01124000 QUINEBAUG RIVER AT QUINEBAUG, CT

Connecticut Coastal Basin
Quinebaug Subbasin

LOCATION.--Lat 42°01′20″, long 71°57′22″ referenced to North American Datum of 1927, Windham County, CT, Hydrologic Unit 01100001, on right bank at Quinebaug, 500 ft upstream from bridge on State Rt. 197, 0.2 mi downstream from Massachusetts-Connecticut State line, 7.8 mi upstream from French River, and at mile 46.

DRAINAGE AREA.--155 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--September 1931 to current year.

REVISED RECORDS.--WSP 851: 1936(M). WSP 1201: 1939-43, 1949. WSP 1381: 1938(M). WDR CT-83-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 341.52 ft above sea level. Telephone telemetry at station.

REMARKS.--Records good except for periods of estimated record, which are fair. Peak flows are affected by flood-control regulation at East Brimfield Lake and Westville Lake since 1960. The natural flow regime can be altered by regulation at East Brimfield Lake, Westville Lake, and other small reservoirs in the basin.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,540 ft^3/s, Apr. 16, gage height, 7.38 ft; minimum discharge, 6.4 ft^3/s, Sept. 1, 2, 28, 29, gage height, 1.96 ft.

01124000 QUINEBAUG RIVER AT QUINEBAUG, CT—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	55	337	475	382	e164	148	555	675	149	51	31	7.0
2	85	309	528	497	e159	435	677	605	142	47	28	8.0
3	81	294	477	449	e170	535	638	474	138	42	26	11
4	80	265	433	424	e226	513	657	436	183	40	24	11
5	81	263	390	389	e298	442	941	376	206	53	19	10
6	68	234	364	395	e348	363	842	339	208	77	17	16
7	78	207	333	382	e404	342	715	305	190	65	16	11
8	89	297	327	487	e409	301	638	293	170	59	15	7.9
9	96	644	319	553	e401	260	585	272	185	57	13	13
10	114	550	320	506	e375	179	527	262	199	53	14	10
11	111	473	317	437	e370	323	464	257	190	49	14	21
12	398	492	311	394	e314	388	519	318	151	52	15	17
13	337	539	308	387	e319	426	681	309	144	60	15	11
14	278	540	314	394	e312	470	585	268	130	38	18	10
15	247	513	303	461	e394	564	763	243	121	35	16	14
16	222	464	282	501	e436	593	2,730	340	128	33	15	11
17	210	1,020	242	445	e450	599	1,810	657	137	32	14	10
18	233	804	217	436	e349	533	1,920	645	126	34	18	12
19	232	645	193	377	e340	441	1,730	630	109	49	14	10
20	233	590	184	339	e315	405	1,380	652	103	48	13	9.9
21	235	576	178	325	e247	363	1,280	625	94	43	13	9.3
22	220	495	192	263	e257	387	1,100	512	86	37	12	13
23	211	519	340	255	e251	635	1,090	388	83	37	12	12
24	185	944	382	241	e296	701	1,040	317	75	37	12	10
25	162	831	356	231	264	794	1,010	268	67	36	12	10
26	135	741	403	244	213	823	995	248	66	33	11	8.0
27	134	670	379	411	189	972	922	224	61	30	11	7.9
28	482	583	353	272	151	985	796	210	56	37	11	8.6
29	661	528	311	202	---	862	746	192	73	43	11	7.6
30	475	487	297	e182	---	733	697	176	62	40	11	8.1
31	380	---	276	e170	---	653	---	139	---	37	9.7	---
Total	6,608	15,854	10,104	11,431	8,421	16,168	29,033	11,655	3,832	1,384	480.7	325.3
Mean	213	528	326	369	301	522	968	376	128	44.6	15.5	10.8
Max	661	1,020	528	553	450	985	2,730	675	208	77	31	21
Min	55	207	178	170	151	148	464	139	56	30	9.7	7.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	165	236	319	341	337	528	547	310	218	102	106	109
Max	1,072	711	1,008	1,028	845	1,669	1,239	658	1,057	700	1,971	1,296
(WY)	(2006)	(1956)	(1997)	(1979)	(1970)	(1936)	(1940)	(1989)	(1982)	(1938)	(1955)	(1938)
Min	16.3	29.2	51.6	51.9	83.0	188	159	131	33.2	17.8	12.9	10.8
(WY)	(1958)	(2002)	(2002)	(2002)	(1980)	(2006)	(2006)	(1957)	(1999)	(1957)	(1957)	(2007)

