01543000 DRIFTWOOD BRANCH SINNEMAHONING CREEK AT STERLING RUN, PA

West Branch Susquehanna Basin
Sinnemahoning Subbasin

LOCATION.--Lat 41°24′48″, long 78°11′50″ referenced to North American Datum of 1927, Cameron County, PA, 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^2.

SURFACE-WATER 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, non-recording 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. Satellite and landline telemetry at station.

COOPERATION.--Station established and maintained by the U.S. Geological Survey in cooperation with the National Weather Service, the Susquehanna River Basin Commission, and the Pennsylvania Department of Environmental Protection.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,700 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 25	1330	*17,400	*9.30
No other peaks above base discharge.			

Minimum discharge, 11 ft^3/s, Sept. 16, 27, gage height, -1.13 ft.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	100	556	304	491	529	101	531	497	179	59	78	19
2	86	438	282	414	e420	95	459	410	158	52	67	17
3	231	384	1,040	e340	389	93	406	372	134	47	57	16
4	199	334	1,320	e300	320	e88	358	319	151	42	52	15
5	163	304	1,070	e280	276	e85	319	269	124	39	48	15
6	133	283	836	e270	259	e83	311	284	273	36	43	15
7	131	249	641	e230	e190	e98	290	242	270	33	40	15
8	133	230	522	e200	e210	e130	263	452	201	29	31	13
9	117	206	621	e150	e200	e180	e320	461	193	37	26	13
10	125	189	826	e120	e200	267	256	410	283	135	23	13
11	118	174	e570	e140	e190	432	230	383	202	68	22	13
12	100	162	e510	e160	e190	1,390	222	2,730	182	45	22	13
13	95	156	497	e160	e160	2,470	208	2,040	241	39	21	13
14	91	152	654	e170	e170	4,060	197	1,630	292	49	20	14
15	94	143	714	e190	e160	2,850	190	1,240	219	45	42	12
16	179	134	855	e180	155	1,780	193	967	198	34	79	12
17	319	126	838	e190	140	1,230	207	748	187	30	41	29
18	437	119	731	e450	130	941	189	728	148	34	26	38
19	411	173	626	498	123	753	174	715	128	47	21	24
20	381	696	518	469	e120	601	155	e570	115	35	18	19
21	356	578	427	405	e115	495	148	e480	102	39	16	17
22	329	497	371	387	e115	448	144	421	90	59	163	15
23	303	425	285	342	e110	499	135	405	95	58	133	14
24	959	397	307	375	111	458	124	325	117	108	78	14
25	1,290	376	277	10,700	106	405	212	275	126	206	58	13
26	952	359	608	5,380	e90	598	614	241	89	236	47	12
27	697	327	1,230	2,480	119	547	1,330	219	81	120	38	12
28	778	316	1,120	1,520	111	571	1,090	211	75	83	31	48
29	777	296	872	1,010	---	731	808	212	98	153	27	92
30	706	307	655	741	---	681	623	172	75	135	23	1,000
31	651	---	564	e540	---	617	---	148	---	93	21	---
Total	11,441	9,086	20,691	29,282	5,408	23,777	10,706	18,576	4,826	2,225	1,412	1,575
Mean	369	303	667	945	193	767	357	599	161	71.8	45.5	52.5
Max	1,290	696	1,320	10,700	529	4,060	1,330	2,730	292	236	163	1,000
Min	86	119	277	120	90	83	124	148	75	29	16	12
Cfsm	1.36	1.11	2.45	3.47	0.71	2.82	1.31	2.20	0.59	0.26	0.17	0.19
In.	1.56	1.24	2.83	4.00	0.74	3.25	1.46	2.54	0.66	0.30	0.19	0.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	198	414	505	531	541	993	888	615	321	173	131	145
Max	1,041	1,918	1,394	2,027	2,047	3,366	2,310	1,758	1,783	1,308	1,294	1,406
(WY)	(2007)	(1951)	(1928)	(1937)	(1918)	(1936)	(1940)	(1953)	(1972)	(1942)	(1994)	(2004)
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)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1914 - 2010	
Annual total	151,450		139,005			
Annual mean	415		381		454	
Highest annual mean					770	2004
Lowest annual mean					235	1934
Highest daily mean	9,690	Mar 9	10,700	Jan 25	18,600	Jun 23, 1972
Lowest daily mean	28	Sep 21[a]	12	Sep 15[b]	0.40	Sep 13, 1930
Annual seven-day minimum	31	Sep 20	13	Sep 10	0.87	Aug 28, 1939
Maximum peak flow			[c]17,400	Jan 25	[c]47,800	Jul 18, 1942
Maximum peak stage			9.30	Jan 25	[d]14.70	Jul 18, 1942
Instantaneous low flow			11	Sep 16[e]	0.40	Sep 12, 1930[f]
Annual runoff (cfsm)	1.53		1.40		1.67	
Annual runoff (inches)	20.71		19.01		22.68	
10 percent exceeds	778		763		1,090	
50 percent exceeds	287		197		210	
90 percent exceeds	95		26		26	

[a] Also Sep 22.

