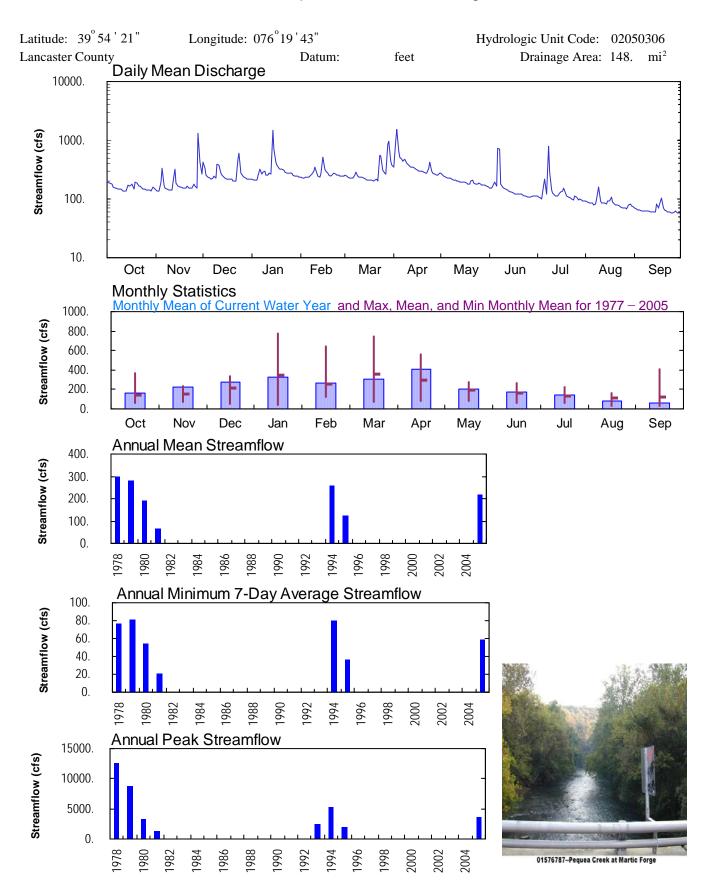


# 2005 Water Year CONESTOGA RIVER BASIN 01576787 Pequea Creek at Martic Forge, PA



#### 01576787 PEQUEA CREEK AT MARTIC FORGE, PA (Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 39°54'21", long 76°19'43", Lancaster County, Hydrologic Unit 02050306, on left bank 400 ft upstream from bridge on State Highway 324 at Martic Forge, and 3.4 mi upstream from mouth.

**DRAINAGE AREA**.--148 mi<sup>2</sup>.

#### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—February 1977 to September 1981, February 1993 to September 1995, October 1989 to September 2004 (discharge measurements), September 2004 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 228.50 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**—Records good except those for period Sept. 16 to Oct. 21 and 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 3,100 ft<sup>3</sup>/s and maximum (\*):

Date Nov. 28	Time 1000	Discha ft <sup>3</sup> /s 3,20	;	Gage Height (ft) 8.36			Date June 7	Time 0030	f	charge t <sup>3</sup> /s , 580	Gage Height (ft) *8.67	
		DI	SCHAR	GE, CUBIC FEET	Γ PER SEC	COND, WATE DAILY MEA		OBER 2003 T	го ѕерт	EMBER 2	004	
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												136
17												129
18												924
19												691
20												189
21												162
22												148
23												140
24												134
25												130
26												127
27												125
28												386
29												1100
30												268
31												
TOTAL												
MEAN												
MAX												
MIN												
CFSM												
IN.												

## 01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

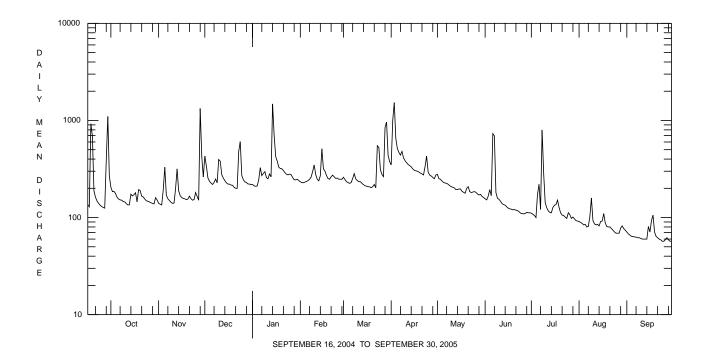
# DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MEAN VALUES