01124000 QUINEBAUG RIVER AT QUINEBAUG, CT—Continued

SUMMARY STATISTICS

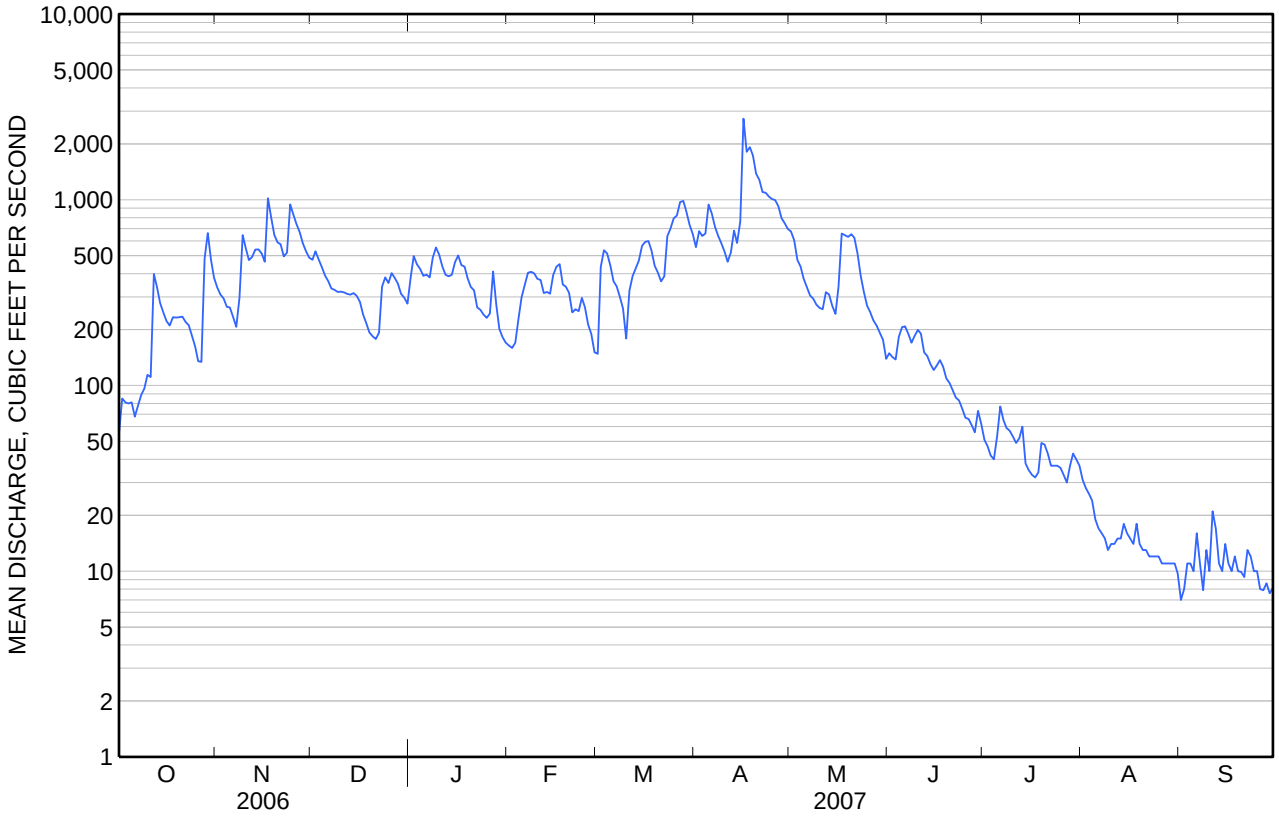
	Calendar Year 2006		Water Year 2007		Water Years 1932 - 2007	
Annual total	128,569		115,296.0			
Annual mean	352		316		276	
Highest annual mean					466	1955
Lowest annual mean					124	1965
Highest daily mean	1,450	Feb 5	2,730	Apr 16	26,500	Aug 19, 1955
Lowest daily mean	33	Sep 28	7.0	Sep 1	1.0	Sep 4, 1956
Annual seven-day minimum	37	Sep 24	8.6	Sep 24	8.6	Sep 24, 2007
Maximum peak flow			3,540	Apr 16	[a]49,300	Aug 19, 1955
Maximum peak stage			7.38	Apr 16	[b]18.96	Aug 19, 1955
Instantaneous low flow			6.4	Sep 1[d]	1.0	Sep 4, 1956[c]
10 percent exceeds	762		659		616	
50 percent exceeds	248		262		186	
90 percent exceeds	77		13		37	

