01122500 SHETUCKET RIVER NEAR WILLIMANTIC, CT

Connecticut Coastal Basin
Shetucket Subbasin

LOCATION.--Lat 41°42′01″, long 72°10′57″ referenced to North American Datum of 1927, Windham County, CT, Hydrologic Unit 01100002, on right bank at downstream side of Bingham Bridge on Plains Rd., 500 ft upstream from Penn. Central Co. railroad bridge, 500 ft downstream from Potash Brook, 1.3 mi downstream from confluence of Willimantic and Natchaug Rivers, 1.5 mi southeast of Willimantic, and 17 mi upstream from mouth.

DRAINAGE AREA.--404 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge: April 1904 to December 1905, October 1919 to September 1921, September 1928 to current year. Published as "at South Windham" October 1919 to September 1921, September 1928 to September 1933. Monthly discharge only for some periods, published in WSP 1301. Water-quality records: Water years 1957, 1968-74. Daily water temperature: Water year 1957. Daily specific conductance: Water year 1957. Daily pH: Water year 1957. Daily iron: Water year 1957.

REVISED RECORDS.--WSP 781: I934(M). WSP 801: 1935. WSP 1201: 1905(M), 1920-2I. WDR CT-83-1: Drainage area.

GAGE.--Water-stage recorder since Dec. 5, 1933. Datum of gage is 131.40 ft above sea level (levels by Corps of Engineers). Apr. 4, 1904 to Dec. 31, 1905, nonrecording gage at present site and about the same datum. October 1919 to Sept. 30, 1921, and Sept. 1, 1928 to Sept. 30, 1933, water-stage recorder at site 1.5 mi downstream at different datum. Telephone telemetry at station. Satellite telemetry at station.

REMARKS.--Records good except for period of estimated record, which is fair. Peak flows are affected by flood-control regulation from Mansfield Hollow Dam since March 1952. The natural flow regime can be altered by regulation from Mansfield Hollow Dam and Willimantic Reservoir. City of Willimantic diverts flow for municipal supply from Willimantic Reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,800 ft^3/s, Oct. 16, gage height, 13.55 ft; minimum discharge, 37 ft^3/s, Oct. 7, gage height, 1.58 ft.

