

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 315 ft above sea level, from topographic map.

REMARKS.--Records poor. Gaps in data are a result of missing record. No flow occurred for all or parts of July 19, 20, July 25 to Aug. 26, and Sept. 3-5, 1999. Monthly water-quality samples were collected during the year. Other data for this project presented in tables on pages 308-309 and 499-542.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.020	.043	.013	.010	.005
2	---	---	---	---	---	---	---	.026	.038	.011	.010	.010
3	---	---	---	---	---	---	---	.021	.039	.010	.007	.016
4	---	---	---	---	---	---	---	.021	.043	.011	.007	.010
5	---	---	---	---	---	---	---	.020	.044	.014	.005	.007
6	---	---	---	---	---	---	---	.020	.038	.014	.004	.006
7	---	---	---	---	---	---	---	.020	.034	.012	.005	.009
8	---	---	---	---	---	---	---	.039	.036	.033	.005	.007
9	---	---	---	---	---	---	---	.042	.036	.017	.006	.005
10	---	---	---	---	---	---	---	.036	.035	.014	.016	.006
11	---	---	---	---	---	---	---	.048	.037	.012	.014	.006
12	---	---	---	---	---	---	---	.090	.110	.013	.007	.006
13	---	---	---	---	---	---	---	.056	.026	.015	.007	.006
14	---	---	---	---	---	---	.020	.031	.022	.012	.006	.006
15	---	---	---	---	---	---	.020	.027	.017	.009	.006	.007
16	---	---	---	---	---	---	.019	.028	.017	.009	.006	.008
17	---	---	---	---	---	---	.021	.024	.016	.009	.016	.010
18	---	---	---	---	---	---	.018	.018	.017	.009	.014	.007
19	---	---	---	---	---	---	.025	.018	.017	.008	.009	.007
20	---	---	---	---	---	---	.024	.017	.015	.009	.006	.006
21	---	---	---	---	---	---	.019	.019	.013	.013	.006	.005
22	---	---	---	---	---	---	.020	.016	.027	.011	.007	.006
23	---	---	---	---	---	---	.020	.020	.019	.010	.007	.008
24	---	---	---	---	---	---	.020	.018	.017	.009	.007	.005
25	---	---	---	---	---	---	.020	.016	.015	.008	.007	.008
26	---	---	---	---	---	---	.022	.016	.019	.008	.009	.009
27	---	---	---	---	---	---	.024	.025	.017	.008	.010	.006
28	---	---	---	---	---	---	.018	.013	.013	.008	.007	.004
29	---	---	---	---	---	---	.017	.017	.017	.007	.006	.006
30	---	---	---	---	---	---	.019	.020	.030	.008	.006	.005
31	---	---	---	---	---	---	---	.014	---	.014	.005	---
TOTAL	---	---	---	---	---	---	---	0.816	0.867	0.358	0.243	0.212
MEAN	---	---	---	---	---	---	---	.026	.029	.012	.008	.007
MAX	---	---	---	---	---	---	---	.090	.110	.033	.016	.016
MIN	---	---	---	---	---	---	---	.013	.013	.007	.004	.004
CFSM	---	---	---	---	---	---	---	.38	.41	.16	.11	.10
IN.	---	---	---	---	---	---	---	.43	.46	.19	.13	.11