[a] From rating curve extended above 820 ft³/s on basis of slope-area measurement of peak flow.

[b] From floodmarks.

[c] Also occurred Sep. 17, 18, 1950, July 9, 1951, Sep. 4 and Oct. 29, 1956, and Jan. 27, 1985 (ice siphoning).

[d] Also occurred Sep. 2, 28, 29.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses available for water years 1953 (WSP 1290), 1960 (WSP 1741), 1963 (WSP 1941), 1969 (WSP 2143). Water temperatures available for water year 1960 (WSP 1741). 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1959 to September 1960, October 1968 to September 1969.
pH: October 1959 to September 1960, October 1968 to September 1969.
WATER TEMPERATURES: October 1959 to September 1960, October 1968 to September 1969.
DISSOLVED OXYGEN: October 1959 to September 1960, October 1968 to September 1969.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 308 microsiemens Jan. 31, 1969; minimum, 49 microsiemens April 2, 1960.
pH: Maximum, 7.7 units June 14, 1969; minimum, 5.8 units July 18, 1969.
WATER TEMPERATURES: Maximum, 30.5°C July 16, 1969; minimum, 0.0 C on many days during December to March.
DISSOLVED OXYGEN: Maximum, 15.1 mg/L Dec. 28, 1968; minimum, 1.4 mg/L Sept. 7, 1969.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 4

[Remark codes: <, less than; E, estimated.]

Date	Time	Instantaneous discharge, ft3/s (00061)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf µS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
Nov													
14...	1000	528	3.5	10.3	94	7.3	144	11.0	10.5	21	5.76	1.70	1.85
Jan													
16...	1000	501	1.8	12.3	93	7.1	149	2.0	3.5	22	5.95	1.76	1.46
Mar													
13...	0845	459	2.5	13.0	93	6.9	178	6.5	1.5	23	6.26	1.87	1.61
May													
16...	0745	227	1.0	8.9	95	7.4	181	25.0	17.5	25	6.90	1.95	1.57
Jun													
13...	0845	149	2.3	8.8	96	6.9	195	16.5	19.5	28	7.74	2.11	1.68
Jul													
09...	0800	54	2.0	7.3	85	7.3	280	23.5	22.5	35	10.1	2.50	2.31
Aug													
07...	0845	16	1.2	7.9	95	7.3	379	25.0	23.5	55	16.7	3.27	4.18
Sep													
04...	0830	11	1.4	7.9	87	7.5	444	22.0	19.5	65	19.8	3.86	5.00

01124000 QUINEBAUG RIVER AT QUINEBAUG, CT—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
Part 2 of 4
[Remark codes: <, less than; E, estimated.]

