLED THIS MONTH			
01184000 Connecticut R. at Thompsonville	12/5	11600 / 49	136	1.5	14.2 / 100	7.1	144	176
01188090 Farmington R. at Unionville					SITE NOT SAMPLED THIS MONTH			
01189030 Pequabuck R. at Farmington	12/4	56.3 / --	330	1.5	11.3 / 80	7.2	466 K	1160
01189995 Farmington R. at Tariffville	12/4	740 / 56	158	1.5	12.7 / 89	6.7	3400	3100 K
01190070 Connecticut R. at Hartford	12/9	-- / --	148	0.0	14.6 / 97	6.6	232	184
01193050 Connecticut R. at Middle Haddam	12/9	-- / --	163	1.0	13.6 / 93	6.6	1140	860
01193500 Salmon R. near East Hampton					SITE NOT SAMPLED THIS MONTH			
01196500 Quinnipiac R. at Wallingford	12/10	114 / 64	402	2.5	13.6 / 99	7.3	4300	1460
01198125 Housatonic R. near Ashley Falls, MA					SITE NOT SAMPLED THIS MONTH			
01201487 Still R. at Rt. 7 at Brookfield Center					SITE NOT SAMPLED THIS MONTH			
01205500 Housatonic R. at Stevenson					SITE NOT SAMPLED THIS MONTH			
01208049 Naugatuck R. near Waterville					SITE NOT SAMPLED THIS MONTH			
01208500 Naugatuck R. at Beacon Falls					SITE NOT SAMPLED THIS MONTH			
01208990 Saugatuck R. near Redding					SITE NOT SAMPLED THIS MONTH			
01209710 Norwalk R. near Winnipauk	12/3	38.8 / --	339	3.0	14.0 / 103	7.3	700	323 K

## GROUND-WATER LEVELS

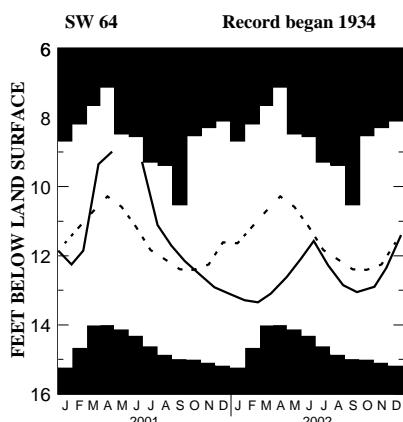
(Status of ground-water storage as indicated by water level changes in observation wells,  
as shown on hydrographs)

- Shaded area on graphs show highest and lowest water levels of record through calendar year 2001.
- Solid line shows current water levels.
- Dashed line is monthly median for period of record through calendar year 2000.

