

CHRISTINA RIVER BASIN

01479820 RED CLAY CREEK NEAR KENNETT SQUARE, PA

LOCATION.--Lat 39°49'00", long 75°41'31", Chester County, Hydrologic Unit 02040205, on left bank along SR 82 (Creek Road), and 3.0 mi south of the intersection of SR 82 and U.S. Highway 1 at Kennett Square.

DRAINAGE AREA.--28.3 mi².

PERIOD OF RECORD.--January 1988 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 200 ft above sea level, from topographic map.

REMARKS.--Records poor. Some regulation upstream of gage. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Dec. 17	0830	*3,000	*8.47	Mar. 30	0600	1,010	5.87
Jan. 30	1445	1,060	5.95	June 16	1830	1,160	6.11

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	14	17	17	40	29	55	26	38	21	13	12
2	15	14	16	17	34	28	49	25	79	24	12	10
3	16	14	15	17	29	27	45	23	28	20	11	9.9
4	16	14	15	17	26	41	41	22	23	20	13	31
5	17	13	17	17	224	60	38	23	21	22	12	29
6	17	14	16	18	96	41	43	20	21	21	11	13
7	15	14	15	17	67	40	41	21	21	19	10	12
8	13	15	15	19	50	36	39	21	20	19	9.5	11
9	14	16	14	20	50	36	41	22	19	22	8.9	11
10	15	43	15	18	54	31	54	20	18	80	30	11
11	15	17	21	17	34	28	60	20	20	35	60	12
12	14	14	21	18	30	28	60	17	67	22	70	11
13	14	15	21	17	33	116	44	17	22	20	31	11
14	14	21	109	17	33	42	38	18	21	19	16	16
15	13	17	38	33	33	40	39	18	21	18	14	13
16	14	15	35	23	43	59	77	18	267	17	13	11
17	19	15	911	20	66	74	46	18	129	17	12	11
18	21	13	72	20	32	39	48	19	44	17	12	10
19	17	13	39	250	29	34	39	19	35	18	11	9.1
20	14	14	32	172	30	31	36	18	31	17	19	74
21	16	15	26	59	28	192	36	57	29	15	13	61
22	17	14	25	33	25	90	35	55	28	15	11	14
23	17	13	21	28	30	47	32	45	27	15	12	12
24	15	13	21	26	27	40	30	23	25	15	13	11
25	15	13	19	24	41	36	28	21	24	14	11	43
26	15	110	20	22	63	34	27	168	23	15	10	15
27	16	32	20	20	35	32	27	143	22	16	15	13
28	15	20	19	16	31	31	26	39	21	15	12	12
29	14	18	18	17	---	35	25	30	21	14	13	12
30	13	23	19	349	---	454	25	27	20	15	11	12
31	17	---	18	75	---	77	---	23	---	15	16	---
TOTAL	479	596	1680	1433	1313	1928	1224	1036	1185	632	525.4	533.0
MEAN	15.5	19.9	54.2	46.2	46.9	62.2	40.8	33.4	39.5	20.4	16.9	17.8
MAX	21	110	911	349	224	454	77	168	267	80	70	74
MIN	13	13	14	16	25	27	25	17	18	14	8.9	9.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2001, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	27.5	32.4	42.1	49.8	44.6	62.2	47.3	41.6	32.8	27.8	22.2	30.4		
MAX	75.5	61.3	128	96.1	81.2	116	85.5	79.2	57.3	94.5	55.2	89.4		
(WY)	1997	1997	1997	1996	1994	1994	1993	1989	1996	1989	1996	1999		
MIN	10.8	10.9	12.9	22.0	24.9	34.0	24.9	21.7	16.0	12.0	5.84	8.83		
(WY)	1995	1999	1999	1992	1995	1990	1992	1999	1995	1995	1995	1995		

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SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1988 - 2001	
ANNUAL TOTAL	14779		12564.4			
ANNUAL MEAN	40.4		34.4		38.6	
HIGHEST ANNUAL MEAN					52.0	1997
LOWEST ANNUAL MEAN					21.4	1995
HIGHEST DAILY MEAN	1010	Mar 22	911	Dec 17	1820	Sep 16 1999
LOWEST DAILY MEAN	12	Sep 10	8.9	Aug 9	.86	Sep 3 1995
ANNUAL SEVEN-DAY MINIMUM	14	Nov 18	11	Aug 3	1.1	Sep 2 1995
MAXIMUM PEAK FLOW			a3000	Dec 17	a4680	Sep 16 1999
MAXIMUM PEAK STAGE			8.47	Dec 17	10.04	Sep 16 1999
10 PERCENT EXCEEDS	58		58		60	
50 PERCENT EXCEEDS	27		20		27	
90 PERCENT EXCEEDS	15		13		13	

a From rating curve extended above 2,100 ft³/s.

