



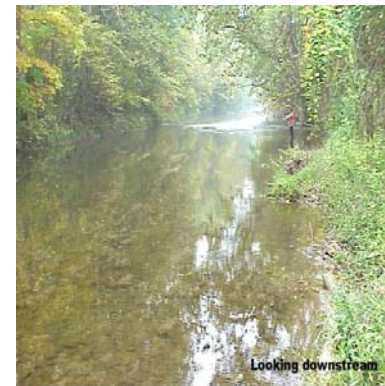
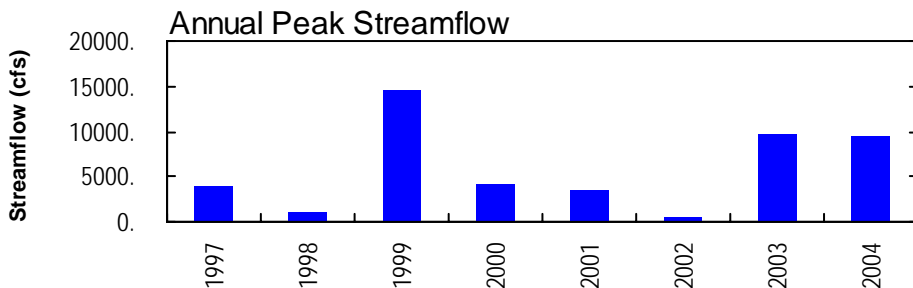
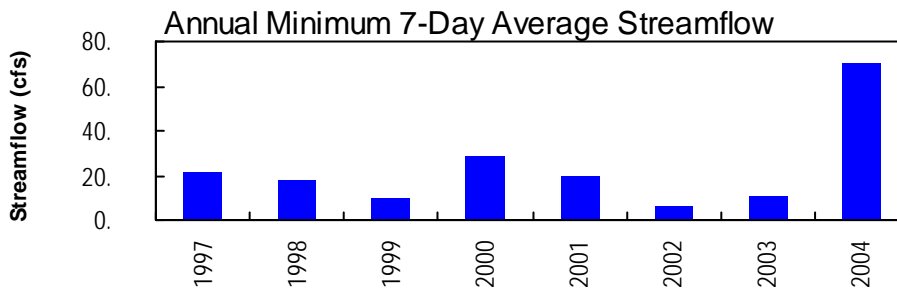
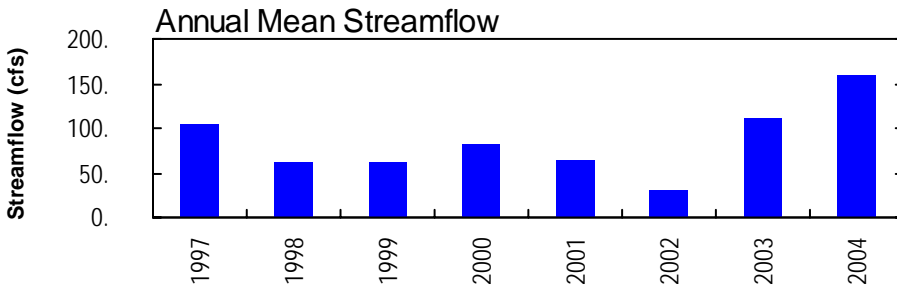
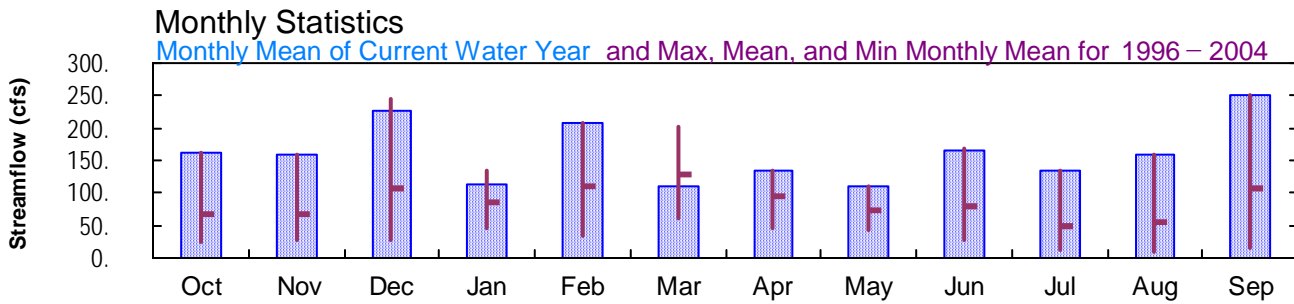
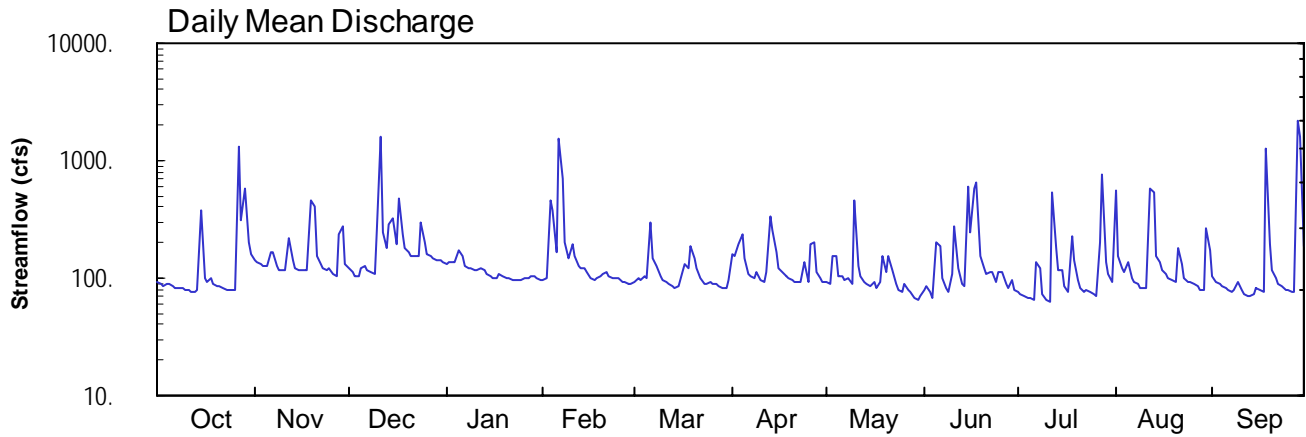
2004 Water Year CHRISTINA RIVER BASIN

