Water-Data Report 2010

01122000 NATCHAUG RIVER AT WILLIMANTIC, CT

Connecticut Coastal Basin
Shetucket Subbasin

LOCATION.--Lat 41°43′11″, long 72°11′46″ referenced to North American Datum of 1927, Windham County, CT, Hydrologic Unit 01100002, on left bank at upstream side of bridge on State Rt. 66, 1 mi northeast of Willimantic, 1.6 mi upstream from mouth, and 3.7 mi downstream from Mansfield Hollow Dam.

DRAINAGE AREA.--174 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge: October 1930 to September 1989, October 1995 to current year. Water-quality records: Water years1954, 1958, 1968.

REVISED RECORDS.--WSP 1301: 1934-35(M), 1937(M). WDR CT-83-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 150.31 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Oct. 6, 1930, to June 6, 1974, water-stage recorder on right bank 500 ft upstream at same datum. June 6, 1974 to Aug. 26, 1975, staff gage at present site and datum. Telephone telemetry at station. Satellite telemetry at station.

REMARKS.--Records good. Peak flows are affected by flood-control regulation at 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, which is located about 2 mi upstream from the gaging station.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2010: U.S. Geological Survey Water-Data Report WDR-US-2010, site 01122000, accessed at http://wdr.water.usgs.gov/wy2010/pdfs/01122000.2010.pdf

