



Water-Data Report 2009

01484050 PRATT BRANCH NEAR FELTON, DE

Lower Delaware Basin
Broadkill-Smyrna Subbasin

LOCATION.--Lat 39°00'37.00", long 75°31'44.3" referenced to North American Datum of 1983, Kent County, DE, Hydrologic Unit 02040207, 20 ft upstream from culverts on State Route 15 (Canterbury Road), 2.3 mi upstream of mouth, and 2.6 mi east of Felton.

DRAINAGE AREA.--2.91 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Operated as a low-flow partial-record station 1955-57, 1959-60, 1962-71. Annual maximum, water years 1966-75. May 2007 to December 2008 (discontinued).

REVISED RECORDS.--SIR 2006-5146: Drainage area, WDR-US-2008: 2007(M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map. Crest-stage gage in operation 1966-75 at same site at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. U.S. Geological Survey gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR OCTOBER 2008 TO DECEMBER 2008.--Maximum discharge, 26 ft³/s, Dec. 12, gage height, 5.16 ft; minimum discharge, 0.64 ft³/s, on several days.

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**DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.1	0.84	2.4	---	---	---	---	---	---	---	---	---
2	0.89	0.83	1.4	---	---	---	---	---	---	---	---	---
3	0.84	0.85	1.4	---	---	---	---	---	---	---	---	---
4	0.82	1.1	1.3	---	---	---	---	---	---	---	---	---
5	0.83	1.5	1.2	---	---	---	---	---	---	---	---	---
6	0.82	2.0	1.1	---	---	---	---	---	---	---	---	---
7	0.81	1.2	1.1	---	---	---	---	---	---	---	---	---
8	0.80	1.1	1.1	---	---	---	---	---	---	---	---	---
9	0.86	1.2	1.2	---	---	---	---	---	---	---	---	---
10	0.79	1.1	1.7	---	---	---	---	---	---	---	---	---
11	0.74	1.1	6.9	---	---	---	---	---	---	---	---	---
12	0.75	1.1	16	---	---	---	---	---	---	---	---	---
13	0.75	2.3	3.9	---	---	---	---	---	---	---	---	---
14	0.75	2.8	2.8	---	---	---	---	---	---	---	---	---
15	0.76	4.8	2.5	---	---	---	---	---	---	---	---	---
16	0.76	3.9	2.7	---	---	---	---	---	---	---	---	---
17	0.71	1.4	4.3	---	---	---	---	---	---	---	---	---
18	0.71	1.2	2.9	---	---	---	---	---	---	---	---	---
19	0.72	1.1	3.3	---	---	---	---	---	---	---	---	---
20	0.72	1.1	3.6	---	---	---	---	---	---	---	---	---
21	0.76	1.1	5.0	---	---	---	---	---	---	---	---	---
22	0.77	1.0	3.6	---	---	---	---	---	---	---	---	---
23	0.80	1.0	2.2	---	---	---	---	---	---	---	---	---
24	0.80	1.2	2.6	---	---	---	---	---	---	---	---	---
25	1.6	2.6	2.5	---	---	---	---	---	---	---	---	---
26	2.2	1.2	2.2	---	---	---	---	---	---	---	---	---
27	0.94	1.1	2.2	---	---	---	---	---	---	---	---	---
28	2.2	1.0	2.3	---	---	---	---	---	---	---	---	---
29	1.2	1.0	2.2	---	---	---	---	---	---	---	---	---
30	0.93	2.3	1.9	---	---	---	---	---	---	---	---	---
31	0.87	---	2.0	---	---	---	---	---	---	---	---	---
Total	29.00	46.02	91.5	---	---	---	---	---	---	---	---	---
Mean	0.94	1.53	2.95	---	---	---	---	---	---	---	---	---
Max	2.2	4.8	16	---	---	---	---	---	---	---	---	---
Min	0.71	0.83	1.1	---	---	---	---	---	---	---	---	---
Ac-ft	58	91	181	---	---	---	---	---	---	---	---	---
Cfsm	0.32	0.53	1.01	---	---	---	---	---	---	---	---	---
In.	0.37	0.59	1.17	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2007 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1.22	1.66	2.98	2.46	3.60	3.79	3.14	3.80	2.40	1.52	1.18	1.10
Max	1.50	1.78	3.00	2.46	3.60	3.79	3.14	3.80	2.84	1.62	1.40	1.15
(WY)	(2008)	(2008)	(2008)	(2008)	(2008)	(2008)	(2008)	(2008)	(2007)	(2008)	(2007)	(2008)
Min	0.94	1.53	2.95	2.46	3.60	3.79	3.14	3.80	1.96	1.43	0.95	1.05
(WY)	(2009)	(2009)	(2009)	(2008)	(2008)	(2008)	(2008)	(2008)	(2008)	(2007)	(2008)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2008	Water Years 2007 - 2009
Annual total	849.74	
Annual mean	2.32	2.39
Highest annual mean		2.39 2008
Lowest annual mean		2.39 2008
Highest daily mean	17 May 12	17 May 12, 2008
Lowest daily mean	^a 0.71 Oct 17	^a 0.71 Oct 17, 2008
Annual seven-day minimum	0.73 Oct 14	0.73 Oct 14, 2008
Maximum peak flow		^b 459 Aug 4, 1967
Maximum peak stage		^c 10.50 Aug 4, 1967
Instantaneous low flow		^d 0.37 Sep 13, 1966
Annual runoff (ac-ft)	1,690	1,730
Annual runoff (cfsm)	0.798	0.823
Annual runoff (inches)	10.86	11.18
10 percent exceeds	3.9	3.9
50 percent exceeds	2.2	2.2
90 percent exceeds	0.84	0.90

^a Oct. 17, 18.

^b From rating curve extended above 20 ft³/s on basis of contracted-opening measurement at a gage height of 10.50 ft.

^c At previous datum.

^d Measured discharge.