						DAILI	iLitit Villei	20				
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	140	430	219	234	260	348	279	156	111	91	71
2	185 186	137 135	339 256	212 210	229 228	246 234	1000 1530	251 248	152 166	108 105	89 87	68 66
4	177	192	236	210	232	234	654	237	194	105	84	64
5	162	330	227	246	235	225	513	230	168	173	85	64
3	102	330	22,	210	233	223	313	230	100	1.0	00	0.1
6	155	170	219	326	240	229	469	227	730	220	80	63
7	152	156	230	270	248	253	440	225	694	121	81	63
8	151	150	249	285	261	283	480	220	181	799	102	62
9	146	144	228	297	298	250	412	213	158	286	159	62
10	145	140	396	257	348	240	385	208	154	142	93	61
11	139	141	381	251	277	234	368	205	147	126	86	60
12	135	198	276	281	248	234	352	202	139	117	84	60
13	135	317	255	262	239	225	343	194	136	113	85	60
14	174	189	240	1480	270	218	333	194	134	112	82	60
15	167	168	228	705	511	213	317	197	129	127	91	81
16	172	161	221	425	317	210	307	197	125	134	92	71
17	180	157	221	382	301	208	303	186	123	136	110	93
18	145	156	216	331	271	207	300	182	122	151	88	106
19	194	153	215	e320	252	203	294	178	120	127	81	71
20	190	155	205	318	248	208	287	199	121	112	80	64
21	166	166	e200	305	263	219	281	208	119	106	80	62
22	163	156	200	e290	273	203	275	185	118	105	77	60
23	155	151	479	e280	263	549	336	181	115	101	74	59
24	149	153	606	e275	253	525	429	183	111	98	71	57
25	147	181	271	e280	255	310	294	185	110	112	69	57
26	145	165	245	277	248	278	274	182	109	107	69	59
27	142	151	233	259	248	264	268	175	110	98	69	62
28	140	1330	230	e245	248	844	259	171	113	101	78	59
29	138	431	222	e245		963	251	173	112	97	82	57
30	160	262	221	248		436	274	165	112	93	77	57
31	152		219	240		377		161		92	74	
TOTAL	4952	6635	8394	10232	7538	9577	12376	6241	5178	4530	2650	1959
MEAN	160	221	271	330	269	309	413	201	173	146	85.5	65.3
MAX	205	1330	606	1480	511	963	1530	279	730	799	159	106
MIN	135	135	200	210	228	203	251	161	109	92	69	57
CFSM	1.08	1.49	1.83	2.23	1.82	2.09	2.79	1.36	1.17	0.99	0.58	0.44
IN.	1.24	1.67	2.11	2.57	1.89	2.41	3.11	1.57	1.30	1.14	0.67	0.49
STATIST	CICS OF MO	ONTHLY MEA	AN DATA F	OR PERIOD	OF DAILY	RECORD,	BY WATER	YEAR (WY)				
MEAN	146	152	216	348	259	353	293	199	158	138	108	121
MAX	363	235	339	773	647	744	558	276	266	220	167	403
(WY)	1980	1980	1994	1979	1979	1994	1993	1993	1978	1978	1978	1979
MIN	64.3	73.9	53.6	44.0	118	72.5	80.3	81.6	65.5	65.5	31.8	28.6
(WY)	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981

e Estimated.

## 01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

SUMMARY STATISTICS	FOR 2005 WATER YEAR	FOR PERIOD OF DAILY RECORD
ANNUAL TOTAL	80262	
ANNUAL MEAN	220	205
HIGHEST ANNUAL MEAN		296 1978
LOWEST ANNUAL MEAN		64.5 1981
HIGHEST DAILY MEAN	1530 Apr 3	8590 Jan 26 1978
LOWEST DAILY MEAN	57 Sep 24 <b>a</b>	20 Aug 29 1981
ANNUAL SEVEN-DAY MINIMUM	58 Sep 24	21 Aug 24 1981
MAXIMUM PEAK FLOW	3580 Jun 7	<b>b</b> 12500 Jan 26 1978
MAXIMUM PEAK STAGE	8.67 Jun 7	16.44 Jan 26 1978
INSTANTANEOUS LOW FLOW	56 Sep 24 <b>a</b>	10 Jul 14 1981
ANNUAL RUNOFF (CFSM)	1.49	1.39
ANNUAL RUNOFF (INCHES)	20.17	18.85
10 PERCENT EXCEEDS	341	327
50 PERCENT EXCEEDS	194	146
90 PERCENT EXCEEDS	79	59



<sup>a Also Sept. 25, 29, 30.
b From rating curve extended above 12,000 ft<sup>3</sup>/s.</sup> 

## 01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued (Pennsylvania Water-Quality Network Station)

#### WATER-QUALITY RECORDS

**PERIOD OF RECORD**.--August 2004 to current year.

 $\label{eq:REMARKS.--Samples} \textbf{REMARKS.--Samples} \ \ \text{were collected using a D-Frame net with a mesh size of 500 } \ \mu\text{m. Samples} \ \ \text{represent counts per 100 animal (approximate) subsamples}.$ 

**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.

#### BIOLOGICAL DATA BENTHIC MACROINVERTEBRATES

Date	08/04/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	1
Nematoda (NEMATODES)	3
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	6
Tubificidae	8
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	1
Acariformes	
Hydrachnidia (WATER MITES)	2
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis	21
Heptageniidae	1.0
Stenonema	12
Isonychiidae	2
Isonychia	3
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)  Chauliodes	1
Corydalus	1
-	1
Trichoptera (CADDISFLIES) Hydropsychidae	3
Hydropsyche	4
Coleoptera (BEETLES)	-
Elmidae (RIFFLE BEETLES)	
Macronychus	1
Optioservus	2
Stenelmis	68
Psephenidae (WATER PENNIES)	
Psephenus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	16
Simuliidae (BLACK FLIES)	
Simulium	2
Tipulidae (CRANE FLIES)	
Antocha	1
Total Organisms	157
Total Taxa	20
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