01122000 NATCHAUG RIVER AT WILLIMANTIC, CT—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

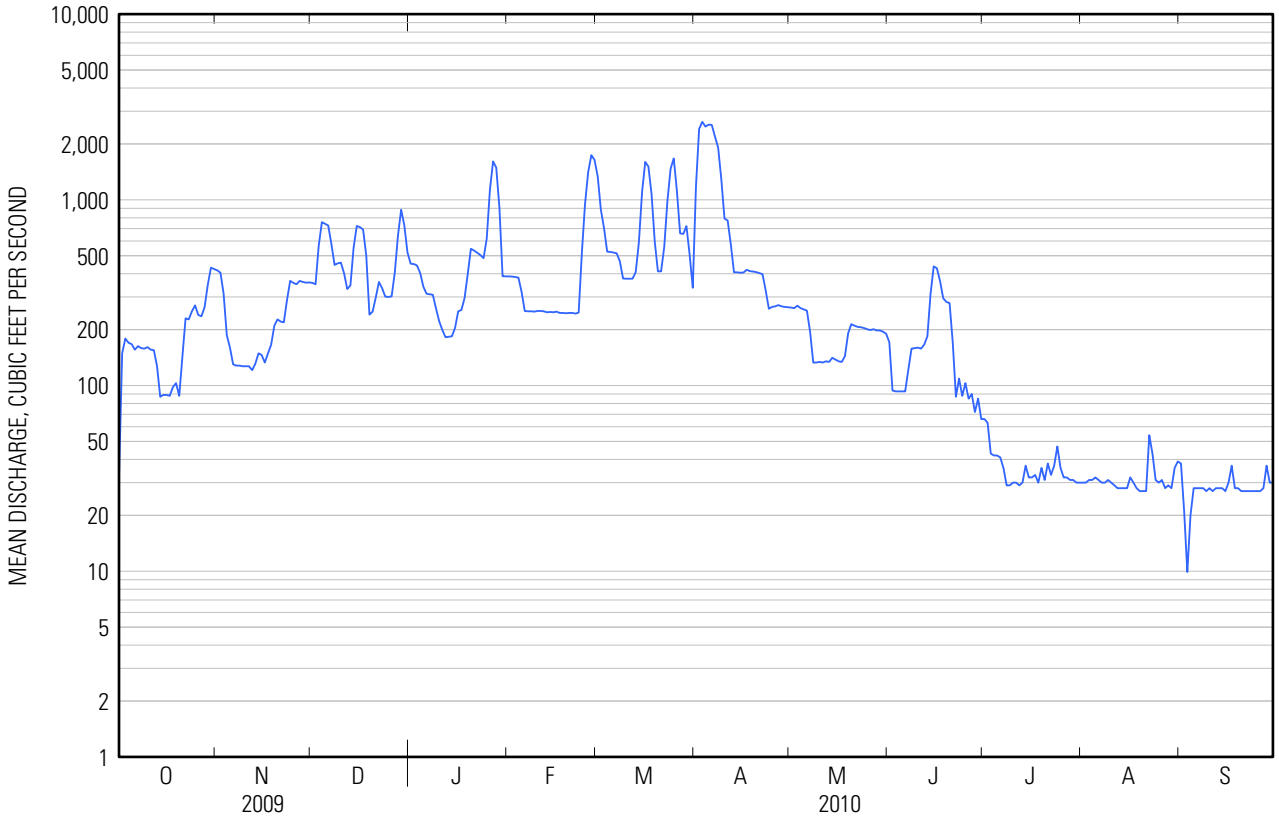
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	32	417	357	453	387	1,340	1,180	263	171	66	30	38
2	149	405	351	451	386	886	2,410	261	94	63	30	21
3	179	312	566	443	384	704	2,630	269	93	43	31	9.9
4	170	187	758	404	381	526	2,480	261	93	42	31	20
5	167	160	743	341	319	524	2,540	257	93	42	32	28
6	156	130	727	312	252	520	2,530	253	93	41	31	28
7	163	128	578	310	251	515	2,190	195	122	36	30	28
8	159	128	446	308	251	466	1,910	133	158	29	30	28
9	158	127	455	260	250	377	1,290	133	159	29	31	27
10	161	127	459	222	252	376	793	134	160	30	30	28
11	156	127	402	199	252	376	774	133	158	30	29	27
12	155	121	331	182	251	376	575	135	166	29	28	28
13	127	131	346	183	248	408	407	134	184	30	28	28
14	87	149	551	184	249	591	407	141	311	37	28	28
15	89	146	723	204	248	1,100	405	138	438	32	28	27
16	89	133	713	251	250	1,600	406	135	428	32	32	30
17	88	149	691	255	246	1,510	420	134	365	33	30	37
18	98	166	501	295	246	1,070	413	144	295	30	28	28
19	103	210	241	397	245	596	411	191	282	36	27	28
20	88	227	250	545	246	412	408	214	278	31	27	27
21	143	221	298	533	246	412	403	210	171	38	27	27
22	230	219	361	519	244	559	398	207	87	33	54	27
23	227	289	334	504	247	986	325	206	109	37	43	27
24	251	366	301	485	514	1,470	259	204	88	47	31	27
25	270	357	300	618	947	1,670	265	201	103	36	30	27
26	240	351	302	1,130	1,410	1,110	267	199	85	32	31	27
27	236	366	406	1,610	1,740	660	271	201	90	32	28	28
28	264	361	642	1,490	1,640	655	267	198	72	31	29	37
29	348	358	884	910	---	721	265	198	85	31	28	30
30	431	359	729	388	---	508	264	195	66	30	36	30
31	424	---	521	387	---	336	---	190	---	30	39	---
Total	5,638	6,927	15,267	14,773	12,582	23,360	27,563	5,867	5,097	1,118	967	830.9
Mean	182	231	492	477	449	754	919	189	170	36.1	31.2	27.7
Max	431	417	884	1,610	1,740	1,670	2,630	269	438	66	54	38
Min	32	121	241	182	244	336	259	133	66	29	27	9.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	161	268	362	385	399	606	588	355	252	119	96.0	122
Max	910	844	1,082	1,183	1,000	1,681	1,315	676	1,298	887	836	1,523
(WY)	(2006)	(1956)	(1997)	(1979)	(2008)	(1936)	(1987)	(1989)	(1982)	(1938)	(1955)	(1938)
Min	19.3	31.0	70.0	61.6	88.9	212	194	119	35.3	11.8	10.3	11.2
(WY)	(1931)	(1932)	(1932)	(1981)	(1980)	(2006)	(1985)	(1957)	(1957)	(1957)	(1957)	(1943)

01122000 NATCHAUG RIVER AT WILLIMANTIC, CT—Continued

SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1931 - 2010	
Annual total	120,754		119,989.9			
Annual mean	331		329		309	
Highest annual mean					550	1938
Lowest annual mean					142	1965
Highest daily mean	1,530	Jul 4	2,630	Apr 3	18,200	Sep 21, 1938
Lowest daily mean	26	Sep 22	9.9	Sep 3	2.3	Sep 11, 1943
Annual seven-day minimum	40	Sep 17	23	Sep 2	3.9	Jul 25, 1949
Maximum peak flow			2,740	Apr 2	[a]32,000	Sep 21, 1938
Maximum peak stage			8.16	Apr 2	[b]16.39	Sep 21, 1938
Instantaneous low flow			9.3	Sep 2[c]	0.30	Aug 6, 1937
10 percent exceeds	621		716		683	
50 percent exceeds	279		219		198	
90 percent exceeds	88		29		37	

[a] From computation of peak flow over dam 2 mi upstream.
[b] From floodmarks.
[c] also Sep. 3, 4.