01478245 White Clay Creek near Strickersville, PA

Latitude: 39° 44 ' 51 "
Chester County

Longitude: 075° 46 ' 15 "
Datum: 120 feet

Hydrologic Unit Code: 02040205
Drainage Area: 59.2 mi²



01478245-White Clay Creek near Strickersville

CHRISTINA RIVER BASIN

**01478245 WHITE CLAY CREEK NEAR STRICKERSVILLE, PA
(Pennsylvania Water-Quality Network Station)**

LOCATION.--Lat 39°44'51", long 75°46'15", Chester County, Hydrologic Unit 02040205, on right bank 0.1 mi downstream from West Branch White Clay Creek, in the White Clay Creek State Preserve, and 1.5 mi northeast of Strickersville.

DRAINAGE AREA.--59.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1996 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. 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 1,800 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Oct. 27	1530	2,750	8.73	July 28	0145	3,400	9.48
Dec. 11	0600	3,020	9.04	Aug. 1	0915	1,840	7.53
Feb. 6	1800	3,490	9.58	Aug. 12	2100	2,840	8.84
June 15	0145	2,340	8.22	Sept. 18	1615	3,620	9.73
June 17	2330	3,050	9.08	Sept. 28	2315	*9,390	*14.07
July 12	1515	1,820	7.50				

