CHRISTINA RIVER BASIN

01479678 UNNAMED TRIBUTARY TO WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA
(New Garden Township, Chester County, Spray Irrigation Project)

LOCATION.--Lat 39°50'56", long 75°43'41", Chester County, Hydrologic unit 02040205, on right bank 600 ft upstream of confluence with West Branch Red Clay Creek, downstream of pond (station 01479677), at Kennett Square Borough.

DRAINAGE AREA.--0.07 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1998 to December 2001. (discontinued)

GAGE.--Water-stage recorder. Elevation of gage is 302.30 ft above sea level, from Global Positioning System.

REMARKS.--Records poor. Monthly water-quality samples were collected during the year. Other data for this project presented in tables on pages 426-435 and 472-496.

DISCHARGE, CUBIC FEET PER SECOND, OCTOBER 2001 TO DECEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.037	0.030	0.026	---	---	---	---	---	---	---	---	---
2	0.033	0.030	0.026	---	---	---	---	---	---	---	---	---
3	0.034	0.030	0.026	---	---	---	---	---	---	---	---	---
4	0.033	0.030	0.026	---	---	---	---	---	---	---	---	---
5	0.423	0.030	0.026	---	---	---	---	---	---	---	---	---
6	0.364	0.030	0.024	---	---	---	---	---	---	---	---	---
7	0.362	0.030	0.022	---	---	---	---	---	---	---	---	---
8	0.069	0.030	0.028	---	---	---	---	---	---	---	---	---
9	0.062	0.030	0.034	---	---	---	---	---	---	---	---	---
10	0.067	0.026	0.026	---	---	---	---	---	---	---	---	---
11	0.072	0.028	0.029	---	---	---	---	---	---	---	---	---
12	0.059	0.026	0.030	---	---	---	---	---	---	---	---	---
13	0.181	0.028	0.028	---	---	---	---	---	---	---	---	---
14	0.061	0.033	0.031	---	---	---	---	---	---	---	---	---
15	0.136	0.030	0.028	---	---	---	---	---	---	---	---	---
16	0.092	0.030	0.026	---	---	---	---	---	---	---	---	---
17	0.071	0.030	0.027	---	---	---	---	---	---	---	---	---
18	0.056	0.030	0.035	---	---	---	---	---	---	---	---	---
19	0.036	0.030	0.035	---	---	---	---	---	---	---	---	---
20	0.035	0.030	0.028	---	---	---	---	---	---	---	---	---
21	0.037	0.030	0.026	---	---	---	---	---	---	---	---	---
22	0.042	0.028	0.026	---	---	---	---	---	---	---	---	---
23	0.041	0.026	0.026	---	---	---	---	---	---	---	---	---
24	0.042	0.026	0.034	---	---	---	---	---	---	---	---	---
25	0.041	0.048	0.028	---	---	---	---	---	---	---	---	---
26	0.035	0.033	0.026	---	---	---	---	---	---	---	---	---
27	0.035	0.027	0.026	---	---	---	---	---	---	---	---	---
28	0.034	0.026	0.026	---	---	---	---	---	---	---	---	---
29	0.030	0.026	0.026	---	---	---	---	---	---	---	---	---
30	0.030	0.026	0.026	---	---	---	---	---	---	---	---	---
31	0.030	---	0.026	---	---	---	---	---	---	---	---	---
TOTAL	2.680	0.887	0.857	---	---	---	---	---	---	---	---	---
MEAN	0.086	0.030	0.028	---	---	---	---	---	---	---	---	---
MAX	0.423	0.048	0.035	---	---	---	---	---	---	---	---	---
MIN	0.030	0.026	0.022	---	---	---	---	---	---	---	---	---
CFSM	1.24	0.42	0.39	---	---	---	---	---	---	---	---	---
IN.	1.42	0.47	0.46	---	---	---	---	---	---	---	---	---

