

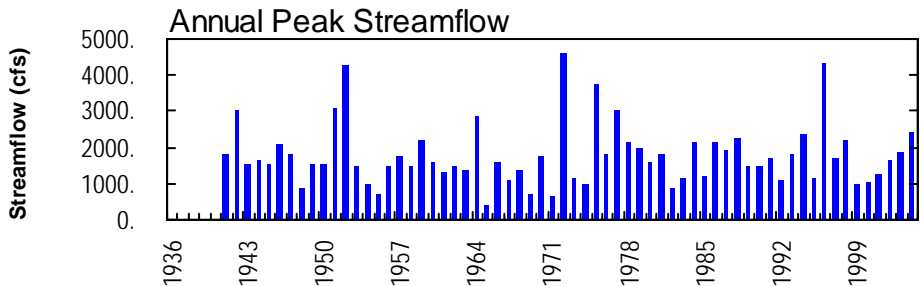
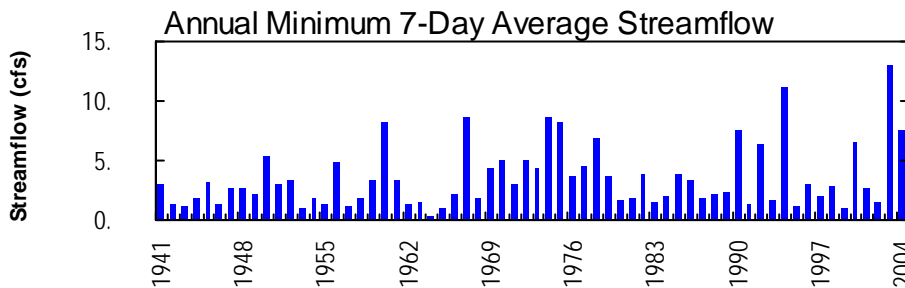
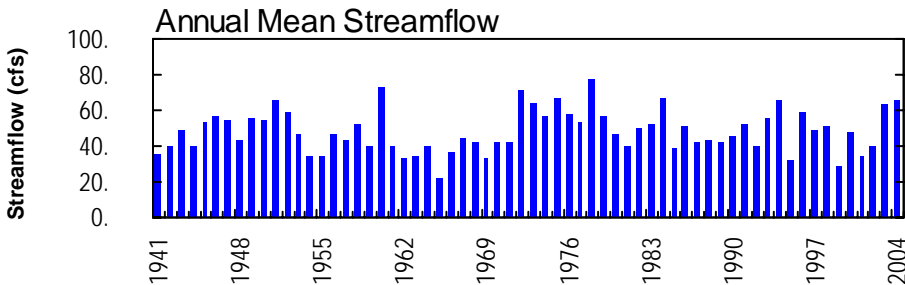
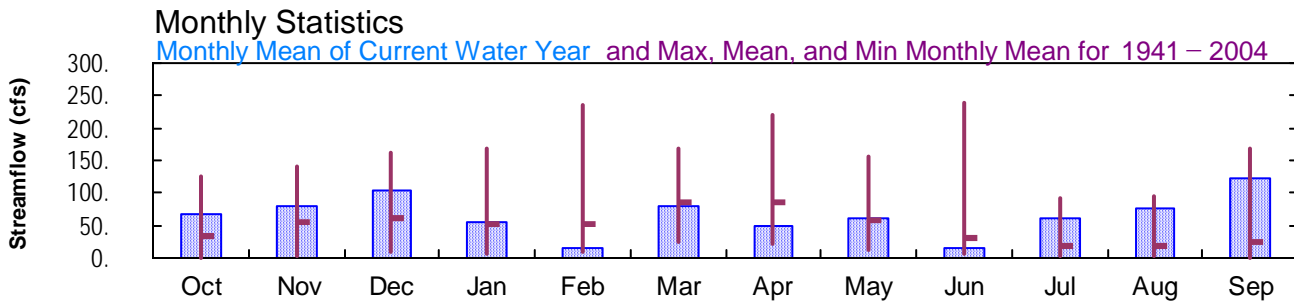
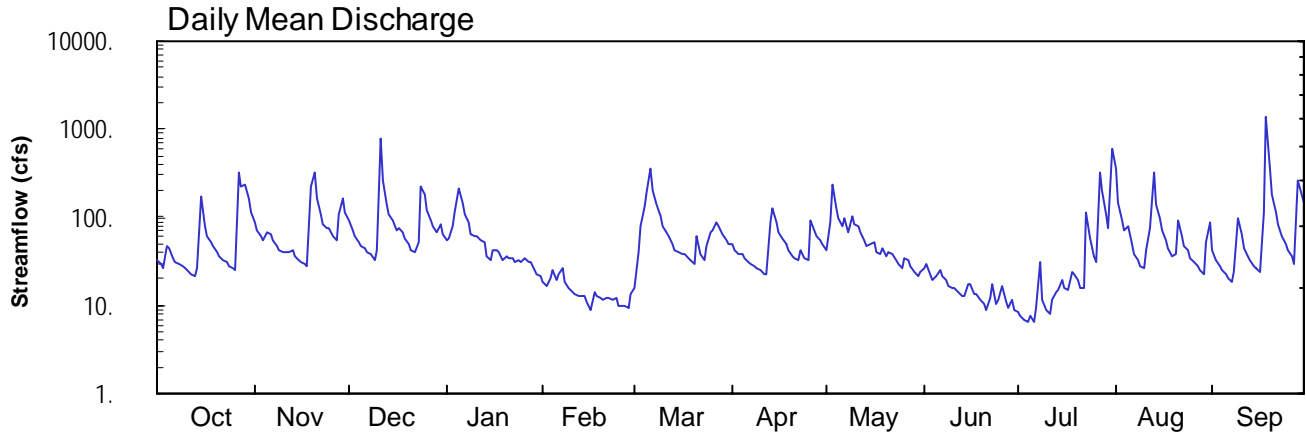