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	144	120	134	e95	92	158	91	78	76	551	104
2	90	135	111	137	e100	99	151	91	85	73	154	94
3	86	129	104	135	e450	97	191	156	78	69	121	89
4	90	126	104	134	382	102	235	153	67	66	113	85
5	90	128	121	171	164	98	145	104	e200	67	138	84
6	84	168	128	151	1530	298	109	104	e185	64	100	79
7	82	167	116	127	705	149	103	98	e100	137	92	77
8	82	128	111	120	205	126	99	100	84	120	90	79
9	81	119	109	121	149	104	111	88	75	73	84	91
10	80	117	257	e117	192	98	95	462	107	66	83	78
11	79	119	1570	e115	154	94	91	128	273	63	82	73
12	77	214	245	119	128	90	113	104	123	527	583	71
13	75	144	183	117	122	84	e330	94	89	182	525	70
14	80	123	285	e110	121	83	253	88	85	116	156	72
15	373	119	321	e105	114	84	165	84	592	117	136	82
16	102	118	191	e100	101	112	120	92	242	85	119	78
17	91	118	483	e100	97	130	111	82	571	76	108	75
18	99	115	234	e110	101	e120	105	92	645	231	102	1260
19	89	456	182	e105	103	e190	100	152	156	142	96	190
20	84	408	166	e100	106	e150	95	112	122	96	93	116
21	86	154	154	e100	111	e120	92	152	109	83	180	99
22	84	130	153	e98	105	e100	91	116	113	77	133	e90
23	80	121	152	e97	99	90	91	89	112	79	100	e84
24	79	115	303	e97	101	90	136	80	94	77	94	e80
25	79	121	201	e98	99	91	94	75	113	72	91	79
26	81	109	162	e100	93	89	194	89	113	70	88	77
27	1320	106	152	e101	92	90	203	80	88	204	85	76
28	306	238	146	e104	90	86	112	75	82	763	80	2170
29	579	280	144	e102	90	82	99	69	98	137	80	1600
30	202	133	145	e100	---	81	94	66	79	107	266	185
31	161	---	136	e96	---	98	---	e70	---	93	173	---
TOTAL	5063	4802	6989	3521	5999	3417	4086	3436	4958	4208	4896	7487
MEAN	163	160	225	114	207	110	136	111	165	136	158	250
MAX	1320	456	1570	171	1530	298	330	462	645	763	583	2170
MIN	75	106	104	96	90	81	91	66	67	63	80	70
CFSM	2.76	2.70	3.81	1.92	3.49	1.86	2.30	1.87	2.79	2.29	2.67	4.22
IN.	3.18	3.02	4.39	2.21	3.77	2.15	2.57	2.16	3.12	2.64	3.08	4.70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

MEAN	66.5	68.4	106	86.6	110	130	95.9	74.1	78.7	48.8	55.0	107
MAX	163	160	246	134	207	203	136	111	169	136	158	250
(WY)	2004	2004	1997	1997	2004	2003	2004	2004	2003	2004	2004	2004
MIN	25.8	27.6	26.6	44.7	32.7	60.3	45.4	43.3	27.7	13.7	10.7	14.0
(WY)	1998	2002	1999	2002	2002	2002	2002	2002	1999	2002	2002	2002

e Estimated.

CHRISTINA RIVER BASIN

01478245 WHITE CLAY CREEK NEAR STRICKERSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1996 - 2004	
ANNUAL TOTAL	50592		58862			
ANNUAL MEAN	139		161		85.2	
HIGHEST ANNUAL MEAN					161	2004
LOWEST ANNUAL MEAN					31.8	2002
HIGHEST DAILY MEAN	3100	Sep 15	2170	Sep 28	4930	Sep 16 1999
LOWEST DAILY MEAN	e20	Jan 31	63	Jul 11	5.4	Aug 15 2002
ANNUAL SEVEN-DAY MINIMUM	a24	Jan 25	71	Jun 30	6.1	Aug 10 2002
MAXIMUM PEAK FLOW			b9390	Sep 28	b14400	Sep 16 1999
MAXIMUM PEAK STAGE			14.07	Sep 28	c16.71	Sep 16 1999
INSTANTANEOUS LOW FLOW			60	Jul 6,7	5.0	Aug 15 2002
ANNUAL RUNOFF (CFSM)	2.34		2.72		1.44	
ANNUAL RUNOFF (INCHES)	31.79		36.99		19.54	
10 PERCENT EXCEEDS	241		239		144	
50 PERCENT EXCEEDS	84		104		55	
90 PERCENT EXCEEDS	41		79		23	

a Computed using estimated daily discharges.

