

Water-Data Report 2010

01118300 PENDLETON HILL BROOK NEAR CLARKS FALLS, CT

Massachusetts-Rhode Island Coastal Basin
Pawcatuck-Wood Subbasin

LOCATION.--Lat 41°28'29", long 71°50'05" referenced to North American Datum of 1927, New London County, CT, Hydrologic Unit 01090005, on left bank just upstream from twin culverts on Grindstone Hill Rd., 0.1 mi west of State Rt. 49 in the township of North Stonington, 1.6 mi northwest of Clarks Falls, and 3.4 mi northeast of village of North Stonington.

DRAINAGE AREA.--4.02 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1958 to current year.

REVISED RECORDS.--WDR CT-72-1: Drainage area; WDR CT-85-1: 1982 (P); WDR CT-86-1: 1959-1970, 1972-1980, 1982-1984 (P); WDR CT-07-1: 1968 (DV, monthly and yearly discharges and runoff), 1982 (P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 152.90 ft above National Geodetic Vertical Datum of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for periods of estimated record, which are fair.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 27	1215	80	3.23
Feb 24	1515	153	4.60
Feb 26	0100	178	5.00
Mar 14	0330	302	6.58
Mar 23	2100	185	5.12
Mar 30	1200	*556	*7.58

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.1	10	14	16	e8.0	28	69	7.8	2.1	0.54	0.32	0.21
2	0.99	7.6	12	15	e7.6	23	44	7.4	2.1	0.49	0.30	0.20
3	5.0	6.1	51	14	e7.6	21	35	9.5	1.9	0.46	0.30	1.6
4	4.3	5.4	35	13	e7.4	19	29	8.8	1.8	0.42	0.30	3.2
5	2.5	4.9	28	12	e6.9	17	25	7.3	2.7	0.38	0.42	0.94
6	1.7	5.9	30	11	e6.6	15	23	6.4	2.8	0.36	0.43	0.47
7	6.2	5.2	23	10	e6.1	13	20	5.5	2.6	0.34	0.32	0.34
8	4.6	5.0	18	9.6	e5.9	12	17	5.8	1.7	0.35	0.27	0.32
9	2.7	4.7	33	8.9	e5.6	11	24	5.3	1.6	0.33	0.27	0.28
10	2.3	4.5	41	8.3	6.3	9.9	29	4.4	2.3	0.32	0.24	0.26
11	1.8	4.2	27	7.8	6.5	9.3	20	4.1	2.4	0.31	0.22	0.24
12	1.5	4.2	21	7.6	6.1	8.9	16	4.7	2.5	0.30	0.21	0.24
13	1.3	4.3	26	7.3	5.8	31	14	4.5	17	0.38	0.20	0.26
14	1.2	14	49	7.1	5.7	186	13	5.3	7.6	0.58	0.19	0.29
15	1.2	18	31	7.0	5.6	69	12	5.6	4.4	0.48	0.18	0.26
16	2.9	12	24	7.1	5.8	42	12	4.1	2.8	0.41	0.26	0.23
17	2.1	8.2	19	8.1	5.7	31	17	3.5	2.4	0.36	0.29	1.2
18	3.9	6.8	e15	30	5.8	26	14	6.5	2.0	0.29	0.23	0.70
19	4.2	6.3	e14	21	6.2	22	12	22	1.7	0.44	0.21	0.50
20	2.7	18	14	18	6.7	19	11	12	1.5	0.51	0.19	0.36
21	2.1	20	16	15	7.3	16	10	7.7	1.4	0.55	0.16	0.31
22	1.7	12	14	10	6.8	15	9.8	5.8	1.2	0.91	0.83	0.30
23	1.4	9.1	13	9.2	8.8	125	9.6	5.1	1.4	0.59	1.1	0.30
24	2.9	8.6	12	8.4	96	89	8.9	4.5	1.1	5.6	0.66	0.31
25	26	7.9	11	17	85	43	9.7	3.8	0.93	5.2	0.60	0.34
26	11	7.4	12	32	106	35	11	3.4	0.80	1.6	0.52	0.31
27	6.0	23	59	20	47	28	12	3.3	0.79	0.77	0.39	0.31
28	12	22	39	e14	34	24	10	2.7	0.76	0.52	0.32	0.87
29	22	15	24	e11	---	135	8.9	2.5	0.70	0.44	0.28	1.5
30	13	13	19	e8.9	---	356	8.3	2.4	0.59	0.39	0.24	1.1
31	9.2	---	16	e8.4	---	176	---	2.0	---	0.34	0.22	---
Total	161.49	293.3	760	392.7	518.8	1,655.1	554.2	183.7	75.57	24.96	10.67	17.75
Mean	5.21	9.78	24.5	12.7	18.5	53.4	18.5	5.93	2.52	0.81	0.34	0.59
Max	26	23	59	32	106	356	69	22	17	5.6	1.1	3.2
Min	0.99	4.2	11	7.0	5.6	8.9	8.3	2.0	0.59	0.29	0.16	0.20
Cfsm	1.30	2.43	6.10	3.15	4.61	13.3	4.60	1.47	0.63	0.20	0.09	0.15
In.	1.49	2.71	7.03	3.63	4.80	15.32	5.13	1.70	0.70	0.23	0.10	0.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	4.17	8.30	12.5	12.1	12.5	16.9	15.8	10.6	6.66	2.91	2.06	2.22
Max	17.5	23.8	28.8	43.6	22.3	53.4	48.2	23.2	32.4	24.7	12.4	10.4
(WY)	(2006)	(2007)	(1987)	(1979)	(1982)	(2010)	(1983)	(1979)	(1982)	(2009)	(1986)	(1961)
Min	0.29	1.13	1.84	1.69	2.95	6.04	4.29	3.93	0.82	0.17	0.10	0.05
(WY)	(2008)	(1966)	(1966)	(1981)	(1980)	(2006)	(1999)	(1986)	(1999)	(1994)	(2002)	(1980)

01118300 PENDLETON HILL BROOK NEAR CLARKS FALLS, CT—Continued**SUMMARY STATISTICS**

	Calendar Year 2009	Water Year 2010	Water Years 1959 - 2010	
Annual total	4,301.54	4,648.24		
Annual mean	11.8	12.7	8.87	
Highest annual mean			13.3	2006
Lowest annual mean			4.30	1966
Highest daily mean	104	Jul 2	356	Mar 30, 2010
Lowest daily mean	0.73	Sep 26	0.16	Aug 21, 1980
Annual seven-day minimum	0.79	Sep 20	0.21	Aug 10, 1980
Maximum peak flow			556	Mar 30, 2010
Maximum peak stage			7.58	Mar 30, 2010
Instantaneous low flow			0.14	Aug 21 ^a
Annual runoff (cfsm)	2.93		3.17	2.21
Annual runoff (inches)	39.81		43.01	29.99
10 percent exceeds	24		27	20
50 percent exceeds	8.9		6.0	5.8
90 percent exceeds	1.7		0.31	0.57

^a Also Aug. 22.^b Backwater from ice.