2004 Water Year  
WEST BRANCH SUSQUEHANNA RIVER BASIN  
01552500 Muncy Creek near Sonestown, PA

Latitude: 41° 21' 25"  
Sullivan County

Longitude: 076° 32' 06"  
Datum: 1025.01 feet

Hydrologic Unit Code: 02050206  
Drainage Area: 23.8 mi<sup>2</sup>



**WEST BRANCH SUSQUEHANNA RIVER BASIN**

**01552500 MUNCY CREEK NEAR SONESTOWN, PA  
(Pennsylvania Water-Quality Network Station)**

**LOCATION.**--Lat 41°21'25", long 76°32'06", Sullivan County, Hydrologic Unit 02050206, on right bank 150 ft downstream from Slip Run, 185 ft downstream from bridge on SR 2002, and 1.2 mi east of Sonestown.

**DRAINAGE AREA.**--23.8 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

**PERIOD OF RECORD.**--October 1940 to current year.

**REVISED RECORDS.**--WSP 1502: 1941-42; WDR PA-00-2: 1942, 1946, 1951-52, 1959, 1964, 1972, 1975, 1977-79, 1984, 1986, 1988, 1991, 1993-94, 1996-97(P).

**GAGE.**--Water-stage recorder. Datum of gage is 1,025.01 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 31, 1941, nonrecording gage at same site and datum.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood in March 1936 reached a stage of about 9.3 ft, discharge not determined.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 1,100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)	Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)
Dec. 11	0945	1,580	5.46	Sept. 18	0815	*2,440	*6.64
July 31	1615	1,870	5.89				

**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	32	90	91	56	19	15	48	43	26	8.4	354	43
2	29	73	73	56	17	e40	43	90	30	7.5	150	33
3	27	62	60	81	21	e80	39	235	22	6.9	95	29
4	48	54	53	116	26	135	38	129	19	6.4	72	25
5	44	66	48	211	20	190	34	99	21	7.4	79	22
6	35	66	45	145	23	366	31	79	25	6.7	48	21
7	32	54	40	e110	26	206	29	96	22	9.2	38	19
8	30	48	e38	e90	18	143	27	69	19	32	33	24
9	28	43	33	e63	16	103	26	102	17	11	28	97
10	26	40	41	e62	14	81	25	82	16	8.8	26	63
11	24	39	776	e60	14	69	23	80	16	8.0	43	45
12	23	41	260	e56	13	61	23	68	14	12	74	37
13	22	41	141	e53	13	50	86	56	13	14	326	32
14	26	36	111	e36	13	43	127	48	13	15	143	28
15	175	33	90	e33	e11	41	86	49	18	20	96	26
16	77	31	72	e43	e9.0	38	69	52	17	16	71	24
17	61	30	76	e43	14	38	58	40	13	15	54	112
18	53	28	68	e40	13	35	49	38	13	24	44	1400
19	46	223	57	e33	12	33	42	e44	12	23	37	354
20	40	325	50	37	11	e30	36	37	10	19	39	182
21	36	160	43	34	12	e60	34	39	8.9	16	91	115
22	33	109	e40	34	12	e38	32	38	12	16	62	81
23	30	84	52	31	12	e32	43	33	17	115	46	60
24	28	76	220	e33	12	46	35	30	11	57	42	49
25	26	76	183	e31	e10	68	32	27	12	36	35	42
26	25	60	123	e35	e10	71	91	35	17	30	31	35
27	330	54	95	e31	e10	89	70	32	11	328	28	30
28	220	105	78	e31	e9.6	77	62	28	9.6	203	25	262
29	238	167	67	e26	13	63	54	24	11	110	22	218
30	162	112	82	e23	---	54	49	21	8.9	76	51	146
31	116	---	66	22	---	49	---	23	---	597	89	---
TOTAL	2122	2426	3272	1755	423.6	2444	1441	1866	474.4	1854.3	2372	3654
MEAN	68.5	80.9	106	56.6	14.6	78.8	48.0	60.2	15.8	59.8	76.5	122
MAX	330	325	776	211	26	366	127	235	30	597	354	1400
MIN	22	28	33	22	9.0	15	23	21	8.9	6.4	22	19
CFSM	2.88	3.40	4.43	2.38	0.61	3.31	2.02	2.53	0.66	2.51	3.21	5.12
IN.	3.32	3.79	5.11	2.74	0.66	3.82	2.25	2.92	0.74	2.90	3.71	5.71