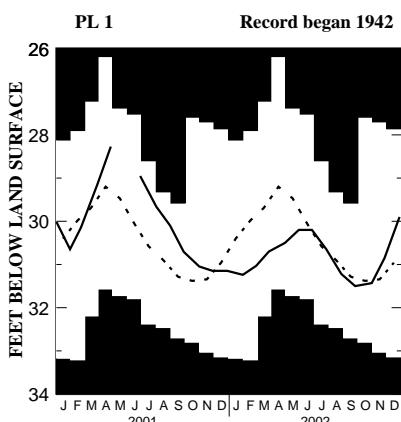
### MANSFIELD



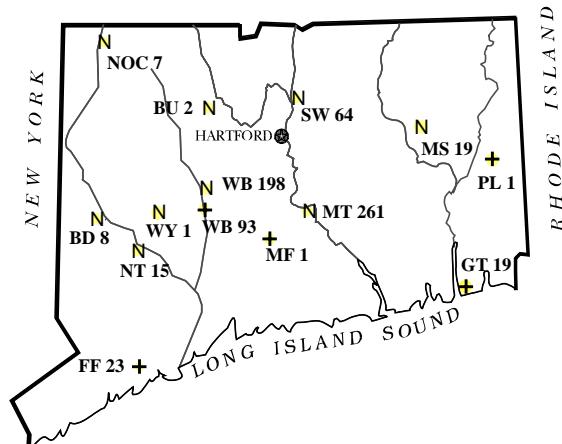
### SOUTH WINDSOR



### PLAINFIELD



### 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.

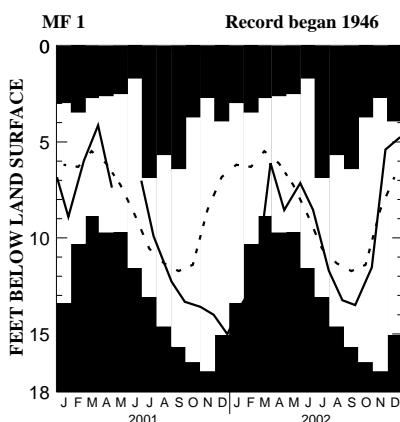


### BELOW NORMAL

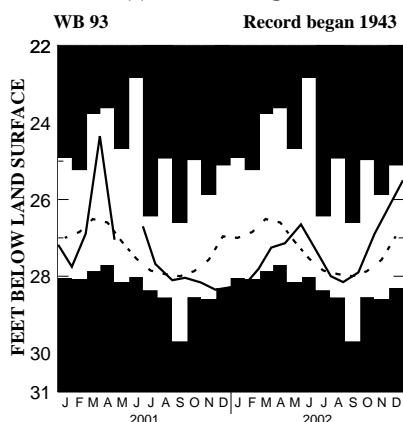
Within the lowest 25%  
of record for this month.



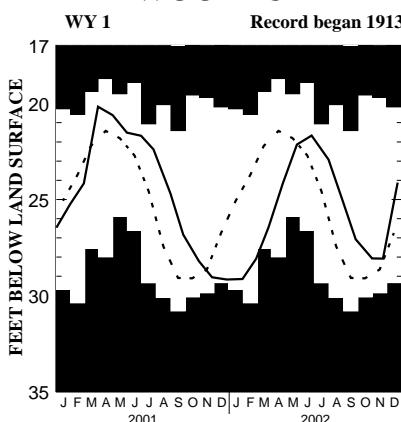
### MIDDLEFIELD



### WATERBURY



### WOODBURY



not measured in Nov. 2002

**GROUND-WATER LEVELS**

Twelve high ground-water levels were recorded during December 2002.

Ground-water levels are in feet below land surface. Maximum and minimum values are from end-of-the month readings and may not be the highest or lowest recorded during the month. Statistics are based on period of record (through calendar year 2000). Ground-water level data are collected by USGS personnel and individual observers.

