



2005 Water Year CHRISTINA RIVER BASIN

01480500 West Branch Brandywine Creek at Coatesville, PA

Latitude: 39° 59 ' 08"

Longitude: 075° 49 ' 40"

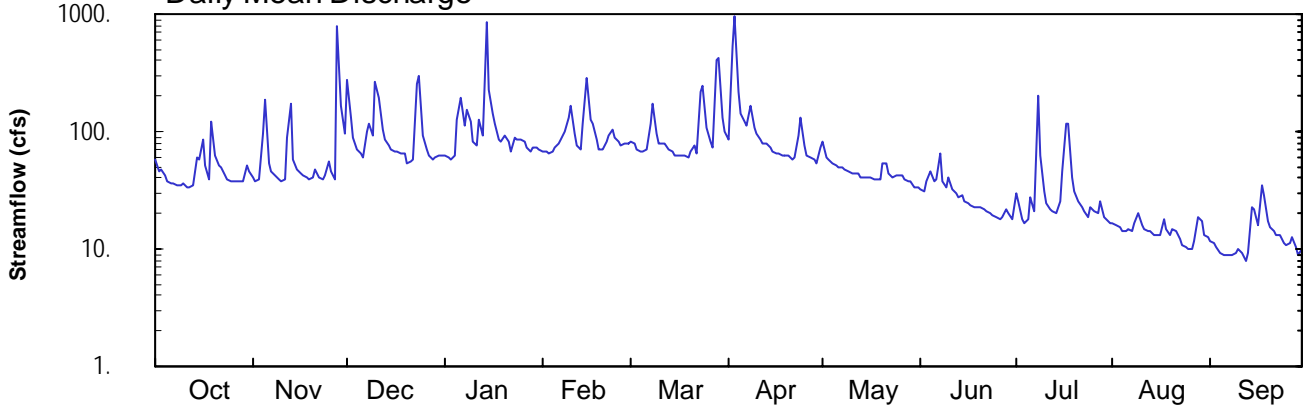
Hydrologic Unit Code: 02040205

Chester County

Datum: 306.05 feet

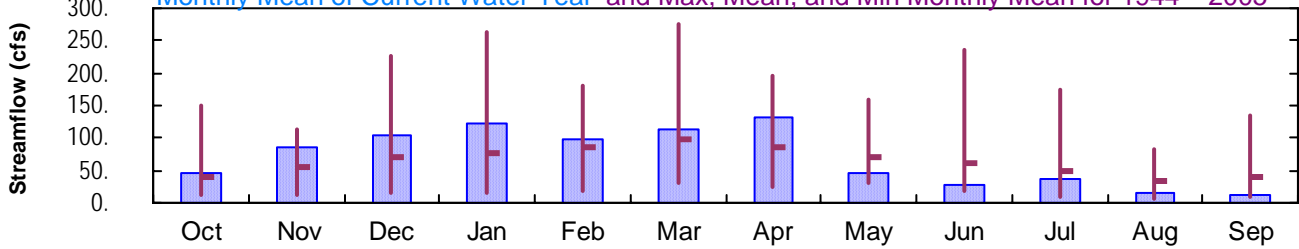
Drainage Area: 45.8 mi²

Daily Mean Discharge

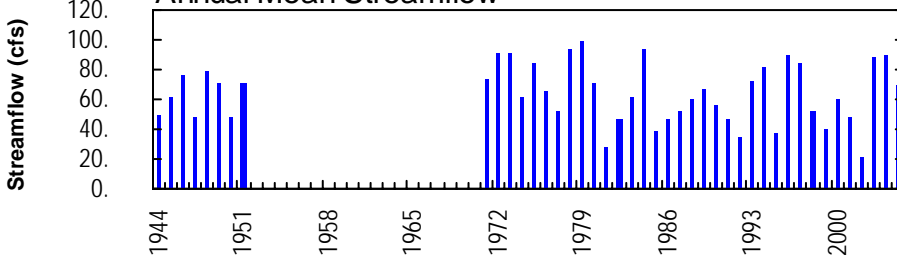


Monthly Statistics

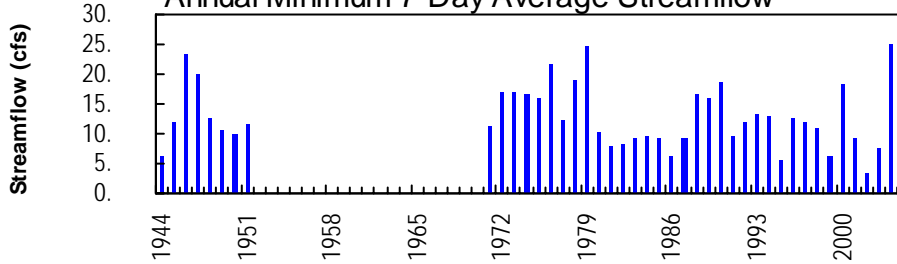
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1944 – 2005



