01125500 QUINEBAUG RIVER AT PUTNAM, CT

Connecticut Coastal Basin
Quinebaug Subbasin

LOCATION.--Lat 41°54′33″, long 71°54′48″ referenced to North American Datum of 1927, Windham County, CT, Hydrologic Unit 01100001, on right bank at Putnam, 0.15 mi downstream from Little River, 0.3 mi upstream from New York, New Haven and Hartford Railroad bridge, 2.8 mi downstream from French River, 3.0 mi downstream from West Thompson Dam, and 36 mi upstream from mouth.

DRAINAGE AREA.--328 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--December 1929 to September 1969, October 1995 to current year. Monthly discharge only for October and November 1929, published in WSP 1301. Stage record only October 1974 to September 1995.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 216.76 ft above sea level. Prior to Aug. 1, 1958, at same site on left bank at same datum. Satellite telemetry at station.

REMARKS.--Records good. Peak flows are affected by flood-control regulation at East Brimfield Lake, Westville Lake, West Thompson Lake, Hodges Village Reservoir, and Buffumville Lake since 1960. The natural flow regime is altered by regulation at East Brimfield Lake, Westville Lake, West Thompson Lake, Hodges Village Reservoir, Buffumville Lake, Lake Chaubunagungamaug, Quaddick Reservoir, and other small reservoirs in the basin.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,060 ft^3/s, Oct. 15, gage height, 9.55 ft; minimum discharge, 35 ft^3/s, Oct. 3, gage height, 1.75 ft.

01125500 QUINEBAUG RIVER AT PUTNAM, CT—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	92	2,140	1,520	1,450	1,330	510	237	373	466	1,090	199	257
2	80	2,040	1,450	1,250	1,230	470	255	305	639	905	193	216
3	51	1,940	1,320	1,200	1,310	473	252	553	1,480	706	238	228
4	59	1,590	1,180	1,140	1,800	439	357	710	2,800	642	227	272
5	63	1,250	1,030	1,060	2,540	434	498	682	2,670	641	207	278
6	65	1,080	996	1,030	2,920	465	550	543	2,170	616	195	250
7	63	786	903	978	2,900	439	464	438	2,200	590	169	225
8	113	602	836	921	2,490	435	504	351	2,580	507	124	206
9	536	726	817	836	1,880	414	489	316	2,460	447	123	192
10	828	857	820	799	1,550	427	453	309	2,350	398	114	171
11	1,270	918	822	803	1,300	473	391	307	2,150	385	127	147
12	1,820	914	793	1,020	1,190	457	319	403	1,760	406	133	134
13	1,620	861	729	1,280	1,090	471	295	934	1,530	408	123	113
14	1,630	812	616	1,520	1,030	498	291	1,360	1,200	368	117	126
15	4,280	768	597	1,920	990	534	298	1,630	1,320	350	135	110
16	3,540	694	678	1,850	996	495	292	1,740	1,320	322	171	85
17	3,320	998	1,030	1,950	999	448	277	2,190	1,170	286	152	96
18	3,290	1,090	1,040	2,110	1,090	417	260	1,950	1,100	250	132	95
19	3,220	992	958	2,550	1,000	383	246	1,510	946	262	125	160
20	3,140	895	841	2,590	917	353	239	1,500	761	252	221	110
21	3,180	834	727	2,390	822	385	224	1,380	714	243	298	105
22	2,890	1,240	662	2,070	747	271	215	1,220	642	260	260	95
23	2,410	2,050	600	1,680	734	291	236	991	661	393	229	82
24	2,880	1,910	593	1,510	723	285	328	864	1,290	385	190	86
25	2,820	1,600	595	1,420	685	291	334	746	2,070	392	170	84
26	2,890	1,310	1,050	1,330	652	287	317	658	2,710	286	190	77
27	3,240	1,100	1,830	1,180	524	280	283	736	2,250	281	196	72
28	3,170	1,070	1,830	1,090	464	271	261	745	1,840	270	299	72
29	2,930	1,050	1,580	1,050	---	265	241	669	1,260	297	323	81
30	2,630	1,160	1,630	1,220	---	245	268	592	1,360	267	314	86
31	2,330	---	1,530	1,350	---	233	---	489	---	227	296	---
Total	60,450	35,277	31,603	44,547	35,903	12,139	9,674	27,194	47,869	13,132	5,990	4,311
Mean	1,950	1,176	1,019	1,437	1,282	392	322	877	1,596	424	193	144
Max	4,280	2,140	1,830	2,590	2,920	534	550	2,190	2,800	1,090	323	278
Min	51	602	593	799	464	233	215	305	466	227	114	72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2006, BY WATER YEAR (WY)