WELL NUMBER AND TOWN	GROUND-WATER LEVELS, IN FEET BELOW LAND SURFACE							NEW RECORD	YR RECORD BEGAN
	DEC. 2002 (DATE)	NOV. 2002	DEC 2001	DEC. MAX (YR RECORDED)	DEC. MIN (YR RECORDED)	DEC. MEDIAN			
BD 8 (Brookfield)	31.18	23	31.92	33.01	26.96	1996	33.17	1980	30.81
BU 2 (Burlington)	24.84	23	31.64	36.62	16.53	1958	37.41	1948	23.32
BU 143 (Burlington)	4.32	23	7.32	12.43	3.56	1996	12.43	2001	6.15
BU 144 (Burlington)	2.41	23	2.35	2.66	2.41	2002	2.73	2000	2.62
CL 223 (Clinton)	2.59	27	3.42	10.36	2.59	2002	10.36	2001	4.12
CL 224 (Clinton)	19.78	27	21.13	23.41	17.93	1996	23.41	2001	20.90
CL 225 (Clinton)	5.29	27	5.43	7.02	5.29	2002	7.02	2001	5.64
CO 335 (Colchester)	6.40	27	7.15	8.06	4.73	1994	8.06	2001	6.93
CV 51 (Coventry)	4.52	26	5.22	6.42	3.29	1996	7.28	1998	4.61
D 116 (Durham)	0.14	27	0.28	6.78	0.12	1994	6.78	2001	0.42
D 117 (Durham)	8.95	27	9.45	11.63	5.06	1996	11.91	1998	9.79
D 119 (Durham)	+0.06	27	0.10	0.43	+0.06	2002	1.91	1989	0.30
D 120 (Durham)	1.31	27	1.68	2.34	1.01	1996	2.59	1989	2.01
EL 82 (Ellington)	5.47	26	6.00	6.47	5.26	1996	6.47	2001	5.77
EL 139 (Ellington)	21.84	26	DRY	DRY	18.84	1996	DRY	2001	20.97
EL 140 (Ellington)	13.14	26	17.44	22.25	11.66	1996	22.25	2001	13.05
EW 133 (East Windsor)	4.81	26	5.17	5.48	4.27	1996	5.48	2001	5.01
EW 134 (East Windsor)	51.50	26	51.90	51.87	49.52	1989	51.87	2001	51.16
FF 23 (Fairfield)	7.50	30	--	8.25	7.02	1986	8.50	1980	7.79
FF 30 (Fairfield)	2.20	30	--	11.02	1.17	1996	13.22	1998	2.86
FF 31 (Fairfield)	5.27	30	--	10.30	4.08	1993	13.70	1998	5.84
FF 32 (Fairfield)	5.05	30	--	10.47	5.05	2002	13.46	1998	6.40
FF 33 (Fairfield)	4.45	30	--	5.39	4.30	1997	5.92	1998	4.90
GR 328 (Granby)	11.31	23	16.36	18.34	7.86	1996	18.34	2001	11.66
GR 329 (Granby)	3.83	23	3.46	12.39	3.31	1996	12.39	2001	4.53
GR 330 (Granby)	2.45	23	2.31	2.93	2.45	1999/02	3.74	1982	3.14
GR 331 (Granby)	8.19	23	8.09	10.41	7.74	1994	10.41	2001	8.83
GT 19 (Groton)	13.93	29	14.15	16.78	11.52	1969	17.48	1965	15.05
HM 445 (Hamden)	16.02	30	--	34.99	16.02	2002	34.99	2001	21.51
HM 446 (Hamden)	3.04	30	--	3.97	2.23	1993	4.02	1995	3.44
HM 447 (Hamden)	3.07	30	--	3.67	2.29	1995	3.67	1998/01	2.54
HM 448 (Hamden)	12.46	30	--	14.36	12.46	2002	14.36	2001	13.14
HM 449 (Hamden)	14.80	30	--	26.61	12.57	1997	26.61	2001	15.80
HM 450 (Hamden)	10.56	30	--	DRY	9.53	1997	DRY	2001	13.02

