

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01543000 DRIFTWOOD BRANCH SINNEMAHONING CREEK AT STERLING RUN, PA  
(Pennsylvania Water-Quality Network Station)

**LOCATION.**--Lat 41°24'48", long 78°11'50", Cameron County, Hydrologic Unit 02050202, on left bank at downstream side of highway bridge on SR 3002 at village of Sterling Run, and 300 ft upstream from Sterling Run.

**DRAINAGE AREA.**--272 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--October 1913 to current year.

**REVISED RECORDS.**--WSP 1272: Drainage area. WSP 1502: 1933(M), 1934-38, 1939(M).

**GAGE.**--Water-stage recorder. Datum of gage is 894.84 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1913, to Sept. 30, 1931, nonrecording gage, Oct. 1, 1931, to Sept. 30, 1932, and Oct. 1, 1942, to Oct. 3, 1991, water-stage recorder at site 50 feet upstream on steel-truss bridge at same datum.

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

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 4,700 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)
Aug. 1	1215	*7,890	*6.34	Aug. 10	0400	7,650	6.24

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	127	221	952	e130	e480	544	192	772	129	4630	97
2	43	128	190	2810	e140	e440	820	238	719	113	2800	1400
3	35	124	e140	1720	e150	e400	941	224	e630	103	1770	1100
4	31	120	e130	1190	e220	e360	947	197	e620	94	1990	1210
5	33	119	e140	872	613	e370	3360	211	e610	88	1530	1020
6	36	208	e150	695	e540	e380	2820	278	e530	81	1120	753
7	27	254	e140	561	e440	e340	1760	291	e510	75	839	560
8	21	225	e130	503	e390	e340	1260	363	e540	75	635	437
9	19	201	e130	481	e320	e420	1000	416	e650	77	877	351
10	17	182	e120	469	e270	626	875	445	637	73	4930	286
11	17	219	e140	400	e230	542	784	475	628	121	2260	234
12	17	212	e220	e310	e210	e520	728	498	754	85	1950	200
13	18	205	e260	e260	e220	e480	634	496	1210	67	1300	181
14	20	193	e650	e230	e210	e510	538	450	1110	56	866	187
15	20	181	e440	e240	e220	e580	483	402	864	47	599	202
16	23	194	e360	e210	e180	1330	439	471	638	50	473	422
17	69	1030	e320	e190	e170	2710	396	467	486	46	410	228
18	65	1150	e300	e170	e180	4080	348	448	442	42	302	189
19	61	776	378	e180	e180	3830	312	430	388	97	246	331
20	112	585	1170	e190	e170	3210	287	394	333	56	201	570
21	81	439	1680	e180	e180	4110	299	539	455	307	177	445
22	63	438	1220	e170	e180	3450	343	440	419	1510	159	411
23	53	399	901	e160	e380	2280	297	423	357	1600	140	1460
24	46	341	684	e150	856	1610	271	558	305	1550	119	1210
25	42	317	598	e140	771	1300	259	547	258	1890	112	1000
26	322	288	487	e150	e660	1140	254	548	218	1220	108	785
27	252	267	395	e140	e580	930	241	504	193	1170	136	794
28	168	240	347	e130	e520	759	215	e490	170	3350	112	2900
29	134	224	320	e140	---	e680	207	422	146	1820	93	2050
30	126	228	280	e130	---	e640	197	364	144	1080	124	1360
31	129	---	297	e130	---	582	---	e530	---	689	104	---
TOTAL	2154	9614	12938	14253	9310	39429	21859	12751	15736	17761	31112	22373
MEAN	69.5	320	417	460	332	1272	729	411	525	573	1004	746
MAX	322	1150	1680	2810	856	4110	3360	558	1210	3350	4930	2900
MIN	17	119	120	130	130	340	197	192	144	42	93	97
CFSM	0.26	1.18	1.53	1.69	1.22	4.68	2.68	1.51	1.93	2.11	3.69	2.74
IN.	0.29	1.31	1.77	1.95	1.27	5.39	2.99	1.74	2.15	2.43	4.26	3.06

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2003, BY WATER YEAR (WY)

MEAN	186	399	489	506	547	987	909	630	331	168	130	
MAX	838	1918	1394	2027	2047	3366	2310	1758	1783	1308	1294	746
(WY)	1918	1951	1928	1937	1918	1936	1940	1953	1972	1942	1994	2003
MIN	10.0	21.2	24.5	33.2	76.0	250	199	104	38.8	16.9	9.20	5.16
(WY)	1965	1965	1961	1961	1963	1981	1946	1941	1991	1966	1957	1964