01122500 SHETUCKET RIVER NEAR WILLIMANTIC, CT—Continued

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

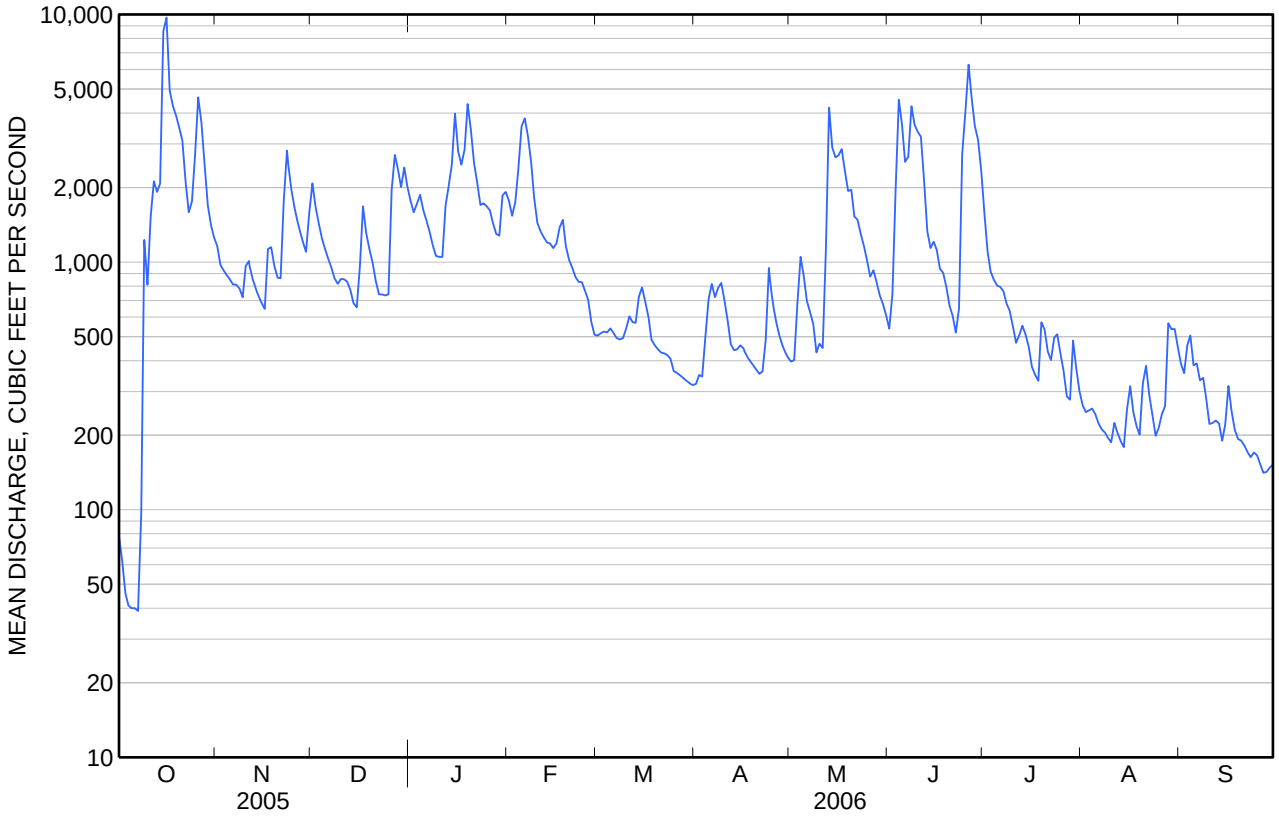
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	78	1,160	2,080	1,760	1,770	505	322	397	539	1,570	264	389
2	62	975	1,680	1,590	1,540	516	350	402	744	1,100	248	356
3	46	925	1,440	1,720	1,750	524	345	681	1,970	914	252	462
4	41	885	1,250	1,870	2,380	520	500	1,050	4,530	849	256	505
5	40	851	1,130	1,620	3,530	540	709	885	3,580	804	243	383
6	40	812	1,030	1,470	3,810	517	816	698	2,540	794	223	390
7	39	811	952	1,320	3,220	494	722	628	2,670	761	211	333
8	97	782	860	1,170	2,530	487	788	564	4,260	681	205	341
9	1,230	722	818	1,060	1,810	493	824	432	3,580	635	195	278
10	810	964	855	1,050	1,440	540	702	468	3,350	549	187	222
11	1,530	1,010	852	1,050	1,330	604	581	450	3,210	472	224	224
12	2,120	871	834	1,690	1,260	572	466	1,120	2,120	508	204	229
13	1,920	791	772	2,020	1,200	569	441	4,200	1,330	554	189	223
14	2,080	732	682	2,470	1,190	724	444	2,900	1,140	510	179	190
15	e8,550	680	657	3,980	1,140	790	461	2,650	1,210	454	254	221
16	e9,710	647	970	2,790	1,190	692	448	2,700	1,120	377	315	316
17	4,930	1,130	1,680	2,480	1,380	601	419	2,860	940	350	247	249
18	4,270	1,150	1,310	2,850	1,480	486	399	2,330	905	332	217	210
19	3,900	964	1,130	4,350	1,160	462	384	1,940	793	571	201	193
20	3,500	865	996	3,430	1,020	445	369	1,960	666	534	323	190
21	3,100	862	838	2,510	949	431	354	1,530	605	435	381	182
22	2,120	1,780	741	2,090	870	428	362	1,480	519	402	291	171
23	1,590	2,820	740	1,700	832	421	486	1,300	649	495	241	163
24	1,760	2,140	734	1,730	830	407	947	1,160	2,730	511	199	170
25	2,750	1,760	741	1,680	767	363	727	1,010	4,050	428	214	166
26	4,630	1,510	1,950	1,620	706	357	598	875	6,270	362	243	153
27	3,670	1,350	2,710	1,430	573	348	529	926	4,540	287	262	141
28	2,480	1,220	2,380	1,300	509	341	474	830	3,550	278	566	142
29	1,700	1,100	2,010	1,280	---	332	436	734	3,120	482	536	148
30	1,410	1,580	2,410	1,860	---	324	411	676	2,340	371	537	152
31	1,260	---	2,010	1,920	---	319	---	608	---	301	456	---
Total	71,463	33,849	39,242	60,860	42,166	15,152	15,814	40,444	69,570	17,671	8,563	7,492
Mean	2,305	1,128	1,266	1,963	1,506	489	527	1,305	2,319	570	276	250
Max	9,710	2,820	2,710	4,350	3,810	790	947	4,200	6,270	1,570	566	505
Min	39	647	657	1,050	509	319	322	397	519	278	179	141

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	408	630	840	914	912	1,405	1,348	855	586	269	241	290
Max	2,305	2,156	2,667	2,945	2,246	3,949	2,943	1,814	2,911	1,755	2,114	3,571
(WY)	(2006)	(1956)	(1997)	(1979)	(1970)	(1936)	(1987)	(1989)	(1982)	(1938)	(1955)	(1938)
Min	49.4	85.0	170	132	236	489	454	319	110	48.6	44.5	45.0
(WY)	(1958)	(1932)	(1931)	(1981)	(1980)	(2006)	(1985)	(1957)	(1957)	(1957)	(1957)	(1957)

01122500 SHETUCKET RIVER NEAR WILLIMANTIC, CT—Continued

SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1929 - 2006	
Annual total	368,565		422,286			
Annual mean	1,010		1,157		724	
Highest annual mean					1,243	1938
Lowest annual mean					337	1965
Highest daily mean	9,710	Oct 16	9,710	Oct 16	35,500	Sep 21, 1938
Lowest daily mean	30	Sep 13	39	Oct 7	19	Aug 22, 1949
Annual seven-day minimum	34	Sep 8	49	Oct 1	31	Sep 7, 1995
Maximum peak flow			12,800	Oct 16	[a]52,200	Sep 21, 1938
Maximum peak stage			13.55	Oct 16	[b]27.60	Sep 21, 1938
Instantaneous low flow			37	Oct 7	15	Aug 29, 1949
10 percent exceeds	2,360		2,680		1,610	
50 percent exceeds	788		772		468	
90 percent exceeds	49		223		104	

[a] From rating curve extended above 11,000 ft³/s on basis of computation of peak flow over Scotland and Baltic Dams, 5 and 9 mi downstream, respectively, adjusted for flow from intervening area.
[b] From floodmarks.