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2004, BY WATER YEAR (WY)**

MEAN	33.6	56.5	62.0	50.8	53.0	85.5	87.2	59.5	31.3	19.0	18.6	24.1
MAX	127	140	161	167	236	168	220	156	240	93.0	95.3	167
(WY)	1977	1973	1974	1976	1981	1964	1993	1946	1972	1972	1994	1975
MIN	1.44	2.62	8.57	6.60	7.70	25.4	20.9	11.9	4.93	2.21	1.60	0.73
(WY)	1965	1965	1999	1981	1987	1981	1946	1941	1991	1999	1957	1964

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01552500 MUNCY CREEK NEAR SONESTOWN, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1941 - 2004	
ANNUAL TOTAL	24072		24104.3			
ANNUAL MEAN	66.0		65.9		48.4	
HIGHEST ANNUAL MEAN					77.3	
LOWEST ANNUAL MEAN					22.1	
HIGHEST DAILY MEAN	776	Dec 11	1400	Sep 18	3910	Jun 22 1972
LOWEST DAILY MEAN	11	Jul 6	6.4	Jul 4	0.20	Sep 11 1964
ANNUAL SEVEN-DAY MINIMUM	13	Jul 4	7.5	Jun 30	0.31	Sep 8 1964
MAXIMUM PEAK FLOW			a2440	Sep 18	a4630	Jun 22 1972
MAXIMUM PEAK STAGE			6.64	Sep 18	8.94	Jun 22 1972
INSTANTANEOUS LOW FLOW					0.10	Sep 11 1964
ANNUAL RUNOFF (CFSM)	2.77		2.77		2.03	
ANNUAL RUNOFF (INCHES)	37.63		37.68		27.61	
10 PERCENT EXCEEDS	145		128		102	
50 PERCENT EXCEEDS	40		39		26	
90 PERCENT EXCEEDS	18		13		4.4	

a From rating curve extended above 2,000 ft<sup>3</sup>/s.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01552500 MUNCY CREEK NEAR SONESTOWN, PA--Continued  
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

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

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

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)	Pressure, osmotic water, unfltrd mosm/kg (82550)	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, fltrd, mg/L (00915)	
Date		Calcium water unfltrd recoverable, mg/L (00916)	Magnesium water, fltrd, mg/L (00925)	Magnesium water, unfltrd recoverable, mg/L (00927)	ANC, wat unfltrd fixed end pt, lab, mg/L as CaCO3 (00417)	Acidity water, unfltrd heated, mg/L as CaCO3 (70508)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, unfltrd mg/L (00951)	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)
OCT 2003														
02...	0800	1028	9813	30	3.0	11.0	7.2	7.2	56	55	9.4	21	6.9	
NOV														
05...	0800	1028	9813	48	6.0	10.6	7.3	6.7	54	51	11.7	18	5.94	
DEC														
03...	1200	1028	9813	60	<1.0	12.7	7.4	7.2	48	56	7.5	16	5.4	
JAN 2004														
06...	0845	1028	9813	151	<1.0	13.4	7.7	7.0	45	45	2.6	21	6.3	
MAR														
10...	1245	1028	9813	78	6.0	13.9	7.6	6.8	53	54	2.6	17	5.2	
APR														
01...	0930	1028	9813	47	5.0	12.2	7.8	7.0	54	49	5.7	18	5.8	
MAY														
11...	0930	1028	9813	80	3.0	10.9	7.0	7.1	54	50	12.7	19	6.0	
JUN														
01...	0915	1028	9813	25	3.0	10.7	7.5	7.2	59	56	12.9	22	6.7	
JUL														
13...	0930	1028	9813	15	3.0	9.5	6.9	6.9	73	56	17.1	26	8.2	
AUG														
05...	0945	1028	9813	87	<1.0	9.5	7.0	6.6	55	55	16.0	21	6.9	
SEP														
21...	0845	1028	9813	123	<1.0	10.8	7.1	6.8	51	50	11.6	20	6.2	