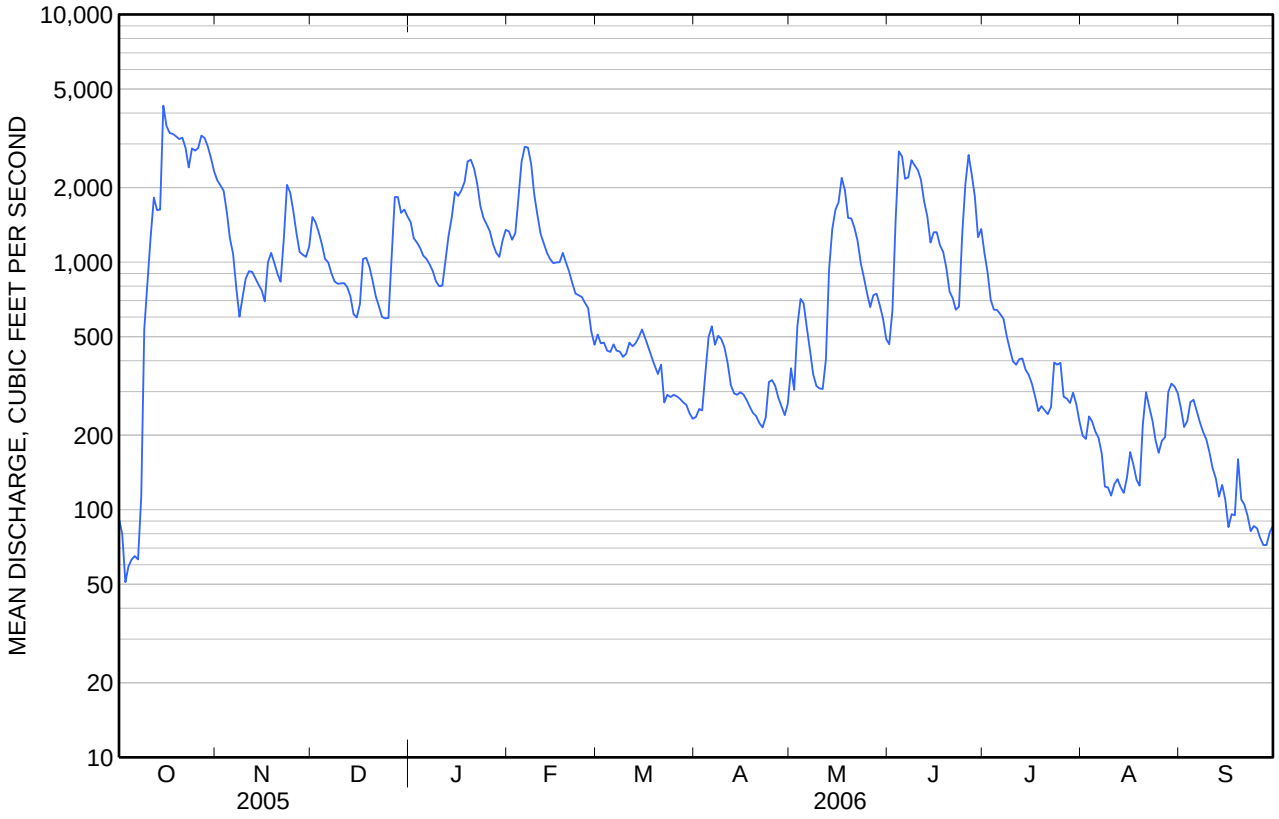
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	308	449	580	660	665	1,104	1,134	624	451	239	217	249
Max	1,950	1,553	1,939	1,437	1,606	3,627	2,788	1,090	1,596	1,773	2,935	2,276
(WY)	(2006)	(1956)	(1997)	(2006)	(1951)	(1936)	(1940)	(1945)	(2006)	(1938)	(1955)	(1938)
Min	43.1	81.0	115	144	233	392	322	273	70.5	50.1	36.3	37.0
(WY)	(1958)	(2002)	(1931)	(1944)	(2002)	(2006)	(2006)	(1965)	(1999)	(1999)	(1999)	(1957)

