Water-Data Report 2009

01122610 SHETUCKET RIVER AT SOUTH WINDHAM, CT

Connecticut Coastal Basin
Shetucket Subbasin

LOCATION.--Lat 41°40′56″, long 72°09′59″ referenced to North American Datum of 1927, Windham County, CT, Hydrologic Unit 01100002, at bridge on State Rt. 203, at South Windham, 0.8 mi downstream from Jordan Brook, and 1.8 mi upstream from Cold Brook.

DRAINAGE AREA.--408 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1980 to September 1992.
WATER TEMPERATURES: August 1980 to September 1992.

INSTRUMENTATION.--Water-quality monitor August 1980 to September 1992.

REMARKS.--Discharges shown for this location are computed by determining the discharge for station 01122500, 1.6 mi upstream, and adjusting its discharge by multiplying by a factor of 1.01, which is the ratio of the two stations' drainage areas.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 301 microsiemens May 21, 1982; minimum, 27 microsiemens Aug. 14, 1989.
WATER TEMPERATURES: Maximum, 29.0°C July 18, 19, 1982, Aug. 15, 1988; minimum, 0.0°C on many days during winter period.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 1 of 6

[%, percent; CaCO3, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO2, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligram per liter; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	Temperature, air, °C (00020)	Discharge, instantaneous, ft³/s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25 °C (00095)	Temperature, water, °C (00010)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)
10-23-2008	1045	7.5	344	11.5	100	6.9	125	10.0	1.4
11-13-2008	1045	10.5	595	10.9	90	7.1	112	7.5	1.3
12-18-2008	1130	4.0	3,370	3.5	26	6.9	81	3.5	2.3
01-12-2009	1130	.0	1,130	13.7	95	6.8	115	.5	.8
02-20-2009	1145	-2.5	1,030	13.4	97	7.1	147	1.5	1.7
03-17-2009	1000	5.5	887	12.4	97	6.9	120	5.5	.6
04-20-2009	1330	13.0	675	10.8	100	7.1	124	12.0	.7
05-18-2009	0945	15.0	675	9.7	95	7.0	115	14.5	1.7
06-15-2009	1200	22.5	675	9.4	100	7.0	117	18.5	4.4
07-23-2009	1100	25.5	400	9.2	103	7.2	142	20.9	1.8
08-13-2009	1030	22.0	314	7.8	89	7.2	140	21.8	1.4
09-01-2009	1000	24.0	288	8.9	95	7.2	139	19.0	1.8

01122610 SHETUCKET RIVER AT SOUTH WINDHAM, CT—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 2 of 6

[%, percent; CaCO3, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO2, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligram per liter; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Dissolved solids dried at 180 °C, water, filtered, mg/L (70300)	Hardness, water, mg/L as CaCO3 (00900)	Total solids dried at 105 °C, water, unfiltered, mg/L (00500)	Calcium, water, filtered, mg/L (00915)	Magne-sium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	Alkalinity, water, filtered, inflection-point, incremental titration method, field, mg/L as CaCO3 (39086)	Bicarbonate, water, filtered, inflection-point, incremental titration method, field, mg/L (00453)
10-23-2008	--	--	--	--	--	--	--	--	--
11-13-2008	76	22.7	72	6.07	1.83	1.87	10.5	11.8	14.4
12-18-2008	--	--	--	--	--	--	--	--	--
01-12-2009	74	19.6	80	5.25	1.57	1.24	11.6	10.6	12.9
02-20-2009	--	--	--	--	--	--	--	--	--
03-17-2009	68	21.8	81	5.89	1.73	1.40	12.3	9.1	11.1
04-20-2009	--	--	--	--	--	--	--	--	--
05-18-2009	87	22.2	76	5.95	1.78	1.34	11.2	11.9	14.5
06-15-2009	81	21.9	80	5.93	1.72	1.42	10.8	13.4	16.4
07-23-2009	82	25.3	92	6.94	1.92	1.80	12.5	16.5	20.1
08-13-2009	87	26.4	92	7.29	1.98	1.86	12.6	15.7	19.1
09-01-2009	87	26.8	87	7.32	2.07	1.96	12.4	18.3	--

01122610 SHETUCKET RIVER AT SOUTH WINDHAM, CT—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
Part 3 of 6
[%, percent; CaCO3, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO2, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligram per liter; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L as SiO2 (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)	Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)	Organic nitrogen, water, unfiltered, mg/L (00605)
10-23-2008	--	--	--	--	.26	.28	E .015	.27	.006	E .26
11-13-2008	16.9	E .05	10.1	7.66	.27	.25	E .018	.23	.003	E .23
12-18-2008	--	--	--	--	.19	.18	< .020	.21	E .001	< .18
01-12-2009	18.8	E .05	9.30	8.45	.64	.19	E .020	.28	E .002	E .17
02-20-2009	--	--	--	--	.24	.23	.052	.43	.003	.17
03-17-2009	20.4	< .08	8.60	8.50	.17	.18	.052	.36	.002	.13
04-20-2009	--	--	--	--	.17	.24	E .012	.25	.003	E .23
05-18-2009	18.6	< .08	6.93	7.58	.20	.28	E .018	.22	.002	E .26
06-15-2009	18.0	< .08	7.92	7.13	.33	.41	E .014	.27	.003	E .40
07-23-2009	20.4	E .06	8.61	7.76	.43	.43	.111	.33	.007	.32
08-13-2009	20.9	E .04	9.73	8.04	.39	.45	.095	.40	.016	.35
09-01-2009	20.1	E .07	9.23	7.99	.37	.43	.131	.37	.025	.30