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

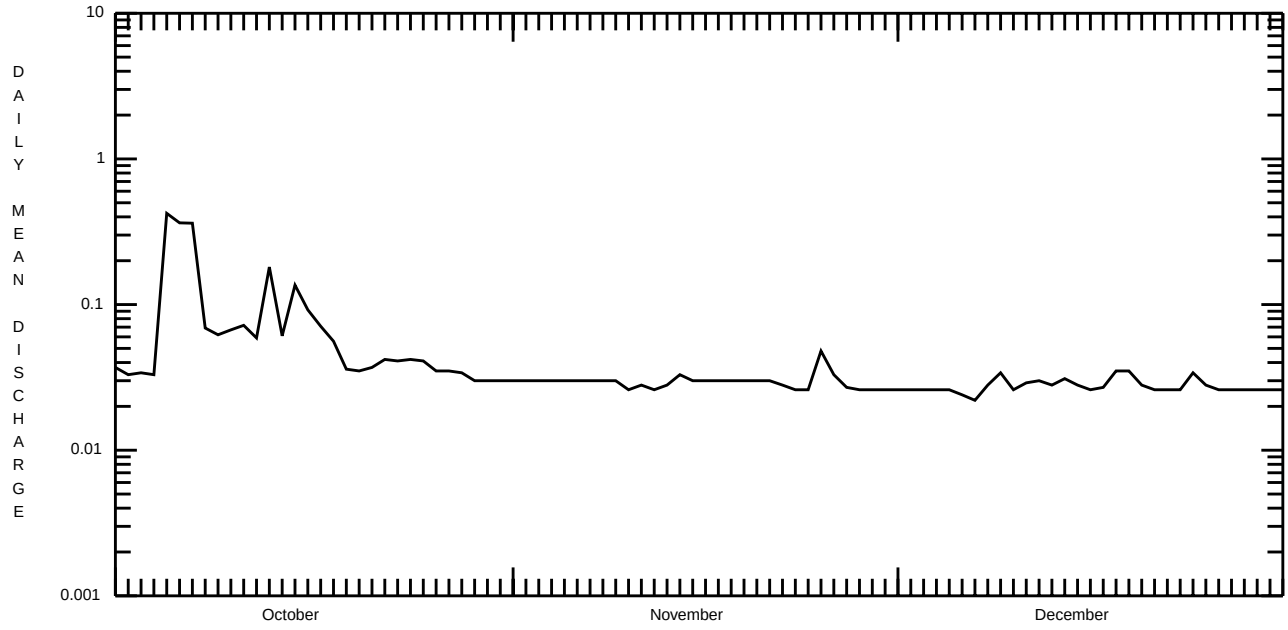
MEAN	0.053	0.036	0.059	0.075	0.083	0.103	0.076	0.045	0.062	0.041	0.034	0.089
MAX	0.086	0.054	0.12	0.092	0.090	0.14	0.12	0.096	0.11	0.089	0.076	0.22
(WY)	2002	2000	2001	2001	1999	2000	2000	2000	2001	2000	2000	1999
MIN	0.012	0.010	0.015	0.052	0.072	0.070	0.041	0.019	0.020	0.011	0.010	0.010
(WY)	1999	1999	1999	2000	2001	2001	2001	1999	1999	1998	1998	1998

CHRISTINA RIVER BASIN

01479678 UNNAMED TRIBUTARY TO WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	21.215			
ANNUAL MEAN	0.058		0.068	
HIGHEST ANNUAL MEAN			0.084	2000
LOWEST ANNUAL MEAN			0.055	1999
HIGHEST DAILY MEAN	1.3	Jan 30	**e**5.5	Sep 16 1999
LOWEST DAILY MEAN	**e**0.008	Jan 2	**a**0.000	Aug 6 1998
ANNUAL SEVEN-DAY MINIMUM	**b**0.01	Jan 9	**a**0.00	Jul 12 1999
MAXIMUM PEAK FLOW			27	Sep 16 1999
MAXIMUM PEAK STAGE			**c**1.82	Sep 16 1999
INSTANTANEOUS LOW FLOW			0.00	Jul 19 1999
ANNUAL RUNOFF (CFSM)	0.83		0.97	
ANNUAL RUNOFF (INCHES)	11.27		13.20	
10 PERCENT EXCEEDS	0.07		0.10	
50 PERCENT EXCEEDS	0.04		0.04	
90 PERCENT EXCEEDS	0.02		0.01	

a First occurrence.
b Computed using estimated daily discharges.
c Maximum recorded.
e Estimated.