WELL NUMBER AND TOWN	GROUND-WATER LEVELS, IN FEET BELOW LAND SURFACE								NEW RE-CORD	YR RECORD BEGAN
	DEC. 2002 (DATE)	NOV. 2002	DEC. 2001	DEC. MAX (YR RECORDED)	DEC. MIN (YR RECORDED)	DEC. MEDIAN				
MB 32 (Marlborough)	1.90	27	4.45	11.13	1.08	1996	11.31	2001	3.59	
MB 35 (Marlborough)	7.12	27	14.12	18.27	5.10	1996	18.27	2001	9.58	
MB 36 (Marlborough)	2.34	27	2.78	8.05	2.34	2002	8.05	2001	3.08	>
MF 1 (Middlefield)	4.75	27	5.40	15.01	3.91	1973	15.01	2001	6.54	
MS 19 (Mansfield)	12.35	26	13.85	15.00	9.33	1972/96	15.39	1965	12.05	
MS 44 (Mansfield)	0.80	26	1.09	8.46	0.40	1986	8.46	2001	2.35	
MS 45 (Mansfield)	12.34	26	13.39	14.38	10.21	1996	14.38	2001	12.06	
MS 46 (Mansfield)	14.04	26	14.70	15.18	11.84	1996	15.18	2001	13.46	
MS 74 (Mansfield)	3.88	26	8.15	11.05	0.69	1996	11.05	2001	2.51	
MS 75 (Mansfield)	11.42	26	15.37	19.28	3.80	1996	20.69	1997	13.82	
MS 76 (Mansfield)	32.60	26	34.10	36.79	27.60	1996	36.79	2001	31.37	
MS 77 (Mansfield)	3.78	26	7.92	10.70	0.89	1996	10.70	2001	3.51	
MT 261 (Middletown)	19.74	27	21.43	25.51	18.43	1983	26.75	1956	19.94	
NHV 201 (North Haven)	15.45	30	--	18.41	13.46	1996	18.41	2001	16.39	
NOC 7 (North Canaan)	9.28	**	8.97	9.47	8.80	1972	10.80	1964	9.43	
NSN 77 (N. Stonington)	9.48	27	12.35	15.93	6.99	1996	15.93	2001	10.26	
NSN 78 (N. Stonington)	3.67	27	4.05	4.44	3.10	1992	4.47	1999	3.82	
NT 15 (Newtown)	2.57	30	--	9.03	0.98	1972	10.11	1980	4.60	
PL 1 (Plainfield)	29.90	27	30.85	31.15	27.86	1996	33.14	1965	30.87	
SB 30 (Southbury)	19.25	23	20.87	21.40	15.72	1996	21.40	2001	18.69	
SB 39 (Southbury)	6.17	23	6.52	7.45	4.64	1996	7.45	2001	6.07	
SB 41 (Southbury)	47.10	23	49.85	52.60	45.32	1996	52.60	2001	46.92	
SB 42 (Southbury)	14.58	23	18.98	20.37	11.46	1996	20.37	2001	12.26	
SC 19 (Scotland)	1.57	26	2.75	10.65	1.57	2002	10.65	2001	3.86	>
SC 20 (Scotland)	5.05	26	8.11	11.90	1.00	1996	11.90	2001	5.50	
SC 21 (Scotland)	0.13	26	0.76	1.56	+0.83	1996	1.56	2001	0.72	
SC 22 (Scotland)	10.77	23	12.48	14.51	8.01	1996	14.51	2001	11.68	
SC 23 (Scotland)	1.36	26	1.71	2.57	1.36	2002	2.57	2001	2.02	>
SM 7 (Salem)	7.37	27	11.36	13.44	6.62	1996	13.44	2001	9.49	
SW 64 (S. Windsor)	11.40	26	12.35	13.10	8.10	1996	15.17	1965	11.65	
SY 15 (Salisbury)	14.05	23	15.61	16.76	11.57	1996	17.10	1997	14.14	
SY 23 (Salisbury)	4.55	23	5.28	15.22	4.55	2002	15.22	2001	5.87	>
SY 24 (Salisbury)	9.95	23	12.30	16.05	7.30	1996	16.05	2001	11.34	
WB 93 (Waterbury)	25.50	30	--	28.29	25.10	1974	28.29	2001	26.94	
WB 198 (Waterbury)	14.07	30	--	22.42	9.82	1951	22.42	2001	14.76	
WY 1 (Woodbury)	24.12	23	27.17	29.17	20.18	1996	33.20	1914	26.90	
										1913

New records: >, new record high for month; >>, new record high for period of record; <, new record low for month;  
<<, new record low for period of record; \*, median not calculated--number shown is mean; NA, not available; OBS, obstructed;  
+, water level above ground surface; --, not measured; \*\* level for NOC-7 was on 01/01/2003.