01125500 QUINEBAUG RIVER AT PUTNAM, CT—Continued

SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1930 - 2006	
Annual total	294,350		328,089			
Annual mean	806		899		560	
Highest annual mean					988	1938
Lowest annual mean					257	1965
Highest daily mean	4,280	Oct 15	4,280	Oct 15	26,400	Aug 20, 1955
Lowest daily mean	37	Sep 13	51	Oct 3	8.0	Sep 3, 1999
Annual seven-day minimum	38	Sep 8	68	Oct 1	16	Sep 2, 1999
Maximum peak flow			5,060	Oct 15	[a]48,000	Aug 19, 1955
Maximum peak stage			9.55	Oct 15	[b]26.50	Aug 19, 1955
Instantaneous low flow			35	Oct 3	3.9	Sep 2, 1999
10 percent exceeds	2,040		2,120		1,240	
50 percent exceeds	618		652		374	
90 percent exceeds	59		142		86	

[a] From rating curve extended above 2,500 ft³/s on basis of computation of flow over dam at gage heights 17.28 and 19.45 ft and slope-area measurement of peak flow.
[b] From floodmarks.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses available for water years 1955, 1957-1958, 1959, 1960, 1962, 1970, 1972, January 1999 to current year.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 1 of 5

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

Date	Time	Instantaneous discharge, cfs (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)	Alkalinity, wat flt inf tit field, mg/L as CaCO3 (39086)
Oct													
17...	1000	3,550	9.5	10.3	100	6.8	100	12.5	13.5	16	4.49	1.09	6
Nov													
15...	1000	771	1.8	11.6	96	7.0	160	7.5	7.5	24	6.96	1.65	11
Jan													
11...	1030	660	1.1	14.5	104	7.0	175	4.0	1.0	24	7.03	1.68	11
Apr													
10...	0930	446	1.3	11.8	100	7.0	204	11.5	8.5	29	8.43	1.85	12
Jun													
08...	0915	2,490	3.2	8.9	90	7.0	102	14.0	15.0	17	4.78	1.12	10
Jul													
06...	0930	618	2.5	8.0	94	7.2	150	22.0	23.0	24	7.14	1.51	13
Aug													
03...	0845	434	3.6	7.4	95	7.3	196	30.0	27.5	31	9.36	1.86	20
Sep													
06...	0915	254	3.1	9.0	98	7.4	203	17.5	19.0	32	9.58	1.92	21

01125500 QUINEBAUG RIVER AT PUTNAM, CT—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
Part 2 of 5
[Remark codes: <, less than; E, estimated.]

Date	Bicarbonate, wat flt infl pt titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total non-filterable, mg/L (00530)	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)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, unfltrd mg/L (00605)	Total nitrogen, water, unfltrd mg/L (00600)	Phosphorus, water, unfltrd mg/L (00665)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	E coli, modif. m-TEC, water, col/ 100 mL (90902)
Oct													
17...	7	16.1	80	11	.54	E.03	.285	<.008	--	.83	.08	1.1	920
Nov													
15...	13	30.5	90	<10	.31	.04	.395	<.008	.27	.70	E.02	.4	61
Jan													
11...	13	34.1	95	<10	.23	.04	.576	.010	.18	.80	E.02	.1	84
Apr													
10...	14	41.0	114	<10	.30	<.04	.410	E.004	--	.71	E.03	1.1	48
Jun													
08...	12	18.1	88	<10	.44	.044	.222	.005	.40	.66	.05	1.2	790
Jul													
06...	16	27.3	101	<10	.45	.027	.421	.005	.43	.87	E.04	.5	280
Aug													
03...	25	36.4	127	<10	.54	.010	.377	.005	.53	.92	.05	2.0	780
Sep													
06...	25	37.3	112	<10	.47	.028	.422	.003	.45	.90	E.04	1.2	580

01125500 QUINEBAUG RIVER AT PUTNAM, CT—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
Part 3 of 5
[Remark codes: <, less than; E, estimated.]