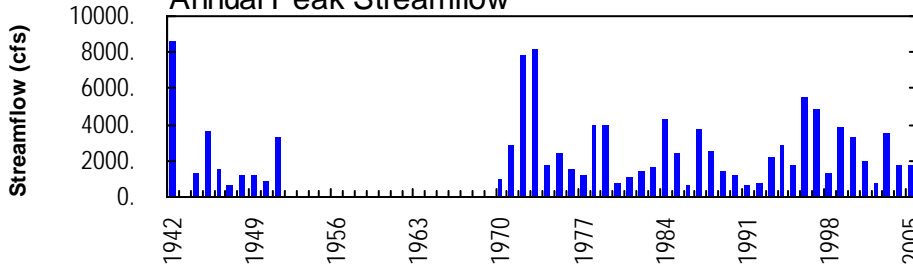
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



01480500-WB Brandywine Creek at Coatesville

CHRISTINA RIVER BASIN

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE, PA

LOCATION.--Lat 39°59'08", long 75°49'40", Chester County, Hydrologic Unit 02040205, on right bank at city limits of Coatesville, 1,200 ft upstream from bridge on old Lincoln Highway, and 0.6 mi downstream from Rock Run.

DRAINAGE AREA.--45.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to December 1951, January 1970 to current year.

GAGE.--Water-stage recorder , crest-stage gage, and V-notch sharp-crested weir. Datum of gage is 306.05 ft above National Geodetic Vertical Datum of 1929. Sept. 10, 1943, to Dec. 31, 1951, nonrecording gage at site 1,100 ft downstream at different datum. Satellite and landline telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Diversion from Rock Run Reservoir (station 01480465) 2.6 mi upstream, capacity, 982 acre-ft, for municipal supply of city of Coatesville.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 9, 1942, reached a stage of 12.3 ft, site and datum then in use, discharge, 8,600 ft³/s, by slope-area measurement.

COOPERATION.--Records of diversion provided by the Pennsylvania American Water Company.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Nov. 28	0730	1,370	6.15	Mar. 29	0000	1,160	5.92
Dec. 24	0100	856	5.56	Apr. 3	0300	*1,800	*6.57
Jan. 14	1330	1,460	6.24				

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	40	279	63	67	83	86	81	32	30	16	12
2	47	38	130	59	67	79	526	60	32	25	16	11
3	48	39	89	59	66	70	957	57	37	18	15	10
4	42	96	71	63	68	67	215	53	45	17	14	9.4
5	38	188	65	124	72	67	144	51	37	18	14	9.0
6	36	55	61	192	79	71	123	50	39	28	15	9.0
7	36	46	102	111	87	116	111	49	64	21	14	9.0
8	35	42	116	152	100	172	166	47	38	204	17	8.9
9	35	39	93	122	130	97	110	46	34	62	20	9.2
10	36	38	264	84	165	80	95	45	40	31	16	10
11	34	39	192	76	95	78	86	45	33	25	15	9.4
12	34	88	103	128	76	78	80	44	30	22	14	7.9
13	35	172	86	92	70	71	78	42	28	21	14	9.3
14	59	58	75	850	118	67	74	41	28	20	13	23
15	57	47	69	225	288	64	68	41	26	26	13	22
16	84	44	68	142	129	63	65	41	24	47	13	16
17	52	42	68	117	116	62	64	40	24	118	18	36
18	40	40	64	86	85	62	64	39	23	116	15	29
19	123	40	66	83	71	61	64	39	23	40	13	17
20	62	41	54	92	70	67	62	54	22	31	15	15
21	52	48	56	82	81	75	59	55	22	25	14	14
22	49	41	58	68	93	65	59	45	21	23	12	13
23	43	39	254	89	106	217	93	41	20	21	11	13
24	40	42	299	86	88	247	133	42	19	19	10	11
25	38	57	91	86	81	108	75	42	19	22	9.8	11
26	37	46	70	83	77	84	63	42	18	21	10	11
27	38	40	62	74	78	72	60	39	18	20	12	13
28	37	796	57	69	78	411	58	37	21	25	19	10
29	38	167	59	73	---	418	54	37	20	19	17	8.9
30	51	98	62	73	---	133	73	34	18	18	13	10
31	45	---	63	69	---	101	---	33	---	16	13	---
TOTAL	1458	2606	3246	3772	2701	3506	3965	1412	855	1149	440.8	397.0
MEAN	47.0	86.9	105	122	96.5	113	132	45.5	28.5	37.1	14.2	13.2
MAX	123	796	299	850	288	418	957	81	64	204	20	36
MIN	34	38	54	59	66	61	54	33	18	16	9.8	7.9