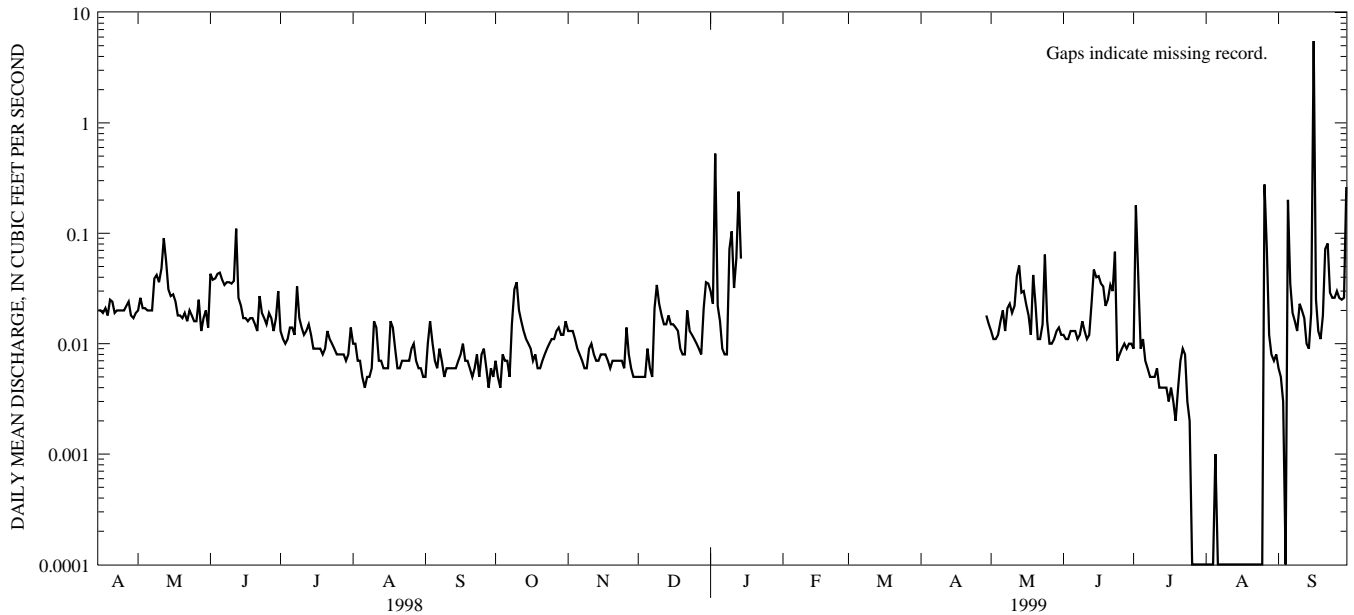
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01479678 UNNAMED TRIBUTARY TO WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.007	.013	.005	.030	---	---	---	.013	.012	.009	.000	.006
2	.005	.013	.005	.023	---	---	---	.011	.011	.179	.000	.005
3	.004	.013	.005	.527	---	---	---	.011	.011	.038	.000	.003
4	.008	.011	.005	.022	---	---	---	.012	.013	.009	.000	.000
5	.007	.009	.009	.016	---	---	---	.016	.013	.011	.001	.201
6	.007	.008	.006	.009	---	---	---	.020	.013	.007	.000	.035
7	.005	.007	.005	.008	---	---	---	.013	.011	.006	.000	.019
8	.015	.006	.021	.008	---	---	---	.021	.012	.005	.000	.016
9	.031	.006	.034	.072	---	---	---	.023	.016	.005	.000	.013
10	.036	.009	.023	.104	---	---	---	.019	.013	.005	.000	.023
11	.020	.010	.018	.032	---	---	---	.022	.011	.006	.000	.020
12	.016	.008	.015	.059	---	---	---	.041	.012	.004	.000	.017
13	.013	.007	.015	.238	---	---	---	.051	.023	.004	.000	.010
14	.011	.007	.018	.059	---	---	---	.029	.047	.004	.000	.009
15	.010	.008	.015	---	---	---	---	.030	.040	.004	.000	.019
16	.009	.008	.015	---	---	---	---	.023	.041	.003	.000	e5.5
17	.007	.008	.014	---	---	---	---	.018	.035	.004	.000	.025
18	.008	.007	.013	---	---	---	---	.012	.033	.003	.000	.013
19	.006	.006	.009	---	---	---	---	.042	.022	.002	.000	.011
20	.006	.007	.008	---	---	---	---	.023	.025	.004	.000	e.018
21	.007	.007	.008	---	---	---	---	.011	.034	.007	.000	.072
22	.008	.007	.020	---	---	---	---	.011	.030	.009	.000	.081
23	.009	.007	.013	---	---	---	---	.015	.068	.008	.000	.029
24	.010	.007	.012	---	---	---	---	.064	.007	.003	.000	.026
25	.011	.006	.011	---	---	---	---	.016	.008	.002	.000	.026
26	.011	.014	.010	---	---	---	---	.010	.009	.000	.276	.030
27	.013	.008	.009	---	---	---	---	.010	.010	.000	.072	.026
28	.014	.006	.008	---	---	---	---	.011	.009	.000	.012	.025
29	.012	.005	.021	---	---	---	.018	.013	.010	.000	.008	.026
30	.012	.005	.036	---	---	---	.015	.014	.010	.000	.007	.262
31	.016	---	.035	---	---	---	---	.012	---	.000	.008	---
TOTAL	0.354	0.243	0.441	---	---	---	---	0.637	0.609	0.341	0.384	6.566
MEAN	.011	.008	.014	---	---	---	---	.021	.020	.011	.012	.22
MAX	.036	.014	.036	---	---	---	---	.064	.068	.179	.276	5.5
MIN	.004	.005	.005	---	---	---	---	.010	.007	.000	.000	.000
CFSM	.16	.12	.20	---	---	---	---	.29	.29	.16	.18	3.13
IN.	.19	.13	.23	---	---	---	---	.34	.32	.18	.20	3.49