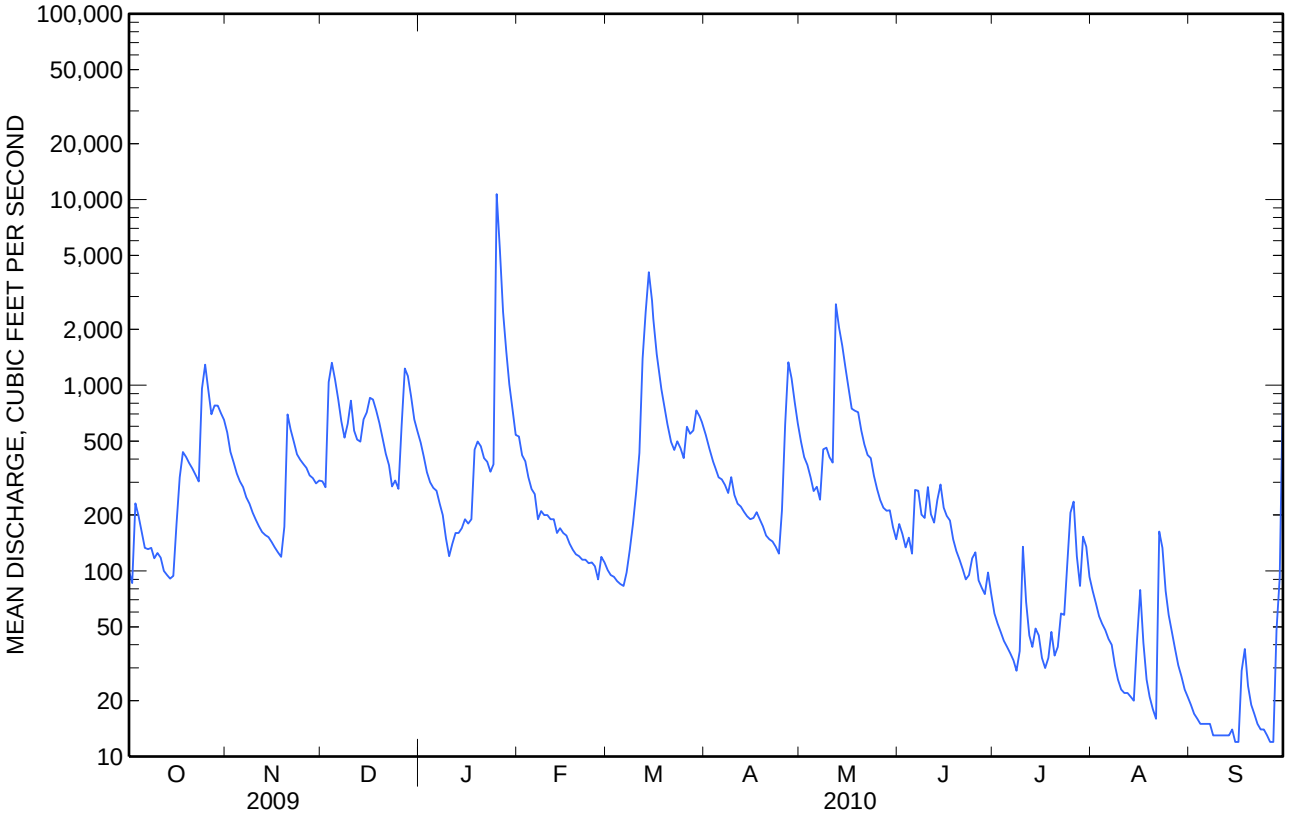
[b] Also Sep 16, 26, 27.

[c] From rating curve extended above 11,000 ft³/s on basis of slope-area measurement of peak flow.

[d] From floodmarks.

[e] Also Sep 27.

[f] Also Sep 13, 14, 1930.



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

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

WATER-QUALITY RECORDS

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

REMARKS.--Analyses for pH, water temperature, specific conductance, and dissolved oxygen were performed on site. All other sample analyses were performed at the Pennsylvania Department of Environmental Protection laboratory in Harrisburg, Pa. Some values for filtered parameters exceed values for the corresponding unfiltered parameter. These results are within the limits of analytical precision and methods.