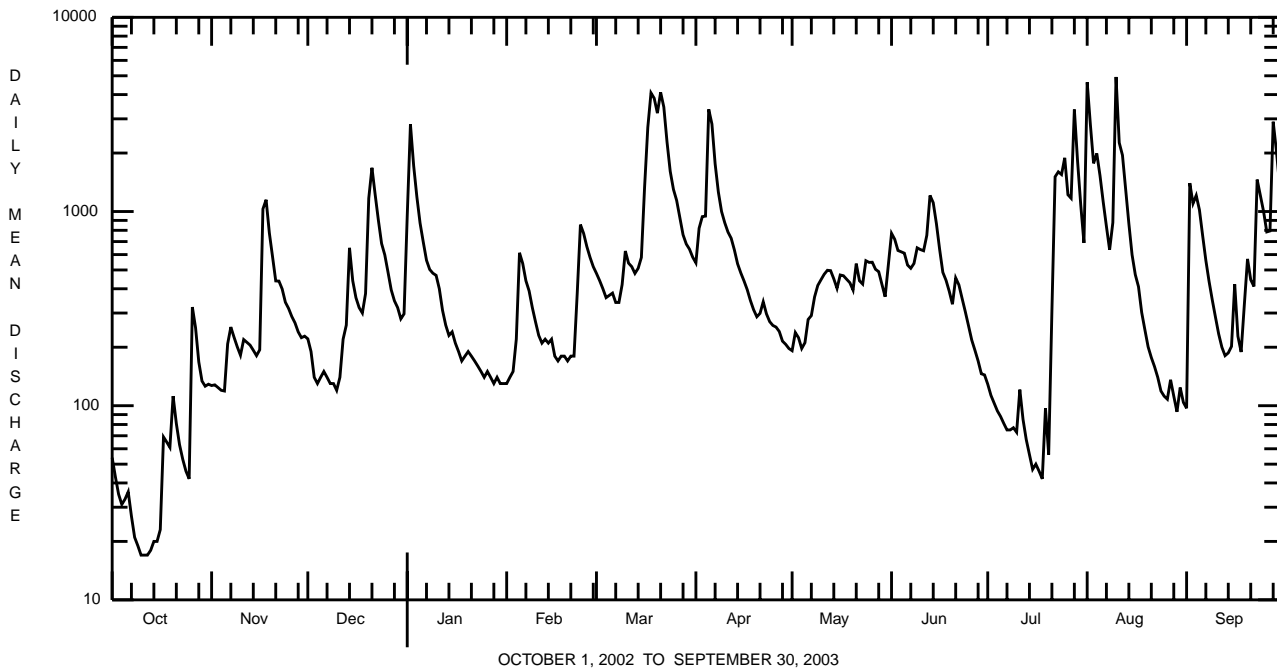
e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01543000 DRIFTWOOD BRANCH SINNEMAHONING CREEK AT STERLING RUN, PA--Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1914 - 2003	
ANNUAL TOTAL	159249.0		209290			
ANNUAL MEAN	436		573		450	
HIGHEST ANNUAL MEAN					735	1994
LOWEST ANNUAL MEAN					235	1934
HIGHEST DAILY MEAN	7250	May 13	4930	Aug 10	18600	Jun 23 1972
LOWEST DAILY MEAN	5.6	Sep 14	17	Oct 10-12	0.40	Sep 13 1930
ANNUAL SEVEN-DAY MINIMUM	6.7	Sep 8	18	Oct 9	0.87	Aug 28 1939
MAXIMUM PEAK FLOW			7890	Aug 1	<b>a</b> 47800	Jul 18 1942
MAXIMUM PEAK STAGE			6.34	Aug 1	<b>b</b> 14.70	Jul 18 1942
INSTANTANEOUS LOW FLOW					0.40	Sep 12 1930 <sup>c</sup>
ANNUAL RUNOFF (CFSM)	1.60		2.11		1.65	
ANNUAL RUNOFF (INCHES)	21.78		28.62		22.48	
10 PERCENT EXCEEDS	1150		1280		1080	
50 PERCENT EXCEEDS	234		341		205	
90 PERCENT EXCEEDS	17		83		26	

- a** From rating curve extended above 11,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.
- b** From floodmarks.
- c** Also Sept. 13, 14, 1930.



## WEST BRANCH SUSQUEHANNA RIVER BASIN

01543000 DRIFTWOOD BRANCH SINNEMAHONING CREEK AT STERLING RUN, PA--Continued  
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## WATER-QUALITY RECORDS

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

REMARKS.--Other data for the Water-Quality Network can be found on pages 368-434.