e Estimated.



APRIL 14, 1998 TO SEPTEMBER 30, 1999

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(New Garden Township, Chester County, Spray Irrigation Project)

WATER-QUALITY RECORDS

WATER-QUALITY DATA, MAY 1998 TO SEPTEMBER 1999

DATE	TIME	AGENCY	AGENCY	DIS-		PH	PH	SPE-		CALCIUM	MAGNE-	POTAS-
		ANA- LYZING SAMPLE NUMBER (00028)	COL- LECTING SAMPLE NUMBER (00027)	CHARGE, IN CUBIC FEET PER SECOND (00060)	OXYGEN, DIS- SOLVED (MG/L) (00300)	WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	WATER WHOLE LAB (STAND- ARD UNITS) (00403)	CON- DUCT- ANCE (µS/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DIS- SOLVED (MG/L) (00915)	SOLIUM, DIS- SOLVED (MG/L) (00925)	SOLIUM, DIS- SOLVED (MG/L) (00935)
MAY 1998												
19...	1005	80020	1028	.02	--	7.1	7.0	411	--	51	11	3.2
OCT 05...	1050	80020	1028	.01	8.2	7.5	7.4	430	13.5	49	13	4.1
FEB 1999												
16...	1030	80020	1028	--	12.4	6.9	6.9	320	3.5	37	8.4	4.8
MAY 03...	1400	80020	1028	.01	8.4	6.6	7.2	393	12.6	47	10	3.9
27...	1450	9813	1028	.01	--	--	--	--	15.5	--	--	--
JUN 30...	1230	9813	1028	.01	--	6.9	--	442	20.5	64	15	4.1
SEP 27...	1100	9813	1028	.03	6.9	7.0	--	223	18.1	29	6.3	5.1
DATE		SODIUM, DIS- SOLVED (MG/L) AS NA (00930)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940)	FLUO- RIDE, DIS- SOLVED (MG/L) AS F (00950)	SILICA, DIS- SOLVED (MG/L) AS SIO2 (00955)	SULFATE SOLVED (MG/L) AS SO4 (00946)	SULFATE SOLVED (MG/L) AS SO4 (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N (00625)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N (00610)	NITRO- GEN DIS- SOLVED (MG/L) AS N (00602)
MAY 1998												
19...	8.3	79	30	<.10	11	--	37	.064	.65	--	--	--
OCT 05...	9.8	--	39	<.10	9.1	--	37	.027	.58	--	--	--
FEB 1999												
16...	6.9	62	24	.11	9.8	--	29	<.020	.58	--	--	--
MAY 03...	8.0	88	30	.13	7.6	--	34	.051	.70	--	--	--
27...	--	--	--	--	--	--	--	.020	--	.020	13	--
JUN 30...	9.5	98	35	<.20	9.1	37	--	.040	--	.050	4.5	--
SEP 27...	4.1	60	11	<.20	<1.1	19	--	<.020	--	<.020	4.3	--
DATE		NITRO- GEN, NITRATE DIS- SOLVED (MG/L) AS N (00618)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N (00631)	NITRO- GEN, TOTAL (MG/L) AS N (00600)	NITRO- GEN, DIS- SOLVED (MG/L) AS N (00613)	PHOS- PHORUS DIS- SOLVED (MG/L) AS P (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P (00671)	PHOS- PHORUS TOTAL (MG/L) AS P (00665)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	ALUM- NUM, DIS- SOLVED (µG/L) AS AL (01106)	ANTI- MONY, DIS- SOLVED (µG/L) AS SB (01095)	ARSENIC DIS- SOLVED (µG/L) AS AS (01000)
MAY 1998												
19...	9.72	9.75	10	.029	.024	.017	.054	259	<10	<1.0	<1	
OCT 05...	--	4.52	5.1	<.010	.032	.033	.066	256	<10	--	--	
FEB 1999												
16...	8.92	8.94	9.5	.018	<.050	<.010	.059	216	<10	--	--	
MAY 03...	8.65	8.69	9.4	.044	E.045	.026	.056	258	<10	--	--	
27...	7.25	--	--	<.040	.035	.035	.150	--	--	--	--	
JUN 30...	4.30	--	4.8	<.040	.081	.040	.080	284	--	--	--	
SEP 27...	3.92	--	4.7	<.040	.070	.047	.070	174	--	<2.0	<4	

