

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)
Nov. 28	0800	2,910	8.92	Jan. 28	----	2,300	Ice jam
Jan. 14	1115	2,190	8.02	Mar. 28	1815	2,460	8.38
Jan. 25	----	*8,310	a*13.41				

a Ice jam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	80	364	116	e100	125	126	153	64	49	42	33
2	120	79	175	110	e100	117	724	107	63	48	40	29
3	112	76	142	111	102	110	634	105	92	40	38	29
4	104	208	130	113	109	104	202	98	104	38	37	28
5	97	193	123	161	117	106	166	93	81	55	37	26
6	92	101	118	200	125	113	155	93	94	91	36	26
7	91	88	170	144	131	139	148	92	155	49	37	24
8	89	82	164	163	142	145	265	90	79	402	40	23
9	88	78	154	138	162	110	156	86	73	104	52	21
10	87	76	337	122	173	103	139	85	76	64	66	21
11	81	76	222	118	124	106	130	85	67	55	40	19
12	80	166	149	136	113	111	123	83	63	49	33	17
13	81	240	142	122	108	102	121	81	62	47	30	15
14	116	109	129	884	186	98	118	81	60	46	28	36
15	136	95	121	215	306	94	114	81	56	49	34	55
16	149	90	117	164	154	93	115	76	54	76	36	26
17	100	86	119	145	141	94	115	74	55	187	61	71
18	93	84	116	130	120	93	114	73	51	133	e32	29
19	189	82	120	e125	107	92	112	72	51	64	e32	23
20	117	82	e120	e120	106	106	109	123	51	53	35	22
21	108	84	e110	e115	136	102	106	100	50	46	e31	22
22	100	79	105	e115	158	94	107	81	48	43	e27	22
23	95	77	363	e120	132	395	134	78	46	42	25	23
24	90	84	209	e120	117	223	157	81	44	40	26	23
25	89	116	127	e125	117	137	115	80	43	50	26	25
26	86	86	116	e120	116	122	107	79	42	44	26	27
27	84	79	113	e110	119	116	107	75	45	74	30	32
28	84	1030	116	e110	119	803	103	74	51	77	43	25
29	84	185	114	e105	---	288	99	76	47	45	41	27
30	100	146	116	e105	---	156	127	69	44	42	36	24
31	85	---	118	e105	---	135	---	67	---	41	35	---
TOTAL	3164	4137	4839	4787	3740	4732	5048	2691	1911	2243	1132	823
MEAN	102	138	156	154	134	153	168	86.8	63.7	72.4	36.5	27.4
MAX	189	1030	364	884	306	803	724	153	155	402	66	71
MIN	80	76	105	105	100	92	99	67	42	38	25	15
CFSM	1.72	2.33	2.64	2.61	2.26	2.58	2.84	1.47	1.08	1.22	0.62	0.46
IN.	1.99	2.60	3.04	3.01	2.35	2.97	3.17	1.69	1.20	1.41	0.71	0.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

	MEAN	70.4	76.1	112	94.2	112	132	104	75.5	77.0	51.4	53.2	98.9
MAX	163	160	246	154	207	203	168	111	169	136	158	250	
(WY)	2004	2004	1997	2005	2004	2003	2005	2004	2003	2004	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	2002

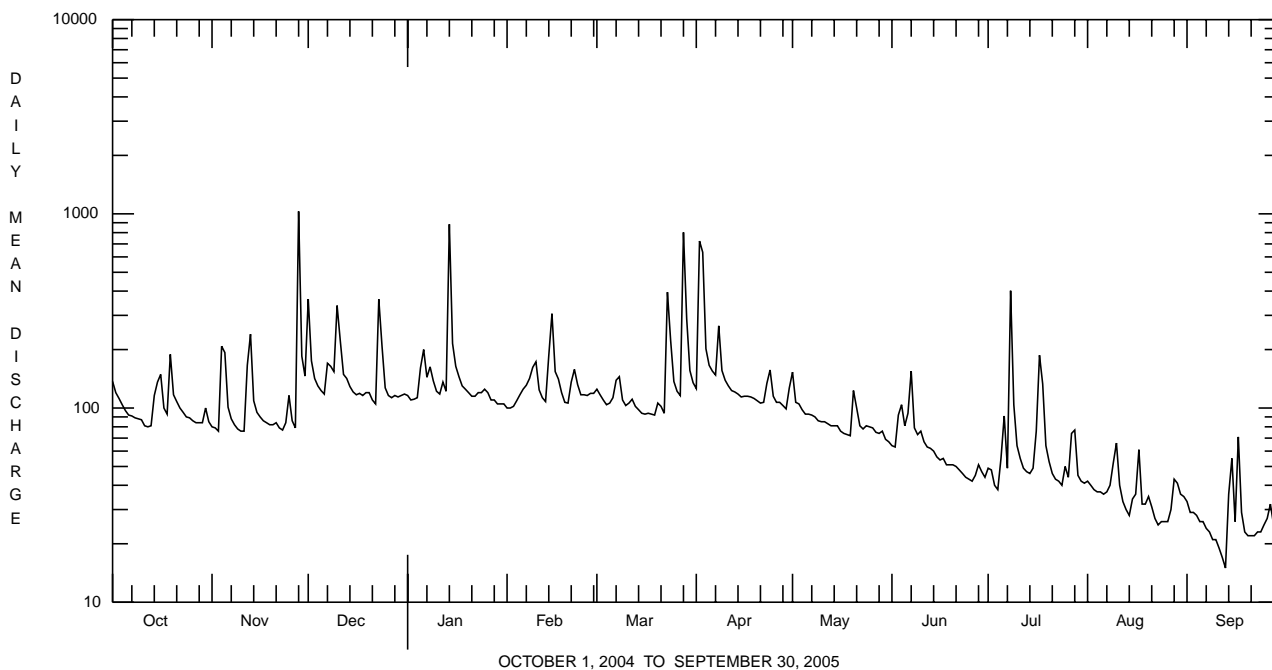
e Estimated.