COOPERATION.--Water-quality 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 2009 TO SEPTEMBER 2010
Part 1 of 4

[ANC, acid neutralizing capacity; CaCO3, calcium carbonate; N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; M, presence verified but not quantified]

Date	Sample start time	Discharge, instantaneous, ft³/s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	pH, water, unfiltered, field, standard units (00400)	pH, water, unfiltered, laboratory, standard units (00403)	Specific conductance, water, unfiltered, laboratory, µS/cm at 25 °C (90095)	Specific conductance, water, unfiltered, µS/cm at 25 °C (00095)	Temperature, water, °C (00010)	Biochemical oxygen demand, water, unfiltered, 5 days at 20 °C, mg/L (00310)	Dissolved solids dried at 105 degrees Celsius, water, filtered, milligrams per liter (00515)
10-27-2009	1645	659	12.4	7.5	7.3	55	55	8.6	.6	76
12-17-2009	1600	830	14.2	7.0	7.0	56	57	1.9	1.1	44
02-24-2010	1445	110	14.2	7.2	7.1	84	86	1.3	< .2	52
04-20-2010	1100	154	--	7.8	7.2	71	75	10.6	1.3	52
06-29-2010	1445	121	10.3	8.8	7.5	94	92	25.0	1.1	56
08-16-2010	1045	84	7.5	7.8	7.0	120	118	23.2	1.1	72

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
Part 2 of 4

[ANC, acid neutralizing capacity; CaCO3, calcium carbonate; N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; M, presence verified but not quantified]

Date	Hardness, water, mg/L as CaCO3 (00900)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, filtered, mg/L (00915)	Calcium, water, unfiltered, recoverable, mg/L (00916)	Magnesium, water, filtered, mg/L (00925)	Magnesium, water, unfiltered, recoverable, mg/L (00927)	ANC, water, unfiltered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as CaCO3 (00417)	Sulfate, water, filtered, mg/L (00945)	Ammonia, water, unfiltered, mg/L as N (00610)	Nitrate, water, unfiltered, mg/L as N (00620)
10-27-2009	18	< 5	4.75	4.7	1.41	1.4	10	8.9	< .020	.21
12-17-2009	20	< 5	4.93	5.3	1.48	1.6	8	9.8	< .020	.29
02-24-2010	25	< 5	6.98	6.9	1.93	2.0	10	12.0	.020	.36
04-20-2010	23	6	6.15	6.3	1.77	1.8	12	10.4	< .020	.08
06-29-2010	28	6	7.66	7.8	2.04	2.1	20	10.3	< .020	.09
08-16-2010	35	< 5	9.16	9.8	2.48	2.5	27	9.5	< .020	.20

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

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
Part 3 of 4
[ANC, acid neutralizing capacity; CaCO3, calcium carbonate; N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; M, presence verified but not quantified]

Date	Nitrite, water, unfiltered, mg/L as N (00615)	Orthophosphate, water, unfiltered, mg/L as P (70507)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, mg/L (00600)	Aluminum, water, filtered, µg/L (01106)	Aluminum, water, unfiltered, recoverable, µg/L (01105)	Copper, water, filtered, µg/L (01040)	Copper, water, unfiltered, recoverable, µg/L (01042)	Iron, water, filtered, µg/L (01046)	Iron, water, unfiltered, recoverable, µg/L (01045)
10-27-2009	< .040	< .01	.010	.25	10	M	< 4	< 4	< 20	90
12-17-2009	< .040	< .01	.015	.36	25	--	< 4	< 4	< 20	80
02-24-2010	< .040	< .01	< .010	.42	< 10	--	< 4	< 4	< 20	410
04-20-2010	< .040	< .01	.013	.14	< 10	M	< 4	< 4	30	90
06-29-2010	< .040	< .01	< .010	.23	18	M	< 4	< 4	50	130
08-16-2010	< .040	.01	.015	.36	34	M	< 4	< 4	20	140

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
Part 4 of 4
[ANC, acid neutralizing capacity; CaCO3, calcium carbonate; N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; M, presence verified but not quantified]

Date	Lead, water, filtered, µg/L (01049)	Lead, water, unfiltered, recoverable, µg/L (01051)	Manganese, water, filtered, µg/L (01056)	Manganese, water, unfiltered, recoverable, µg/L (01055)	Nickel, water, filtered, µg/L (01065)	Nickel, water, unfiltered, recoverable, µg/L (01067)	Zinc, water, filtered, µg/L (01090)	Zinc, water, unfiltered, recoverable, µg/L (01092)
10-27-2009	< 1.0	< 1.0	M	10	< 4.0	< 4.0	< 5.0	< 5.0
12-17-2009	< 1.0	< 1.0	M	10	< 4.0	< 4.0	M	--
02-24-2010	< 1.0	< 1.0	M	M	< 4.0	< 4.0	M	--
04-20-2010	< 1.0	< 1.0	M	M	< 4.0	< 4.0	--	--
06-29-2010	< 1.0	< 1.0	M	20	< 4.0	< 4.0	--	--
08-16-2010	< 1.0	< 1.0	10	30	< 4.0	< 4.0	M	M