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
Part 4 of 6
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Date	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, filtered, mg/L as P (00666)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, mg/L (00600)	Escherichia coli, Defined Substrate Technology, water, MPN/100 mL (50468)	Aluminum, water, filtered, µg/L (01106)	Barium, water, filtered, µg/L (01005)	Beryllium, water, filtered, µg/L (01010)	Cadmium, water, filtered, µg/L (01025)
10-23-2008	.017	.024	.033	.55	--	--	--	--	--
11-13-2008	.011	.017	.026	.48	130	32.9	9	< .02	E .01
12-18-2008	E .005	.007	.026	.39	--	--	--	--	--
01-12-2009	< .008	.006	.014	.47	34	27.3	9	< .02	< .02
02-20-2009	.012	.013	.030	.66	--	--	--	--	--
03-17-2009	.010	.012	.020	.53	52	23.7	9	< .02	E .02
04-20-2009	.008	.010	.021	.49	--	--	--	--	--
05-18-2009	.010	.013	.026	.51	58	20.8	9	< .02	< .02
06-15-2009	.016	.025	.056	.68	460	33.2	9	< .02	< .02
07-23-2009	.023	.034	.048	.75	96	28.0	9	< .02	< .02
08-13-2009	.014	.023	.032	.85	99	20.2	10	< .02	< .02
09-01-2009	.014	.021	.035	.80	78	16.1	10	< .02	< .02

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 5 of 6

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Date	Cadmium, water, unfiltered, µg/L (01027)	Chromium, water, filtered, µg/L (01030)	Chromium, water, unfiltered, recoverable, µg/L (01034)	Cobalt, water, filtered, µg/L (01035)	Copper, water, filtered, µg/L (01040)	Copper, water, unfiltered, recoverable, µg/L (01042)	Iron, water, filtered, µg/L (01046)	Iron, water, unfiltered, recoverable, µg/L (01045)	Lead, water, filtered, µg/L (01049)	Lead, water, unfiltered, recoverable, µg/L (01051)
10-23-2008	--	--	--	--	--	--	--	--	--	--
11-13-2008	< .06	.15	E .25	.08	E .85	< 4.0	242	370	.14	.26
12-18-2008	--	--	--	--	--	--	--	--	--	--
01-12-2009	< .06	.15	< .40	.12	E .53	< 4.0	106	184	.10	.18
02-20-2009	--	--	--	--	--	--	--	--	--	--
03-17-2009	< .06	E .09	< .40	.10	< 1.0	< 4.0	107	162	.08	.16
04-20-2009	--	--	--	--	--	--	--	--	--	--
05-18-2009	< .06	.14	E .26	.08	E .57	< 4.0	205	420	.19	.41
06-15-2009	< .06	.23	.43	.09	E .87	< 4.0	330	743	.28	.93
07-23-2009	< .06	.18	E .25	.08	E .74	< 4.0	383	579	.24	.49
08-13-2009	< .06	.16	< .40	.07	E .78	< 4.0	374	553	.19	.37
09-01-2009	E .03	.18	< .40	.07	E .84	< 4.0	393	609	.20	.37

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 6 of 6

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Date	Manganese, water, filtered, µg/L (01056)	Molybdenum, water, filtered, µg/L (01060)	Nickel, water, filtered, µg/L (01065)	Nickel, water, unfiltered, recoverable, µg/L (01067)	Silver, water, filtered, µg/L (01075)	Zinc, water, filtered, µg/L (01090)	Zinc, water, unfiltered, recoverable, µg/L (01092)	Antimony, water, filtered, µg/L (01095)	Organic carbon, water, unfiltered, mg/L (00680)	Uranium (natural), water, filtered, µg/L (22703)
10-23-2008	--	--	--	--	--	--	--	--	--	--
11-13-2008	15.1	.2	.62	.60	< .01	3.0	2.8	.06	5.8	.03
12-18-2008	--	--	--	--	--	--	--	--	--	--
01-12-2009	21.2	.1	.61	.64	< .01	4.1	3.9	E .03	2.8	.02
02-20-2009	--	--	--	--	--	--	--	--	--	--
03-17-2009	19.8	.1	.60	.62	< .01	3.3	3.5	E .03	2.3	.02
04-20-2009	--	--	--	--	--	--	--	--	--	--
05-18-2009	19.4	.1	.58	.77	< .01	E 1.9	2.8	E .04	3.9	.03
06-15-2009	14.8	.2	.75	1.0	< .01	E 1.6	4.1	.06	6.2	.03
07-23-2009	15.9	.3	.65	.65	< .01	E 1.7	2.5	.05	5.0	.03
08-13-2009	11.9	.3	.63	.67	< .01	E 1.7	2.2	.05	4.8	.03
09-01-2009	8.5	.4	.59	.54	< .01	E 1.1	2.0	.06	5.6	.03