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01478245 WHITE CLAY CREEK NEAR STRICKERSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1996 - 2005	
ANNUAL TOTAL	54148		39247			
ANNUAL MEAN	148		108		87.6	
HIGHEST ANNUAL MEAN					161	2004
LOWEST ANNUAL MEAN					31.8	2002
HIGHEST DAILY MEAN	2170	Sep 28	1030	Nov 28	4930	Sep 16 1999
LOWEST DAILY MEAN	63	Jul 11	15	Sep 13	5.4	Aug 15 2002
ANNUAL SEVEN-DAY MINIMUM	71	Jun 30	20	Sep 7	6.1	Aug 10 2002
MAXIMUM PEAK FLOW			bc8310	Jan 25	b14400	Sep 16 1999
MAXIMUM PEAK STAGE			d13.41	Jan 25	f16.71	Sep 16 1999
INSTANTANEOUS LOW FLOW			13	Sep 13,14	5.0	Aug 15 2002
ANNUAL RUNOFF (CFSM)	2.50		1.82		1.48	
ANNUAL RUNOFF (INCHES)	34.03		24.66		20.11	
10 PERCENT EXCEEDS	196		159		148	
50 PERCENT EXCEEDS	100		95		59	
90 PERCENT EXCEEDS	78		32		23	

- b** From rating curve extended above 1,180 ft³/s on basis of runoff comparison with nearby station.
- c** Gage height, 8.92 ft.
- d** Ice jam.
- f** From floodmark in gage.



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

WATER-QUALITY RECORDS

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

REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432.

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 2004 TO SEPTEMBER 2005

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)
NOV 2004 02...	0840	1028	9813	80	11.0	7.3	7.7	311	307	11.2	120	29	12
JAN 2005 25...	1050	1028	9813	E125	16.2	7.2	7.7	298	305	.0	110	27	11
MAR 16...	1010	1028	9813	92	16.8	8.4	8.1	332	328	3.8	140	33	13
MAY 10...	1040	1028	9813	86	12.2	8.2	8.1	320	309	13.9	120	29	12
JUL 06...	1030	1028	9813	97	9.2	7.7	8.0	304	321	20.9	120	29	11
SEP 06...	1140	1028	9813	27	10.1	7.8	7.7	352	360	18.1	140	35	14

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)	Total nitrogen, water, unfltrd mg/L (00600)	Ortho-phosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Fecal coliform, M-FC col/100 mL (31616)	Aluminum, water, unfltrd recover -able, µg/L (01105)
NOV 2004 02...	70	26	240	6	<.020	4.5	<.040	4.8	.04	.05	2.4	80	<200
JAN 2005 25...	59	28	180	6	.140	5.4	<.040	5.8	.03	.05	1.5	120	290
MAR 16...	71	31	210	<2	<.020	5.1	<.040	5.8	.02	.02	2.0	60	<200
MAY 10...	72	29	220	<2	.030	4.6	.060	7.5	.03	.04	--	100	<200
JUL 06...	70	27	250	28	.080	3.9	<.040	4.6	.10	.19	--	120000	1310
SEP 06...	89	27	280	14	.020	4.9	<.040	4.9	.09	.09	--	290	<200

Date	Copper, water, unfltrd recover -able, µg/L (01042)	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)
NOV 2004 02...	<10	140	<1.0	<10	<50	<10
JAN 2005 25...	<10	420	<1.0	40	<50	<10
MAR 16...	<10	90	<1.0	40	<50	<10
MAY 10...	<10	120	<1.0	30	<50	<10
JUL 06...	<10	2000	2.1	140	<50	24
SEP 06...	<10	120	<1.0	20	<50	<10

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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	08/10/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	1
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
<i>Prostoma</i>	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	2
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Acentrella</i>	4
<i>Baetis</i>	40
Ephemerellidae	
<i>Serratella</i>	1
Heptageniidae	
<i>Stenonema</i>	3
Isonychiidae	
<i>Isonychia</i>	1
Plecoptera (STONEFLIES)	
Capniidae	
<i>Paracapnia</i>	1
Trichoptera (CADDISFLIES)	
Glossosomatidae	
<i>Glossosoma</i>	1
Hydropsychidae	
<i>Hydropsyche</i>	41
Philopotamidae	
<i>Chimarra</i>	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	5
<i>Stenelmis</i>	4
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	
	30
Empididae (DANCE FLIES)	
<i>Chelifera</i>	1
<i>Hemerodromia</i>	2
Simuliidae (BLACK FLIES)	
<i>Simulium</i>	8
Tipulidae (CRANE FLIES)	
<i>Antocha</i>	1
Total Organisms	
	149
Total Taxa	
	19