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

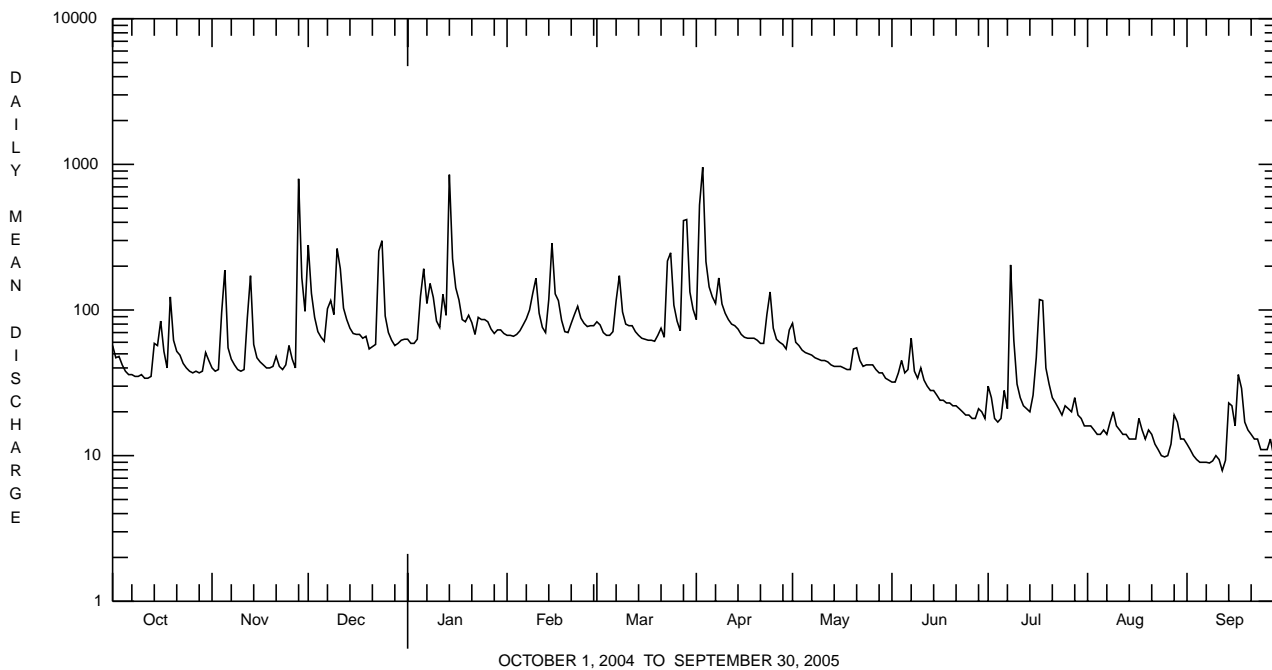
MEAN	38.9	56.0	71.3	77.9	85.7	97.5	86.8	71.1	61.6	47.5	32.1	39.4
MAX	149	114	227	262	179	275	197	159	236	176	82.9	136
(WY)	1997	1973	1997	1979	1971	1994	1983	1989	1972	1984	1971	1979
MIN	11.2	11.1	14.4	15.5	19.6	31.3	25.4	29.6	17.5	9.62	5.43	8.06
(WY)	2002	2002	2002	1981	2002	2002	2002	1999	1999	2002	2002	2002

CHRISTINA RIVER BASIN

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	28543		25507.8			
ANNUAL MEAN	78.0		69.9		63.8	
HIGHEST ANNUAL MEAN					98.6	1979
LOWEST ANNUAL MEAN					20.7	2002
HIGHEST DAILY MEAN	796	Nov 28	957	Apr 3	3400	Jun 22 1972
LOWEST DAILY MEAN	22	Jul 11	7.9	Sep 12	3.0	Aug 23 2002
ANNUAL SEVEN-DAY MINIMUM	25	Sep 11	9.1	Sep 6	3.2	Aug 17 2002
MAXIMUM PEAK FLOW			1800	Apr 3	a8100	Jun 29 1973
MAXIMUM PEAK STAGE			6.57	Apr 3	10.08	Jun 29 1973
10 PERCENT EXCEEDS	131		122		113	
50 PERCENT EXCEEDS	57		50		42	
90 PERCENT EXCEEDS	30		14		15	

a From rating curve extended above 7,800 ft³/s on basis of slope-area measurement at gage height 9.92 ft.