OCTOBER 1, 2001 TO DECEMBER 31, 2001

01479678 UNNAMED TRIBUTARY TO WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA--Continued
(New Garden Township, Chester County, Spray Irrigation Project)

WATER-QUALITY RECORDS

REMARKS.--Some values for "*dissolved*" parameters exceed values for the corresponding "*total*" parameter. These results are within the limits of analytical precision and methods.

PERIOD OF RECORD.--May 1998 to December 2001. (discontinued)

WATER-QUALITY DATA, OCTOBER 2001 TO DECEMBER 2001

Date	Time	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (µS/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
OCT 2001										
18...	1300	9813	1028	2.4	7.5	437	11.7	52.3	12.1	5.14
NOV										
08...	1000	9813	1028	9.5	7.5	452	10.2	--	--	--
DEC										
06...	1400	9813	1028	8.5	7.3	438	12.3	51.0	11.6	3.62

Date	SODIUM, DISSOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD IT FIELD (MG/L AS CACO3) (00419)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)
OCT 2001									
18...	11.3	99	<.2	43.7	<.20	12.6	35.9	316	<.020
NOV									
08...	--	82	--	--	--	--	--	--	<.020
DEC									
06...	9.88	74	<.2	39.7	<.20	13.6	40.0	308	.020

Date	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN DISSOLVED (MG/L AS N) (00602)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	ORTHOPHOSPHATE, DISSOLVED (MG/L AS P) (00671)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)
OCT 2001									
18...	<.020	6.9	5.56	<.040	7.1	.048	.021	.050	3.5
NOV									
08...	<.020	8.2	7.30	<.040	8.1	.035	.023	.040	--
DEC									
06...	.020	9.7	7.76	<.040	9.3	.023	.015	.030	2.9

01479678 UNNAMED TRIBUTARY TO WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA--Continued

WATER-QUALITY DATA, OCTOBER 2001 TO DECEMBER 2001

Date	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (µG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (µG/L AS SB) (01095)	ARSENIC DIS-SOLVED (µG/L AS AS) (01000)	BARIUM, DIS-SOLVED (µG/L AS BA) (01005)	BORON, DIS-SOLVED (µG/L AS B) (01020)	CADMIUM DIS-SOLVED (µG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (µG/L AS CR) (01030)	COPPER, DIS-SOLVED (µG/L AS CU) (01040)
OCT 2001									
18...	3.3	16	<2	<4.0	86.7	<200	<.20	<4	<4
NOV									
08...	--	--	--	--	--	--	--	--	--
DEC									
06...	3.0	17	<2	<4.0	80.2	<200	<.20	<4	<4

Date	IRON, DIS-SOLVED (µG/L AS FE) (01046)	LEAD, DIS-SOLVED (µG/L AS PB) (01049)	LITHIUM DIS-SOLVED (µG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (µG/L AS MN) (01056)	MERCURY DIS-SOLVED (µG/L AS HG) (71890)	NICKEL, DIS-SOLVED (µG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (µG/L AS SE) (01145)	STRON-TIUM, DIS-SOLVED (µG/L AS SR) (01080)	ZINC, DIS-SOLVED (µG/L AS ZN) (01090)
OCT 2001									
18...	30	<1.0	20	80	<.20	<4.0	<7	180	<10
NOV									
08...	--	--	--	--	--	--	--	--	--
DEC									
06...	20	<1.0	<20	40	<.20	<4.0	<7	180	<10