b From rating curve extended above 1,180 ft³/s on basis of runoff comparison with nearby station.

c From floodmark in gage.

e Estimated.

CHRISTINA RIVER BASIN

01478245 WHITE CLAY CREEK NEAR STRICKERSVILLE, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfltrd lab, µS/cm 25 degC (90095)	Specif. conductance, wat unfltrd lab, µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)
OCT 2003	01...	1028	9813	93	11.3	7.8	7.8	357	341	13.2	130	32.2	13.0
DEC	03...	1028	9813	103	14.3	7.7	7.9	285	302	2.9	120	27.8	11.0
FEB 2004	24...	1028	9813	98	14.7	7.9	8.0	292	292	4.3	110	26.3	10.3
APR	06...	1028	9813	111	14.4	7.5	7.9	287	295	4.8	110	26.7	10.3
JUN	14...	1028	9813	84	9.9	7.7	7.0	311	306	16.4	100	25.2	10.3
AUG	19...	1028	9813	97	9.3	7.6	7.0	318	309	19.4	120	29.6	10.8

Date	ANC, wat unfltrd end pt, lab, mg/L as CaCO3 (00417)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 105degC, wat fltrd, mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia, water, unfltrd, mg/L as N (00610)	Nitrate, water, unfltrd, mg/L as N (00620)	Nitrite, water, unfltrd, mg/L as N (00615)	Ortho-phosphate, water, unfltrd, mg/L as P (70507)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, water, unfltrd, mg/L (00600)	Organic carbon, water, unfltrd, mg/L (00680)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Copper, water, unfltrd recover -able, µg/L (01042)
OCT 2003	85	33.3	308	<2	.030	4.68	.120	.07	.089	5.3	3.8	<200	<10
DEC	03...	61	27.8	114	12	.020	4.92	<.040	.04	.043	5.3	2.1	<200
FEB 2004	24...	56	26.4	1070	<2	<.020	4.99	<.040	.02	.028	5.3	1.7	<200
APR	06...	57	26.5	226	<2	<.020	4.36	<.040	.03	.039	4.7	2.7	<200
JUN	14...	73	25.5	232	10	.030	4.36	<.040	.05	.092	4.7	2.6	<200
AUG	19...	71	26.0	246	<2	<.020	4.47	<.040	.05	.058	4.6	2.9	<200

Date	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)
OCT 2003	160	<1.0	20	<50	<10
DEC	140	<1.0	20	<50	<10
FEB 2004	80	<1.0	20	<50	<10
APR	180	<1.0	30	<50	<10
JUN	270	<1.0	30	<50	60
AUG	150	<1.0	20	<50	70

CHRISTINA RIVER BASIN

01478245 WHITE CLAY CREEK NEAR STRICKERSVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	09/03/03
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	2
Nematoda (NEMATODES)	3
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	2
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
<i>Gammarus</i>	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Acentrella</i>	3
<i>Baetis</i>	12
Caenidae	
<i>Caenis</i>	1
Heptageniidae	
<i>Stenonema</i>	4
Isonychiidae	
<i>Isonychia</i>	6
Tricorythidae	
<i>Tricorythodes</i>	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<i>Hydropsyche</i>	37
<i>Potamyia</i>	3
Hydroptilidae	
<i>Leucotrichia</i>	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	10
<i>Oulimnius</i>	2
<i>Stenelmis</i>	2
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	17
Empididae (DANCE FLIES)	
<i>Hemerodromia</i>	3
Total Organisms	110
Total Taxa	18