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

WATER-QUALITY DATA, MAY 1998 TO SEPTEMBER 1999

DATE	BARIUM, DIS- SOLVED (µG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (µG/L AS BE) (01010)	BORON, DIS- SOLVED (µG/L AS B) (01020)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	CADMIUM DIS- SOLVED (µG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR) (01030)	COBALT, DIS- SOLVED (µG/L AS CO) (01035)	COPPER, DIS- SOLVED (µG/L AS CU) (01040)	IRON, DIS- SOLVED (µG/L AS FE) (01046)	LEAD, DIS- SOLVED (µG/L AS PB) (01049)	LITHIUM DIS- SOLVED (µG/L AS LI) (01130)
	MAY 1998 19...	93	1.6	<16	--	<8.0	<1.0	<12	1.0	<10	<1.0
OCT 05...	--	--	<16	--	--	--	--	--	57	--	--
FEB 1999 16...	--	--	<16	--	--	--	--	--	<10	--	--
MAY 03...	--	--	18	--	--	--	--	--	E5.7	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	--	--	<200	<.20	--	--	--	--	70	--	--
SEP 27...	41	--	<200	<.20	<.20	<4.0	--	<4.0	<20	<1.0	48

DATE	MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056)	MERCURY DIS- SOLVED (µG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO) (01060)	NICKEL, DIS- SOLVED (µG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (µG/L AS SE) (01145)	SILVER, DIS- SOLVED (µG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (µG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (µG/L AS V) (01085)	ZINC, DIS- SOLVED (µG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
	MAY 1998 19...	18	<.1	<60	<1.0	<1	<1.0	182	<10	<20	4.1
OCT 05...	45	--	--	--	--	--	--	--	<20	4.4	--
FEB 1999 16...	11	--	--	--	--	--	--	--	<20	2.6	--
MAY 03...	20	--	--	--	--	--	--	--	<20	4.0	--
27...	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	60	--	--	--	--	--	--	--	<10	4.0	--
SEP 27...	24	<.2	--	<4.0	<7	--	90	--	<10	3.1	3.2