

CHRISTINA RIVER BASIN

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°02'05", long 75°42'32", Chester County, 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.

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.

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. Satellite and landline telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	26	22	21	50	25	47	55	38	27	16	29
2	26	27	21	21	43	26	40	156	33	25	15	21
3	24	27	22	22	31	141	39	155	29	23	43	16
4	23	26	21	21	29	43	47	68	28	22	38	17
5	19	25	21	22	25	26	39	55	29	21	15	16
6	14	24	21	32	27	23	36	48	140	18	18	14
7	16	24	21	61	31	26	34	44	171	21	17	14
8	22	24	25	41	32	30	33	41	49	21	16	13
9	21	25	47	33	30	25	34	69	42	20	16	13
10	19	24	30	33	30	32	41	60	43	23	15	12
11	20	24	26	103	31	19	34	44	41	20	15	10
12	21	24	25	62	30	21	32	49	40	18	14	9.3
13	21	24	26	33	29	32	33	124	39	18	14	9.1
14	21	23	35	26	27	36	36	261	92	20	14	9.4
15	30	23	42	24	28	28	35	98	73	21	14	16
16	27	24	31	23	28	24	33	77	60	19	14	25
17	28	22	29	30	28	33	31	67	48	18	14	18
18	27	22	55	31	27	64	30	204	46	18	14	14
19	26	21	37	30	26	44	30	104	47	18	13	16
20	25	22	30	33	27	187	30	80	41	19	13	15
21	25	23	27	31	30	105	28	71	36	18	13	14
22	19	22	25	30	28	49	45	64	32	18	13	14
23	16	22	25	32	27	35	38	59	31	18	14	14
24	28	22	35	216	26	30	31	55	39	18	24	34
25	26	35	31	98	26	27	36	50	35	18	25	11
26	26	49	28	44	26	28	40	48	32	18	12	15
27	25	25	25	35	27	95	33	46	35	18	16	58
28	25	22	24	31	26	46	136	46	45	19	15	44
29	25	23	25	28	---	39	94	44	30	20	42	13
30	26	24	22	27	---	37	60	42	27	18	14	18
31	26	---	21	52	---	38	---	39	---	17	16	---
TOTAL	727	748	875	1326	825	1414	1255	2423	1471	610	552	541.8
MEAN	23.5	24.9	28.2	42.8	29.5	45.6	41.8	78.2	49.0	19.7	17.8	18.1
MAX	30	49	55	216	50	187	136	261	171	27	43	58
MIN	14	21	21	21	25	19	28	39	27	17	12	9.1

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01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2002, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	58.6	72.6	109	118	110	138	129	106	71.5	63.6	42.7	54.9
MAX (WY)	199	169	385	361	242	380	365	246	181	257	90.9	191
MIN (WY)	1997	1997	1997	1979	1979	1994	1983	1989	1982	1984	1989	1979
MIN (WY)	23.2	24.9	23.5	17.5	29.5	35.7	28.9	49.2	29.6	19.7	17.8	17.1
MIN (WY)	1981	2002	1981	1981	2002	1985	1985	1976	1985	2002	2002	1980

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1974 - 2002

ANNUAL TOTAL	23256		12767.8		89.3	
ANNUAL MEAN	63.7		35.0		150	
HIGHEST ANNUAL MEAN					1984	
LOWEST ANNUAL MEAN					35.0	
HIGHEST DAILY MEAN	523	Mar 30	261	May 14	2020	Jan 26 1978
LOWEST DAILY MEAN	14	Oct 6	9.1	Sep 13	9.1	Sep 13 2002
ANNUAL SEVEN-DAY MINIMUM	19	Oct 5	11	Sep 8	11	Sep 8 2002
MAXIMUM PEAK FLOW			1070		a5410	
MAXIMUM PEAK STAGE			4.71		9.59	
INSTANTANEOUS LOW FLOW			7.4		7.4	
10 PERCENT EXCEEDS	131		55		172	
50 PERCENT EXCEEDS	43		27		57	
90 PERCENT EXCEEDS	21		15		25	

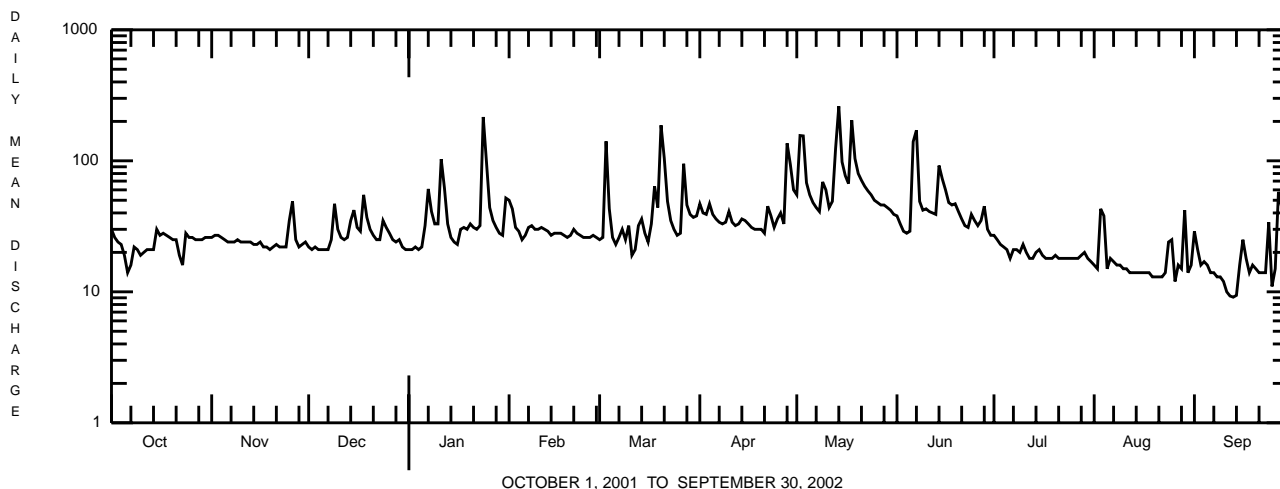
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1973, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	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 (WY)	120	168	245	168	286	195	238	144	306	128	147	148
MIN (WY)	1972	1973	1973	1973	1971	1972	1973	1973	1972	1972	1971	1971
MIN (WY)	24.8	27.6	32.0	33.3	51.6	70.0	64.3	43.2	30.3	18.3	15.3	20.1
MIN (WY)	1970	1966	1966	1969	1969	1969	1969	1969	1966	1966	1966	1970

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	3220	Jun 22 1972
LOWEST DAILY MEAN	7.2	Sep 12 1966
ANNUAL SEVEN DAY MINIMUM	8.0	Sep 7 1966
MAXIMUM PEAK FLOW	a8070	Jun 22 1972
MAXIMUM PEAK STAGE	b12.06	Jun 22 1972
INSTANTANEOUS LOW FLOW	7.2	Sep 2,3,11-13,1966
ANNUAL RUNOFF (CFSM)	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.



OCTOBER 1, 2001 TO SEPTEMBER 30, 2002