Date	Fecal coli-form, M-FC 0.45uMF col/ 100 mL (31616)	Alum-inum, water, fltrd, µg/L (01106)	Alum-inum, water, unfltrd recover -able, µg/L (01105)	Anti-mony, water, fltrd, µg/L (01095)	Arsenic water, unfltrd µg/L (01002)	Barium, water, fltrd, µg/L (01005)	Barium, water, unfltrd recover -able, µg/L (01007)	Beryll-ium, water, fltrd, µg/L (01010)	Cadmium water, fltrd, µg/L (01025)	Cadmium water, unfltrd µg/L (01027)	Chrom-ium, water, fltrd, µg/L (01030)	Chrom-ium, water, unfltrd recover -able, µg/L (01034)	Cobalt water, fltrd, µg/L (01035)
Oct													
17...	800	82.4	506	E.16	1.6	10	13.7	<.06	E.04	.10	.31	2.5	.18
Nov													
15...	74	28.0	73	<.20	.65	12	12.1	<.06	E.03	.04	.36	.85	.143
Jan													
11...	60	30.1	59	<.20	.37	12	11.0	<.06	E.03	E.03	.41	1.0	.148
Apr													
10...	22	15.9	52	<.20	.49	11	10.5	<.06	E.02	E.03	.31	.83	.128
Jun													
08...	530	54.5	181	<.20	.90	8	10.4	<.06	<.04	E.03	.37	1.2	.126
Jul													
06...	550	21.1	86	E.10	1.2	10	12.1	<.06	E.02	.05	.73	1.3	.08
Aug													
03...	950	18.8	102	E.15	1.3	11	12.8	<.06	E.02	.07	.54	1.4	.07
Sep													
06...	270	10.0	41	E.14	1.0	10	11.1	<.06	<.04	E.03	.60	1.3	.06

01125500 QUINEBAUG RIVER AT PUTNAM, CT—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
Part 4 of 5
[Remark codes: <, less than; E, estimated.]

Date	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Mercury water, unfltrd recover -able, µg/L (71900)	Molyb- denum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Silver, water, fltrd, µg/L (01075)
Oct													
17...	2.6	3.3	149	958	.78	4.35	55.4	102	.013	<.4	1.18	1.8	<.2
Nov													
15...	1.9	1.6	145	452	.23	.95	46.7	52.3	.011	<.4	1.10	.81	<.2
Jan													
11...	1.1	1.6	106	277	.16	.43	42.2	40.7	.043	<.4	.90	.73	<.2
Apr													
10...	1.1	1.3	99	297	.24	.68	38.2	46.9	<.010	E.3	1.24	.63	<.2
Jun													
08...	1.5	2.6	219	618	.40	1.71	33.9	53.9	E.009	<.4	.85	1.07	<.2
Jul													
06...	2.9	2.1	362	906	.65	1.85	30.5	82.8	<.010	E.2	.89	1.08	<.2
Aug													
03...	2.7	12.8	383	948	.77	2.53	11.9	140	<.010	.5	.78	1.37	<.2
Sep													
06...	1.9	2.6	110	470	.21	1.17	19.8	43.9	<.010	.4	.59	.73	<.2

01125500 QUINEBAUG RIVER AT PUTNAM, CT—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
Part 5 of 5
[Remark codes: <, less than; E, estimated.]

Date	Silver, water, unfltrd recover -able, µg/L (01077)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Uranium natural water, fltrd, µg/L (22703)
Oct				
17...	<.16	5.1	9	.07
Nov				
15...	<.16	4.9	4	.04
Jan				
11...	<.16	4.9	7	E.04
Apr				
10...	<.16	2.7	3	E.03
Jun				
08...	<.16	3.2	5	.06
Jul				
06...	<.16	3.2	4	.05
Aug				
03...	<.16	2.5	5	.04
Sep				
06...	<.16	.96	E2	E.03