Date	Sodium, water, fltrd, mg/L (00930)	Alka-linity, wat flt inf tit field, mg/L as CaCO3 (39086)	Bicar-bonate, wat flt infl pt titr., field, mg/L (00453)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L as SiO2 (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat unf mg/L (00500)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate + nitrite water fltrd, mg/L as N (00631)
Nov													
14...	16.9	12	14	27.7	E.06	6.66	7.58	94	93	.27	.34	E.014	.16
Jan													
16...	17.5	8	10	29.5	<.10	7.59	9.16	85	88	.26	.30	.047	.24
Mar													
13...	21.1	9	11	36.6	<.10	7.92	9.11	112	100	.23	E.30	.051	.34
May													
16...	22.7	12	14	37.0	<.10	2.61	8.82	104	95	.27	.24	<.020	.17
Jun													
13...	24.9	16	19	41.8	<.10	4.47	7.49	112	124	.34	.38	.021	.27
Jul													
09...	34.9	17	21	61.2	E.07	3.00	11.6	147	149	.30	.32	.026	.43
Aug													
07...	46.8	26	31	72.9	.16	3.82	26.2	217	222	.39	.37	E.017	.82
Sep													
04...	55.2	28	34	87.7	.19	2.27	32.6	244	245	.34	.32	E.016	.61

01124000 QUINEBAUG RIVER AT QUINEBAUG, CT—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
Part 3 of 4
[Remark codes: <, less than; E, estimated.]

Date	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, unfltrd mg/L (00605)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L as P (00666)	Phosphorus, water, unfltrd mg/L as P (00665)	Organic carbon, water, unfltrd mg/L (00680)	E coli, Defined Substr. Tech., water, MPN/100 mL (50468)	Aluminum, water, fltrd, µg/L (01106)	Antimony, water, fltrd, µg/L (01095)	Barium, water, fltrd, µg/L (01005)	Beryllium, water, fltrd, µg/L (01010)	Cadmium water, fltrd, µg/L (01025)
Nov													
14...	.002	E.34	.50	.006	.013	.033	E6.2	150	28.9	.06	9	<.06	<.04
Jan													
16...	.003	.25	.54	E.006	.009	.021	3.8	180	19.7	<.06	9	<.06	<.04
Mar													
13...	.019	E.25	E.64	E.004	.009	.028	3.8	140	14.4	E.05	10	<.06	E.03
May													
16...	.011	--	.42	<.006	.009	.022	3.8	25	13.4	.07	10	<.06	E.02
Jun													
13...	.003	.36	.65	.007	.017	.032	4.7	66	18.8	.10	9	<.06	E.02
Jul													
09...	.005	.30	.75	E.004	.015	.026	4.4	36	9.9	.16	12	<.06	E.02
Aug													
07...	.006	E.37	1.2	E.006	.014	.026	4.5	26	5.6	.35	17	<.06	E.03
Sep													
04...	.005	E.32	.94	<.006	.010	.023	4.6	110	14.7	.46	24	<.30	<.20

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
Part 4 of 4
[Remark codes: <, less than; E, estimated.]

Date	Chromium, water, fltrd, µg/L (01030)	Cobalt water, fltrd, µg/L (01035)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Manganese, water, fltrd, µg/L (01056)	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)	Uranium natural water, fltrd, µg/L (22703)
Nov											
14...	.14	.09	.65	206	.19	24.9	.1	.65	<.1	2.5	<.04
Jan											
16...	.15	.08	1.7	116	.16	30.3	<.1	.64	<.1	6.0	<.04
Mar											
13...	.12	.16	.42	89	E.07	60.6	.2	.58	<.1	3.7	<.04
May											
16...	.14	.11	.84	241	.26	51.9	.4	.79	<.1	2.7	<.04
Jun											
13...	.20	.12	1.1	516	.58	43.1	.3	.88	<.1	3.3	<.04
Jul											
09...	.12	.06	.82	349	.52	20.5	.9	.66	<.1	1.4	<.04
Aug											
07...	.13	.14	2.1	130	.37	44.3	2.9	1.7	<.1	2.4	<.04
Sep											
04...	<.60	E.14	E1.9	111	E.49	40.7	3.5	2.4	<.5	3.4	<.20