



Water-Data Report 2008

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNTOWN, PA

Lower Delaware Basin
Brandywine-Christina Subbasin

LOCATION.--Lat 40°02'05", long 75°42'32" referenced to North American Datum of 1927, Chester County, PA, Hydrologic Unit 02040205, on right bank 20 ft downstream from bridge on Dowlin Forge Road, 200 ft east of State Highway 282, 0.4 mi downstream from Shamona Creek, 1.5 mi downstream from Marsh Creek, 2.0 mi upstream from Beaver Creek, and 2.2 mi north of Downingtown.

DRAINAGE AREA.--60.6 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1948-57. October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 270 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 30, 1966, nonrecording gage at same site and datum. Satellite and landline telemetry at station.

COOPERATION.--Station established and maintained by the U.S. Geological Survey in cooperation with the Pennsylvania Department of Environmental Protection.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) 1.9 mi upstream. Several measurements of water temperature were made during the year.

Water-Data Report 2008

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNTOWN, PA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	23	37	94	115	352	126	123	111	74	33	51	23
2	23	34	100	71	256	106	102	101	63	31	46	24
3	24	33	188	55	99	68	66	88	59	30	43	23
4	24	32	85	54	81	70	100	78	72	31	39	23
5	26	31	77	54	101	211	76	72	91	38	36	22
6	26	36	101	51	125	114	71	68	69	35	35	184
7	26	36	97	52	124	114	68	65	63	48	32	143
8	25	34	102	49	86	342	68	63	58	44	30	56
9	30	32	106	48	75	177	67	182	54	56	30	77
10	39	32	109	45	73	124	68	130	56	60	65	60
11	74	31	192	52	63	128	70	95	88	42	69	44
12	38	31	184	52	63	153	297	97	52	38	43	59
13	30	43	124	47	726	149	127	95	47	36	37	105
14	28	40	112	56	287	143	106	80	82	83	34	56
15	27	69	90	53	175	139	95	75	197	52	35	47
16	27	63	418	68	158	130	87	168	79	44	32	38
17	26	40	186	99	140	105	82	135	69	41	29	36
18	27	36	130	144	236	101	78	142	63	38	30	33
19	44	81	119	137	146	198	74	146	63	35	29	30
20	73	88	113	114	91	490	85	154	57	36	28	28
21	34	63	108	100	83	172	95	155	54	62	29	28
22	30	49	106	103	103	138	80	111	51	39	27	31
23	30	42	127	94	128	131	75	98	49	117	26	30
24	35	37	214	44	122	135	71	88	46	327	25	27
25	46	36	124	36	125	130	68	79	44	107	24	26
26	57	117	128	41	140	124	69	73	42	87	25	31
27	371	140	163	44	180	121	102	73	42	78	26	35
28	99	85	118	44	128	130	246	82	42	99	25	45
29	56	101	170	44	122	135	231	67	42	67	28	43
30	45	96	124	54	---	120	131	63	86	59	36	32
31	40	---	188	48	---	115	---	71	---	65	27	---
Total	1,503	1,625	4,297	2,068	4,588	4,639	3,078	3,105	1,954	1,958	1,071	1,439
Mean	48.5	54.2	139	66.7	158	150	103	100	65.1	63.2	34.5	48.0
Max	371	140	418	144	726	490	297	182	197	327	69	184
Min	23	31	77	36	63	68	66	63	42	30	24	22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1973, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	44.3	76.4	92.0	81.4	139	129	123	98.8	99.8	63.1	56.5	45.2
Max	120	168	245	168	286	195	238	144	306	128	147	148
(WY)	(1972)	(1973)	(1973)	(1973)	(1971)	(1972)	(1973)	(1973)	(1972)	(1972)	(1971)	(1971)
Min	24.8	27.6	32.0	33.3	51.6	70.0	64.3	43.2	30.3	18.3	15.3	20.1
(WY)	(1970)	(1966)	(1966)	(1969)	(1969)	(1969)	(1969)	(1969)	(1966)	(1966)	(1966)	(1970)

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNTOWN, PA—Continued

SUMMARY STATISTICS

	Water Years 1966 - 1973	
Annual total annual mean	87.0	
Highest annual mean	139	1973
Lowest annual mean	51.6	1969
Highest daily mean	3,220	Jun 22 1972
Lowest daily mean	7.2	Sep 12 1966
Annual seven day minimum	8.0	Sep 7 1966
Maximum peak flow	a8,070	Jun 22 1972
Maximum peak stage	b12.06	Jun 22 1972
Instantaneous low flow	7.2	Sep 2 1966 ^c
Annual runoff (cfs)	1.44	
Annual runoff (inches)	19.51	
10 percent exceeds	163	
50 percent exceeds	56	
90 percent exceeds	23	

^a From rating curve extended above 5,000 ft³/s.^b From floodmark.^c Also Sep 3, 11-13, 1966.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	65.4	80.8	117	120	114	139	133	102	80.3	66.2	44.8	61.2
Max	199	187	385	361	242	380	365	246	308	257	93.7	217
(WY)	(1997)	(2004)	(1997)	(1979)	(1979)	(1994)	(1983)	(1989)	(2003)	(1984)	(2003)	(2003)
Min	23.2	24.9	23.5	17.5	29.5	35.7	28.9	46.7	29.6	19.7	17.8	17.1
(WY)	(1981)	(2002)	(1981)	(1981)	(2002)	(1985)	(1985)	(2006)	(1985)	(2002)	(2002)	(1980)

SUMMARY STATISTICS

	Calendar Year 2007			Water Year 2008			Water Years 1974 - 2008		
Annual total	37,085			31,325			93.6		
Annual mean	102			85.6			150		
Highest annual mean									
Lowest annual mean									
Highest daily mean	1,190	Mar 2		726	Feb 13		2,020	Jan 26, 1978	
Lowest daily mean	23	Sep 29 ^a		22	Sep 5		9.1	Sep 13, 2002	
Annual seven-day minimum	23	Sep 26		25	Oct 1		11	Sep 8, 2002	
Maximum peak flow				1,290	Feb 13		b5,450	Jun 28, 2006	
Maximum peak stage					5.05	Feb 13		9.63	Jun 28, 2006
10 percent exceeds	188				147			178	
50 percent exceeds	69				68			61	
90 percent exceeds	29				30			26	

^a Also Sep 30, Oct 1, 2.^b From rating curve extended above 5,000 ft³/s.

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNTOWN, PA—Continued