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 2002 TO SEPTEMBER 2003

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, $\mu$ S/cm 25 degC (00095)	Temperature, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, unfltrd, recoverable, mg/L (00915)	Calcium unfltrd, recoverable, mg/L (00916)	Magnesium, water, unfltrd, mg/L (00925)
NOV 2002													
12...	1540	1028	9813	203	30	12.4	7.6	77	8.4	25	6.76	6.8	1.96
JAN 2003													
21...	1430	1028	9813	E180	30	13.7	7.1	84	.0	26	6.69	6.8	2.03
MAR													
19...	1345	1028	9813	3550	30	12.0	7.1	46	6.0	17	3.96	4.2	1.25
MAY													
27...	1230	1028	9813	495	30	11.7	7.7	58	12.3	21	5.33	5.6	1.62
JUL													
23...	1400	1028	9813	1450	30	10.3	7.6	59	15.0	21	5.21	5.7	1.44
SEP													
29...	1345	1028	9813	1950	30	11.0	7.2	52	11.2	18	4.65	4.7	1.41
Date	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)	Sulfate water, unfltrd, mg/L (00945)	Residue on evap. at 105degC wat flt 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)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
NOV 2002													
12...	2.0	13	.0	12.2	58	<2	.040	.29	<.040	<.01	<.010	.60	1.6
JAN 2003													
21...	2.0	11	.0	12.9	70	2	.020	.44	<.040	<.01	<.010	.46	1.3
MAR													
19...	1.4	6	.0	9.7	40	36	<.020	.54	<.040	.03	.026	.64	<.2
MAY													
27...	1.7	13	.0	10.1	60	<2	<.020	.18	<.040	.01	.022	.18	1.3
JUL													
23...	1.6	11	.0	9.6	60	8	<.020	.34	<.040	.03	.028	.41	1.2
SEP													
29...	1.4	11	.0	9.6	34	6	<.020	.24	<.040	.01	.011	.46	.70

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## 01543000 DRIFTWOOD BRANCH SINNEMAHONING CREEK AT STERLING RUN, PA--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Alum- inum, water, fltrd, µg/L (01106)	Alum- inum, 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)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover- able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover- able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)
NOV 2002 12...	27	77	<4	<4	<20	120	<1.0	<1.0	4.9	9.7	<4.0	<4.0	<5.0
JAN 2003 21...	21	42	<4	<4	40	80	<1.0	<1.0	20	20	<4.0	<4.0	6.1
MAR 19...	29	800	<4	<4	20	1450	<1.0	1.3	20	90	<4.0	<4.0	<5.0
MAY 27...	12	53	<4	<4	20	90	<1.0	<1.0	10	20	<4.0	<4.0	<5.0
JUL 23...	19	400	<4	<4	30	730	<1.0	<1.0	10	40	<4.0	<4.0	<5.0
SEP 29...	--	--	<4	<4	33	240	<1.0	<1.0	8	25	<4.0	<4.0	<5.0

Date	Zinc, water, unfltrd recover- able, µg/L (01092)
NOV 2002 12...	<5.0
JAN 2003 21...	<5.0
MAR 19...	8.7
MAY 27...	<5.0
JUL 23...	<5.0
SEP 29...	<5.0

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BIOLOGICAL DATA  
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using rapid bioassessment protocols for benthic macroinvertebrates using a D-Frame net with a mesh size of 500  $\mu$ m. Samples represent counts per 100 (approximate) subsamples.

Date	8/27/02
Benthic Macroinvertebrate	Count
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
<u>Musiculum</u> sp	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<u>Acentrella</u> sp	1
<u>Baetis</u> sp	5
Caenidae	
<u>Caenis</u> sp	2
Ephemeridae	
<u>Ephemera</u> sp	1
Heptageniidae	
<u>Epeorus</u> sp	1
<u>Leucrocuta</u> sp	29
<u>Stenacron</u> sp	2
<u>Stenonema</u> sp	65
Isonychiidae	
<u>Isonychia</u> sp	30
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Coenagrionidae	
<u>Argia</u> sp	3
Gomphidae	
<u>Dromogomphus</u> sp	3
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
<u>Corydalus</u> sp	7
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<u>Cheumatopsyche</u> sp	7
<u>Hydropsyche</u> sp	2
Philopotamidae	
<u>Chimarra</u> sp	1
Coleoptera (BEETLES)	
Psephenidae (WATER PENNIES)	
<u>Psephenus</u> sp	4
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	10
Simuliidae (BLACK FLIES)	
<u>Simulium</u> sp	1
Total Organisms	176