CHRISTINA RIVER BASIN

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965, 1970-72, 1995 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: January 1995 to current year.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform.

REMARKS.--Water temperature records rated good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 29.0°C, July 6, 1999; minimum, 0.0°C, many days during winters.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 27.4°C, Aug. 14; minimum 0.0°C, several days during winter.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.6	14.9	16.3	13.6	11.4	12.6	8.8	7.6	8.2	7.1	4.8	5.9
2	17.0	16.0	16.5	13.7	11.4	12.5	7.8	6.0	6.9	5.8	4.4	5.1
3	17.0	15.3	16.2	13.0	10.9	12.6	6.6	4.9	5.7	7.5	5.6	6.5
4	16.4	13.4	14.9	10.9	8.8	9.4	5.6	3.7	4.8	8.4	7.3	7.8
5	15.4	13.1	14.4	10.3	8.5	9.4	6.6	4.3	5.4	7.7	5.9	7.0
6	13.9	10.9	12.4	10.1	7.2	8.6	6.2	4.7	5.4	5.9	4.8	5.2
7	14.7	11.0	12.8	11.1	7.5	9.3	7.2	6.1	6.4	5.2	4.2	4.7
8	15.7	12.3	13.9	10.0	7.6	9.0	8.9	7.2	7.9	5.4	4.6	4.9
9	15.8	13.3	14.6	7.6	5.8	6.8	7.6	6.2	7.0	4.9	4.5	4.7
10	16.0	14.3	15.1	6.6	4.2	5.4	8.2	7.5	7.9	5.9	4.5	5.1
11	14.3	12.6	13.4	8.1	5.1	6.5	8.9	7.4	8.3	4.9	4.3	4.7
12	13.0	10.6	11.9	7.4	7.1	7.2	7.5	6.7	7.1	5.8	4.9	5.3
13	12.7	10.1	11.5	7.5	5.8	6.9	7.1	5.5	6.7	8.1	5.8	6.6
14	13.0	11.9	12.5	6.7	4.5	5.6	5.5	3.7	4.7	10.1	6.2	8.5
15	14.0	12.8	13.3	7.0	4.0	5.5	3.7	2.1	2.9	6.2	3.6	4.8
16	13.4	11.9	12.8	7.6	4.9	6.1	3.4	1.2	2.3	4.2	3.1	3.6
17	12.0	10.5	11.2	8.3	5.1	6.7	4.2	2.6	3.2	3.4	0.6	2.3
18	11.4	8.6	10.2	10.0	7.9	8.9	3.7	1.5	2.6	0.6	0.1	0.2
19	11.6	11.2	11.4	10.9	8.9	9.9	4.0	2.3	3.1	0.4	0.1	0.2
20	11.7	11.2	11.4	10.8	10.1	10.4	2.7	0.1	0.5	1.3	0.3	0.7
21	11.7	11.2	11.4	11.4	10.1	10.6	0.6	0.1	0.3	0.9	0.1	0.4
22	12.1	10.9	11.4	10.1	8.6	9.5	2.1	0.5	1.2	0.1	0.0	0.1
23	11.3	9.2	10.3	10.1	9.5	9.8	6.5	1.9	4.1	0.1	0.0	0.1
24	10.4	8.9	9.7	11.7	10.1	10.7	5.1	2.1	3.5	0.1	0.1	0.1
25	11.9	10.2	10.9	12.8	8.8	11.8	2.1	0.6	1.3	0.6	0.1	0.4
26	11.9	10.8	11.4	8.8	6.5	7.4	1.7	0.1	0.9	1.4	0.6	0.9
27	12.6	9.9	11.2	8.1	6.0	7.0	1.6	0.1	0.7	0.7	0.0	0.2
28	12.2	10.5	11.3	10.8	8.1	9.9	0.7	0.0	0.4	0.3	0.1	0.1
29	11.8	10.0	10.8	9.6	7.5	8.3	3.3	0.7	2.0	0.3	0.1	0.2
30	13.5	11.8	12.6	8.3	6.6	7.5	4.5	3.0	3.7	1.1	0.3	0.6
31	15.0	13.1	13.8	---	---	---	6.2	4.3	5.1	1.3	0.0	0.5
MONTH	17.6	8.6	12.6	13.7	4.0	8.7	8.9	0.0	4.2	10.1	0.0	3.1