WEST BRANCH SUSQUEHANNA RIVER BASIN

01552500 MUNCY CREEK NEAR SONESTOWN, PA--Continued

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

Date	Ortho-phosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coliform, M-FC col/100 mL (31616)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)
OCT 2003 02...	<.01	<.010	.18	.6	40	<10	20	<4	<4	<20	30	<1.0	<1.0
NOV 05...	<.01	<.010	.23	.9	20	10	40	<4	<4	<20	20	<1.0	<1.0
DEC 03...	<.01	<.010	.39	1.2	<10	10	20	<4	<4	<20	<20	<1.0	<1.0
JAN 2004 06...	.01	<.010	.58	1.0	<20	20	50	<4	<4	20	20	<1.0	<1.0
MAR 10...	<.01	<.010	.72	1.4	<20	20	30	<4	<4	<20	<20	<1.0	<1.0
APR 01...	<.01	<.010	.53	.8	<20	10	30	<4	<4	<20	<20	<1.0	<1.0
MAY 11...	<.01	<.010	.77	.9	<20	10	30	<4	<4	<20	40	<1.0	<1.0
JUN 01...	<.01	<.010	.49	.7	<20	10	20	<4	<4	<20	30	<1.0	<1.0
JUL 13...	<.01	.011	.55	.6	20	<10	20	<4	<4	<20	<20	<1.0	<1.0
AUG 05...	<.01	.018	.23	.4	20	20	80	<4	<4	<20	70	<1.0	<1.0
SEP 21...	<.01	<.010	.37	.4	40	20	60	<4	<4	<20	50	<1.0	<1.0

Date	Manganese, water, unfltrd recover -able, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phenolic compounds, water, unfltrd µg/L (32730)
OCT 2003 02...	<2.0	2.4	<4.0	<4.0	<5.0	<5.0	<5
NOV 05...	<2.0	3.0	<4.0	<4.0	<5.0	<5.0	<5
DEC 03...	<2.0	<2.0	<4.0	<4.0	<5.0	<5.0	<5
JAN 2004 06...	2.9	4.8	<4.0	<4.0	<5.0	<5.0	<5
MAR 10...	<2.0	2.1	<4.0	<4.0	<5.0	<5.0	<5
APR 01...	<2.0	<2.0	<4.0	<4.0	<5.0	<5.0	<5
MAY 11...	<2.0	3.4	<4.0	<4.0	<5.0	<5.0	<5
JUN 01...	<2.0	3.0	<4.0	<4.0	<5.0	<5.0	<5
JUL 13...	2.4	4.4	<4.0	<4.0	<5.0	<5.0	<5
AUG 05...	2.1	7.1	<4.0	<4.0	<5.0	<5.0	<5
SEP 21...	2.7	5.9	<4.0	<4.0	<5.0	<5.0	<5

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01552500 MUNCY CREEK NEAR SONESTOWN, 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	12/11/02
Benthic Macroinvertebrate	Count
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Acentrella</i>	1
Ephemerellidae	
<i>Ephemerella</i>	29
<i>Serratella</i>	3
Heptageniidae	
<i>Epeorus</i>	54
<i>Rhithrogena</i>	4
<i>Stenonema</i>	1
Isonychiidae	
<i>Isonychia</i>	5
Leptophlebiidae	
<i>Paraleptophlebia</i>	30
Plecoptera (STONEFLIES)	
Capniidae	
<i>Allocapnia</i>	1
<i>Paracapnia</i>	2
Chloroperlidae	
<i>Alloperla</i>	4
<i>Sweltsa</i>	4
Perlidae	
<i>Acroneuria</i>	2
<i>Agnetina</i>	4
Perlodidae	
<i>Isoperla</i>	13
Taeniopterygidae	
<i>Taenionema</i>	15
<i>Taeniopteryx</i>	3
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<i>Cheumatopsyche</i>	6
<i>Hydropsyche</i>	3
Lepidostomatidae	
<i>Lepidostoma</i>	7
Odontoceridae	
<i>Psilotreta</i>	1
Philopotamidae	
<i>Dolophilodes</i>	4
Rhyacophilidae	
<i>Rhyacophila</i>	2
Uenoidae	
<i>Neophylax</i>	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Oulimnius</i>	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	8
Simuliidae (BLACK FLIES)	
<i>Prosimulium</i>	1
Total Organisms	209
Total Taxa	27