

CHRISTINA RIVER BASIN

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°03'19", long 75°43'00", Chester County, Hydrologic Unit 02040205, on left bank 1,000 ft downstream from Marsh Creek Dam, 0.2 mi upstream from mouth, and 3.0 mi north of Downingtown.

DRAINAGE AREA.--20.3 mi².

PERIOD OF RECORD.--June 1973 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated since November 1973 by Marsh Creek Reservoir (station 01480684). Several measurements of water temperature were made during the year. Satellite 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	13	11	11	11	5.2	12	10	20	15	12	9.1	6.2
2	11	11	11	11	5.0	12	10	22	13	11	9.1	0.77
3	11	11	11	11	5.0	6.1	10	25	10	9.1	9.2	7.1
4	10	11	11	11	5.0	0.28	11	22	10	9.9	4.8	9.8
5	6.2	11	11	11	5.0	0.20	11	20	11	8.8	4.8	9.3
6	3.2	11	11	11	7.9	0.37	11	19	11	7.3	9.3	9.1
7	5.6	11	11	11	11	6.2	10	18	10	10	9.5	9.5
8	9.6	11	11	11	12	8.4	10	17	11	10	9.4	9.1
9	8.9	11	11	11	12	6.6	11	17	13	9.4	9.4	9.9
10	8.6	11	11	11	12	8.1	11	18	17	9.4	9.4	10
11	8.9	11	11	8.4	12	0.65	11	17	18	9.2	9.1	9.6
12	9.1	11	11	1.2	12	3.9	11	16	18	8.9	8.5	11
13	9.1	11	11	1.2	12	8.1	11	18	17	8.8	9.1	10
14	9.1	11	11	1.1	12	8.1	11	32	21	9.0	9.1	9.4
15	9.1	11	11	1.1	12	5.5	12	33	23	9.4	9.1	9.1
16	9.1	11	11	3.2	12	4.5	11	31	22	9.0	9.1	9.6
17	9.1	11	11	11	12	12	11	29	21	8.8	9.1	8.9
18	9.1	11	11	13	12	5.9	11	30	19	8.9	9.1	8.0
19	9.1	11	10	13	12	0.25	11	31	17	8.9	9.1	9.9
20	9.1	11	10	13	12	0.46	11	32	16	8.9	9.1	9.2
21	9.1	11	10	13	12	0.44	9.8	29	14	8.9	9.1	9.0
22	4.3	11	10	13	12	0.25	11	27	12	8.9	9.1	8.7
23	4.4	11	11	13	12	0.22	11	25	14	8.9	9.1	8.6
24	9.8	11	11	13	12	0.19	12	24	20	8.9	9.1	27
25	9.1	11	11	10	12	0.18	13	22	17	8.9	4.5	7.6
26	9.1	11	11	5.1	12	0.20	13	21	14	8.9	5.9	7.6
27	9.1	11	11	5.0	12	1.8	12	19	13	9.0	9.4	5.6
28	9.1	11	11	5.0	12	5.1	16	18	13	9.1	8.8	0.62
29	9.4	12	11	5.0	---	6.1	20	18	11	9.1	5.2	2.0
30	9.8	12	11	5.0	---	7.2	20	17	12	9.1	1.6	9.6
31	11	---	11	5.2	---	8.7	---	16	---	9.1	8.3	---
TOTAL	272.1	332	337	268.5	296.1	139.99	353.8	703	453	285.5	254.5	261.79
MEAN	8.78	11.1	10.9	8.66	10.6	4.52	11.8	22.7	15.1	9.21	8.21	8.73
MAX	13	12	11	13	12	12	20	33	23	12	9.5	27
MIN	3.2	11	10	1.1	5.0	0.18	9.8	16	10	7.3	1.6	0.62
(†)	-6.0	-5.6	-1.6	+7.6	0	+15.3	+3.4	+8	-2.5	-8.8	-5.4	-3.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2002, BY WATER YEAR (WY)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	19.4	22.5	41.6	40.8	33.3	38.5	42.1	33.7	23.2	20.5	14.1	16.6																		
MAX	59.5	60.0	148	128	72.4	119	140	83.4	71.2	81.6	31.4	54.3																		
(WY)	1997	1989	1997	1979	1996	1994	1983	1989	1982	1984	1989	1979																		
MIN	3.39	3.50	3.01	7.30	0.86	0.83	0.84	0.72	4.06	5.18	6.42	6.47																		
(WY)	1981	1979	1974	1981	1989	1974	1974	1974	1976	1983	1981	1981																		

† Change in contents from Marsh Creek Reservoir, equivalent in cubic feet per second.

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01480685 MARSH CREEK NEAR DOWNINGTOWN, PA--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR			FOR 2002 WATER YEAR			WATER YEARS 1973 - 2002		
ANNUAL TOTAL	7710.2			3957.28			28.7		
ANNUAL MEAN	21.1			10.8			52.9		
HIGHEST ANNUAL MEAN							1984		
LOWEST ANNUAL MEAN							2002		
HIGHEST DAILY MEAN	117	May 28		33	May 15		462	Jun 18 1982	
LOWEST DAILY MEAN	1.2	Sep 22		0.18	Mar 25		0.18	Mar 25 2002	
ANNUAL SEVEN-DAY MINIMUM	6.7	Jul 9		0.28	Mar 20		0.28	Mar 20 2002	
MAXIMUM PEAK FLOW				a369	Sep 24		a560	Dec 14 1983	
MAXIMUM PEAK STAGE				3.37	Sep 24		3.70	Dec 14 1983	
10 PERCENT EXCEEDS	57			17			65		
50 PERCENT EXCEEDS	11			11			15		
90 PERCENT EXCEEDS	8.9			5.0			6.2		

a From rating curve extended above 300 ft³/s.

